OFFICE OF FINANCIAL MANAGEMENT

The Distribution of Income, Wealth, and Taxes Across Washington Households

Prepared Pursuant to Section 708 of Third Engrossed Substitute House Bill 2127

Forecasting Division

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Introduction and Summary of Key Findings

Introduction and Objectives of the Study

This report is prepared pursuant to Section 708 of Third Engrossed Substitute House Bill 2127 (Sec. 708 3ESHB 2127). The overall objective of this study is to provide information on the distribution of income, wealth and taxes across Washington households as well as changes in the distribution of income, and wealth over time.

As required by Sec. 708 3ESHB, the report includes the following:

- Estimates of income distribution by quintile and/or decile for most current data (2009). Quintiles are groupings of households ranked by income, then divided into five equal-sized groups. Deciles are the same, but in ten equal-sized groups.
- Year-over-year estimates of real income gains (or losses) by income decile from 2005-2009.
- Estimates of wealth distribution by quintile and/or decile for most current data (2010).
- The combined Washington state and local tax burden by decile for most current data (2009). Taxes include state and local retail sales tax, alcoholic beverages taxes, cigarette and tobacco taxes, insurance premiums taxes, gasoline tax, state and local public utility taxes, state and local property taxes.
- Combined Washington state and local tax burden per $1,000 personal income and per capita over time from 1960 – 2009.
- Combined Washington state and local tax burden as a percentage of Gross State Product over time from 1963 – 2009.

The study goes beyond the requirements of 3ESHB 2127 by providing some additional estimates that give a more complete picture of the income and wealth distribution in Washington state. The study includes detailed distribution estimates by type of income and wealth. Also included in the study are estimates of income mobility from 2005 through 2009 for 2005 Washington households.

Because no one data source contains enough data to answer all of the questions, several data sources were used in estimation. Data for most parts of the study are from 2005 through 2009 for income analysis and from 2007 through 2010 for wealth analysis. The data periods were chosen because they provide the most current and reliable data available. This time period is also of interest since it shows income and wealth distribution before, during, and after the great recession. The main data sources for the report are:

- 2005 - 2009 IRS microdata for Washington residents for income deciles, and longitudinal income changes.
- 2010 American Community Survey, Washington responses combined with 2010 Survey of Consumer Finances for wealth distributions and income distribution comparisons with the U.S.
- 2007-2010 Washington State Estate Tax data for wealth estimates of the wealthiest Washingtonians.
- 2005 - 2009 Consumer Expenditure Survey data combined with 2005-2009 American Community Survey data for taxes paid by income decile.

- 2010 Bureau of Economic analysis data on personal income, gross state product combined with DOR tax data for taxes paid per capita, as a percent of personal income, and as a percent of Gross State Product.

Data was not available beyond 2010 for wealth estimates and beyond 2009 for income estimates. Attempts were made to extrapolate tax burden to 2012, but too many assumptions had to be made that seriously degraded the reliability of the estimates, so the attempts were abandoned.

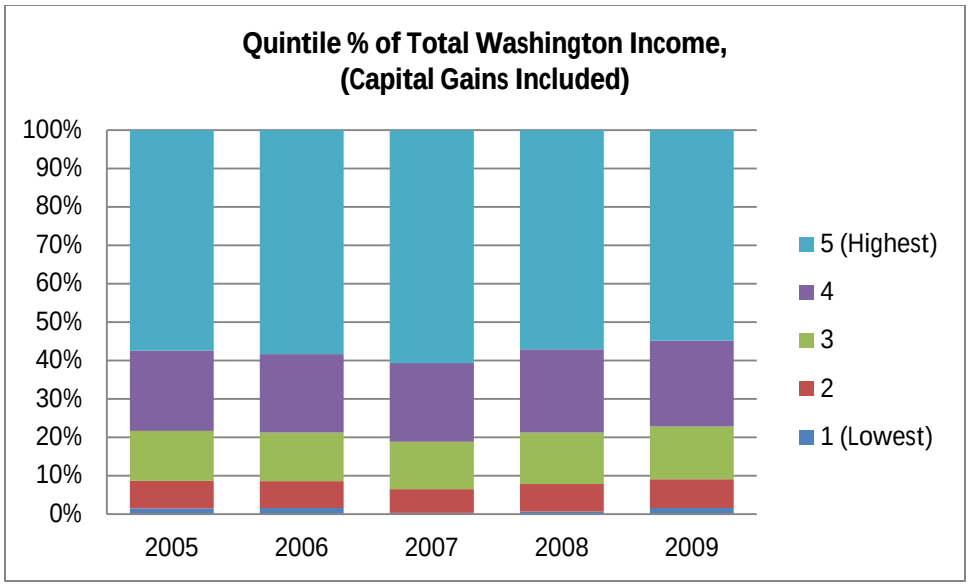
Summary of Key Findings

The study found that Washington has a top-heavy income and wealth distribution, with over half of the income going to the top 20% of household and over half of the wealth going to the top five percent of households. Tracking the same 2005 households over time, showed that most 2005 households stayed in their same decile or moved to an adjacent decile from 2005 to 2009. More households moved to a higher decile than a lower decile. The Great Recession decreased real income for all income categories, slightly more for the upper income categories. Wealth for the highest one percent of households, (the only household wealth that could be measured over time) also decreased during the recession. Washington state and local taxes are regressive; the tax burden for total taxes as well as each individual tax represented in this study, are all regressive. All three measures of state and local taxes have decreased sometime during the great recession: per $1,000 of personal income (continuing a long-term downward trend), on a per capita basis (since 2007) and as a percent of GDP (in 2009).

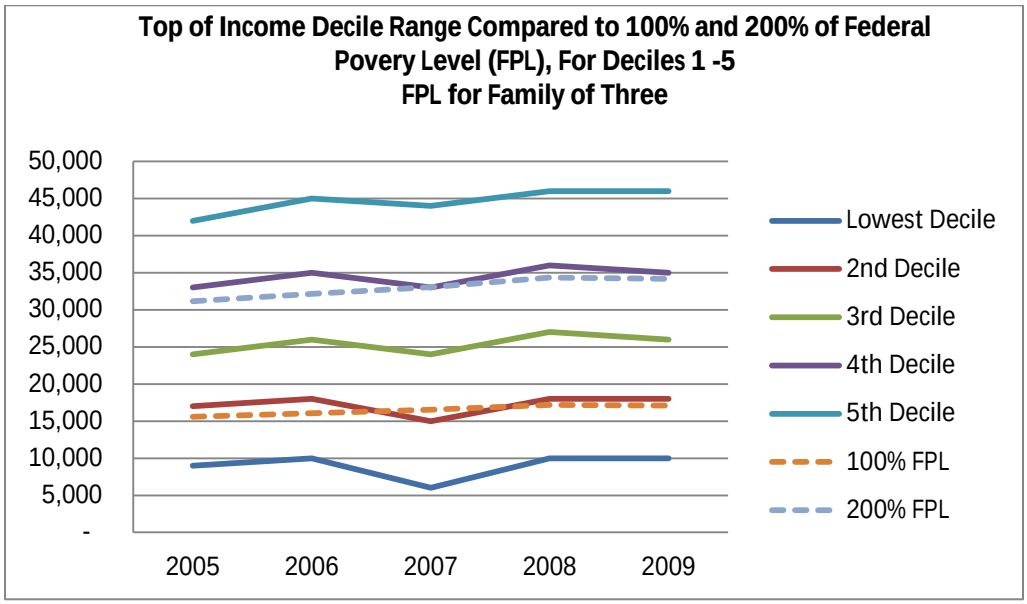
More findings are below:

Washington State Income Distribution: Income Deciles and Quintiles from 2005 through 2009

- In 2005, 57.4% of total Washington income went to the top 20% of households, 1.5% of income went to the bottom 20% of households. The second-to-lowest quintile earned 7.2% of income.
- In 2009, 54.8% of total Washington income went to the top 20% of households, 1.6% of income went to the bottom 20%. The second-to-lowest quintile earned 7.5% of income. Only the top quintile lost share of total income between 2005 and 2009 (a decrease of 2.6% of the total share).
- From 2005 to 2009, the range for all income deciles increased in nominal terms. However, in real terms, all deciles decreased.
- Total Washington income was highest in 2007 compared to the other study years.
- For each year from 2005 through 2009 the Federal Poverty Level (FPL) for a family of three fell at about the top of the second decile income range. Two-hundred percent of the FPL fell in the upper end of the fourth decile income range.
- Salaries and wages are the largest source of income for households in all quintiles. In 2005, salaries and wages comprised about 80% of total income for quintiles one through four, and around 60% for the highest-income quintile.
- The lowest quintile has the most variation in terms of source of income. This quintile includes the highest business losses and other losses, and the highest percentage of income coming from IRA/pensions/annuities and high capital gains. Note that despite considerable data-clean-up, this category could include some data anomalies.



Source: IRS Data

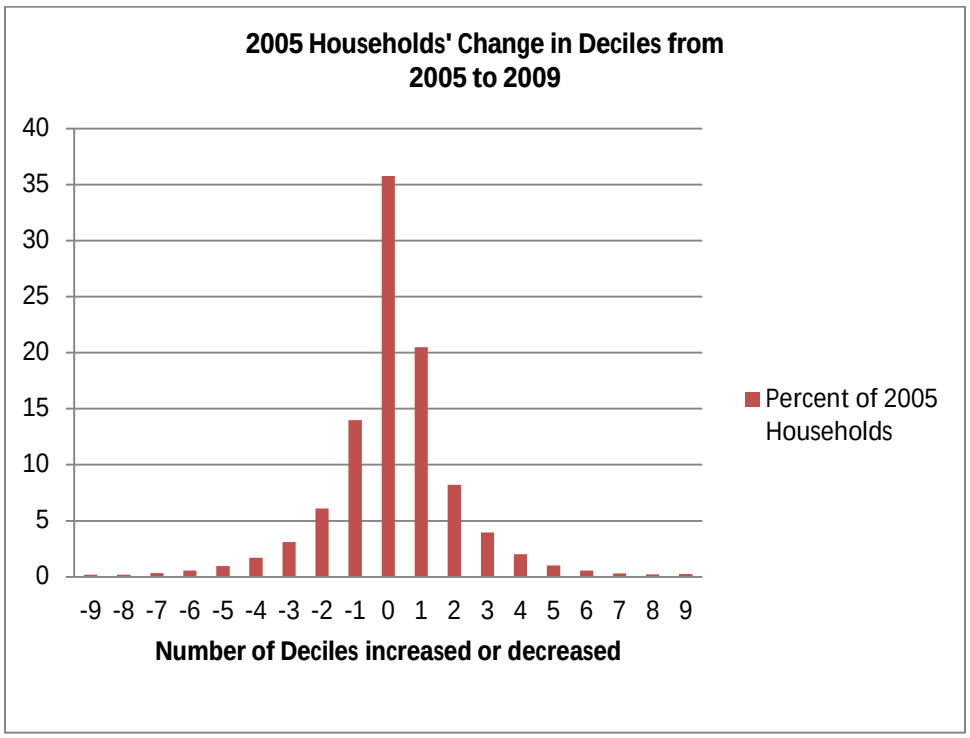


Source: IRS Data and U.S. Census

Income mobility: Tracking Changes in Household Movement Across Deciles, Over Time

- Between 2005 and 2009, more 2005 households moved up in deciles than down. Over 37% of 2005 households moved to a higher decile in 2009. Over 27% moved to a lower decile. The remaining 36% stayed in the same decile.

- The majority of lower income households moved up. About two-thirds of the households in the lowest 2005 decile increased at least one decile by 2009. About 54% of households in the second lowest 2005 decile increased by at least one decile by 2009. About 17% of the second lowest decile decreased to the lowest decile.
- The majority of middle class households (as measured by the fifth decile) either increased or stayed the same. About 44% of the households in the fifth decile increased to another decile, 28% stayed the same and about 28% decreased.
- Over two-thirds of the 2005 highest-decile households remained in the highest decile in 2009.
- The fact that existing households were more likely to move up instead of down in their relative income position implies that new households are more likely to begin in a relatively low decile.



Source: IRS Data

Washington State Wealth Distribution

- The top five percent of wealth holders own over half the total wealth in Washington state. (Note that wealth estimates for the wealthiest Washingtonians are probably understated.)
- The lowest decile of wealth holders have negative net worth.
- The majority of lower, lower-middle class, and middle class Washington households (those in *income* deciles one through three) do not own retirement accounts such as IRAs or other financial assets other than checking accounts. About 90% of households above the 80th income percentile own retirement accounts. (Note that defined benefit plans and Social Security are not included.)
- Primary residence is the most widely held non-financial asset, however less than half of households under the 20th income percentile own their primary residence.

- Wealth owned by the top one percent of Washingtonians (excluding the seven "Forbes 400" wealth holders) is an estimated 10% of total Washington wealth. Including the seven individuals, the estimated percentage is 19%. (Note that these percentages are probably conservative.)
- The net worth of the approximately one percent highest wealth owners in Washington declined by 14% from 2007 to 2010 during the great recession.
- The top seven wealth holders have a total net worth estimated to be $111.1 billion by Forbes.

Washington 2010 Wealth Distribution by 2010 Wealth Quintiles Distribution from Matching SCF with ACS Washington Data

Percentile of 2010 Wealth	*Share of Total Wealth (Net Worth)*
Less than 20 %	-0.6%
20 to 40%	0.9%
40 to 60%	4.8%
60 to 80%	14.0%
Over 80%	80.8%

Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS

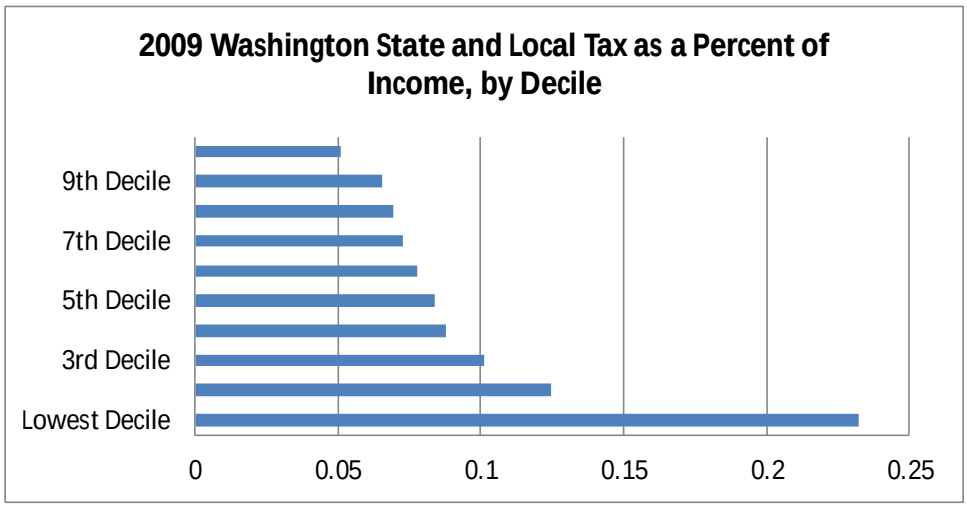
Washington 2010 Wealth Distribution by 2010 Income Quintiles Distribution from Matching SCF with ACS Washington Data

Percentile of 2010 Income	*Share of Total Wealth (Net Worth)*
Less than 20 %	12.2%
20 to 40%	8.4%
40 to 60%	12.3%
60 to 80%	16.2%
Over 80%	50.9%

Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS

State and Local Taxes Paid by Income Decile

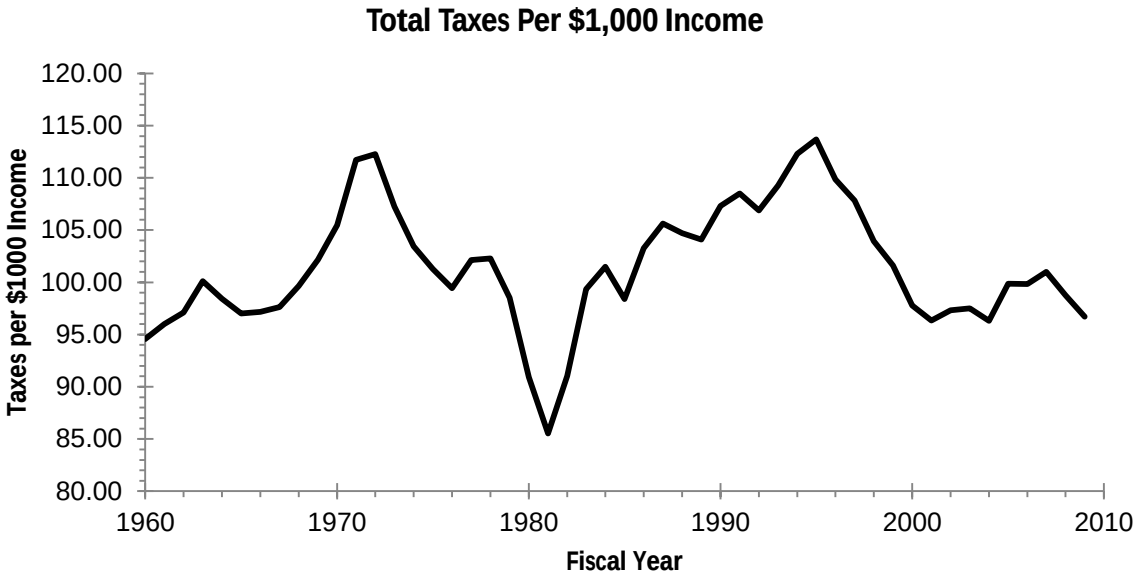
- Total state and local taxes are over 4.5 times as large for the lowest income category compared to the highest income category.
- The second lowest income category pays almost 2.5 times as much taxes as a percentage of income as the highest income category.
- Taxes as a percentage of income decrease as income increases throughout all deciles.
- Local property taxes are the highest individual tax across all deciles. When combining state and local taxes, property and sales taxes are very close in terms of total tax burden. (Note that property taxes on multi-family housing are not included, they are assumed to be paid by businesses, not renters.)
- State and local sales taxes combined are slightly more regressive than state and local property taxes combined.



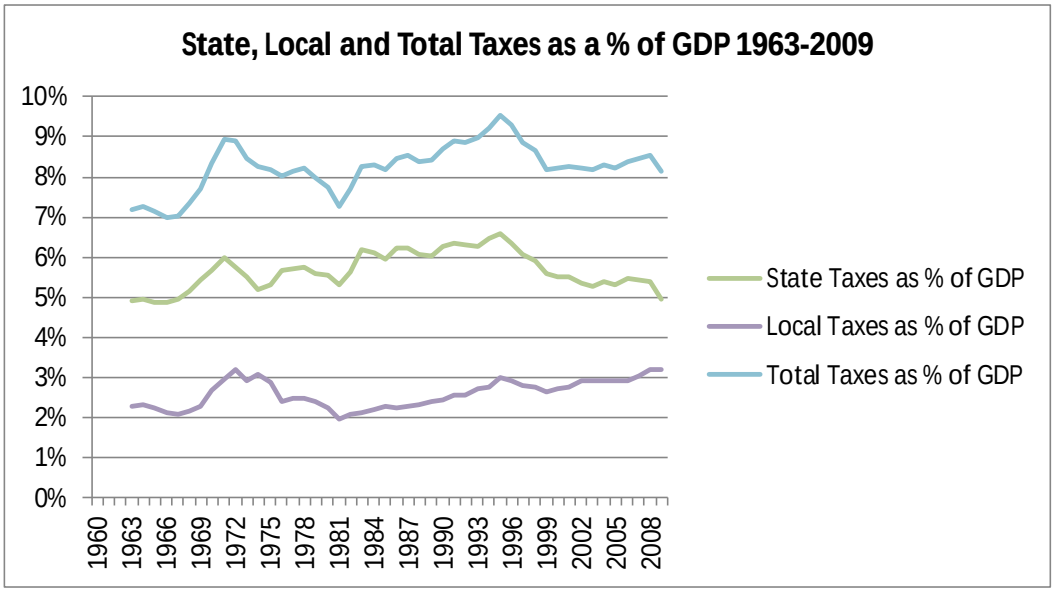
Source: IRS, Consumer Expenditure Survey, American Community Survey

History of Washington Taxes over Time, 1960-2009 (Note: Includes Taxes with Business Incidence)

- State and local taxes per $1,000 of personal income have been declining generally since 1995.
- State and local taxes per capita had been increasing until 2007. Since 2007 they have been decreasing.
- State and local taxes as a percentage of GDP have been fairly flat since the late 90s, but decreased in 2009.
- Compared to other states, Washington ranked 42nd, with 50 being the lowest, in terms of state and local taxes as a percentage of GDP in Fiscal Year 2009.



Source: U.S. Census



Source: U.S. Census

Chapter 1

Washington State Income Distribution: Income Deciles and Quintiles from 2005 through 2009

Introduction

This chapter shows income distribution in Washington state by presenting and analyzing estimates on income quintiles and deciles from 2005 to 2009. A brief introduction and list of key findings is followed by detailed graphs and tables with discussions of their implications. The chapter concludes with a description of the data and methodology.

Income deciles show the range of income for the lowest 10% of households through the highest 10% of households. In order to determine deciles, households are sorted from lowest to highest income, then broken into 10 groups with equal number of households. The lowest and highest income from each group defines that group's income range.

Sources of income that are included are:

- Salary and wages,
- Capital gains/interest earnings/dividends/other gains,
- Transfer payments,
- IRA distributions/pensions/annuities,
- Business/rental/farm income and royalties,
- Unemployment/alimony/taxes/other income

Most of the data for this analysis are from IRS tax returns for all residents of Washington from 2005-2009. Note that because of the different data sources, the estimates of income deciles differ slightly in this chapter compared to chapters 3 and 4. The income deciles reported in this chapter are the most accurate. Washington households are required to file with the IRS and the data is audited. The other sources of data reported in other chapters, the American Community Survey, the Survey of Consumer Finance and the Consumer Expenditure survey, are less accurate because they are based on voluntary, un-audited survey data. The use of other data is necessary either because the IRS data did not have enough data on wealth and consumption.

It is important to keep in mind that the lowest decile and quintile may not be representative of the lowest income households in Washington. The lowest decile and quintile include negative income from business losses, capital losses and other losses. Also, despite considerable data-clean-up, this category could include some data anomalies. The second to lowest decile and quintile may be more representative of low-wage households.

For purposes of this study, households are defined as economic units. Tax returns of individuals are combined if they are married (filing separately), un-married partners, or parents with dependent children. Detail on how tax returns were grouped into households is in the *methodology* section of this chapter.

Key Findings

- In 2005, 57.4% of total Washington income went to the top 20% of households, 1.5% of income went to the bottom 20% of households. The second-to-lowest quintile earned 7.2% of income.
- In 2009, 54.8% of total Washington income went to the top 20% of households, 1.6% of income went to the bottom 20%. The second-to-lowest quintile earned 7.5% of income. Only the top quintile lost share of total income between 2005 and 2009 (a decrease of 2.6% of the total share).
- From 2005 to 2009, the range for all income deciles increased in nominal terms. However, in real terms, all deciles decreased.
- Total income summed across all Washington deciles was highest in 2007 compared to the other study years.
- For each year from 2005 through 2009 the Federal Poverty Level (FPL) for a family of three fell at about the top of the second decile income range. Two-hundred percent of the FPL fell in the upper end of the 4th decile income range. (FPL data from U.S. Census.)
- Salaries and wages are the largest source of income for households in all quintiles. In 2005, salaries and wages were about 80% of total income for quintiles one through four, and around 60% for the highest-income quintile.
- The lowest quintile has the most variation in terms of source of income. This quintile includes the highest business losses and other losses, and the highest percentage of income coming from IRA/pensions/annuities and high capital gains. Note that despite considerable data-clean-up, this category could include some data anomalies.

Detailed Analysis

Percentage of Income Held by Income Quintiles

The following two graphs and accompanying tables show the percentage of income that is held by each quintile in Washington state for each year from 2005 to 2009. The first set of graph and table includes capital gains in the definition of income. In 2005, the top quintile held 57.4% of total Washington income. The bottom Quintile held 1.5%. The second lowest quintile held 7.2%. These percentages changed to 54.8%, 1.6%, and 7.5% respectively in 2009.

Graph 1.1

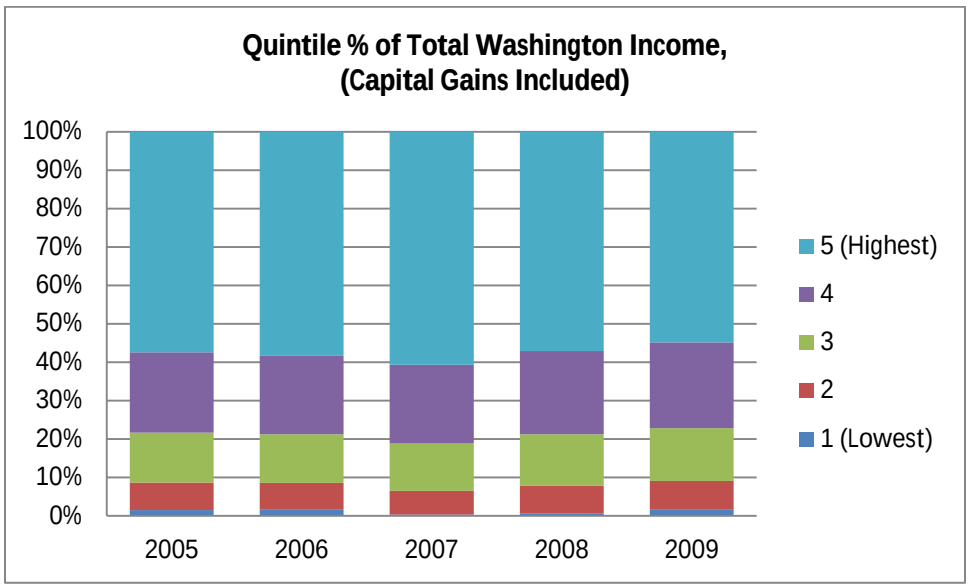


Table 1.1

Quintile % of Total Income Over Time (Capital Gains Included)					
	1 (Lowest)	***2***	***3***	***4***	***5 (Highest)***
2005	1.5%	7.2%	13.0%	20.9%	57.4%
2006	1.6%	7.0%	12.7%	20.4%	58.3%
2007	0.4%	6.1%	12.3%	20.5%	60.7%
2008	0.7%	7.2%	13.4%	21.7%	57.1%
2009	1.6%	7.5%	13.8%	22.4%	54.8%

Note that the sums across quintiles may not equal 100% because of rounding.

The following set of graph and table is the same as the previous set, except that capital gains are not included in the definition of income. Note that the result is almost the same. The most significant difference is that in 2009, the highest quintile earned 53.9% of total income as opposed to 54.8 % when capital gains are included.

Graph 1.2

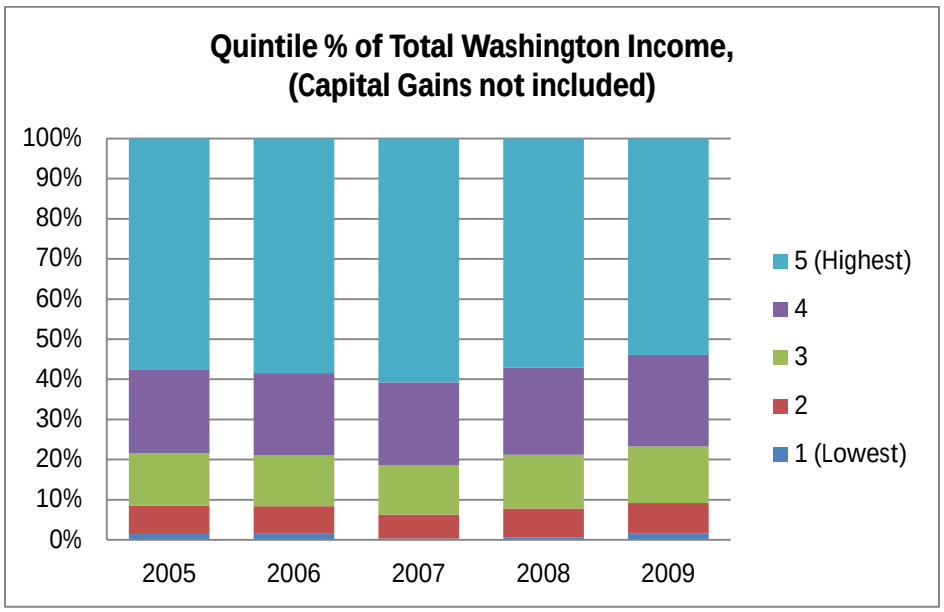


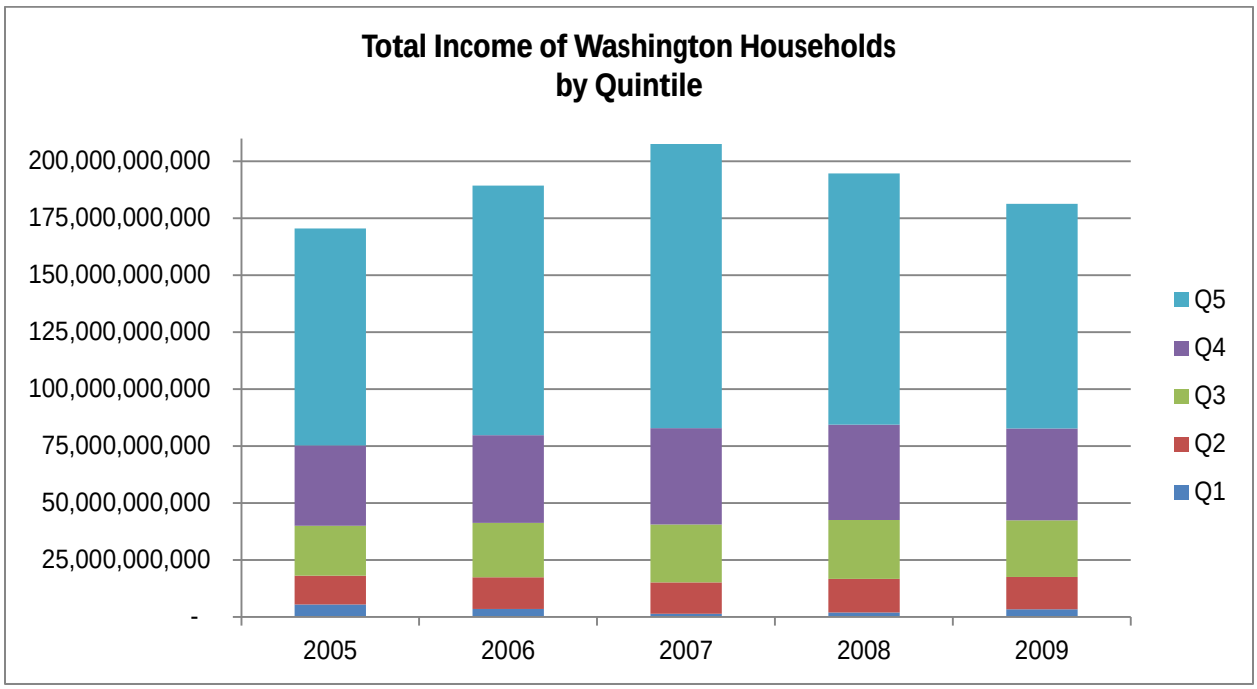
Table 1.2

Quintile % of Total Income Over Time (Excluding Capital Gains)					
	1 (Lowest)	***2***	***3***	***4***	***5 (Highest)***
2005	1.5%	7.1%	13.0%	20.9%	57.5%
2006	1.5%	6.8%	12.7%	20.5%	58.4%
2007	0.3%	6.0%	12.3%	20.5%	60.8%
2008	0.7%	7.1%	13.4%	21.7%	57.1%
2009	1.5%	7.7%	14.1%	22.9%	53.9%

Note that the sums across quintiles may not equal 100% because of rounding.

Graph 1.3 shows the dollar amount of total Washington household income held by each quintile. Notice that during the period 2005 – 2009 total household income peaked in 2007, declined in 2008, and continued to decline in 2009.

Graph 1.3



Income Deciles

Tables 1.3 through 1.7 show the decile ranges for Washington households from 2005 to 2009. Each decile represents 10% of Washington households. The tables report the range of income for each decile as well as the mean and standard deviation. Note that in the first (lowest) decile, mean income is negative, and that the standard deviation is very large. This is because this decile includes net negative income caused by business, capital or other losses. Because of this, the second lowest decile may be more representative of low income households.

Because differences are small depending on whether income includes or excludes capital gains, only tables including capital gains are included in this report.

Table 1.3

2005 Washington State Income Deciles Total Nominal Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	9,000	$	(2,029)	$	145,740
2	$	9,001	$	17,000	$	14,270	$	2,263
3	$	17,001	$	24,000	$	21,976	$	2,286
4	$	24,001	$	33,000	$	30,295	$	2,522
5	$	33,001	$	42,000	$	37,324	$	2,769
6	$	42,001	$	54,000	$	47,856	$	3,342
7	$	54,001	$	68,000	$	60,594	$	4,046
8	$	68,001	$	86,000	$	76,589	$	5,329
9	$	86,001	$	120,000	$	100,670	$	9,389
10	$	120,001			$	275,461	$	892,971

All deciles increased in nominal terms from 2005 to 2006.

Table 1.4

2006 Washington State Income Deciles Total Nominal Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	10,000	$	(1,314)	$	180,337
2	$	10,001	$	18,000	$	14,270	$	2,263
3	$	18,001	$	26,000	$	21,976	$	2,286
4	$	26,001	$	35,000	$	30,295	$	2,522
5	$	35,001	$	45,000	$	39,702	$	2,942
6	$	45,001	$	57,000	$	50,923	$	3,545
7	$	57,001	$	72,000	$	64,410	$	4,287
8	$	72,001	$	92,000	$	81,377	$	5,666
9	$	92,001	$	128,000	$	107,358	$	10,270
10	$	128,001			$	308,677	$	975,235

All deciles except the highest deciles (7, 8 and 9) decreased in nominal terms from 2006 to 2007.

Table 1.5

2007 Washington State Income Deciles Total Nominal Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	6,000	$	(5,839)	$	212,855
2	$	6,001	$	15,000	$	10,591	$	2,666
3	$	15,001	$	24,000	$	19,309	$	2,458
4	$	24,001	$	33,000	$	28,196	$	2,682
5	$	33,001	$	44,000	$	38,186	$	3,124
6	$	44,001	$	57,000	$	50,083	$	3,768
7	$	57,001	$	73,000	$	64,444	$	4,556
8	$	73,001	$	94,000	$	82,548	$	6,036
9	$	94,001	$	132,000	$	110,031	$	10,810
10	$	132,001			$	324,604	$	1,049,211

All income deciles increased in nominal terms between 2007 and 2008. The increase was enough to regain 2007 levels and for all deciles except the first and second, to surpass the 2006 levels.

Table 1.6

2008 Washington State Income Deciles Total Nominal Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	10,000	$	(7,169)	$	258,489
2	$	10,001	$	18,000	$	14,307	$	2,384
3	$	18,001	$	27,000	$	22,459	$	2,391
4	$	27,001	$	36,000	$	31,116	$	2,620
5	$	36,001	$	46,000	$	40,905	$	3,056
6	$	46,001	$	59,000	$	52,601	$	3,709
7	$	59,001	$	75,000	$	66,766	$	4,510
8	$	75,001	$	96,000	$	84,589	$	5,925
9	$	96,001	$	132,000	$	111,331	$	10,393
10	$	132,001			$	287,527	$	912,940

All income deciles decreased in nominal terms from 2008 to 2009 except the first, second, and fifth. These three deciles stayed the same.

Table 1.7

2009 Washington State Income Deciles Total Nominal Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	10,000	$	(1,635)	$	159,826
2	$	10,001	$	18,000	$	14,334	$	2,321
3	$	18,001	$	26,000	$	22,311	$	2,315
4	$	26,001	$	35,000	$	30,690	$	2,555
5	$	35,001	$	46,000	$	40,316	$	3,024
6	$	46,001	$	58,000	$	51,891	$	3,677
7	$	58,001	$	74,000	$	65,985	$	4,503
8	$	74,001	$	95,000	$	83,835	$	5,923
9	$	95,001	$	130,000	$	110,209	$	10,113
10	$	130,001			$	256,550	$	601,860

Table 1.8 shows the percentage change in income from 2005 to 2009, without fluctuations in intervening years. From 2005 to 2009 the top of each income decile range increased.

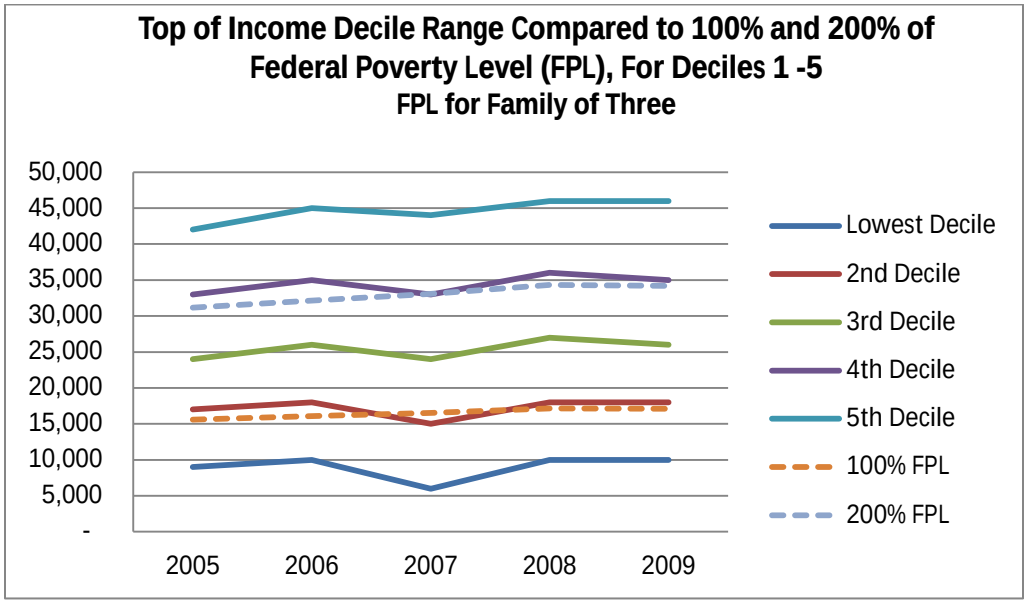
Table 1.8

Percentage Change in Deciles from 2005-2009 Nominal Total Income, Including Capital Gains				
Decile	*Decile Income Range*		*Mean Income*	*Standard Deviation*
1		11.1%	-19.4%	9.7%
2	11.1%	5.9%	0.0%	0.0%
3	5.9%	8.3%	0.0%	0.0%
4	8.3%	6.1%	0.0%	0.0%
5	6.1%	9.5%	8.0%	9.2%
6	9.5%	7.4%	8.4%	10.0%
7	7.4%	8.8%	8.9%	11.3%
8	8.8%	10.5%	9.5%	11.2%
9	10.5%	8.3%	9.5%	7.7%
10	8.3%		-6.9%	-32.6%

Income Deciles Compared to the Federal Poverty Level

For each year from 2005 through 2009 the Federal Poverty Level (FPL) for a family of three fell at about the top of the second decile income range. Two-hundred percent of the FPL fell in the upper end of the fourth decile income range. (FPL data from U.S. Census.)

Graph 1.4



Deciles Adjusted for Inflation in 2005 Dollars

In order to show changes in purchasing power across the 2005 – 2009 time period, the deciles are deflated to 2005 dollars using Seattle CPI. The resulting tables are below.

All deciles increased in real terms from 2005 to 2006.

Table 1.9

2006 Washington State Income Deciles--Real Income
In 2005 Dollars, Total Income Including Capital Gains

Decile	*Decile Income Range*		*Mean Income*	*Standard Deviation*
1	-	9,693	(1,274)	174,805
2	9,694	17,448	13,832	2,194
3	17,449	25,202	21,302	2,216
4	25,203	33,926	29,366	2,445
5	33,927	43,620	38,484	2,852
6	43,621	55,252	49,361	3,436
7	55,253	69,791	62,434	4,156
8	69,792	89,178	78,881	5,492
9	89,179	124,074	104,065	9,955
10	124,075	Above	299,208	945,320

All deciles decreased in real terms from 2006 to 2007 except for the highest three deciles.

Table 1.10

2007 Washington State Income Deciles--Real Income In 2005 Dollars, Total Income Including Capital Gains								
Decile	*Decile Income Range*					*Mean Income*	*Standard Deviation*	
1	$	-	$	5,593		$ (5,443)	$	198,408
2	$	5,594	$	13,982		$ 9,872	$	2,485
3	$	13,983	$	22,371		$ 17,998	$	2,291
4	$	22,372	$	30,760		$ 26,282	$	2,500
5	$	30,761	$	41,013		$ 35,595	$	2,912
6	$	41,014	$	53,131		$ 46,684	$	3,513
7	$	53,132	$	68,045		$ 60,070	$	4,246
8	$	68,046	$	87,620		$ 76,945	$	5,626
9	$	87,621	$	123,040		$ 102,562	$	10,076
10	$	123,041		Above		$ 302,571	$	977,996

From 2007 to 2008 the first five deciles increased in real terms. However, compared to 2005, all deciles decreased in real terms.

Table 1.11

2008 Washington State Income Deciles--Real Income In 2005 Dollars, Total Income Including Capital Gains								
Decile	*Decile Income Range*					*Mean Income*	*Standard Deviation*	
1	$	-	$	8,945		$ (6,413)	$	231,218
2	$	8,946	$	16,101		$ 12,798	$	2,132
3	$	16,102	$	24,151		$ 20,090	$	2,139
4	$	24,152	$	32,202		$ 27,833	$	2,344
5	$	32,203	$	41,147		$ 36,589	$	2,734
6	$	41,148	$	52,775		$ 47,052	$	3,318
7	$	52,776	$	67,087		$ 59,722	$	4,034
8	$	67,088	$	85,872		$ 75,665	$	5,299
9	$	85,873	$	118,074		$ 99,585	$	9,297
10	$	118,075		Above		$ 257,193	$	816,624

All deciles decreased from 2008 to 2009 in real terms.

Table 1.12

2009 Washington State Income Deciles--Real Income In 2005 Dollars, Total Income Including Capital Gains								
Decile	*Decile Income Range*				*Mean Income*		*Standard Deviation*	
1	$	-	$	8,739	$	(1,429)	$	139,677
2	$	8,740	$	15,731	$	12,527	$	2,028
3	$	15,732	$	22,722	$	19,498	$	2,023
4	$	22,723	$	30,588	$	26,821	$	2,233
5	$	30,589	$	40,201	$	35,234	$	2,643
6	$	40,202	$	50,688	$	45,349	$	3,213
7	$	50,689	$	64,671	$	57,667	$	3,935
8	$	64,672	$	83,024	$	73,266	$	5,176
9	$	83,025	$	113,611	$	96,315	$	8,838
10	$	113,612		Above	$	224,208	$	525,986

Table 1.13 shows the percentage decrease in real income by decile from 2005 – 2009 without fluctuations in intervening years. Comparing the beginning and ending years of this timespan, all decile ranges and means decreased in real terms.

Table 1.13

Percentage Change in Deciles from 2005-2009 Real Total Income in 2005 Dollars, Including Capital Gains				
Decile	*Decile Income Range*		*Mean Income*	*Standard Deviation*
1		-2.9%	-29.6%	-4.2%
2	-2.9%	-7.5%	-5.5%	-6.8%
3	-7.5%	-5.3%	-5.2%	-6.0%
4	-5.3%	-7.3%	-5.8%	-6.9%
5	-7.3%	-4.3%	-5.6%	-4.6%
6	-4.3%	-6.1%	-5.2%	-3.8%
7	-6.1%	-4.9%	-4.8%	-2.7%
8	-4.9%	-3.5%	-4.3%	-2.9%
9	-3.5%	-5.3%	-4.3%	-5.9%
10	-5.3%		-18.6%	-41.1%

Percentage changes in the Seattle CPI are included in the table below.

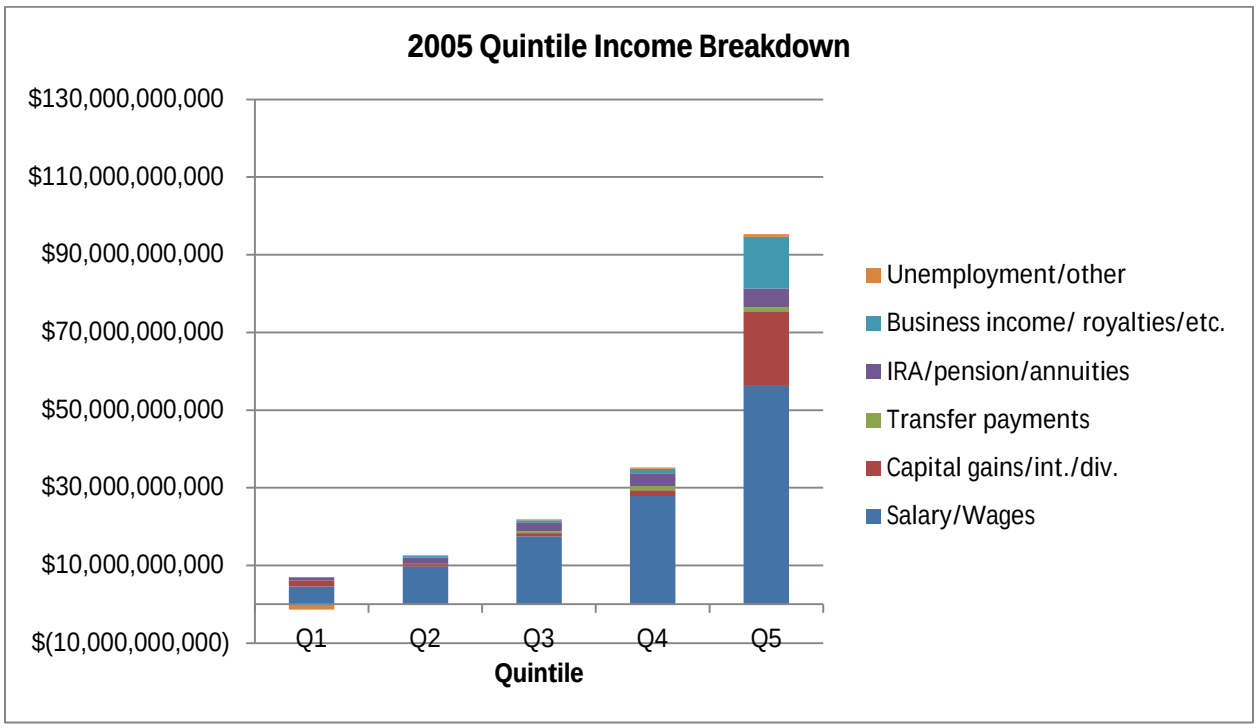
Table 1.14

Percentage Change in Seattle CPI		
2005-2006	3.2%	
2006-2007	4.0%	
2007-2008	4.2%	
2008-2009	2.4%	

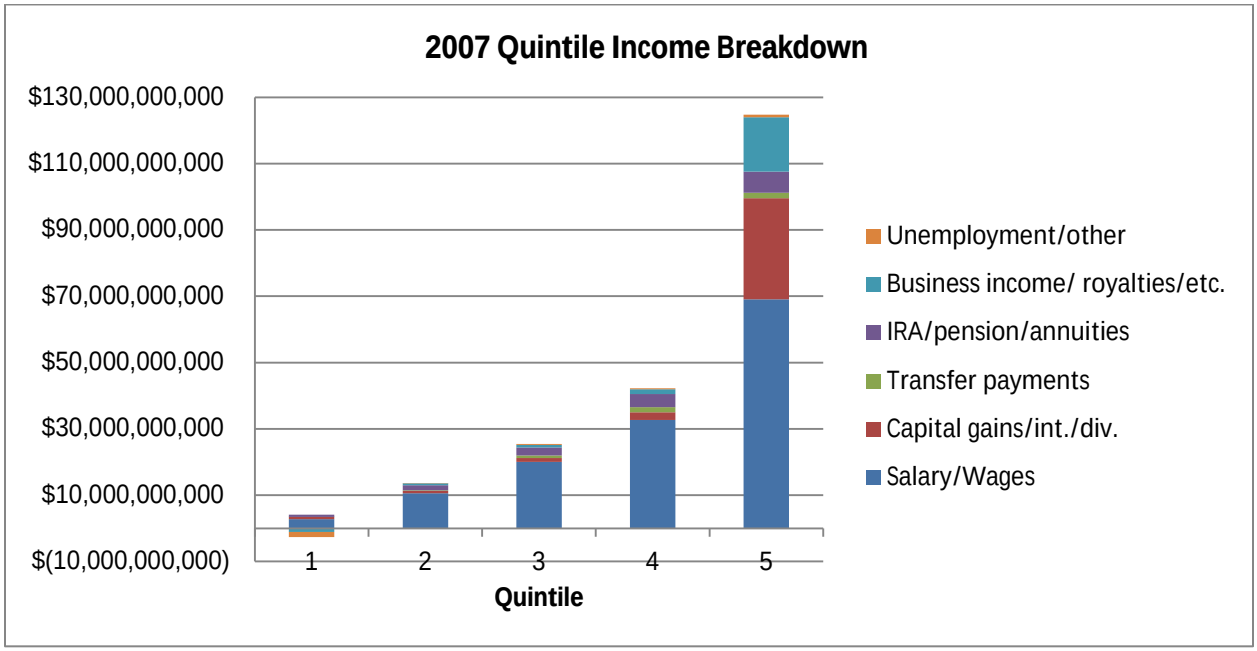
Sources of Income by Quintile

Graphs 1.4 through 1.6 show each quintile, broken down by source of income for years 2005, 2007, and 2009. In each year, the highest percentage of income in each category comes from salary and wages. Compared to other quintiles, the highest wage quintile receives higher amounts of income from every category, including the transfer payment category (social security) and the unemployment/other category.

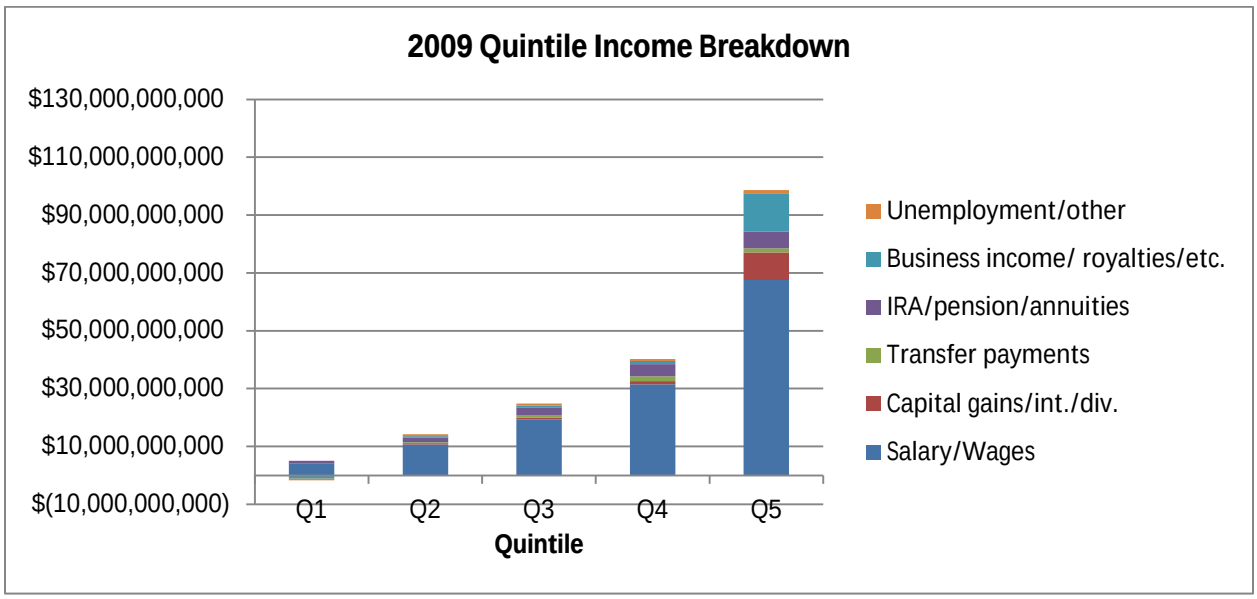
Graph 1.5



Graph 1.6



Graph 1.7

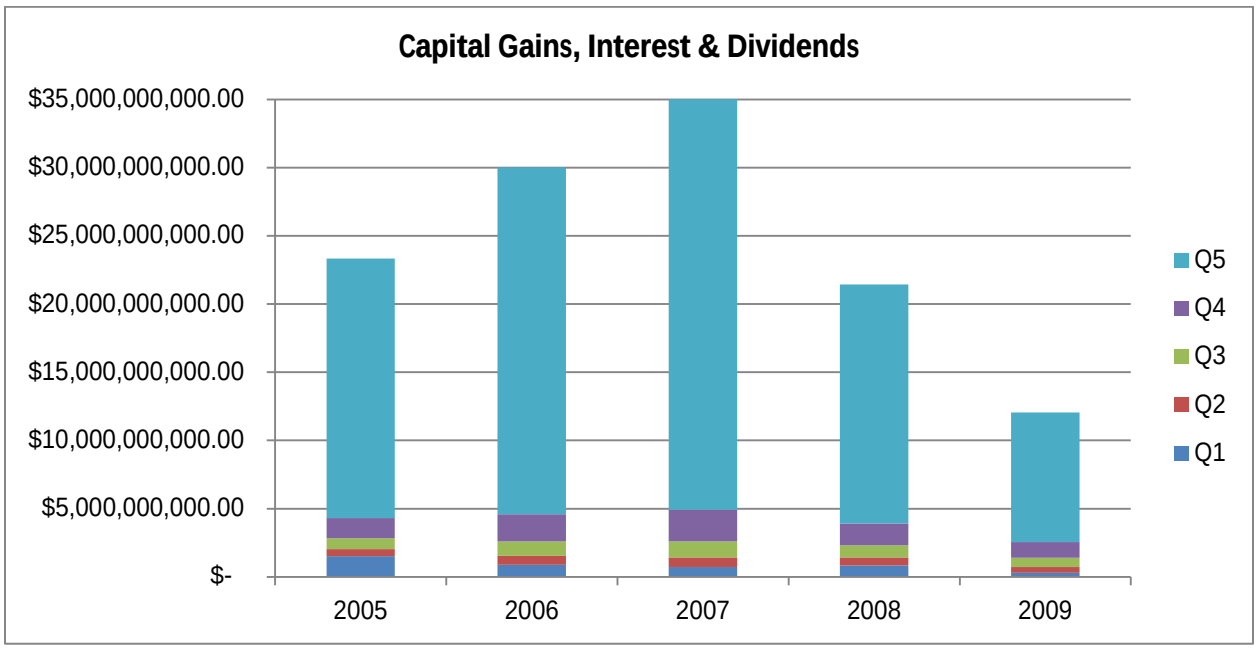


The percentage of Capital gains income in the lowest and highest quintiles shrinks considerably from 2005 to 2009. Capital gains peaked for the highest quintile in 2007.

The following graph show the amounts and distributions of the two largest income categories over time and by quintile.

Graph 1.8

Graph 1.9



The lowest quintile has considerable variation in terms of source of income. This quintile includes the highest business losses and highest other-income losses. The lowest quintile also has the highest percentage of income coming from IRA/pensions/annuities and high capital gains. Transfer payments are slightly lower in this quintile compared to others. This lowest category not only includes households with low salaries and wages, but also includes unprofitable sole proprietorships and partnerships and households with other losses. Note that despite considerable data-clean-up, this category could include some data anomalies.

Methodology for Determining Washington Income Deciles and Quintiles

The income deciles were determined by using IRS data for all Washington taxes that filed a tax return in years 2005 - 2009. All sources of income were included, i.e. all income reported on 1040, plus Schedule C and 1099 income. Detail on the tax returns allows for the disaggregation of income by source.

The deciles were determined both with and without capital gains information. Since the results did not change significantly as a result of the inclusion or exclusion of capital gains, they are not included in this report.

An effort was made to group returns into households defined as a single economic unit. This is also how the American Community Survey (ACS), which is used in the wealth distribution estimates, defines households (see chapter 3). The grouping was done in three stages. The first matched the Social Security numbers of non-head-of-household returns with the dependents listed on head-of-household returns. The second stage merged the married-filing-separately returns together using addresses.

The third stage deals with the remaining households that function as economic units, those with unmarried partners. This group of households is part of a larger group of households where individuals share addresses, but do not necessarily comprise an economic unit. Grouping all non-married returns by address merges too many individuals into households, for example, residents of some group homes and room-mates. In order to adjust for this bias, households with unmarried partners are imputed using information from the 2010 ACS micro-data. The survey asks respondents to indicate if they live in a household with non-relatives. The survey also asks if they live with an unmarried partner. The ACS also asks questions about household income.

The analysis starts with all Washington households in the ACS sample that live with a non-relative. This corresponds to the group of households from the IRS data with individuals that are un-married but share common addresses. The ACS group of households that live with non-relatives was broken into five sub-groups, based on income. The five income groups roughly represent Washington Income quintiles, as determined by a first cut of the IRS data. Within each of the five income-based sub-groups, the percentage of households that live with an un-married partner is calculated.

In parallel, the group of IRS households with individuals that are un-married but share common addresses is broken into the same five income groups. Using the percentages calculated from the ACS sub-groups, households within these groups are randomly assigned the status of having an un-married partner or not. Given the large number of households in each subgroup, this procedure yields fairly accurate results in aggregate.

Chapter 2

Income Mobility: Tracking Changes in Household Movement Across Deciles, Over Time

Introduction

This part of the analysis answers question regarding income mobility by tracking families from 2005 to 2009. The analysis shows a summary of the movement between deciles of all 2005 Washington households that were still in Washington state in 2009. The analysis only covers financial changes in the households; changes in income caused by marriage, divorce or other factors that would change household size are not included.

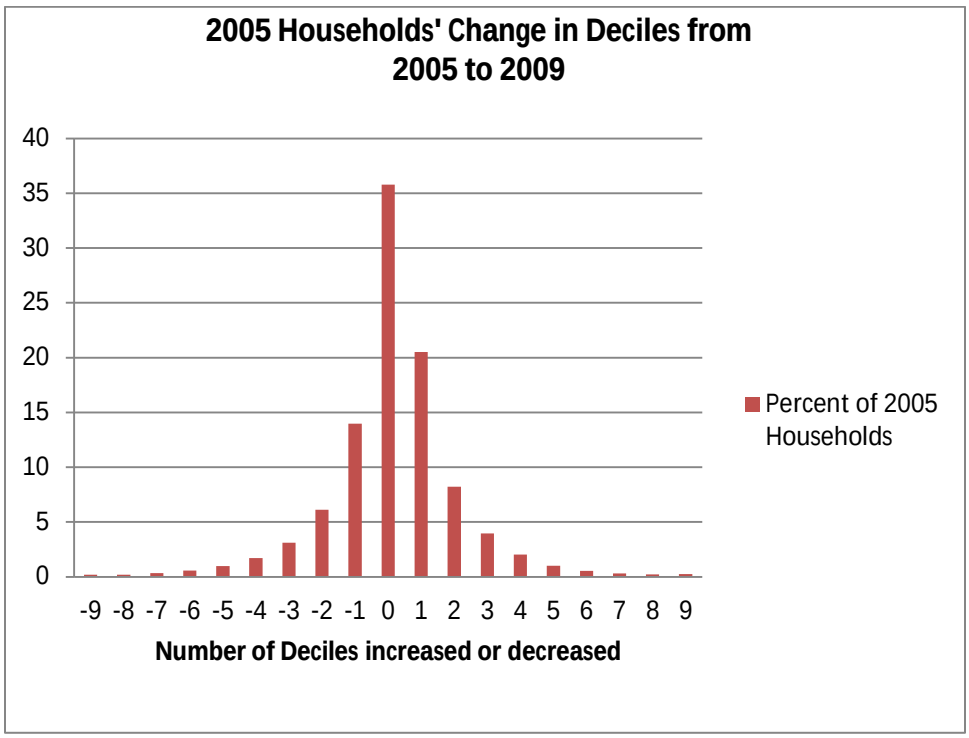
Key Findings

- More households moved up in deciles than down. Over 37% of 2005 households moved to a higher decile in 2009. Over 27% moved to a lower decile, the remaining 36% stayed in the same decile.
- About two-thirds of households in the lowest 2005 decile increased at least one decile by 2009. About 54% of households in the second lowest 2005 decile increased by at least one decile by 2009. About 17% decreased to the lowest decile.
- About 44% of the households in the fifth decile increased to another decile, and about 28% decreased.
- Over two-thirds of the 2005 highest decile households remained in the highest decile in 2009.
- The fact that existing households were more likely to move up instead of down in their relative income position implies that new households are more likely to begin in a relatively low decile.

Detailed Analysis

The following graph shows the distribution of change in terms of number of deciles for all 2005 households. The graph was created by tracking each 2005 household until 2009 and noting the difference between the initial decile and the 2009 decile. Note that most households remained in the same decile (over 35%), or moved up or down one or two deciles. Movement of more than a couple of deciles is less common. A somewhat higher percentage of households moved up as opposed to down (37% up and 27% down). This implies that new households that were created in Washington between 2005 and 2009 were more likely than established households to be in the lower deciles.

Graph 2.1



In order to show movement originating from particular deciles, the following table was created. It shows movement from four deciles, the first, second, fifth and 10th decile.

Table 2.1

Movement from Deciles 1, 2, 5 and 10 from 2005 to 2009				
Decile	Start in D1 in 2005	Start in D2 in 2005	Start in D5 in 2005	Start in D10 in 2005
D1 - 2009	33%	17%	4%	2%
D2 - 2009	17%	29%	4%	1%
D3 - 2009	13%	20%	7%	1%
D4 - 2009	10%	13%	13%	1%
D5 - 2009	7%	9%	28%	1%
D6 - 2009	5%	5%	24%	2%
D7 - 2009	4%	3%	11%	3%
D8 - 2009	3%	2%	6%	6%
D9 - 2009	3%	1%	3%	16%
D10 - 2009	4%	0%	1%	67%
Total	100%	100%	100%	100%
Color cells indicate percent that stayed in same decile.				

Approximately 30% of household who started in Deciles one, two and five stayed in the same decile. Over two-thirds of decile 10 stayed in the same decile. (This is not unexpected since upward movement is not possible.)

Methodology

All households that filed tax returns in 2005 and also filed tax returns in 2009 are identified by their 2005 decile. (About 1.9 million households out of the 2.5 million 2005 households meet these criteria.) In 2009, deciles are re-calculated and the new decile of each 2005 household is noted such that change among deciles can be determined.

For this part of the analysis, households were not combined by address, therefore changes in income decile caused by a change in family size are not included in this analysis. In order to track these changes, a much more complicated analysis would need to be done.

Chapter 3

Washington State Wealth Distribution

Introduction

Wealth, the monetary value of financial and non-financial assets, is an important corollary to income. Wealth represents a lifetime of resource availability and decision-making (and to a degree, luck). Availability of wealth represents the ability to retire, weather adversity, and respond to investment opportunities, or other opportunities; to either stabilize or improve one's financial situation. This chapter shows estimates of wealth distribution for Washington households in 2010 and includes a time series of wealth estimates for the approximately top one percent of wealth-holders. American Community Survey (ACS) data combined with the Survey of Consumer Finances (SCF) is used throughout the chapter. Washington State Estate tax data is used for the top one percent of households, and data from the Forbes 400 is used for the top seven wealth-holders. A brief introduction and list of key findings is followed by detailed graphs and tables with discussions of their implications. The chapter concludes with a description of the data and methodology.

The analysis shows wealth by both income percentiles and wealth percentiles. Note that because of using a different data source, the income percentiles used in this analysis are different from the income distribution in Chapters One and Two. Differences are caused by three reasons. The biggest difference is that the highest income decile is under-represented in the ACS, which means that the estimates for wealth in the highest income category and the highest wealth category are understated. Checking the ACS/SCF results with the Estate tax results confirms that they are under-estimated. Also, the ACS definitions of income and households are slightly different from the IRS definitions. One other difference--these estimates are for 2010 as opposed to 2009.

Key Findings

- The top five percent of wealth holders own over half the total wealth in Washington state. (Note that wealth estimates for the wealthiest Washingtonians are probably understated.)
- The lowest *wealth* decile has negative net worth.
- The majority of lower and lower-middle class, and middle class Washington households (those in *income* deciles under 40%) do not own retirement accounts such as IRAs or other financial assets other than checking accounts. About 90% of households above the 80th income percentile own retirement accounts. (Note that defined benefit plans and Social Security are not included.)
- Second to transaction accounts, primary residence is the most widely held asset. However less than half of households under the 20th income percentile own their primary residence.
- Wealth owned by the top one percent of Washingtonians (excluding the seven "Forbes 400" wealth holders) is an estimated 10% of total Washington wealth. Including the seven individuals, the estimated percentage is 19%. (Note that these percentages are probably conservative.)
- The Great Recession caused a significant decline in wealth for the wealthiest Washingtonians. The net worth of the approximately one percent highest wealth owners in Washington declined by 14% from 2007 to 2010.

- The top seven wealth holders have a total net worth estimated by Forbes to be $111.1 billion.

Detailed Analysis

Washington Wealth Distribution by Wealth Percentiles

Table 3.1 shows the distribution of wealth by percentile. This table answers the question-- what percentage of the Washington population owns what percentage of the wealth? Keep in mind that wealth in the highest percentile group is under-valued. This is because the wealthiest households are not likely to be counted in the ACS sample, given the small numbers of very wealthy households and the fact that the ACS does not over-sample high wealth holders. The table shows that the highest 5% of wealth holders own more than half of the total wealth in Washington state. Because of the downward bias for this group, this percentage could be higher.

The lowest wealth decile has negative net worth. One question is whether the lowest wealth category is dominated by holders of small assets or by holders of large assets with off-setting debt. An examination of types of assets owned by wealth percentile shows most households in the lowest percentile do not own many assets and the assets owned (other than primary residence) have low median values. (See Table 3.2 – 3.10.)

Note that the ACS refers to *families* instead of households. The definition of family is slightly different than the definition of household used in other chapters of this analysis. However, for purposes of consistency, the term *household* is used in this chapter. Both mean and median net worth are reported since the mean values can be skewed by large asset values.

Table 3.1

Washington 2010 Wealth Distribution by 2010 Wealth Percentiles Distribution from Matching SCF with ACS Washington Data				
Percentile of 2010 Wealth	*Total Net Wealth (in Millions)*	*Median Net Wealth*	*Mean Net Wealth*	*Share of Total Wealth*
Less than 10 %	(8,433)	(13,300)	(32,228)	-0.6%
10to 20%	679	2,530	2,598	0.1%
20 to 30%	3,153	11,700	12,146	0.2%
30 to 40%	9,718	36,000	37,331	0.7%
40 to 50%	22,836	85,600	87,459	1.7%
50 to 60%	42,815	161,400	164,496	3.2%
60 to 70%	72,414	275,000	277,949	5.3%
70 to 80%	116,872	437,400	448,066	8.6%
80 to 90%	201,093	748,900	772,061	14.8%
90 to 95%	185,213	1,376,850	1,418,640	13.7%
95 to 99%	710,172	3,291,500	5,458,074	52.4%
All Households	**1,356,532**	**123,000**	**520,369**	
Estimates from a match of 2010 American Cummunity Survey PUMS data for Washington				
with 2010 Survey of Consumer Finance PUMS				

Washington Wealth Distribution by Income Percentiles

Analyzing the wealth held by *income* percentiles answers questions about households' ability to stabilize and/or improve their financial situation given adversity or opportunity. Table 3.2 provides information on wealth holdings by *income* percentile.

As is the case with income deciles reported in Chapter One, the lowest income percentile does not reflect exclusively low salary and wage households, but can include households with high business or other losses. The lowest percentile has a low median net wealth, but high mean net wealth. This indicates that some households have high levels of wealth. These households are possibly the ones that have business or other loss. Their high level of wealth is another indication that their position in the lowest income category is probably temporary.

Table 3.2

Washington 2010 Wealth Distribution by 2010 Income Percentiles
Distribution from Matching SCF with ACS Washington Data
Based on Washington ACS Income Distribution

Percentile of 2010 Income	*Median Income*	*Total Net Wealth (in Millions)*	*Median Net Wealth*	*Mean Net Wealth*	*Share of Net Wealth*
Less than 20 %	12,300	166,000	9,500	318,000	12%
20 to 40%	32,300	114,000	38,000	219,000	8%
40 to 60%	54,400	167,000	100,000	319,000	12%
60 to 80%	82,000	219,000	173,000	423,000	16%
80 to 90%	117,700	183,000	372,000	697,000	13%
Above 90%	181,900	508,000	811,000	1,954,000	37%
All Households	**54,300**	**1,357,000**	**123,000**	**520,000**	**100%**

Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS. Households are equivalent to "Families" in the CFS

The table indicates that households in the above-90% income decile own 37% of Washington wealth. This percentage is probably low given the relatively small sample size of high income households.

Tables 3.3 – 3.10 give detail of the breakdown of assets by income percentile for both Washington and the U.S. The first set of tables has a breakdown of financial assets (an asset that derives value because of a contractual claim such as stocks, bonds, bank deposits), the second set, non-financial assets i.e. real estate, oil, gold.

The value of total non-financial assets owned by Washingtonians is considerably larger than the total of financial assets, $856 billion for non-financial assets, compared to $476 billion for financial assets.

Other than Transaction Accounts (e.g. checking accounts), the majority of households that are in income percentiles less than 40% do not own financial assets, not even retirement accounts. In the 40-60% income category, 53% own retirement accounts. In categories above 80%, about 90% own retirement accounts. Retirement accounts are the largest type of financial asset on average across all income percentiles.

Primary residence is the largest asset value of the non-financial assets. Less than half (43%) of the lowest 20 percentile income group own a primary residence.

Table 3.3

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Mean Value for Households Holding Asset										
Percentile of 2010 Income	Transaction Accounts	Certificates of Deposit	Gov Savings Bonds	Bonds	Stocks	Directly Held Pooled Investment Funds	Retirement Assets	Value in Life Ins	Other Managed Assets	Other Assets
Less than 20 %	5,000	34,000	2,000	40,000	62,000	78,000	43,000	12,000	58,000	18,000
20 to 40%	13,000	48,000	5,000	94,000	39,000	69,000	49,000	11,000	73,000	15,000
40 to 60%	15,000	46,000	7,000	81,000	49,000	153,000	94,000	18,000	89,000	91,000
60 to 80%	26,000	50,000	5,000	91,000	83,000	131,000	124,000	21,000	107,000	58,000
80 to 90%	45,000	90,000	5,000	246,000	98,000	228,000	201,000	27,000	189,000	116,000
Above 90%	98,000	88,000	9,000	401,000	161,000	368,000	395,000	52,000	331,000	163,000
All Households	**26,000**	**56,000**	**6,000**	**199,000**	**91,000**	**194,000**	**154,000**	**22,000**	**133,000**	**69,000**
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS										
Households are equivalent to "Families" in the Survey of Consumer Finace. The term Households is used here for consistency										

Table 3.4 shows *median* values instead of mean values. Median values are included because they can be a more reliable measure, since large values can skew the mean.

Table 3.4

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Median Value for Household Holding Asset										
Percentile of 2010 Income	**Transaction Accounts**	**Certificates of Deposit**	**Gov Savings Bonds**	**Bonds**	**Stocks**	**Directly Held Pooled Investment Fund**	**Retirement Assets**	**Value in Life Ins**	**Other Managed Assets**	**Other Assets**
Less than 20%	1,000	13,000	1,000	20,000	27,000	42,000	98,000	12,200	24,000	5,000
20 to 40%	2,400	18,000	1,000	67,000	8,000	38,000	18,800	11,400	48,000	3,000
40 to 60%	4,600	20,000	1,000	52,000	17,000	68,000	30,000	17,800	60,000	15,000
60 to 80%	7,800	20,000	1,000	30,000	15,000	56,000	45,600	21,300	74,000	10,000
80 to 90%	14,900	30,000	600	175,000	18,000	100,000	97,000	27,100	96,000	10,000
Above 90%	26,200	24,000	3,000	123,000	44,000	130,000	225,000	51,600	100,000	26,000
All Households	**5,200**	**20,000**	**1,000**	**90,000**	**20,000**	**65,300**	**50,000**	**21,600**	**60,000**	**9,000**
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS										

The next two tables provide information on the relative importance of each type of asset to Washington households. The first table shows the percent of households that hold each type of asset. The second table shows the percent of total value for each type of asset.

Table 3.5

Washington 2010 Wealth Distribution by 2010 Income Percentiles
By Type of Asset
Percent of Households Owning Asset

Percentile of 2010 Income	Transaction Accounts	Certificates of Deposit	Gov Savings Bonds	Bonds	Stocks	Directly Held Pooled Investment Funds	Retirement Assets	Value in Life Ins	Other Managed Assets	Other Assets
Less than 20 %	81%	9%	5%	0%	6%	3%	13%	14%	3%	5%
20 to 40%	95%	15%	9%	1%	10%	5%	41%	22%	7%	9%
40 to 60%	98%	14%	11%	1%	13%	10%	53%	23%	7%	11%
60 to 80%	99%	17%	20%	2%	22%	12%	74%	24%	7%	8%
80 to 90%	99%	14%	27%	2%	31%	15%	90%	28%	10%	10%
Above 90%	100%	20%	25%	5%	45%	26%	91%	29%	10%	10%

Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS

Households are equivalent to "Families" in the Survey of Consumer Finace. The term Households is used here for consistency

Table 3.6

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Value of Each Financial Asset as a Percent of Total Assets Owned by Income Percentile										
Percentile of 2010 Income	Transaction Accounts	Certificates of Deposit	Gov Savings Bonds	Bonds	Stocks	Directly Held Pooled Investment Funds	Retirement Assets	Value in Life Ins	Other Managed Assets	Other Assets
Less than 20 %	18%	13%	1%	0%	16%	10%	24%	7%	7%	4%
20 to 40%	22%	13%	1%	2%	7%	6%	35%	4%	9%	2%
40 to 60%	13%	6%	1%	1%	6%	13%	44%	4%	5%	9%
60 to 80%	14%	5%	1%	1%	10%	9%	51%	3%	4%	3%
80 to 90%	13%	4%	0%	1%	9%	10%	52%	2%	5%	3%
Above 90%	13%	2%	0%	3%	10%	13%	49%	2%	5%	2%
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS										
Households are equivalent to "Families" in the Survey of Consumer Finace. The term Households is used here for consistency										

Tables 3.7 and 3.8 show the mean and median value of non-financial assets by type of asset for Washington households.

Table 3.7

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Mean Value for Households Holding Asset						
Percentile of 2010 Income	Autos, Motor Homes, RVs, Etc.	Primary Residence	Other Residential Real Estate	Non Residential Real Estate	Business Interest	Other, Art, Jewelry, Livestock, Oil, Gas, Minerals
Less than 20 %	9,000	170,000	126,000	227,000	432,000	24,000
20 to 40%	14,000	220,000	136,000	138,000	221,000	39,000
40 to 60%	20,000	236,000	174,000	191,000	214,000	92,000
60 to 80%	26,000	272,000	200,000	125,000	339,000	51,000
80 to 90%	32,000	359,000	183,000	229,000	412,000	49,000
Above 90%	41,000	513,000	335,000	363,000	867,000	52,000
All Families	**22,000**	**281,000**	**208,000**	**203,000**	**410,000**	**56,000**
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS						
Households are equivalent to "Families" in the Survey of Consumer Finace. The term Households is used here for consistency						

Table 3.8

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Median Value for Families Holding Asset						
Percentile of 2010 Income	Autos, Motor Homes, RVs, Etc.	Primary Residence	Other Residential Real Estate	Non Residential Real Estate	Business Interest	Other, Art, Jewelry, Livestock, Oil, Gas, Minerals
Less than 20 %	6,100	150,000	50,000	30,000	30,000	5,000
20 to 40%	1,000	180,000	60,000	82,000	82,000	5,300
40 to 60%	16,800	206,000	58,000	50,000	50,000	20,000
60 to 80%	23,000	250,000	50,000	109,000	109,000	15,000
80 to 90%	28,000	320,000	35,000	100,000	100,000	17,000
Above 90%	33,000	425,000	125,000	270,000	270,000	25,000
All Families	**17,000**	**242,000**	**65,000**	**100,000**	**100,000**	**15,000**
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS						

The next two tables provide information on the relative importance of each type of non-financial asset to Washington households. The first table shows the percent of households that hold each type of asset. The second table shows the percent of total value for each type of asset.

Table 3.9

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Percent of Households Owning Asset						
Percentile of 2010 Income	Autos, Motor Homes, RVs, Etc.	Primary Residence	Other Residential Real Estate	Non Residential Real Estate	Business Interest	Other, Art, Jewelry, Livestock, Oil, Gas, Minerals
Less than 20 %	74%	43%	5%	3%	3%	3%
20 to 40%	93%	67%	11%	6%	7%	5%
40 to 60%	94%	75%	17%	7%	11%	8%
60 to 80%	98%	86%	19%	8%	16%	11%
80 to 90%	97%	92%	21%	9%	15%	10%
Above 90%	98%	92%	39%	15%	24%	11%
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS						

Table 3.10

Washington 2010 Wealth Distribution by 2010 Income Percentiles By Type of Asset Value of Each Asset as a Percent of Total Assets Owned by Income Percentile						
Percentile of 2010 Income	Autos, Motor Homes, RVs, Etc.	Primary Residence	Other Residential Real Estate	Non Residential Real Estate	Business Interest	Other, Art, Jewelry, Livestock, Oil, Gas, Minerals
Less than 20 %	6%	69%	6%	6%	12%	1%
20 to 40%	7%	73%	7%	4%	8%	1%
40 to 60%	7%	66%	11%	5%	9%	3%
60 to 80%	7%	64%	10%	3%	15%	2%
80 to 90%	6%	68%	8%	4%	13%	1%
Above 90%	4%	52%	14%	6%	23%	1%
Estimates from a match of 2010 American Community Survey PUMS data for Washington with 2010 Survey of Consumer Finance PUMS						

Wealth of the Top One Percent (Approximately) of Wealth Holders (Excluding Fortune 400)

Because there is a lot of variation in wealth at the upper end of the wealth spectrum, and because the American Community Survey (ACS) does not oversample in this percentile to compensate for this variance, the wealth estimates for very high wealth holders are based upon too small of a sample to be reliable. (Note that the lack of oversampling of the upper percentile households is not an inherent problem in the ACS data; the sampling is sufficient when ACS data is used alone. It is a problem in this study, because it is being used in combination with other data.) In order to provide more information for the wealthiest Washingtonians, another data source, the Washington State Estate Tax data, is used. Because the estate tax data is based on a large enough sample, more detail can be provided for this group. Another benefit of the estate tax data is that it is available for several years. This allows for analysis of changes in wealth over the Great Recession. Years 2007 through 2010 are used in the analysis.

One problem with the estate tax data is that it also has a downward bias. This is because estate taxpayers have incentive to value the decedent's estate as conservatively as legally possible. Estate planning techniques can significantly reduce the decedent's estate. Also, expenses due to final illnesses could make the remaining estate smaller than estates in the general public within the same cohort. Despite the downward bias in value of the estate, the analysis of the top one percent is still useful for comparisons over time and for information regarding asset mix.

This data covers Washington individuals with over two million in gross assets. After combining the individuals into households, similar to the ACS household definition, the analysis shows the number of households that these estimates cover comprise the top one percent of all Washington households.

The following table shows total and average household wealth for the top one percent, broken down by type of asset. Total wealth owned by the top one percent is about 10% of all wealth owned by all Washingtonians. (Note that the estimates for total wealth that are based on the SCF and ACS may overlap with the estimates from the estate tax data. Also note that the 7 wealthiest Forbes 400 individuals are not represented.)

Stocks and bonds were the highest valued asset held by this group, followed closely by real estate and other miscellaneous property.

Table 3.11

Percent Change in Wealth Owned by the Approximately Top 1% (Individuals with Gross Wealth over $2 Million) From 2007 to 2010				
	2007-2008	*2008-2009*	*2009-2010*	*2007-2010*
Number of Individuals	-3%	-10%	6%	-7%
Number of Families	-3%	-9%	6%	-6%
Total Gross Assets	-14%	-6%	6%	-14%
Total Net Worth	-15%	-7%	7%	-15%
Type of Asset:				
Real Estate	-7%	-17%	-2%	-24%
Stocks and Bonds	-30%	22%	10%	-6%
Mortgages, Notes and Cash	-2%	-3%	12%	6%
Life Insurance	5%	-9%	8%	4%
Jointly Owned Property	0%	-26%	2%	-24%
Other Misc. Property	-5%	-15%	2%	-18%
Transfers	-6%	-9%	-2%	-16%
Powers of Appointment	2%	4%	8%	15%
Annuities	-3%	-17%	36%	9%
Estimates based on Washington State Estate Tax Data				

Table 3.12 shows percentage changes in the number of individuals wealthy enough to pay estate tax, and the value of their wealth over time. Both the number of individuals and the value of their wealth declined in 2008 and 2009. Both the count and dollar amounts began to recover in 2010, but not enough to regain 2007 levels. Between 2007 and 2010, the estimated number of individuals with gross assets over two million declined by seven percent. Their net worth declined by 15%.

Table 3.12

2010 Wealth by Type of Asset For Approximately Top 1% of Households (Those with Individuals with Over $2 Million Gross Assets)			
	Total Value (in millions)	*Average Household Value*	*Asset Percent of Total Gross*
Total Gross Assets	179,000	7,513,000	
Total New Worth	166,000	6,982,000	
Type of Asset:			
Real Estate	41,000	1,731,000	23%
Stocks and Bonds	49,000	2,038,000	27%
Mortgages, Notes and Cash	12,000	507,000	7%
Life Insurance	9,000	358,000	5%
Jointly Owned Property	7,000	310,000	4%
Other Misc. Property	37,000	1,566,000	21%
Transfers	14,000	594,000	8%
Powers of Appointment	1,000	62,000	1%
Annuities	6,000	270,000	4%
Estimates based on Washington State Estate Tax Data			

Washington's Wealthiest Individuals

Forbes estimates the wealth of America's 400 wealthiest Americans. Seven of these individuals live in Washington state. According to Forbes, the combined wealth of the seven is $111.1 billion, $59 billion of which is owned by the wealthiest individual.

Methodology

Methodology for Wealth Distribution for all Washington Households

The Federal Reserve, Board of Governors does the Survey of Consumer Finances (SCF) across the United States every three years. In order to make the SCF data Washington specific, it was "hot decked" with data from Washington state from the ACS. "Hot decking" is a statistical technique whereby variables from one data set is artificially combined to another data set on a case by case basis by matching the observations from the two data sets using a set of criteria. Observations from the two data sets are matched by scoring compatibility based on several variables that are common to both data sets. For the SCF/ACS match the variables were, age of the reference person, presence of a person under 18, presence of a person over 64, building type, home ownership, building value, household size, number of vehicles, and income. Each observation in the ACS is matched to an observation in the SCF based on a score which is the average compatibility of the above variables. On an individual basis, this technique may not come up with perfect matches, but given a sufficiently large sample, with many observations for each criterion, this technique is sound.

The matching process is iterative. On the first round, matches are based on a stringent set of criteria; many factors need to match. On each subsequent round, the criteria are incrementally relaxed. For this project, almost three-quarters of the observations were matched in the first two iterations.

Methodology for Wealth Distribution for the Highest Wealth Holders: Wealth for individuals with assets over $2,000,000

Since the upper income range has considerable variance, and the ACS does not oversample for the upper income range, another methodology was used to measure wealth for the top wealth holders.

Washington State Estate tax data from 2006 - 2010 is used. Data from 2005 (the earliest Estate Tax data available) only cover part of the year because of a hiatus in the tax. Data from 2006 are not included because values are extraordinarily high; the extraordinarily high values could be an indirect result of the hiatus as opposed to economic factors.

This data includes all estate-tax filers, which are all decedents with assets greater than $2,000,000. The number of decedents in this data set number over 4,000. This data includes detail on total gross assets, by type of asset. Detail on debts and mortgages and liens are also included, so that net worth can be determined.

At a given age, death is essentially a random event, such that estate decedents can be considered a sample representing their age. Mortality rates by age are used therefore, to extrapolate the sample to the population. Studies have shown that higher-income individuals have lower mortality rates at each age, mainly because of access to health care. In order to account for this difference, mortality rates used by the Office of the State Actuary to estimate future retirement liability of state employees are used for this

study. Since these rates reflect mortality of state employees, most of whom have health insurance, they are likely to be similar to mortality rates of higher-income individuals.

Sex is not a variable in the estate tax data, but needed since mortality rates at a given age differ by sex. Sex was determined by first name and name of spouse (where applicable). If the sex was uncertain, the average male/female mortality rate for the decedent's age was used.

Some adjustments are made to the data. Since the value of stocks are influenced by outside factors and are highly volatile throughout a year, stocks are adjusted by the monthly S&P 500 index to normalize the values to the last month of the year. (Stock values that are reported in the Estate Tax returns reflect the value as of the date of death.)

A small sample, in any given year, of young and very wealthy decedents causes volatility in the wealth estimates from year to year, especially since either the dollar amounts and/or the weights for these groups are large. Because of this, the youngest five percent of decedents (those under the age of 60) and the wealthiest five percent of decedents (those with gross estates greater than $10 million) are combined for all five years, and then allocated into each year. The combined five years of data for these two groups yields a sufficiently sized sample. In order to adjust for year to year changes in asset values that are caused by outside influences, the annual asset amounts are adjusted by indices. Stocks and Bonds are adjusted by the S&P 500 index, real estate is adjusted by the Washington State University housing index, and Cash and Notes are adjusted by inflation (PCE deflator). The assets of each individual decedent are normalized to one point in time using the appropriate index. After weighting the estate tax data, the five year aggregate for each asset type is allocated among the five years based on the indices. Unfortunately, the aggregation over years could understate other changes in wealth accumulation over time. For example, the impact of the recession on wealth could be somewhat muted. However, this is preferable to error caused by small sample size.

Since some estate tax returns are filed late, a history of the timing of late filers is used to determine the percentage of returns and the percentage of assets those returns represent that are likely to be missing in each year.

Estate tax data is on an individual basis. In order to estimate the number of households, some assumptions were made. Estate tax data has information on marital status of the decedent. It is assumed that the surviving spouse of a decedent, whose gross assets were greater than two million, also has assets over two million. Therefore the spouses and their wealth would be counted when the estate tax sample is expanded to the universe over two million wealth holders. In order to count households, first all minors are excluded from the database, such that the database only includes married and single adults. Marital status is extrapolated to the universe from the estate tax sample. Households are assumed to be either a married couple or a single person. Individuals with married status are given a household count of one-half. Individuals with single status receive a household count of one.

For this part of the analysis children are moot because they are not included in the universe. Other adult household members that may be living with a wealthy household member are assumed not to be wealthy enough themselves to be included in the universe. (To the extent that this assumption does not hold, the household count would be over-estimated). Note that the household count is also somewhat overstated in that individuals that are part of an unmarried couple are considered to be single.

A similar analysis is conducted with the minors in the database. In this case, any minor is assumed to belong to a household with family members. To the extent that some wealthy households have more than one wealthy child, the household count for wealthy minors will be overstated. There are very few minors in the database, therefore assumptions regarding minors do not have much effect on the overall estimates.

Extremely wealthy individuals are measured using the Forbes 400 estimates of net worth. There are seven Washington residents in the list of the Forbes 400, whose net worth ranges from one billion to $61 billion. Estate tax filers with assets over one billion were therefore dropped from the database to avoid double-counting.

Chapter 4

State and Local Taxes Paid by Income Decile

Introduction

This chapter answers questions about the equity of Washington's State and local taxes in terms of Regressivity/Progressivity of the tax system. A regressive tax system imposes a higher tax burden as a percentage of income on low-income households than on high income households. A progressive tax system is the opposite—a higher percentage of taxes on upper-income households. For the purposes of analysis the following taxes are included:

- State and local retail sales taxes
- Alcoholic beverages tax
- Cigarette and tobacco products tax
- Insurance premiums tax
- Gasoline tax
- State and local public utilities taxes
- State and local property taxes

Taxes paid by business are assumed *not* to be shifted to households. This includes property tax on multi-family dwellings. Data for this analysis is U.S. Census Consumer Expenditure Survey Microdata combined with American Community Survey data for Washington households. The Consumer Expenditure survey has details about household expenditures. The most current data is for 2009. Because this is a different data source than the data used for the Washington Income Decile analysis or the Wealth Distribution analysis, the deciles ranges are slightly different.

Key Findings

- Total state and local taxes are over 4.5 times as large for the lowest income category compared to the highest income category.
- The second lowest income category pays almost 2.5 times as much taxes as a percentage of income as the highest income category.
- Throughout all deciles, taxes as a percentage of income decrease as income increases.
- Local property taxes are the highest individual tax across all deciles. When combining state and local taxes, property and sales taxes are very close. (Note that property taxes on multi-family housing are not included, they are assumed to be paid by businesses, not renters.)
- State and local sales taxes combined are slightly more regressive than state and local property taxes combined.

Detailed Analysis

The following tables show estimates of taxes paid by Washington households in 2009 by income decile for major state and local taxes. Table 4.1 shows the dollar amount of taxes paid and total taxes as a percent of income. Table 4.2 shows the each tax paid as a percentage of income.

Table 4.1

Selected State and Local Taxes Paid per Family and as a Percentage of Income by Income Decile
2009 Taxes and Income

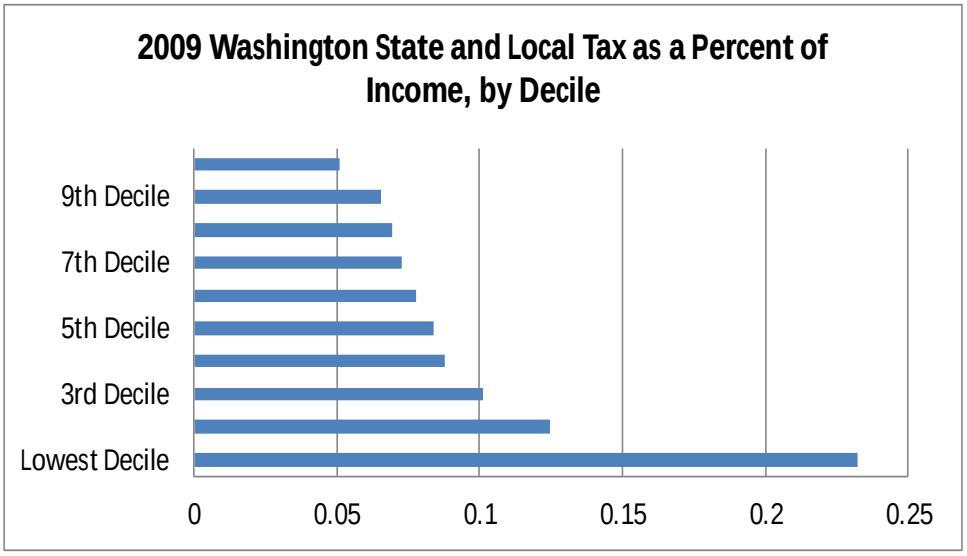
percentile	*1st percentile*	*2nd percentile*	*3rd percentile*	*4th percentile*	*5th percentile*	*6th percentile*	*7th percentile*	*8th percentile*	*9th percentile*	*10th percentile*
Income Range:										
Low end	-	15,000	25,000	35,000	45,000	55,000	70,000	85,000	105,000	140,000+
High end	15,000	25,000	35,000	45,000	55,000	70,000	85,000	105,000	140,000	
Average Tax Paid per Family:										
State Retail Sales Tax	542	701	870	1,012	1,191	1,402	1,634	1,927	2,295	3,540
Local Retail Sales Tax	199	258	320	372	438	516	601	709	845	1,303
Alcoholic Beverages Taxes	51	58	73	87	93	112	118	136	159	227
Cigarette and Tobacco Taxes	145	164	181	184	190	197	187	184	159	115
Insurance Premiums Tax	11	19	24	29	35	38	43	49	56	72
Gasoline Tax	129	180	227	266	304	341	383	417	456	486
Public Utility Taxes State	41	51	57	63	68	73	80	87	96	123
Public Utility Taxes Local	63	78	88	95	103	111	121	131	142	176
Property Tax State*	155	210	253	295	374	428	512	606	766	1,157
Property Tax Local*	581	786	952	1,117	1,413	1,623	1,936	2,288	2,872	4,266
Total Tax	**1,918**	**2,504**	**3,046**	**3,521**	**4,207**	**4,841**	**5,616**	**6,532**	**7,846**	**11,464**
Average Income	**8,267**	**20,114**	**30,076**	**40,082**	**50,072**	**62,289**	**77,173**	**94,544**	**120,307**	**225,428**
Tax as a percent of income	**23.2%**	**12.5%**	**10.1%**	**8.8%**	**8.4%**	**7.8%**	**7.3%**	**6.9%**	**6.5%**	**5.1%**

Based on Consumer Expenditure Survey Data for Washington State. *Property taxes on multi-family dwellings are not included.

Table 4.2

Selected State and Local Taxes by Type of Tax as a Percentage of Income by Income Decile 2009 Taxes and Income										
percentile	*1st percentile*	*2nd percentile*	*3rd percentile*	*4th percentile*	*5th percentile*	*6th percentile*	*7th percentile*	*8th percentile*	*9th percentile*	*10th percentile*
Income Range:										
Low end	-	15,000	25,000	35,000	45,000	55,000	70,000	85,000	105,000	140,000+
High end	15,000	25,000	35,000	45,000	55,000	70,000	85,000	105,000	140,000	
State Retail Sales Tax	6.6%	3.5%	2.9%	2.5%	2.4%	2.3%	2.1%	2.0%	1.9%	1.6%
Local Retail Sales Tax	2.4%	1.3%	1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.6%
Alcoholic Beverages Taxes	0.6%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
Cigarette and Tobacco Taxes	1.8%	0.8%	0.6%	0.5%	0.4%	0.3%	0.2%	0.2%	0.1%	0.1%
Insurance Premiums Tax	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
Gasoline Tax	0.5%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Public Utility Taxes State	0.8%	0.4%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
Public Utility Taxes Local	1.9%	1.0%	0.8%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%
Property Tax State*	1.9%	1.0%	0.8%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%
Property Tax Local*	7.0%	3.9%	3.2%	2.8%	2.8%	2.6%	2.5%	2.4%	2.4%	1.9%
Total Tax as a percent of income	**23.2%**	**12.5%**	**10.1%**	**8.8%**	**8.4%**	**7.8%**	**7.3%**	**6.9%**	**6.5%**	**5.1%**
Based on Consumer Expenditure Survey Data for Washington State. Property taxes on multi-family dwellings are not included.										

Graph 4.1



Total state and local taxes are over 4.5 times as large for the lowest income category compared to the highest income category. Note that the lowest income category is not a very reliable measure of wage and salary income, since it includes business losses and other losses. The second lowest income category pays almost 2.5 times as much taxes as a percentage of income as the highest income category. Throughout all deciles, taxes as a percentage of income decrease as income increases.

Local property tax is the highest tax as a percentage of income for all deciles. However, when state and local property taxes and state and local sales taxes are added together, property and sales tax are about equal. The sales taxes are somewhat more regressive than the property taxes.

Methodology

Data

The final deciles table is created using four data sources:

- American Community Survey
- Consumer Expenditure Survey
- Washington State Department of Revenue's tax collections
- Washington Property Tax Rolls

The American Community Survey (ACS) is conducted by the U.S. Census Bureau. Data used from the ACS was collected over a five year period (2005-2009). The Census Bureau includes an adjusted factor to bring monetary related items in each year to 2009 dollars. The ACS data set also provides weights so that the weighted data covers all Washington households in 2009. The survey asked questions about employment, income, household composition (number of residents, ages, etc), and housing characteristics.

The Consumer Expenditure Survey (CES) is a continuing survey conducted by the Bureau of Labor Statistics of the United States Department of Labor. The survey is used by the Bureau to update the structure of the consumer price index and to provide information about spending patterns of different types of families. The CES is actually two different surveys – a diary survey and an interview survey.

The primary purpose of the diary survey is to collect expenditure information on small frequently purchased items, such as, food and beverages, housekeeping supplies, nonprescription drugs, and personal care products. The primary purpose of the interview survey is to collect expenditure information on items such as automobiles, property, and appliances, as well as regular expenses, like rent, utility costs, and insurance premiums.

The ACS is used in the model to represent the distribution of Washington households across income and other classes. The CES data is used to assign spending patterns to the Washington households in the ACS data set.

One item of note, the ACS assigns a range to the home value of a household. A home value within the range was established in order to calculate property taxes for a household. To convert from the range to a single value, a uniform distribution of the values within the range was used, except for the top range ($1,000,000 and over). The top range was broken into smaller ranges based on Washington property roll data and then uniformly distributed over the smaller ranges. Uniform distributions were used after a review of Washington property roll data for the ranges.

Combining the ACS with the CES

To create the final deciles table, the ACS and CES data sets are combined at the household/consumer unit level. Matching is completed on multiple fields of data.

ACS households are "hot-decked" with CES consumer units based on similarities in income, tenure (own/rent home), presence of person over 64 in household or consumer unit, presence of person under 18, and household size. (The methodology section of Chapter 4 has more detail on "hot-decking.")

The CES data is available at the consumer unit level in quarterly data sets – one data set for the diary survey and one for the interview survey. A complete set of annual data is thus contained in eight data sets. The matching procedure matched each household in ACS to a CES consumer unit in each of the four diary survey data sets and the four interview data sets that make up one year of data. The matching procedure was completed for each year (2005-2009). Thus, there were a total of 40 matched data sets completed (eight each year for five years). Also note that if more than one candidate CES satisfied the criteria for matching, a candidate was selected randomly from the group.

Calibrating the Model

The model estimates the distribution of the sales and use tax and a number of the special excise taxes across households. The taxes are calculated by multiplying expenditures on items subject to the taxes by the tax rates. This section describes the expenditure items subject to each of the taxes, the adjustment to consumption expenditures to reflect under reporting in the CES, and a comparison of aggregate tax estimates to independent estimates of the amount of these taxes paid by households.

The Consumer Expenditure Survey collects data on over 1,000 separate CES expenditure and income categories. Items that are fully sales taxable are assigned a value of "one." For items that are partially taxable, e.g. home telephone services – where the basic residential service is exempt but other telephone services are not, the value is a fraction.

Expenditure items subject to other excise taxes are coded in a column labeled "Other." The codes are used to calculate the impact of these other excise taxes. The codes are as follows:

Tax Codes to Match with CES Expenditures	
Tax	Code
Beer (volume tax sold in original container)	1
Wine (volume tax on wine sold in original container)	2
Liquor (volume tax on liquor sold in original container)	3
Beer (volume tax sold by the drink)	4
Wine (volume tax on wine sold by drink)	5
Liquor (special sales tax on liquor sold by drink)	6
Insurance Premiums Tax (gross receipts)	7
Cigarette Tax (volume tax)	8
Other Tobacco Products Tax (wholesale value tax)	9
Public Utility Tax on Electricity	11
Public Utility Tax on Natural Gas	12
Public Utility Tax on Water/Sewer	13
Public Utility Tax on Garbage Collection	14
Gas Tax (volume tax)	15
Public Utility Tax on intercity transportation	17
Public Utility Tax on intercity transportation	18

To account for discrepancies between reported consumption levels in some categories (in the CES data) and actual levels implied by tax collections (Department of Revenue data), the amount of consumption reported in the CES was adjusted. These discrepancies exist, for example, in the reported consumption for items such as alcoholic beverages and tobacco products. In addition, other expenditure categories are also underreported. Based on a BLS publication that compares reported survey expenditures with independent estimates, the amount of spending was adjusted. In addition, some further adjustments were made so that aggregate tax revenue from households match estimates of revenue for the specific revenue sources such as alcohol taxes, tobacco taxes, and the gasoline tax.

Chapter 5

History of Tax Burden over Time

Introduction

This chapter measures Washington State and Local tax burden in three different ways, on a per capita basis, per $1,000 of personal income and as a percentage of Gross Domestic Product (GDP) for Washington state from 1960 through 2009.

Taxes included in the analysis are the same as those included in Chapter four with the addition of taxes with business incidence, including business property taxes and state and local Business and Occupation taxes. Most data is from the U.S. Census Bureau. Two years of data, 2001 and 2003 were not estimated by the Census and were estimated by Washington State Department of Revenue. Personal income data is from the Bureau of Economic Analysis.

Key Findings

- State and local taxes per capita have increased from 1960 until 2007. From 2007 to 2009, both state and local taxes decreased per capita.
- State and local taxes per $1,000 of personal income have been declining generally since 1995.
- The 2009 level of state taxes at $58.82 per $1,000 in personal income is the lowest level during the time period, 1960 – 2009. Local taxes per $1,000 in personal income are at a fairly high level compared to other years.
- State and local taxes as a percentage of Washington GDP have fluctuated since 1960. Total taxes as a percent of GDP have been fairly flat since the late 90s, but decreased in 2009. From 2006 to 2009, state taxes as a percent of GDP have declined. Local taxes have increased during the same period.
- Compared to other states, Washington ranked 42nd, with 50 being the lowest, in terms of state and local taxes as a percentage of GDP, in Fiscal Year 2009.

Detailed Analysis

Per Capita Taxes

The following table shows taxes per capita from 2006 to 2009.

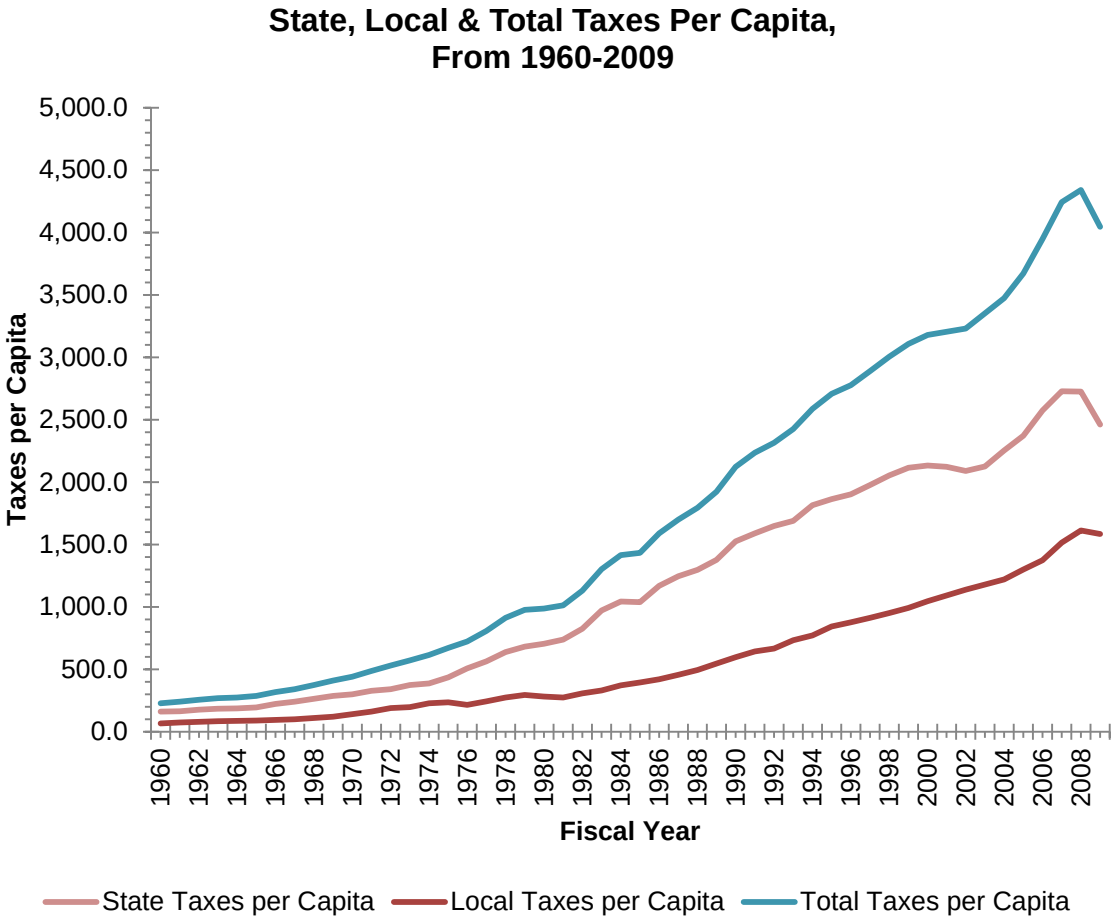
Table 5.1

State, Local and Total Taxes Per Capita, From 1960 - 2009

Fiscal Year	State Taxes per Capita	Local Taxes per Capita	Total Taxes per Capita
2009	$2,460.6	$1,585.6	$4,046.2
2008	2,726.3	1,613.6	4,339.9
2007	2,727.0	1,516.7	4,243.7
2006	2,574.0	1,373.6	3,947.7
2005	2,371.9	1,300.2	3,672.1
2004	2,252.9	1,220.8	3,473.7
2003	2,125.2	1,184.8*	3,310.1*
2002	2,090.2	1,139.6	3,229.8
2001	2,122.1	1,059.1*	3,181.2*
2000	2,132.2	1,046.2	3,178.4
1999	2,115.9	991.4	3,107.3
1998	2,053.2	952.4	3,005.7
1997	1,977.9	912.4	2,890.3
1996	1,901.4	876.5	2,777.9
1995	1,863.9	844.5	2,708.4
1994	1,815.1	770.9	2,586.1
1993	1,690.9	734.6	2,425.5
1992	1,648.8	666.8	2,315.7
1991	1,591.1	643.8	2,234.9
1990	1,525.3	597.7	2,123.0
1989	1,377.0	546.0	1,923.0
1988	1,298.5	496.2	1,794.7
1987	1,245.7	455.6	1,701.3
1986	1,169.7	419.7	1,589.4
1985	1,038.5	394.7	1,433.1
1984	1,043.2	371.5	1,414.8
1983	973.1	330.6	1,303.6
1982	825.1	307.0	1,132.1
1981	739.1	274.5	1,013.6
1980	706.0	282.3	988.3
1979	683.1	295.3	978.4
1978	638.1	275.8	914.0
1977	565.2	243.3	808.5
1976	508.4	215.0	723.4
1975	435.6	235.6	671.2
1974	387.5	228.9	616.4
1973	373.7	198.4	572.1
1972	342.4	189.3	531.8
1971	327.8	160.9	488.7
1970	301.2	141.2	442.4
1969	288.7	122.0	410.7
1968	263.4	110.4	373.8
1967	240.2	100.0	340.2
1966	222.9	96.5	319.4
1965	196.3	90.6	286.9
1964	186.7	88.3	275.0
1963	185.0	85.3	270.3
1962	177.3	80.6	257.9
1961	164.8	75.4	240.2
1960	161.5	67.1	228.6

*2001 and 2003 local tax information estimated by the Washington State Department of Revenue, Research & Fiscal Analysis Division because local tax data was not compiled by the Census Bureau for Fiscal Year 2001 and 2003.

Graph 5.1



State and local taxes per capita have both been increasing since 1960. This increasing trend indicates that overall tax collections per capita have been increasing at a faster rate than population growth in Washington, except for 2006 to 2009 when both state and local taxes per capita began to decrease. (Note that taxes per capita are measured in nominal terms; part of the growth is caused by inflation.) Total state taxes per capita in 2009 were $4,046.20, which was a decrease of $293.70 from 2008. This decrease in total taxes per capita ismainly from the decrease in state taxes which reduced by $265.70 per capita whereas local taxes only decreased by $28 per capita.

The decrease in per capita taxes is largely because of the Great Recession. Washington's GDP also saw a decrease during this time. While the GDP decreased in 2009 by only 0.85%, it saw a significant slowdown in growth between 2007 and 2008, from 8.29% growth in 2007 to only 2.88% growth in 2008.

Taxes per $1,000 of Personal Income

One way to account for changes in inflation and changes in the economy when looking at changes in tax burden over time is to use a measure of taxes per $1,000 in personal income.

The following table shows total state and local taxes per thousand dollars of personal income. Table 5.3 and graphs 5.2-5.5 break out state and local taxes per $1,000 of personal income.

Table 5.2

Personal Income and Total Taxes, From 1960 - 2009

Fiscal Year	Personal Income (in thousands of $)	Total Taxes (in millions)	Total Taxes per $1000 of income
2009	278,944,289.00	26980.7	96.72
2008	289,433,693.00	28589.5	98.78
2007	272,624,864.00	27533.1	100.99
2006	252,091,288.00	25168.8	99.84
2005	230,057,261.00	22974.0	99.86
2004	222,421,768.00	21424.9	96.33
2003	206,983,236.00	20185.5	97.52
2002	200,492,998.00	19513.5	97.33
2001	197,323,543.00	19007.2	96.33
2000	191,561,542.00	18733.9	97.80
1999	178,319,432.00	18118.1	101.60
1998	166,286,571.00	17282.6	103.93
1997	151,795,374.00	16369.8	107.84
1996	140,803,466.00	15466.6	109.85
1995	130,328,400.00	14815.1	113.68
1994	123,527,654.00	13872.5	112.30
1993	116,870,584.00	12771.8	109.28
1992	111,373,047.00	11905.2	106.89
1991	103,440,724.00	11222.2	108.49
1990	96,282,227.00	10332.0	107.31
1989	87,356,932.00	9092.2	104.08
1988	79,133,433.00	8285.9	104.71
1987	72,917,703.00	7701.8	105.62
1986	68,669,300.00	7092.1	103.28
1985	64,324,253.00	6328.3	98.38
1984	60,690,177.00	6160	101.50
1983	56,521,600.00	5615.1	99.34
1982	53,177,320.00	4841.5	91.04
1981	50,125,931.00	4286.8	85.52
1980	44,912,337.00	4083.9	90.93
1979	39,513,569.00	3893.3	98.53
1978	34,276,322.00	3506.1	102.29
1977	29,411,510.00	3004	102.14
1976	26,441,314.00	2629.6	99.45
1975	23,648,023.00	2394.7	101.26
1974	20,904,884.00	2162.9	103.46
1973	18,374,279.00	1970.6	107.25
1972	16,246,149.00	1824.1	112.28
1971	15,031,200.00	1679.4	111.73
1970	14,315,584.00	1510	105.48
1969	13,657,040.00	1395.2	102.16
1968	12,510,961.00	1246.9	99.66
1967	11,252,819.00	1098.5	97.62
1966	10,271,766.00	998	97.16
1965	9,064,238.00	879.3	97.01
1964	8,404,391.00	827.2	98.42
1963	8,024,490.00	803.3	100.11
1962	7,829,317.00	760.2	97.10
1961	7,246,705.00	695.8	96.02
1960	6,897,874.00	652.2	94.55

** 2001 and 2003 local tax information estimated by the Washington State Department of Revenue, Research & Fiscal Analysis Division because local tax data was not compiled by the Census Bureau for Fiscal Year 2001 and 2003

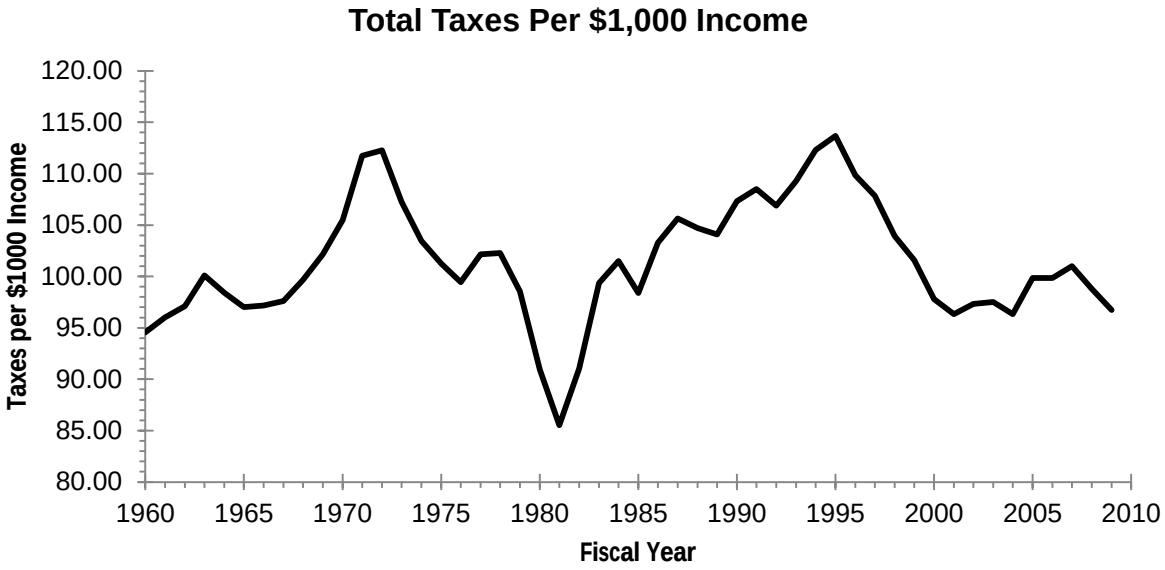
Table 5.3

State and Local Taxes Per $1,000 of Personal Income, From 1960 -2009

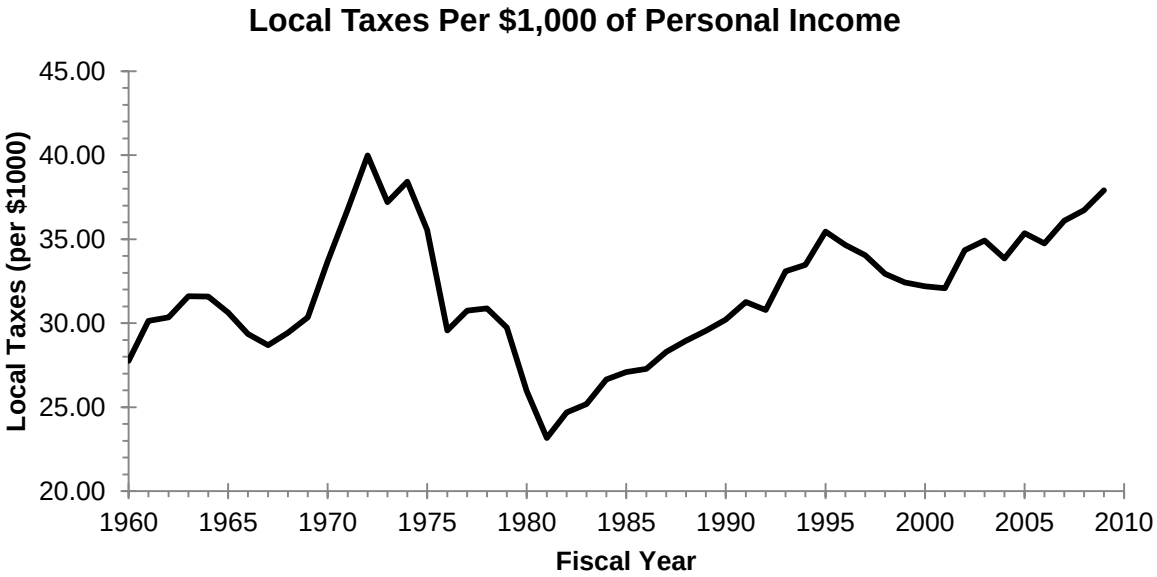
Fiscal Year	Personal Income (in thousands of $)	State Taxes (in millions)	State Taxes per $1000 of personal income	Local Taxes (in millions)	Local Taxes per $1000 of personal income
2009	278,944,289.00	16,407.50	58.82	10,573.20	37.90
2008	289,433,693.00	17,959.80	62.05	10,629.70	36.73
2007	272,624,864.00	17,692.80	64.90	9,840.30	36.09
2006	252,091,288.00	16,411.00	65.10	8,757.80	34.74
2005	230,057,261.00	14,839.60	64.50	8,134.40	35.36
2004	222,421,768.00	13,895.30	62.47	7,529.60	33.85
2003	206,983,236.00	12,960.20	62.61	7,225.30	34.91
2002	200,492,998.00	12,628.60	62.99	6,884.90	34.34
2001	197,323,543.00	12,679.40	64.26	6,327.80	32.07
2000	191,561,542.00	12,567.40	65.61	6,166.50	32.19
1999	178,319,432.00	12,337.60	69.19	5,780.50	32.42
1998	166,286,571.00	11,806.20	71.00	5,476.40	32.93
1997	151,795,374.00	11,202.30	73.80	5,167.50	34.04
1996	140,803,466.00	10,586.50	75.19	4,880.10	34.66
1995	130,328,400.00	10,195.60	78.23	4,619.50	35.45
1994	123,527,654.00	9,737.00	78.82	4,135.50	33.48
1993	116,870,584.00	8,903.80	76.19	3,868.00	33.10
1992	111,373,047.00	8,476.90	76.11	3,428.30	30.78
1991	103,440,724.00	7,989.50	77.24	3,232.70	31.25
1990	96,282,227.00	7,423.10	77.10	2,908.90	30.21
1989	87,356,932.00	6,510.60	74.53	2,581.60	29.55
1988	79,133,433.00	5,995.00	75.76	2,290.90	28.95
1987	72,917,703.00	5,639.40	77.34	2,062.40	28.28
1986	68,669,300.00	5,219.30	76.01	1,872.80	27.27
1985	64,324,253.00	4,585.60	71.29	1,742.70	27.09
1984	60,690,177.00	4,542.30	74.84	1,617.70	26.66
1983	56,521,600.00	4,191.20	74.15	1,423.90	25.19
1982	53,177,320.00	3,528.40	66.35	1,313.10	24.69
1981	50,125,931.00	3,125.80	62.36	1,161.00	23.16
1980	44,912,337.00	2,917.40	64.96	1,166.50	25.97
1979	39,513,569.00	2,718.30	68.79	1,175.00	29.74
1978	34,276,322.00	2,448.00	71.42	1,058.10	30.87
1977	29,411,510.00	2,100.00	71.40	904.00	30.74
1976	26,441,314.00	1,848.10	69.89	781.50	29.56
1975	23,648,023.00	1,554.10	65.72	840.60	35.55
1974	20,904,884.00	1,359.70	65.04	803.20	38.42
1973	18,374,279.00	1,287.10	70.05	683.50	37.20
1972	16,246,149.00	1,174.60	72.30	649.50	39.98
1971	15,031,200.00	1,126.40	74.94	553.00	36.79
1970	14,315,584.00	1,028.00	71.81	482.00	33.67
1969	13,657,040.00	980.70	71.81	414.50	30.35
1968	12,510,961.00	878.60	70.23	368.30	29.44
1967	11,252,819.00	775.60	68.92	322.90	28.70
1966	10,271,766.00	696.50	67.81	301.50	29.35
1965	9,064,238.00	601.60	66.37	277.70	30.64
1964	8,404,391.00	561.70	66.83	265.50	31.59
1963	8,024,490.00	549.70	68.50	253.60	31.60
1962	7,829,317.00	522.60	66.75	237.60	30.35
1961	7,246,705.00	477.40	65.88	218.40	30.14
1960	6,897,874.00	460.80	66.80	191.40	27.75

*Personal income summary source: Bureau of Economic Analysis

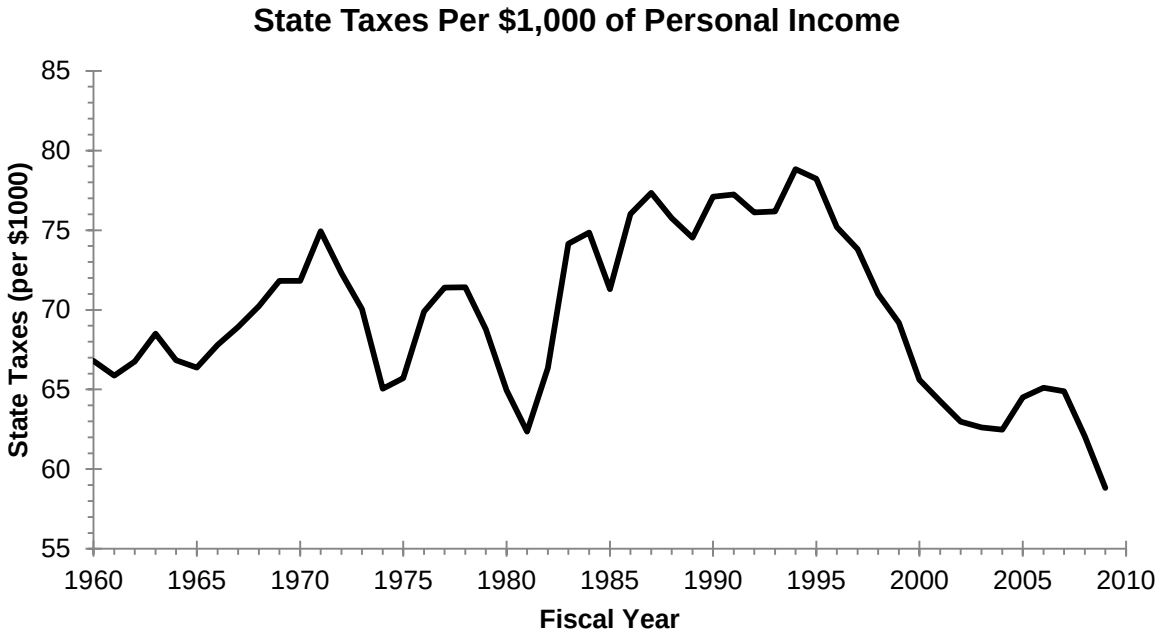
Graph 5.2



Graph 5.3



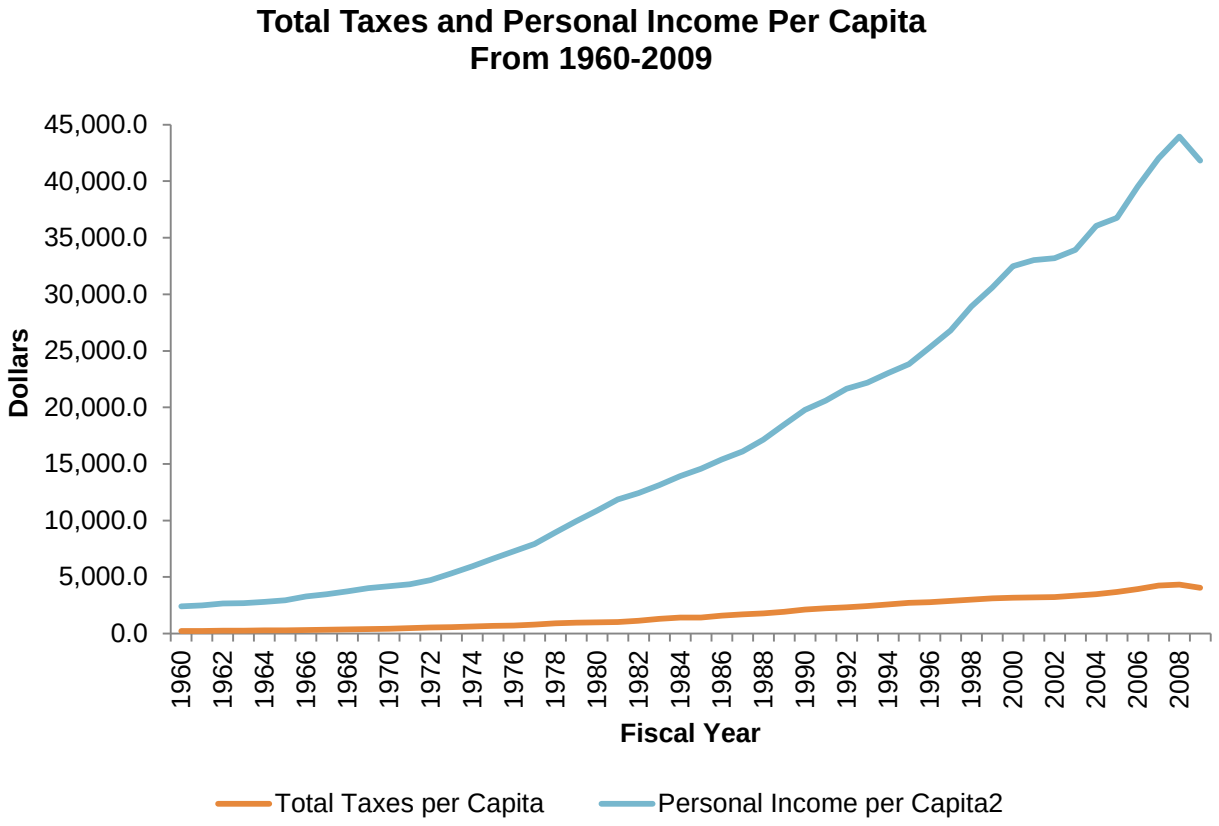
Graph 5.4



Local taxes per $1,000 in personal income have been generally increasing, but state taxes have been trending downward, generally, since 1995.

One can see in the following graph that taxes per capita have been growing at a slower rate overall than personal income per capita.

Graph 5.5



Washington's tax burden compared to personal income declined in 2009. In 2009 the total state and local amount of tax paid per $1,000 was $96.72, one of the lowest rates since 1960. State taxes alone per $1,000 of personal income were at historic lows at just $58.82, continuing the declining trend present since 1995. A slight increase in the ratio of state taxes to personal income occurred from 2004 to 2005, but fell as a result of the 2008 recession.

Local taxes are following a different trend; they have been rising steadily since 1981 with a 20 year high in 1995. Changes in personal income are the other factor affecting total tax burden; the changes in personal income from year to year are variable causing fluctuations in this measure of the tax burden.

The three factors that comprise this measure of tax burden, state taxes, local taxes and personal income are related, but not perfectly correlated; each factor reacted differently in the recent recession. Since 2008 personal income contracted by over three percent, state revenues decreased by almost nine percent. Local tax collections suffered to a much lesser degree with only a one-half-of-one-percent reduction.

Taxes as a Percent of State Gross Domestic Product (GDP)

Another way to analyze tax burden is to measure taxes as a percent of state GDP. State GDP is a measure of Washington's economy. When used as the denominator in the tax burden ratio, it answers different questions than the per capita or per $1,000 personal income measure. For example—How does growth in the government sector compare to growth in the other sectors of the economy? How do changes in the

economy impact state and local revenues? Table 5.4 and graph 5.6 show state and local taxes as a percentage of Washington GDP from 1963 – 2009. Table 5.5 and graph 5.7 show the relationship between changes in GDP and Changes in taxes.

State and local taxes as a percentage of Washington GDP have fluctuated since 1960. Total taxes as a percent of GDP have been fairly flat since the late 90s, but decreased in 2009. From 2006 to 2009, state taxes as a percent of GDP have declined. Local taxes have increased during the same period.

Table 5.4

State and Local Taxes as a Percentage of GDP, From 1963 - 2009

Fiscal Year	State Taxes as % of GDP	Local Taxes as % of GDP	Total Taxes as % of GDP
2009	4.95%	3.19%	8.14%
2008	5.37%	3.18%	8.55%
2007	5.44%	3.03%	8.47%
2006	5.47%	2.92%	8.38%
2005	5.31%	2.91%	8.22%
2004	5.38%	2.91%	8.29%
2003	5.25%	2.93%	8.18%
2002	5.33%	2.90%	8.23%
2001	5.50%	2.75%	8.25%
2000	5.52%	2.71%	8.22%
1999	5.58%	2.61%	8.19%
1998	5.91%	2.74%	8.66%
1997	6.06%	2.79%	8.85%
1996	6.36%	2.93%	9.29%
1995	6.57%	2.98%	9.55%
1994	6.46%	2.74%	9.20%
1993	6.25%	2.71%	8.96%
1992	6.30%	2.55%	8.85%
1991	6.35%	2.57%	8.91%
1990	6.26%	2.45%	8.71%
1989	6.02%	2.39%	8.41%
1988	6.05%	2.31%	8.37%
1987	6.24%	2.28%	8.53%
1986	6.21%	2.23%	8.44%
1985	5.93%	2.25%	8.18%
1984	6.12%	2.18%	8.31%
1983	6.17%	2.10%	8.26%
1982	5.61%	2.09%	7.69%
1981	5.31%	1.97%	7.28%
1980	5.54%	2.21%	7.75%
1979	5.58%	2.41%	7.99%
1978	5.74%	2.48%	8.22%
1977	5.70%	2.45%	8.16%
1976	5.65%	2.39%	8.03%
1975	5.31%	2.87%	8.18%
1974	5.18%	3.06%	8.24%
1973	5.51%	2.93%	8.44%
1972	5.73%	3.17%	8.91%
1971	6.00%	2.95%	8.95%
1970	5.68%	2.66%	8.34%
1969	5.42%	2.29%	7.71%
1968	5.16%	2.16%	7.33%
1967	4.95%	2.06%	7.02%
1966	4.88%	2.11%	6.99%
1965	4.88%	2.25%	7.13%
1964	4.93%	2.33%	7.26%
1963	4.92%	2.27%	7.19%
1962	N/A	N/A	N/A
1961	N/A	N/A	N/A
1960	N/A	N/A	N/A

Graph 5.6

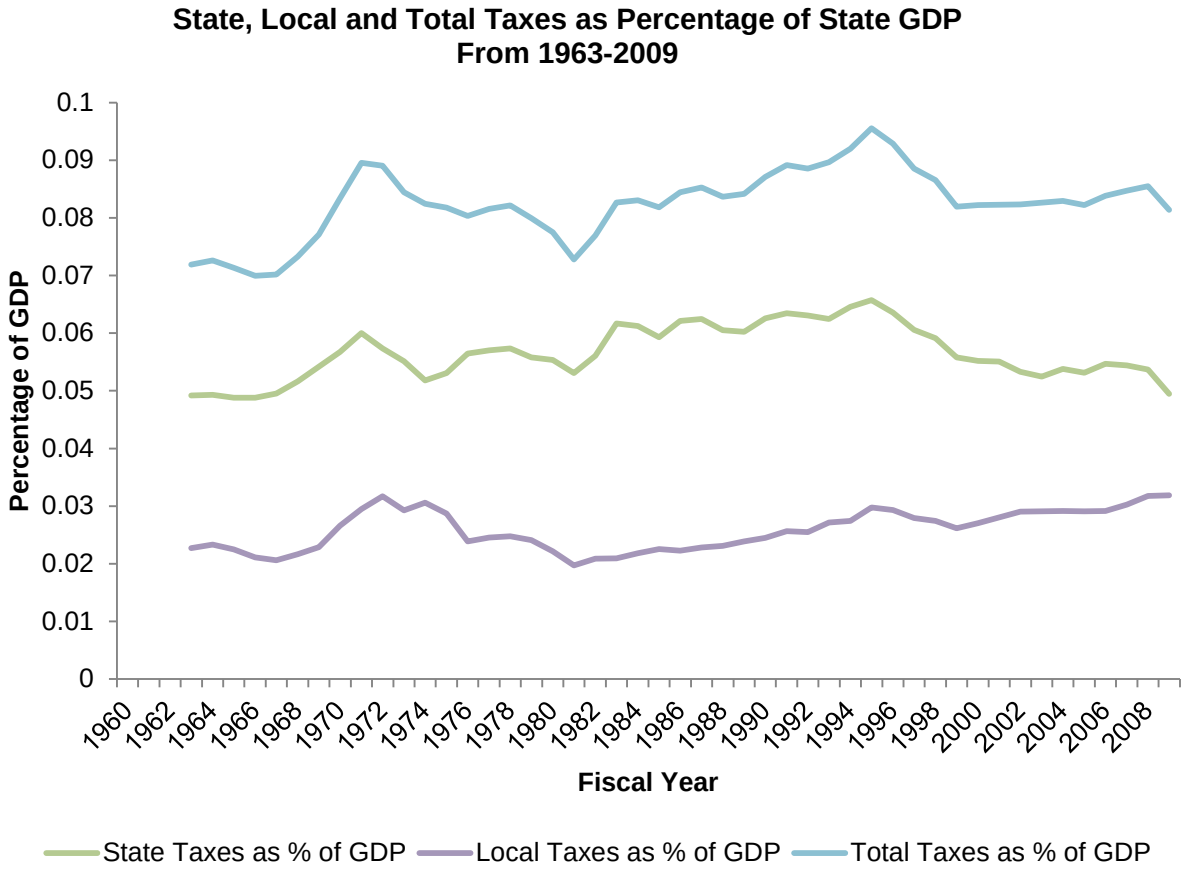

State, Local and Total Taxes as Percentage of State GDP
From 1963-2009
Percentage of GDP
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Fiscal Year
State Taxes as % of GDP
Local Taxes as % of GDP
Total Taxes as % of GDP

Table 5.5

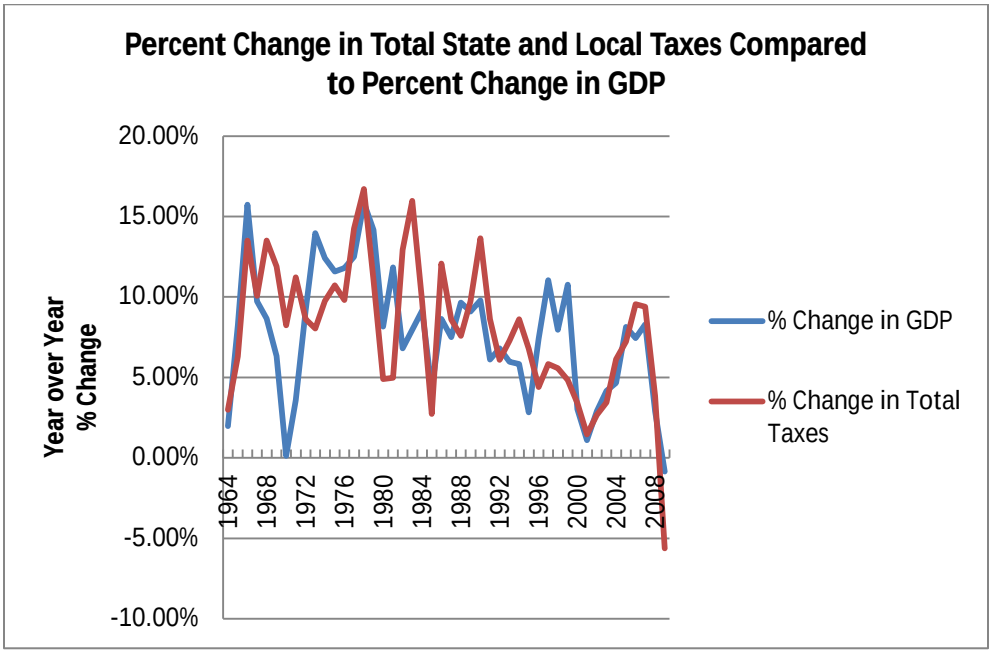
Percent Change in Population, Total Taxes and GDP, From 1960 - 2009

Fiscal Year	Washington State Population	% Change in Washington State Population	Total Taxes ($000,000)	% Change in Total Taxes	State GDP ($0,000,000)	% Change in GDP
2009	6,668,200	1.22%	26980.70	-5.63%	33,163.9	-0.85%
2008	6,587,600	1.54%	28589.50	3.84%	33,447.7	2.88%
2007	6,488,000	1.76%	27533.10	9.39%	32,511.2	8.29%
2006	6,375,600	1.91%	25168.80	9.55%	30,022.5	7.45%
2005	6,256,400	1.44%	22974.00	7.23%	27,940.5	8.13%
2004	6,167,800	1.14%	21424.90	6.14%	25,840.5	4.66%
2003	6,098,300	0.94%	20185.50	3.44%	24,689.9	4.16%
2002	6,041,710	1.12%	19513.50	2.66%	23,704.6	2.91%
2001	5,974,910	1.37%	19007.20	1.46%	23,033.8	1.10%
2000	5,894,143	1.09%	18733.90	3.40%	22,782.8	3.02%
1999	5,830,835	1.41%	18118.10	4.83%	22,115.2	10.77%
1998	5,750,033	1.52%	17282.60	5.58%	19,964.4	7.96%
1997	5,663,763	1.72%	16369.80	5.84%	18,492.7	11.04%
1996	5,567,764	1.79%	15466.60	4.40%	16,654.0	7.40%
1995	5,470,104	1.97%	14815.10	6.79%	15,506.9	2.83%
1994	5,364,338	1.87%	13872.50	8.62%	15,080.5	5.83%
1993	5,265,688	2.42%	12771.80	7.28%	14,250.0	5.97%
1992	5,141,177	2.39%	11905.20	6.09%	13,446.9	6.81%
1991	5,021,335	3.18%	11222.20	8.62%	12,589.5	6.12%
1990	4,866,663	2.93%	10332.00	13.64%	11,864.0	9.79%
1989	4,728,076	2.41%	9092.20	9.73%	10,806.4	9.10%
1988	4,616,886	1.98%	8285.90	7.58%	9,905.1	9.66%
1987	4,527,101	1.45%	7701.80	8.60%	9,032.5	7.51%
1986	4,462,211	1.05%	7092.10	12.07%	8,401.5	8.63%
1985	4,415,785	1.42%	6328.30	2.73%	7,734.1	4.28%
1984	4,354,070	1.09%	6160.00	9.70%	7,417.0	9.16%
1983	4,307,248	0.72%	5615.10	15.98%	6,794.9	7.97%
1982	4,276,549	1.12%	4841.50	12.94%	6,293.3	6.81%
1981	4,229,281	2.35%	4286.80	4.97%	5,891.8	11.84%
1980	4,132,353	3.85%	4083.90	4.90%	5,268.2	8.15%
1979	3,979,200	3.73%	3893.30	11.04%	4,871.3	14.17%
1978	3,836,200	3.25%	3506.10	16.71%	4,266.8	15.86%
1977	3,715,375	2.21%	3004.00	14.24%	3,682.6	12.50%
1976	3,634,891	1.88%	2629.60	9.81%	3,273.5	11.79%
1975	3,567,890	1.69%	2394.70	10.72%	2,928.2	11.59%
1974	3,508,700	1.87%	2162.90	9.76%	2,624.0	12.42%
1973	3,444,300	0.41%	1970.60	8.03%	2,334.2	13.96%
1972	3,430,300	-0.17%	1824.10	8.62%	2,048.3	9.18%
1971	3,436,300	0.68%	1679.40	11.22%	1,876.1	3.58%
1970	3,413,250	0.48%	1510.00	8.23%	1,811.2	0.12%
1969	3,397,000	1.83%	1395.20	11.89%	1,809.1	6.33%
1968	3,336,000	3.31%	1246.90	13.51%	1,701.4	8.65%
1967	3,229,000	3.33%	1098.50	10.07%	1,565.9	9.73%
1966	3,125,000	1.96%	998.00	13.50%	1,427.0	15.73%
1965	3,065,000	1.89%	879.30	6.30%	1,233.0	8.23%
1964	3,008,000	1.21%	827.20	2.98%	1,139.2	1.98%
1963	2,972,000	0.81%	803.30	5.67%	1,117.1	N/A
1962	2,948,000	1.76%	760.20	9.26%	N/A	N/A
1961	2,897,000	1.53%	695.80	6.69%	N/A	N/A
1960	2,853,214	N/A	652.20	N/A	N/A	N/A

In 2009 both total taxes and state GDP decreased, however, total taxes decreased more, -5.63%, compared to the GDP, -0.85%.

Over time there has been some relationship in the general trend of total taxes and GDP. As one can see in the following graph, the relationship is not perfect.

Graph 5.7

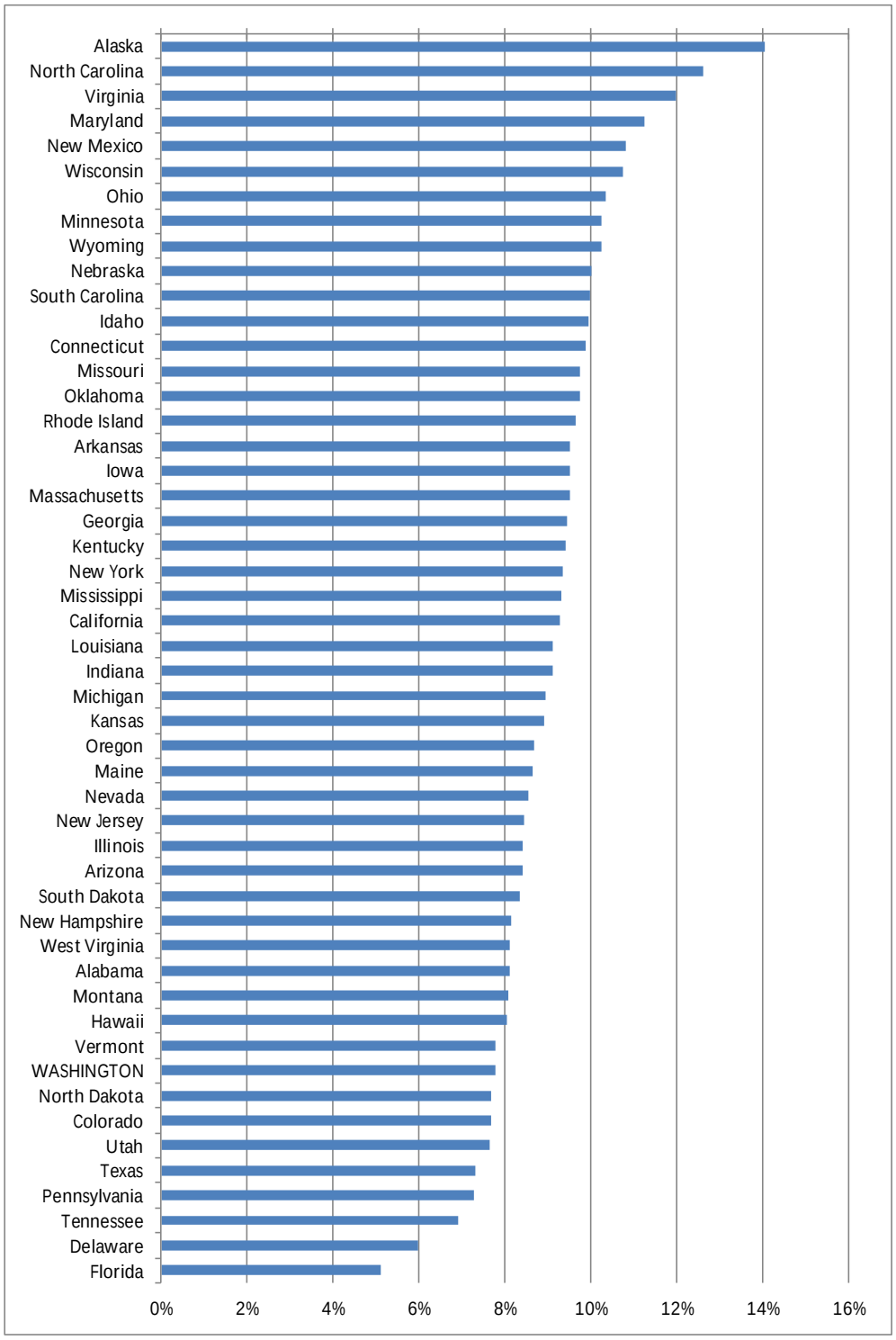


Washington State Tax Burden Compared to Other States

Graph 5.8, compares Fiscal Year 2009 tax burden in terms of state and local taxes divided by state GDP. Washington state was in the lowest 10 states in terms of average tax burden. Washington ranked 42nd with 50 being the lowest.

Graph 5.8

States and Local Tax Collections as a Percent of State GDP for all States, Fiscal Year 2009



Source: U.S. Census and BEA

Recommendations for Future Research

Given sufficient resources and time this study could be augmented and improved. Here are some of the additions that could be made

Updates to Income Distribution

It would be interesting to re-visit estimates in about a year, when 2010 IRS data is available in order to understand the impact of the recovery on income and wealth distribution.

It would also be interesting to look at changes in income and wealth distribution over a longer period of time, once data becomes available. Any major shifts in income and/or wealth distribution would probably only show up over a longer period of time than that covered by currently available data.

Improve Definition of Households

Much care was taken in this study to group the IRS data into households that represent economic units, the definition used for other data sources such as census data. More work could be done to improve the definition of households. This would allow for a more reliable data comparison between the income distribution data and the wealth distribution data.

Provide Detail on the Lowest Decile

The lowest decile is an eclectic mix of households with business losses, retirees, and students as well as low-wage households. Because of this mix, it is difficult to draw conclusions about the lowest income decile. Breaking down the lowest decile by types of households could provide much more information about poverty and income mobility in Washington.

Provide More Information on Income Mobility

In addition to looking at movement between deciles, it would be interesting to see the percentage of households with incomes that increased or decreased after adjusting for inflation.

Remove Downward Bias for Upper Income Households and Upper Wealth Households

Because high income households in the American Community Survey (ACS) are not over-sampled, as they are in the Survey of Consumer Finance (SCF), the income and wealth distributions are under-estimated in the top decile for the wealth distribution analysis. In order to correct the bias for the wealth distribution part of the study, information from the IRS data can be used to determine the actual distribution of income at the high end. The information about the high-end income distribution can be combined with the ACS data such that the ACS distribution will parallel actual Washington income distribution. Therefore, when the adjusted ACS data is combined with SCF data, the wealth distribution should be un-biased.

Compare Washington Income and Wealth Distributions with the U.S.

One other benefit of correcting the ACS/SCF bias, and improving the definition of households is that the improved data would allow comparisons of wealth and income distributions with the U.S. as a whole.