

Evaluation of California's Enterprise Zones

By Suzanne O'Keefe and Roger Dunstan

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Content

EXECUTIVE SUMMARY	1
EVALUATION OF CALIFORNIA'S ENTERPRISE ZONES.....	3
<i>Global Precedents.....</i>	<i>3</i>
<i>The History of Enterprise Zones in California.....</i>	<i>3</i>
<i>Previous Studies on Enterprise Zones</i>	<i>6</i>
<i>California Research Bureau Findings.....</i>	<i>8</i>
CONCLUSION	25
APPENDIX A	27
APPENDIX B	29
APPENDIX C	31
APPENDIX D	33
APPENDIX E	35
APPENDIX F	37
ENDNOTES.....	39

Executive Summary

Enterprise zones are California's second most important tool for attempting to resuscitate urban areas (after redevelopment). Businesses get generous tax benefits for locating and hiring in these areas. There are now 39 enterprise zones in the state, from Eureka to Calexico in North-South space, and from Central Los Angeles to Porterville, Delano, and Thermal in urban size hierarchy. The legislature regularly considers bills proposing to expand the number of zones. This experience costs the taxpayers over \$70 million per year.

So, do they work? A reasonable test would be whether there was more job growth in enterprise zones than in comparable areas, and whether worker incomes went up. To make this comparison, we collected data about the economic and demographic characteristics of census tracts in enterprise zones, and then matched those tracts with census tracts with very similar characteristics that were not in enterprise zones.

The results are striking. During the 1990s, employment in enterprise zones grew on average at twice the rate of the comparison areas, at least for a several year period when the tax incentives had their maximum effect. For zones created during the late 1980s, this high employment growth occurred during the early 1990s, even though the state was in a severe recession. But this differentially high employment growth tapered off after a zone's first several years, plausibly because of the way the tax incentives are structured.

Enterprise zones would be most impressive if they not only produced jobs, but jobs that paid well. In this regard, their results are more complex. During the periods when zone job growth spurted, the resulting jobs produced notably lower incomes than the jobs created in the comparable areas. Probably that is because one of the most powerful tax incentives gives employers a tax credit for part of the wages paid for new hires, but only for wages up to 150 percent of the minimum wage. The incentive is for lower wage jobs, and that's exactly what we get. There is some evidence that incomes went up more in the zones than in the comparison areas during the later years of a zone's existence, but it is not overwhelming.

Enterprise zones have done wonders in some cities, and not much in others. Tables 4 and 5 rank cities by how well their enterprise zones have done at producing employment. West Sacramento, Pittsburgh, San Jose, San Diego, and Riverside are superstars among the older enterprise zones, and Merced, Santa Ana, Oroville, and Richmond among the newer zones. Enterprise zones in several cities actually had less growth than the comparable, but incentive-free, areas.

Evaluation of California's Enterprise Zones

Enterprise zones are microcosms within a larger community, troubled and decaying places that governments want to rehabilitate. Governments endow the zones with various incentives to encourage businesses to locate within these economically and socially distressed areas, and revitalize them.

GLOBAL PRECEDENTS

In the seventies, Hong Kong was the first government to establish something like an enterprise zone when it set aside areas where the government would relax laws to encourage exports from the areas. In 1981, the United Kingdom established the first true enterprise zone, the kind most similar to the enterprise zones we discuss in this report. After enterprise zones succeeded in the United Kingdom, other countries became interested in the concept, including the United States.

In these early developmental years of enterprise zones, the enterprise zone's purpose was solely to attract businesses to a depressed area. Most recently though, enterprise zones have become more inclusive, especially those run by the federal government. Enterprise zones now offer greater benefits to communities. Now, for example, expanded social programs within enterprise zones include childcare, an advantage that helps the zone's labor force obtain employment.

Similar Federal Programs and State-Run Enterprise Zones are Widespread in the United States Today. Thirty-six states have authorized state-run enterprise zone programs. And similarly, the Federal government runs a program started in 1994, that is very much like the enterprise zone program. Like the state-run enterprise zones, the Federal program targets geographic areas, calls the areas 'empowerment zones' and 'enterprise communities,' and provides incentives for businesses to locate and grow there. According to the U.S. Department of Housing and Urban Development, there are approximately 3200 zones in the country. Over half are in just two states, Arkansas and Louisiana.

THE HISTORY OF ENTERPRISE ZONES IN CALIFORNIA

In 1984, California followed the lead of a host of other states and countries and started its own enterprise zone program. The initial two pieces of legislation related to enterprise zones passed in that year. One piece of legislation established *enterprise zones* like the ones that exist in California today, where benefits, in the form of tax incentives, go to firms that locate in the zones. The other piece of 1984 legislation established *program areas* offering benefits to firms that hired relatively large numbers of residents from the particular distressed area. The initial 1984 legislation established ten enterprise zones and three program areas.

Subsequent amendments have abolished the original program areas and converted them to enterprise zones. The original program areas are listed in Appendix B. Subsequent

amendments have also refined the original California enterprise zone program, by expanding the type of enterprise zones. Over time the enterprise program has grown to the maximum allowed under current law: the Technology Trade and Commerce Agency (TTCA) has now designated a total of 39 enterprise zones. The 39 zones are listed in Appendix A.

In crisis situations, when the Legislature and Governor have had to solve specific problems, California has established programs similar to the enterprise zone program. Some of these crisis programs are: the Los Angeles Revitalization Zone (LARZ), established in the wake of the Los Angeles riots; the Local Military Base Recovery Act (LAMBRA), created in the wake of military base closures; the Tulare Targeted Tax Area; and Manufacturing Enhancement Areas. Like the enterprise zone program, these more specialized programs offer tax preferences to firms that locate in economically and socially distressed geographic areas.

This report focuses on just true enterprise zones not only because there are more enterprise zones than any other similar program in California, but also because enterprise zones are the most controversial programs of their kind. This report's findings on enterprise zones, however, should shed light on like programs that also provide similar tax incentives.

According to statute, the primary goal of California's enterprise zone program is to help improve conditions in economically depressed areas. Enterprise zones exist to attract private sector businesses to whom the state provides economic incentives like tax credits and deductions. Concurrently, the state expects local governments to provide their own packages of incentives and assistance. Thus, the depressed microcosm within the larger community can regenerate with help from both the state and local levels.

Zone Designation Occurs After a Competitive Process. Cities or counties, and they may do it jointly, propose enterprise zones to the Technology Trade and Commerce Agency. This state agency decides whether to declare an area an enterprise zone based on specific criteria. These criteria include: distress signs such as a history of plant closures, gang-related activity, high poverty, or meeting the criteria for Urban Development Action Grants, a grant program that targets low-income distressed areas.

After the competitive application process, the Technology Trade and Commerce Agency designates the enterprise zones to those local communities that have brought forth the most effective, innovative, and comprehensive proposals, including regulatory and tax incentives, to attract private sector investments. After the Technology Trade and Commerce Agency designates an area an enterprise zone, the designation lasts for 15 years.

For those enterprise zones created before 1990 though, Technology Trade and Commerce can extend the zone designation for an additional five years. Technology Trade and Commerce must then audit the agency and the zone and approve the extension. If an

existing enterprise zone designation were to expire, the Technology Trade and Commerce Agency could designate an additional zone.

The Technology Trade and Commerce Agency does not select areas solely on the basis of the area's distress. The Technology Trade and Commerce Agency also looks for areas whose governments demonstrate their willingness and ability to improve the area. Therefore, when local governments apply to the Technology Trade and Commerce Agency for enterprise zone designation, the local governments must include a revitalization plan.

Enterprise zones vary in size: they can range from one square mile up to 70 square miles. The Technology Trade and Commerce Agency can expand the boundaries of a zone by 15 percent (20 percent for zones that are less than 13 square miles) if the area is contiguous to the original enterprise zone boundaries [those created before 1990].

Enterprise Zone Designation Grants a Variety of Benefits. These state tax benefits are available to all businesses located within a zone. The benefits are:

- Tax credit for sales and use tax paid on manufacturing equipment purchased during the tax year.
- Tax credit for hiring qualified employees. The credit is graduated from 50% of wages paid in the first year down to 10% of wages paid in the fifth year of employment and capped at 150% of minimum wage. The definition of qualified employees is contained in Appendix C.
- Carryover of 100% of the net operating loss for losses associated with operations within the zone.
- Deduction of interest earned by lenders who loan money to zone businesses.
- Expensing rather than amortizing equipment used within the zone. (Allows full deduction within single year rather than over useful life of the equipment).
- Preferences when bidding on state contracts.

The Competitive Application Process Requires Local Governments to Provide Incentives. The state of California intended that its benefits to enterprise zones be only a portion of the incentives for a business to locate in these economically distressed areas. The intent of the Legislature was for businesses to be drawn to the areas by local incentives as well.

There are many local government-provided incentives. They include:

- Expedited permit and plan processing
- Low-interest loans
- Grants
- Business workshops and training
- Export Assistance

- Public Infrastructure
- Site Selection Assistance
- Business Incubator Facilities
- Job Training/Placement Assistance
- Marketing

But the program includes even more than local government: utilities are also involved in providing economic development programs in enterprise zones and program areas.

The Enterprise Zone Debate

Enterprise zones have existed for almost 20 years in this country and if popularity is a measure of success, then they are wildly successful. But, despite their popularity with the cities that have them and the companies in them and despite the large number of designated zones [and the number of state programs], researchers and government analysts have not been able to agree on the actual effectiveness of enterprise zones. To date, several studies on the effectiveness of enterprise zones have been inconclusive. Until now, even the most ambitious studies have not used a suitable region/area to compare with the zone under analysis: the studies have not used like-areas to gage the enterprise zones' effectiveness. Instead, the studies have compared the enterprise zone to an area that is geographically close to the zone without considering that area's demographics. Or, the studies have not used *any* comparison group and have compared the zone's growth to itself, before and after government incentives. And without comparison, of course, it's impossible to determine the effectiveness of the zones.

PREVIOUS STUDIES ON ENTERPRISE ZONES

In recent year, researchers have completed three studies of California's enterprise zones. (of which detailed evaluations follow). One of the first studies was headed by Professor David Dowall and funded by the California Policy and Research Center of the University of California.¹ This study was published in 1994, so it looked only at the early years of the first group zones designated by the program. The study's key finding was that enterprise zones were not particularly effective. The next study was conducted by the Auditor General in 1995.² Like Dowall's study, the Auditor General's study also noted the enterprise zone's ineffectiveness, but the Auditor General stipulated that inadequate information prevented him from making any concrete conclusions. The most recent study was done by Dr. Raphael Bostic of the Board of Governors of the Federal Reserve System whose study results suggested that enterprise zones were effective, especially as part of a larger economic development program.³

The two earliest studies, those by Dowall and the Auditor General, suffer because they did not have a good comparative basis for evaluating the performance of enterprise zones. And both of these studies used the same skewed criteria to judge the effectiveness of enterprise zones. Using employment growth within enterprise zones as a point of contact, they compared employment growth within the zone to that of the county containing the zone. The counties to which the researchers compared the enterprise zones were radically different, economically and socially. Indeed, the countys' demographics were very different from those of the distressed microcosms nestled within

them. We will explain at length why the county as a whole makes for a very poor comparison.

The Dowall Research Showed that for Comparable Industries Enterprise Zones Grew More Slowly than Other Parts of the County. Dowall claimed this slower growth in isolated industries was the basis of program ineffectiveness, but the slower growth that he noted is not surprising when we look at it more closely. Slower growth in an enterprise zone is not an accurate signal of the program's failure. The state designated these areas enterprise zones *because* they were stagnating, or worse, eroding. By comparing the zones to healthier economies, Dowall couldn't accurately measure the zones' effectiveness.

Dowall's results show that about half of the businesses in the zone do not claim the tax benefits. This finding is not too surprising, as only businesses that are hiring and/or purchasing machinery would be able to claim the benefits. Thus, employment growth was a key comparison mechanism. In addition, for much of the period that Dowall researched, the alternative minimum tax offset any tax benefits of the enterprise zone to some filers; hence the filers would have little reason to use the program benefits.

But, the research also found that a majority of those businesses that used enterprise zone benefits found that the incentives had made their businesses grow. And although most of those businesses that used benefits stated that the enterprise zone did not influence their location decisions, 33 percent stated that the enterprise zone benefits *did* influence their business plans. In fact, a total of 20 percent said that it affected their employment expansion.

Dr. Dowall's research was also limited by his need to aggregate very different industries for comparison. Industries were grouped by a two-digit standard industrial code level (SIC), which classifies industries in a hierarchy. In the SIC process, each different industry is assigned a four-digit number. For example, computer manufacturing is in SIC 3571. Fairly similar four-digit industries are grouped at the three-digit level. Computer manufacturing is aggregated into SIC 357, along with office equipment. Similarly, the three-digit industrial groups are lumped into a relatively comparable two-digit.

Each level of aggregation brings in more and more dissimilar industries: the net broadens when a researcher wants to compare industries. For computer manufacturing, for example, the two-digit level is 35, which is industrial and commercial machinery and computer equipment. When aggregated at that level a diverse array of products are included. In the case of computer manufacturing, SIC 35 contains the manufacturing of sheep shears, computers, and beer dispensing equipment. By aggregating these industries and comparing their growth, the researcher is comparing significantly different industries. Although the industries belong to the same general group, it's like comparing apples to oranges. To put it another way, the research may be showing that computer manufacturing in the county as a whole grew more quickly than the business of manufacturing sheep shears within the enterprise zone.

Even if the industries manufacture identical products, the generalizing nature of aggregation doesn't allow for the quality differences between industries. Because enterprise zones are distressed areas, it is likely that the industries there are older and less efficient. As such, they may grow more slowly than similar businesses in the larger, more affluent, county.

Auditor General Found that Employment and Business Formation Generally Grew more Quickly in Enterprise Zones than the Counties. The Auditor General study was conducted in 1995 so it had the benefit of additional years of enterprise zone experience and data. Although the results were different than the Dowall study, the Auditor General encountered the same conceptual problems of comparison to dissimilar areas.

Bostic Study Looked At Different Criteria. Dr. Raphael Bostic looked at business activity, which he defined as business license revenues and nonresidential construction. Bostic examined cities that he called isolated, cities small and some distance from a population center. Ten of the group of cities he examined had enterprise zones, but the majority did not. In contrast to the previous studies, Bostic found that enterprise zones had a positive impact on business activity. His work suggested that designation as a zone was not sufficient itself, but was effective in combination with other programs.

In summary, the Dowall and Auditor General studies looked primarily at employment growth. As the Bostic study suggests though, we can make other comparisons. Since enterprise zones are areas in turmoil with high rates of crime and social distress, evaluations of them should look at an array of distress indices rather than just employment changes. However, when researchers evaluate enterprise zones, it's useful to consider that zones don't exist in a laboratory. Enterprise zones lie in the midst of an evolving and vulnerable socio-economic landscape. Researchers might note changes in a zone's conditions but it is difficult to compare these to another area and make any conclusions because there are many forces that affect the zones and surrounding areas.

When doing research on enterprise zones, researchers find the employment data attractive and use it extensively because employment data is compiled monthly and businesses must report the data to the state Employment Development Department (EDD).^{*} Employment data is also useful to researchers because they can use the address a reporting firm uses to place the firm within census tracts and, hence, enterprise zones. But the employment data does not include self-employed individuals and family members who are employed and do not receive wages. Not only that, there are some additional limitations. The data from some firms cannot be accurately tied to a location. What effect this may have on results is impossible to determine.

CALIFORNIA RESEARCH BUREAU FINDINGS

The California Research Bureau (CRB) research also relies on employment growth. However, the CRB does not compare enterprise zones with its county or the state but with other census tracts whose characteristics most closely match those of the enterprise

^{*} This data is commonly known as nonagricultural employment, employment at establishments, or ES 202 data.

zones. Using 1990 census data, the CRB evaluated all census tracts within the state. We then selected a comparison group of census tracts based on characteristics of the population such as race, education, sectors in which residents are employed, distance to work, median income, age, poverty rate, share of the population receiving public assistance, unemployment rate, vacancy rate, and percent urban as points of comparison with enterprise zones.

We developed a model to determine the probability of a census tract being included within an enterprise zone based on the preceding characteristics. We know which tracts are within zones, so we used these to calculate the relative importance of these variables in affecting zone determination. Once we knew the effect of these variables, we selected census tracts outside of enterprise zones that had very similar characteristics.[†] A more detailed explanation of the model can be found in Appendix D or in the technical paper.⁴

For each census tract within a zone, we selected a similar tract outside of a zone as a match. To ensure as close a match as possible, we divided the state into regions and census tracts within the region were used as possible matches. The regions are shown in Appendix E.

The results of the model were used to identify similar census tract and the matches are what the CRB expected.[‡] According to the model three factors normally associated with economic distress (low median income, high unemployment, and high vacancy rates) help define an enterprise zone. Other factors, including race, educational attainment, and concentration of particular industries are also key components of an enterprise zone. The estimated probability for each tract is calculated from the model and each enterprise zone census tract is matched to the census tract in the same county or the same region that is the closest match.

As an example, the following map illustrates the location of enterprise zone census tracts and matched census tracts, using the within-county matching procedure, in the San Jose area and the Los Angeles area. These maps demonstrate that many of the matched census tracts are located near enterprise zones, but some are located some distance from the zones. The maps show how productive it is to use *both* within-region and within-county matching methods, since the extent of coverage of an enterprise zone may prevent good matches from being found *just* within the county.

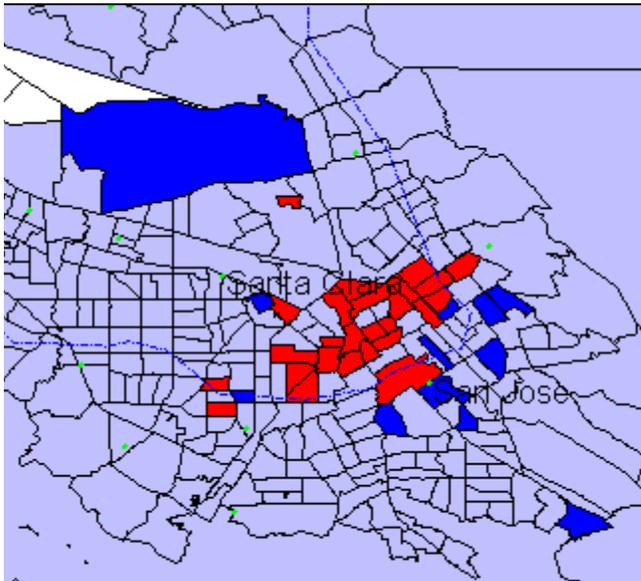
[†] The model does this selection by determining the probability of each tract being selected as an enterprise zone based solely on these characteristics.

[‡] The results of the model are presented in Appendix F.

Figure 1

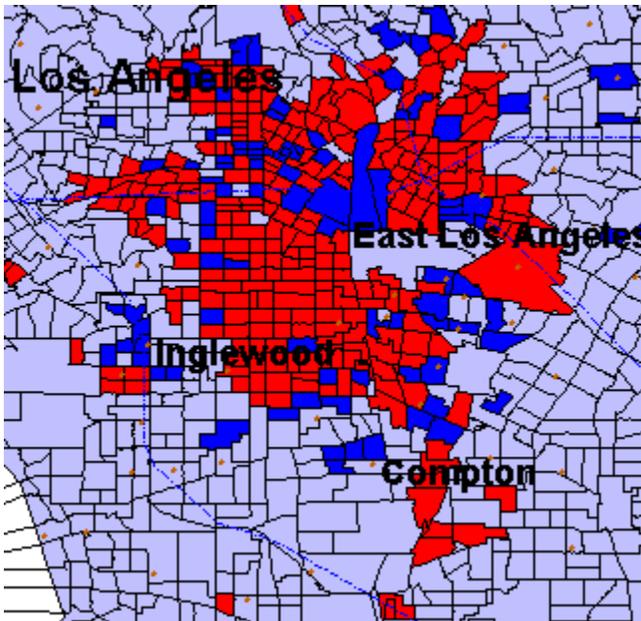
Maps of Enterprise Zone census tracts and matched census tracts for San Jose and Los Angeles Enterprise Zones

San Jose



- Enterprise Zone census tract
- Matched census tract

Los Angeles



- Enterprise Zone census tract
- Matched census tract

The following table compares the characteristics of the enterprise zones with those of the matched areas.

Table 1
Descriptive Statistics for Enterprise Zones,
Matched Areas, and All Census Tracts in California.

Characteristic	Avg. in EZs	Avg. in Matches	Avg. Difference Between EZ and Match	Avg. for All Tracts in CA
Median Income	22,550	22,788	-238	36,689
Unemployment	0.121	0.119	0.002	0.069
Share of women out of the labor force	0.485	0.481	0.004	0.426
Share of men out of the labor force	0.283	0.285	-0.002	0.239
Vacancy rate	0.068	0.069	0.002	0.063
Share receiving Public Assistance	0.192	0.188	0.004	0.099
Share Urban	0.975	0.964	0.011	0.909
Population	5767	5542	225	5085
% American Indian	0.007	0.009	-0.001	0.009
% Asian	0.102	0.097	0.005	0.093
% Black	0.194	0.197	-0.003	0.077
% White	0.429	0.429	-0.00004	0.703
% Hispanic	0.457	0.463	-0.007	0.235
% Less than High School Education	0.463	0.466	-0.003	0.246
% High School Grads	0.204	0.206	-0.002	0.222
% Some College	0.218	0.215	0.003	0.300
% College Grads	0.115	0.113	0.002	0.233
Share working in Craft Industry	0.119	0.122	-0.003	0.110
Share working in Farming	0.041	0.036	0.005	0.032
Share working as Operators/Laborers	0.218	0.221	-0.003	0.133
Share working in Managerial/Professional	0.162	0.161	0.0006	0.280
Share working in Service Industries	0.183	0.184	-0.001	0.128
Share working in Sales & Support	0.277	0.276	0.002	0.317
Estimated Probability of Becoming an EZ	0.579	0.578	0.002	0.176
Number of Obs.	699	699	699	5870

For each matched pair of census tracts, the CRB calculated growth in employment, average monthly earnings, and number of firms. Separate calculations were done for the periods 1991 to 1995, 1995 to 1999, and for 1991 through 1999.[§] Presumably, the

[§] Annual changes in these variables were also calculated. For simplicity of presentation and to smooth out year to year variations, the decade is broken down into these three periods.

difference between the growth rate for the enterprise zone and the growth rate for the matched area is the estimated effect of the program. To explain: we compute growth in employment by adding the increase in the number of workers at existing firms and the number of workers at new firms, then subtracting jobs lost at firms that leave the zone. Because the enterprise zones receive a myriad of incentives, zone businesses should *probably* show more rapid employment growth and an increase in the total number of firms as compared to the matched census tracts. Compared to similar areas from the 1990 census tracts, and using our formula, enterprise zones should experience greater growth in employment and number of firms if the program is working.

Tables 2 and 3 present average growth in employment, earnings, and number of firms for enterprise zones and matched areas. For ease of presentation, enterprise zones are divided into two groups, those established before 1990 and those established between 1990 and 1995. We present the results for each group in separate tables. We expect enterprise zones established before 1990 to reflect some program benefits throughout the 1990s. We do not expect to see much impact on those established between 1990 and 1995 until after 1995. In addition, we broke the 10 years we observed the zones and matched areas into two periods, 1991-1995, and 1995-1999, so we could see the impact of the program over time.

The enterprise zone may or may not affect wages. It depends on the types of jobs created, and the degree of unemployment in the labor market. Since the hiring credit feature of the enterprise zone applies only to wages below \$8.62, the credit would only affect those jobs created at relatively low salaries.

Table 2
Comparison Between Enterprise Zones Established Before 1990 and
Their Matched Counterparts (Within-Region Matches).

Enterprise Zone		1991-1995	1995-1999	1991-1999	Increase in EZ
Average Growth	Enterprise zone	50%	9%	63%	79,807
Rate of	Similar area	22%	9%	31%	
Employment	Difference	28%	0%	32%	
Average Growth	Enterprise zone	8%	23%	32%	\$553
Rate of Monthly	Similar area	20%	9%	25%	
Earnings	Difference	-11%	14%	7%	
Average Growth	Enterprise zone	15%	2%	17%	7902
Rate of Number	Similar area	8%	5%	14%	
of Firms	Difference	6%	-3%	3%	

Table 3
Average Growth in Enterprise Zones established between 1990 and 1995 and Their
Matched Counterparts Using Within-Region Matches.

Enterprise Zone		1991-1995	1995-1999	1991-1999	Increase in EZ
Average Growth	EZ	17%	15%	32%	74,136
Rate of	Match	18%	7%	26%	
Employment	Difference	-2%	8%	6%	
Average Growth	EZ	7%	15%	23%	\$376
Rate of Monthly	Match	8%	22%	31%	
Earnings	Difference	-1%	-7%	-8%	
Average Growth	EZ	9%	5%	14%	3692
Rate of Number	Match	10%	1%	11%	
of Firms	Difference	-1%	4%	3%	

The average enterprise zone's growth rate was twice the rate found in the matched census tracts. In 1999, there were 153,943 more jobs in enterprise zone census tracts than there had been in 1991 (the totals from Table 2 and 3). Further, for enterprise zones established prior to 1990, the average increase in jobs was 63%, with the majority of this employment growth occurring between 1991 and 1995.

There was a growth rate decline between 1995 and 1999, a time when the economy as a whole was growing rapidly. To understand the decline we should consider that previously vacant office, industrial, or retail space may have been filled. In addition, the physical limitations of the enterprise zone were restraining growth. Businesses would also have had a shorter time horizon to take advantage of the tax preferences before the preferences expired.

In the early years enterprise zones stayed about even with their census tract matches. Between 1991 and 1995, employment growth in enterprise zones established after 1990 matched the comparison tracts. But between 1995 and 1999, enterprise zones grew faster than their matches, which makes sense. Firms may not know about the effectiveness and benefits of the enterprise zone program until a few years following the initial designation.

Wage growth in enterprise zones designated between 1990 and 1995 underperformed wage growth in the matched areas throughout the 1990s. Monthly earnings rose on average \$553 between 1991 and 1999 in enterprise zones designated before 1990 (Table 2). In those designated after 1990, growth in monthly earnings averaged \$376 (Table 3). Between 1991 and 1995, monthly earnings rose only 8% on average in enterprise zones designated before 1990, but rose 20% in the matched areas. But between 1995 and 1999, this relationship reversed, and enterprise zones designated before 1990 outperformed the matches. Since the tax credit for qualified employees applies only to wages below \$8.62, it is logical that average earnings fell as low wage jobs were created during the early years of the program. But, the tax credit for a worker is eliminated after five years of employment, and results suggest that after the tax credit expires, average earnings then grow at a faster rate than in the matched areas. This lag in wage growth may reflect long-term gains in monthly earnings due to the program.

Growth in the number of firms mirrors the growth in employment. Enterprise zone census tracts had 11,594 more businesses in 1999 than in 1991. Growth in number of firms exceeded growth in matched areas in the early 90's but lagged behind matched areas in the late 90's in zones established before 1990. For enterprise zones established after 1990, growth in number of firms lagged behind the matches prior to 1995, but exceeded growth in matches after 1995.

Tables 4 and 5 highlight the performance of individual enterprise zones. Though on average, enterprise zones outperformed their matched areas, some individual zones experienced great success, while others did not. West Sacramento saw the highest rate of employment growth and growth in number of firms while maintaining solid wage growth in the end of the decade. Calexico, Pittsburg, Riverside, San Diego, San Jose, Merced, Orville, and Shasta Metro also fared well on all three measures of success. Los Angeles,

Porterville, Kings County, and Shafter underperformed their matches on all measures. A study of the zones that succeeded compared to those that did not, could be of concrete value for any future legislation on enterprise zones.

The entries in Table 4 are ranked by employment growth. The highest and lowest values for growth in monthly earnings and number of firms are in bold.

Table 4
Performance of Enterprise Zones Established Prior to 1990
Using Within-Region Matches.

*Note: Values are the percentage point **difference** in growth in the Enterprise Zone and growth in the matched area between 1991 and 1999. Typically, growth in zones and matches was positive. Negative differences signify that the Zone underperformed its match. The cities are ranked by employment and the largest and smallest values are in bold.*

Enterprise Zone	Employment	Monthly Earnings	Number of Firms
West Sacramento (1988)	445%	16%	48%
Pittsburg (1988)	30%	42%	25%
Riverside (1986)	16%	2%	13%
San Jose (1986)	27%	23%	11%
San Diego (1986)	21%	8%	5%
Calexico (1986)	4%	39%	2%
Los Angeles (1986)	-8%	-4%	-11%
Bakersfield (1986)	-27%	-7%	1%
Yuba/Sutter (1986)	-27%	15%	-10%
Porterville (1986)	-46%	-21%	-45%
Madera (1989)	-51%	9%	-1%

Los Angeles includes LA Central City, LA Eastside, LA Mid-Alameda Corridor, LA Northeast Valley, and LA Harbor Area Enterprise Zones. San Diego includes San Diego-San Ysidro and San Diego Metro Enterprise Zones.

Data from the EDD for Sacramento and Fresno were incomplete, so these Zones are omitted.

The entries in Table 5 are also ranked by employment growth. The highest and lowest values for growth in monthly earnings and number of firms are in bold.

Table 5
Performance of Enterprise Zones Established Between 1990 and 1995
Using Within-Region Matches.

*Note: Values are the percentage point **difference** in growth in the enterprise zone and growth in the matched area between 1995 and 1999. Typically, growth in zones and matches was positive. Negative differences signify that the zone underperformed its match. The cities are ranked by employment and the largest and smallest values are in bold.*

Enterprise Zone	Employment	Monthly Earnings	Number of Firms
Merced/Atwater (1991)	72%	17%	24%
Santa Ana (1993)	25%	-9%	-6%
Oroville (1991)	14%	11%	2%
Richmond (1992)	13%	-3%	-12%
Long Beach (1992)	10%	-14%	1%
San Francisco (1992)	9%	-2%	1%
Shasta Metro (1991)	8%	11%	3%
Coachella (1991)	6%	-19%	40%
Oakland (1993)	5%	-15%	2%
Stockton (1993)	5%	-1%	2%
Shafter (1995)	0%	-29%	-11%
Kings County (1993)	-20%	-28%	-6%
Lindsay (1995)	-41%	-7%	12%

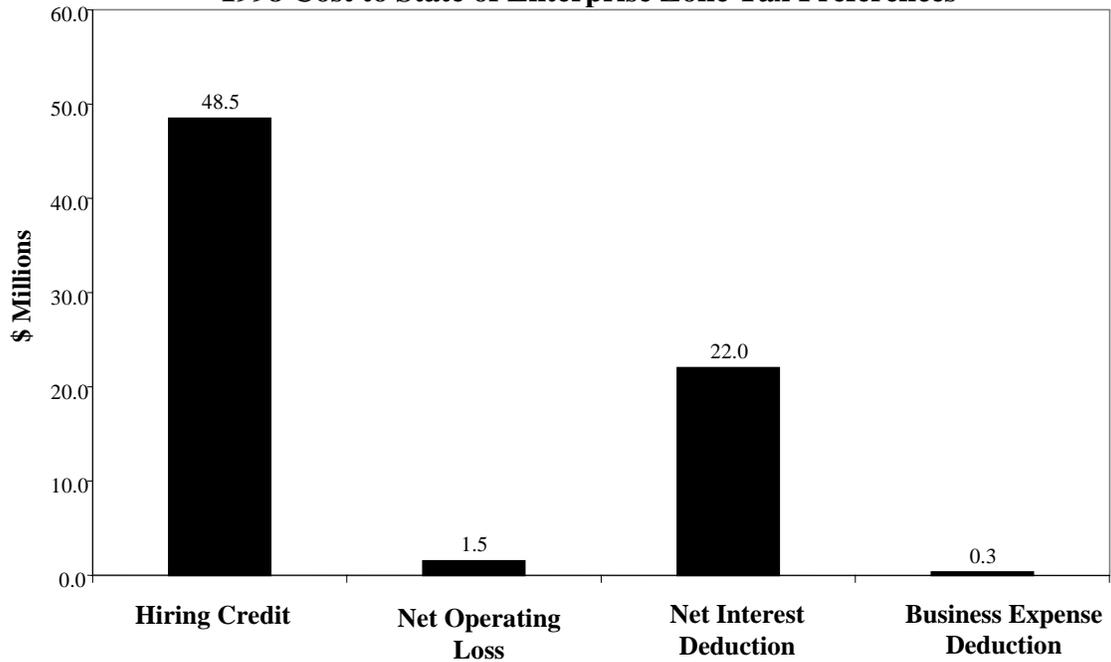
How Much Do Enterprise Zones Cost the State?

The short answer is that *nobody knows, exactly*. We know what the tax preferences cost the state, but no one has systematically compiled the value of other state-funded incentives. In addition, we do not know the benefits, in terms of additional tax revenues, of zone designation.

The Franchise Tax Board (FTB) compiles information from the returns of those who received enterprise zone tax benefits. Although the FTB only compiles the data for the Bank and Corporations tax, we presume that California's banks and corporations make up the group of filers that are most involved in enterprise zones. So we used the FTB's data. According to the FTB's 1998 returns and data, the cost of enterprise zones to the state was just over \$72 million. Given the 39 zones, this works out to slightly less than \$2 million per zone per year.

The following chart shows the breakdown of the tax preferences from the State of California.

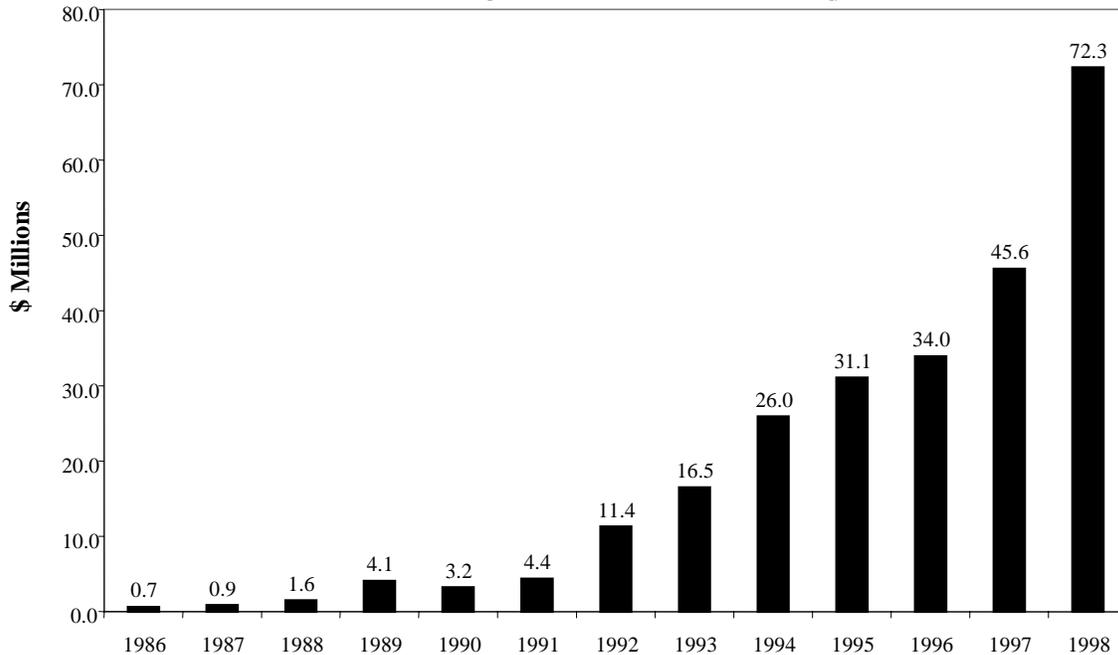
Chart 1
1998 Cost to State of Enterprise Zone Tax Preferences



The cost of the program to the state has grown rapidly since its inception as Chart 2 shows.**

** The data supplied from the FTB shows the credit received and the amount of the deductions, but not the actual cost to the state of those deductions for all years. For the years 1986 through 1994, the CRB estimated the cost to the state of the tax deductions based on the tax effect of the deduction for the period 1995 through 1998.

Chart 2
Cost of Enterprise Zones to the State by Year

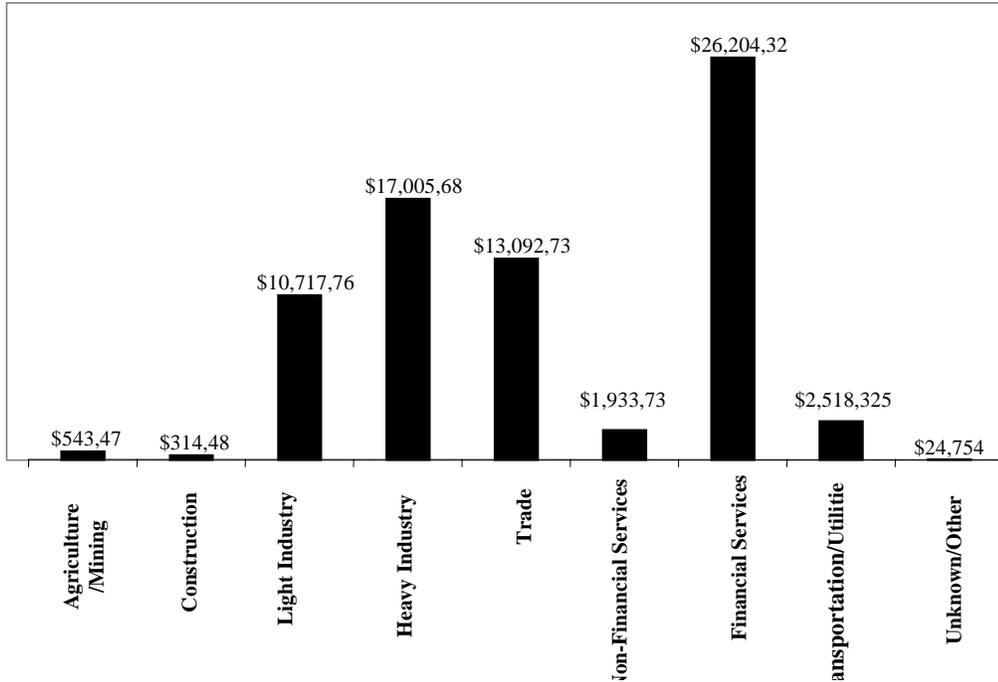


As we have seen, businesses receive tax incentives if they locate within the boundaries of an enterprise zone and employ at-risk workers. The state tax losses for these incentives through 1998 are \$250 million. For the period covered by the study the losses are slightly less, about \$240 million. For the 153,943 new jobs created within enterprise zones, that works out to a cost for the state of a little less than \$1600 per job created. However, there were jobs created in the matched areas with none of the enterprise zone tax benefits. When this total is subtracted, a net number of new jobs is 52,898 in the enterprise zones or \$4800 per new additional job created. As a job creation program, these costs per job are extremely low.

Some information is known about the types and sizes of businesses that gain the tax preferences. The following charts, also drawn from Franchise Tax Board data, show an aggregate grouping of firms by type of industry; two different charts also show different ways of measuring firm size.

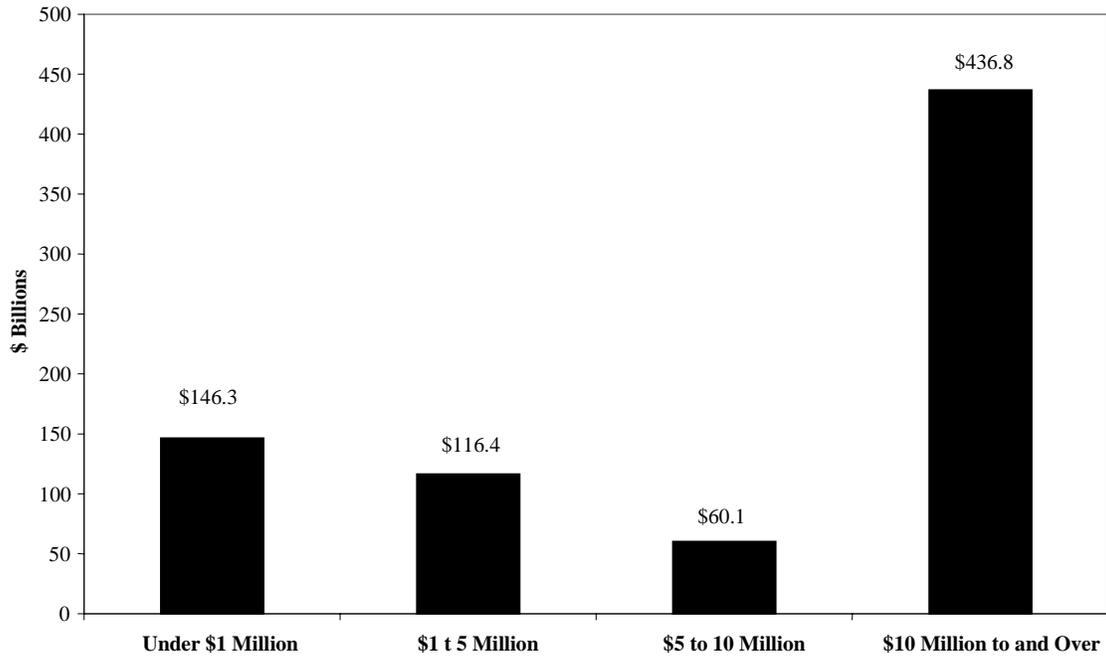
The following chart illustrates the distribution of the enterprise zone tax preferences within industry groups. We assume that the large value of preferences accrued by the financial services industry is because of the net interest deduction, rather than their location within enterprise zones.

Chart 3
Cost to the State of Enterprise Zones by Industry



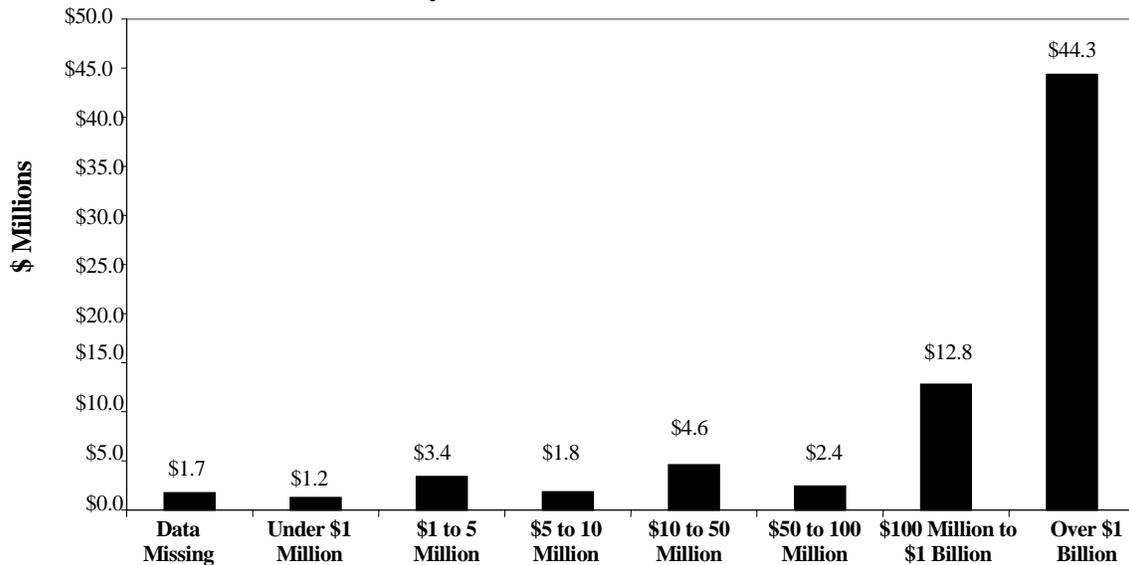
When we compare this chart to the chart showing all Bank and Corporation Tax taxpayers we see some differences in industry composition with the most notable difference in the financial services industry. Lenders are eligible for a net interest deduction for loans to eligible enterprise zone businesses. There also appears to be less heavy industry within zones. But let's remember that this is a view of industry composition by net income, not by the actual number of firms.

Chart 4
California Industry Size by Net Income



These next two charts illustrate the distribution of the tax preferences by size of industry.^{††}

Chart 5
Cost to the State of Enterprise Zones
by the Asset Size of the Businesses



^{††} The actual x-axis scale is \$1 million to \$4,999,999 etc.

Size is measured in two different ways, asset size and gross receipts. Regardless of the method of measurement, large firms dominate the use of enterprise zone tax credits. This imbalance should not come as much of a surprise, because large firms are the largest

Chart 6
Cost to the State of Enterprise Zones
by the Gross Revenues of the Business

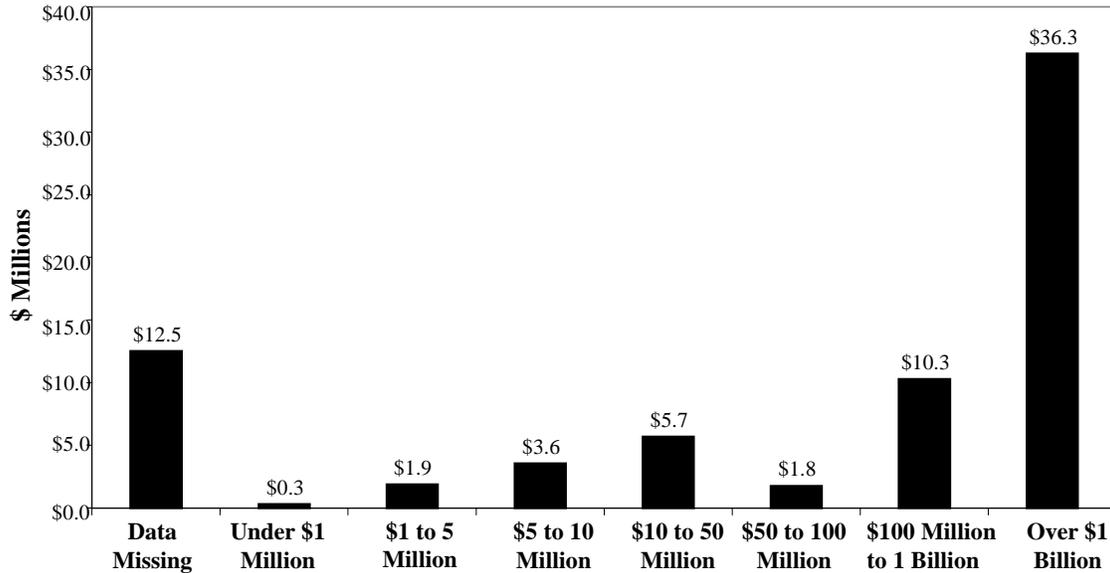
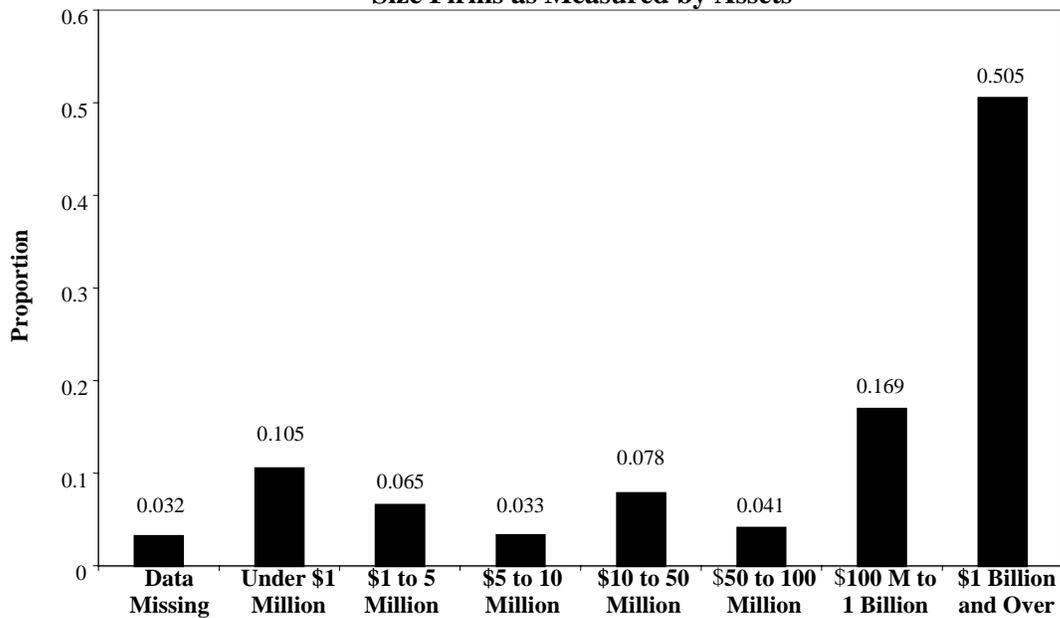
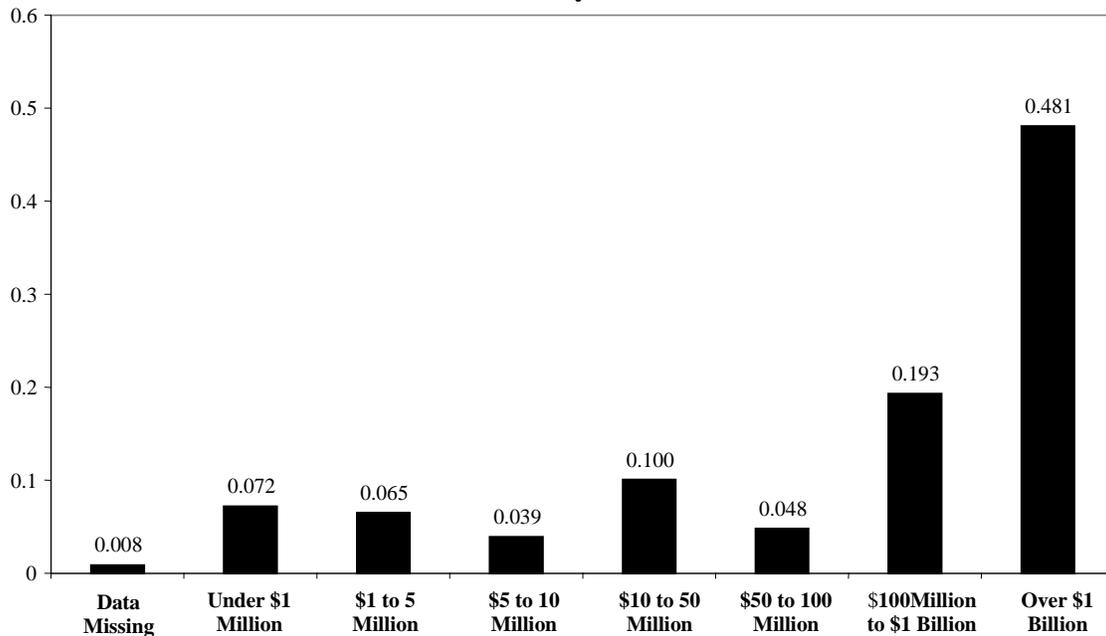


Chart 7
Percentage of Bank & Corporation Taxes Paid by Different
Size Firms as Measured by Assets



contributor as measured by net income of the Bank and Corporations tax overall. The following chart clarifies the cost imbalance by showing the relative tax burden borne by

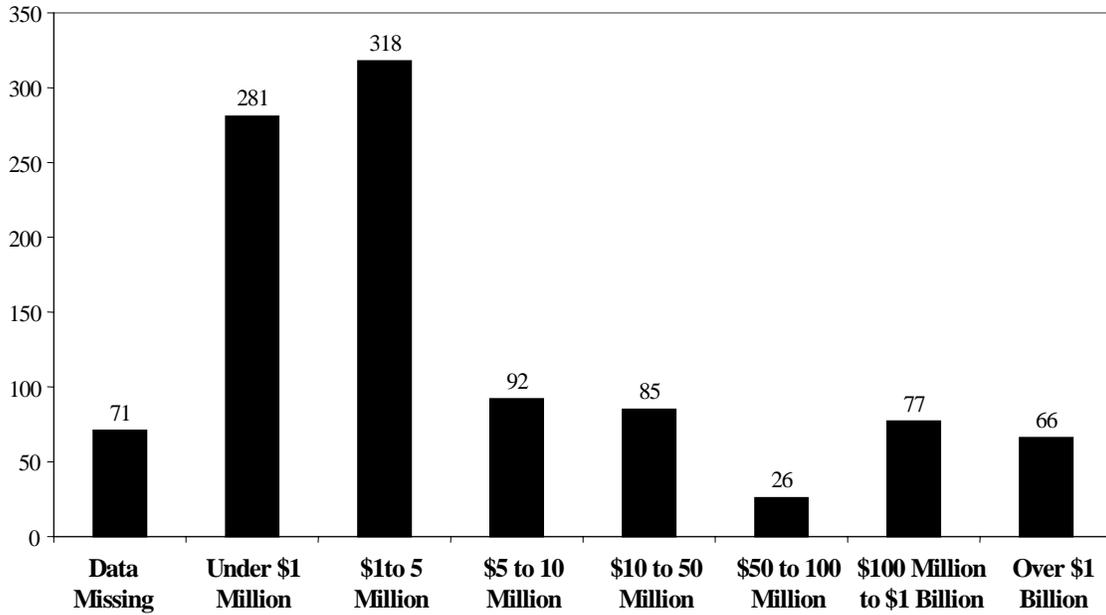
Chart 8
Percentage of Bank and Corporation Taxes Paid by Different Size Firms as Measured By Gross Revenues



different size firms, as measured by their asset size.

Still there are a large number of smaller firms that claim enterprise zone preferences.

Chart 9
Number of Returns Claiming Enterprise Zone Tax Preferences by Firm Size
(as measured by assets)



Conclusion

Enterprise zones are quite popular with most states and with the federal government as proven by the several thousand zones designated nationwide. But despite enterprise zones' popularity with governments, analysts and researchers have long debated their effectiveness. And previous research has not settled the effectiveness debate. As this report shows, the CRB has looked at enterprise zones from a new, more realistic angle. The CRB's research uses comparable areas (matched census tracts) outside the zone, instead of areas merely geographically near the zone, as comparisons for measuring zone effectiveness. By comparing the zone's new job growth with in the zone's demographic match, not with the zone's relatively affluent county, the picture of zone effectiveness becomes clearer.

This CRB research also illustrates how the growth rate of employment varies between different zones. For example, employment grew 445 percent in the West Sacramento zone than the matched area, but fell fifty-one percent in the Madera enterprise zone as compared to its matched area. Undoubtedly, differences in regional economic conditions affect the growth rate and account for the flux. In addition, the incentives that the local governments offer, and how effectively the local governments manage and market the zone, differ: this research should shed light on local governments' effectiveness in zone management.

The results of this study suggest that the benefits of zone designation may be stronger during the earlier years of designation. Table 2 did show that the zones that were established during the 1980s had the fastest growth during the period 1991-95 and the growth tailed off during the latter part of the 1990s. Intuitively, this makes sense, as the benefits to a firm are less during the later years of the zone as the number of years they could claim credits and deductions is limited. This suggests that firms need a firm commitment that they can enjoy the benefits. Under current law, the Technology Trade and Commerce Agency reviews each zone designation upon expiration and can renew the zone for another five years. This five-year review may increase the uncertainty that the firms face and reduce the attractiveness of the enterprise zone designation.

Appendix A

List of Enterprise Zones

Agua Mansa (Riverside, Colton, Rialto)
Altadena/Pasadena
Antelope Valley (Palmdale, Lancaster, Los Angeles County)
Bakersfield
Calexico
Coachella Valley (Coachella, Indio, Thermal)
Delano
Eureka
Fresno
Kings County (Hanford, Lemoore, Corcoran)
Lindsay
Long Beach
Los Angeles, Central City
Los Angeles, Eastside
Los Angeles, Northeast Valley
Los Angeles, Mid-Alameda Corridor
(Los Angeles, Lynwood, Huntington Park, South Gate)
Los Angeles, Harbor Area
Madera
Merced/Atwater
Oakland
Oroville
Pittsburg
Porterville
Richmond
Sacramento, Florin Perkins
Sacramento, Northgate/Norwood
Sacramento, Army Depot
San Diego-San Ysidro/Otay Mesa
San Diego-Southeast/Barrio Logan
San Francisco
San Jose
Santa Ana
Shafter
Shasta Metro (Redding, Anderson, Shasta Lake)
Shasta Valley (Yreka, Weed, Montague)
Stockton
Watsonville
West Sacramento
Yuba/Sutter (Yuba City, Marysville)

Appendix B

Original Program Areas

The program areas are listed from the oldest to the newest

- South-East Bakersfield
- Los Angeles-Greater Watts
- Sacramento-Northgate
- Los Angeles-East Area
- Pittsburg
- West Sacramento
- Madera
- Los Angeles-Wilmington/San Pedro
- Sacramento-Oak Park/Florin-Perkins

Appendix C

Definition of Qualified Employee

Excerpted from Section 23622.7 of the Revenue and Taxation Code

“Qualified employee” means an individual who meets all of the following requirements:

- (i) At least 90 percent of whose services for the taxpayer during the taxable year are directly related to the conduct of the taxpayer's trade or business located in an enterprise zone.
- (ii) Performs at least 50 percent of his or her services for the taxpayer during the taxable year in an enterprise zone.
- (iii) Is hired by the taxpayer after the date of original designation of the area in which services were performed as an enterprise zone.
- (iv) Is any of the following:
 - (I) Immediately preceding the qualified employee's commencement of employment with the taxpayer was a person eligible for services under the federal Job Training Partnership Act (29 U.S.C. Sec. 1501 et seq.), or its successor, who is receiving, or is eligible to receive, subsidized employment, training, or services funded by the federal Job Training Partnership Act, or its successor.
 - (II) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was a person eligible to be a voluntary or mandatory registrant under the Greater Avenues for Independence Act of 1985 (GAIN) provided for pursuant to Article 3.2 (commencing with Section 11320) of Chapter 2 of Part 3 of Division 9 of the Welfare and Institutions Code, or its successor.
 - (III) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was an economically disadvantaged individual 14 years of age or older.
 - (IV) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was a dislocated worker who meets any of the following:
 - (aa) Has been terminated or laid off or who has received a notice of termination or layoff from employment, is eligible for or has exhausted entitlement to unemployment insurance benefits, and is unlikely to return to his or her previous industry or occupation.
 - (bb) Has been terminated or has received a notice of termination of employment as a result of any permanent closure or any substantial layoff at a plant, facility, or enterprise, including an individual who has not received written notification but whose employer has made a public announcement of the closure or layoff.
 - (cc) Is long-term unemployed and has limited opportunities for employment or reemployment in the same or a similar occupation in the area in which

the individual resides, including an individual 55 years of age or older who may have substantial barriers to employment by reason of age.

(dd) Was self-employed (including farmers and ranchers) and is unemployed as a result of general economic conditions in the community in which he or she resides or because of natural disasters.

(ee) Was a civilian employee of the Department of Defense employed at a military installation being closed or realigned under the Defense Base Closure and Realignment Act of 1990.

(ff) Was an active member of the armed forces or National Guard as of September 30, 1990, and was either involuntarily separated or separated pursuant to a special benefits program.

(gg) Is a seasonal or migrant worker who experiences chronic seasonal unemployment and underemployment in the agriculture industry, aggravated by continual advancements in technology and mechanization.

(hh) Has been terminated or laid off, or has received a notice of termination or layoff, as a consequence of compliance with the Clean Air Act.

(V) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was a disabled individual who is eligible for or enrolled in, or has completed a state rehabilitation plan or is a service-connected disabled veteran, veteran of the Vietnam era, or veteran who is recently separated from military service.

(VI) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was an ex-offender. An individual shall be treated as convicted if he or she was placed on probation by a state court without a finding of guilt.

(VII) Immediately preceding the qualified employee's commencement of employment with the taxpayer, was a person eligible for or a recipient of any of the following:

(aa) Federal Supplemental Security Income benefits.

(bb) Aid to Families with Dependent Children.

(cc) Food stamps.

(dd) State and local general assistance.

(VIII) Immediately preceding the qualified employee's commencement of employment with the taxpayer was a member of a federally recognized Indian tribe, band, or other group of Native American descent.

(IX) Immediately preceding the qualified employee's commencement of employment with the taxpayer was a resident of a targeted employment area (as defined in Section 7072 of the Government Code).

(X) An employee who qualified the taxpayer for the enterprise zone hiring credit under former Section 23622 or the program area hiring credit under former Section 23623.

(XI) Immediately preceding the qualified employee's commencement of employment with the taxpayer was a member of a targeted group, as defined in Section 51(d) of the Internal Revenue Code, or its successor.

Appendix D

Methodology

Annual establishment level data for employment and total payroll at all firms in relevant zip codes were obtained from the Employment Development Department (EDD). The EDD ES 202 data is assembled from unemployment insurance administrative records, and includes number of workers, total payroll, and the physical address of each employer for the first quarter of each year, 1991 through 1999. Business addresses are geocoded to their geographic locations within the state using GIS software and a database of street addresses based on 1997 Tiger Census address data. Over 500,000 businesses are matched to their corresponding census tracts each year. Summing the total number of employees, number of firms, and average monthly earnings within the tract creates annual observations, 1991-1999, for each census tract. The geocoding process successfully matched between 85 and 89 percent of the firms to their exact geographic location each year. Unmatched firms have characteristics similar to those for which geographic locations were found. Changes in employment, earnings, and number of firms are calculated for each enterprise Zone census tract and each matched census tract.

Appendix E

Figure 1: Regions of California

North Coast:	Del Norte Humboldt Mendocino Sonoma	South Coast:	Los Angeles Orange San Luis Obispo Santa Barbara San Diego Ventura
Mountain:	Alpine Amador Calaveras El Dorado Mariposa Mono Nevada Placer Plumas Sierra Tuolumne	SF Bay Area:	Alameda Contra Costa Marin Monterey Napa San Francisco San Mateo Santa Clara Santa Cruz Solano
North Inland:	Butte Colusa Glenn Lake Lassen Modoc Shasta Siskyou Tehama Trinity	Central Valley:	Fresno Kings Madera Merced Sacramento San Benito San Joaquin Stanislaus Sutter Tulare Yolo Yuba
South Inland:	Imperial Inyo Kern Riverside San Bernardino		

Appendix F

Model Results

Logit Regression Results of probability of receiving the Enterprise Zone designation, as a function of economic and demographic characteristics. Estimated probabilities, 'Propensity Scores,' from this regression are used to conduct the matching process. That is the attributes of each census tract are plugged into this model to determine those with the highest propensity be named enterprise zones, meaning they are census tracts that are the closest match for existing enterprise zone census tracts.

Variable	Coefficient (Standard Error)	
Median Income (1000's)	-0.143	(0.016)**
Unemployment	3.633	(2.026)*
Vacancy rate	2.138	(1.237)*
Share receiving Public Assistance	1.660	(1.291)
Share Urban	-0.479	(0.501)
% American Indian	8.043	(5.647)
% Asian	-0.197	(0.678)
% Black	2.472	(0.525)**
% Hispanic	2.499	(0.656)**
% High School Grads	-6.523	(1.618)**
% Some College	-5.518	(1.530)**
% College Grads	-6.608	(1.490)**
Share working in Farming	2.322	(2.194)
Share working as Operators/Laborers	0.697	(2.451)
Share working in Managerial/Professional	6.878	(2.226)**
Share working in Service Industries	6.758	(2.374)**
Share working in Sales & Support	9.451	(2.103)**
Work Near Home	1.959	(0.299)**
Log likelihood	-978.95	
Pseudo R-Squared	0.509	
Number of Obs.	4291	

Dummy variables for each county are also included in the regression.

*** Coefficient is significant at 5%*

** Coefficient is significant at 10%*

Endnotes

¹ David E. Dowall, Marc Beyeler, and Chun-Cheung Sidney Wong. "Evaluation of California's Enterprise Zone and Employment and Economic Incentive Programs. Berkeley: University of California Berkeley. 1994.

² Bureau of State Audits. "**Technology** Trade and Commerce Agency: The Effectiveness of the Employment and Economic Incentive and Enterprise Zone Programs Cannot Be Determined." Sacramento, California. November 1995.

³ Raphael W. Bostic. "Enterprise Zones and the Attraction of Businesses and Investment: The Importance of Implementation Strategies and Program Incentives. Washington DC. July 1996.

⁴ Suzanne O'Keefe, "Job Creation in California's Enterprise Zones: A Comparison Utilizing a Propensity Score Matching Model." Sacramento, California. November 2000.