PEPPERDINE UNIVERSITY
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AN ANALYSIS OF SPLIT ROLL PROPERTY TAX ISSUES AND IMPACTS

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Executive Summary

Despite dramatic increases in state revenues over the past decade, even greater spending increases, coupled with the nation's recent economic collapse and weak recovery, have left the state of California with a budget deficit estimated at between $10 and $20 billion. Advocates for closing the gap through tax increases have introduced a series of proposals for new ways to increase state revenues. One proposal that has received significant discussion periodically over the past several decades, and is again being discussed, is the elimination of the caps on property tax increases for businesses included in Proposition 13, which is often referred to as the "split roll" proposal.

This study was undertaken to review the split roll proposal and to assess the prospective impact on the state economy if a split roll tax regime were adopted. Our analysis has four significant findings:

1. A split roll property tax regime will increase property taxes on businesses by an estimated $6 billion. Given the recent volatility of real estate markets, however, this tax increase could range from as little as $4 billion to as much as $10 billion dollars.

2. Increasing the taxes of businesses by $6 billion dollars would result in lost economic output and decreased employment. The cost to the California economy of this property tax increase would total $71.8 billion dollars of lost output and 396,345 lost jobs over the first five years of a split roll property tax regime. These losses would be even greater in succeeding years.

3. The introduction of a split roll property tax valuation system would result in increased instability for local government finances, as they would become more directly susceptible to the value gyrations of the real estate market. For example, in 2008-09 when California property values faced the traumatic decline in the wake of the sub-prime crisis and the market collapse (industrial and commercial values fell 6.5 percent), property taxes collected from these same properties actually rose 5.0 percent.

4. A split roll property tax valuation system would also further undermine the attractiveness of the business climate in California. Because small businesses typically lease properties where the cost of property taxes is passed through to the lessee, this research concludes that the employment losses described above would be disproportionately concentrated in small businesses, and especially those owned by women and minorities.

Overall, this study finds that a split roll property tax regime would have a significant and detrimental impact on the state's economy, especially at a time when the California economy is struggling.

Preface

This report is one in an ongoing series of periodic analyses of public policy issues by the Davenport Institute. Financial support for this report was provided, in part, by the Small Business Action Committee. The opinions, discussion and analysis contained in this report of those of the authors alone and do not necessarily reflect the views of Pepperdine University, the School of Public Policy, the Davenport Institute or those who have provided support, financial or otherwise, for this research.

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Chapter 1: Introduction and Context of this Analysis

Proposition 13, passed overwhelmingly by the voters of California in 1978, placed limits on how much property taxes could be increased from one year to the next. Initially, all property tax assessments in the state were to be "rolled back" to a base year of 1978, and could only be increased a maximum of two percent per year. Properties that were sold after the base year of 1978 would be reassessed based on the sale price, but any subsequent property tax increases for such properties would still be held to a maximum annual two percent increase. By enacting Proposition 13, California voters created a taxation system where, in a continuously rising real estate market (one which rose more than 2 percent per year), property owners who acquired their properties in more recent years would pay a higher property tax than property owners who had purchased it in prior years, even in the preceding year.

This provision of Proposition 13 capped the potential growth of property taxes for existing owners at two percent, creating desired stability and predictability for property taxpayers. It also created a new landscape where, in California's rising real estate market, neighboring property owners could pay dramatically different amounts of property taxes on comparable parcels. While these differences can develop in as little as one year, they are most pronounced in intervals when the market has had time to rise to very high levels, and thus the greatest differences are for properties which have been held for significant periods of time.

Various attempts to erode or eliminate the property tax increase protections provided by Proposition 13 have been put forth over the years, but none has been successful in persuading the citizens of California to return to a tax regime of unlimited annual property tax increases. Advocates of the proposed split roll property tax regime tacitly acknowledge the fact that the property tax increase protections in Proposition 13 are overwhelmingly popular with California homeowners and voters. Despite this popularity, advocates continue to seek ways to increase government revenues from the property tax. In this quest, some of these advocates have pushed periodically for a change in the way that properties—and especially commercial and industrial properties--are assessed in the state.

In recognition of this reality, advocates argue for creating a "split roll" property valuation system in California wherein residential properties would retain the current Proposition 13 limitations on the growth of assessed values while commercial and industrial properties would be assessed at current fair market value. This allows these advocates to avoid what is commonly regarded as the "third rail" of California politics—the sanctity of the benefits that Proposition 13 has afforded homeowners in the 33 years since its passage in 1978.

Because under Proposition 13, the point of property value readjustment to market value is set at the point of acquisition by a property owner, many properties today have assessed values that lie below their actual market values—even in today's depressed real estate market. As a result, setting the property valuation to fair market value for assessment purposes would increase property tax revenues.

The prospect of another split roll property assessment proposal was raised last year by the California Tax Reform Association (CTRA) in its report entitled *System Failure: California's Loophole-Ridden Commercial Property Tax,* (dated May 2010). In that analysis, advocates call for a new property tax reform initiative that would impose a split roll assessment system that targets raising commercial property valuations to

fair market value. The purpose of this study is to examine the economic impacts of the model proposed by the CTRA, both in its simplest form and, given today's highly uncertain fiscal environment, under a range of alternate scenarios.

What Form Would a Split Roll Property Valuation System in California Take?

The "split" in split roll comes from the idea of separating residential properties from commercial and industrial properties with a view toward handling the latter differently while preserving the current assessment practices for residential properties. Some split roll advocates include residential rental properties as businesses and other split roll advocates place residential rental properties in the residential category. In this analysis residential rental properties will be handled consistently as residential properties because the most recent proposals focus on insulating both homeowners and renters from the effects of splitting the roll, although the implications of this decision will be addressed later. It is important to understand that the issues raised about commercial and industrial properties introduced in the split roll property tax debate apply equally to residential properties.

There are two general approaches to instituting a split roll tax system in California. One approach changes the rate at which property taxes are assessed on commercial and industrial properties, while the other changes the valuation of these properties for assessment purposes. Since the property tax assessed and collected is the product of these two variables (see Equation 1.1), changing either in the ways proposed would result in these property owners paying higher property taxes.

$$Property\ tax\ assessed = Tax\ rate\ x\ Assessed\ value\ (+\ Special\ Items) \quad [Equation\ 1.1]$$

Some proposals include an intermediate approach whereby the acquisition value approach is modified to allow the assessed valuation to appreciate at a faster rate than the two percent cap introduced in Proposition 13. One proposal offered, for example, to double this rate to four percent. The net effect of this approach is to bring the assessed value closer to the market value while still preserving the simplicity and predictability of the Proposition 13 mechanism. The market value approach most commonly proposed is the same as removing the cap entirely and allowing assessed values to vary with the market value.

This analysis will focus on the approach most recently proposed by split roll advocates to change the assessment of commercial and industrial properties from the current acquisition value approach to a full market value approach.

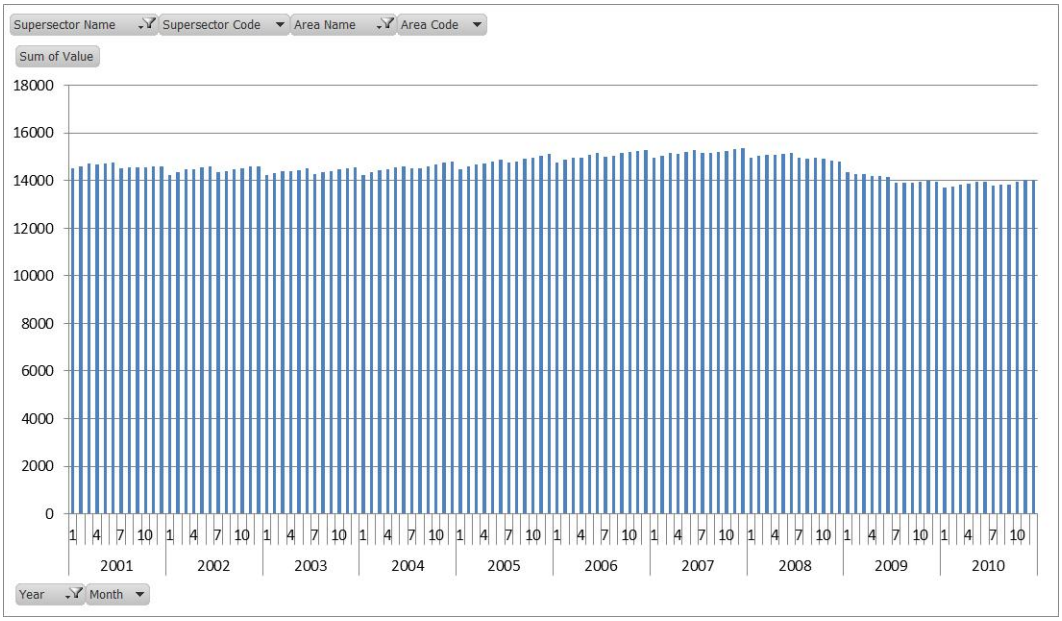
Chapter 2: The Economic Implications of a Split Roll Property Tax

This chapter analyzes the economic impact of instituting a split roll property tax regime in California. The California economy is currently in a state of flux, reflecting its status as one of the epicenters of the recent collapse of the US economy triggered by the collapse of housing bubble. Figure 2-1 below shows the non-farm employment in California from 2000 to 2010. Over this period, non-farm employment in California actually decreased from 14,598,000 in 2001 to 13,750,200 in 20210. There was an increase in non-farm employment in the middle of the decade, peaking at 15,047,900 in 2007, followed by a gradual decline in 2008 and then much more rapid declines in 2009 and 2010.

Figure 2-1. This California Nonfarm Employment, 2001 – 2010

Year	Employment (000s)	Annual Growth
2001	14,598.0	3.0%
2002	14,328.0	-1.8%
2003	14,302.1	-0.2%
2004	14,328.5	0.2%
2005	14,571.6	1.7%
2006	14,885.2	2.2%
2007	15,047.9	1.1%
2008	15,031.4	-0.1%
2009	14,281.4	-5.0%
2010	13,750.2	-3.7%

SOURCE: Bureau of Labor Statistics, US Census, *Current Employment Statistics*, various years.



The most recent study to estimate the employment effects of a split roll proposal was prepared in 2008 by former California Legislative Analyst William Hamm and Dr. Jose Alberro. In their analysis, which was built on the Dynamic Revenue Assessment Model (DRAM), they found an anticipated decline of some

152,400 jobs and a decline in net private investment totaling $2.0 billion. This model, built by the University of California, Berkeley, in conjunction with the California Department of Finance, estimates interactions in the economy over an estimated 3-5 year period in order to understand the future impacts of changes not only in one sector, but iteratively over time. The impact of losing these jobs will be defined in part by which jobs they represent. If they are low-skill, low-wage jobs, then the overall economic impact is less substantial. But if they are like the $120,000 plus per year positions that eBay has announced it is moving to Austin, TX, then the implications are much more dire. Using GDP per job as a crude measure, these 152,400 positions could account for more than $21 billion dollars of Gross State Product.

Modeling the Economic Impact of the Split Roll in California

For the purposes of this analysis, the team developed a more comprehensive and current model that uses the detailed characteristics of the California economy to estimate the year-to-year impacts of the split roll. Computable General Equilibrium (CGE) models, such as the DRAM, are excellent tools for estimating the impacts of a single change in the economy, but they are more problematic for policy interventions that require changes to multiple inputs and components of the model. Since there are multiple effects that must be modeled for the split roll, it was therefore decided to use a modeling approach that will allow the property tax streams to change appropriately over time. The specifics of that approach are presented below.

In the case of the split roll, there are two policy effects that must be modeled: (1) the overall economic impact of the abrupt increase in property taxes in the first year as the assessed values are brought up to fair market values; and (2) the impact of the incremental annual marginal increase in property tax revenues that will arise as the taxable base rises more rapidly than it would have without the property tax change. With these two streams computed, this analysis then uses the IMPLAN Economic Modeling system (a highly regarded and widely used commercial economic impact modeling system) to estimate their impacts on both overall economic output and on employment. The next two sections will describe the issues involved in estimating each this study's approach.

Estimating the Changes in Revenues as a Result of the Split Roll

It is difficult to estimate the changes in the California real estate market over the next decade, or even the next year. Accordingly, this analysis will provide an estimate of the direction, order of magnitude and scale of the changes brought on by the introduction of the split roll. Sensitivity analysis will be used to bound these estimates.

As the table below shows, there has been a marked difference between the growth rates in the total assessed values and the total market values in California's assessment base. As discussed in the previous section, there are three components to annual changes included in these numbers: (1) new construction, (2) turnover in ownership; and (3) different growth rates (largely the limitations imposed by the cap on annual assessed value under Proposition 13). The first two items are controlled for by inclusion of the same values for these properties in both data sets at both the point of new construction and the point of sale. Thus the changes in growth rates are driven by the differences in the annual changes in the two sets of valuations.

Figure 2-2. Estimated Assessed and Market Values and Growth Rates for Commercial and Industrial Properties in California, 2001 - 2009

Year	Total Assessed Value (000s)	Total Market Value (000s)	Assessed Value Annual Growth	Market Value Annual Growth Rate
2001-02	972,485,305	1,298,884,851	---	---
2002-03	1,031,311,811	1,418,849,274	6.0%	9.2%
2003-04	1,086,231,023	1,518,929,816	5.3%	7.1%
2004-05	1,143,786,168	1,742,390,887	5.3%	14.7%
2005-06	1,224,148,563	2,007,660,405	7.0%	15.2%
2006-07	1,349,661,751	2,251,541,014	10.3%	12.1%
2007-08	1,442,709,942	2,487,099,291	6.9%	10.5%
2008-09	1,514,691,725	2,325,192,378	5.0%	-6.5%
Average Annual Growth			**6.5%**	**8.9%**

SOURCE: California Board of Equalization, 4-R Equalization Ratio Memos, selected years.

Clearly, today's real estate and development markets are significantly different that those of the recent past and pure averages therefore are consequently not the best estimators in the short term. In fact, there have been declines in market values in 2008-09, as seen in the table, and in preliminary data from 2009-10.[1] Furthermore, the implementation timeline for a split roll would likely not come until the year 2013 given the political and practical considerations associated with its passage. Consequently, the model developed here estimates these two valuation streams into the future—focusing on the 5-year period 2012-13 through 2016-17. Estimates that include the nine-year period through 2020-21 are sometimes provided for context and magnitude, and to show the ongoing-direction of the trends involved.

The table on the next page shows the estimated assessed and market values for commercial and industrial property in California for the model period. These estimates represent a mid-range scenario, but alternative estimates are provided as well. The assessed valuation starts with the current valuations and then is projected to rise at the historical average of 6.5 percent through 2012-13.[2] The market valuation is calibrated to reflect the initial anticipated revenues from the split roll in the base scenario (see below) for the year 2012-13. Both series are then allowed to grow at one-half the historic rates of growth for the years from 2012-13 through 2020-21. This slower rate was included for three reasons: (1) to reflect the possibility that California's real estate market may recover more slowly over the next decade; (2) the increased taxation on business and commercial properties is likely to place downward pressure on these market values as the cost of holding the properties rises due to the property tax; and

[1] Preliminary information from the State Board of Equalization prepared for the 4-R Equalization Ratio Memos for the May 2011 Board meeting, show a market valuation as low as $1,881 billion (a 19 percent decline from 2008-09) and assessed valuation growing to only $1,523 billion—a negligible 0.6 percent increase.

[2] This allows the analysis to provide the highest level of assessed values under the Proposition 13 cap at the beginning of the simulations.

(3) to take a conservative approach in estimating the impacts associated with removing the Proposition 13 cap from the growth in taxable value. In the sensitivity analysis, this assumption will be revisited and the historical averages will be used to provide an estimate of the impact of this limitation.

Figure 2-3. Estimated Assessed and Market Values for Commercial and Industrial Properties in California, 2001 - 2017

Year	Assessed Value ($billions)	Market Value ($billions)
2001-02	972.5	1,298.9
2002-03	1,031.3	1,418.8
2003-04	1,086.2	1,518.9
2004-05	1,143.8	1,742.4
2005-06	1,224.1	2,007.7
2006-07	1,349.7	2,251.5
2007-08	1,442.7	2,487.1
2008-09	1,514.7	2,325.2
2009-10	1,523.9	1,881.1
2010-11	1,605.1	2,013.8
2011-12	1,690.5	2,155.8
2012-13	1,801.2	2,409.9
2013-14	1,860.2	2,517.2
2014-15	1,921.1	2,629.3
2015-16	1,984.0	2,746.3
2016-17	2,049.0	2,868.6

SOURCE: California Board of Equalization, 4-R Equalization Ratio Memos, through 2009-10, research estimates through 2016-17.

Generally, the differences between these two columns of numbers in the shaded area represent the economic impacts about which this analysis is concerned. There are two components to this change: (1) the initial effects of implementing the split roll; and (2) the faster growth allowed in taxable value when the Proposition 13 cap is removed.

The first component that needs to be identified is the immediate effect of instituting the split roll. Supposing that the split roll was instituted in 2012-13 in the table above, it would represent the entirety of the difference between the assessed valuation under Proposition 13 (the first column) and the market valuation given in column 2, or $608.7 billion. Using the general one percent assessment as the measure, this would result in additional property taxes due from commercial and industrial property owners totaling $6.087 billion. The amount of this impact is defined exclusively by the difference between assessed value at the point of the implementation of the split roll and fair market value as

assessed by the assessor. The most consistently developed series of these two measures for commercial and industrial properties is the Board of Equalization's estimates for the 4-R Act Ratio that they prepare to comply with federal requirements that railroad property be assessed at the same ratio as all other business property. The table below presents the assessed and market values prepared for those calculations for the last 8 years. If property owners were taxed at the market values listed, the fourth column shows the resultant cumulative estimated increase in property taxes for those property owners whose property was assessed below market value because of Proposition 13's cap on the growth in assessed value.

Figure 2-4. Estimated Assessed and Market Values for Commercial and Industrial Properties in California, 2001 - 2009

Year	Total Assessed Value (000s)	Total Market Value (000s)	Estimated Property Tax Gain from Split Roll (000s)
2001-02	972,485,305	1,298,884,851	3,263,995
2002-03	1,031,311,811	1,418,849,274	3,875,375
2003-04	1,086,231,023	1,518,929,816	4,326,988
2004-05	1,143,786,168	1,742,390,887	5,986,047
2005-06	1,224,148,563	2,007,660,405	7,835,118
2006-07	1,349,661,751	2,251,541,014	9,018,793
2007-08	1,442,709,942	2,487,099,291	10,443,893
2008-09	1,514,691,725	2,325,192,378	8,105,007
Average 2001-02 to 2004-05			**4,363,101**
Average 2005-06 to 2008-09			**8,850,703**

SOURCE: California Board of Equalization, 4-R Equalization Ratio Memos, selected years.

Note that the table shows two clusters of valuations: from 2001-02 through 2004-05, with an average gap of some $4.36 billion and 2005-06, with an average gap of $8.85 billion. Since the net revenue is probably less than the amount listed in the fourth column,[3] this analysis centers its baseline scenario on a net increase in property taxes totaling $6.0 billion—the rough midpoint between the two clusters. A sensitivity analysis will also be presented below, wherein the values are set to the two averages. Note that this amount is adjusted for inflation over time. To keep the analysis simple, the inflation factors from the IMPLAN Economic Modeling system were used.[4] The values listed in column D are equivalent to $600 billion in constant 2011 dollars; when taxed at a 1% rate, this impact is equal to $6 billion in additional property tax revenue.

[3] The property tax is tax deductible, meaning that a rise in property taxes is partially offset by a decline in income taxes. Additionally, there will be increased administrative costs.

[4] See the section on Estimating the Economic and Employment Impacts of the Split Roll for a table containing these inflation factors.

Figure 2-5. Estimated Assessed and Market Values for Commercial and Industrial Properties in California, 2011 – 2017 (in billions of dollars)

A Year	B Assessed Value	C Market Value	D Split Effect with Inflation	E Effect of Removing Cap	F Total Taxable Valuation Increase
2012-13	1,801.2	2,409.9	608.7	0.0	608.7
2013-14	1,860.2	2,517.2	618.4	38.6	657.0
2014-15	1,921.1	2,629.3	629.0	79.1	708.2
2015-16	1,984.0	2,746.3	640.6	121.7	762.3
2016-17	2,049.0	2,868.6	653.1	166.5	819.6

Column E contains the estimate of the second piece of the equation for the marginal impact of a split tax roll. Just as the current market values are higher than assessed values allowed under Proposition 13 for many properties, each year into the future that the growth in market values exceed the allowable growth under Proposition 13,[5] the taxpayer must pay more in property taxes. Note how column E grows over time,[6] demonstrating how Proposition 13 benefits taxpayers by slowing the growth of assessed valuation. Removing this constraint results in an expanding pool of new property tax revenues—which in turn will suppress an increasing quantity of economic activity and jobs

Estimating the Economic and Employment Impacts of the Split Roll

With the amounts in Column F in the above table, we can now turn to question of the economic and employment consequences of taking this much money out of the local economy. To perform these estimates, the research team used the California statewide model from IMPLAN®.[7] The models were built using data calibrated to the 2009 year and built on an industry-level basis.[8] IMPLAN is an input-output oriented modeling system. It breaks the economy down in to approximately 400 sectors and uses extensive input-out coefficient matrices and tables to iteratively estimate the dynamic effects of

[5] Note that this comparison assumes that properties will appreciate at one-half historical rates. If the current downturn in property values were to continue indefinitely, this column would be less and could approach $0. Note also that the yield of splitting the tax roll (one percent of the amount in column D) would also decline. In the extreme case, a prolonged recession with continued, sustained, and long-term declines could eventually render the debate split roll property tax regime moot as full market values could decline below assessed values. At that point, the net yield to the public finance system of the proposed split roll would be $0 since the two would be equal as properties were reassessed downward to FMV.

[6] The rate at which properties will appreciate is also a dimension addressed in the sensitivity analysis at the end of this section.

[7] Minnesota IMPLAN Group, *IMPLAN Economic Modeling* system, 2011, proprietary data, http://implan.com/V4/Index.php, accessed May 27, 2011.

[8] Given the major shifts in the California economy over the past several years, the use of the 2009 structural matrices is critical to producing appropriate estimates.

policy interventions on the economy. The model computes in both real and nominal dollars. To simplify comparisons with other budget estimates, the values and tax flows identified in this analysis are reported in nominal dollars (unless otherwise indicated). The inflation factors from the IMPLAN model were used throughout this analysis to ensure consistency and comparability. The table below shows the inflation factors built into the IMPLAN Economic Modeling system.

Figure 2-6. IMPLAN Model Inflation Factors
2011 - 2020

Year	IMPLAN Inflation Rate
2012	1.45%
2013	1.59%
2014	1.72%
2015	1.84%
2016	1.95%
2017	2.05%
2018	2.14%
2019	2.22%
2020	2.29%

SOURCE: IMPLAN Economic Modeling System, v. 3.0.

Who Pays the Increased Taxes Affects the Magnitude and Distribution of the Economic Impact of the Split Roll Tax Increase

One important question that influences the estimates of the impact of the split tax roll is who will pay the taxes. In an ideal world, an analysis would have detailed data on the businesses and behaviors associated with each establishment's property taxes so that the model could precisely identify which businesses and sectors of the economy will end up paying the higher property taxes. In practice, these data are not only not available, but the information that is available is highly aggregated and contains little detail on even land use, let alone the specific types of businesses that will pay the tax.

This distinction is important. If the burden of the increased property tax is borne by manufacturing firms, for example, a relatively small fraction of their total expenditures are for labor as they must also spend significant funds on the inputs of their manufacturing processes. In the manufacture of a car, for example, a considerable amount of the cost of that car is for the purchase of steel, plastics, glass, tires, etc. Compare this to a temporary staffing or advertising agency where the main expenditures are on labor and little is invested in the physical "inputs" of the business. Here a decrease in spending is *much* more likely to have a larger impact on labor. To provide some context, the following table summarizes the total number of jobs lost per million dollars of reduced spending for each of the seven aggregated

summary-level, nongovernment economic sectors in the state. So a dollar spent on property taxes in manufacturing will have a much smaller impact on overall employment (about one-sixth the effect) than one spent by a service or trade-oriented business. Remember that the amounts here are aggregated, so the differences are even greater within some specific sectors. The comparable multiplier for the *Food Services and Drinking Establishments* sector, for example, is 31.25 jobs lost per million dollar decrease in revenues.

Figure 2-7. Aggregated Job Loss Multipliers for Revenue Decreases in California Economy, 2011

Description	Total Jobs lost / $million in lost revenues
Overall	**11.73**
Agriculture	14.82
Mining	6.67
Construction	7.68
Manufacturing	3.13
Transport and Utilities	9.04
Trade	17.86
Service	15.22

SOURCE: IMPLAN California 2009 model.

As a result of this variation, the question of who pays is critical. Unfortunately, no data set is available to delineate the distribution of the tax increase by sector. To be as conservative as possible, this analysis assumes that the distribution of the increased level of property taxes is spread evenly across the entire California economy. A similar set of issues exist with respect to the overall economic impacts of net revenue losses in each of the different sectors; the overall economic impact will change depending on the sector in which the tax increases are concentrated.

For purposes of this analysis, the sectoral share of the property tax increases from splitting the tax roll are prorated across the entire spectrum of industries and sectors using each sector's output[9] to weight the allocation. This relatively conservative assumption gives each business an equal chance that their pass-throughs on their lease, for example, will be more severely affected by the splitting of the tax roll. A subsequent sensitivity comparison will present the overall effects of relaxing this assumption.

Modeling Accounts for Multiple Economic and Employment Effects

Input-output models are solved computationally using iterative analysis to estimate the flow-through effects of effects of the decrease in net revenues that business will experience by diverting more of their resources to paying their property taxes. There are three types of effects that arise from a business spending more on their taxes: (1) direct effects; (2) indirect effects; and (3) induced effects.

[9] The concept of output in this modeling context represents each sector's total spending on goods, services and labor across the economy.

A **direct effect** is the explicit change in revenues caused by the policy choice—in the case of our baseline scenario—the decrease in net revenues associated spending $6 billion more in aggregate on property taxes. This results in lower net revenues for businesses in each affected sector (all sectors in the baseline scenario). As a result, these businesses have less income and, on the margin, hire fewer workers.

Once a business is paying more in taxes, it has fewer resources to spend on purchasing goods and labor to produce its products and it consequently buys fewer inputs to its trade and hires fewer employees. These firms in turn purchase less from their vendors and hire fewer employees. These are identified as the **indirect effects** of the net revenue decrease.

Finally, as employees earn less, or as fewer are employed, they purchase fewer goods and services for their personal use—resulting in yet another round of decreases in overall economic activity. These are the **induced effects** of the original net revenue decrease. This analysis identifies the relative scope and scale of each of these three effects.

The Economic and Employment Effects of the Split Roll

The economic and employment effects of the split roll are significant and, because of the removal of the Proposition 13 cap on growth in assessments, the impacts would likely continue to grow over time. The baseline scenario presented in this section represents the mid-range estimate of these economic and employment effects. It assumes that the split roll is instituted in 2013 and that the initial adjustment results in the increase of property taxes by some $6 billion. Note that this is a significant increase in a tax stream that only totaled approximately $50 billion in 2009-10.

The following table summarizes the five-year estimated impacts of splitting the property tax roll on employment in California. Overall it is estimated that 396,345 jobs would be lost over the first five years of the proposed tax increase—a number that would grow in each subsequent year. Five years later, in 2021-22, the annual estimated impact would total almost 112,000 additional jobs lost annually.

Figure 2-8. Estimated Number of Jobs Lost as a Result of Imposing a Split Assessment Roll in California, 2012 - 2017

Year	Direct Effects	Indirect Effects	Induced Effects	Total Effects
2012-13	34,423	15,783	20,154	70,360
2013-14	36,572	16,769	21,413	74,754
2014-15	38,752	17,768	22,689	79,210
2015-16	40,961	18,781	23,982	83,724
2016-17	43,198	19,807	25,292	88,296
Five-year Total	193,906	88,908	113,531	396,345

The economic impacts are significant as well, as shown in the next table. In fact, for every dollar of new property tax imposed by the split roll, there is more than another dollar of economic output lost through indirect and induced effects. Cumulatively, these effects total nearly $72 billion dollars in our five-year window and $102.5 billion for the next five years (not presented on this table).

Figure 2-9. Estimated Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017 (billions of dollars)

Year	Direct Effects	Indirect Effects	Induced Effects	Total Effects
2012-13	6.087	3.014	3.182	12.283
2013-14	6.570	3.253	3.434	13.257
2014-15	7.082	3.507	3.702	14.290
2015-16	7.623	3.775	3.985	15.383
2016-17	8.196	4.059	4.284	16.539
Five-year Total	35.557	17.608	18.586	$71.751

Sensitivity Scenarios

How sensitive are these results to the assumptions included in the model design? To assess the sensitivity of the models, several scenarios were developed using alternative assumptions. These scenarios center around three sets of assumptions:

1. **Margin between assessed and market value.** The amount of the difference between assessed value and market value at the point of implementation of the split roll was assumed to be $6.0 billion dollars in 2011 dollars. What if that amount is allowed to vary to reflect the differences observed historically? To provide a context for this analysis, these amounts will be presented for two additional scenarios: (1) the margin is only $4 billion (among the lower values historically); and (2) the margin is $10 billion (just under the largest margin estimated by the California Board of Equalization in its 4 R Act Ration computations.
2. **Property value growth rates.** For reasons explained above, the model assumes a growth rate for the study years of one-half the average annual growth rate for the years 2001-02 through 2008-09. The effects of the split roll will be re-estimated using a property value growth rate (for both assessed and market values) equal to the average for this historical period, or twice that used in the above analysis.
3. **Distribution of property tax burden by industry sector.** The baseline scenario pro-rates the new property tax burden across the entire economy weighted by each sector's relative share of total output—thereby reflecting an assumption that those properties with lower assessed values can be found evenly throughout the economy. An alternative scenario will be examined whereby these shifts are concentrated in the service and trade (retail and wholesale) sectors by increasing their relative share of the property tax burden by 25 percent, then allocating the balance by their relative market shares. This reflects the perspective that it is lessees and

businesses driven less by capital investment that will bear the brunt of the higher tax assessments.

The results from each of these scenarios are presented below.

Margin Between Assessed and Market Valuation at Time of Implementation

Changing the margin between the assessed and market valuation at the point of the initial implementation of the split roll has a direct and significant impact on the overall impact of the initiative that is generally directly proportional to the changes in the difference in the magnitude. The following table shows the results for a $4 billion difference, representing a difference between the assessed valuation and the market valuation of $400 billion for commercial and industrial properties. This amounts represents the typical historical low for this difference.

Figure 2-10. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, Low Marginal Difference Between Assessed and Market Value Scenario

Scenario Employment Effects *(jobs lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	22,948	10,522	13,436	46,907
2013-14	24,775	11,360	14,506	50,641
2014-15	26,639	12,214	15,597	54,450
2015-16	28,537	13,085	16,708	58,330
2016-17	30,469	13,970	17,839	62,279
Five-year Total	133,369	61,151	78,086	272,606

Scenario Output Effects *(billions of dollars of output lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	4.058	2.009	2.121	8.300
2013-14	4.451	2.204	2.326	9.103
2014-15	4.868	2.411	2.544	9.957
2015-16	5.311	2.630	2.776	10.863
2016-17	5.781	2.863	3.022	11.825
Five-year Total	24.468	12.117	12.790	49.375

Changing the difference in valuation upward has a similar but opposite effect from our baseline scenario. The following table shows the results for a $10 billion difference, representing a difference between the assessed valuation and the market valuation of $1 trillion for commercial and industrial properties. This amount captures the approximate estimated difference between the two valuations at the peak of the real estate boom.

Figure 2-11. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, High Marginal Difference Between Assessed and Market Value Scenario

Scenario Employment Effects *(jobs lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	57,371	26,305	33,590	117,267
2013-14	60,167	27,587	35,227	122,981
2014-15	62,979	28,877	36,874	128,730
2015-16	65,809	30,174	38,531	134,513
2016-17	68,655	31,479	40,197	140,332
Five-year Total	314,981	144,423	184,419	643,823

Scenario Output Effects *(billions of dollars of output lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	10.145	5.024	5.303	20.471
2013-14	10.808	5.352	5.650	21.810
2014-15	11.509	5.699	6.016	23.223
2015-16	12.247	6.065	6.402	24.714
2016-17	13.026	6.451	6.809	26.286
Five-year Total	57.735	28.590	30.179	116.505

Property Value Growth Rates

Another critical assumption in the baseline analysis was that the real estate market has substantively changed, at least for the period of time covered by this analysis and that the "new" real estate environment will result in a slower growth rate in both assessed and market valuations. This is fueled by three anticipated effects: (1) a very weak and slow-to-recover marketplace; (2) the downward pressure on prices introduced by increasing the carrying cost and/or decreasing the returns of holding real properties; and (3) a possible slowdown in the development and construction of new properties (fueled

by both flagging demand and a difficult credit environment). The baseline model, this study's core estimate of the impacts of the split roll, does this by assuming that growth for the period analyzed in both valuation series is at one-half historical rates.

The following table, however, provides the estimated impacts of the split roll on the economy if historical average rates were used instead.

Figure 2-12. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, Historical Assessed and Market Value Growth Rate Scenario

Scenario Employment Effects *(jobs lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	34,423	15,783	20,154	70,360
2013-14	39,262	18,002	22,988	80,252
2014-15	44,507	20,407	26,059	90,973
2015-16	50,181	23,009	29,381	102,571
2016-17	56,309	25,818	32,969	115,096
Five-year Total	224,682	103,019	131,550	459,251

Scenario Output Effects *(billions of dollars of output lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	6.087	3.014	3.182	12.283
2013-14	7.053	3.493	3.687	14.232
2014-15	8.133	4.028	4.251	16.412
2015-16	9.339	4.625	4.882	18.845
2016-17	10.684	5.291	5.584	21.559
Five-year Total	41.296	20.450	21.586	83.331

Distribution of New Property Tax Burden By Sector

Finally, there is the question of who (which industries) will bear the burden of the new, elevated property taxes. In the baseline scenario, the study assumes that these effects will be widely distributed and equally born by ALL sectors of the economy. It is possible, however, that these effects could be concentrated in certain sectors. One argument is that manufacturing is a mature and declining industry in the state, thus it is likely to be the sector wherein the properties that have been the longest without revaluation are concentrated. Another argument is that these properties are concentrated in the hands of partnerships and corporations that have purchased these locations for investment purposes, and thus

the effects are more likely to be concentrated in businesses that lease their properties and thus bear the costs through their triple-net leases. This would lean toward an over-representation of service sector and trade sector (especially retail) firms. Because of the differences in the relative importance of capital in each of these sectors, these concentrations could have significant impacts on the results of the economic impact analysis.

To provide insight into the potential implications of the baseline assumption of widespread distribution of the impacts, two additional scenarios are analyzed here. The first estimates what would happen if the effects were concentrated in the service and trade sectors, which together account for 61.4 percent of the overall output[10] in the state. This was done by introducing a 25 percent increment to their shares of the impacts and then spreading the balance across each of the other sectors relative to their initial shares of overall output. The results are presented in the following table.

Figure 2-13. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, New Property Tax Burden Concentrated in Service and Trade Scenario

Scenario Employment Effects *(jobs lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	39,143	17,948	22,918	80,009
2013-14	41,588	19,069	24,350	85,006
2014-15	44,067	20,205	25,801	90,073
2015-16	46,578	21,357	27,271	95,206
2016-17	49,122	22,523	28,761	100,405
Five-year Total	220,498	101,101	129,100	450,700

Scenario Output Effects *(billions of dollars of output lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	6.348	3.144	3.318	12.810
2013-14	6.852	3.393	3.582	13.827
2014-15	7.385	3.657	3.860	14.903
2015-16	7.950	3.937	4.156	16.043
2016-17	8.548	4.233	4.468	17.249
Five-year Total	37.084	18.364	19.384	74.831

[10] It is important to note that overall output in the context of these models is not directly equivalent to Gross State Product, but rather a broader measure that includes both value added (the prime item measured in GSP) as well as their purchases of inputs and intermediate goods.

Alternatively, the consequences of the split roll could be concentrated in more capital-intensive sectors, such as manufacturing, construction, and transportation and utilities. Accordingly, an alternative estimate was prepared wherein the same 25 percent increment was applied to these sectors with the residual tax impact allocated across the remaining sectors, again proportional to their individual shares of overall output. The results of this simulation are presented in the table below.

Figure 2-14. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, New Property Tax Burden Concentrated in Manufacturing, Transportation, Utilities and Construction Scenario

Scenario Employment Effects *(jobs lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	31,535	14,459	18,463	64,457
2013-14	33,504	15,362	19,616	68,483
2014-15	35,501	16,278	20,786	72,564
2015-16	37,524	17,205	21,970	76,700
2016-17	39,574	18,145	23,170	80,889
Five-year Total	177,638	81,449	104,006	363,092

Scenario Output Effects *(billions of dollars of output lost)*

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2012-13	5.932	2.938	3.101	11.971
2013-14	6.403	3.171	3.347	12.921
2014-15	6.902	3.418	3.608	13.927
2015-16	7.429	3.679	3.883	14.992
2016-17	7.988	3.956	4.175	16.119
Five-year Total	34.654	17.161	18.114	69.929

Overview of Sensitivity to Assumptions

As can be seen from all of these simulations, the assumptions used can change the expected impacts of introducing a market-value based taxation assessment system in California. The table below provides an overview of the several sensitivity scenarios presented above. As can be seen from this table, the baseline scenario lies cleanly in the middle of the alternative estimates along each dimension. The estimations are MOST sensitive to the magnitude of the initial tax increase that will be borne by

businesses—a reasonable question. It is also one of the areas subject to the greatest uncertainty and the authors would recommend investing any new research resources on this issue to narrowing the bands of uncertainty about the gap between assessed and market valuation in the California property taxation system. The growth rate assumption is also an important question, but the authors believe that the more conservative approach included in the baseline provides a reasonable estimate of what is likely to happen. The final area of analysis—the composition of the sectors most likely to be impacted, could easily be clarified as part of the study recommendation above, although it is worth noting that the net overall uncertainty here is only about plus or minus ten percent—quite reasonable in an analysis of this type.

Figure 2-15. Estimated Employment and Economic Output Lost as a Result of Imposing a Split Assessment Roll in California, 2012 – 2017, Impact Overview

Scenario Employment Effects *(jobs lost)*

		Initial Valuation Margin		Growth Rates	Sectors Bearing New PT Burden	
Year	Baseline	Low Margin	High Margin	Historical	Service & Trade	Mfg, Transp, Util, Constr
2012-13	70,360	46,907	117,267	70,360	80,009	64,457
2013-14	74,754	50,641	122,981	80,252	85,006	68,483
2014-15	79,210	54,450	128,730	90,973	90,073	72,564
2015-16	83,724	58,330	134,513	102,571	95,206	76,700
2016-17	88,296	62,279	140,332	115,096	100,405	80,889
Five-year Total	396,345	272,606	643,823	459,251	450,700	363,092

Scenario Output Effects *(billions of dollars of output lost)*

		Initial Valuation Margin		Growth Rates	Sectors Bearing New PT Burden	
Year	Baseline	Low Margin	High Margin	Historical	Service & Trade	Mfg, Transp, Util, Constr
2012-13	12.283	8.188	20.471	12.283	12.810	11.971
2013-14	13.257	8.981	21.810	14.232	13.827	12.921
2014-15	14.290	9.823	23.223	16.412	14.903	13.927
2015-16	15.383	10.717	24.714	18.845	16.043	14.992
2016-17	16.539	11.666	26.286	21.559	17.249	16.119
Five-year Total	71.751	49.375	116.505	83.331	74.831	69.929

Finally, there is the question of what happens if the baseline is wrong in the same direction on all three dimensions. In this case, the upper-bound estimate in this study, the total impact topped out at 829,345 jobs lost in the five-year window,[11] with a gross effect on economic output totaling $137.9 billion for the five-year window of the study. On the low side,[12] and the authors believe this would be an almost absolute floor for the estimated impact of the split roll in California, the net impact was 249,735 jobs lost and $48.1 billion dollars of economic activity lost.

Generally, the sensitivity results corresponded with what one might reasonably expect and the magnitudes were consistent with the scale of the changes anticipated. The extent to which market value exceeds current assessed valuation will be the critical link in defining the impact of implementing a split roll on the California economy.

Implications of Using Alternative Split Roll Regimes

As mentioned above, this analysis focuses on the core split roll proposal that has most recently been advanced by the CTRA and other advocates of these regimes. These estimates represent the best estimate of the likely impact of a split roll regime that is implemented by removing the two percent assessed valuation limit set by Proposition 13 and effectively assessing commercial and industrial properties at fair and full market value. Two alternative approaches have been mentioned by various split roll tax regime advocates and they are discussed briefly below: (1) increase the one percent rate on commercial and industrial properties to some higher amount; and (2) allow the assessed value of commercial and industrial properties to appreciate at a higher rate than the two percent cap introduced by Proposition 13.

Increasing the One Percent Rate on Commercial and Industrial Properties

If the split roll were implemented by rate changes, then the effects would reflect a direct proportional increase in total property tax revenues paid by commercial and industrial taxpayers. The first consequence of such an approach is to remove the entire "fairness" justification from the policy debate[13] and to acknowledge that the split roll proposal is most simply intended to make businesses pay higher taxes. For example, if the rate were doubled to 2.0 percent, then the property taxes paid by all commercial and industrial property owners in the state would double from $20.49 billion in 2016-17 to $40.98 billion.

In this approach, the current assessment system would be preserved, but instead of imposing the 1.0 percent property tax assessment required under Proposition 13, business would be taxed at a higher rate, say 1.5 or 2.0 percent. In the 2.0 percent example above, the impact of the increase would be roughly three times the amount estimated for the full-market assessment split roll regime analyzed

[11] In this approach, the initial margin was set to $10 billion, the valuation growth rates were set to historical averages, and the impacts were concentrated in the service and trade sectors.

[12] In this scenario, the initial margin was set to $4 billion, the valuation growth rates were set to one-half historical averages, and the impacts were concentrated in the manufacturing, construction, transportation and utility sectors.

[13] This is the argument that current taxpayers who own comparable properties pay different levels of property taxes because of they purchased their properties at the same time.

previously and the impacts would be roughly twice those identified in the high-differential scenario presented in Figure 2-11, or some 1.3 million lost jobs and $233 billion in lost economic activity. These are rough estimates that provide a general sense of the magnitude of the impact of such a split roll tax regime.

Changing the Assessed Valuation Growth Cap

Another approach to instituting a split roll property tax regime is to increase the cap on the annual growth in assessed valuation from its current 2.0 percent to a higher level, say 4.0 or 6.0 percent. This has the net impact of increasing the total property taxes paid by an amount less than the $6 billion estimated above. The impact of instituting such an approach would depend on (1) the actual rate actually selected; (2) to what extent it is retroactively applied;[14] and (3) the changes in the market value of commercial and industrial real estate into the future.

If the rate cap is set higher than the average annual rate of appreciation, or applied back in time to the extent that assessed value is allowed to grow at a rate equal to full market value, then the economic impacts of this approach would be comparable to those presented in this analysis. If they are set at a lower level, then these impacts above could be mitigated, depending on the specific cap established and the extent to which they are applied back in time to the property's value. A more detailed analysis of the assessed values of real estate at the property level in each county would have to be conducted to precisely estimate the impact. Any increase in net overall property taxes, however, will result in job losses and decreases in overall economic output.

[14] This is important since, the earlier the change is applied, the more closely the assessed value would correspond to full market value.

Chapter 3: How Is Business Impacted by the Imposition of the Split Roll?

This section of the report will examine three consequences of the implementation of the split roll tax regime: (1) how do these changes affect the overall economic and tax landscape (macroeconomic impacts); (2) how do these changes affect businesses directly (microeconomic impacts); and (3) what types of businesses are likely to be impacted? Each of these sets of issues carries important implications for California's economy and workforce. If the split roll is introduced as discussed in Sections One and Two, it is expected to raise both the taxes paid by commercial and industrial property owners[15] and the revenues received by governments.

Economy-wide Macroeconomic Effects of the Split Roll

The imposition of $3 – 8 billion dollars in new taxes on businesses will have significant effects on the California economy. Given that these costs are purely on the business side of the ledger, tax theory tells us that consumers will likely pay these costs through higher prices in the long run. In the short-to-mid-term, however, these price changes will have significant implications for the industries and sectors affected.

It will also increase the incentives to develop by making the costs of holding vacant land higher and encourage local governments to prefer these uses over residential properties because of their proportionately higher "yield' in property tax revenues. This effect is likely to exacerbate the current tendency of local communities to favor sales tax-generating and hotel tax-generating properties over other forms of development (the "fiscalization of land use.") In the long run, this could lead to the underproduction of housing and upset the regional balance between jobs and housing for the people who hold them (the jobs-housing balance).

It will also increase rents for business renters who have pass-through leases (the "triple-net lease" is the most common form) and create downward pressure on the prices of commercial and industrial properties.

Price Effects on Properties

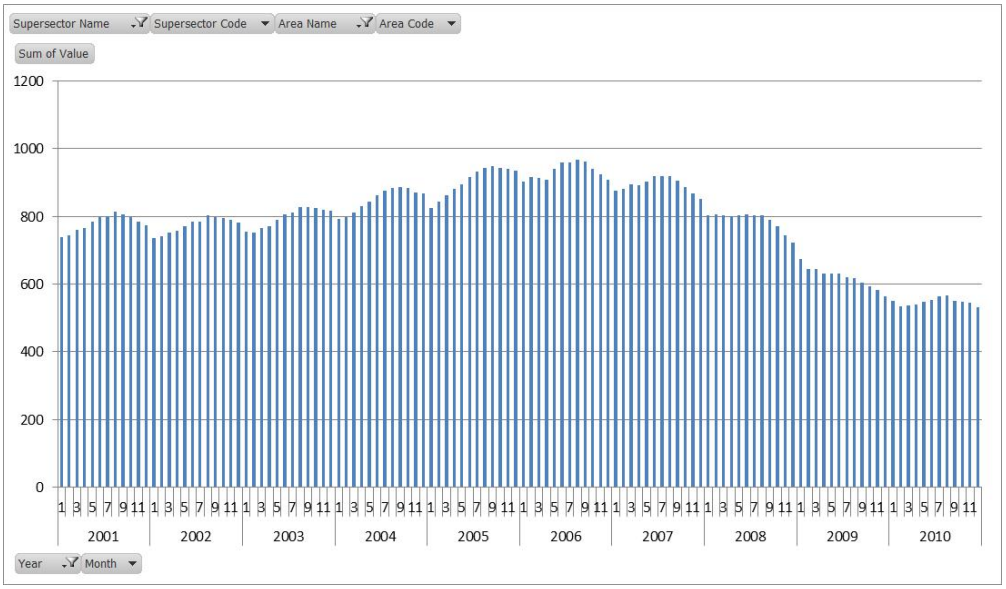
Specific estimates of the impact of the split roll on existing property prices have been limited. Conceptually, the increase in property taxes will force land owners to pay more annually for the land they own, thereby making it less attractive and reducing prices. Proponents of the split roll tout this as making land "more affordable." The decreasing desirability of holding land is partially offset by the implicit incentive to make the land more productive by developing it while simultaneously making the risks associated with developing it greater through higher uncertainty about the future cost of holding the land (the uncertainty of paying property taxes on fair market value). This is likely to further forestall recovery in the construction sector of the economy, which, as the table below shows, has already absorbed significant losses in the current business cycle.

[15] For purposes of this discussion, residential rental properties will not be included in our framework, even though there are those enterprises that explicitly are in the business of renting properties to individuals. Also left unaddressed in this discussion is the development of mixed-used properties where residential properties are co-located in the same development as commercial space.

Figure 3-1. California Employment in Construction, 2001 – 2010

Year	Employment
2001	742.9
2002	742.5
2003	752.3
2004	798.3
2005	844.8
2006	916.0
2007	879.9
2008	804.8
2009	644.7
2010	533.0

SOURCE: Bureau of Labor Statistics, US Census, *Current Employment Statistics*, various years.



SOURCE: Bureau of Labor Statistics, US Census, Construction, *Current Employment Statistics*, various years.

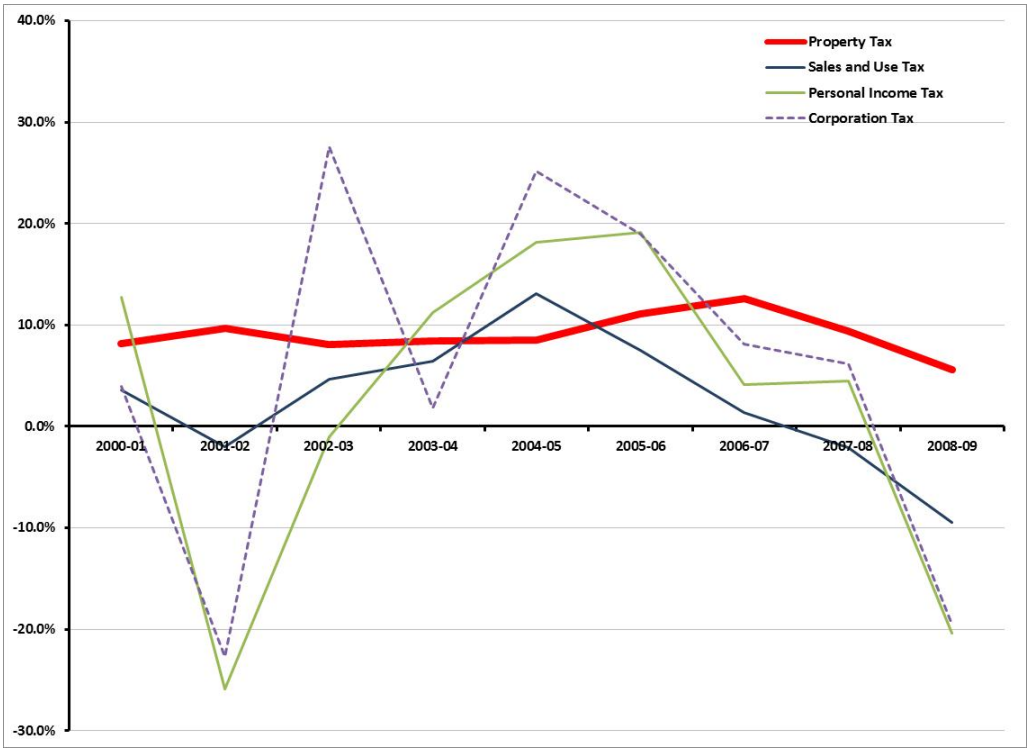
Increasing Volatility

The property tax has long been viewed as one of the preferred mainstays of local finance for its stability over time. As Dr. Sheffrin describes the virtues of the split roll in his testimony before the Commission on the 21st Century Economy, "it would increase the share of the tax base from property taxation, which is one of the more stable components of a revenue structure." [16] The figure below shows the stability of the property tax relative to the other three major revenue streams in the California state and local fiscal

[16] Sheffrin, Steven M. *Economic Aspects of a Split-Roll Property Tax*, testimony provided to the Commission on the 21st Century Economy, February 2009, http://www.cotce.ca.gov/documents/reports/documents/Economic%20Aspects%20of%20A%20Split.pdf, accessed May 5, 2011, 3 pp.

system—the sales tax, the personal income tax, and the corporate income tax. Because of the slower response of property markets to economic shocks and the presence of the acquisition-based assessment process of Proposition 13, the property tax is much more stable than the other three revenue streams.

Figure 3-2. Comparison of Annual Growth Rates in Selected Tax Streams, California, 2000 - 2009

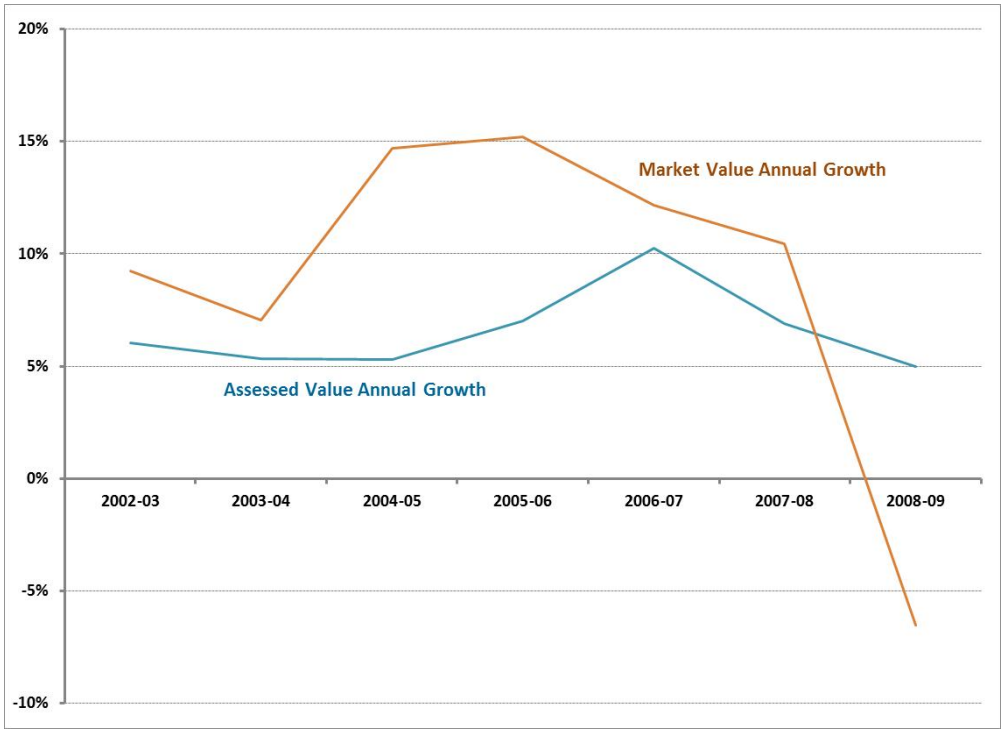


SOURCE: California Board of Equalization, 4-R Equalization Ratio Memos, selected years (Property tax), *California Governor's Budget 2011-12*, Statistical Appendix, Schedule 3.

However, adoption of the split roll valuation system whereby properties are valued at or nearer market value would go a long way to undermining the stability introduced by the two percent appreciation cap under Proposition 13. Because of this limit on the growth of assessed value, any increase in market values above 2 percent creates a well of value held in reserve from which value can be extracted. For example, in 2008-09 when California property values faced the traumatic decline in the wake of the sub-prime crisis and the market collapse (industrial and commercial values feel 6.5 percent), property taxes collected from these same properties actually rose 5.0 percent.

Moving to a market value for the commercial and industrial assessments would reintroduce some of that volatility to this important tax stream. The figure below shows the changes in assessed values over the last decade relative to the change in market values. As this figure shows, the swings are much larger with market values than the assessed values.

Figure 3-3. Comparison of Annual Growth Rates, Assessed Value and Estimated Market Value, Commercial and Industrial Properties, 2001 - 2009



SOURCE: California Board of Equalization, 4-R Equalization Ratio Memos, selected years.

Business Climate Effects and the Effect on New Business

One implication of an increase in the property tax is that California could make itself less attractive as a business "destination" relative to other, lower cost regions of the country. In the long run especially, the relative cost of doing business does matter in firm location decisions. Clearly there are a range of other factors including climate, skilled and specialized workforces, industry concentrations, resource availability, transportation and energy infrastructure, and even quality of life, which are believed to also shape this question, but tax levels are certainly an important factor.

A recent Public Policy Institute of California study[17] shows us what common sense tells us—business climate matters to decision makers in corporate boardrooms and to entrepreneurs in garages. In that study, the authors found that measures of business friendliness that "focus on taxes and costs demonstrate a clear relationship with employment growth and, to a lesser extent, wage and Gross State Product growth." They go on to argue that California's poor showing in business climate indexes is offset by its natural advantages, including good weather. They conclude that "a better business climate would promote faster economic growth in California." While they caution that business climate arguments can often be overstated, absent the ability to improve California's already remarkable weather or improve other factors that they identify as beyond policymakers' control, business climate remains one of the few areas where policy can make a difference.

[17] Kolko, Jed, David Neumark and Marisol Cuellar Mejia. *Business Climate Rankings and the California Economy*, PPIC Monograph Report, April 2011, 31 pp.

California's business climate has benefitted for the last three decades from its relatively low property tax burden. Scholars repeatedly cite California as a middle-tax state, but that status is almost always generated by its relatively low property tax. In nearly every other tax category for business to consider—income taxes (both personal and corporate), sales tax, license fees, etc.—California is among the highest. It is only our relatively low property tax levels that keep California in the middle.

In the recent newgeography.com rankings,[18] California's top city ranked 155th out of the 398 Metropolitan Statistical Areas (MSAs) rated in that survey. In fact, California's 28 MSAs were high-profile residents of the bottom of the ranks, including the lowest ranked large city (employment > 450,000 jobs), Oakland.

Business-level or Microeconomic Effects of the Split Roll

Beyond the broader, economy-wide changes introduced by a split roll, there are the specific issues of how the increased property tax will play out at the firm-level. One common mistake in considering the effects of the split roll is to assume that commercial and industrial property owners are a homogenous group and that the increased property tax will affect all businesses equally. In practice, there are loosely two types of business-property owner relationships that will be most impacted by the split roll: (1) businesses that have owned their property for a long time and that occupy that property; and (2) property owners who have owned the property for a long time but lease that property to other businesses. The split roll affects these two groups quite differently.

Effects on Businesses that Own Their Properties

In the case of businesses that occupy or operate on the properties they have owned for significant periods of time, the tax increase comes as an increase in the cost of doing business. For those who sell the property, there is downward pressure on their net sales price because of the increased cost of holding the property—it is cheaper in the long run to take a lower price than it is to pay higher taxes on the property. For buyers, they are willing to pay less for the property in anticipation of future but uncertain increases in property values and this their tax obligations.

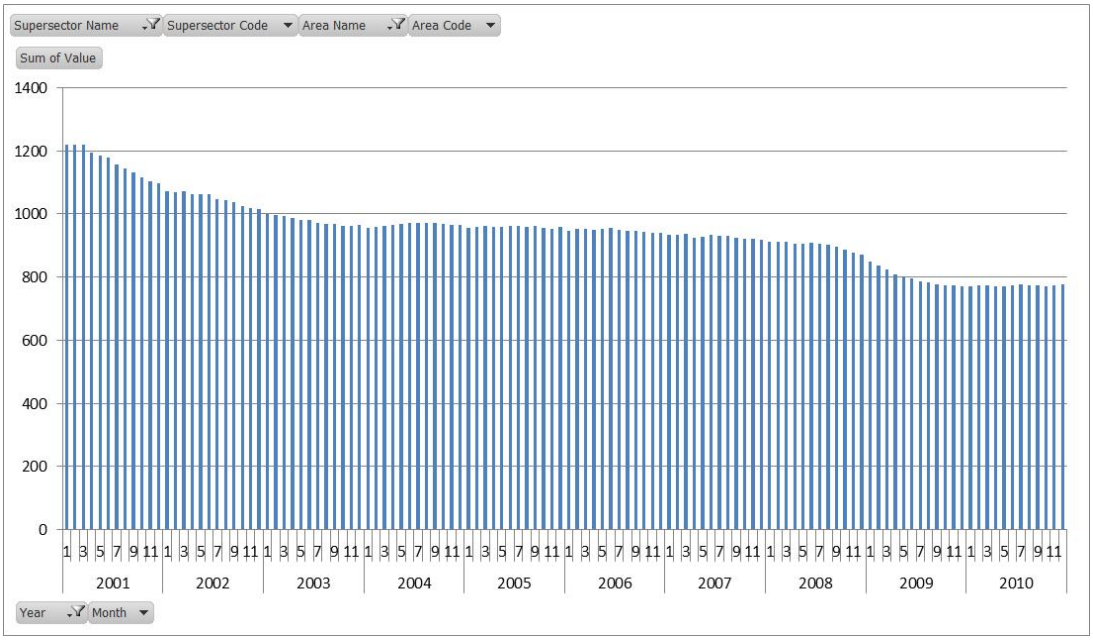
On an operating basis, there is no one, other than consumers of their products, on to whom these property owners can pass their costs. Consequently, these property owners will be forced to absorb the cost of the property tax increase directly into their bottom line. For businesses operating close to the margin, this escalation of costs could result in the need to curtail or even close their operations. Many of the properties with the greatest disparity between assessed and market value and thus the greatest prospective increase in property taxes are old manufacturing, agricultural and industrial sites. These sites, when they occur in an urban setting, are the remnants of a robust manufacturing sector that once established places like Los Angeles among the premier manufacturing centers of the United States. The two tables and figures below show the dramatic decline in manufacturing sector employment in California over the past decade.

[18] Kotkin, Joel and Michael Shires, *The Best Cities for Jobs 2011*, Annual Rankings, May 2, 2011, Accessed on May 2, 2011 at http://www.newgeography.com/content/002215-the-best-cities-jobs-2011.

Figure 3-4. California Employment in Durable Goods Manufacturing, 2001 – 2010

Year	Employment (000s)	Annual Growth
2001	1,220.7	2.7%
2002	1,070.3	-12.3%
2003	996.2	-6.9%
2004	958.9	-3.7%
2005	959.1	0.0%
2006	951.9	-0.8%
2007	935.3	-1.7%
2008	911.9	-2.5%
2009	835.7	-8.4%
2010	772.3	-7.6%

SOURCE: Bureau of Labor Statistics, US Census, *Current Employment Statistics*, NAICS Supersector 31, various years.



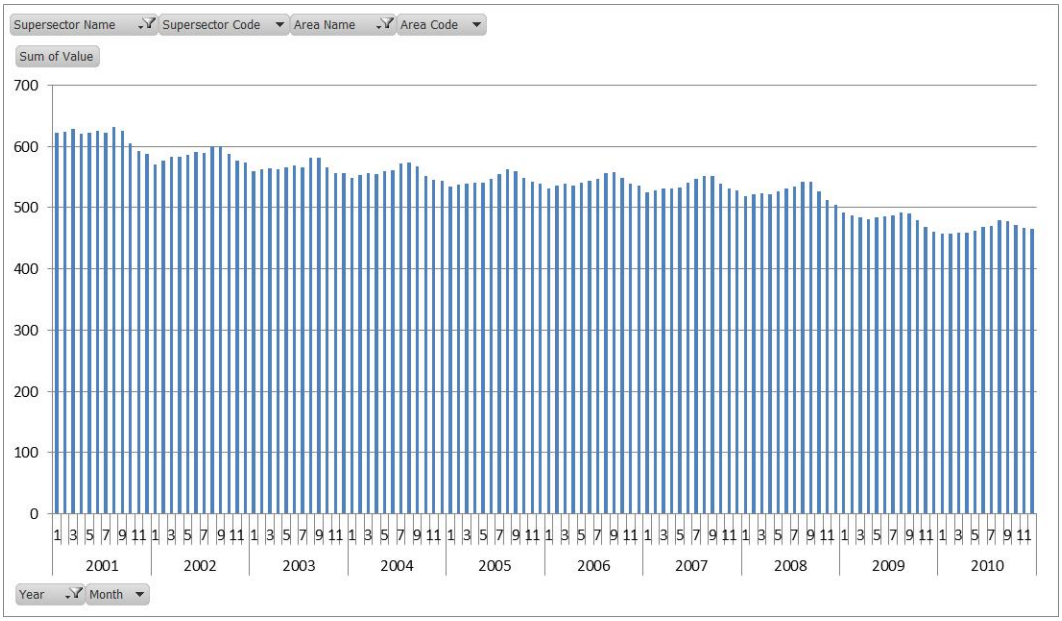
SOURCE: Bureau of Labor Statistics, US Census, Construction, *Current Employment Statistics*, various years.

The state has seen the disappearance of almost 37 percent of jobs in durable goods manufacturing as overall employment has dropped from 1.2 million to 772,300 jobs over this period. As can be seen below, a similar trend is evident in employment in nondurable goods, with a 26.7 percent decline over the same period.

Figure 3-5. California Employment in Nondurable Goods Manufacturing, 2001 – 2010

Year	Employment (000s)	Annual Growth
2001	623.5	-2.2%
2002	576.8	-12.3%
2003	562.5	-6.9%
2004	552.5	-3.7%
2005	537.6	0.0%
2006	536.1	-0.8%
2007	528.2	-1.7%
2008	522.0	-2.5%
2009	486.8	-8.4%
2010	457.4	-7.6%

SOURCE: Bureau of Labor Statistics, US Census, *Current Employment Statistics*, NAICS Supersector 32, various years.



SOURCE: Bureau of Labor Statistics, US Census, Construction Sector, *Current Employment Statistics*, various years.

There is a movement by local officials and planners to attempt to preserve these legacy manufacturing sites in order to allow for the ongoing presence of manufacturing and industrial purposes within urban areas, especially in the harbor areas of the state's major ports and the Northeast San Fernando Valley in Los Angeles. Splitting the tax roll and assessing these sites at or near fair market value will make the

pressure to pursue other uses, such as retail, that much greater and could serve to undermine these local efforts.

Effects of the Split Roll on Businesses That Engage in Leasing

The effects of the split roll differ for businesses that either lease space from other businesses, or for the property owners who engage in the business of leasing out land and improvements to other businesses. This model of capital investment is common across the economy and especially in the case of small firms whose scarce investment capital cannot be committed to the long-term investment that buying and building their own facilities requires. Consequently, rental leasing accounts for a significant role in the economy. In this instance, the effects of the increasing the property tax are complicated by the dynamics of the lessor-lessee relationship.

For the property owner who is leasing the property and has held the property for a significant period of time so that a significant tax increase occurs, there are two possibilities. In most instances, the property tax is passed directly through to the lessee as part of the terms of the "triple net lease"—one of the most common lease agreements. In this model, the lease requires that the tenant pay the property taxes associated with their use of the property, including the land and improvements. Thus the cost of the tax is passed through to the leasing business and it is not unlike the owner occupied scenario above where the lessee must absorb the full cost of the property tax increase.

In a few instances, the lease does not contain these provisions and the landlord must balance the market price for rental properties against the tax increase cost. In these instances, upward pressure is exerted on rents and the tax increase is partially shared by both the lessor and the lessee.

Since the triple-net lease is the most common form, the burden is typically passed on to the lessees. Thus the impact of the split roll is not borne largely by those who engage in the business of leasing overall, although in the long run it is anticipated that the potential for increased costs will drive the net revenues they receive from these transactions downward, but the immediate costs will be borne by the businesses that lease the property.

This in turn will have both short run and long run impacts. In the long run, all businesses will factor the higher costs and uncertainty into their business location decisions and, to the extent they are mobile, could result in a choice to leave the state—the scenario discussed above under the discussion of the implications of the split roll on the business climate.

What Firms Will Be Affected the Most?

As the tax bills come due for the split roll, which firms will be affected the most? Clearly those firms that have held their properties the longest, as their properties' assessed valuations diverge the most from their market values. In terms of firm size, however, the effect is less clear. Given that 98.4 percent of the state's firms have less than 100 employees, according to the California Employment Development Department, the taxes will almost certainly directly impact small firms the most. Even when looking at employment, small firms account for some 54.4 percent of overall state employment, as seen in the table below.

Figure 3-6. Share of Employees in Small Firms (Less than 100 Employees) and Estimated Ratio of Assessed Value to Market Value, by County, 2009

Counties	Total Employment 2009	Employees in Firms < 100 2009	Share of Employees in Firms < 100	BoE Assessed to Market Value Ratio 2008-09
California	14,498,327	7,888,368	54.4%	65.14%
Alameda	629,356	335,816	53.4%	71.00%
Alpine	456	192	42.1%	(NR)
Amador	12,596	7,082	56.2%	77.23%
Butte	71,948	48,991	68.1%	73.41%
Calaveras	7,559	6,527	86.3%	82.77%
Colusa	8,970	5,527	61.6%	(NR)
Contra Costa	316,326	182,468	57.7%	67.86%
Del Norte	8,544	5,803	67.9%	70.81%
El Dorado	47,687	30,540	64.0%	61.64%
Fresno	346,071	190,475	55.0%	62.84%
Glenn	8,301	6,354	76.5%	(NR)
Humboldt	46,277	34,689	75.0%	57.41%
Imperial	55,891	32,462	58.1%	46.65%
Inyo	7,571	5,842	77.2%	37.50%
Kern	274,734	137,078	49.9%	61.64%
Kings	42,670	22,549	52.8%	(NR)
Lake	15,095	10,236	67.8%	54.02%
Lassen	10,494	5,657	53.9%	(NR)
Los Angeles	3,861,979	1,983,347	51.4%	55.35%
Madera	48,946	23,909	48.8%	58.88%
Marin	100,439	68,423	68.1%	56.96%
Mariposa	5,835	2,747	47.1%	(NR)
Mendocino	31,044	23,832	76.8%	(NR)
Merced	73,207	39,148	53.5%	64.82%
Modoc	2,911	2,266	77.8%	(NR)
Mono	6,747	4,750	70.4%	(NR)
Monterey	177,008	88,212	49.8%	74.29%
Napa	66,638	41,560	62.4%	58.42%
Nevada	27,487	21,167	77.0%	59.75%
Orange	1,342,109	739,577	55.1%	57.15%
Placer	123,126	76,992	62.5%	73.50%

Counties	Total Employment 2009	Employees in Firms < 100 2009	Share of Employees in Firms < 100	BoE Assessed to Market Value Ratio 2008-09
Plumas	6,766	4,946	73.1%	71.04%
Riverside	548,745	308,215	56.2%	62.04%
Sacramento	591,788	345,581	58.4%	72.18%
San Benito	15,855	9,346	58.9%	(NR)
San Bernardino	594,281	325,796	54.8%	65.77%
San Diego	1,229,065	630,411	51.3%	67.36%
San Francisco	544,067	270,431	49.7%	72.72%
San Joaquin	209,580	122,616	58.5%	62.29%
San Luis Obispo	98,391	70,665	71.8%	56.05%
San Mateo	318,101	170,938	53.7%	50.17%
Santa Barbara	178,725	108,730	60.8%	58.37%
Santa Clara	836,476	402,941	48.2%	71.65%
Santa Cruz	97,029	60,428	62.3%	(NR)
Shasta	61,641	42,047	68.2%	68.96%
Sierra	703	423	60.2%	(NR)
Siskiyou	13,868	11,056	79.7%	70.46%
Solano	120,999	69,128	57.1%	58.54%
Sonoma	177,024	119,609	67.6%	68.09%
Stanislaus	164,827	98,744	59.9%	72.99%
Sutter	27,961	19,450	69.6%	60.43%
Tehama	16,332	10,649	65.2%	(NR)
Trinity	2,788	1,957	70.2%	(NR)
Tulare	148,852	75,476	50.7%	68.90%
Tuolumne	16,351	12,017	73.5%	66.63%
Ventura	292,292	175,202	59.9%	57.27%
Yolo	99,081	41,523	41.9%	(NR)
Yuba	15,747	9,315	59.2%	65.32%

(NR) – indicates county did not submit sales data to Board of Equalization to allow for generation of ratio estimate.

SOURCE: California Employment Development Department (Firm Size data); California Board of Equalization, 4-R Equalization Ratio Memos, selected years (Assessed to Market Ratio).

Larger firms generally will have more capital and resources to absorb the impact of the increased tax payments they would encounter under the split roll. Small firms, however, have less capital and are less capable of absorbing the impacts of the tax increases anticipated under the split roll. Thus they are

more vulnerable to failure as a result of the tax increase associated with the split roll. In the above table, the counties with the greatest average disparity between assessed valuation and market value (those with an assessed-to-market ratio of 60 percent or less) are highlighted in yellow. Note the large number of counties with these highlighted disparities correspond to counties with very high proportions of small firms.

Figure 3-7 shows data about the number of minority owned firms in California in 2002 and in 2007. Note that the percentage of minority owned firms increased from 34 percent of the total number of firms in California in 2002, to 38 percent of the total firms in 2007, and that the total number of firms increased from 2,847,594 in 2002 to 3,215,861 in 2007.

Figure 3-7. Number of Minority Owned Firms in California, 2002 and 2007

Type	# of Firms, 2002	% of Total	# of Firms, 2007	% of Total
Non-Minority	1,890,372	66%	1,995,280	62%
Minority	957,222	34%	1,220,581	38%
Total	2,847,594		3,215,861	

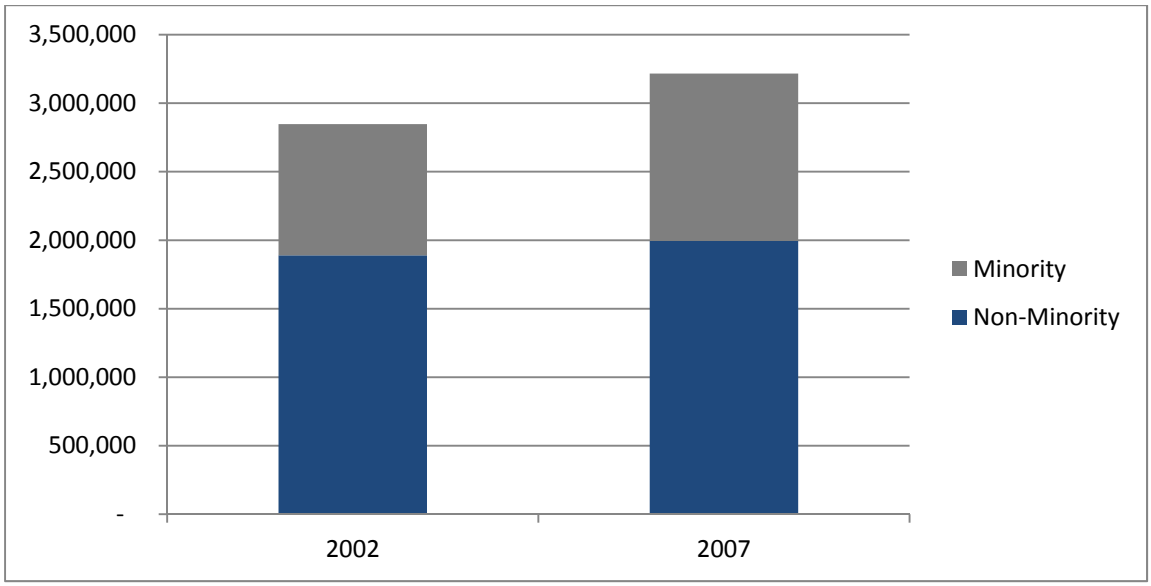


Figure 3-8 shows data about the number of employees in both minority owned and non-minority owned firms in California in 2002 and in 2007. Note that the number of employees in minority owned firms increased from 18 percent of total employees in 2002 to 22 percent of total employees in 2007. This percentage increase was due, in part, to the decline in the number of employees in non-minority owned firms over this period. Note also that the total number of employees declined significantly during this period.

Figure 3-8. Employees in Minority Owned Businesses, 2002 and 2007

Type	Total Employees, 2002	% of Total	Total Employees, 2007	% of Total
Non-Minority	5,704,464	82%	5,194,713	78%
Minority	1,285,774	18%	1,471,933	22%
Total	6,990,238		6,666,646	

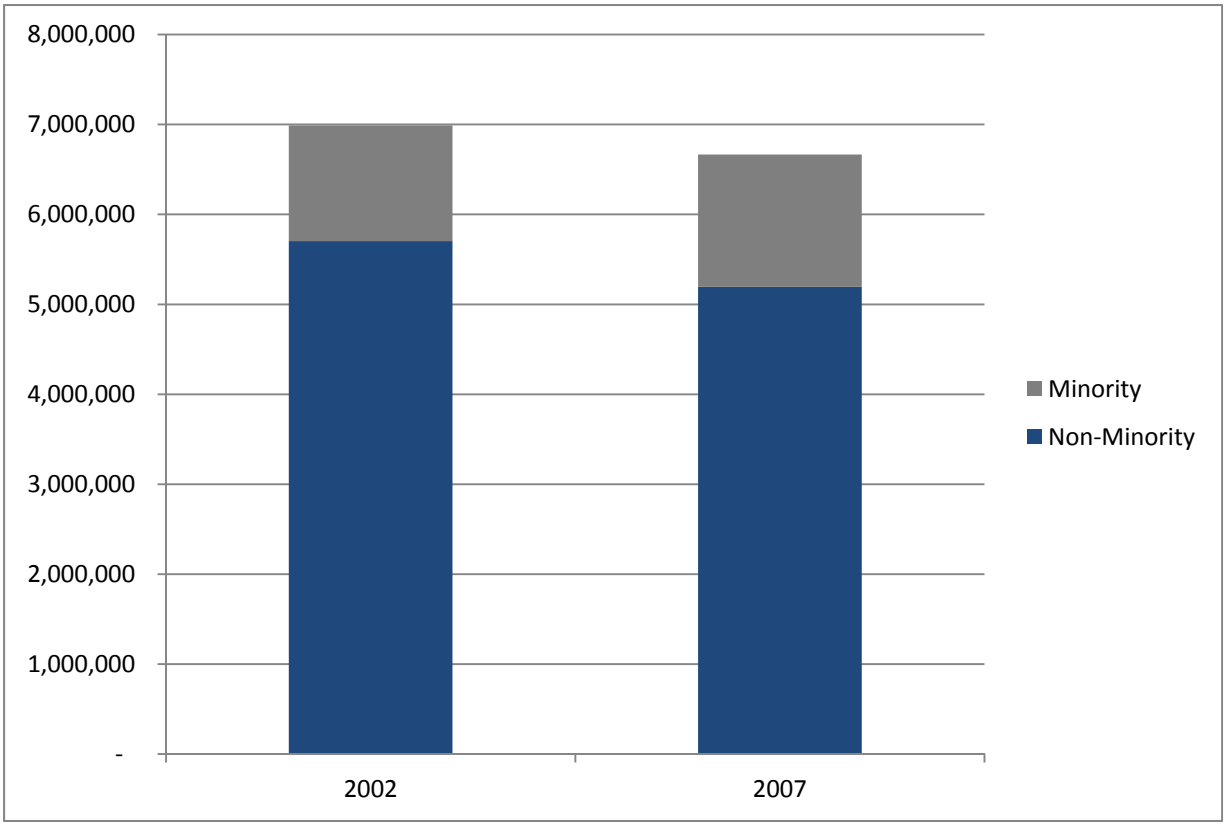


Figure 3-9 shows receipts per firm for minority owned and non-minority owned firms in California for 2002 and for 2007. While receipts per firm increased for minority owned firms over this period, in 2007 they were still much less than half the receipts per firm for non-minority owned businesses.

Figure 3-9. Receipts for Minority Owned Businesses, 2002 and 2007

Type	Receipts per Firm, 2002	Receipts per Firm, 2007
Non-Minority	$ 511,020	$ 540,595
Minority	$ 206,629	$ 232,441

As shown in Figure 3-10, the number of employees per firm declined for both non-minority owned firms and for minority owned firms in California between 2002 and 2007. Also, the number of employees per minority owned firm is significantly lower than the number of employees per non-minority owned firm.

Figure 3-10. Employees in Minority Owned Firms

Type	Employees per Firm, 2002	Employees per Firm, 2007
Non-Minority	3.0	2.6
Minority	1.3	1.2

As shown in Figure 3-11, the payroll per firm and the payroll per employee increased for both non-minority owned firms and for minority owned firms between 2002 and 2007. Nevertheless, the payroll per firm for minority owned firms was only about one third the amount of the corresponding amount for non-minority owned firms.

Figure 3-11. Payroll in Minority Owned Firms

Type	Payroll per Firm, 2002	Payroll per Firm, 2007	Payroll per Employee, 2002	Payroll per Employee, 2007
Non-Minority	$101,416	$102,263	$33,608	$39,279
Minority	$33,059	$34,720	$24,611	$28,791

Figure 3-12 shows that the number of female owned firms increased slightly from 31 percent of the total firms in California in 2002 to 32 percent of the total firms in 2007.

Figure 3-12. Female Owned Firms, 2002 and 2007

Type	# of Firms, 2002	% of Total	# of Firms, 2007	% of Total
Female Owned	870,496	31%	1,035,725	32%
Non Female Owned	1,977,098	69%	2,180,136	68%
Total	2,847,594		3,215,861	

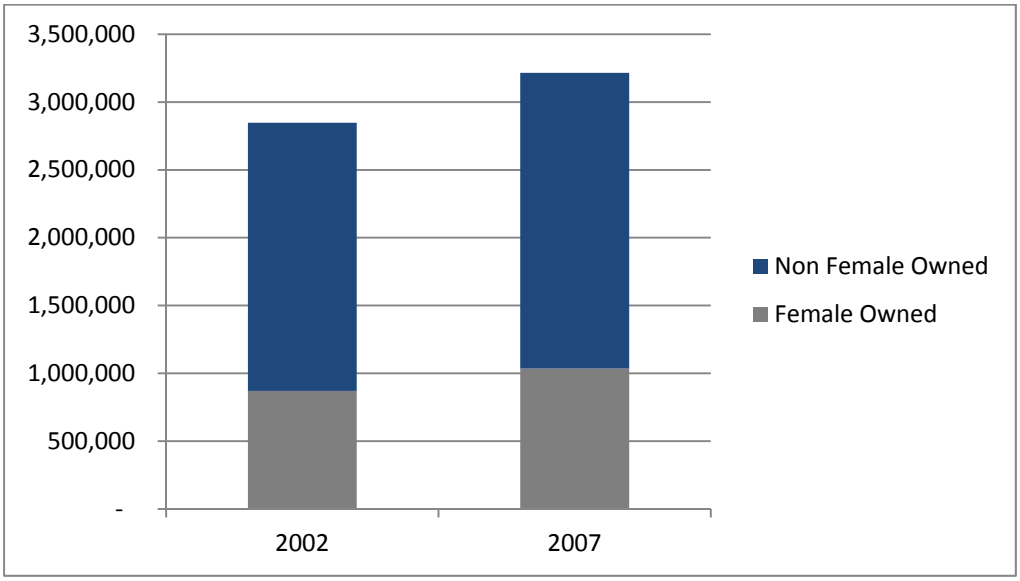
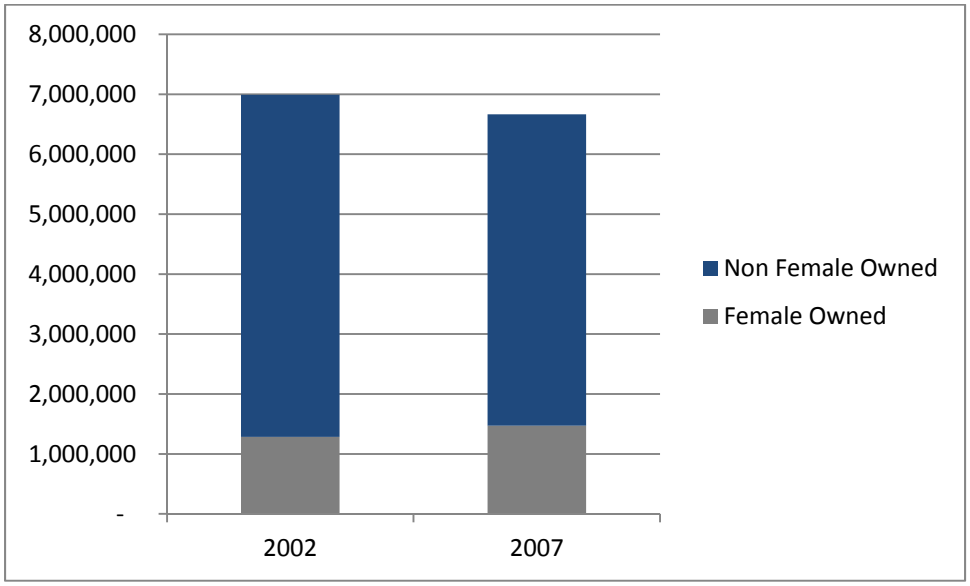


Figure 3-13 shows that female owned firms employed 13 percent of the total employees in 2002 and 14 percent of the total employees in 2007, employed by minority and non-minority owned firms in California.

Figure 3-13. Employees in Female Owned Firms, 2002 and 2007

Type	Total Employees, 2002	% of Total	Total Employees, 2007	% of Total
Female Owned	941,136	13%	954,570	14%
Non Female Owned	6,049,102	87%	5,712,076	86%
Total	6,990,238		6,666,646	



As is readily apparent from the data in Figure 3-14, the receipts per firm for female owned firms in California were much lower than the corresponding amount for male owned firms in 2002 and in 2007.

Figure 3-14. Receipts in Female Owned Firms

Type	Receipts per Firm, 2002	Receipts per Firm, 2007
Female Owned	$ 158,177	$ 175,868
Non Female Owned	$ 519,001	$ 624,893

The employees per firm in female owned firms in California were much lower than the corresponding numbers for male owned firms in 2002 and in 2007, as seen in Figure 3-15.

Figure 3-15. Employees in Female Owned Firms

Type	Employees per Firm, 2002	Employees per Firm, 2007
Female Owned	1.1	0.9
Non Female Owned	3.1	2.6

The payroll per firm, and the payroll per employee were much lower for female owned firms in California than the corresponding amounts for male owned firms in 2002 and in 2007, as seen in Figure 3-16.

Figure 3-16. Payroll in Female Owned Firms

Type	Payroll per Firm, 2002	Payroll per Firm, 2007	Payroll per Employee, 2002	Payroll per Employee, 2007
Female Owned	$29,076	$28,984	$26,893	$31,449
Non Female Owned	$100,171	$113,031	$32,740	$43,141

Figure 3-17. Firm Size, Average Receipts and Average Payroll, by Ownership, 2007

Type of Firms	# Employees/Firm	Total Receipts/Firm	Avg. Payroll/Employee
All Firms Who Have Employees	19.28	$1,099,282	$45,902
Hispanic-Owned Firms	7.98	$142,004	$28,211
Female-Owned Firms	8.45	$176,660	$31,623

The recent recession has been hard on California's small businesses. Dan Walters, in a recent blog posting,[19] noted that the latest Census Bureau data showed that California lost 82,878 of its smallest businesses—those without employees—between 2007 and 2009, representing a decrease of $20 billion of lost business income. A quick review of the *Survey of US Businesses* saw comparable trends in the 0-4 employee, 5-9 employee and 10-19 employee categories for the 2007 to 2008 years, although the largest impacts are not yet visible because the 2009 *Survey* is not yet available. To add the increased burden of the property tax increase resulting from a split roll taxation approach disproportionately onto

[19] Walters, Dan. "California small businesses were hit hard by recession," *Capitol Alert*, July 28, 2011, http://blog.sacbee.com/capitolalertlatest/2011/07/california-businesses-we.html, accessed July 28, 2011.

the backs of the state's remaining small businesses will certainly have a significant impact upon them—an effect that will also disproportionately target the state's female- and Latino-owned businesses.