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## California Franchise Tax Board

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TRENDS IN THE  
DISTRIBUTION OF INCOME  
AND  
PERSONAL INCOME  
TAX BURDEN FOR  
CALIFORNIA TAXPAYERS

by

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March 8, 1991

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**Research Bureau  
FRANCHISE TAX BOARD**

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TRENDS IN THE DISTRIBUTION  
OF INCOME AND  
PERSONAL INCOME TAX BURDEN  
FOR CALIFORNIA TAXPAYERS<sup>1</sup>

CHAPTER I. INTRODUCTION

This paper presents analyses of the progressivity of the California Personal Income Tax (PIT) System and of the trends in the income and PIT burden distribution during the 1980s. In this introduction, we discuss the conceptual concerns for tax equity and the limitations of this paper in addressing these concerns.

The two major conceptual concerns relating to a government revenue generating system are the efficiency and the equity of that system. Regarding efficiency, a tax system is best that distorts market incentives least. A caveat should be added that, to the extent that market incentives are deemed to be insufficient to encourage

<sup>1</sup> The views expressed in this paper are those of the authors. They do not necessarily represent the views of the State of California or the Franchise Tax Board. The authors express their appreciation for valuable comments and suggestions from Robert Affleck and Gene Adkins. The authors would also like to thank Larry Gilbert and Glenn Jacobson for their assistance in the collection and tabulation of data. Responsibility for any errors remains with the authors.

a certain social goal, the tax system can be used to increase incentives for whatever goal is being pursued. However, such incentives often produce unintended distorting effects. As such, if a tax system is to be used to produce incentives to encourage social goals, it should be set up so as to minimize the unintended distorting impacts.

Regarding equity, there are two types of tax equity issues. The first is horizontal equity. Horizontal equity addresses the issue of the equitable distribution of the tax burden among individuals with equal abilities to pay. The concept of horizontal equity is subject to various interpretations; i.e., if two individuals have equivalent incomes but one incurs medical expenses that are 50 percent greater than the other, do both individuals really have equivalent abilities to pay?

The second equity concept, which this paper will address, is the concept of vertical equity. Vertical tax equity addresses the issue of how the tax burden should be distributed over persons with varying abilities to pay. The concept of vertical equity is subject to the same definitional issues as horizontal equity (i.e., how do we define ability to pay?). However, the concept of vertical equity raises deeper philosophical and even moral issues concerning the proper level of tax progressivity. Since all citizens are conceptually endowed with the same Constitutional rights, should not all citizens share equally in the cost of

government? On the other hand, should not those who have benefitted most from the nation's (or state's) economy pay a greater share of the cost of maintaining that government? Additionally, there are potential significant interactions between tax progressivity and economic efficiency. The arguments for or against tax progressivity, or for certain degrees of progressivity, are outside of the scope of this paper. It is sufficient to note that the level of tax progressivity has been and continues to be, for many voters and political leaders, an important measure of the quality of a tax system.

Those who support tax progressivity do so for two main reasons. First, as alluded to before, many believe that high-income taxpayers have benefitted most from governmental actions (development of infrastructure, education, maintenance of economic and social stability and security) and, therefore, should pay more for the support of government. Second, many believe that wealthy taxpayers should shoulder a greater portion of the tax burden simply because they are able to, regardless of whether the wealthy receive a greater benefit from government than others. While this view can be derived from a belief that government has a valid role in the redistribution of income from the wealthy to the less well off, such a belief is not necessary to support this view. Again, a discussion of the arguments for or against progressivity is beyond the scope of this paper.

The purpose of this introduction has been to place the analysis presented in this paper in proper context. Our analysis shows that the California PIT System is progressive, and that it has become somewhat more progressive during the 1980s. Our analysis also shows that there was a large increase in the concentration of income (and wealth) during the 1980s. Our analysis cannot go beyond these descriptive statements to make policy prescriptions.

Finally, it needs to be noted that, in 1988, the California PIT System accounted for only 37 percent of state revenues. The other revenue sources are, in total, relatively regressive when compared with the PIT System. Therefore, an analysis of the PIT System, by itself, cannot provide a full description of the progressivity of California taxes. An analysis of the progressivity of the entire gamut of state revenue sources is necessary to determine the full distributional burden of California taxes. At this point, the tools to make such an analysis do not exist.

Chapter II of this paper presents an analysis of the progressivity of the California PIT System. This chapter discusses PIT progressivity and explores the PIT elements that create that progressivity. Chapter III presents an analysis of the 1980's trend towards a greater concentration of income. Finally, trends in California PIT and federal tax progressivity, and the interaction of PIT with the growth in income concentration are examined.

CHAPTER II.      PROGRESSIVITY OF THE CALIFORNIA PERSONAL INCOME TAX  
SYSTEM

The current California PIT System is progressive. Taxpayers with high income pay, on average, a larger portion of their income in PIT taxes than do low income taxpayers. It should be noted that true progressivity relates to a taxpayer's ability to pay, which is based on taxpayer wealth, and not simply on income. Thus, this study is limited in that, since it is based on tax return data, taxpayer wealth information is not available. For the purposes of this study, California adjusted gross income (AGI) will be used as a proxy for wealth.

Table 1 shows average tax payments as a proportion of AGI for the

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TABLE 1  
CALIFORNIA PIT EFFECTIVE TAX RATES  
1988

-----	:	-----	:
INCOME	:		:
DISTRIBUTION	:	EFFECTIVE	:
SEGMENT	:	TAX RATE	:
-----	:	-----	:
BOTTOM QUINTILE	:	0.01%	:
2ND QUINTILE	:	0.42%	:
3RD QUINTILE	:	1.33%	:
4TH QUINTILE	:	2.40%	:
TOP QUINTILE	:	5.14%	:
TOP 10%	:	5.94%	:
TOP 1%	:	7.78%	:
-----	:	-----	:
TOTAL	:	3.68%	:

---

five income quintiles and the top 10 and 1 percent of taxpayers<sup>2</sup>. (Negative AGI tax returns have been excluded.) As Table 1 shows, the first quintile pays virtually zero tax.<sup>3</sup> The effective tax rate raises steadily over the AGI distribution until it reaches almost 8 percent for the top 1 percent of taxpayers.

Further, Table 2 shows the portion of the total PIT burden that falls upon the different quintiles and the top 10 and 1 percent

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TABLE 2  
DISTRIBUTION OF PIT TAX BURDEN  
1988

INCOME DISTRIBUTION SEGMENT	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
	:	:	:
BOTTOM QUINTILE	:	:	0.01%
2ND QUINTILE	:	:	0.78%
3RD QUINTILE	:	:	4.61%
4TH QUINTILE	:	:	14.32%
TOP QUINTILE	:	:	80.20%
TOP 10%	:	:	66.91%
TOP 1%	:	:	34.55%

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<sup>2</sup> The tax payment is defined here as the bottom line tax amount after all credits, except for the refundable renter's credit.

<sup>3</sup> In fact, the majority of the taxes paid by the first quintile of taxpayers is the alternative minimum tax. This suggests that most of the tax being paid by the lowest quintile is paid by relatively wealthy taxpayers who have used preference items to reduce their AGI.

of the income distribution. The top quintile accounts for over 80 percent of PIT revenue, while the top 10 percent of taxpayers account for over two-thirds of PIT revenue, and the top 1 percent accounts for over one-third of PIT revenue. Whether progressivity is measured by effective tax rate comparisons or by the tax burden distribution, the California PIT System is definitely progressive.

There are many elements of the California PIT System that combine to produce the current level of progressivity. Most obvious is the progressive PIT tax rate structure. As taxable income increases, taxpayers are required to pay a higher tax rate on each additional dollar of income.

Another reason for the progressivity of the PIT System is that personal and dependent exemption credits do not vary with income. These credits offset, therefore, a greater proportion of tax liability for low and middle-income taxpayers than they do for high-income taxpayers.

Deductions, likewise, offset a greater portion of income for low income taxpayers than for high-income taxpayers. This is true even though high-income taxpayers are more likely to itemize deductions and, thus, to report larger absolute deduction amounts. Table 3 shows, by quintile, and for the top 10 and 1 percent of taxpayers, the average amount of deductions per return, including both standard and itemized deductions, and the portion of AGI that is

TABLE 3

TOTAL DEDUCTIONS AND DEDUCTIONS AS A PERCENTAGE OF AGI  
1988

INCOME DISTRIBUTION SEGMENT	DEDUCTIONS PER RETURN (1988 DOLLARS)	DEDUCTIONS AS A PERCENT OF AGI
BOTTOM QUINTILE	1,758	57.18%
2ND QUINTILE	3,247	30.42%
3RD QUINTILE	4,226	20.93%
4TH QUINTILE	6,608	19.06%
TOP QUINTILE	14,542	16.05%
TOP 10%	19,308	14.86%
TOP 1%	48,591	9.49%
TOTAL	6,035	19.24%

offset by deductions. As this table shows, although average deductions increase steadily over the AGI distribution from less than \$2,000 per return for the lowest quintile to almost \$50,000 per return for the top 1 percent of taxpayers, the proportion of AGI that is offset falls from over 50 percent for the lowest quintile to less than 10 percent for the top 1 percent.

Finally, although many PIT special credits are used primarily by high-income taxpayers, there are several of the credits that are either claimed primarily by low-income taxpayers (such as the low-income credit) or are claimed by taxpayers fairly evenly throughout the income distribution. These credits will tend to offset a greater proportion of tax liability for low-income taxpayers than for high-income taxpayers.

Table 4 shows the average amount of special credits used (all credits except for exemption credits and renter's credit) and the proportion of tax liability offset for the five quintiles and the top 10 and 1 percent of the income distribution. As this table shows, while high-income taxpayers tend to use a greater absolute amount of special credits, the proportion of tax liability offset by special credits falls over the income distribution.

TABLE 4

TOTAL SPECIAL CREDITS AND  
SPECIAL CREDITS AS A PERCENTAGE OF TAX LIABILITY  
1988

INCOME DISTRIBUTION SEGMENT	CREDITS PER RETURN (1988 DOLLARS)	CREDITS AS A PERCENT OF TAX LIABILITY:
BOTTOM QUINTILE	**	46.43%
2ND QUINTILE	4	8.73%
3RD QUINTILE	11	3.93%
4TH QUINTILE	23	2.66%
TOP QUINTILE	112	2.34%
TOP 10%	195	2.48%
TOP 1%	2,026	4.87%
TOTAL	31	2.60%

\*\* less than \$.50

## Comparison With the Federal Personal Income Tax

The California PIT System is more progressive than the Federal PIT System. A recent Franchise Tax Board paper addressing the potential for coupling the California PIT System with the Federal PIT System concludes that, if California were to adopt the Federal PIT System, tax liability would, on average, increase substantially for taxpayers with AGIs less than \$50 thousand but would, on average, decrease for taxpayers with AGIs greater than \$50 thousand.

There are several reasons why California's PIT System is more progressive than the federal system. First, the California system employs 6 different tax brackets, with rates ranging from 1 percent to 9.3 percent. The top rate is more than 9 times greater than the lowest rate. The federal system, however, employs only 3 brackets, with rates of 15 percent, 28 percent, and 31 percent. The top rate is only slightly more than twice as great as the bottom rate.

Additionally, the California PIT System employs personal and dependent exemption tax credits; whereas, the federal system employs personal and dependent income exemptions. The value of the federal exemptions, therefore increase with the marginal tax rate incurred by the taxpayer. The California exemption credit, however, provides the same dollar credit to all taxpayers; thus, offsetting a greater portion of tax liability for low income

taxpayers. For further discussion of these two points, along with additional discussions of the progressivity differences between the state and federal systems, see "Coupling California Personal Income Taxes to Federal Individual Income Taxes", Gene Adkins, Jay Chamberlain, Franchise Tax Board Occasional Paper.

As shown by the above discussion, the California PIT System is progressive, both in an absolute sense and relative to the Federal PIT System. The following chapter further explores the progressivity issue by analyzing the experience of the 1980s regarding growth in the concentration of income and changes in the progressivity of the California PIT System and the federal tax systems.

CHAPTER III. INCOME CONCENTRATION AND PERSONAL INCOME TAXES IN CALIFORNIA IN THE 1980S

The Growth of Income Concentration in the 1980s

Both nationally and for the State of California, the 1980s have witnessed a tremendous increase in the concentration of income, and, undoubtably, wealth. Table 5 shows the growth in AGI (adjusted for inflation) for the five quintiles and the top 10 and 1 percent of the income distribution. As this table shows, the largest growth of AGI, in both absolute and percentage terms, occurred within the top quintile. Real AGI per return for the top

TABLE 5  
GROWTH IN AGI  
1980 TO 1988

INCOME DISTRIBUTION SEGMENT	AGI PER RETURN (REAL 1988 DOLLARS)		PERCENTAGE	
	1980	1988	ABSOLUTE CHANGE	PERCENTAGE CHANGE
BOTTOM QUINTILE:	2,824	3,074	250	8.85%
2ND QUINTILE	11,110	10,674	-436	-3.93%
3RD QUINTILE	20,253	20,193	-61	-0.30%
4TH QUINTILE	33,214	34,664	1,450	4.36%
TOP QUINTILE	73,313	90,612	17,298	23.60%
TOP 10%	97,916	129,062	31,145	31.81%
TOP 1%	289,533	508,743	219,209	75.71%
TOTAL	27,775	31,367	3,593	12.93%

1 percent of taxpayers increased by over \$200 thousand dollars from 1980 to 1988, or 75 percent. For the top quintile, real AGI per return grew by over \$17 thousand - a growth rate of more than 20 percent. As Table 5 shows, this growth is much greater than that experienced by the other four quintiles. Indeed, the second and third quintiles experienced an actual reduction in real AGI of 3.9 percent and 0.3 percent, respectively.

Table 6 shows the proportion of total California AGI accounted for by the five quintiles and the top 10 and 1 percent of the income distribution for 1980 and 1988<sup>4</sup>. The share of total AGI decreased

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TABLE 6  
CALIFORNIA INCOME CONCENTRATION  
1980 AND 1988

INCOME DISTRIBUTION SEGMENT	SHARE OF TOTAL AGI		PERCENTAGE CHANGE: 1980-1988
	1980	1988	
BOTTOM QUINTILE	2.02%	1.95%	-3.58%
2ND QUINTILE	7.94%	6.76%	-14.90%
3RD QUINTILE	14.48%	12.79%	-11.68%
4TH QUINTILE	23.75%	21.95%	-7.55%
TOP QUINTILE	52.42%	57.39%	9.48%
TOP 10%	35.25%	41.15%	16.71%
TOP 1%	10.42%	16.22%	55.59%

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<sup>4</sup> We have defined AGI, as closely as possible with available data, on a 1988 constant law basis. In order to do this, we have added excluded capital gains, moving expenses, employee business expenses, and disability income (the latter three which were allowed as income adjustment subtractions in 1980) into 1980 AGI.

for each quintile except the top quintile. Additionally, the share of AGI accruing to the top 1 percent increased by more than 55 percent, so that the top 1 percent now accounts for over 16 percent of total California AGI. For every 10 dollars of California AGI, 4 of those dollars now accrue to the top 10 percent of the income distribution.

It is not altogether clear what the cause of this increased income concentration has been. Table 7 presents, by income source, in real 1988 dollars per return, the change in income from 1980 to 1988 and the percent of the total change in AGI made up by that source, for the top 1 percent, the top 10 percent, and the bottom 90 percent of the income distribution. The sources of income for the bottom 90 percent of the income distribution are presented for comparison purposes only. We have not attempted to analyze the components of the changes in AGI from 1980 to 1988 for all taxpayers, only for the top income taxpayers. Additionally, the sources of income growth for the top 1 percent and top 10 percent are very similar. As such, the following text discusses the sources of growth for only the top 1 percent.

As this table shows, capital gains increased from \$77 thousand to \$127 thousand per return in real dollars for the top 1 percent of

TABLE 7

COMPOSITION OF AGI FOR THE TOP 10 AND 1 PERCENT,  
AND THE BOTTOM 90 PERCENT OF  
THE CALIFORNIA INCOME DISTRIBUTION  
1980 AND 1988

INCOME SOURCE	1980	1988	CHANGE	PERCENTAGE CHANGE	SHARE OF TOTAL CHANGE
	(REAL 1988 DOLLARS)				
-----					
TOP 1 PERCENT					
AGI 1/	289,533	508,743	219,210	75.71%	100.00%
WAGES	120,405	215,922	95,517	79.33%	43.57%
CAPITAL GAINS 2/	77,170	126,524	49,354	63.96%	22.51%
DIVIDENDS & INTEREST	50,485	62,811	12,326	24.42%	5.62%
PENSIONS & ANNUITIES	1,810	8,117	6,308	348.58%	2.88%
BUSINESS INCOME	19,352	16,406	-2,946	-15.22%	-1.34%
PART AND SUB-S INCOME	7,403	53,625	46,222	624.38%	21.09%
OTHER INCOME	12,909	25,337	12,428	96.28%	5.67%
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TOP 10 PERCENT					
AGI 1/	97,916	129,062	31,146	31.81%	100.00%
WAGES	62,644	80,751	18,107	28.91%	58.14%
CAPITAL GAINS 2/	12,711	17,446	4,736	37.26%	15.21%
DIVIDENDS & INTEREST	11,451	12,429	978	8.54%	3.14%
PENSIONS & ANNUITIES	1,529	3,090	1,561	102.07%	5.01%
BUSINESS INCOME	6,608	7,939	1,331	20.13%	4.27%
PART AND SUB-S INCOME	1,547	6,728	5,181	334.99%	16.64%
OTHER INCOME	1,427	679	-748	-52.42%	-2.40%
-----					
BOTTOM 90 PERCENT					
AGI 1/	19,981	20,464	482	2.41%	100.00%
WAGES	17,057	17,029	-28	-0.16%	-5.81%
CAPITAL GAINS 2/	489	313	-176	-35.97%	-36.42%
DIVIDENDS & INTEREST	1,553	1,761	207	13.34%	42.95%
PENSIONS & ANNUITIES	753	982	228	30.34%	47.36%
BUSINESS INCOME	549	828	279	50.88%	57.87%
PART AND SUB-S INCOME	-130	-96	33	25.64%	6.89%
OTHER INCOME	-290	-352	-62	-21.35%	-12.83%

1/ AGI is defined, as best as possible, on a 1988 constant law basis. To accomplish this, we have added excluded capital gains, moving expenses, employee business expenses, and disability income back into 1980 AGI.

2/ Capital gains are defined on a 1988 constant law basis. To accomplish this we have added excluded capital gains back to taxable capital gains for 1980.

the income distribution<sup>5</sup>. That represents an increase of 64 percent. Wages for the top 1 percent of taxpayers also have increased significantly; from \$120 thousand to \$216 thousand. This represents an increase of 79 percent. These increases are even more significant in light of the fact that, during this same time period, for the bottom 90 percent of the income distribution, capital gains fell by 36 percent (from \$489 per return to \$313 per return), and wages remained virtually unchanged (at approximately \$17 thousand per return).

Despite the absolute increase in wages and capital gains for the highest income California taxpayers, the portion of total AGI made up by wages and capital gains for the top taxpayers actually decreased slightly from 1980 to 1988. This percentage fell from 68 percent to 67 percent for the top 1 percent of the income distribution.

The primary additional source of increased AGI from 1980 to 1988 for the top taxpayers was partnership and S-Corporation income. This income source increased from \$7 thousand per return to almost \$54 thousand for the top 1 percent of the income distribution.

It should be noted that some of this increase is due to changes in tax law that could not be accounted for in this analysis. First,

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<sup>5</sup> Capital gains are defined on a 1988 constant law basis. To accomplish this, we have added excluded capital gains to taxable capital gains.

S-Corporations were not recognized under California law until 1987. Thus, S-Corporation income was not reported on PIT returns in 1980; only dividends being passed through to individuals were reported as dividends. For 1988, all S-Corporation income (and losses) were passed through to individual shareholders and reported on PIT returns. Second, the 1987 California federal tax conformity bill limited the amount of passive losses that can be used to offset regular income. In 1988, only 40 percent of passive losses could be used as an income offset. Both of these law changes would tend to increase net partnership and S-Corporation income (partnership losses would decrease and S-Corporation income would increase).

It is not clear to what extent the increase in partnership and S-Corporation income is due to tax law changes versus a secular trend in business activity. Further analysis will be required to determine the magnitudes of the two effects.

The other main sources of the increase in income for the top portion of the income distribution are interest income, dividends, and pension income.

## Federal Trends in the Distribution of Income and Tax Burden

Federal data show a similar growth in income concentration at the national level. The share of income accruing to the top 10 and 1 percent of the income distribution rose, between 1981 and 1986, from 29 percent to 37 percent and from 8 percent to 15 percent, respectively<sup>6</sup>. The trend in California appears to reflect, and to some extent perhaps drive, the national trend.

During the 1980s, however, changes in federal tax law actually acted to intensify the growth in the concentration of income<sup>7</sup>. Prior to 1986, the cut in the top federal tax rates, along with the accelerated depreciation rules and the other investment incentives, produced a windfall to the top-income taxpayers. Additionally, increases in payroll taxes during the same time period hurt low and middle-income taxpayers more than high-income taxpayers.

This trend towards relative regressivity was reversed with the Federal Tax Reform Act of 1986 (TRA86). According to U.S. Congressional Budget Office estimates, effective federal tax rates for the top quintile of taxpayers fell from 27 percent to 26

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<sup>6</sup> See Joseph A. Pechman, "The Future of the Income Tax", The American Economic Review, March 1990, Vol. 80, No. 1

<sup>7</sup> Federal taxes include personal income taxes, payroll taxes, excise taxes, and corporate taxes. The incidence of federal corporate taxes was assumed to fall 50 percent upon labor and 50 percent upon capital.

percent between 1980 and 1990<sup>8</sup>. This effective tax rate had fallen to 24 percent by 1985, but TRA86 brought it back up to 26 percent.

Table 8 shows total federal effective tax rates in 1980, 1985, and 1990 for the five quintiles and the top 10 and 1 percent of the income distribution. This table shows that the federal tax system became much less progressive from 1980 to 1985. Although some of the progressivity was restored with TRA86, the net movement for federal taxes, in total, in the 1980s has been towards less progressivity. As this table shows, the top two quintiles are the only quintiles for which effective federal tax rates at the end of the 1980s are lower than they were at the beginning of the 1980s. The top 1 percent of taxpayers has a substantially lower federal effective tax rate.

Before proceeding with an analysis of the changes in the progressivity of the California PIT System, it should be noted that any comparison between these federal figures and California figures should be done with caution, because the federal figures include all major taxes; whereas, our analysis of California data will, as mentioned previously, be limited to only PIT tax data.

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<sup>8</sup> See 1990 Green Book, Committee on Ways and Means, U.S. House of Representatives, June 5, 1990

TABLE 8

CHANGE IN FEDERAL EFFECTIVE TAX RATES 1/  
FROM 1980 TO 1985 AND 1990

INCOME DISTRIBUTION SEGMENT	EFFECTIVE FEDERAL TAX RATE			PERCENTAGE CHANGE	
	1980	1985	1990	1980 TO 1985	1980 TO 1990
BOTTOM QUINTILE	8.40%	10.60%	9.70%	26.19%	15.48%
2ND QUINTILE	15.70%	16.10%	16.70%	2.55%	6.37%
3RD QUINTILE	20.00%	19.30%	20.30%	-3.50%	1.50%
4TH QUINTILE	23.00%	21.70%	22.50%	-5.65%	-2.17%
TOP QUINTILE	27.30%	24.00%	25.80%	-12.09%	-5.49%
TOP 10%	28.40%	24.40%	26.40%	-14.08%	-7.04%
TOP 1%	31.80%	24.90%	27.20%	-21.70%	-14.47%
TOTAL	22.80%	23.30%	21.70%	2.19%	-4.82%

1/ The effective federal tax rate is calculated as the total of all federal taxes, including personal and corporate income taxes, payroll taxes, and excise taxes divided by Federal AGI.

Trends in the Progressivity of the California Personal Income Tax System

California did not conform to many of the major federal personal income tax law changes of the early 1980s. In particular, California did not reduce tax rates and California did not conform to the federal accelerated depreciation rules or the investment tax credit. As such, the California PIT System did not become less progressive through the first half of this decade, as the federal tax system did.

Table 9 presents average PIT effective tax rates for the five quintiles and the top 10 and 1 percent of the income distribution for 1980, 1985, and 1988. As this table shows, from 1980 to 1985, tax rates declined for all quintiles except for the fourth quintile<sup>9</sup>. In fact, Table 9 suggests that most of the benefits of tax law changes in the first half of the 1980s were distributed most heavily on the upper and lower tails of the income distribution<sup>10</sup>.

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<sup>9</sup> In 1985, the fourth quintile represented taxpayers with AGI between \$23 thousand and \$37 thousand.

<sup>10</sup> It should be noted that this analysis cannot control for demographic change. Thus, to the extent that effective tax rates for a particular group change due to demographic changes within that group, and not tax law changes, these effects cannot be distinguished from tax law change effects.

TABLE 9

CHANGE IN CALIFORNIA PIT EFFECTIVE TAX RATES  
FROM 1980 TO 1985 AND 1988

INCOME DISTRIBUTION SEGMENT	EFFECTIVE TAX RATE			PERCENTAGE CHANGE	
	1980	1985	1988	1980 TO 1985	1980 TO 1988
BOTTOM QUINTILE 1/	0.00%	0.02%	0.01%	N/A	N/A
2ND QUINTILE	0.63%	0.54%	0.42%	-14.81%	-33.17%
3RD QUINTILE	1.58%	1.51%	1.33%	-4.65%	-16.08%
4TH QUINTILE	2.36%	2.50%	2.40%	5.83%	1.56%
TOP QUINTILE	4.44%	4.36%	5.14%	-1.84%	15.66%
TOP 10%	5.19%	4.92%	5.94%	-5.29%	14.37%
TOP 1%	7.46%	6.08%	7.78%	-18.56%	4.19%
TOTAL	3.17%	3.23%	3.68%	2.03%	15.93%

- 1/ The bottom quintile of the income distribution pays virtually no California PIT taxes. As such, the percentage change in effective tax rate figure for this quintile is not meaningful, and, therefore is excluded from this table.

From 1985 to 1988, however, there was a clear movement toward greater progressivity in the California PIT System. This is undoubtedly a result of California's 1987 federal conformity bill, which brought California's 1987 PIT law into conformity with most of the provisions of TRA86. The philosophy underpinning TRA86 was to broaden the base of taxable income so that tax rates could be reduced. Additionally, TRA86 attempted to exclude low-income taxpayers from the tax rolls by increasing standard deduction and personal and dependent exemption amounts. California's conformity bill followed the federal lead in most areas. Most importantly, California's conformity bill reduced tax rates, removed the capital gains exclusion, and increased standard deductions and personal and dependent credit amounts.

The repeal of the capital gains exclusion was the largest single base broadening provision in California's 1987 conformity bill. This provision was very progressive since, in 1988, over 90 percent of capital gains accrued to the top quintile of the income distribution. In 1980, the top 10 percent of taxpayers were able to reduce their AGI by almost 6 percent below what it would have been under a constant 1988 law definition of AGI. The bottom 90 percent were able to reduce their AGI by only 1 percent.

Even though the top tax rate was reduced from 11.3 percent to 9.3 percent, the combination of the full capital gains inclusion and the other base broadening elements of the conformity bill increased

the actual effective tax rate for the top quintile from 4 percent to 5 percent. As Table 9 shows, California PIT effective tax rates declined for all quintiles except the top quintile. Further, within the top quintile, the increase was greatest for higher income taxpayers.

Table 9 shows that, over all, from 1980 to 1988, the California PIT System has become, for the most part, more progressive. Effective tax rates have decreased for the lower quintiles, while they have increased for the top two quintiles.

#### Growth in the Concentration of After-Tax Income

In the beginning of this chapter, we discussed the growth in the concentration of AGI. A more useful measure of the economic well-being of a taxpayer is his/her after-tax income. In this section, we analyze the growth in concentration of after-tax income during the 1980s.

Although the California PIT System is progressive and became more so during the 1980s, after-tax income concentration levels have grown almost as much as pre-tax (AGI) concentration levels. In this section, after-tax income is defined as AGI minus California PIT liability. Table 10 shows the growth, between 1980 and 1988, of pre-tax income (AGI) and after-tax income for the five quintiles and the top 10 and 1 percent of the income distribution. As this

TABLE 10

CHANGE IN PRE-TAX INCOME (AGI) AND AFTER-TAX INCOME  
1980 TO 1988

INCOME DISTRIBUTION SEGMENT	AGI 1/ PER RETURN (REAL 1988 DOLLARS)			AFTER-TAX INCOME 2/ PER RETURN (REAL 1988 DOLLARS)		
	1980	1988	PERCENTAGE CHANGE	1980	1988	PERCENTAGE CHANGE
BOTTOM QUINTILE	2,824	3,074	8.85%	2,824	3,074	8.84%
2ND QUINTILE	11,110	10,674	-3.93%	11,039	10,628	-3.72%
3RD QUINTILE	20,253	20,193	-0.30%	19,933	19,925	-0.04%
4TH QUINTILE	33,214	34,664	4.36%	32,430	33,832	4.33%
TOP QUINTILE	73,313	90,612	23.60%	70,057	85,957	22.70%
TOP 10%	97,916	129,062	31.81%	92,834	121,348	30.72%
TOP 1%	289,533	508,743	75.71%	267,921	468,909	75.02%
TOTAL	27,775	31,367	12.93%	26,894	30,214	12.35%

1/ AGI is defined, as best as possible, on a 1988 constant law basis. To accomplish this, we have added excluded capital gains, moving expenses, employee business expenses and disability income back into 1980 AGI.

2/ After tax income is defined as 1988 Constant Law AGI minus California PIT taxes.

table shows, AGI growth and after-tax income growth are very similar. AGI growth rates for the top 10 and 1 percent were 31.8 percent and 75.7 percent, respectively. After-tax income growth was just slightly less, at 30.7 percent and 75.0 percent.

Table 11 compares concentration and growth in concentration of AGI and after-tax income for 1980 and 1988. After-tax income shares are very close to AGI shares. Additionally, the percentage changes in after-tax income shares, although generally reflecting the progressivity of the California PIT System, are very close to the percentage changes in AGI.

The after-tax income concept used in this section is admittedly incomplete. A more interesting concept would include federal taxes and the other state and local taxes. However, as mentioned in the introduction, we do not currently possess the tools to perform such an analysis. It should be noted that the federal tax system is not nearly as progressive as the California PIT System, and, also, that most of the omitted state and local taxes are likely regressive. As such, it is very likely that a more thorough analysis - one that included all state, local, and federal taxes - would reveal at least the same amount of increase in the concentration of after-tax income that our current results show.

TABLE 11

CHANGE IN PRE-TAX (AGI) INCOME CONCENTRATION AND  
AFTER-TAX INCOME CONCENTRATION  
1980 TO 1988

INCOME DISTRIBUTION SEGMENT	AGI 1/			AFTER-TAX INCOME 2/		
	1980	1988	PERCENTAGE CHANGE	1980	1988	PERCENTAGE CHANGE
BOTTOM QUINTILE	2.02%	1.95%	-3.58%	2.09%	2.02%	-3.08%
2ND QUINTILE	7.94%	6.76%	-14.90%	8.15%	6.99%	-14.27%
3RD QUINTILE	14.48%	12.79%	-11.68%	14.72%	13.10%	-10.99%
4TH QUINTILE	23.75%	21.95%	-7.55%	23.95%	22.24%	-7.10%
TOP QUINTILE	52.42%	57.39%	9.48%	51.73%	56.52%	9.26%
TOP 10%	35.25%	41.15%	16.71%	34.52%	40.16%	16.35%
TOP 1%	10.42%	16.22%	55.59%	9.96%	15.52%	55.79%

1/ AGI is defined, as best as possible, on a 1988 constant law basis. To accomplish this, we have added excluded capital gains, moving expenses, employee business expenses and disability income back into 1980 AGI.

2/ After-tax income is defined as 1988 Constant Law AGI minus California PIT taxes.

CHAPTER IV.       SUMMARY

This paper presents analyses of the progressivity of the California PIT System and the growth in California income concentration in the 1980s. We have found that the California PIT System is a highly progressive system. This result can be shown by looking at either effective tax rates or tax burden shares, both of which are substantially greater for top taxpayers than for other taxpayers.

We also have found a large increase in income concentration in California during the 1980s. This increase is very similar to the federal trend in the growth of income concentration. At the federal level, the growing concentration of income coincided with an overall decrease in tax progressivity. The federal tax system became substantially less progressive in the early 1980s; and although this trend was reversed with the Federal Tax Reform Act of 1986, the net impact was still to reduce progressivity. In California, the PIT System became slightly more progressive during the 1980s. In spite of the progressivity of the PIT System and the slight increase in PIT progressivity during the past decade, the concentration of after-tax income had risen in California, almost as fast as the concentration of pre-tax income.

It is fitting that this paper should conclude with a restatement of

the limitations of this analysis. First, it is outside the domain of this paper to argue for or against any level of progressivity. These judgements must be made by the reader. Second, this analysis is not complete, in that it does not consider the progressivity of any other taxes paid by California residents. Unfortunately, the State of California does not possess the tools to perform a complete analysis at this time. This is particularly unfortunate in light of the fact that PIT revenues make up only 37 percent of state revenues.

The fact that the state PIT System is progressive and has become more progressive in the 1980s does not, in itself, indicate that the state tax structure is progressive or has become more progressive. To make that determination, it is necessary to examine the remaining 63 percent of state revenues. These revenue sources - composed of sales taxes, excise taxes, corporation taxes, and user fees - in total, definitely are less progressive than the PIT System. Further, many, and potentially all, of these revenue sources are likely regressive in an absolute sense.