BUSINESS REPORT

MONTANA SENATE
63rd LEGISLATURE - REGULAR SESSION

SENATE TAXATION COMMITTEE

Date: Tuesday, February 5, 2013
Place: Capitol

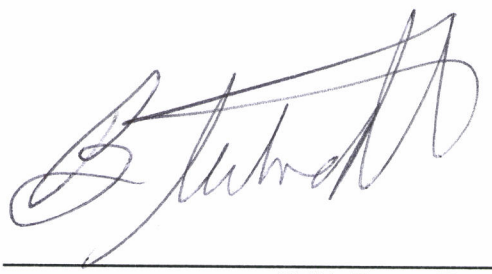
Time: 8:00 AM
Room: 405

BILLS and RESOLUTIONS HEARD:

SB 208 - Revise tax laws related to water's edge elections - Sen. Dick Barrett
SB 209 - Authorize resort area district to issue bonds and pledge resort tax revenue - Sen. Ron Arthun

EXECUTIVE ACTION TAKEN:

Comments:



SEN. Bruce Tutvedt, Chair

MONTANA STATE SENATE
ROLL CALL
TAXATION COMMITTEE

DATE: February 5, 2013

NAME	PRESENT	ABSENT/ EXCUSED
Chairman Tutvedt	X	
Vice Chairman, Thomas	X	
Senator Arthun	X	
Senator Barrett	X	
Senator Essman		E
Senator Jergeson	X	
Senator Kaufmann	X	
Senator Malek	X	
Senator Peterson		E
Senator Phillips	X	
Senator Taylor	X 8:05	
Senator Wittich	X 8:10	

12 Committee Members

MONTANA STATE SENATE
Visitors Register
SENATE TAXATION COMMITTEE

Tuesday, February 5, 2013

SB 209 - Authorize resort area district to issue bonds and pledge resort tax revenue

Sponsor: **Sen. Ron Arthun**

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Name	Representing	Support	Oppose	Info
Michael Scholz	Big Sky Resort District	X		
Kitty Clemens	Big Sky Chamber	X		
David O'Connor	B.S. Chamber/Buckstay	X		
Les Lugle	Big Sky Resort Area Dist	X		
Mona Jamison	Big Sky Resort Area Dist	X		
John Prinkki	Carbon County Comm.	X		

Please leave prepared testimony with Secretary. Witness Statement forms are available if you care to submit written testimony.

MONTANA STATE SENATE
Visitors Register
SENATE TAXATION COMMITTEE

Tuesday, February 5, 2013

SB 208 - Revise tax laws related to water's edge elections

Sponsor: **Sen. Dick Barrett**

PLEASE PRINT

Name	Representing	Support	Oppose	Info
Brian Staley	DOR			X
Gene Walborn	DOR	X		
Dan Bucks	Self	X		
Mike Green	Montana Taxpayers Assoc.		X	
Tava Veazey	MBPC	X		
Glenn Oppel	MT Chamber		X	

Please leave prepared testimony with Secretary. Witness Statement forms are available if you care to submit written testimony.

Montana Department of Revenue

Mike Kadas
Director

Steve Bullock
Governor

To: Mike Kadas, Director

From: Dan Dodds, Senior Economist

Date: February 1, 2013

Subject: SB 407 and Employment

The attached document reports the results of work I did over the last interim looking at whether SB 407, passed by the 2003 Legislature, increased employment in Montana. I used income tax returns to look for changes in taxpayer behavior from before SB 407 went into effect in 2005 to after it went into effect. I used income tax returns and annual withholding returns to compare the post-2005 behavior of high-income individuals, whose taxes were significantly reduced by SB 407, to the post-2005 behavior of other individuals and C-corporations, whose taxes were not significantly affected by SB 407.

Income tax returns are available back to 1998, which makes it possible to compare some pre- and post-SB 407 behavior for individuals. Payroll data from annual withholding returns is only available back to 2006. This makes it impossible to compare pre- and post-SB 407 employment and payroll trends for individual employers.

The evidence contradicts the idea that SB 407 increased labor supply. The evidence is ambiguous on the question of whether SB 407 increased labor demand through increased self-financing of business expansion or increased entrepreneurship. The evidence is consistent with some increase in labor demand from SB 407 making Montana more attractive for unincorporated businesses. However, the lack of pre-2005 payroll data from withholding returns limits what can be said on this question.

State Income Taxes and Employment Growth
Results of A Natural Experiment in Montana
Executive Summary

It is often argued in the political arena that cutting taxes will stimulate the economy and increase employment. In 2003, the Montana Legislature passed Senate Bill 407, which reduced the top individual income tax rate and provided preferential treatment for capital gains. SB 407 significantly reduced taxes for high-income individuals, had minimal effect on middle- and low-income taxpayers, and made no changes to taxation of corporations. This paper uses information from Montana income tax and withholding returns to examine whether SB 407 increased employment in Montana. It does this by comparing information before and after SB 407 went into effect and by comparing information for taxpayers who were and were not affected by SB 407.

Employment in a state can increase because there is an increase in the supply of labor – more people want to work more hours at given wages, because there is an increase in the demand for labor – employers want more people to work more hours at given wages, or because employers locate in that state rather than somewhere else. Economic theory identifies several mechanisms by which a tax cut might lead to higher labor supply, higher labor demand, or different firm location decisions. However, for some of these mechanisms, the theory makes ambiguous predictions – a tax cut affects taxpayers in ways that tend to increase employment and in ways that tend to decrease employment.

The four possible effects tested and the results are as follows.

Labor Supply: Theory is ambiguous, but previous empirical work suggested that second earners in high-income households might supply more labor in response to an income tax cut.

Contrary to this prediction, the proportion of second earners in households where the primary earner has high income decreased after SB 407 went into effect.

Self-Financing of Business Expansion: Taxpayers who have higher after-tax incomes because of a tax cut may use some of the additional resources to help finance new or expanded businesses. Theory is ambiguous, but new business formation may lead to increased employment.

The proportion of high-income households reporting income or losses from a sole-proprietor business or a pass-through entity was higher after SB 407 went into effect, but small businesses with a high-income owner had lower payroll growth than other types of employers.

Increased Entrepreneurship: Theory is ambiguous. A tax cut may induce entrepreneurs to devote more or less time to their businesses, and it may make running a business more or less attractive compared to working for someone else. Increased entrepreneurial activity may lead to increased employment.

The proportion of tax returns reporting income or losses from a sole-proprietor business or a pass-through entity was lower after SB 407 went into effect. More than half of payroll growth since 2005 occurred in new firms. However, more than half of the growth at new firms was at C-corporations, which were not affected by SB 407. Payroll data is not available to do a before-and-after comparison.

Business Location: Theory and previous empirical work indicate that cost differences affect businesses' location decisions and that tax differences can sometimes influence these decisions, with a business choosing a location partly because of its lower taxes.

After 2005, pass-through entities and sole-proprietor businesses, which were affected by SB 407 had faster payroll growth than C-corporations, which were not affected. Payroll data from before 2005 is not available to do a before-and-after comparison.

SB 407 went into effect while the Montana economy was experiencing strong growth due to a combination of a national economic recovery, high agricultural and oil prices, and the nation-wide housing bubble. Since 2005, the Montana economy has continued to respond strongly to outside forces, and any effect SB 407 had on the state economy appears to be smaller than the effects due to other influences.

In summary, evidence from income tax and withholding returns contradicts the idea that SB 407 increased the supply of labor and is ambiguous about whether SB 407 increased the demand for labor through increased self-financing of business expansion or increased entrepreneurship. The evidence is consistent with increased employment due to SB 407 making Montana more attractive for unincorporated businesses, but lack of payroll data from before 2005 limits what can be said.

State Income Taxes and Employment Growth
Results of A Natural Experiment in Montana

1. Introduction and Summary

It is often argued in the political arena that cutting taxes will stimulate the economy and increase employment. This paper uses income tax and withholding data to examine whether an income tax cut in Montana increased employment in the state. This legislation, SB 407, was enacted in 2003 and went into effect in 2005. It was targeted at high-income taxpayers, and produced minimal average tax reductions for middle and low income taxpayers.

A tax cut can increase employment in a state by increasing the supply of labor, increasing the demand for labor, or inducing firms to locate in the state rather than elsewhere. SB 407 appears to have reduced rather than increased labor supply by high income households. Evidence for a tax-cut-induced increase in labor demand is contradictory and at best inconclusive. The evidence is consistent with an increase in firms locating in Montana, but the data is too limited to draw firm conclusions.

Section 2 presents mechanisms which economic theory predicts might lead from tax cuts to increased employment. Section 3 examines how information from income tax and withholding returns might be used to test whether these mechanisms resulted in increased employment in Montana after SB 407 went into effect. Section 4 examines general economic conditions in Montana before and after SB 407 went into effect to show the background against which any effects of SB 407 might appear. Section 5 presents results, and Section 6 draws conclusions. There are two appendices. One presents more detail on the Montana economy and the other explains how withholding returns were corrected and classified.

2. Mechanisms by which Income Tax can Affect Employment

There are three general ways that the income tax cut in SB 407 could have increased employment in Montana. It could have increased the demand for labor, i.e. the number of people that companies want to employ at any set of wages. It could have increased the supply of labor, i.e. the number of people who want to work at any set of wages. It also could have affected the location of employment, causing employers to locate jobs in Montana rather than another state. This section examines five specific mechanisms by which SB 407 might have been expected to affect the supply of labor in Montana, the demand for labor in Montana, or the location of employment.

Labor Supply Effect

Economic theory predicts that an income tax cut will have two opposite effects on the supply of labor. It increases the payoff for an hour's work, making people want to work more, but it also increases the after-tax income from any given amount of work, which means people can afford more of everything, including leisure time. Whether a tax cut increases or decreases the supply of labor depends on which of these effects is stronger. Many studies have estimated the responsiveness of labor supply to changes in after-tax

wages. The general consensus is that labor supply of people who are their household's primary income earner has a small positive response to increased net wages but that secondary earners increase both labor force participation and hours worked.[1] One possible way that SB 407 may have affected employment is by increasing the labor supply of second earners in high income households. This is tested below using information from income tax returns.

Savings Effect

An increase in saving can, over time, lead to an increase in labor demand. A higher saving rate will lead to more investment in plant, equipment, and knowledge. With more plant, equipment, and knowledge per worker, workers will be more productive, and companies will find it profitable to hire more workers and pay more to attract them. If higher wages cause more people to enter the labor force, there will be more employment as well as higher wages.

If Montana businesses are raising funds on national or international capital markets, an increase in saving by Montanans will have a negligible effect on investment in the state because Montanan's savings are a negligible fraction of total funds available to finance business investment. To the extent that Montana businesses are limited in their ability to raise funds on national or international capital markets, an increase in Montanan's saving rate may lead to an increase in investment by Montana businesses.

The income tax can affect saving by reducing the after-tax rate of return on invested funds. Most theoretical analyses of the macroeconomic effects of an income tax use models of economic growth that assume that an increase in the after-tax rate of return will produce a large increase in the savings rate. However, decades of empirical work has almost always found that the response of the savings rate to the after-tax rate of return is zero or very small.[2]

The utility maximization theory of individual behavior, which dominated twentieth-century economics, allows individuals to respond to an increase in their after-tax rate of return by saving more, saving less, or by leaving their saving unchanged. This is because an increase in the after-tax rate of return has two effects: It makes it cheaper to consume in the future rather than today, i.e. to save, but it also makes people with accumulated savings richer and therefore more willing to spend today rather than saving for the future. If the first effect is stronger, people will save more when the after-tax rate of return increases. If the second effect is stronger, people will save less when the after-tax rate of

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[1] See, for example, Bernard Salanie, The Economics of Taxation, Cambridge, The MIT Press, 2003, pp. 38-44, Chetty; R., A. Guren, D. Manoli, and A. Weber, Are Micro and Macro Labor Supply Elasticities Consistent? A Review of Evidence on the Intensive and Extensive Margins, American Economic Review 101, (2011) 471-75; Bargain, Olivier, Kristian Orsini and Andreas Peichl, Labor Supply Elasticites in Europe and the US, Forschungsinstitut zur Zukunft der Arbeit Discussion Paper 5820, 2011; Michiel Evers, Ruud de Mooij and Daniel van Vuuren, What Explans the Variation in Estimates of Labor Supply Elasticities? Tinbergen Institute Discussion Paper TI 2006-017/3, 2006.

[2] For a recent survey of the literature, see Douglas Bernheim, Taxation and Saving, in Handbook of Public Economics vol 3, Alan Auerbach and Martin Feldstein eds., North-Holland, 2002.

return increases. If the two effects exactly offset each other, an increase in the after-tax rate of return will not affect saving.

Modern behavioral economics research has found that most people are unable to save as much as they want to or think they should. It has focused on factors that determine whether people save, and has found that people who do save generally have locked themselves into an inflexible arrangement such as having a fixed percent of each paycheck deposited in a retirement account or having income tax over-withheld to get a refund. While the utility maximization theory is consistent with the empirical finding that the response of saving to the after-tax rate of return is zero or very small, behavioral economics provides explanations for this finding.[3]

It is not clear that SB 407 can be expected to have affected the overall savings rate in Montana or that an increase in the Montana savings rate can be expected to affect investment and employment in Montana. It is clear that if there is an effect, it will be a long-run effect that can only be seen by comparing growth over fairly long periods before and after SB 407 went into effect or comparing growth in Montana to growth in other states. Therefore, no attempt has been made here to identify an employment effect through an overall increase in saving.

On the other hand, if SB 407 increased saving by high-income Montanans, this may have provided additional self-financing for businesses these high-income individuals own. Additional self-financing may have led to more investment and demand for more labor. Annual withholding returns provide information that can be used to examine this possibility.

Entrepreneurial Activity Effect

In the political arena, it is often claimed that lower income tax rates will increase entrepreneurial activity and that entrepreneurs create jobs, so that lower income tax rates will increase employment. The economic literature on taxes and entrepreneurship paints a more nuanced picture.[4]

Potential entrepreneurs face two choices relating to how they spend their time. One is the choice between spending time working or in other ways, such as spending time with friends and family or sleeping. The other is whether to spend working time as someone else's employee or as an entrepreneur.

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[3] See, for example, Shane Frederick, George Loewenstein, and ted O'Donoghue, time Discounting and Time Preference: A Critical Review and Ted O'Donoghue and Matthew Rabin, Doing It Now or Later, in Colin Camerer, George Loewenstein, and Matthew Rabin, *Advances in Behavioral Economics*, New York, Russel Sage Foundation and Princeton University Press, 2004.

[4] See, for example Julie Berry Cullen and Roger Gordon, Taxes and Entrepreneurial Activity: Theory and Evidence for the U.S. National Bureau of Economic Research Working Paper 9015, 2002, Vesa Kanniainen, Seppo Kari, and Jouko Yla-Liedenpohja, Nordic Dual Income Taxation of Entrepreneurs, VATT Discussion Paper 415, Government Institute for Economic Research, Helsinki 2007, and Magnus Henrekson, Entrepreneurship and Institutions, Research Institute of Industrial Economics Working Paper 707, Stockholm 2007.

Taxes affect the choice between free time and working as an entrepreneur in exactly the same ways that taxes affect the choice between free time and working as an employee outlined above. Lower income tax rates are likely to produce little or no additional time spent in entrepreneurial activity rather than as free time by the primary income earner in a household but may produce a significant increase for secondary income earners.

Taxes can affect the choice between working as an employee and being an entrepreneur in at least four different ways.

People who are successful as entrepreneurs tend to have higher incomes than they would if they worked for someone else. Higher income tax rates and a more progressive rate structure reduce the after-tax income difference from entrepreneurial activity rather than working as an employee.

On the other hand, small business owners have more opportunities to under-report income than employees, and IRS compliance research indicates that less than half of small business income is reported.[5] The effective tax rate is likely to be lower for someone who works as an entrepreneur and under-reports income than it would be for the same person as an employee. This may mean that higher statutory tax rates make entrepreneurship relatively more attractive for potential entrepreneurs who expect to evade taxes.

Income from entrepreneurial activity tends to be more variable and more uncertain than income from working as an employee, and entrepreneurs often have years when their business produces a loss rather than income. With an income tax, after tax income is less variable than pre-tax income. This is particularly true if business losses can be written off against other income or carried forward or back to offset income in other years. An income tax shifts part of the risk of entrepreneurial activity to other taxpayers. This risk shifting can be smaller with a progressive rate structure because business losses in bad years can end up offsetting income that is taxed at a lower rate than applies to business income in good years.

Entrepreneurs have more opportunities than workers to structure when and how they receive income. If the tax code provides preferential treatment for certain types of income, such as capital gains, or provides business owners with opportunities to deduct expenses that are not available to employees this may provide an additional incentive for entrepreneurial activity.

SB 407 reduced the effective marginal tax rate for high income taxpayers and made the rate structure much flatter. The top rate under the old law started at $80,300 for 2004, and the top rate under SB 407 started at $13,900 for 2005. This cutting and flattening of rates may have provided an inducement for additional entrepreneurial activity. SB 407

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[5] Theodore Black, Kim Bloomquist, Edward Emblom, Andrew Johns, Alan Plumley*and Esmeralda Stuk, Federal Tax Compliance Research: Tax Year 2006 Tax Gap Estimation, Internal Revenue Service, March 2012.

also provided preferential treatment for capital gains income in the form a tax credit equal to 1% of capital gains income for 2005 and 2006 and 2% for later years.

Entrepreneurs identify and pursue new business opportunities. If they are successful, they often start companies that grow and hire more workers. This may or may not produce more jobs for the economy as a whole.

New businesses often provide new products or use new processes to provide existing products. New firms producing new products may simply displace old firms producing old products. New processes may make workers more productive, leading to higher wages and more employment, or they may lower the skill levels workers need, leading to lower wages and less employment.

While the effect of an increase in entrepreneurial activity on total employment is unpredictable, it is likely that employment gains and losses will be in different places. New jobs at new businesses in Montana may be partly, completely, or more than completely offset by job losses at old businesses, but if those old businesses are in other states, there will be a net increase in employment in Montana.

Information from income tax returns can be used to look for evidence of additional entrepreneurial activity, particularly by second earners, and annual withholding returns can be used to look for changes in employment by new and smaller firms.

Keynesian Stimulus Effect

Unexpected events and new information can cause people to revise their expectations about the level and riskiness of their current and future incomes. When people revise their expectation downward they generally reduce spending and try to save more. When people revise their expectations upward, they generally spend more. When most people revise their expectations downward at the same time, their lower spending can cause others to further revise their expectations downward, and the cumulative effect is a recession. In a recession, events that cause people to spend more, either because they revise their expectations upward or because they have more disposable income, can slow or reverse the downward spiral. One thing that can give people more disposable income and stimulate the economy in a recession is a tax cut.

When SB 407 went into effect in 2005, the state economy was growing rapidly. Any stimulus from SB 407 would have come on top of the existing expansion. In addition, SB 407 increased several other taxes to offset the revenue loss from the income tax cut. In its first years, SB 407 redistributed the tax burden rather than reducing it. Therefore, it is unlikely that SB 407 had a significant short-run stimulus effect.

Inter-Jurisdiction Tax Competition Effect

When businesses are deciding where to locate, they consider many factors. The most important are directly related to the business's production processes. These include access to raw materials, a supply of workers with appropriate skills, availability and cost of other inputs, and access to customers. Business location decisions also are affected by

the supply of public services and the taxes that pay for them. SB 407 changed Montana's mix of taxes but did not materially affect the supply of public services. SB 407 cut income taxes, especially for high income individuals, and increased taxes on cigarettes and tobacco products. It also instituted a rental car tax and increased lodging taxes, but left both these taxes lower than in most states. SB 407 did not change Montana's corporate tax.

This change in Montana's tax structure would have made Montana more attractive to businesses organized as sole-proprietorships or as pass-through entities without changing its relative attractiveness to businesses organized as a C-corporation. It also would have made Montana somewhat less attractive to businesses that rely on employees travelling.

Withholding returns can be used to look for an inter-jurisdiction tax competition effect on labor demand by comparing the growth of withholding by incorporated and unincorporated businesses.

3. How Possible Employment Effects Would Show Up in the Data

The department has two data sets that can be used to make inferences about possible employment effects of SB 407 – individual income tax returns and employers' annual withholding returns.

A complete database of income tax returns is available for the years 1998 through 2010. It includes almost all information from the main return and supporting schedules for state-specific additions to and subtractions from federal adjusted gross income, itemized deductions, and credits. It does not include federal supporting schedules used to calculate income line items.

Montana has a single rate schedule for all taxpayers. Married couples are allowed to choose between filing separate returns and a joint return, and are not required to file the same as they do for their federal return. With a single rate schedule, most two-income couples have lower tax liability if they file separate returns.[6] The Montana tax return allows a married couple to file separate returns on a single form, with two columns for each line item. Column A is for single taxpayers, married taxpayers filing a joint return, or one spouse when a couple file separate returns on the same form. Column B is for the second spouse when a couple file separate returns on the same form.

Because of these features, Montana tax returns indicate the types and amounts of income taxpayers earn, and for married couples, they indicate whether the return comes from a one-income or two-income family.

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[6] A couple where one spouse has adjusted gross income that is less than the sum of an exemption and the standard deduction may have lower tax liability filing a joint return. Thus, whenever terms like 'single-income married couple' are used in this paper, they include some couples where the second spouse has some, but very low income.

Employers submit an annual return showing annual payroll and tax withheld. These returns were classified by type of payer and ownership, and can be used to compare payroll growth for different types of firms whose owners were affected differently by SB 407.[7]

Labor Supply Effect

If SB407 increased the supply of labor by inducing a second spouse to work in more households, this should show up as an increase in the proportion of tax returns from married couples reporting wage and salary income in column B. Since the tax cut was significant only for higher-income households, it should be possible to disentangle any effect of SB 407 from the effects of other events at the same time by comparing changes in the proportion of column B wage-earners in higher income households with changes in the proportion in the rest of the population. If the proportion of Column B wage-earners increased in the whole population, the increase should be larger among higher income couples. If the proportion of Column B wage-earners decreased in the whole population, the decrease should be smaller among higher income couples.

Saving Effect

If SB 407 increased saving by high income households and if that additional saving was used to self-finance expansion of businesses these households own, the payroll growth rate at firms with a high-income owner should have increased more, or decreased less, than the payroll growth rate at other firms. With no payroll data from before SB 407 went into effect, it is impossible to do a before-and-after comparison of growth rates. What is possible is a comparison of the payroll growth rate for firms with high-income owners with other firms for 2006 through 2010 and an analysis of the proportion of payroll and payroll growth at firms with high income owners.

This self-financing effect would apply only to firms whose owners already have high incomes. Firms were counted as having a high income owner if they had one or more owners with income of $250,000 or more in at least one year in 2003 through 2005.

If payroll growth is much higher at firms with high-income owners, that will be suggestive of a tax-cut-induced increase in self-financed growth for these firms. If payroll growth is much lower at firms with high-income owners, that will suggest that the tax cut caused little or no additional payroll growth at these firms. In either case, the evidence will not be conclusive because there is no before-and-after comparison.

Firms that might have had an increase in self-financing will be primarily pass-through entities or sole-proprietor businesses that are treated as disregarded entities for income tax purposes, rather than C-corporations.[8] The proportion of payroll and payroll growth

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[7] The classification process is described in Appendix II.

[8] Pass-through entities include partnerships and S-corporations. For federal and state income tax, they are treated as separate entities, but there is no tax at the entity level. In Montana, pass-through entities are required to file an annual information return showing the calculation of the entity's income or loss and its allocation to the owners. Disregarded entities are often sole-proprietor businesses and are not

will give a fairly good picture of the importance to the state economy of any increase in self-financing of business with high-income owners. If firms with a high-income owner account for a large proportion of total payroll and payroll growth, then even a small increase in self-financing at these firms may have a significant effect on total state employment and payroll. On the other hand, if these firms account for a very small proportion of total payroll and payroll growth, even a large increase in self-financing at these firms would not significantly affect state employment and payroll.

Firms can be organized as C-corporation, pass-through entities, or sole-proprietorships. In most cases, organization as a C-corporation implies a greater separation of the business from the owner's personal finances. A C-corporation can finance expansion by borrowing, by selling new shares or by retaining earnings. These mechanisms can be used to raise money from existing owners, but the first two generally work by raising funds in capital markets, and retaining earnings essentially takes an equal capital contribution from the owner of each share. The pass-through entity and sole-proprietor business structures generally provide more direct ways for individual owners to contribute capital to or withdraw capital from the business. Thus, if there was an increase in self-financing of businesses with high-income owners it is more likely to be seen in pass-through entities and sole proprietor businesses than in C-corporations.

To the limited extend the data can address the question, evidence for employment growth from an increase in self-financing at firms with high-income owners can be looked for by comparing payroll growth at pass-through entities and sole-proprietor businesses with a high income owner with payroll growth at other firms.

Entrepreneurial Activity Effect

In its broadest sense, entrepreneurial activity is just the organization and running of a business. The term often is used in a narrower sense, implying innovation, actively seeking out new opportunities, or starting a new business. In either sense, entrepreneurship can be found in any type of business organization. However, in both senses it is often thought of in terms of smaller, newer, and unincorporated businesses. While managers of a corporation may also be shareholders, most shareholders are not managers. In an unincorporated business, ownership and management are more likely to be combined in the same people, and someone who has income from an unincorporated business is more likely to be an active participant in the business than someone who receives dividends from a corporation.

Thus, one place to look for an increase in entrepreneurial activity is in the proportion of income tax returns reporting income (or losses) on Schedule C, for income from a sole

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treated as entities separate from their owners for income tax purposes. A disregarded entity's income or loss is calculated on Schedule C, E, or F of the owner's individual tax return. While Schedule F is for sole-proprietor farm businesses, most full-time agricultural enterprises have another business structure, and most taxpayers reporting income or loss on Schedule F receive most of their income from other sources. Most taxpayers filing Schedule F are best described as hobby farmers. Thus, changes in the proportion of taxpayers filing a Schedule F are not considered here.

proprietorship, or on Schedule E, for income from a pass-through entity.[9] Since income tax returns are available from 1998 through 2010, it is possible to compare the proportions with Schedule C and E income or loss before and after the implementation of SB 407.

Successful entrepreneurs end up with high incomes, but entrepreneurs starting a new venture may have lower incomes or even have business losses. Changes in the proportion of returns at different income levels with income or losses on Schedules C and E may shed some light on changes in entrepreneurship, but there is no strong a-priori notion of what form that evidence might take. Some studies of entrepreneurship have suggested using business losses as a measure of risk-taking entrepreneurial activity. However, a recession also increases the proportion of business losses. Since the pre-and post SB 407 data both cover more than a complete business cycle, differences in observed entrepreneurial activity between the two periods should not be due to business cycle effects.

While entrepreneurship can occur in any type of business, new businesses are most likely to be entrepreneurial. Thus, an increase over time in payroll growth at new businesses would be evidence for an entrepreneurial effect from SB 407. However, since there is no pre-SB 407 payroll data, it is impossible to be confident that such an increase is not due to other factors.

Inter-jurisdictional Competition

SB 407 reduced taxes for high-income individuals but not for C-corporations. An increase in the payroll growth rate for pass-through entities and sole-proprietor businesses over the payroll growth rate for C-corporations would be evidence that SB 407 made Montana more competitive for businesses deciding where to locate. Since payroll data is not available from before SB 407 went into effect, it is impossible to do a before-and-after comparison. Differences in payroll growth rates between unincorporated businesses and C-corporations will only be suggestive, not conclusive.

Summary of Hypothesized Effects

If SB 407 had effects that tended to increase employment in Montana, they would show up in the data in one or more of the following ways:

- An increase in the proportion of income tax returns from higher-income married couples reporting wage and salary income for the second spouse (labor supply effect)
- An increase in the proportion of income tax returns with income or losses on Schedules C and E both for the total population (entrepreneurial effect) and for high-income taxpayers (self-financing effect)

[9] Schedule E is also used to report income from royalties and rental businesses. Most of the income reported on Schedule E is from pass-through entities, so that an increase in the proportion of the population owning a pass-through entity will increasethe proportion filing a Schedule E. However, an increase in the proportion filing a Schedule E could also come from an increase in the proportion with other types of income reported on Schedule E.

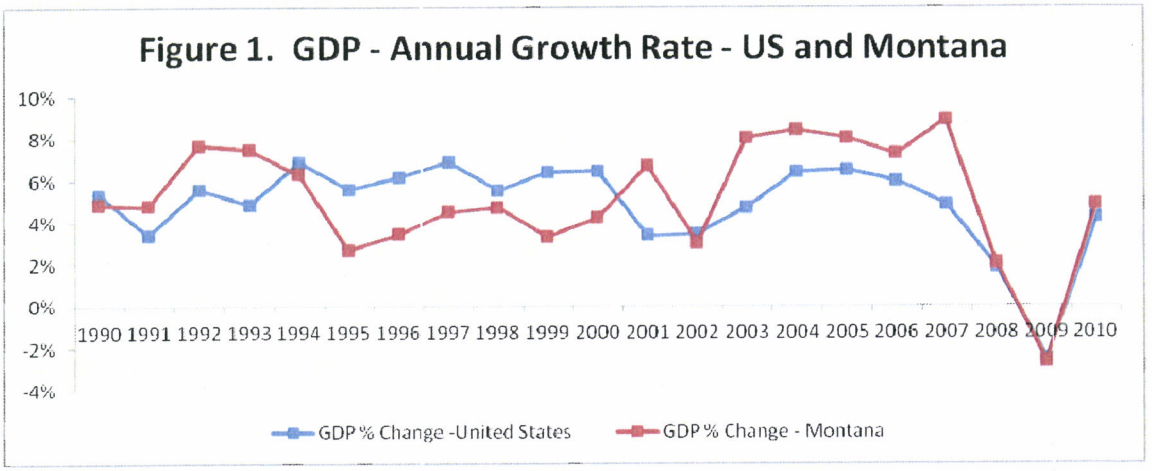
- Faster growth of payroll for pass-through entities and sole-proprietor businesses with at least one high-income owner than for those with no high-income owner (self-financing effect)
- Faster payroll growth for new firms than for established firms (entrepreneurial effect)
- Faster payroll growth for pass-through entities and sole-proprietor businesses than for corporations (inter-jurisdictional competition effect)

4. General Economic Conditions and Their Impact on the Data

Employment is affected by general economic conditions. It falls during a recession and increases during a recovery. Over the long term, it grows as the economy grows.

Identifying the effects of public policy on employment requires identifying changes in employment that are due to other factors so that they are not mistakenly attributed to the policy change or allowed to mask the effects of the policy change. This section examines general economic conditions in Montana and nationwide that affected Montana employment and attempts to identify employment changes that cannot be attributed to SB 407, either because they are due to other factors or because of their timing.

Figure 1 shows annual growth rates of gross domestic product for Montana and the United States for the period 1990 through 2010.



In the early 1990s, the Montana economy generally was growing faster than the national economy. From 1994 to 2002, Montana grew slower than the national economy all but one year. In 2001, as the national economy slowed and went into a recession, the Montana economy had a one-year surge. However, in 2002, as the national economy stayed in recession, Montana joined it.

In 2003, as the national economy began to recover, growth again surged in Montana and stayed above the national rate of growth until both the national and state economies went into recession in 2008.

Figure 2 shows annual employment growth rates for the U.S. and Montana for the same periods. It shows essentially the same pattern as Figure 1 – employment growth was faster in Montana than in the U.S. as a whole in the early 1990s and since 2001 and was generally slower from 1995 through 2000. Montana had a much smaller slowdown of employment growth than the national economy in the 2001 - 2002 recession, but matched the national slowdown in the 2008 - 2009 recession.

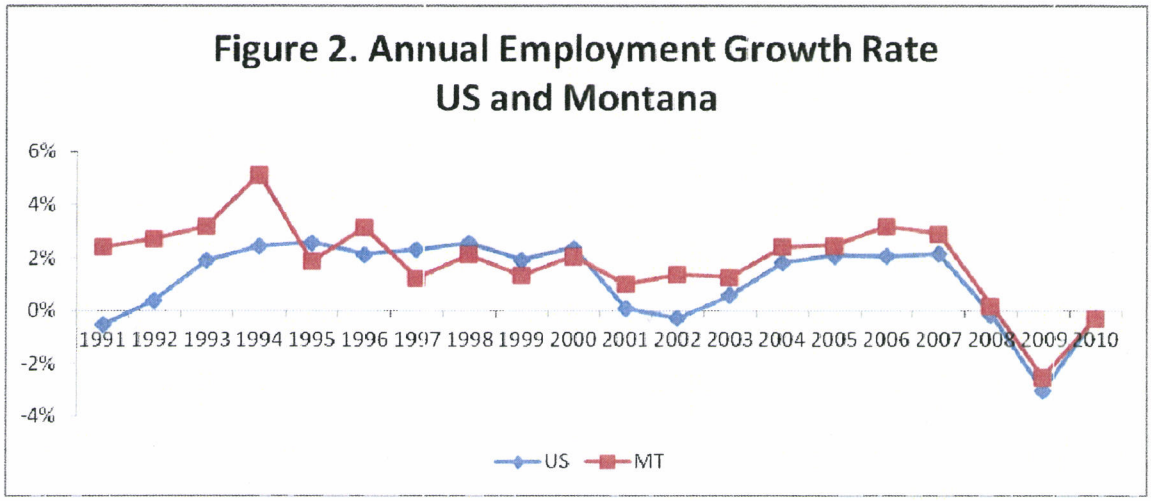
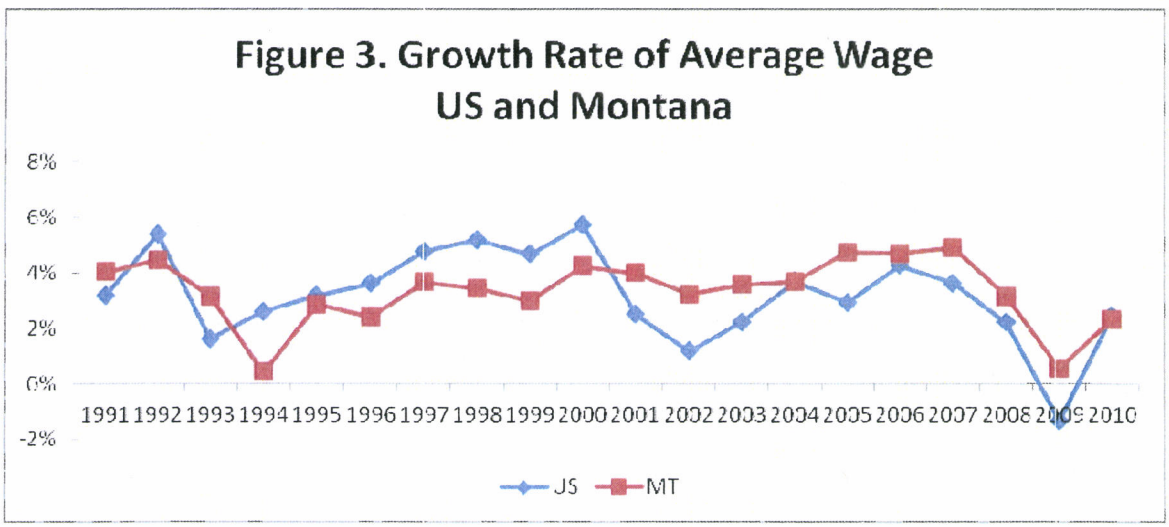
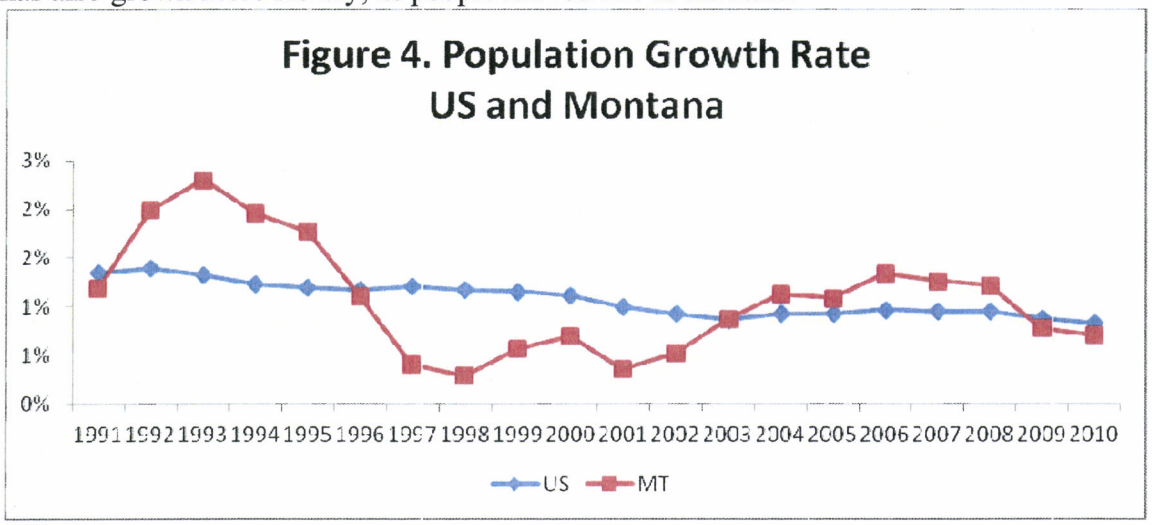


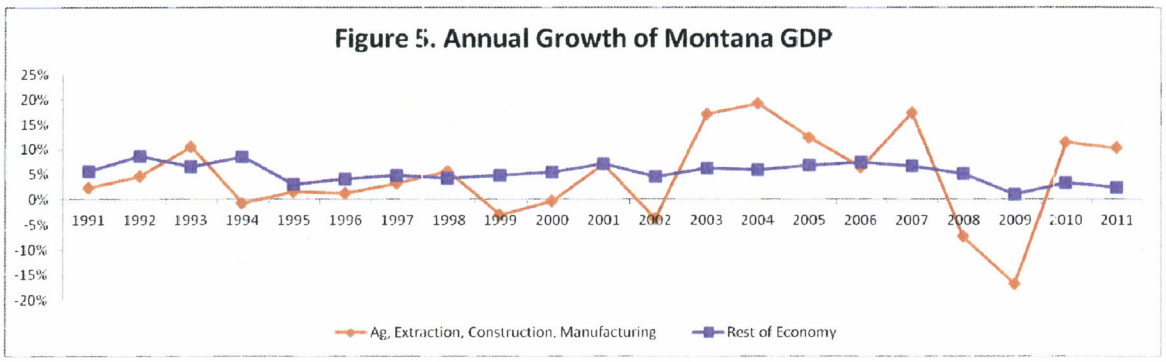
Figure 3 shows annual growth rates for average wages in Montana and the U.S. In general, wage growth has been steadier in Montana than in the nation as a whole. This is because labor market imbalances in Montana tend to be adjusted through migration rather than wage movements. Montana has a relatively small population with most of the population in relatively small cities. When local employment opportunities are limited, people tend to look for work in the larger labor markets in other states, particularly on the west coast. When employment opportunities in Montana are good, people tend to move in the other direction.



This is shown in Figure 4, which shows population growth rates for Montana and the US. When the Montana economy has grown faster than the U.S. economy, Montana's population has grown faster than the national population, as people moved to the state. When Montana's economy has grown slower than the national economy, it population has also grown more slowly, as people moved out of the state.



When SB 407 went into effect, Montana was two years into a period of rapid economic growth. This surge in growth was concentrated in four sectors of the economy, agriculture, mineral extraction, construction, and manufacturing. Figure 5 shows annual growth for these four sectors combined and for the rest of the economy. Graphs for individual sectors are in Appendix I.



Montana went into recession in 2008, along with the national economy, and the slowdown was concentrated in the same sectors that had produced faster growth in the previous five years. The speedup in the Montana economy beginning in 2003 occurred before SB 407 went into effect and was driven primarily by factors unaffected by Montana taxes – higher prices for agricultural commodities, higher oil prices, and the nationwide housing bubble.

5. Results

Income Tax Returns – Labor Supply Effect

For each year from 1998 through 2010, tax returns were ranked by adjusted gross income reported for Column A, and then, for each decile of Column A's adjusted gross income, the number of married couples with and without wage and salary income in Column B was counted. Table 1 shows the proportion of married couples reporting wage and salary income in Column A, for each year and for the periods before and after SB 407 went into effect at the beginning of 2005.

Table 1
Proportion of Married Couples with Wage and Salary Income in Column B

	Decile of Column A Adjusted Gross Income									
Year	1	2	3	4	5	6	7	8	9	10
1998	6.9%	23.5%	26.6%	28.7%	34.7%	41.5%	51.6%	54.3%	52.0%	42.4%
1999	8.4%	24.4%	27.9%	30.2%	35.7%	43.6%	52.8%	55.4%	53.4%	43.9%
2000	9.2%	25.5%	29.1%	30.6%	36.9%	44.5%	54.8%	56.3%	54.1%	44.1%
2001	8.7%	24.8%	28.7%	30.7%	37.0%	44.2%	54.6%	56.2%	54.5%	44.3%
2002	8.9%	24.1%	28.1%	30.1%	35.6%	43.5%	53.2%	55.7%	55.2%	44.7%
2003	9.7%	24.0%	28.1%	31.2%	35.9%	43.6%	53.2%	55.1%	54.9%	45.2%
2004	10.1%	24.7%	29.6%	31.1%	35.8%	45.6%	54.0%	55.7%	55.1%	44.9%
2005	11.4%	25.6%	28.3%	31.6%	37.0%	48.1%	54.0%	54.6%	52.6%	38.1%
2006	11.6%	23.9%	27.9%	31.5%	38.4%	49.0%	53.1%	54.6%	50.9%	36.7%
2007	10.3%	24.5%	29.0%	32.0%	38.6%	49.4%	53.8%	55.6%	51.8%	38.4%
2008	9.5%	24.4%	29.2%	30.8%	37.9%	48.8%	52.8%	55.4%	53.2%	40.3%
2009	8.7%	23.4%	28.6%	30.2%	36.5%	46.2%	50.5%	53.5%	52.8%	39.9%
2010	10.7%	24.1%	29.0%	31.5%	37.2%	47.8%	51.5%	53.3%	51.9%	39.6%
Pre-SB 407	8.9%	24.4%	28.3%	30.4%	35.9%	43.8%	53.5%	55.5%	54.2%	44.2%
Post-SB 407	10.3%	24.3%	28.7%	31.2%	37.6%	48.2%	52.6%	54.5%	52.2%	38.8%

Figure 6 shows the annual proportions.

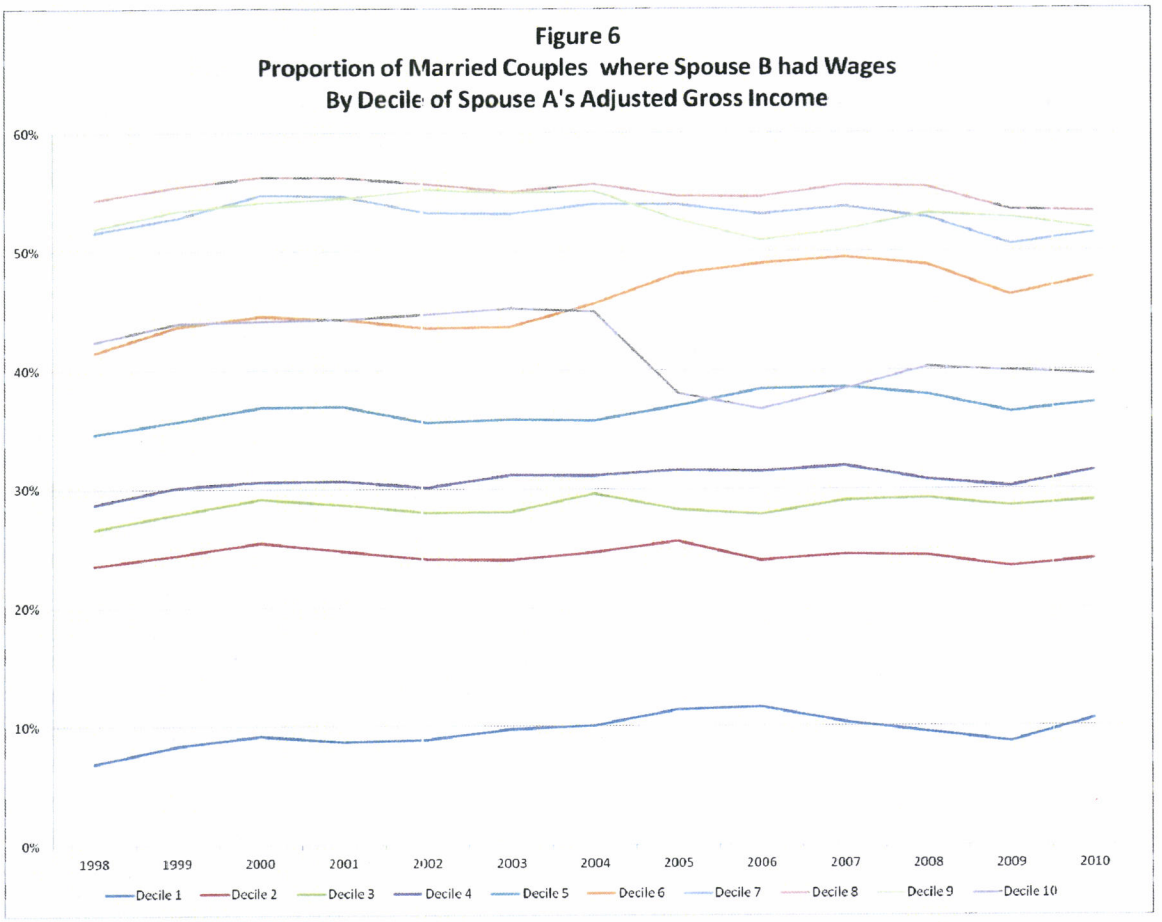


Table 2 shows the results of chi-squared tests for equality of the pre-SB 407 and post-SB 407 proportions for each decile group. The first two columns show the proportions of returns in each decile with wages reported in Column B, and the third column shows the changes in these proportions from the pre-SB 407 period to the post-SB 407 period. The chi-squared statistic is a measure of the likelihood that the pre-SB 407 and post-SB 407 proportions really are the same. The larger the statistic, the smaller the likelihood. The P value in the right-hand column is the probability of getting a chi-squared statistic at least as large as the one observed if the two proportions are equal.

Table 2
Tests for Equality of Proportion of Married Couples with Wage and Salary Income in Column B Before and After Implememtation of SB 407

Decile of Column A AGI	Proportion of Returns with Column B Wages Pre SB 407	Post SB 407	Change	Chi Sq	P
1	8.9%	10.3%	1.4%	73.86	< 0.00005
2	24.4%	24.3%	-0.1%	0.21	0.6483
3	28.3%	28.7%	0.4%	2.18	0.1394
4	30.4%	31.2%	0.9%	15.22	< 0.00005
5	35.9%	37.6%	1.7%	61.82	< 0.00005
6	43.8%	48.2%	4.4%	476.79	< 0.00005
7	53.5%	52.6%	-0.8%	20.82	< 0.00005
8	55.5%	54.5%	-1.0%	37.09	< 0.00005
9	54.2%	52.2%	-2.0%	143.54	< 0.00005
10	44.2%	38.8%	-5.4%	1,228.40	< 0.00005

As the last column shows, the hypothesis that the proportion of returns reporting wages in Column B is the same before and after the implementation of SB 407 can be very strongly rejected for eight of the ten decile groups. However, contrary to expectations from the literature, the proportion of returns with wages in Column B *decreased* for the top four decile groups and increased or had an insignificant change for the bottom six decile groups, who were essentially unaffected by SB 407.

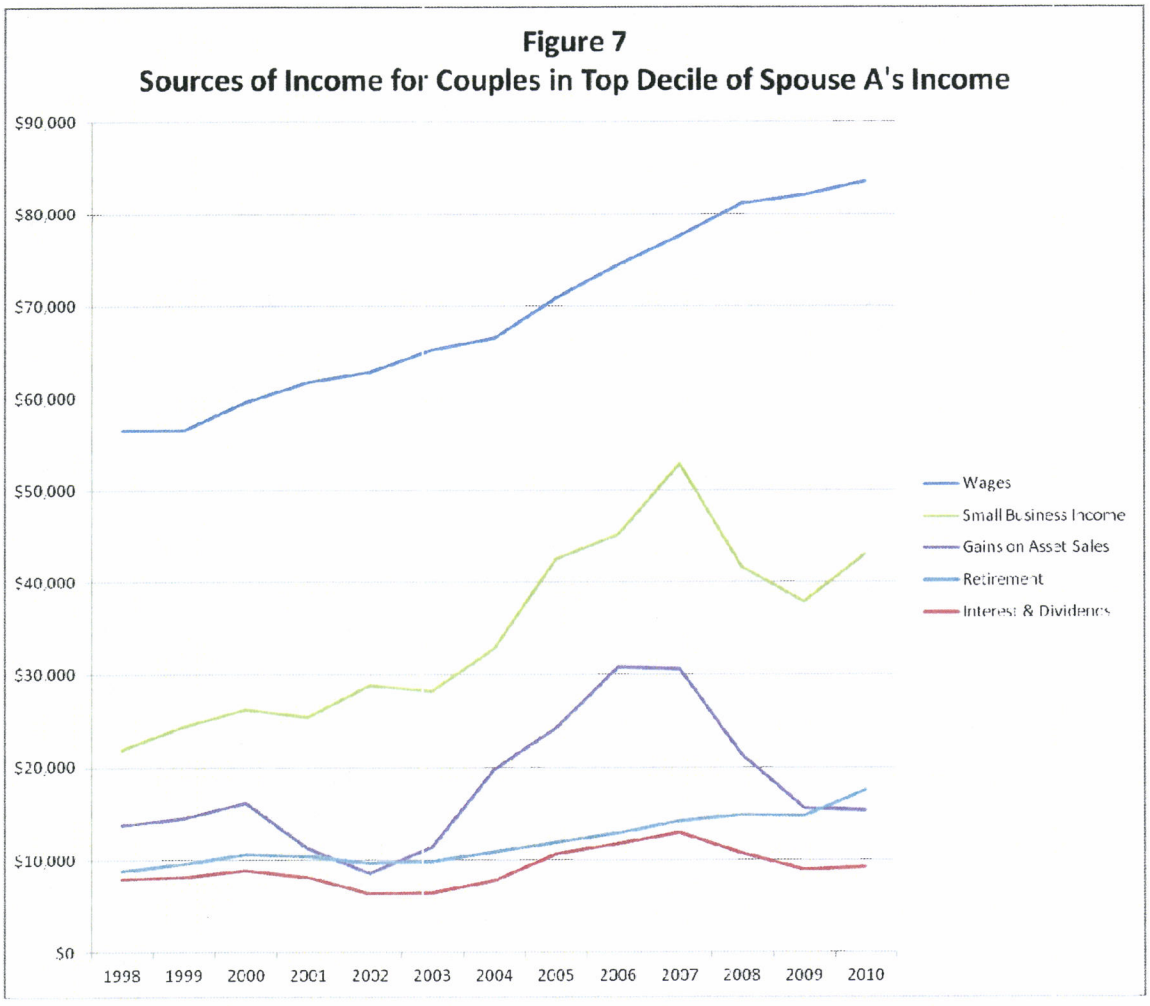
Why is the observed change the opposite of the change predicted by econometric studies of labor supply? There are two likely reasons, both related to the fact that econometric studies try to estimate the response of labor supply to wage changes when all else is constant.

When econometricians estimate the elasticity of labor supply, they estimate the response of labor force participation and desired hours per week to a change in the after-tax wage rate. The effect of an increase in the after tax wage can be decomposed into two effects. The first is due to the change in the tradeoff between the income from an hour of work and the value of an hour of leisure. Economists call this the substitution effect, and it leads to more people wanting to work more hours at higher after-tax wages. The second effect is due to the fact that a higher after-tax wage increases the disposable income earned from working any given number of hours. With higher disposable incomes, people want to buy more of most goods, including leisure time. Economists call this the income effect, and it leads to people wanting to work less at higher after-tax wages. Econometric estimates generally find that the substitution effect of a change in after-tax wages is slightly stronger than the income effect for first earners in a family and much stronger than the income effect for second earners.

However, SB 407 cut taxes on all income, not just on labor income, and instituted preferential treatment for capital gains. For higher-income households, non-wage income is a significant portion of total income, and is over half of income for households in the top decile group. For a household with half of its income from non-labor sources, the income effect of an income tax cut will be about twice the income effect from the increase in the after-tax wage, and may be larger than the substitution effect.

From 2004 through 2007 higher-income households in Montana experienced a surge in non-labor income. Figure 7 shows average income in five categories for couples in the top decile group of Spouse A's income. Income from small business and sales of assets increased significantly from 2004 through 2007 and then decreased.[10] This is the opposite of the movements in the proportion of returns with wages in Column B.

Figure 7
Sources of Income for Couples in Top Decile of Spouse A's Income



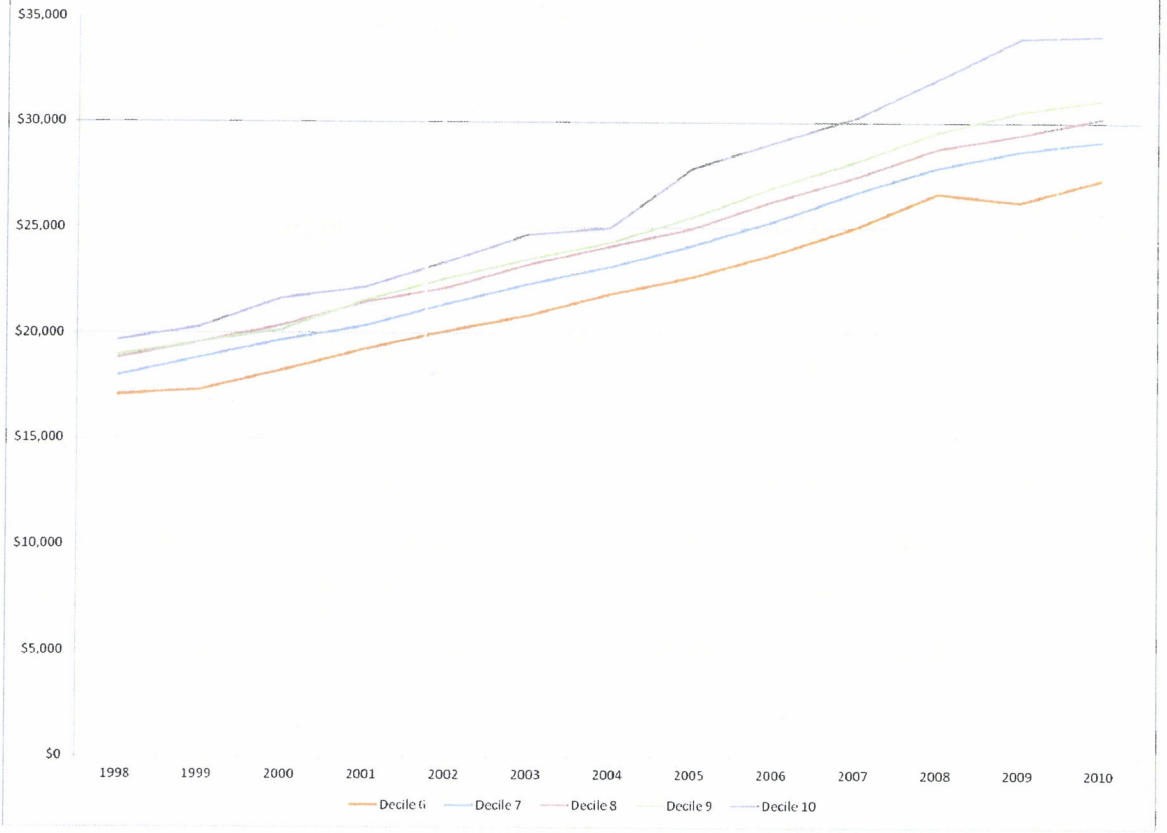
In the period when any labor supply effect of SB 407 would have been occurring, general economic trends significantly increased non-labor income of high income households in

[10] Income from small business is the sum of lines 12, 17, 18, and 21 on IRS Form 1040, and gains from asset sales is the sum of lines 13 and 14.

Montana, which would have caused them to want to consume more leisure time, i.e. work less.

A third possible reason for a decrease in second earners in high-income households appears to be ruled out by the evidence. The number of second earners could have decreased either because the supply of second earners wanting to work decreased or because the demand for their labor decreased. In the first case, the number working would have decreased while their average wages increased. In the second case, both the number working and the average wage would have increased. As Figure 8 shows, average wages for Column B spouses in the top four decile groups continued to grow throughout this period, and in fact jumped for the top decile in 2005. Thus, it appears much more likely that the decrease in second earners among higher-income couples was due to a decrease in supply than a decrease in demand.

Figure 8
Average Wage of Spouse B - Top Four Deciles of Spouse A's Income



Income Tax Returns – Self Financing and Entrepreneurial Activity

If SB 407 increased entrepreneurial activity in Montana, the proportion of income tax returns with income or loss from Schedules C and E should be higher after SB 407 went

into effect than before. If SB 407 increased self-financing of business activity by high-income taxpayers, the increase in the proportion of returns with income or loss from Schedules C and E should be larger for high-income returns.

Tables 3a through 3d show proportions of returns with income or losses on Schedules C and E before and after the implementation of SB 407, for deciles of Column A income and for all returns. Table 3a shows the proportion for single taxpayers, Table 3b shows the proportion of married couples reporting Schedule C or E income or losses in Column A, Table 3c shows the proportion of married couples reporting Schedule C or E income or losses in Column B, and Table 3d shows the proportion of married couples reporting Schedule C or E income or losses in one or both columns. The tables also show the change in proportions from the pre-SB 407 years to the post-SB 407 years and the results of a chi-squared test of statistical significance for these changes. Changes that are in the predicted direction are shaded, and tests that indicate statistically significant changes in the predicted direction also are shaded.

Table 3a
Tests for Equality of Proportion of Small Business Income
Before and After Implememtation of SB 407
Single Taxpayers

Decile of Column A AGI	Proportion of Returns with Schedule C or E Income Pre SB 407	Post SB 407	Change	Chi Sq	P
1	16.0%	17.6%	1.6%	189.22	0.0000
2	11.5%	12.2%	0.8%	60.26	0.0000
3	15.5%	15.5%	0.0%	0.06	0.8049
4	16.4%	15.7%	-0.7%	29.50	0.0000
5	15.9%	14.5%	-1.4%	124.71	0.0000
6	17.1%	15.5%	-1.7%	143.79	0.0000
7	19.2%	18.5%	-0.7%	16.29	0.0001
8	22.8%	22.1%	-0.7%	13.78	0.0002
9	29.1%	28.2%	-0.9%	14.54	0.0001
10	48.7%	48.8%	0.2%	0.30	0.5856
All	18.0%	17.9%	-0.2%	11.07	0.0009

Table 3b
Tests for Equality of Proportion of Small Business Income
Before and After Implememtation of SB 407
Married Taxpayers, Column A

Decile of Column A AGI	Proportion of Returns with Schedule C or E Income Pre SB 407	Post SB 407	Change	Chi Sq	P
1	50.5%	47.3%	-3.2%	130.20	0.0000
2	42.2%	41.0%	-1.1%	11.46	0.0007
3	43.9%	42.7%	-1.3%	21.53	0.0000
4	44.3%	42.6%	-1.8%	56.47	0.0000
5	41.6%	40.0%	-1.5%	49.99	0.0000
6	39.3%	37.9%	-1.4%	50.37	0.0000
7	37.0%	36.2%	-0.8%	20.61	0.0000
8	35.7%	35.8%	0.2%	1.11	0.2930
9	37.7%	38.0%	0.3%	4.30	0.0380
10	53.8%	55.3%	1.5%	89.03	0.0000
All	42.2%	41.9%	-0.3%	23.58	0.0000

Table 3c
Tests for Equality of Proportion of Small Business Income
Before and After Implememtation of SB 407
Married Taxpayers, Column B

Decile of Column A AGI	Proportion of Returns with Schedule C or E Income Pre SB 407	Post SB 407	Change	Chi Sq	P
1	3.7%	3.8%	0.1%	1.07	0.3015
2	8.4%	8.3%	-0.1%	0.27	0.6061
3	10.9%	10.4%	-0.5%	8.74	0.0031
4	11.7%	11.4%	-0.3%	5.01	0.0253
5	12.6%	12.5%	-0.1%	0.19	0.6670
6	14.0%	14.9%	0.9%	43.69	0.0000
7	16.1%	16.3%	0.2%	2.57	0.1090
8	17.4%	18.1%	0.7%	29.65	0.0000
9	19.4%	18.8%	-0.6%	19.00	0.0000
10	23.7%	20.7%	-3.0%	523.72	0.0000
All	16.0%	15.6%	-0.4%	84.52	0.0000

Table 3d
Tests for Equality of Proportion of Small Business Income
Before and After Implememtation of SB 407
Married Taxpayers, Combined

Decile of Column A AGI	Proportion of Returns with Schedule C or E Income Pre SB 407	Post SB 407	Change	Chi Sq	P
1	51.6%	48.8%	-2.9%	105.00	0.0000
2	44.3%	43.4%	-0.9%	7.64	0.0057
3	46.3%	45.2%	-1.1%	17.09	0.0000
4	47.0%	45.3%	-1.7%	52.67	0.0000
5	44.8%	43.4%	-1.4%	40.09	0.0000
6	43.5%	42.7%	-0.8%	14.03	0.0002
7	42.7%	42.1%	-0.6%	10.54	0.0012
8	42.0%	42.6%	0.6%	11.25	0.0008
9	44.2%	44.5%	0.2%	2.02	0.1548
10	58.5%	59.0%	0.5%	10.56	0.0012
All	46.8%	46.5%	-0.3%	23.07	0.0000

Overall, the proportion of returns with small business income or losses is lower after the implementation of SB 407 than before. This is true for the population as a whole and for most of the subpopulations defined by income and marital status. Thus, if SB 407 increased entrepreneurial activity in Montana, the effect was small and was overshadowed by other changes occurring at the same time.

Figure 8 illustrates two of the forces that may have overshadowed any entrepreneurial activity effect from SB 407. It shows the proportion of returns with small business income for married couples and single taxpayers, and it shows the annual percentage change in gross domestic product (GDP) for Montana and for the United States. Years of high GDP growth occur in the growth phases of business cycles, and drops in GDP growth indicate the recessions of 2001 - 2002 and 2008 – 2009.

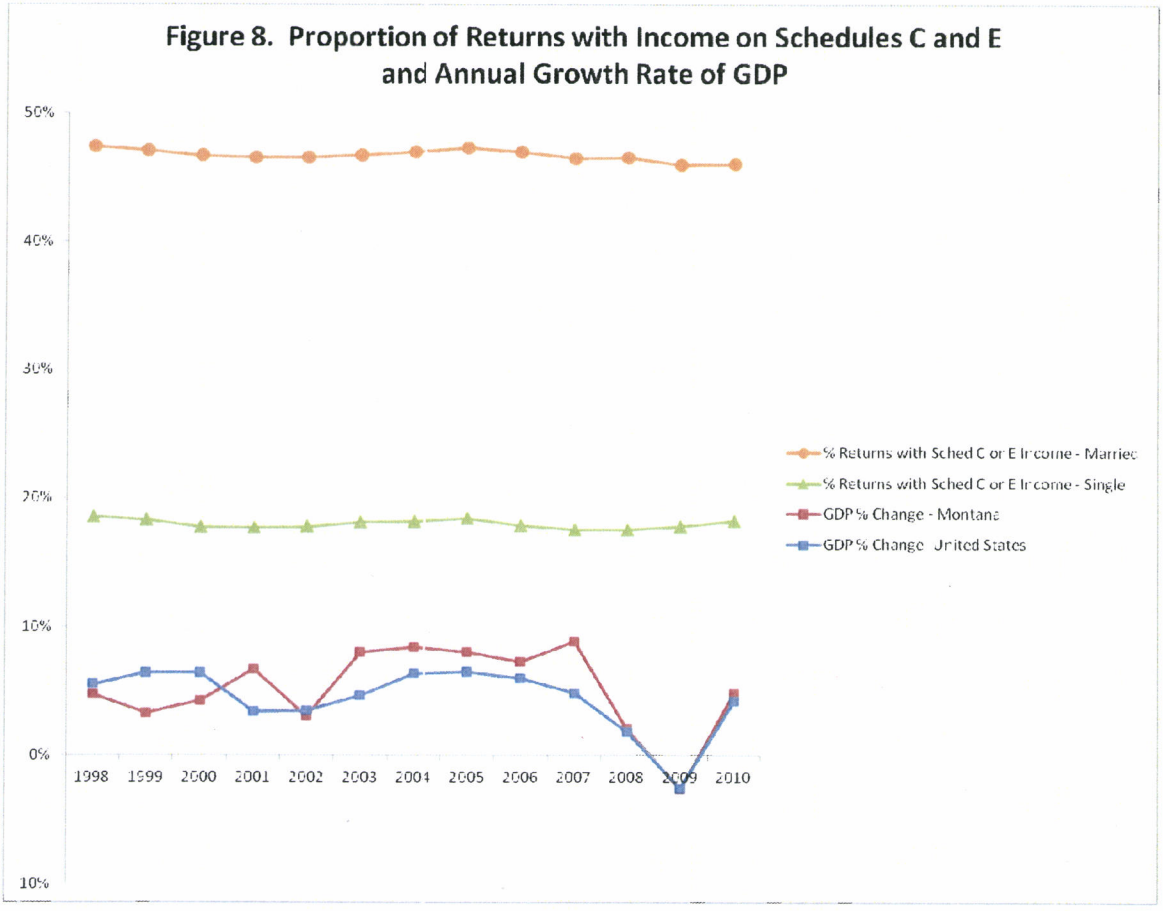
The proportions of returns with small business income or losses appear to follow a pattern related to business cycles and to have a general slight downward trend. The proportions of returns with small business income or losses is lowest during or just before recession years and is highest during the growth phase of business cycles but begins dropping before recession years. It appears that, at least in this period, the proportion of returns with small business income or losses leads the general business cycle rather than following it.

SB 407 went into effect in the middle of the expansion phase of a business cycle, when the proportion of returns with small business income or losses is highest. The years since have included the final years of an expansion, a deep recession, and the beginning of a recover. These are periods when the proportion of returns with small business income or

loss is slightly lower. It appears that any increase in entrepreneurship that might have occurred because of SB 407 is smaller than the normal small fluctuations over the course of a business cycle.

The choice between running a business and being an employee depends on their relative returns. Someone may choose to be an entrepreneur because they see high potential reward from running their own business or because they see relatively low rewards from being an employee. The Montana GDP growth rate was lower than the national growth rate four of the five years from 1998 through 2002 but was higher seven of the eight years from 2003 through 2010. From 2001 to 2010, average wages increased by 37% in Montana but only by 29% nationwide. Thus, it appears that one of the forces overshadowing any hypothetical encouragement to entrepreneurship from SB 407 was the increased rewards from being an employee offered by a generally improving state economy.

Figure 8. Proportion of Returns with Income on Schedules C and E and Annual Growth Rate of GDP



The proportion of returns with income or losses from small business is higher after the implementation of SB 407 for both married couples and single taxpayers in the top decile of Column A income. This is consistent with an increase in the self-financing of businesses by high income taxpayers. Interestingly, the increase for married taxpayers

reflects a decrease in the proportion reporting small business income or losses in Column B and a larger increase in the proportion for Column A.

Withholding Returns – Self Financing and Inter-Jurisdictional Competition

If SB 407 increased self-financing of businesses by high-income individuals, if the businesses with this increased self-financing were successful, and if their success increased the demand for labor, payroll at pass-through entities and sole-proprietor businesses with high-income owners should have grown faster than payroll of other entity types.

If SB 407 made locating in Montana more attractive for unincorporated businesses but not for C-corporations, payroll at C-corporations should have grown more slowly than payroll of other types of business entities.

Table 4 shows the number of withholding returns and payroll by entity type for 2006 through 2010. The right-hand column shows the percent change from 2006 through 2010.[11]

[11] See the appendix for how withholding returns were classified. Non-employers are entities that withhold tax on non-wage payments. These include pension funds and trusts managed by financial institutions. Withholding returns do not distinguish between types of payments, so it was impossible to distinguish, for example, a financial institution with employees in the state from one making disbursements from a trust.

Table 4
Number of Withholding Returns and Payroll by Entity Type

Number of Withholding Returns

	2006	2007	2008	2009	2010	% Change 2006 - 2010
Corporations and Non-Employers*	8,883	8,567	8,623	8,982	8,933	0.6%
Non-Profits & Governments	2,364	2,390	2,492	2,519	2,483	5.0%
Pass-Through and Disregarded Entities and Households						
With a High-Income Owner	578	583	592	578	562	-2.8%
With No High-Income Owner	17,769	19,108	19,783	19,603	18,265	2.8%
Unclassified	9,195	8,926	8,942	8,763	8,839	-3.9%
Total	38,789	39,574	40,432	40,445	39,082	0.8%
Unincorporated Business Total	27,542	28,617	29,317	28,944	27,666	0.5%

Payroll Reported on Withholding Returns ($ million)

	2006	2007	2008	2009	2010	% Change 2006 - 2010
Corporations and Non-Employers*	$4,819.4	$5,431.1	$5,406.2	$5,436.1	$5,201.7	7.9%
Non-Profits & Governments	$2,330.1	$2,715.9	$2,925.9	$3,051.9	$2,911.3	24.9%
Pass-Through and Disregarded Entities and Households						
With a High-Income Owner	$583.7	$643.0	$648.8	$609.2	$597.4	2.3%
With No High-Income Owner	$2,808.6	$3,188.9	$3,288.7	$3,039.9	$3,597.9	28.1%
Unclassified	$1,566.6	$1,691.6	$1,823.9	$1,829.9	$1,934.4	23.5%
Total	$12,108.5	$13,670.6	$14,093.6	$13,967.0	$14,242.7	17.6%
Unincorporated Business Total	4,959	5,524	5,761	5,479	6,130	23.6%

Contrary to the prediction for the self-financing effect, payroll growth was slowest for small businesses with a high-income owner. Payroll growth for unincorporated businesses was faster than for C-corporations, consistent with an effect on inter-jurisdictional competition.

With no data from before SB-407 went into effect, it is impossible to do a before-and-after comparison. However, it is possible to compare Montana's experience with national trends. Table 5 shows national wage and salary data for 2006 through 2010. Nationally, wage and salary growth for C-corporations was much faster than in Montana, and the difference between C-corporations and unincorporated businesses was much smaller.

Table 5
US Wage and Salary Accruals by Type of Payer
($ billion)

	2006	2007	2008	2009	2010	% Change 2006 - 2010
Corporations	$1,656.7	$1,746.0	$1,838.2	$1,865.3	$1,958.4	18.2%
Non-Profits & Governments	$611.1	$654.5	$710.1	$755.1	$795.4	30.2%
Pass-Through and Disregarded Entities and Households	$172.9	$183.9	$195.3	$197.0	$207.0	19.7%

Source: US Department of Commerce, Bureau of Economic Analysis

There are other differences between Montana and the US as a whole, which could explain the difference in payroll growth rates. For example, corporations account for two-thirds of national payroll but less than two-fifths of Montana payroll. However, the difference is consistent with an improvement in Montana's inter-jurisdictional competitiveness.

Withholding Returns – Entrepreneurial Activity Effect

If SB 407 increased entrepreneurial activity and if an increase in entrepreneurial activity resulted in increased employment, a disproportionate share of payroll growth from 2006 to 2010 should have been at new firms, and particularly at new unincorporated firms.

The first row of Table 6 shows changes from one year to the next in payroll on withholding returns of entities that filed a return in the first year in the heading for each column but not in the second year. The second row shows changes for entities that did not file a return in the first year and filed their first return in the second. The third row shows changes for entities that filed a return in both the first and second years in the heading for each column. The two right-hand columns show the cumulative change from 2006 to 2010 in each row and the proportion each row represents of the total change from 2006 to 2010.

Table 6
Change in Payroll Reported on Withholding Returns
($ million)

	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	Change 2006 - 2010	% of 2006 - 2010 total Change
Due to Exit of Existing Firms	-$367.4	-$592.3	-$426.7	-$1,003.8	-$2,390.2	-112.0%
Due to Entry of New Firms	$931.2	$618.9	$630.1	$398.6	$2,578.8	120.8%
Due to Change by Continuing Firms	$998.3	$396.4	-$330.0	$880.9	$1,945.6	91.2%
Total	$1,562.1	$423.0	-$126.6	$275.7	$2,134.2	100.0%

As would be predicted if SB 407 increased entrepreneurial activity, new entities accounted for more of the growth of payroll from 2006 to 2010 than existing entities. However, with no pre-SB 407 data, it is impossible to know if new entities' share of payroll growth increased after SB 407 went into effect.

Table 7 shows the change in payroll from new entities by entity type, with a row at the bottom showing the total for small business entities.

Table 7
Payroll Reported on Withholding Returns of New Entities
($ million)

	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	Change 2006 - 2010	% of 2006 - 2010 total Change
Corporations and Non-Employers*	$380.2	$275.2	$398.5	$157.5	$1,211.3	47.0%
Non-Profits & Governments	$268.9	$62.5	$20.7	$18.4	$370.5	14.4%
Pass-Through and Disregarded Entities and Households						
With a High-Income Owner	$16.0	$10.6	$4.3	$7.0	$37.9	1.5%
With No High-Income Owner	$167.6	$168.5	$110.3	$108.7	$555.2	21.5%
Unclassified	$98.6	$102.1	$96.2	$106.9	$403.9	15.7%
Total	$931.2	$618.9	$630.1	$398.6	$2,578.8	100.0%
Small Business Total	$282.2	$281.3	$210.9	$222.7	$997.0	38.7%

Payroll growth at new corporate entities was larger than payroll growth at new non-corporate businesses, which weakens that case for an increase in entrepreneurial activity.

6. Conclusions

Section 2 identified ways that SB 407 might have affected employment and Section 3 identified how those effects might show up in the data. They are restated here as questions, followed by the answers from the data:

- Labor Supply Effect: Did the proportion of income tax returns from higher-income married couples reporting wage and salary income for the second spouse increase? *No, it decreased.*
- Self Financing Effect:
  - Did the proportion of high-income tax returns with income or losses on Schedules C and E increase? *Yes.*
  - Did pass-through entities and sole-proprietor businesses with at least one high-income owner have faster payroll growth than those with no high-income owner? *No, this group had the slowest payroll growth.*
- Entrepreneurial Effect:
  - Did the proportion of all income tax returns with income or losses on Schedules C and E increase? *No, it decreased.*
  - Did new firms account for more payroll growth than established firms? *Yes, but more than half of the growth from new firms was from C-corporations, which are more likely to be established firms expanding into the state and which were not affected by SB 407.*
- Inter-Jurisdictional Competition Effect: Did pass-through entities and sole-proprietor businesses have faster payroll growth than C-corporations? *Yes, and the difference is larger than at the national level. However, with no pre-SB 407 payroll data for Montana, it is impossible to say whether this represents a change from pre-SB 407 trends.*

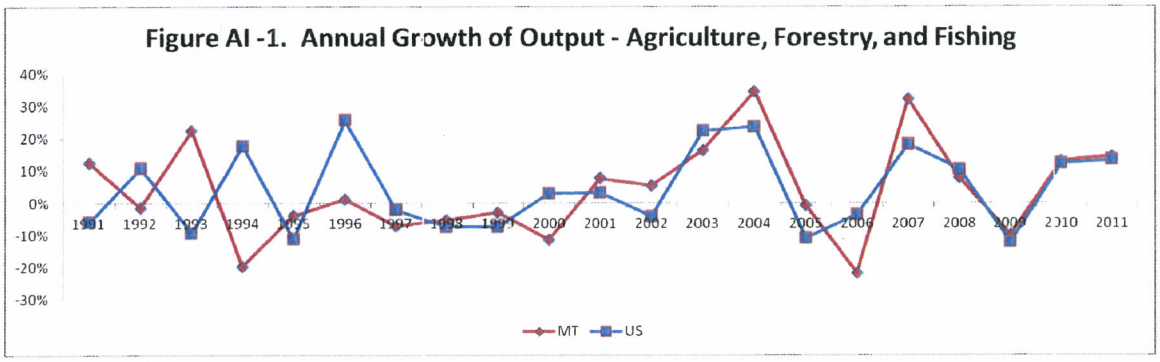
Data from income tax returns show one employment-related effect of SB 407 – reduced labor supply by the spouses of high-income individuals, though this effect could also be due to the increase in high-income households' non-labor income after 2004. This is the opposite of the hypothesized effect.

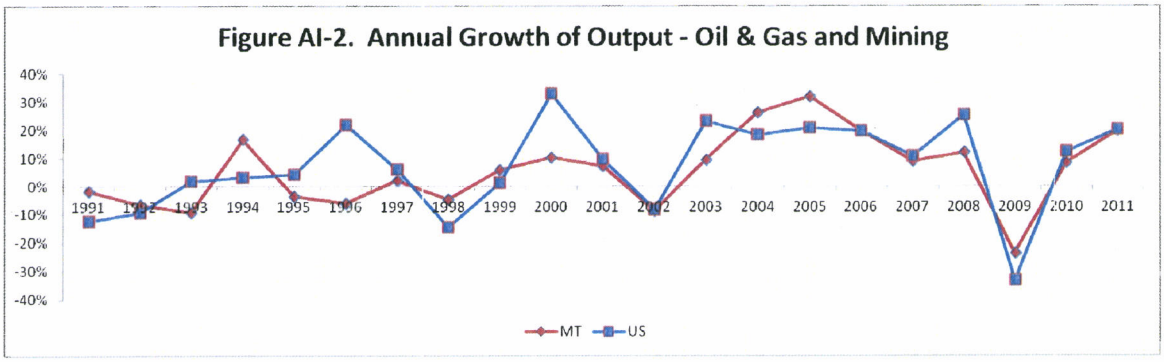
Evidence from income tax and withholding returns for the hypothesized effects on labor demand is mixed. For the self-financing and entrepreneurial effects, evidence from income tax returns and withholding returns point in opposite directions. The evidence from withholding returns is consistent with the inter-jurisdictional competition effect. However, with no ability to do a before-and-after comparison, it is impossible to say whether SB 407 changed the rate at which non-corporate businesses locate in Montana.

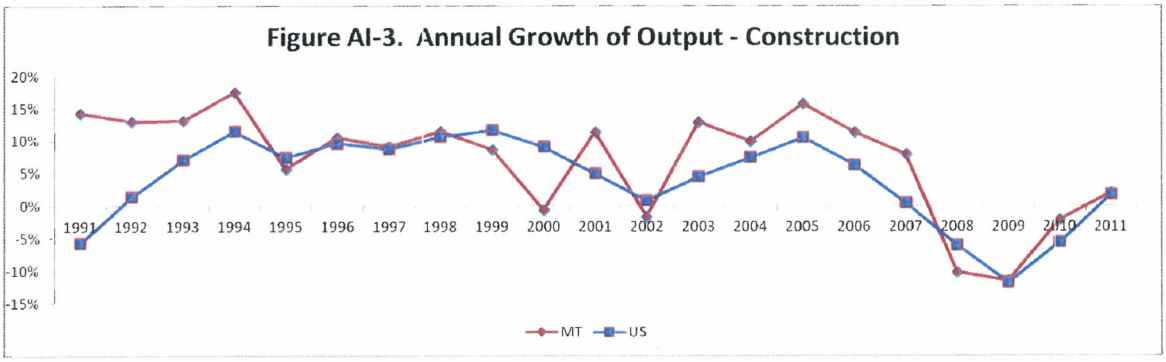
The Montana economy grew faster after SB 407 than in the previous decade, but the acceleration started two years before the tax cut went into effect and appears to be driven primarily by forces unaffected by Montana taxes – higher agricultural commodity prices, higher oil prices that made it profitable to develop new fields, and the nation-wide housing bubble.

Appendix I – Graphs of GDP Growth

The charts in this appendix show state and national growth of gross domestic product with the economy divided into eight broad sectors.







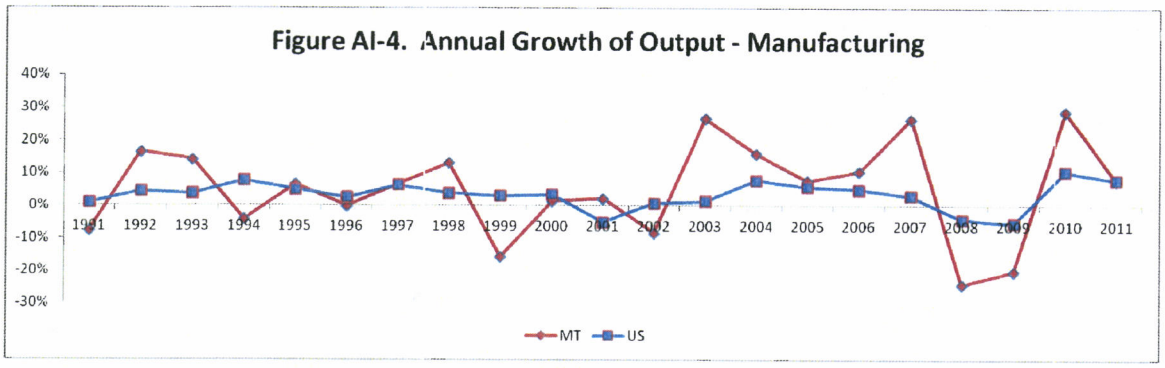


Figure AI-4. Annual Growth of Output - Manufacturing
40%
30%
20%
10%
0%
-10%
-20%
-30%
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
MT
US

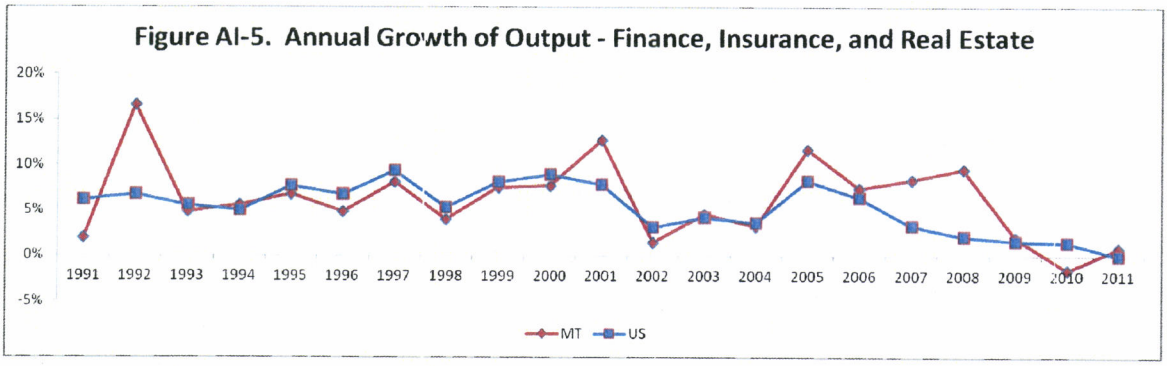


Figure AI-5. Annual Growth of Output - Finance, Insurance, and Real Estate
20%
15%
10%
5%
0%
-5%
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
MT
US

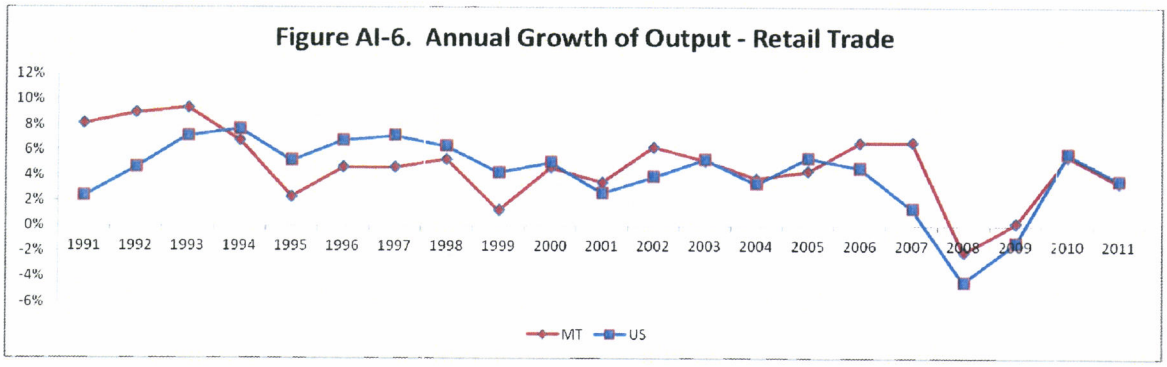


Figure AI-6. Annual Growth of Output - Retail Trade
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
MT
US

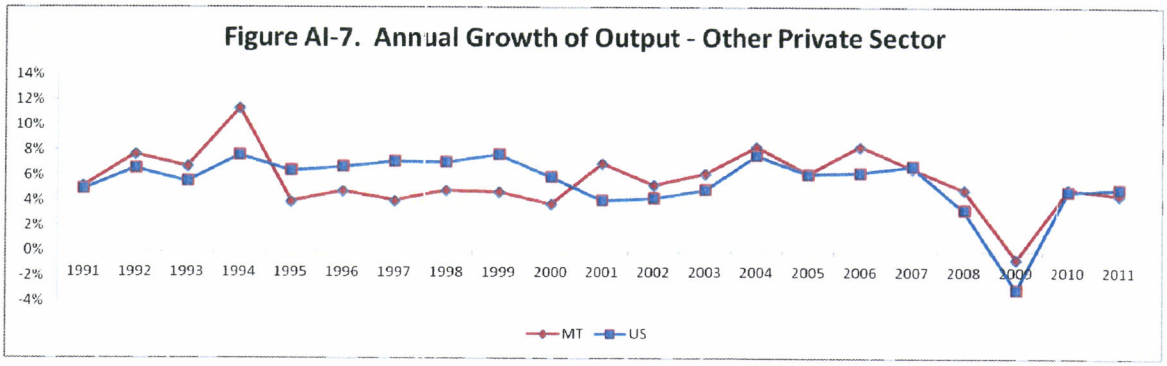


Figure AI-7. Annual Growth of Output - Other Private Sector
14%
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
MT
US

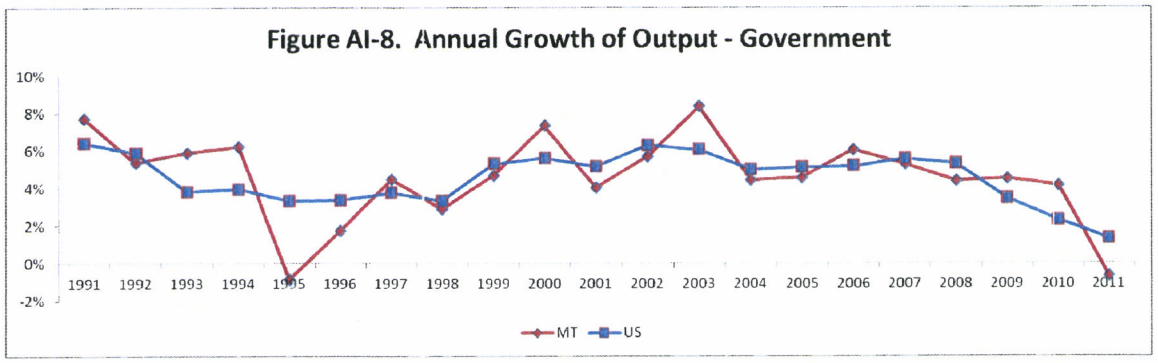


Figure AI-8. Annual Growth of Output - Government
10%
8%
6%
4%
2%
0%
-2%
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
MT
US

Appendix II – Withholding Return Correction and Classification

Employers and other payers who withhold income tax from wages and other payments are required to file an annual return which shows the total amount of taxes withheld and the total payroll. The Department of Revenue's current data processing system has complete annual returns for the years 2006 through 2010.

As part of normal processing, the annual withholding amounts recorded on returns are checked against payments during the year, and any discrepancies are corrected. The payroll entries are not verified as part of normal processing. Before correction, there were large year-to-year changes in payroll reported on withholding returns that were not matched by changes in wage and salary income reported on income tax returns. After correction of individual returns, the two series track much more closely.

For this study, returns that appeared to be inconsistent with the same employer's returns for other years or where the ratio of withholding to payroll was outside the expected range were selected for further examination. Where a likely error could be identified, the data was changed. The most common sources of suspected errors were extra digits, missing digits, and the amount of withholding being entered on the payroll line. For example, suppose a firm reported withholding of $4,000 every year and reported payroll of $100,000 every year but one. If reported payroll for that year was $1,000,000, it was assumed that an extra digit had been recorded. If payroll for that year was $10,000, it was assumed that a digit had been left out. If payroll for that year was $4,000, it was assumed that data was recorded on the wrong line and that the ratio of withholding to payroll for the suspect year would be consistent with the ratios on the employer's other returns. In all of these cases, payroll for the suspect year would have been changed to $100,000. When an employer's returns were consistent across years, no changes were made even if the individual years' returns were suspect. For example, if an employer consistently had either an unusually high or unusually low ratio of withholding to payroll, the returns were assumed to be correct. On the other hand, a few returns were identified as having likely errors, but could not be corrected with any confidence.

Withholding returns were put in four categories: corporations and non-employers, non-profits and government entities, pass-through entities and sole-proprietor businesses with at least one high income owner, and pass-through entities and sole-proprietor businesses with no high income owner. These categories were chosen to enable comparisons required to look for effects of SB 407 on labor demand: unincorporated businesses with high-income owners v. other entities to look for a self-financing effect, new unincorporated businesses v. other new entities to look for an entrepreneurship effect, and unincorporated businesses v. C-corporations to look for a tax competition effect.

When the entity with a withholding account also files either corporation license tax returns or pass-through entity returns, its withholding account and income tax accounts are linked in the department's data processing system and can easily be matched. About 42,000 out of about 58,000 accounts were matched this way.

Pass-through entity returns include a list of owners, with their social security numbers, so withholding accounts for pass-through entities were matched to the owners' income tax returns and entities with at least one owner who had income of at least $250,000 in 2005 dollars in at least one of the years 2003 through 2005 were flagged.

Entities that might have a withholding account but did not file either a corporation license tax return or a pass-through return include sole-proprietor businesses; private non-profits, including churches; government entities, including school districts and the university system; insurance companies; out-of-state pension funds and other entities paying income to Montana residents but with no business presence in the state; and corporate subsidiaries and affiliates that are part of a group that files a single combined corporate return.

Withholding returns that did not match either a corporate or pass-through account were examined by hand. Based on the name of the entity, a little more than half were classified as a non-profit, an individual, a business with an individual's name as part of the business name, or other. The other category included corporate affiliates, banks, insurance companies, pension funds, and payroll companies. This other category was then combined with the identified corporations in a single category. Accounts that were classified as either an individual or a business with an individual's name as part of the business name were matched with individual income tax counts based on name and address.

Table AII-1 shows the number of entities that filed at least one annual withholding return for 2006 through 2010, the number in the four categories and the number that could not be classified. The entities that could not be classified are probably primarily sole proprietor businesses that could not be matched to an individual taxpayer based on name or address.

Table AII-1
Withholding Accounts by Type of Entity

Corporations and Non-Employers*	13,379
Non-Profits & Governments	2,905
Pass-Through and Disregarded Entities	
With a High-Income Owner	682
With No High-Income Owner	25,338
Unclassified	15,762
Total	58,066

*C-Corporations, Financial Institutions, Insurance Companies, Pension Funds, Payroll Companies

Montana Department of Revenue

Dan Bucks
Director

Brian Schweitzer
Governor

To: Dan Bucks, Director

From: Dan Dodds, Senior Economist

Date: July 13, 2012

Subject: SB 407 and Migration

The 2003 Montana Legislature passed SB 407, which restructured the state's income tax beginning in 2005. On average, it reduced income taxes about one-fourth, or an average of $10,000 per year, for taxpayers with incomes over $250,000 per year and by less than $50 per year for taxpayers with income less than $100,000. If state taxes play a significant role in the decision to move between states, SB 407 should have increased migration of high-income households into the state and reduced migration of high-income households out of the state but not have affected migration of middle- and lower-income households.

I used Montana income tax returns for 1998 through 2010 to measure changes in migration. Since state taxes are only one of many factors that might influence interstate migration decisions, I used statistical techniques to separate consistent changes in high-income migration that coincided with SB407 from changes that affected all income groups, from year-to-year random variation, and from longer-term changes that did not coincide with SB407.

Migration in general was higher in the period from 2005 to 2010 than it had been in 1998 through 2004, with in-migration increasing much more than out migration for most income groups. Higher-income households had larger relative increases in both out-migration and in-migration than other income groups, and the percentage increase was about the same for high-income in-migration and high-income outmigration. For the rest of the population, the percentage increase in in-migration was much larger than the percentage increase in out-migration. These changes are not what would have been observed if SB 407 had produced a major change in migration patterns. The observed changes in migration appear to have been driven primarily by factors other than SB 407. I could not confidently identify any portion of the migration changes as being due to SB 407, but I can say that any change in high-income migration due to SB 407 appears to have been smaller than normal year-to-year variation in migration and smaller than other longer-term changes in migration happening at the same time.

These results do not imply that migration is not affected by income differences. They do imply that the income differences from a large change in state taxes are not large enough to produce significant changes in migration. The 20% to 25% tax cut that SB

407 gave to high-income households resulted in only about a 2% increase in after-tax income.

High income households make up a small proportion of both migrants and the change in migration. Annual net in-migration was on the order of 2,000 households higher in 2005 through 2010 than in 1998 through 2004, while net in-migration of households with income of $250,000 a year or more increased by about 40.

The attached paper explains my analysis in detail.

State Income Taxes and Interstate Migration:
Results of a Natural Experiment in Montana
Executive Summary

The 2003 Montana Legislature passed Senate Bill 407, which restructured the state's income tax beginning in 2005. On average, it reduced income taxes by about $10,000 per year, or about one-fourth, for taxpayers with incomes over $250,000 per year and by less than $50 for taxpayers with income less than $100,000. This provides a natural experiment to test the effect of state taxes on interstate migration. If state taxes play a significant role in the decision to move between states, SB 407 should have increased migration of high-income households into the state, reduced migration of high-income households out of the state, but not have affected migration of middle- and lower-income households.

Migration into and out of Montana was measured using Montana income tax returns. A Montana resident who moves to another state will stop filing resident income tax returns, and may file a part-year or non-resident return the year of the move. A resident of another state who moves to Montana will start filing resident income tax returns, and may have previously filed a part-year or non-resident return.

Changes in migration were separated statistically into year-to-year changes affecting all taxpayers, changes from before SB 407 to after SB 407 affecting middle- and lower-income taxpayers, which would not be due to SB 407, and changes from before to after SB 407 affecting high-income taxpayers, which could be due to SB 407.

In-migration was higher at most income levels after SB 407, and both in-migration and out-migration of high-income households increased compared to migration of middle-income households. For in-migration, this difference is in the expected direction, but for out-migration it is the opposite of the expected effect of a tax cut.

The most likely explanation for this finding is that the effect of a 25% tax cut on interstate migration of high-income households is smaller than the effects of other factors that changed in the years before and after SB 407 went into effect.

State Income Taxes and Interstate Migration:
Results of a Natural Experiment in Montana

Summary

In 2005, Montana reduced income taxes for high income taxpayers by about one-fourth while leaving taxes for middle income taxpayers essentially unchanged. This was expected to increase in-migration and reduce out-migration of high income households. Evidence from income tax returns indicates that both in-migration and out-migration of high income households increased relative to migration of middle income households after the tax law change. The most likely explanation for this finding is that even this large a tax cut had a smaller effect on migration than other factors with short- and medium-term impacts on migration.

Introduction

Every year, about 13% of households move, and about 2% move across state lines.[1] Individual's decisions of whether and where to move are affected by many personal, social and economic factors.[2] Changes to Montana's income tax that took effect in 2005 provide a natural experiment to test the importance of one economic factor, interstate tax differences.

Through 2004, Montana had income tax rates ranging from 1% to 11% and allowed full deductibility of federal income taxes. Beginning in 2005, the top marginal rate was reduced to 6.9%, the itemized deduction for federal taxes was limited to $5,000 ($10,000 for a joint return), and taxpayers were allowed a credit equal to 1% of net capital gains income. This is roughly equivalent to taxing capital gains at a lower rate than ordinary income. The capital gains credit increased to 2% beginning in 2007.

This change resulted, on average, in large tax reductions for higher-income taxpayers, minimal change for middle income taxpayers, and reductions for low-income taxpayers that were large in relative terms but small in absolute terms. The average annual change was less than $50 for taxpayers with income of less than $80,000.[3] If tax differentials have a significant effect on migration decisions, Montana's recent income tax restructuring should have increased migration of high-income households into the state, reduced migration of high-income households out of the state, but not have changed migration by low- and middle-income households.

This paper uses evidence from Montana and federal income tax returns to look for this hypothesized change in high-income migration.

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[1] Ihrke, David, Carol Faber and William Koerber, Geographical Mobility: 2008 to 2009, U.S. Census Bureau, Current Population Reports P20-565, November 2011

[2] For a recent survey of research on economic influences on migration, see B. Cushing and J. Poot, Crossing Boundaries and Borders: Regional Science Advances in Migration Modeling, Papers in Regional Science 83, 2004, 317-338.

[3] Dodds, Dan, The Revenue and Taxpayer Impacts of SB407, Montana Department of Revenue, 2006.

The Data

The Montana Department of Revenue has retained information from income tax returns covering the years 1998 through 2010. This includes essentially the same information on income and deductions as federal income tax returns. It also includes an address and whether the taxpayer filed as a full-year resident, a part-year resident, or a non-resident. A non-resident is required to file a Montana return if they derived income from work or a business interest in Montana. A taxpayer who moves into or out of the state generally should file a part-year return the year of the move.

There is no requirement for taxpayers to report moving into or out of Montana, but interstate moves can be inferred indirectly from changes in filing status and address.

Someone who moves to Montana will begin filing resident tax returns. This process may take several forms. Someone who moves during the year and had income in their old state should file a part-year Montana return for the year of the move. This allows the taxpayer to prorate taxes based on the percentage of the year's income earned in Montana after the move. Someone who moves very early in the year or earned little or no income in their old state may file a resident return rather than a part-year return. Some taxpayers who would be better off filing a part-year return may mistakenly file a resident return. Non-residents who have a source of income from Montana should file non-resident returns. If a taxpayer who has been filing as a non-resident establishes residency in the state, they should begin filing resident returns, possibly with an intermediate part-year return.

A taxpayer who files a non-resident or part-year return one year and a resident return the next can confidently be counted as having newly become a resident.[4] A taxpayer who files a resident return without having filed any kind of return previously may have moved to the state but may also have just started earning income, as with a teenager or young adult who started their first job, or may not have previously filed for some other reason.

Similarly, a taxpayer who moves from Montana to another state will stop filing resident returns. The taxpayer may be required to file a part-year return for the year of the move, prorating taxes between Montana and the new state. Some taxpayers may not file this return, and some may not be required to. For example, someone who is laid off from a job in Montana one year and moves to another state the next year may have no taxable income in Montana the year of the move. A taxpayer who moves to another state but continues to receive income from Montana should begin filing non-resident returns, but not all do.

A taxpayer who files a resident return one year and a part-year or non-resident return the next can confidently be counted as having become a resident of another state. A taxpayer who files a resident

[4] This is not necessarily the same as having moved to the state. Someone with homes and business interests in two or more states may change residency without significantly changing either where they spend their time or where they earn their income.

return one year and does not file a return the next year may have moved to another state, but may also have died, stopped earning taxable income, or stopped filing for another reason.

When a taxpayer moves from Montana to another state and files a part-year or non-resident return, that return usually is filed from the new state of residence. For these taxpayers, tax returns indicate both that the taxpayer has moved and where they moved to.

When a taxpayer moves to Montana from another state and files a part-year return, that return usually is filed from the taxpayer's new Montana address, so there is no way to know where the taxpayer moved from. When a newly resident taxpayer previously filed non-resident returns, the address on those returns usually gives the previous state of residency. However, there is information on the previous state of residence for only about 5% of taxpayers who move to the state in a year.

The Internal Revenue Service publishes information on the number of interstate moves based on year-to-year address changes on federal tax returns[5], but does not break down the information by income or other taxpayer characteristics. This information can be used as a check on the number of moves inferred from Montana returns, but not to check mover's characteristics.

Table 1 compares the IRS out-migration rate with the percent of Montana tax returns that can be identified as out-migrants because the taxpayer filed a part-year or non-resident return the next year and the percent that could be out-migrants because the taxpayer did not file a return the next year.

Table 1
Out-Migration Related Transition Percentages from Montana Returns and IRS Out-Migration Rate 2005 - 2009

Resident to Non-Resident or Part-Year	1.9%
Resident to Non-Filer	8.7%
Resident Base Year to Resident Next Year	89.4%
IRS Out-Migration Rate	3.9%

Of taxpayers who filed a Montana resident return in 2005 through 2009, 1.9% filed a non-resident or part-year return the next year, and 8.7% did not file the next year. The IRS reports that 3.9% of taxpayers who filed a federal return from a Montana address in these years filed from a different state the next year. If the IRS out-migration rate is correct, slightly less than half of out-migrants filed a non-resident or part-year return the year they moved and the rest did not file a return. Out-migrants who

[5] For a small fraction of taxpayers, the mailing address given on the tax return is not the taxpayer's home address. It may be, for example, a secondary residence address, a business address, or the address of an attorney, family member, or other representative, and it may not be in the taxpayer's state of residence. This is an additional source of noise in information from both state and federal returns.

did not file a return the year they moved are a little less than one-fourth of taxpayers who filed a resident return one year and did not file a return the next year.

Table 2 shows similar information for In-migration.

Table 2
In-Migration Related Transition Percentages from Montana Returns and IRS In-Migration Rate 2005 - 2009

Resident from Non-Resident or Part-Year	2.4%
Resident from Non-Filer	10.3%
Resident Base Year from Resident Previous Year	87.3%
IRS In-Migration Rate	4.3%

Of taxpayers who filed a resident return in 2005 through 2009, 2.4% filed a non-resident or part-year return the previous year, and 10.3% did not file the previous year. The IRS reports that 4.3% of taxpayers who filed a federal return from a Montana address had filed from a different state the previous year. If the IRS migration rate is correct, a little more than half of in-migrants filed a non-resident or part-year Montana return the year before filing their first resident return. In-migrants who did not file a return the year before filing their first resident return are about one-fifth of taxpayers filing a first resident return.

Since the actual population of migrants cannot be identified from Montana tax returns, it is impossible to directly measure whether this population changed after the income tax cut. What can be measured is the population of taxpayers who filed a resident return in a base year and filed a part-year or non-resident return in a comparison year (the previous year for in-migrants and the next year for out-migrants) and the population of taxpayers who filed a resident return in a base year and did not file in the comparison year. The first population consists of half of migrants. The other half of migrants are in the second population, which contains a larger number of non-migrants.

If the high-income migrant population changed in response to the income tax cut, the population of identified high-income migrants, those who filed a part-year or non-resident return in the comparison year, will have changed unless all of the change occurred in the unidentified part of the migrant population. However, if this occurred, the population who did not file a return in the comparison year will have changed unless there is an offsetting change in the population of non-migrating non-filers.

Thus, if the income tax cut reduced high-income out-migration, both the probability that a high-income taxpayer will file a part-year or non-resident return the next year and the probability that the taxpayer did not file a return the next year should have decreased relative to the corresponding probabilities for other taxpayers. This can be estimated directly from Montana tax returns.

If the income tax cut increased high-income in-migration, the probability that a high-income non-resident will begin filing resident returns should have increased relative to the corresponding probabilities for other taxpayers. This can be directly estimated for the subpopulation of taxpayers who previously filed non-resident returns because they received Montana-source income, but it cannot be estimated for other taxpayers since Montana tax returns do not provide any information on residents of other states who do not move to Montana and do not have Montana-source income. Thus, the data does not allow a comparison of residents of Wyoming, for example, who do and do not move to Montana. The comparison that can be made is between the probability that a high-income taxpayer just moved to the state and the probability that a non-high-income taxpayer just moved to the state. This is not the same, but if the probability that a taxpayer in another state moves to Montana increases, the probability that a Montana resident just moved from another state should increase too.

Since it is impossible to tell whether a taxpayer who did not previously file a Montana tax return just moved to the state, just entered the labor force, or just started filing for another reason, it is impossible to measure the change in the probability that a higher income taxpayer just moved from another state. What can be measured are the change in the probability that a high-income taxpayer transitioned from filing a part-year or non-resident return and the change in the probability the taxpayer transitioned from being a non-filer.

Tax returns include several types of information that are likely to affect migration decisions, including the amount and types of income, marital status, whether the taxpayer has dependents, and evidence for homeownership in the form of the itemized deduction for home mortgage interest.

Models Estimated

Migration decisions are discrete choices. A household makes one choice from its available options, which include staying put or moving to one of a number of alternative locations. Tax return data does not give a direct measure of migration choices, so four different logit models[6] were estimated:

- Model 1 is a prospective multinomial logit model of migration-related transitions by residents. The population is taxpayers who filed a resident return for any of the years 1998 through 2009. For each resident return, the three possible transitions are from filing a resident return for the base year to filing a resident return for the next year, from filing a resident return for the base year to filing a part-year or non-resident return for the next year, or from filing a resident return for the base year to not filing a return for the next year. The transition from resident in the base year to resident the next year is taken as the default.

[6] A logit model is a liner regression where the dependent variable is the logarithm of the odds that the subject made the choice in question rather than another choice, i.e. $ln(Pr\{option\ i\ chosen\}/Pr\{option\ i\ not\ chosen\})$. If there are only two options, the model is binomial logit. If there are more than two options, it is multinomial logit.

- Model 2 is a retrospective multinomial logit model of migration-related transitions of residents. The population is taxpayers who filed a resident return for any of the years 1999 through 2010. For each of these resident returns, there are three possible transitions from the previous year to the base year. A resident in the base year may have filed a resident return the previous year, filed a part-year or non-resident return the previous year, or not filed a return the previous year. The transition from resident the previous year to resident in the base year is taken as the default.
- Model 3 is a binomial logit model of prospective migration choices of non-residents who file a Montana income tax return. The population is taxpayers who filed a non-resident return for any of the years 1998 through 2009. A non-resident filer in the base year may become a Montana resident and file either a resident or part-year return or remain a non-resident and either file a non-resident return or not file. Not becoming a resident the next year is taken as the default.
- Model 4 is a multinomial logit model of destination choice for out-migrants. The population is taxpayers who filed a resident return for any of the years 1998 through 2009 and then filed a part-year or non-resident return from another state the next year. It estimates the probability of moving to each of the other states or the District of Columbia, with Wyoming as the default destination state. The intent was to test whether tax-induced migration changes differed between destination states, but the sample proved to be too small to make useful inferences.

Migration between states is affected by many factors. Some affect individual households at particular times. These include life stage events, such as finishing an education, and individual labor market events, such as accepting a new job or being transferred. Some have short term effects on many households. For example, a state with higher-than-average unemployment during a recession is likely to have increased out-migration while a state with higher-than-average growth during a recovery is likely to have increased in-migration. Some factors have longer-lasting effects. These could include the growth and decline of industries and changes in state tax regimes.

Isolating the effect of a state tax change requires taking into account the idiosyncratic, short-run, and longer-run non-tax factors that affect migration. Idiosyncratic factors can be controlled for by including relevant individual characteristics as explanatory variables. Short-run effects can be controlled for by using annual dummy variables. In this case, longer-term non-tax effects can be controlled for by comparing income groups. The 2005 Montana tax cut significantly changed migration incentives for high income households, but the change for other households was negligible. A change in migration that is shared by all groups cannot have been due to the tax cut. If the tax cut affected migration, the effect will show up as a difference between the time-path of high-income migration and the time-path of migration for the rest of the population. Unfortunately, there is no way to guarantee that an observed difference between high-income migration and migration of the rest of the population is not due to other factors that only affect high-income households.

Models 1 and 2 include the same explanatory variables:

- A set of dummies indicate the interaction of the taxpayer's income, in 2005 dollars, and the tax law. Taxpayers were assigned to one of six income groups, which were defined by how they were affected by the tax law change. For each income group, there is a dummy indicating membership in the group and that the year is before 2005 and another dummy indicating membership in the group and that the year is 2005 or later. Table 3 shows the income groups.

Table 3
Income Groups

Income Group	Income Range 2005$	Number of Returns in 2008	Mean2008 Tax Reduction from SB 407 $	%	Mean Change in Income After Federal and State Income Tax
1	Less than $0	6,574	$0.00	n/a	0.00%
2	$0 to $25,000	204,880	-$24.60	-13.2%	0.20%
3	$25,000 to $50,000	105,493	-$6.61	-0.6%	0.02%
4	$50,000 to $100,000	91,039	-$54.65	-2.1%	0.08%
5	$100,000 to $250,000	25,643	-$531.94	-7.3%	0.42%
6	Over $250,000	4,820	$10,021.81	-20.6%	2.01%

Income Group 1 is taxpayers with losses that more than offset any positive income. Group 2, on average, received tax reductions that were large in relative terms but small in absolute terms. Group 3, on average, had reductions that were negligible in both absolute and relative terms. Group 3 before the law change is taken as the baseline. Group 4, on average, had reductions that were small in both absolute and relative terms. For Groups 1 through 4, the change in Montana income taxes is probably too small to have an effect on migration decisions.

Group 6 had, on average, reductions that were large in both absolute and relative terms and that increased disposable income by about 2%. If the 2005 tax law change affected migration, the effect should be seen in Group 6. Group 5's impact from the tax law change is intermediate between Group 4's and Group 6's, and may be large enough to affect migration decisions.

- Marital status is indicated by a dummy variable for married[7] and another dummy for head of household. Single is the default.
- As a proxy for home-ownership, a dummy variable indicates if the taxpayer claimed an itemized deduction for home mortgage interest. Another indicates that the taxpayer itemized but did not take the mortgage deduction. The default is claiming the standard deduction. A taxpayer who claimed the deduction almost certainly owns a home, but a homeowner may not have claimed the deduction, for example if there is no mortgage.
- Another dummy variable indicates that the taxpayer claimed at least one dependent, with no dependents as the default.
- Three dummy variables indicate the taxpayer's dominant income source. One indicates that at least 75% of income was from wages and salaries. One indicates that at least 75% of income was from business sources (from federal schedules C, D, E, and F, or entered on the other income line). A third indicates that at least 75% of income was from pensions, social security, or IRA distributions. No dominant income type is the default.
- Year dummies were included to isolate the effects of transitory events other than the tax law change. Since the model includes dummies for a structural shift occurring in 2005, it was necessary to have two default years with no year dummines – one in the period before the tax law change and one in the period after the tax law change. The years were selected by running preliminary regressions without the income group x tax law interactions and with 1998 as the default. The before-tax-law-change and after-tax-law-change years with the smallest sum over choices of the absolute value of differences between year dummy coefficients in these preliminary regressions were selected. The defaults chosen were 2002 and 2007 for Model 1, 2002 and 2008 for Model 2, and 1998 and 2006 for Model 3.

Model 3 includes the same explanatory variables as Models 1 and 2, and in addition it includes six variables related to the taxpayer's new state of residence. These are distance, measured in miles from Billings, Montana to the largest city in the state, population in 2000, percentage population growth from 2000 to 2010, personal income per capita in 2000, five-year average annual rate of growth in real personal income per capita, and the top individual income tax rate.

Results

The hypothesis that the income tax cut increased in-migration of higher income taxpayers and reduced their out-migration can be tested using the coefficients on the dummy variables for pre- and post-law change for income groups 5 and 6. While this is the main goal of this analysis, the other coefficients provide information about taxpayers who migrate or begin or stop filing state tax returns for another reason. This is interesting in itself, and it also helps provide additional context for interpreting coefficients used in testing the hypothesis that tax rates affect migration.

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[7] Montana has a distinctive tax return that allows a married couple to file separate returns on a single form. Almost all couples who file separately use this option. For this study, these separate returns on the same form were treated as one return and their incomes were combined.

Migration and Non-Income-Tax Factors

Full Results for Models 1 – 3 are presented in the appendix in Tables A-1 and A-2. TableA-1 shows coefficient estimates, and Table A-2 shows the corresponding odds ratio estimates.[8]

Table 4 shows odds ratios for four taxpayer attributes from Models 1 through 3, with the odds ratios rescaled to show odds relative to the subpopulation with the lowest transition probability. The four attributes are marital status, home-ownership, having dependents, and sources of income. For example, the first three rows of the first column show that the transition probability from resident to part-year or non-resident filer is highest for single taxpayers, next highest for married taxpayers, and lowest for head-of-household (single with dependents) taxpayers. The probability of transition from resident to non-filer also is highest for single taxpayers, but lowest for married taxpayers.

Table 4
Relative Odds of Taxpayer Making Migration-Related Transitions
Compared to Subpopulation with Lowest Transition Probability

	Resident to Part-Year or Non-Resident (Model 1 Choice 2)	Resident to Non-Filer (Model 1 Choice 3)	Resident From Part-Year or Non-Resident (Model 2 Choice 2)	Resident from Non-Filer (Model 2 Choice 3)	Non-Resident Filer to Resident (Model 3 Choice 2)
Marital Status					
Single	1.53	1.40	1.53	1.88	1
Married	1.26	1	1.40	1	1.06
Head of Household	1	1.18	1	1.21	1.00
Mortgage Deduction					
Standard Deduction	1.74	2.44	1.76	3.11	1
Mortgage Interest Deduction	1	1	1	1	1.31
Itemized, No Mortgage Deduction	1.19	1.39	1.17	1.28	1.00
Dependents					
Yes	1	1.12	1.06	1.12	1
No	1.08	1	1	1	1.15
Income Sources					
No Dominant Income Source	1.26	1.27	1.09	1.37	1.44

[8] The odds ratio for an explanatory variable measures the difference that a one unit change in that variable makes in the odds of an option being chosen. For example, the odds ratio 0.923 in the upper left corner of Table A-2 indicates that the odds that a taxpayer in Income Group 1 who filed as a resident in a base year before 2005 would file as a part-year or non-resident the following year are 92.3% of the odds that a taxpayer in Income Group 3 would make the same change in the same years.

Mostly Wages	2.57	1	1.89	1.93	2.46
Mostly Business Income	1.18	1.16	1	1.53	1
Mostly Retirement	1	1.23	1.28	1	1.74

Single taxpayers are most likely to make each of the transitions except from non-resident filer to resident. The difference is relatively large for all of the transitions except from non-resident filer to resident.

For the two transitions that identify migrants (non-resident or part-year filer to resident and vice versa), married taxpayers are more likely to make the transition than head-of household filers. For the two transitions that could reflect migration or other changes (non-filer to resident and vice versa), head of household filers are more likely to make the transition than married taxpayers. This may reflect greater movement into and out of the labor force for singles with dependents or it may be that singles with dependents who move between states are less likely to file returns with both states the year of the move.

The fact that the difference is small for the non-resident to resident transition but relatively large for the other two in-migration related transitions may indicate that the population who have recently migrated are not typical of the population of potential in-migrants, or that the population of non-residents with Montana-source income is not typical of the population of potential in-migrants, or both.

For all of the transitions except non-resident filer to resident, taxpayers who claimed the mortgage deduction are the least likely to make the transition and taxpayers who took the standard deduction are the most likely. The differences are large. Homeowners have at least one tangible tie to their current location and have part of their wealth tied up in an immobile and illiquid asset, so their costs of migrating generally will be higher.

For the non-resident filer to resident transition, the pattern is reversed: Taxpayers who claimed the mortgage interest deduction when filing as a non-resident were most likely to become residents. There are at least two possible explanations for this difference. Taxpayers with income in two states are more likely than the rest of the population to own homes in two states, which may make the costs of migrating (or changing tax residence) lower. Also, Montana has had a long-term influx of retirees and pre-retirees looking for amenities and relatively low housing costs. Someone with business interests in Montana may be more likely to make this transition if they can realize capital gains tax-free on a home in another state while moving to an equivalent or better, but cheaper home in Montana.

Having dependents increased the odds of transitioning from resident to non-resident or part-year filer and from non-resident filer to resident. Having dependents decreased the odds of the other transitions. All of the differences are relatively small. Having dependents is likely to be associated with higher costs of migrating. It may be associated with either higher or lower potential gains from migration depending on amenities and perceived opportunities for the dependents at the current and alternative locations.

For all but one transition, taxpayers with at least 75% of their income from wages are most likely to make the transition. For the transition from resident to non-resident or part-year filer, taxpayers with mostly wage income are much more likely to make the transition than other groups, while for the transition from resident to non-filer, taxpayers with mostly wage income are least likely to make the transition. This probably reflects a difference in filing behavior for out-migrants. A wage-earner who moves across state lines during a year will probably have had tax withheld from wages earned before the move. A majority of wage-earners have tax over-withheld and receive a refund when they file their returns. For a wage-earner who moves out of state, the only way to have any over-withheld tax refunded is to file a return with the old state of residence. In addition, the migrant's old state of residence receives a W-2 from the migrant's former employer indicating to the state that the migrant should file a tax return. Thus, wage-earning migrants have incentives to file a return. Other taxpayers are less likely to have over-paid and are less likely to have their income reported by the payer. Thus, they have incentives not to file a return with their old state, particularly if they would owe tax.

Income Tax and Migration

If the income tax change reduced out-migration and increased in-migration of high-income households, the regression results should show a structural change in the expected direction for the high-income groups (or just the highest income group) that is not shared by the rest of the population. If there was a structural change for the whole population, this requires that the changes for the high income groups be farther in the expected direction than the changes for the middle- and low-income groups. Any structural change can be attributed more confidently to the tax law change if the change is larger (in the expected direction) for Group 6 than for Group 5, because the tax cut was much larger for Group 6, and if the expected change is found for both in-migration and out-migration.

This can be expressed in terms of the odds ratios. Income Group 3 before the tax change is the reference group, so the odds ratios of other groups indicate the relative odds of a resident migrating, given that they are a member of another group rather than the reference group. The odds ratio for Group 3 after the tax change shows the change, from the 1998 - 2004 period to the 2005 - 2009 period, in the odds of a member of this group migrating[9]. Since Group 3 was not affected by the tax law change, on average, the odds ratio for Group 3 after the tax law change should reflect changes in the odds of migrating due to longer-term factors other than the tax law change. If the tax law change reduced high-income out-migration, the odds ratios for the higher income groups, Group 5 and Group 6, should have had a larger relative decrease or smaller relative increase than the odds ratio for Group 3. Thus, if Group i's outmigration was reduced by the tax law change, it should be true that

$$Odds\ Ratio\ Group\ i\ Post\ SB407 / Odds\ Ratio\ Group\ i\ Pre\ SB407 < Odds\ Ratio\ Group\ 3\ Post\ SB407.$$

Taking the natural log of both sides gives an equivalent, and easily testable, expression in the parameters:

[9] Since Group 3 before the tax law change is the reference group, its odds ratio is 1 by definition.

$\beta_{i,Post} - \beta_{i,Pre} < \beta_{3,Post}$.

Similarly, if the tax law change increased high income in-migration, the odds ratios for the higher income groups should have increased more, or decreased less, than the odds ratio for the reference group. This gives the same expressions, but with the signs reversed:

$\beta_{i,Post} - \beta_{i,Pre} > \beta_{3,Post}$.

Since tax cuts were much larger in relative and absolute terms for Group 6 than for Group 5, differences should be larger for Group 6.

Table 5 shows the results of tests of the impact of the tax law change on high income migration. The top part of the table shows tests for out-migration. The first three columns show the coefficient for Group 3 post-tax-law-change and the differences between the post- and pre-tax-law-change coefficients for Groups 5 and 6. The four right hand columns show t statistics for the restriction that $\beta_{i,Post} - \beta_{i,Pre} = \beta_{3,Post}$ and p values for the null hypotheses that the change for each high income group is not less than the post-tax-law-change coefficient for the reference group.

The bottom part of the table shows the same information for in-migration, except that the p values are for the null hypotheses that the change for each high income group is not more than the post-tax-law-change coefficient for the reference group.

Table 5
Tests for Predicted Tax Law Impact on High-Income Migration

Out-Migration	Change of Income Group Coefficients			test for H0: Group Change ≥ Group 3 Change			
	Group 3	Group 5	Group 6	Group 5		Group 6	
				t	p	t	p
Resident to Non-Resident or Part-Year	-0.0196	-0.0755	0.0729	1.15	0.125232	-1.10	0.863595
Resident to Non-Filer	0.0105	0.0363	0.2991	-0.82	0.792595	-5.24	1.000000

In-Migration	Change of Income Group Coefficients			p for H0: Group Change ≤ Group 3 Change			
	Group 3	Group 5	Group 6	Group 5		Group 6	
				t	p	t	p
Resident from Non-Resident or Part-Year	0.1119	0.2428	0.4664	-4.86	5.92E-07 *	-6.20	2.87E-10 *
Resident from Non-Filer	-0.00842	-0.1309	0.0053	4.53	0.999997	-0.25	0.402985
Non-Resident to Resident	0.015	-0.0674	0.1305	1.26	0.896291	-1.23	0.109653

If the tax law change reduced out-migration, the change of coefficients should be smaller for Group 6 than for Group 5, both changes should be smaller than the Group 3 coefficient, and the differences from the Group 3 coefficient should be statistically significant, at least for Group 6. This is not what the tests show. The null hypothesis that the coefficient change is not smaller than the Group 3 coefficient cannot be rejected for either transition for either Group 6 or Group 5. In fact, the coefficient changes are the wrong sign and large for Group 6 and for Group 5 transitioning from resident to non-filer. The null

hypothesis can be rejected for Group 5 for the transition from resident to non-resident or part-year filer at the 87.5% confidence level. However, the Group 6 coefficient change is larger than the Group 5 change in both cases.

For in-migration, the null hypothesis can be very strongly rejected for the transition to resident from non-resident or part-year filer for both groups and can be rejected at the 89% confidence level for the non-resident filer to resident transition for Group 6. The difference is larger than the reference group coefficient for the transition to resident from non-filer for Group 6 but not significantly so. In all three cases, the coefficient change is larger for Group 6 than for Group 5. However, for two of the three transitions, the difference between the Group 5 coefficient change and the Group 3 coefficient are the wrong sign and large.

These results would not be materially different if another income group had been chosen as the reference group or if the lower income groups had been combined to create a reference group. Table 6 shows the post-tax-law-change odds ratio to the pre-tax-law-change odds ratio for each income group in each equation, with rations that are significantly different from 1 at the 10% level starred.

Table 6
Shifts in Migration Patterns by Income Group
Post-Tax-Law-Change Odds Ratio / Pre-Tax-Law-Change Odds Ratio

	Resident to Part-Year or Non-Resident (Model 1 Choice 2)	Resident to Non-Filer (Model 1 Choice 3)	Resident From Part-Year or Non-Resident (Model 2 Choice 2)	Resident from Non-Filer (Model 2 Choice 3)	Non-Resident Filer to Resident (Model 3 Choice 2)
Group 1	0.98	1.04	1.15 *	1.06	1.63 *
Group 2	0.98	1.02	1.00	0.99	1.04
Group 3	0.98	1.01	1.12 *	0.99	1.02
Group 4	1.00	1.05 *	1.24 *	1.00	0.96
Group 5	0.93 *	1.04	1.27 *	0.88 *	0.93
Group 6	1.08	1.35 *	1.59 *	1.01	1.14

For both in-migration related transitions, the ratio of the post-tax-law-change odds ratio to the pre-tax-law-change odds ratio is much larger for Group 6 than for any of the other groups, and with one exception, the ratio is not significantly different from one for Groups 1 through 4. To the extent that there was a structural change in in-migration, it appears to have been primarily an increase in high-income in-migration.

For the transition to resident from part-year or non-resident filer, the ratio is significantly larger than 1 for all but Group 2, and Group 6's ratio is by far the highest. For the transition to resident from non-

filer, the only ratio that is significantly different from 1 is Group 5's which is smaller than 1. For the transition from non-resident filer to resident, the ratios for Groups 1 and 6 are larger than 1, but the difference is significant only for Group 1. There appears to have been a structural shift in in-migration, with the probability of a household being in-migrants increasing for all income groups except Group 2 and with the shift being largest for Group 6.

Discussion and Conclusions

The results shown in Tables 5 and 6 imply that there was a structural change in the migration behavior of high-income households, but not one that can be confidently attributed to the change in tax law. Both in- and out-migration of high-income households increased relative to the migration of other households, where the expected tax-law effect was increased in-migration and reduced out-migration.

There are at least two possible explanations for these results. One is that the parameter differences really do reflect tax-related changes in high-income migration and that the tax cut had the expected effect on in-migration but the opposite of the expected effect on out-migration. While it is difficult to construct an explanation where the tax cut itself would increase out-migration, it is conceivable that political rhetoric in support of the tax cut, claiming that high-income households were leaving the state because of high income tax rates, became a self-fulfilling prophecy. It may have made high-income households more aware of the general issue of tax differences, it may have created negative attitudes toward Montana, and it may have disseminated information about other states with particularly low taxes on high-income households.

A more likely explanation is that factors other than Montana taxes caused a longer-term increase in migration of high-income households and that this reinforced any tax-related increase in high-income in-migration and more than offset any tax-related decrease in high-income out-migration.

If this explanation is true, the parameter changes for Group 6 have three components: a structural change unrelated to income (the post-tax-law change coefficient for Group 3), a non-income-tax-related structural change affecting only high income households, and a tax-related change. Without knowing what the non-tax structural change might be or its size, it is impossible to know the size of the tax related changes. However, it is possible to narrow it down. For out-migration, the tax effect alone cannot be larger than the sum of the other two effects. If the non-tax increase in high-income migration is due to factors that are not unique to Montana, the effects on in-migration and out-migration should be of similar size. If the non-tax effect could be assumed to be the same for both in-migration and out-migration and the tax effect on in-migration could be assumed to have the same magnitude as the tax effect on out-migration but the opposite sign, the non-tax part of the change in Group 6 coefficients would be 0.2235 and the tax-related part would be 0.1310 for in-migration and -.1310 for out-migration. However, the non-tax change in in-migration could be driven by events in other states, such as the housing bubble, while the non-tax change in out-migration could be driven by events in Montana. In that case, the effects might be of different sizes.

Table 7 shows odds ratios for various effects in the regressions for the transition from resident to non-resident or part-year filer and the transition from non-resident or part-year filer to resident assuming that the non-tax effects on in-migration and out-migration are the same and that the tax effects on in-migration and out-migration are the same size but opposite signs. The first block shows the differences between Group 6 and Group 3 decomposed into tax and non-tax effects. The second group shows the non-income-related change implied by the Group 3 coefficients. The bottom block shows the short-run effects captured by the largest and smallest year dummies.

Table 7
Comparison of Odds Ratios
Resident to Non-Resident or Part Year Filer and Vice Versa
Assuming In-Migration and Out-Migration Effects are Symmetric

Assuming Equal Non-Tax Effects on In- and Out-Migration	
Non-Tax Effect	1.250
In-Migration Tax Effect	1.140
Out-Migration Tax Effect	0.877
Non-Income Related Structural Changes (Group 3 Coefficients)	
In-Migration	1.118
Out-Migration	0.981
Short Run Effects (Year Dummies)	
In-Migration Maximum	1.075
In-Migration Minimum	0.779
Out-Migration Maximum	1.180
Out-Migration Minimum	0.854

The tax effects on migration implied by the assumption of symmetric effects are smaller than the longer-term non-tax-related effect on high-income migration and are similar in size to the structural change affecting all households and the transitory changes captured by the year dummies.

This analysis has not precisely measured the impact of Montana's 2005 income tax cut on interstate migration or even shown that there was an impact. It does indicate that the impact of a 20% tax cut for high income taxpayers was smaller than other medium-term changes occurring in the same time frame and appears to be no larger than annual variations in migration. The main reason for this is that even a large change in state taxes results in a relatively small change in disposable income. A 20% reduction in Montana's income tax for high-income households increased their after-tax incomes by about 2%. Even if migration is very responsive to after-tax income, which these results do not rule out, the change in migration from a small change in after-tax income will also be small.

Table A-1
Parameter Estimates for Models 1-3

	Model 1: Out-migration								Model 2: In-migration								Model 3: In-Migration			
	Resident to Part-Year or Non-Resident				Resident to Non-Filer				Part-Year or Non-Resident to Resident				Non-Filer to Resident				Non-Resident Filer to Resident			
Parameter	Parameter Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Parameter Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Parameter Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Parameter Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Parameter Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	-3.908	0.018	46285.6	<.0001	-2.187	0.009	54841.7	<.0001	-2.543	0.010	63331.111	<.0001	-3.602	0.016	47977.406	<.0001	2.311	0.098	558.398	<.0001
Group 1 Pre Law Change	-0.080	0.049	2.7	0.102	0.844	0.017	2577.2	<.0001	0.882	0.019	2054.679	<.0001	-0.129	0.046	7.866	0.005	-0.137	0.102	1.830	0.176
Group 2 Pre Law Change	-0.082	0.011	51.9	<.0001	0.836	0.007	15379.5	<.0001	1.015	0.008	17950.635	<.0001	-0.220	0.011	370.531	<.0001	0.414	0.029	208.126	<.0001
Group 4 Pre Law Change	-0.025	0.014	3.1	0.078	-0.260	0.011	617.9	<.0001	-0.150	0.013	143.430	<.0001	0.011	0.014	0.710	0.400	-0.251	0.034	56.164	<.0001
Group 5 Pre Law Change	0.216	0.023	91.2	<.0001	-0.205	0.018	134.5	<.0001	0.051	0.022	5.549	0.019	0.357	0.020	312.447	<.0001	-0.394	0.044	80.745	<.0001
Group 6 Pre Law Change	0.162	0.053	9.2	0.003	-0.249	0.039	41.0	<.0001	0.159	0.046	11.929	0.001	0.459	0.044	111.157	<.0001	-1.166	0.069	282.461	<.0001
Group 1 Post Law Change	-0.103	0.061	2.8	0.095	0.887	0.020	1908.4	<.0001	1.020	0.020	2508.412	<.0001	-0.074	0.047	2.466	0.116	0.355	0.111	10.213	0.001
Group 2 Post Law Change	-0.099	0.019	27.3	<.0001	0.852	0.010	7412.1	<.0001	1.019	0.010	9656.609	<.0001	-0.233	0.017	179.608	<.0001	0.451	0.048	87.438	<.0001
Group 3 Post Law Change	-0.020	0.020	1.0	0.323	0.011	0.011	0.9	0.352	0.112	0.012	93.442	<.0001	-0.008	0.018	0.229	0.632	0.015	0.051	0.088	0.767
Group 4 Post Law Change	-0.023	0.021	1.2	0.282	-0.213	0.013	265.0	<.0001	0.063	0.013	22.649	<.0001	0.010	0.019	0.280	0.597	-0.298	0.051	34.251	<.0001
Group 5 Post Law Change	0.141	0.029	23.8	<.0001	-0.169	0.020	74.9	<.0001	0.293	0.019	243.759	<.0001	0.227	0.023	94.567	<.0001	-0.461	0.058	63.716	<.0001
Group 6 Post Law Change	0.235	0.057	17.1	<.0001	0.050	0.035	2.1	0.149	0.626	0.033	363.437	<.0001	0.464	0.040	132.666	<.0001	-1.036	0.076	186.249	<.0001
Married	-0.197	0.010	418.7	<.0001	-0.339	0.005	4629.1	<.0001	-0.629	0.005	13971.910	<.0001	-0.092	0.009	112.333	<.0001	-0.158	0.021	58.775	<.0001
Head of Household	-0.426	0.016	742.4	<.0001	-0.173	0.008	524.7	<.0001	-0.438	0.008	3379.247	<.0001	-0.425	0.014	885.132	<.0001	-0.219	0.047	21.813	<.0001
Mortgage Deduction	-0.556	0.010	2927.3	<.0001	-0.892	0.006	22611.9	<.0001	-1.135	0.006	32836.411	<.0001	-0.564	0.009	3832.372	<.0001	-0.051	0.024	4.594	0.032
No Mortgage Deduction	-0.383	0.011	1255.7	<.0001	-0.565	0.005	11357.3	<.0001	-0.889	0.006	23423.434	<.0001	-0.404	0.010	1728.462	<.0001	-0.319	0.023	194.860	<.0001
Dependents	-0.082	0.010	65.9	<.0001	0.113	0.006	373.3	<.0001	0.113	0.006	350.418	<.0001	0.054	0.009	38.295	<.0001	-0.144	0.022	41.956	<.0001
Mostly Wages	0.712	0.010	4827.0	<.0001	-0.236	0.004	2788.4	<.0001	0.343	0.005	5139.087	<.0001	0.554	0.009	3857.379	<.0001	0.534	0.020	729.491	<.0001
Mostly Business Income	-0.067	0.020	11.1	0.001	-0.085	0.007	130.7	<.0001	0.114	0.008	209.423	<.0001	-0.085	0.018	23.512	<.0001	-0.365	0.041	79.630	<.0001
Mostly Retirement Income	-0.230	0.021	125.3	<.0001	-0.032	0.007	18.5	<.0001	-0.313	0.009	1129.465	<.0001	0.164	0.015	115.919	<.0001	0.189	0.047	16.199	<.0001
1998	0.163	0.016	103.6	<.0001	-0.081	0.008	95.9	<.0001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1999	0.166	0.016	107.7	<.0001	-0.113	0.008	186.9	<.0001	0.071	0.008	78.436	<.0001	-0.063	0.015	16.741	<.0001	0.055	0.040	1.888	0.169
2000	0.152	0.016	89.9	<.0001	-0.013	0.008	2.6	0.109	0.137	0.008	298.525	<.0001	-0.014	0.015	0.820	0.365	0.069	0.040	3.014	0.083
2001	-0.013	0.017	0.7	0.416	-0.037	0.008	20.4	<.0001	-0.015	0.008	3.584	0.058	-0.018	0.015	1.362	0.243	0.136	0.039	12.092	0.001
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.029	0.040	0.539	0.463
2003	0.002	0.016	0.0	0.899	-0.080	0.008	97.7	<.0001	-0.004	0.008	0.223	0.637	-0.022	0.015	2.237	0.135	0.061	0.039	2.455	0.117
2004	0.070	0.016	18.7	<.0001	0.004	0.008	0.3	0.609	0.094	0.008	141.105	<.0001	-0.012	0.015	0.615	0.433	0.104	0.039	7.259	0.007
2005	0.067	0.016	18.4	<.0001	-0.149	0.008	348.0	<.0001	0.023	0.008	9.217	0.002	-0.007	0.014	0.266	0.606	-0.025	0.034	0.526	0.469
2006	-0.027	0.016	2.9	0.087	-0.136	0.008	299.1	<.0001	0.269	0.007	1370.035	<.0001	0.072	0.014	25.901	<.0001	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.197	0.007	734.720	<.0001	0.064	0.014	20.784	<.0001	-0.086	0.035	6.197	0.013
2008	-0.158	0.016	95.430	<.0001	0.000	0.008	0.000	0.998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-0.172	0.034	25.323	<.0001
2009	-0.034	0.016	4.487	0.034	-0.091	0.008	138.065	<.0001	-0.231	0.008	871.988	<.0001	-0.095	0.014	43.774	<.0001	-0.173	0.034	25.185	<.0001
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-0.089	0.008	136.176	<.0001	-0.250	0.015	275.999	<.0001	n/a	n/a	n/a	n/a
Distance																	-0.001	0.000	4122.940	<.0001
Population																	0.000	0.000	509.057	<.0001
Population Growth																	-4.698	0.145	1044.726	<.0001
Personal Income per Capita																	0.000	0.000	1909.853	<.0001
Real PI per Capita Growth																	-1.330	0.196	46.061	<.0001
Top Income Tax Rate																	0.064	0.103	0.387	0.534

Table A-2
Odds Ratio Estimates for Models 1-3

	Model 1: Out-migration						Model 2: In-migration						Model 3: In-Migration		
	Resident to Part-Year or Non-Resident			Resident to Non-Filer			Part-Year or Non-Resident to Resident			Non-Filer to Resident			Non-Resident Filer to Resident		
		95 % Confidence Limits			95 % Confidence Limits			95 % Confidence Limits			95 % Confidence Limits			95 % Confidence Limits	
Parameter	Point Estimate	Lower	Upper	Point Estimate	Lower	Upper	Point Estimate	Lower	Upper	Point Estimate	Lower	Upper	Point Estimate	Lower	Upper
Group 1 Pre Law Change	0.923	0.839	1.016	2.326	2.252	2.404	2.415	2.324	2.509	0.879	0.804	0.962	0.872	0.714	1.064
Group 2 Pre Law Change	0.921	0.901	0.942	2.307	2.277	2.338	2.760	2.719	2.801	0.803	0.785	0.821	1.513	1.430	1.601
Group 4 Pre Law Change	0.975	0.948	1.003	0.771	0.755	0.787	0.861	0.840	0.882	1.011	0.985	1.039	0.778	0.729	0.831
Group 5 Pre Law Change	1.241	1.187	1.297	0.815	0.787	0.844	1.052	1.009	1.097	1.430	1.374	1.487	0.675	0.619	0.735
Group 6 Pre Law Change	1.175	1.059	1.305	0.780	0.723	0.841	1.173	1.071	1.284	1.582	1.453	1.723	0.312	0.272	0.357
Group 1 Post Law Change	0.903	0.800	1.018	2.429	2.334	2.527	2.772	2.664	2.885	0.928	0.846	1.019	1.425	1.147	1.772
Group 2 Post Law Change	0.905	0.872	0.940	2.343	2.298	2.389	2.770	2.714	2.827	0.792	0.766	0.820	1.570	1.428	1.726
Group 3 Post Law Change	0.981	0.943	1.019	1.011	0.988	1.033	1.118	1.093	1.144	0.992	0.958	1.026	1.015	0.919	1.121
Group 4 Post Law Change	0.977	0.938	1.019	0.809	0.788	0.830	1.065	1.038	1.093	1.010	0.974	1.047	0.743	0.672	0.820
Group 5 Post Law Change	1.151	1.088	1.218	0.845	0.813	0.878	1.341	1.293	1.391	1.254	1.198	1.313	0.631	0.563	0.706
Group 6 Post Law Change	1.264	1.131	1.413	1.052	0.982	1.126	1.870	1.753	1.994	1.590	1.470	1.721	0.355	0.306	0.412
Married	0.821	0.806	0.837	0.712	0.705	0.719	0.533	0.528	0.539	0.913	0.528	0.539	0.854	0.820	0.889
Head of Household	0.653	0.634	0.674	0.842	0.829	0.854	0.646	0.636	0.655	0.654	0.636	0.672	0.803	0.733	0.881
Mortgage Deduction	0.574	0.562	0.585	0.410	0.405	0.415	0.322	0.318	0.325	0.569	0.559	0.579	0.951	0.908	0.996
No Mortgage Deduction	0.682	0.667	0.696	0.568	0.562	0.574	0.411	0.406	0.416	0.668	0.655	0.680	0.727	0.695	0.760
Dependents	0.922	0.904	0.940	1.120	1.107	1.133	1.120	1.106	1.133	1.056	1.038	1.074	0.866	0.829	0.904
Mostly Wages	2.037	1.997	2.079	0.790	0.783	0.797	1.408	1.395	1.422	1.740	1.710	1.771	1.705	1.641	1.773
Mostly Business Income	0.935	0.899	0.973	0.919	0.906	0.932	1.120	1.103	1.138	0.919	0.888	0.951	0.694	0.640	0.752
Mostly Retirement Income	0.794	0.763	0.827	0.968	0.954	0.983	0.731	0.718	0.745	1.178	1.143	1.213	1.208	1.102	1.325
1998	1.178	1.141	1.215	0.922	0.908	0.937	n/a	n/a	n/a	n/a	n/a	n/a	1.000	1.000	1.000
1999	1.180	1.144	1.218	0.893	0.878	0.907	1.074	1.057	1.091	0.939	0.911	0.968	1.057	0.977	1.143
2000	1.164	1.128	1.201	0.987	0.972	1.003	1.146	1.129	1.164	0.986	0.958	1.016	1.072	0.991	1.159
2001	0.987	0.955	1.019	0.964	0.949	0.980	0.985	0.969	1.001	0.983	0.954	1.012	1.145	1.061	1.236
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.029	0.953	1.112
2003	1.002	0.970	1.035	0.923	0.908	0.938	0.996	0.981	1.012	0.978	0.950	1.007	1.062	0.985	1.146
2004	1.072	1.039	1.106	1.004	0.989	1.020	1.098	1.081	1.115	0.988	0.960	1.018	1.110	1.029	1.197
2005	1.070	1.037	1.103	0.862	0.848	0.875	1.023	1.008	1.039	0.993	0.965	1.021	0.976	0.912	1.043
2006	0.973	0.943	1.004	0.873	0.859	0.886	1.308	1.290	1.327	1.075	1.045	1.105	1.000	1.000	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.218	1.200	1.235	1.066	1.037	1.095	0.918	0.858	0.982
2008	0.854	0.827	0.881	1.000	0.985	1.015	1.000	1.000	1.000	1.000	1.000	1.000	0.842	0.788	0.900
2009	0.967	0.938	0.998	0.913	0.900	0.927	0.794	0.781	0.806	0.909	0.884	0.935	0.841	0.786	0.900
2010	n/a	n/a	n/a	n/a	n/a	n/a	0.915	0.901	0.929	0.779	0.757	0.802	n/a	n/a	n/a
Distance													0.999	0.999	0.999
Population													1.000	1.000	1.000
Population Growth													0.009	0.007	0.012
Personal Income per Capita													1.000	1.000	1.000
Real PI per Capita Growth													0.264	0.180	0.388
Top Income Tax Rate													1.066	0.872	1.304

State Income Taxes and Interstate Migration:
Results of a Natural Experiment in Montana
Executive Summary

The 2003 Montana Legislature passed Senate Bill 407, which restructured the state's income tax beginning in 2005. On average, it reduced income taxes by about $10,000 per year, or about one-fourth, for taxpayers with incomes over $250,000 per year and by less than $50 for taxpayers with income less than $100,000. This provides a natural experiment to test the effect of state taxes on interstate migration. If state taxes play a significant role in the decision to move between states, SB 407 should have increased migration of high-income households into the state, reduced migration of high-income households out of the state, but not have affected migration of middle- and lower-income households.

Migration into and out of Montana was measured using Montana income tax returns. A Montana resident who moves to another state will stop filing resident income tax returns, and may file a part-year or non-resident return the year of the move. A resident of another state who moves to Montana will start filing resident income tax returns, and may have previously filed a part-year or non-resident return.

Changes in migration were separated statistically into year-to-year changes affecting all taxpayers, changes from before SB 407 to after SB 407 affecting middle- and lower-income taxpayers, which would not be due to SB 407, and changes from before to after SB 407 affecting high-income taxpayers, which could be due to SB 407.

In-migration was higher at most income levels after SB 407, and both in-migration and out-migration of high-income households increased compared to migration of middle-income households. For in-migration, this difference is in the expected direction, but for out-migration it is the opposite of the expected effect of a tax cut.

The most likely explanation for this finding is that the effect of a 25% tax cut on interstate migration of high-income households is smaller than the effects of other factors that changed in the years before and after SB 407 went into effect.

Montana Department of Revenue

Dan Bucks
Director

Brian Schweitzer
Governor

To: Senate Taxation Committee

From: Dan Dodds, Senior Economist

Date: March 24, 2011

Subject: Information Requested

During the Hearing on SB 398 committee members asked several questions about income growth and the impact of SB 407 (2003) on high-income and low-income taxpayers.

The graph on the first attached page shows the percentage difference in tax liability, by income group, between current income tax rates and the rates that were in effect before SB 407. The blue, red, and green lines show differences calculated for actual returns filed for those years. The purple line shows the differences produced by running the HJ2 forecasting model with current rates and the old rates.

Each year, the percentage difference in tax between current rates and the old rates is largest at low and high incomes and is small for a range of middle incomes.

The graphs on the next two pages show the average dollar differences in tax liability for each income group. The first of these two graphs shows all returns. The second shows returns with income less than $140,000.

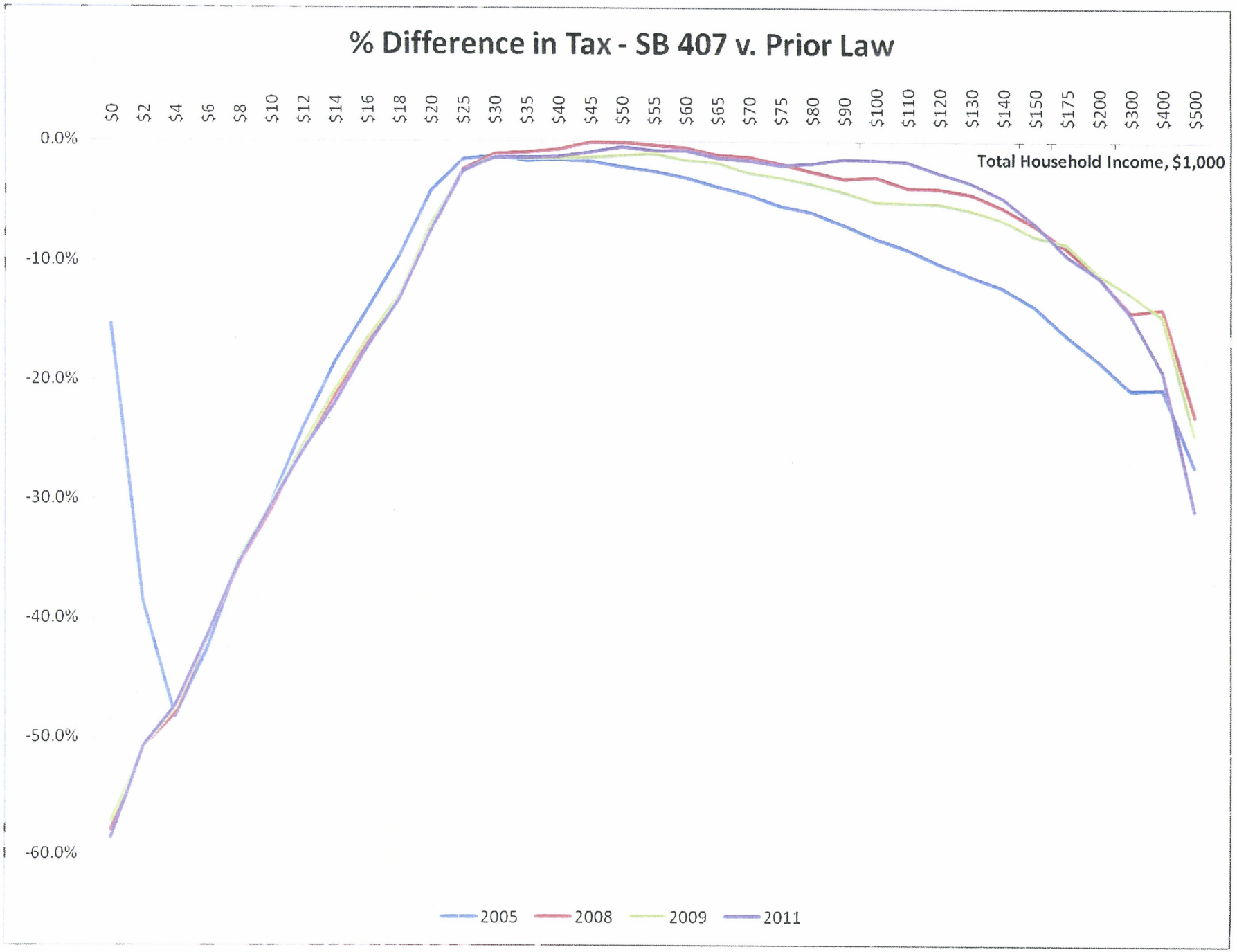
The dollar difference in tax between current rates and the old rates is largest at high incomes. It is smallest in a range beginning at about $25,000 and extending through about $45,000 to $60,000 depending on the year.

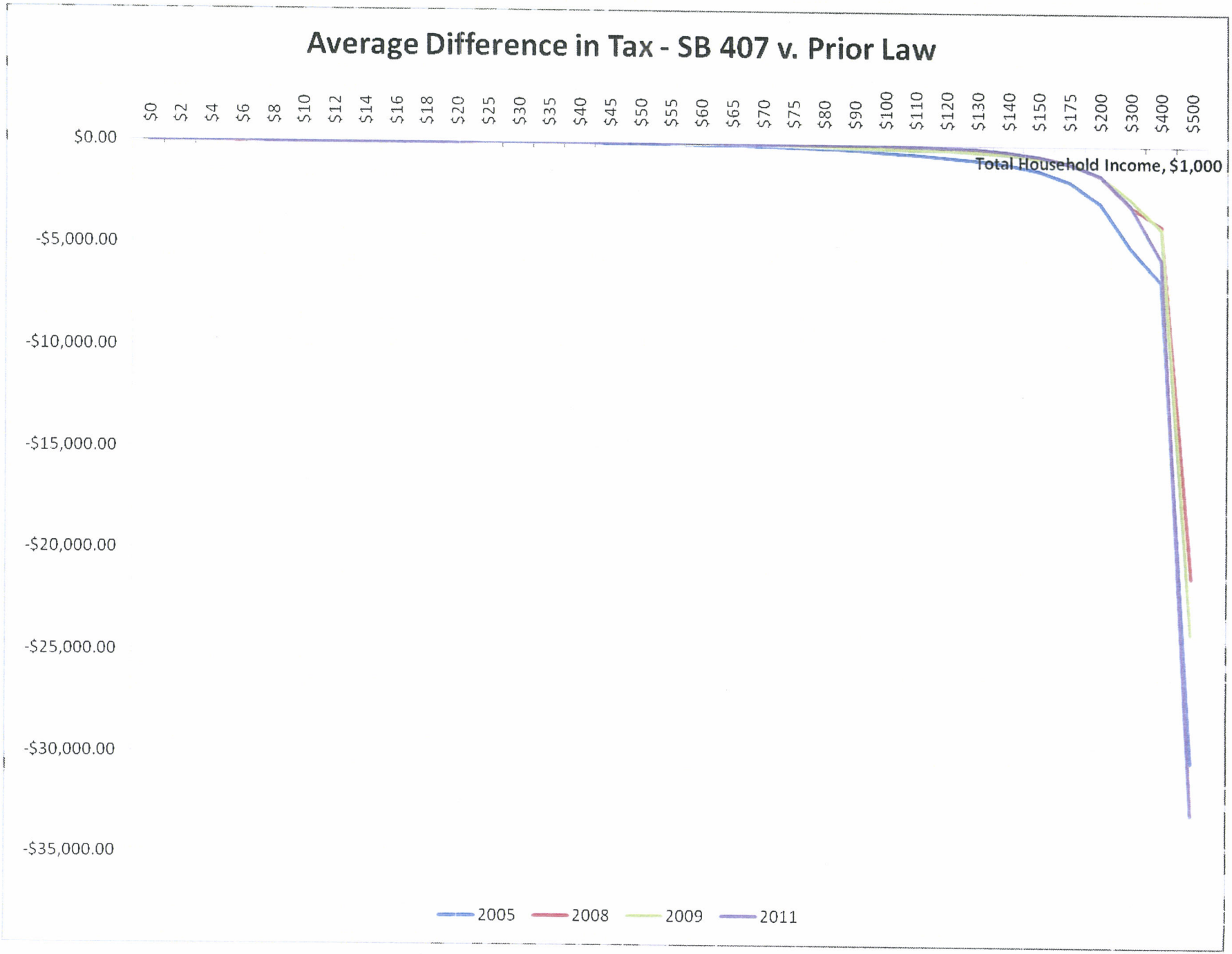
The fourth attached page shows total household income reported on returns for 1998 through 2009. In the graph on the top of the page, the height of the bar for each year shows total income reported on all returns. The blue part of each bar shows total income reported on the half of returns with the lowest incomes, the green part shows income reported on the 10% of returns with the highest incomes and the red shows income reported on the remaining 40% of returns.

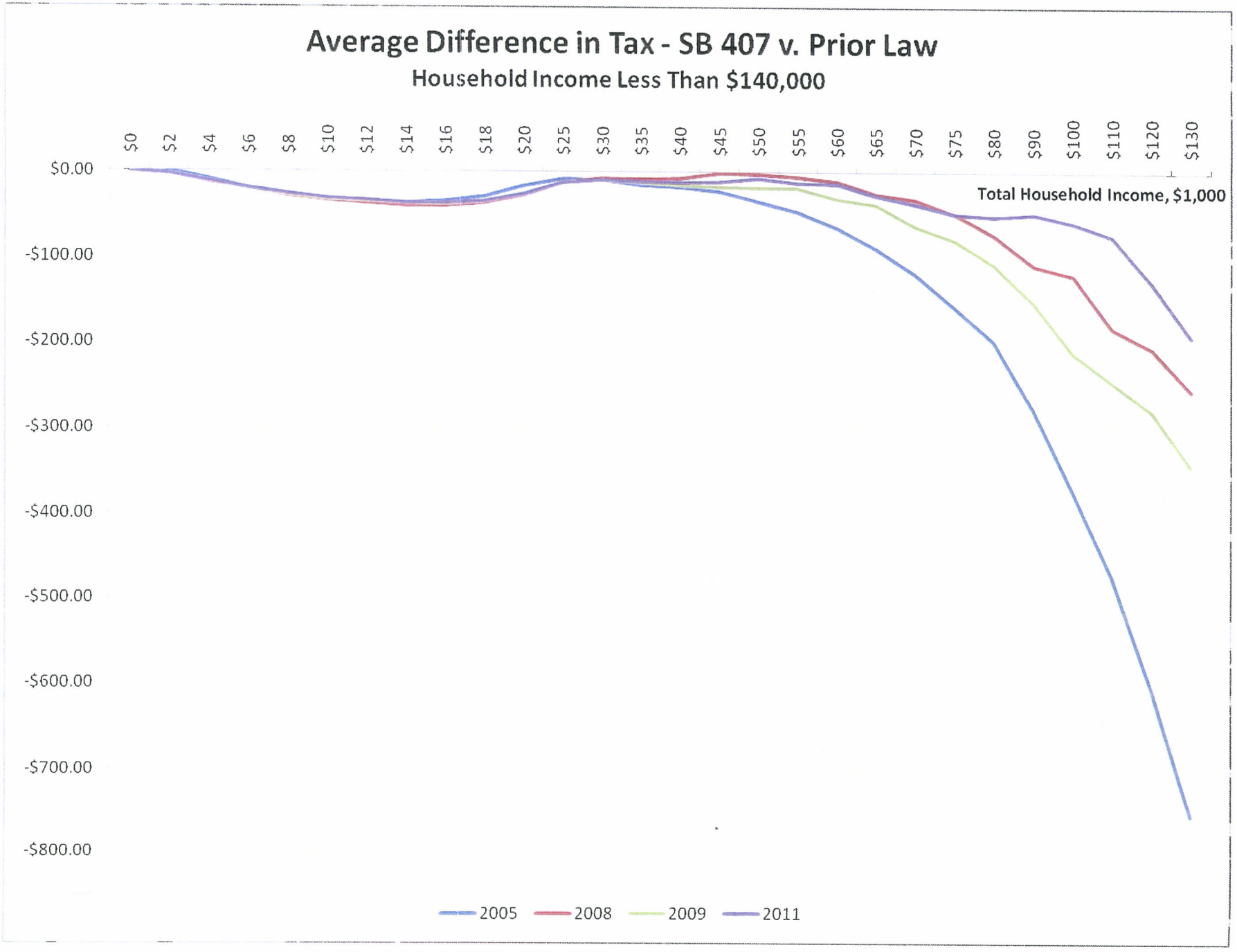
The table on the bottom of the page shows the percent of total income reported by each income group and total income reported on all returns. Total income grew from 1998 to 2000, was relatively flat in 2001 and 2002, grew again from 2003 through 2007, and then fell in 2008 and 2009. The share of income going to each group was relatively steady. The half with lowest income reported a little less than 15% of income, the 10%

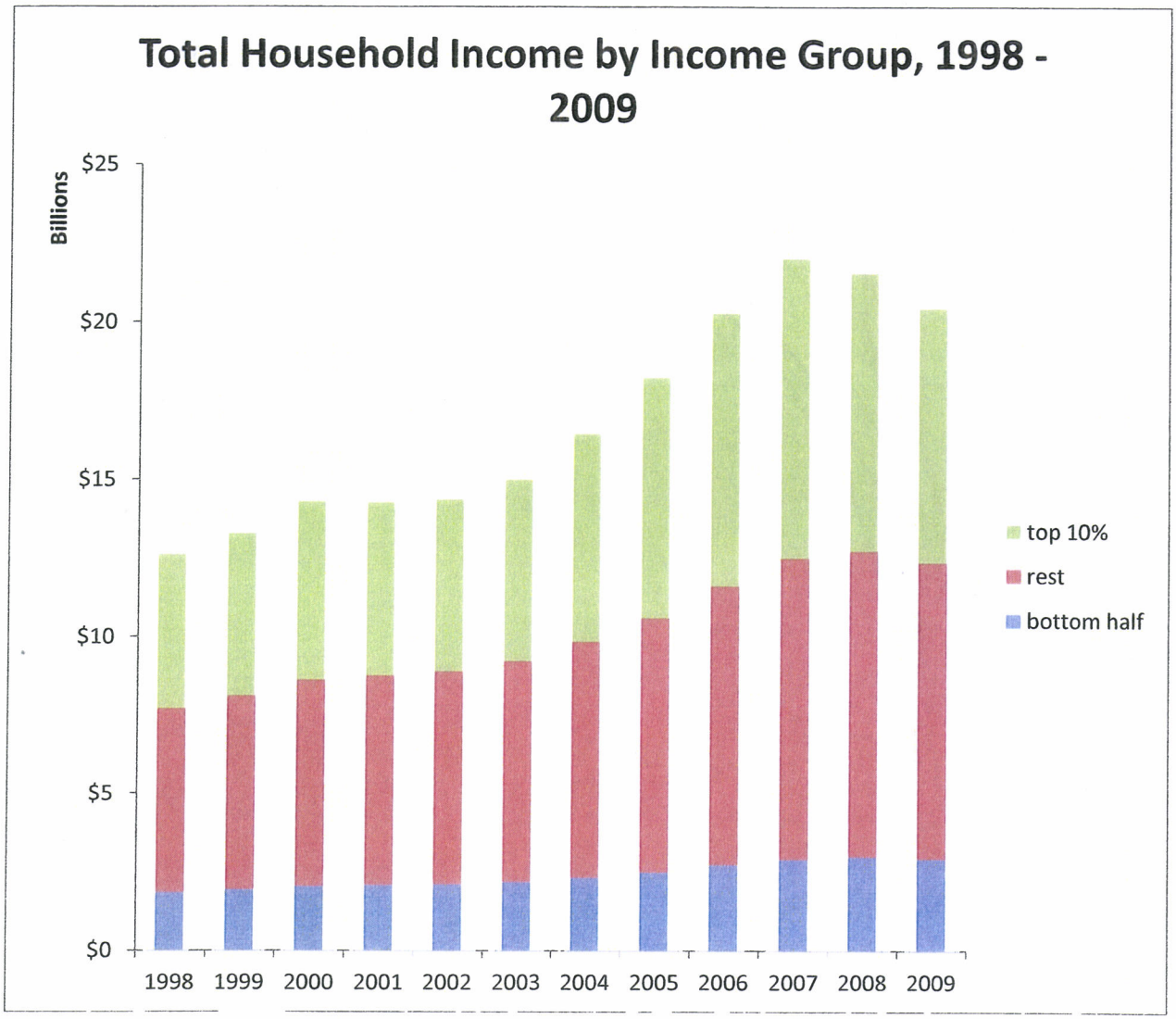
with highest incomes reported about 40% of income, and the remaining 40% of returns reported a little less than 50% of income.

The final graph shows annual growth rates of income reported by the three income groups. The highest income group shows the most volatility, because these households receive more of their income from volatile sources, such as capital gains.


% Difference in Tax - SB 407 v. Prior Law
$0
$2
$4
$6
$8
$10
$12
$14
$16
$18
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
$80
$90
$100
$110
$120
$130
$140
$150
$175
$200
$300
$400
$500
0.0%
-10.0%
-20.0%
-30.0%
-40.0%
-50.0%
-60.0%
Total Household Income, $1,000
2005
2008
2009
2011


Average Difference in Tax - SB 407 v. Prior Law
$0
$2
$4
$6
$8
$10
$12
$14
$16
$18
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
$80
$90
$100
$110
$120
$130
$140
$150
$175
$200
$300
$400
$500
$0.00
-$5,000.00
-$10,000.00
-$15,000.00
-$20,000.00
-$25,000.00
-$30,000.00
-$35,000.00
Total Household Income, $1,000
2005
2008
2009
2011


Average Difference in Tax - SB 407 v. Prior Law
Household Income Less Than $140,000
$0
$2
$4
$6
$8
$10
$12
$14
$16
$18
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
$80
$90
$100
$110
$120
$130
$0.00
-$100.00
-$200.00
-$300.00
-$400.00
-$500.00
-$600.00
-$700.00
-$800.00
Total Household Income, $1,000
2005
2008
2009
2011



Total Household Income Reported on Income Tax Returns

Share Reported on Half of Returns with Lowest Incomes, 10% of Returns with Highest Incomes, Remaining 40% of Returns

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Income Shares												
bottom half	14.7%	14.7%	14.4%	14.7%	14.8%	14.7%	14.2%	13.7%	13.5%	13.2%	13.9%	14.4%
rest	46.3%	46.4%	45.9%	46.7%	47.1%	46.8%	45.6%	44.4%	43.7%	43.5%	45.1%	46.1%
top 10%	39.0%	39.0%	39.7%	38.7%	38.2%	38.6%	40.2%	41.9%	42.8%	43.2%	41.0%	39.6%
Total, $ billion	$12.627	$13.290	$14.306	$14.279	$14.378	$15.003	$16.464	$18.247	$20.289	$22.026	$21.563	$20.445

Revenue Impacts of SB 407

Executive Summary

The 2003 legislature passed SB 407. This bill reduced income tax rates, capped the itemized deduction for federal taxes, and provided a credit equal to 2% of capital gains income. It also imposed new taxes on lodging and rental cars and increased taxes on cigarettes and tobacco products.

The fiscal note for SB 407 estimated that the net reduction in general fund revenue for FY 2008 would be about $17 million. The actual net revenue reduction for FY 2009 was $43.9 million.

Revenue from the new taxes and excise tax increases in SB 407 is about what was predicted in 2003. The reduction in income tax revenue is much larger than predicted, largely because

Income is higher than was predicted,
Capital gains income is higher than was predicted,
Income growth after 2003 went disproportionately to higher income taxpayers, who received the largest percentage tax cuts from SB 407, and
The cap on the deduction for federal income tax limited the revenue windfall the state received from federal tax cuts.

High and low income taxpayers received the highest percentage reductions in income tax liability. The average reduction was less than 2% for taxpayers with incomes between $30,000 and $80,000. It was more than 10% for taxpayers with incomes less than $20,000 or more than $200,000.

More than half the reduction in income taxes went to taxpayers with income over $500,000.

Introduction and Summary

The 2003 Legislature passed SB 407, which reduced income tax rates, capped the itemized deduction for federal taxes at $5,000 ($10,000 for a joint return), and provided a credit for a percentage of capital gains income (1% in 2005 and 2006 and 2% beginning in 2007). SB 407 also raised taxes on cigarettes and other tobacco products and imposed new taxes on lodging and rental cars.

In 2006, the Department of Revenue analyzed the impacts of SB 407. This paper updates and expands that analysis using information from 2008 income tax returns.

The first section explains the changes that SB 407 made to the individual income tax and other taxes.

The second section presents estimates of the reductions in 2008 income tax liability for full year resident taxpayers, both in total and by income group. For each group, it also shows the percentage change in tax liability and the change in average effective tax rate.

The third section presents estimates of the number and percentage of winners and losers in each income group, where winners and losers are defined in terms of having 2% lower or 2% higher income tax liability.

The final section looks at the net revenue impact of SB 407. It gives estimates of the reduction in income tax revenue and the revenue from the increases in lodging, rental car, cigarette, and tobacco taxes. It looks at reasons why the net revenue reduction has been larger than was predicted in 2003 and looks at how the impact of SB 407 may change in the next several years.

SB 407

SB 407 reduced income tax rates, imposed two new selective sales taxes, and increased taxes on cigarettes and other tobacco products. During the 2003 session, it was estimated that the net effect on state revenue would be close to zero in FY 2006 but that there would be increasing revenue losses in later fiscal years.

SB 407 reduced the number of income tax rates, lowered the top and bottom rates, and made rate brackets much narrower. It also capped the itemized deduction for federal income taxes at $5,000 ($10,000 for a married couple filing a joint return), and created a new non-refundable credit equal to 2% of a taxpayer's capital gains income. This new credit is equivalent to taxing capital gains at a lower rate than ordinary income.

Table 1 shows the income tax changes in SB 407.

Table 1
Income Tax Provisions of SB 407

Income Tax Rates
Brackets Adjusted for Inflation to 2008

Old Law		SB 407	
Taxable Income	Marginal Tax Rate	Taxable Income	Marginal Tax Rate
$0 to $2,700	2.0%	$0 to $2,600	1.0%
$2,701 to $5,300	3.0%	$2,601 to $4,600	2.0%
$5,301 to $10,600	4.0%	$4,601 to $7,000	3.0%
$10,601 to $15,900	5.0%	$7,001 to $9,500	4.0%
$15,901 to $21,200	6.0%	$9,501 to $12,200	5.0%
$21,201 to $26,500	7.0%	$12,201 to $15,600	6.0%
$26,501 to $37,100	8.0%	Over $15,600	6.9%
$37,101 to $53,100	9.0%		
$53,101 to $92,900	10.0%		
Over $92,900	11.0%		

Deduction for Federal Income Taxes

Old Law	SB 407
Itemized deduction allowed for full amount of federal income tax paid during year.	Deduction limited to $5,000 ($10,000 for joint return).

Taxation of Capital Gains Income

Old Law	SB 407
Same as ordinary income.	Credit equal to 2% of capital gains income.

Table 2 shows the new taxes and the increases in cigarette and tobacco taxes.

Table 2
Other Tax Provisions of SB 407

Accommodations	New 3% sales tax
Rental Cars	New 4% sales tax
Cigarettes	Increased tax rate by $0.52 per pack
Other Tobacco Products	Increased tax rate from 12.5% to 25% (rate for moist snuff expressed in cents/ounce)

These new taxes and tax increases were imposed beginning in 2003, while the income tax changes went into effect in 2005, with the capital gains credit going from 1% to 2% in 2007. SB 407 was expected to result in net revenue increases in FY 2003 through FY 2005, be close to revenue neutral in FY 2006, and to result in net revenue decreases in later fiscal years.

Income Tax Revenue Reduction

Tax liability for 2008 was calculated for all timely-filed full year resident returns under current law and under the law as it existed before SB 407. Table 3, on the next page, shows the total change in tax liability and the change for thirty-five income groups. The left side of the table shows the range of income for each group, the number of households in the group, and the total income of these households. In this context, a household is defined as a married couple, filing either a joint return or separate returns on the same form, or an individual filing as single, head-of-household, or married with the spouse either filing on a separate form or not filing a return. Total household income is the sum of total income reported on the taxpayer's federal return and state additions to federal income. The right side of the table shows total tax liability of households in each group under pre-SB 407 law and under current law and the difference.

Table 4, on the following page, shows the changes in tax liability in the right-hand column of Table 3 as a percent of pre-SB 407 tax liability and as the average change per household. It also shows the average effective tax rate, which is tax liability divided by total household income, under the old law and under current law.

Table 3
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

Income Brackets			Tax Liability of Households in Bracket		
Income Range	Number of Households in Bracket	Total Income of Households in Bracket	Old Law	SB 407	Difference Due to SB 407
$ 0 - $ 1,999	14,398	$14,188,170	$1,350	$568	-$782
$ 2,000 - $ 3,999	16,895	51,055,669	128,540	63,118	-65,422
$ 4,000 - $ 5,999	17,661	88,147,148	462,625	239,991	-222,633
$ 6,000 - $ 7,999	16,794	117,280,013	870,358	507,505	-362,854
$ 8,000 - $ 9,999	16,059	144,576,885	1,306,423	841,857	-464,566
$ 10,000 - $ 11,999	15,554	170,937,665	1,693,420	1,169,297	-524,122
$ 12,000 - $ 13,999	15,273	198,426,889	2,195,964	1,629,510	-566,454
$ 14,000 - $ 15,999	14,706	220,531,089	2,759,927	2,170,382	-589,545
$ 16,000 - $ 17,999	14,483	246,138,801	3,392,557	2,813,535	-579,021
$ 18,000 - $ 19,999	14,083	267,441,258	4,043,593	3,517,560	-526,033
$ 20,000 - $ 24,999	32,019	717,573,586	12,555,431	11,661,593	-893,839
$ 25,000 - $ 29,999	27,247	747,589,458	14,990,597	14,634,714	-355,884
$ 30,000 - $ 34,999	23,197	752,200,482	17,099,356	16,910,410	-188,946
$ 35,000 - $ 39,999	20,269	759,034,226	18,492,156	18,315,272	-176,885
$ 40,000 - $ 44,999	17,862	758,148,246	19,373,501	19,231,036	-142,464
$ 45,000 - $ 49,999	16,143	765,941,603	20,656,203	20,632,595	-23,608
$ 50,000 - $ 54,999	14,721	772,451,949	21,540,018	21,509,026	-30,992
$ 55,000 - $ 59,999	13,736	789,165,831	22,955,846	22,874,354	-81,492
$ 60,000 - $ 64,999	12,340	770,829,411	22,906,790	22,771,111	-135,679
$ 65,000 - $ 69,999	11,314	763,080,532	23,580,031	23,294,272	-285,758
$ 70,000 - $ 74,999	10,303	746,221,434	23,851,995	23,527,030	-324,965
$ 75,000 - $ 79,999	9,177	710,926,944	23,737,640	23,293,393	-444,247
$ 80,000 - $ 89,999	15,578	1,320,470,093	46,218,032	45,060,738	-1,157,295
$ 90,000 - $ 99,999	11,488	1,088,065,205	40,405,398	39,146,947	-1,258,451
$100,000 - $109,999	8,651	905,930,223	35,207,595	34,163,418	-1,044,177
$110,000 - $119,999	6,170	707,960,211	28,896,963	27,762,444	-1,134,519
$120,000 - $129,999	4,510	562,351,003	23,700,569	22,760,017	-940,553
$130,000 - $139,999	3,210	432,563,957	18,897,031	18,066,993	-830,038
$140,000 - $149,999	2,410	348,945,462	15,842,359	14,962,435	-879,924
$150,000 - $174,999	4,207	679,109,982	32,258,974	29,982,857	-2,276,116
$175,000 - $199,999	2,555	477,058,411	24,173,219	22,008,771	-2,164,448
$200,000 - $299,999	4,531	1,083,103,605	58,878,584	52,186,555	-6,692,029
$300,000 - $399,999	1,659	570,088,687	34,243,577	29,334,079	-4,909,499
$400,000 - $499,999	843	376,344,684	23,316,363	20,041,962	-3,274,401
$500,000 +	1,829	2,439,137,383	168,670,538	129,559,207	-39,111,332
Totals	431,875	$21,563,016,195	$809,303,523	$736,644,551	-$72,658,972

Table 4
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

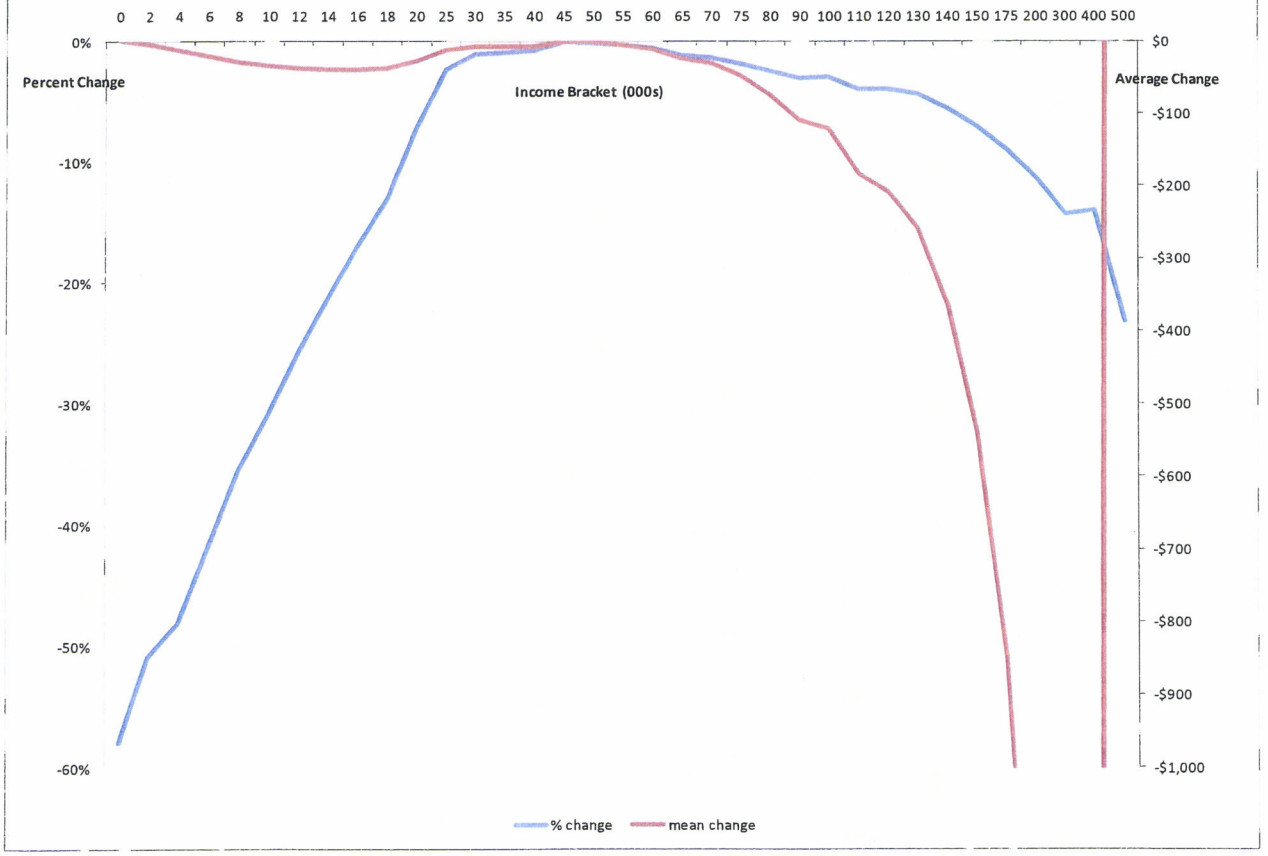
Income Range	Change in Tax Liability: Percent Change	Change in Tax Liability: Average Change	Average Effective Tax Rate: Old Law	Average Effective Tax Rate: SB 407
$ 0 - $ 1,999	-58.0%	-$0.05	0.01%	0.00%
$ 2,000 - $ 3,999	-50.9%	-3.87	0.25%	0.12%
$ 4,000 - $ 5,999	-48.1%	-12.61	0.52%	0.27%
$ 6,000 - $ 7,999	-41.7%	-21.61	0.74%	0.43%
$ 8,000 - $ 9,999	-35.6%	-28.93	0.90%	0.58%
$ 10,000 - $ 11,999	-31.0%	-33.70	0.99%	0.68%
$ 12,000 - $ 13,999	-25.8%	-37.09	1.11%	0.82%
$ 14,000 - $ 15,999	-21.4%	-40.09	1.25%	0.98%
$ 16,000 - $ 17,999	-17.1%	-39.98	1.38%	1.14%
$ 18,000 - $ 19,999	-13.0%	-37.35	1.51%	1.32%
$ 20,000 - $ 24,999	-7.1%	-27.92	1.75%	1.63%
$ 25,000 - $ 29,999	-2.4%	-13.06	2.01%	1.96%
$ 30,000 - $ 34,999	-1.1%	-8.15	2.27%	2.25%
$ 35,000 - $ 39,999	-1.0%	-8.73	2.44%	2.41%
$ 40,000 - $ 44,999	-0.7%	-7.98	2.56%	2.54%
$ 45,000 - $ 49,999	-0.1%	-1.46	2.70%	2.69%
$ 50,000 - $ 54,999	-0.1%	-2.11	2.79%	2.78%
$ 55,000 - $ 59,999	-0.4%	-5.93	2.91%	2.90%
$ 60,000 - $ 64,999	-0.6%	-11.00	2.97%	2.95%
$ 65,000 - $ 69,999	-1.2%	-25.26	3.09%	3.05%
$ 70,000 - $ 74,999	-1.4%	-31.54	3.20%	3.15%
$ 75,000 - $ 79,999	-1.9%	-48.41	3.34%	3.28%
$ 80,000 - $ 89,999	-2.5%	-74.29	3.50%	3.41%
$ 90,000 - $ 99,999	-3.1%	-109.54	3.71%	3.60%
$100,000 - $109,999	-3.0%	-120.70	3.89%	3.77%
$110,000 - $119,999	-3.9%	-183.88	4.08%	3.92%
$120,000 - $129,999	-4.0%	-208.55	4.21%	4.05%
$130,000 - $139,999	-4.4%	-258.58	4.37%	4.18%
$140,000 - $149,999	-5.6%	-365.11	4.54%	4.29%
$150,000 - $174,999	-7.1%	-541.03	4.75%	4.42%
$175,000 - $199,999	-9.0%	-847.14	5.07%	4.61%
$200,000 - $299,999	-11.4%	-1,476.94	5.44%	4.82%
$300,000 - $399,999	-14.3%	-2,959.31	6.01%	5.15%
$400,000 - $499,999	-14.0%	-3,884.22	6.20%	5.33%
$500,000 +	-23.2%	-21,384.00	6.92%	5.31%
Totals	-9.0%	-$168.24	3.75%	3.42%

The percentage reduction in tax liability is smallest in the middle of the income distribution. It is 1% or less for households with income between $35,000 and $65,000. The percentage reduction is much higher for low- and high-income households. It is more than 10% for households with income less than $20,000 or more than $200,000.

The average reduction per household shows a more complicated pattern. It is lowest for the lowest income group, where most households have no tax liability under either old law or current law. The average reduction per household increases up to about $40 at $16,000 of household income and then decreases to about $1 at $45,000 to $50,000 of household income. It then rises steadily with income, to more than $21,000 for households with income over $500,000.

Figure 1 shows this information graphically. The blue line, plotted against the left-hand axis, shows the percentage change for each income group. The red line, plotted against the right-hand axis, shows the average dollar change for each group. The right-hand axis is truncated at $1,000 to show the variation at lower income levels.

Figure 1
Changes in 2008 Average Tax Liability
Old Law to SB 407



Average effective tax rates are lower for all income groups under SB 407 than under current law, but the differences follow a pattern that is similar to the pattern of percentage difference in tax liability. The difference is tiny, 1/100th of a percent, for the lowest income group, increases up to about $10,000 of income, and then decreases up to about $45,000 of income. Between $45,000 and $55,000 of income, the difference is 1/100th of a percent, and then increases with income, up to the highest income group, where the difference is 1.6 percentage points.

Figures 2 and 3 show average effective tax rates. Figure 2 shows average effective tax rates under old law and current law for all income groups. It shows that the difference in average effective tax rates is small up to about $150,000 of income and widens as income increases beyond that point. Under old law, the highest income group, with income over $500,000, had a significantly higher average effective tax rate than other taxpayers. Under current law, the group with income between $400,000 and $500,000 has the highest average effective tax rate, and the highest income group has a slightly lower average effective tax rate.

Figure 2
Average Effective Tax Rates

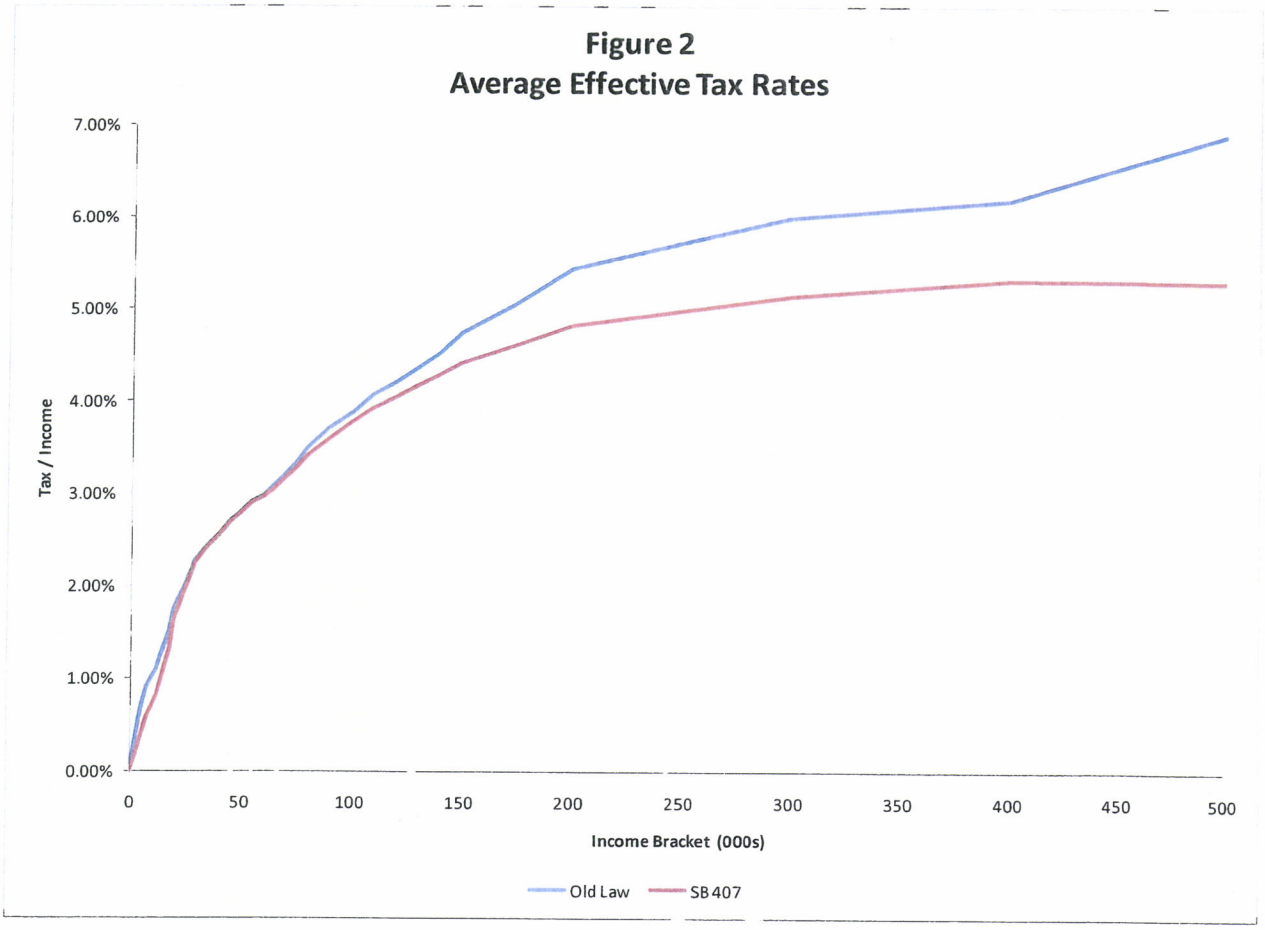
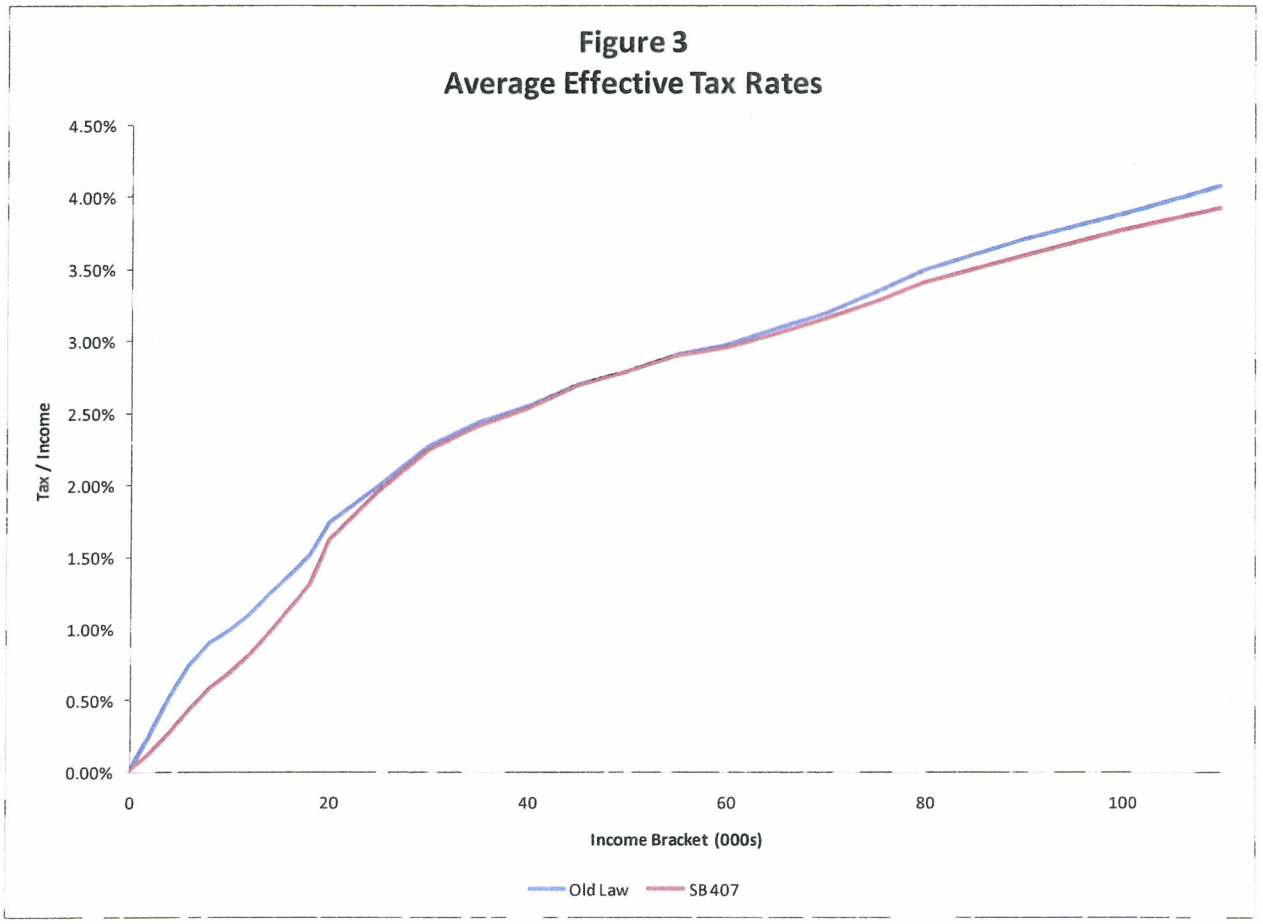


Figure 3 shows average effective tax rates for taxpayers with incomes of $110,000 or less. This includes 93% of households with 64% of total income. Figure 3 shows the very small difference in average effective tax rates for households with incomes between $30,000 and $65,000.



Tables 5 and 6 show some of the same information with households divided into only five income groups. The boundaries between groups are $20,000, $65,000, $150,000, and $500,000 of income.

The first three columns of Table 5 show the five income ranges and the number and percent of households in each group. The next two column show the income reported by each group and each group's percent of the total. The four right-hand columns show total tax liability for each group and each group's percent of total tax liability under pre-SB 407 law and under current law.

Table 5
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

	Households		Income		Old Law Tax		Current Law Tax	
Income Range	Number	%	$	%	$	%	$	%
$ 0 - $ 19,999	155,906	36.1%	$1,518,723,587	7.0%	$16,854,757	2.1%	$12,953,324	1.8%
$ 20,000 - $ 64,999	177,534	41.1%	$6,832,934,792	31.7%	$170,569,898	21.1%	$168,540,110	22.9%
$ 65,000 - $149,999	82,811	19.2%	$7,586,515,064	35.2%	$280,337,613	34.6%	$272,037,686	36.9%
$150,000 - $499,999	13,795	3.2%	$3,185,705,369	14.8%	$172,870,717	21.4%	$153,554,223	20.8%
$500,000 +	1,829	0.4%	$2,439,137,383	11.3%	$168,670,538	20.8%	$129,559,207	17.6%
Totals	431,875		$21,563,016,195		$809,303,523		$736,644,551	

The two highest income groups had 3.6% of households but 26.1% of income . While SB 407 reduced tax liability for all groups, the share of liability increased for each of the lower three income groups and decreased for both of the higher income groups. The top two groups' share of liability would have been 42.2% under the pre-SB 407 law but was actually 38.4%.

Table 6 repeats the information on number of households and old-law tax for each group and shows each group's tax reduction from SB 407. The third column from the right shows the total tax liability reduction for each group. The next column shows the percentage that reduction is of the group's old-law tax, and the right-hand column shows each group's share of the total reduction. For example, the middle income group had a total tax reduction of $8.3 million, which as 3.0% of their old-law tax liability and 11.4% of the total reduction for all taxpayers.

Table 6
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

	Households		Old Law Tax		Tax Reduction		
Income Range	Number	%	$	%	$	Average % Reduction	% of Total Reduction
$ 0 - $ 19,999	155,906	36.1%	$16,854,757	2.1%	-$3,901,433	-23.1%	5.4%
$ 20,000 - $ 64,999	177,534	41.1%	$170,569,898	21.1%	-$2,029,787	-1.2%	2.8%
$ 65,000 - $149,999	82,811	19.2%	$280,337,613	34.6%	-$8,299,927	-3.0%	11.4%
$150,000 - $499,999	13,795	3.2%	$172,870,717	21.4%	-$19,316,493	-11.2%	26.6%
$500,000 +	1,829	0.4%	$168,670,538	20.8%	-$39,111,332	-23.2%	53.8%
Totals	431,875		$809,303,523		-$72,658,972	-9.0%	

The highest and lowest income groups had the largest percentage reductions, with both being over 23%. The groups with income between $20,000 and $150,000 had much smaller percentage reductions.

Each group's share of the total tax reduction reflects the combination of its share of old-law tax liability and its percentage reduction. The highest income group had about one-fifth of tax liability under old law, but because it had the highest percentage tax reduction, it received over half of the total reduction. The groups with income between $20,000 and $150,000 had over half of old-law tax liability, but because their percentage reductions were so small, they received about one-seventh of the total reduction.

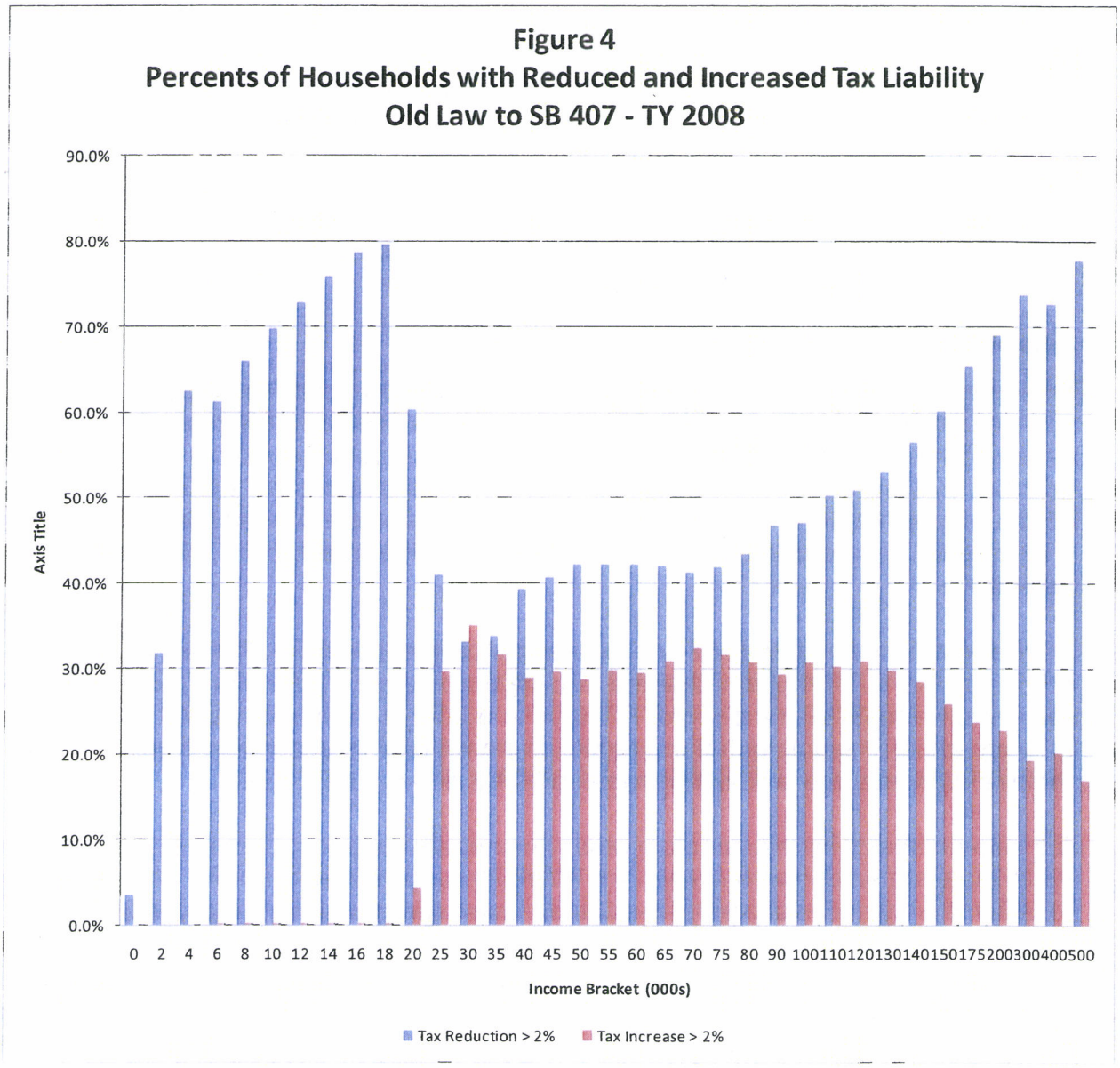
Winners and Losers

Taxpayers with similar incomes were not necessarily affected the same by SB 407. Table 7 shows, for each of the 35 income groups, the number and percent of households with a tax reduction of more than 2%, with a tax increase of more than 2%, and with a change of less than 2%.

Table 7
Taxpayers with Higher and Lower Taxes from SB 407

Income Brackets		Tax Reduction > 2%		Tax Increase > 2%		Change < 2%	
Income Range	Number of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket
$ 0 - $ 1,999	14,398	515	3.6%	0	0.0%	13,883	96.4%
$ 2,000 - $ 3,999	16,895	5,371	31.8%	0	0.0%	11,524	68.2%
$ 4,000 - $ 5,999	17,661	11,027	62.4%	0	0.0%	6,634	37.6%
$ 6,000 - $ 7,999	16,794	10,298	61.3%	1	0.0%	6,495	38.7%
$ 8,000 - $ 9,999	16,059	10,604	66.0%	10	0.1%	5,445	33.9%
$ 10,000 - $ 11,999	15,554	10,861	69.8%	10	0.1%	4,683	30.1%
$ 12,000 - $ 13,999	15,273	11,127	72.9%	9	0.1%	4,137	27.1%
$ 14,000 - $ 15,999	14,706	11,171	76.0%	23	0.2%	3,512	23.9%
$ 16,000 - $ 17,999	14,483	11,383	78.6%	29	0.2%	3,071	21.2%
$ 18,000 - $ 19,999	14,083	11,202	79.5%	33	0.2%	2,848	20.2%
$ 20,000 - $ 24,999	32,019	19,303	60.3%	1,403	4.4%	11,313	35.3%
$ 25,000 - $ 29,999	27,247	11,146	40.9%	8,082	29.7%	8,019	29.4%
$ 30,000 - $ 34,999	23,197	7,697	33.2%	8,118	35.0%	7,382	31.8%
$ 35,000 - $ 39,999	20,269	6,850	33.8%	6,428	31.7%	6,991	34.5%
$ 40,000 - $ 44,999	17,862	7,003	39.2%	5,148	28.8%	5,711	32.0%
$ 45,000 - $ 49,999	16,143	6,562	40.6%	4,792	29.7%	4,789	29.7%
$ 50,000 - $ 54,999	14,721	6,212	42.2%	4,237	28.8%	4,272	29.0%
$ 55,000 - $ 59,999	13,736	5,800	42.2%	4,098	29.8%	3,838	27.9%
$ 60,000 - $ 64,999	12,340	5,205	42.2%	3,650	29.6%	3,485	28.2%
$ 65,000 - $ 69,999	11,314	4,758	42.1%	3,498	30.9%	3,058	27.0%
$ 70,000 - $ 74,999	10,303	4,258	41.3%	3,342	32.4%	2,703	26.2%
$ 75,000 - $ 79,999	9,177	3,840	41.8%	2,901	31.6%	2,436	26.5%
$ 80,000 - $ 89,999	15,578	6,767	43.4%	4,793	30.8%	4,018	25.8%
$ 90,000 - $ 99,999	11,488	5,379	46.8%	3,371	29.3%	2,738	23.8%
$100,000 - $109,999	8,651	4,072	47.1%	2,658	30.7%	1,921	22.2%
$110,000 - $119,999	6,170	3,101	50.3%	1,871	30.3%	1,198	19.4%
$120,000 - $129,999	4,510	2,293	50.8%	1,396	31.0%	821	18.2%
$130,000 - $139,999	3,210	1,701	53.0%	955	29.8%	554	17.3%
$140,000 - $149,999	2,410	1,363	56.6%	684	28.4%	363	15.1%
$150,000 - $174,999	4,207	2,530	60.1%	1,088	25.9%	589	14.0%
$175,000 - $199,999	2,555	1,669	65.3%	605	23.7%	281	11.0%
$200,000 - $299,999	4,531	3,125	69.0%	1,032	22.8%	374	8.3%
$300,000 - $399,999	1,659	1,224	73.8%	320	19.3%	115	6.9%
$400,000 - $499,999	843	613	72.7%	170	20.2%	60	7.1%
$500,000 +	1,829	1,422	77.7%	310	16.9%	97	5.3%
Totals	431,875	217,452	50.4%	75,065	17.4%	139,358	32.3%

Figure 4 shows the percent of households in each group with a decrease of more than 2% and the percent with an increase of more than 2%.



In the lowest two income groups, the majority of households had less than a 2% change from SB 407. In the groups with income between $4,000 and $25,000, over 60% of households had a tax reduction of at least 2%. In all be the highest of these groups, less than 1% of households had a tax increase of at least 2%, while in the highest of these groups about 4% had a 2% increase.

The groups with income between $25,000 and $150,000 all had about 30% of households with at least a 2% tax increase. Above $150,000 of income, the percent of

households with a 2% increase steadily drops, to about 17% for the highest income group.

The percent of households with at least a 2% tax reduction is lowest, about 33%, for households with income between $30,000 and $40,000. For households with income between $40,000 and about $80,000, the percentage hovers around 40%. Above $80,000 of income, the percent with at least a 2% tax reduction rises steadily with income, to about 78% for the highest income group.

The percent of taxpayers with less than a 2% change generally decreases with income, from 96.4% for the lowest income group to 5.3% for the highest.

Net Revenue Impact

SB 407 was passed in the spring of 2003. It immediately imposed new taxes on lodging and rental cars and increased the taxes on cigarettes and other tobacco products. It did not change the income tax until 2005. The fiscal note prepared during the 2003 session indicates that SB 407 was expected to increase state revenue in FY 2003 through FY 2005, be approximately revenue neutral in FY 2006, and then to reduce state revenue in later years. The reduction was expected to be $17.0 million in FY 2008 and to grow over time.

The fiscal note estimated that income tax revenue would be $38.9 million lower in FY 2006 because of SB 407 and that the reduction would grow over time. Actual income tax revenue was $768.9 million for FY 2006 and $815.1 million for FY 2009. This is a 6.0% increase. Assuming that the reduction from SB 407 would have grown at the same rate as revenue, it would have been $41.2 million for FY 2009.

The income tax revenue estimating model was used to estimate revenue under the pre-SB 407 law and under current law for FY 2006 through FY 2013. For FY 2006 through FY 2008, the model was used to recalculate taxes for returns from tax years 2005 through 2008 as if SB 407 had not been in effect. For FY 2009 through FY 2013, the model was used to forecast future tax liability, with and without SB 407, using the growth assumptions in the 2009 legislative revenue estimate. Figure 5 shows full-year residents' tax liability for tax years 2005 through 2013, with and without SB 407. Table 8 shows the estimated difference in revenue due to SB 407 in each of those years.

Figure 5
Full Year Resident Income Tax Liabilty
With and Without SB 407

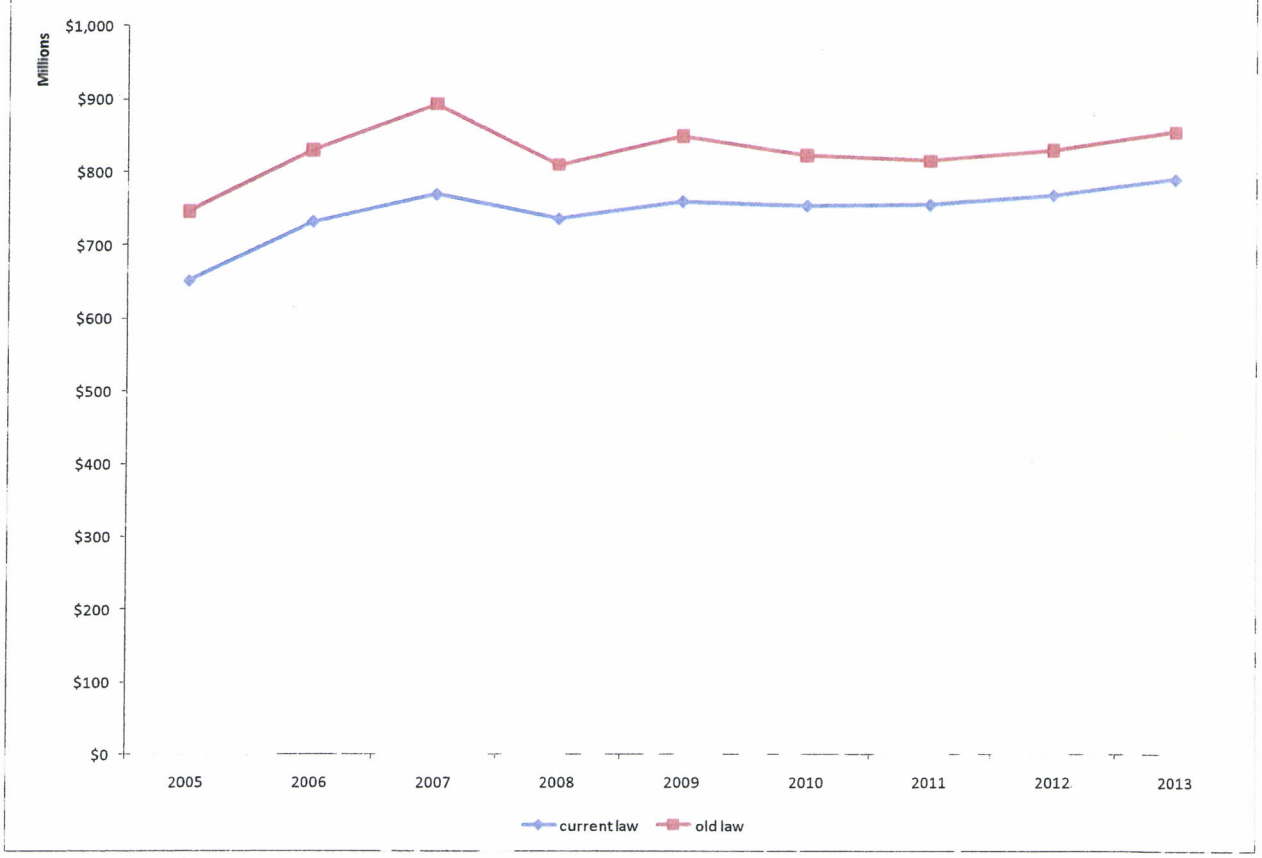


Table 8
Estimated Income Tax Revenue Reductions from SB 407
FY 2009 to FY 2013

Fiscal Year	$ million
FY 2006	-$101.539
FY 2007	-$116.920
FY 2008	-$104.210
FY 2009	-$86.310
FY 2010	-$84.376
FY 2011	-$69.364
FY 2012	-$66.790
FY 2013	-$70.981

For FY 2006, the income tax revenue reduction is 2.6 times as large as estimated in the fiscal note. The estimated reduction increases in FY 2007, decreases each year from FY 2008 through FY 2012, and then increases again in FY 2013.

Table 9 compares the estimated income tax reduction for FY 2009 to actual revenue from the new taxes and tax increases in SB 407.

Table 9
FY 2009 Revenue Impact of SB 407
($ million)

Income Tax	-$86.3
Accomodations Sales Tax	$12.5
Rental Car Sales Tax	$2.9
Cigarette Tax ($0.52 of $1.70)	$24.4
Tobacco Tax (12.5% of 50%)	$2.6
Net Impact	-$43.9

The net revenue loss for FY 2009 is more than two-and-half times the FY 2007 net revenue loss estimated in the fiscal note. This difference is primarily from actual revenue being different from the 2003 predictions, rather than from growth between FY 2007 and FY 2009. Revenue from the accommodations sales tax and the tobacco tax increase are significantly higher than the FY 2005 estimates from the fiscal note. Revenue from the rental car sales tax is slightly higher, and revenue from the cigarette tax is lower. Overall, revenue from the new revenue sources in SB 407 is slightly higher than projected, but the loss in income tax revenue is much higher than projected.

A number of factors contributed to the fact that revenue reductions are larger than was predicted in 2003[1]. In 2005, Montana adjusted gross income was 16% higher than forecast. A larger tax base led to larger revenue reductions from rate cuts. In 2005, capital gains income was approximately twice what had been predicted in 2003. This made the revenue reduction from the capital gains credit much larger than predicted. Income growth from 2003 to 2005 went disproportionately to high-income taxpayers, who received larger-than-average percentage tax reductions from SB 407.

Between 2003 and 2005, Congress enacted several changes that reduced federal income taxes in 2005, particularly for higher income taxpayers. Under the old law, this would have resulted in a windfall for the state, as taxpayers with smaller deductions for federal taxes paid higher state taxes. With SB407, these federal tax changes did not affect state taxes for higher-income taxpayers whose deductions for federal taxes are capped. This made the state windfall from reduced federal taxes smaller than it would have been under old law.

One of the reasons that the revenue impact of SB 407 was smaller for 2008 than for 2005 was the fact that there was a jump in federal taxes paid in 2008. This appears to have been primarily from taxpayers who had under-paid during 2007 making payments

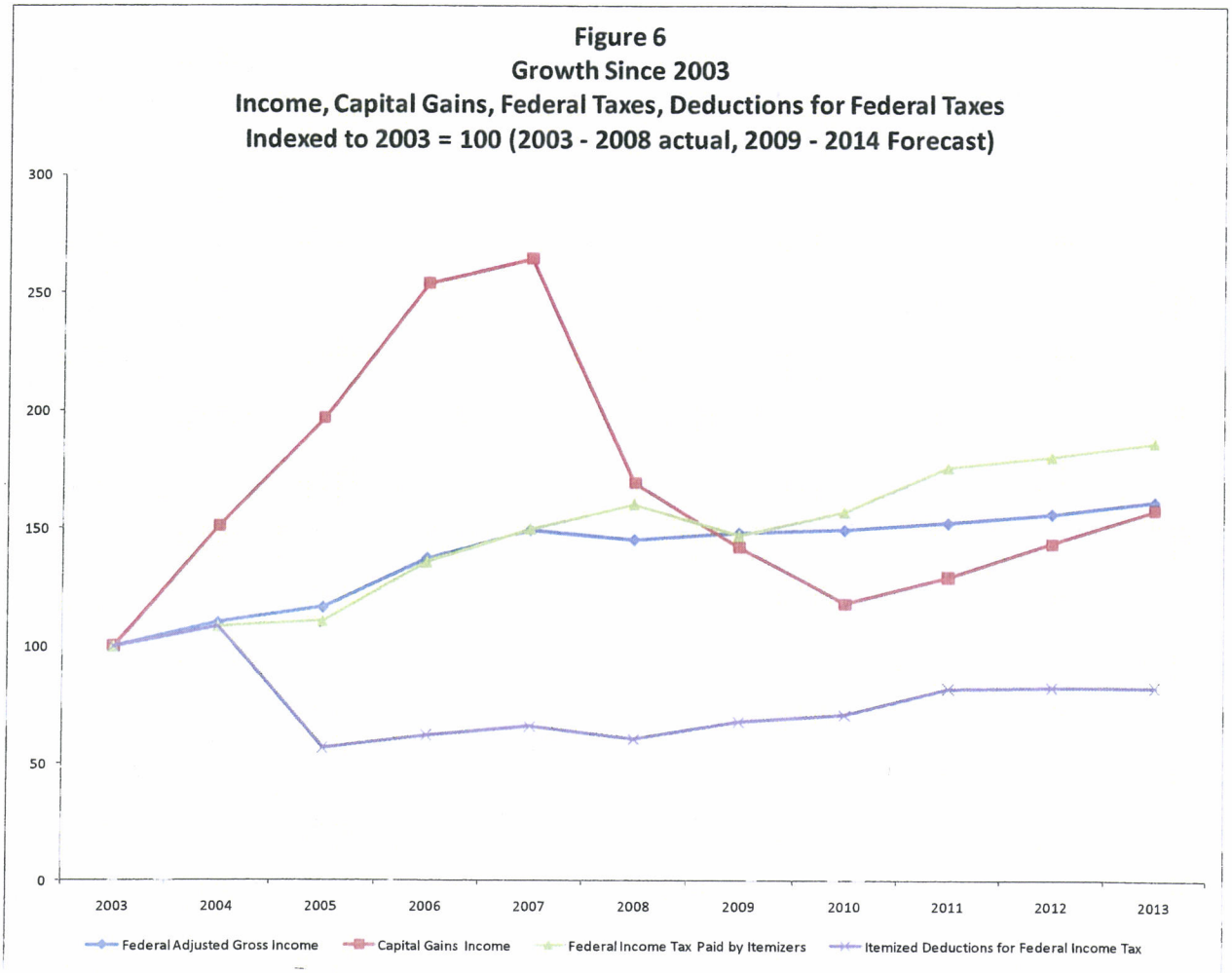
[1] For a full analysis, see "Explaining the Difference Between the Forecast and Actual Impacts of Senate Bill 407," Montana Department of Revenue, January 2007.

with their 2007 returns in the spring of 2008 and increasing their estimated payments for 2008. Another reason for the smaller impact in 2008 is that capital gains income was lower in 2008 than in 2005, and therefore the impact of the capital gains credit increasing from 1% to 2% was lower than it would have been.

Figure 6 shows actual and projected growth since 2003 in some of the more important factors affecting the fiscal impact of SB 407. It shows federal adjusted gross income, capital gains income, federal income tax paid by Montana taxpayers who itemized deductions, and itemized deductions for federal taxes, all as indexes with their 2003 values as the base. Thus, the index value for each series tells the ratio of the value in a later year to the value in 2003. For example, the index value for federal taxes in 2008 is 150, which means that federal taxes in 2008 were 150% of what they had been in 2003.

Income grew steadily and rapidly between 2003 and 2007, but growth is predicted to be much slower through 2013. The capital gains component of income grew dramatically from 2003 through 2007, but then dropped in 2008. It is forecast to drop again in 2009 and 2010 and then to grow more slowly through 2013.

Federal taxes are not growing in lock-step with income. The slower growth in 2005 reflects changes in federal law between 2003 and 2005 which included temporary tax reductions and acceleration of several tax reductions that had been passed in 2001 but were not scheduled to go into effect until later years. The divergence in 2008 reflects the extra payments made that year by high-income taxpayers who had underpaid in 2007. The gap between the indices for federal taxes and income beginning in 2011 is due to higher taxes when temporary tax reductions passed in 2001 through 2003 expire.



Total deductions for federal taxes do not follow federal taxes very closely. The large drop in 2005 is from the first year of the cap on the deduction. In 2008, when federal taxes increased, deductions for federal taxes actually fell, because the additional federal tax payments made in 2008 were mostly made by taxpayers whose deductions for federal taxes were capped. Deductions for federal taxes are forecast to increase much less than federal taxes in 2011 because much of the expected increase in federal taxes will go to taxpayers whose deduction is capped.

The cap on the deduction for federal taxes appears to have somewhat insulated state revenue from changes in federal taxes. The state missed out on a revenue windfall from federal tax reductions in 2005 but will also miss a large revenue hit from federal tax increases in 2011.

The falling income tax revenue reduction appears to be due largely to falling capital gains income in 2008 through 2010, high federal income tax payments in 2008, and federal income tax increases in 2011.

The Revenue and Taxpayer Impacts of the Income Tax Provisions of SB 407

Tax Policy and Research
Montana Department of Revenue
December 2006

Executive Summary

Senate Bill 407, enacted in the 2003 legislative session, made significant revisions to Montana's individual income tax system. The changes became effective in the 2005 tax year. Our study of actual 2005 tax returns reveals the following conclusions.

- The total amount of tax reduction granted by this legislation was almost four times greater than estimated at the time of enactment: $100.3 million vs. the 2003 prediction of $26 million.

- Higher income taxpayers received more tax reduction than predicted, and lower income taxpayers received less. Households earning $500,000 or more annually received 47.7% of the tax reduction as compared to the 22.9% share predicted in 2003. These are the details:

  Annual incomes less than $65,000: This income range includes 81% of Montana households (320,942 households). These households received 7.2% of the reduction: $7.2 million or approximately $23 dollars for each household. The tax reduction for these households is about 12% less than the $8.2 million predicted in 2003.

  Annual incomes between $65,000 and $150,000: This income range includes 15.9% of Montana households (63,015 households). These households received 16.9% of the reduction: $17.0 million or $269 for each household. The tax reduction for these households is approximately 194% greater than the $5.8 million predicted in 2003.

  Annual incomes between $150,000 and $500,000: This income range includes 2.6% of Montana households (10,460 households). These households received 28.2% of the reduction: $28.3 million or $2,705 per household. The tax reduction for these households is approximately 365% greater than the $6.1 million predicted in 2003.

  Annual incomes of $500,000 and up: This income range includes 0.4% of Montana households (1,567 households). These households received 47.6% of the tax reduction: $47.8 million or $30,499 per household. The tax reduction for these households is 701% greater than the $6 million predicted in 2003.

- The majority of households—65% or about two-thirds—experienced only a small change (less than $50) in their tax. The other third either received a tax cut of $50 or more (29% of households) or paid at least $50 more (6% of households).
  - Who received the tax cuts of $50 or more? Only at income levels of $70,000 or more did a majority of households see a tax reduction of at least $50, with the percentage rising steadily to 94% for households with incomes of at least $500,000.
  - Who paid at least $50 more in taxes? The percentage of households paying at least $50 more is highest (20%) for households with incomes between $60,000 and $75,000.

- To put these numbers in context, the average tax relief for the 1586 households earning $500,000 or more, $30,499, is greater than the $29,150 average annual pay of Montana jobs covered by workers compensation, as reported by the Bureau of Labor Statistics.

Introduction

The 2003 legislature passed SB407, which made significant changes to Montana's income tax, with the expectation that the changes would reduce income tax revenue. To replace the lost income tax revenue, SB407 imposed a limited sales tax on accommodations and rental cars and increased the excise taxes on cigarettes and tobacco products. The overall bill was intended to increase revenue from the time the sales and excise tax increases went into effect in 2003 until the income tax provisions went into effect in 2005. It was intended to be revenue neutral for the first full-year of the income tax changes and then result in net revenue reductions in later years.

SB407 made three significant changes to Montana's income tax:

- It restructured the rate table, reducing the number of rate brackets from ten to six, reducing the bottom rate from 2% to 1%, reducing the top rate from 11% to 6.9%, and reducing the income at which the top rate is effective from $82,400 to $13,900.
- It reduced the effective rates on capital gains income by giving a nonrefundable tax credit equal to 1% of capital gains income in 2006 and 2007, and 2% of capital gains income beginning in 2008.
- It capped the itemized deduction for federal income taxes at $5,000 for single taxpayers and married couples filing separately, and $10,000 for married couples filing joint returns. (Previously, federal income taxes paid during the tax year could be deducted in full.)

During the 2003 session, the department estimated the revenue impacts of these changes. The estimates were made using the database of 2001 full-year resident income tax returns. Future years' tax liabilities were calculated from these returns using the rate tables and other provisions that would have been in place under the old law and using the rate tables and other provisions in SB407. The differences in individual tax liabilities were used to estimate the total impact of SB407 and the distribution of those impacts among income groups.

The total tax reduction was estimated to be $26.0 million in 2005, with lower and higher income taxpayers receiving higher percentage reductions and middle income taxpayers seeing smaller percentage reductions.

The actual impact in 2005 was estimated using the database of 2005 full-year resident income tax returns. For each return, tax liability for that return using the rate tables and other provisions that would have been in place without SB407 was calculated and compared to the actual 2005 tax liability.

The total 2005 tax reduction was $100.3 million. The percentage reductions going to lower and higher income taxpayers were larger than expected in 2003, and the percentage reductions going to middle income taxpayers were smaller.

Tax Reduction Due to SB407

Table 1 shows the actual tax liability reported on full-year resident's income tax returns for 2005, the calculated tax liability for those returns under the pre-SB407 law, and the difference, for thirty-five income brackets and in total. The left half of the table shows the range of household incomes included in each bracket, the number of households in that bracket, and the total of their household income. The right half of the table shows the total of calculated pre-SB407 law tax liability for households in the bracket, their actual 2005 tax, and the difference.

Table 1
Impact of SB407 on Full-Year Resident's 2005 Income Tax

Income Brackets			Tax Liability of Households in Bracket		
Income Range	Number of Households in Bracket	Total Income of Households in Bracket	Old Law (Calculated)	SB407 (Actual)	Difference Due to SB 407
$ 0 - $ 1,999	13,549	$14,568,046	$37,361	$31,623	($5,738)
$ 2,000 - $ 3,999	17,822	53,586,607	35,443	21,751	(13,692)
$ 4,000 - $ 5,999	18,096	90,325,046	364,236	188,262	(175,974)
$ 6,000 - $ 7,999	17,239	120,605,549	821,058	470,191	(350,867)
$ 8,000 - $ 9,999	16,723	150,374,690	1,268,971	822,082	(446,889)
$ 10,000 - $ 11,999	16,095	176,940,455	1,777,699	1,236,833	(540,866)
$ 12,000 - $ 13,999	15,301	198,715,462	2,327,366	1,765,832	(561,534)
$ 14,000 - $ 15,999	14,825	222,406,117	2,931,906	2,388,450	(543,456)
$ 16,000 - $ 17,999	14,645	248,725,138	3,630,271	3,115,719	(514,552)
$ 18,000 - $ 19,999	13,799	261,978,247	4,214,879	3,805,641	(409,238)
$ 20,000 - $ 24,999	29,860	669,444,654	12,572,997	12,050,667	(522,330)
$ 25,000 - $ 29,999	24,717	678,016,388	14,553,992	14,328,423	(225,569)
$ 30,000 - $ 34,999	21,401	694,260,349	16,829,559	16,616,875	(212,684)
$ 35,000 - $ 39,999	18,447	690,729,036	18,104,498	17,807,491	(297,007)
$ 40,000 - $ 44,999	16,572	703,225,278	19,712,780	19,407,519	(305,261)
$ 45,000 - $ 49,999	14,713	698,583,047	20,693,530	20,346,593	(346,937)
$ 50,000 - $ 54,999	13,603	713,485,337	22,107,997	21,636,111	(471,886)
$ 55,000 - $ 59,999	12,312	707,604,871	22,715,489	22,141,875	(573,614)
$ 60,000 - $ 64,999	11,223	700,927,264	23,658,488	22,927,933	(730,555)
$ 65,000 - $ 69,999	9,832	662,889,471	23,159,662	22,274,271	(885,391)
$ 70,000 - $ 74,999	8,699	630,067,312	23,152,561	22,120,389	(1,032,172)
$ 75,000 - $ 79,999	7,549	584,511,701	22,197,411	20,998,845	(1,198,566)
$ 80,000 - $ 89,999	11,930	1,010,880,934	40,332,978	37,952,826	(2,380,152)
$ 90,000 - $ 99,999	8,388	794,471,339	33,571,802	31,218,435	(2,353,367)
$100,000 - $109,999	5,670	593,702,631	26,398,755	24,266,498	(2,132,257)
$110,000 - $119,999	4,092	469,651,011	21,698,819	19,748,858	(1,949,961)
$120,000 - $129,999	2,965	369,807,546	17,742,147	15,935,231	(1,806,916)
$130,000 - $139,999	2,210	297,572,548	14,866,524	13,187,310	(1,679,214)
$140,000 - $149,999	1,680	243,326,207	12,678,500	11,129,603	(1,548,897)
$150,000 - $174,999	2,957	477,414,023	26,035,950	22,444,951	(3,590,999)
$175,000 - $199,999	1,856	346,355,745	19,975,360	16,718,142	(3,257,218)
$200,000 - $299,999	3,585	863,144,801	54,094,354	44,084,486	(10,009,868)
$300,000 - $399,999	1,353	464,080,389	31,964,872	25,258,619	(6,706,253)
$400,000 - $499,999	709	316,123,141	22,612,623	17,883,401	(4,729,222)
$500,000+	1,567	2,123,623,903	173,936,488	126,143,942	(47,792,546)
TOTALS	**396,610**	**$18,287,752,624**	**$752,788,380**	**$652,485,816**	**($100,302,564)**

Table 2 shows the percentage reductions in total tax liability for each income bracket as they were estimated in 2003 and as they were calculated from the 2005 tax returns.

Table 2
Percentage Reductions in 2005 Income Tax
2003 Session Estimates and Actual

	2003 Estimate		2005 Actual	
Income Bracket	**Difference**	**% Difference**	**Difference**	**% Difference**
$ 0 - $ 1,999	($7,739)	-40.2%	($5,738)	-15.4%
$ 2,000 - $ 3,999	(33,554)	-46.7%	(13,692)	-38.6%
$ 4,000 - $ 5,999	(262,205)	-47.9%	(175,974)	-48.3%
$ 6,000 - $ 7,999	(428,932)	-38.7%	(350,867)	-42.7%
$ 8,000 - $ 9,999	(521,943)	-32.7%	(446,889)	-35.2%
$ 10,000 - $ 11,999	(567,993)	-26.3%	(540,866)	-30.4%
$ 12,000 - $ 13,999	(581,633)	-19.7%	(561,534)	-24.1%
$ 14,000 - $ 15,999	(543,934)	-14.7%	(543,456)	-18.5%
$ 16,000 - $ 17,999	(431,887)	-9.6%	(514,552)	-14.2%
$ 18,000 - $ 19,999	(303,542)	-6.0%	(409,238)	-9.7%
$ 20,000 - $ 24,999	(348,382)	-2.4%	(522,330)	-4.2%
$ 25,000 - $ 29,999	(197,630)	-1.2%	(225,569)	-1.5%
$ 30,000 - $ 34,999	(319,622)	-1.7%	(212,684)	-1.3%
$ 35,000 - $ 39,999	(511,654)	-2.4%	(297,007)	-1.6%
$ 40,000 - $ 44,999	(573,135)	-2.6%	(305,261)	-1.5%
$ 45,000 - $ 49,999	(571,352)	-2.4%	(346,937)	-1.7%
$ 50,000 - $ 54,999	(606,941)	-2.5%	(471,886)	-2.1%
$ 55,000 - $ 59,999	(660,624)	-2.7%	(573,614)	-2.5%
$ 60,000 - $ 64,999	(737,230)	-3.0%	(730,555)	-3.1%
$ 65,000 - $ 69,999	(690,398)	-3.1%	(885,391)	-3.8%
$ 70,000 - $ 74,999	(619,209)	-3.0%	(1,032,172)	-4.5%
$ 75,000 - $ 79,999	(656,528)	-3.4%	(1,198,566)	-5.4%
$ 80,000 - $ 89,999	(1,048,222)	-3.4%	(2,380,152)	-5.9%
$ 90,000 - $ 99,999	(706,813)	-3.0%	(2,353,367)	-7.0%
$100,000 - $109,999	(505,442)	-2.9%	(2,132,257)	-8.1%
$110,000 - $119,999	(384,190)	-2.8%	(1,949,961)	-9.0%
$120,000 - $129,999	(406,914)	-3.7%	(1,806,916)	-10.2%
$130,000 - $139,999	(408,798)	-4.1%	(1,679,214)	-11.3%
$140,000 - $149,999	(352,659)	-4.5%	(1,548,897)	-12.2%
$150,000 - $174,999	(932,199)	-5.3%	(3,590,999)	-13.8%
$175,000 - $199,999	(831,445)	-5.9%	(3,257,218)	-16.3%
$200,000 - $299,999	(2,001,276)	-6.0%	(10,009,868)	-18.5%
$300,000 - $399,999	(1,447,824)	-7.4%	(6,706,253)	-21.0%
$400,000 - $499,999	(871,726)	-7.2%	(4,729,222)	-20.9%
$500,000+	(5,973,560)	-9.7%	(47,792,546)	-27.5%
TOTALS	**($26,047,135)**	**-4.8%**	**($100,302,564)**	**-13.3%**

Overall, the tax reduction was much larger than predicted in 2003. SB407 was predicted to reduce full-year resident's 2005 taxes by 4.8% or $26.0 million. Analysis of 2005 tax returns shows that the actual reduction was 13.3% or $100.3 million. The impact by income bracket also is different than predicted in 2003. In general, the percentage reduction is larger than predicted for households with incomes less than $30,000. It is smaller than predicted for households with incomes between $30,000 and $65,000. For households with incomes over $65,000, the percentage reduction is larger than predicted, and for households with incomes over $90,000 it ranges from twice to over three times larger than predicted.

Figure 1 shows the predicted and actual percentage reductions listed in Table 2.

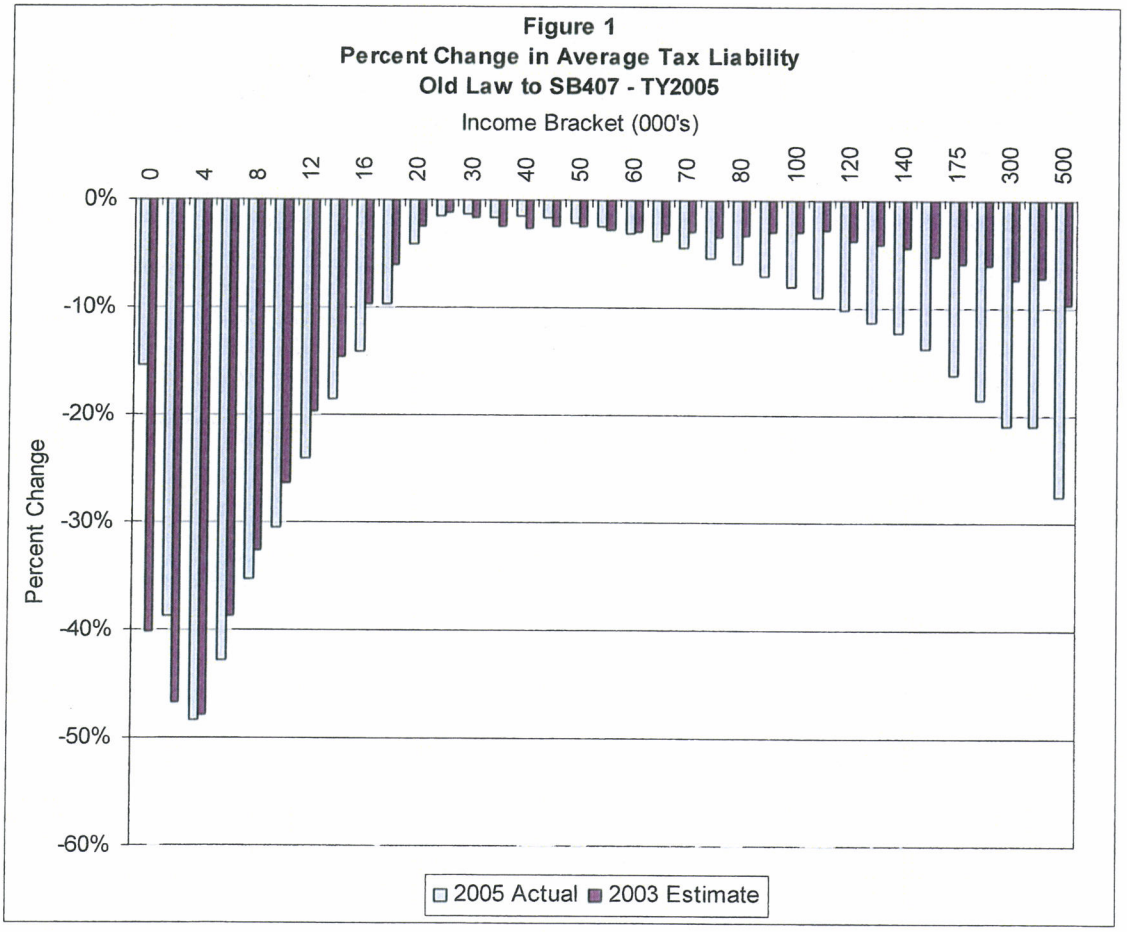
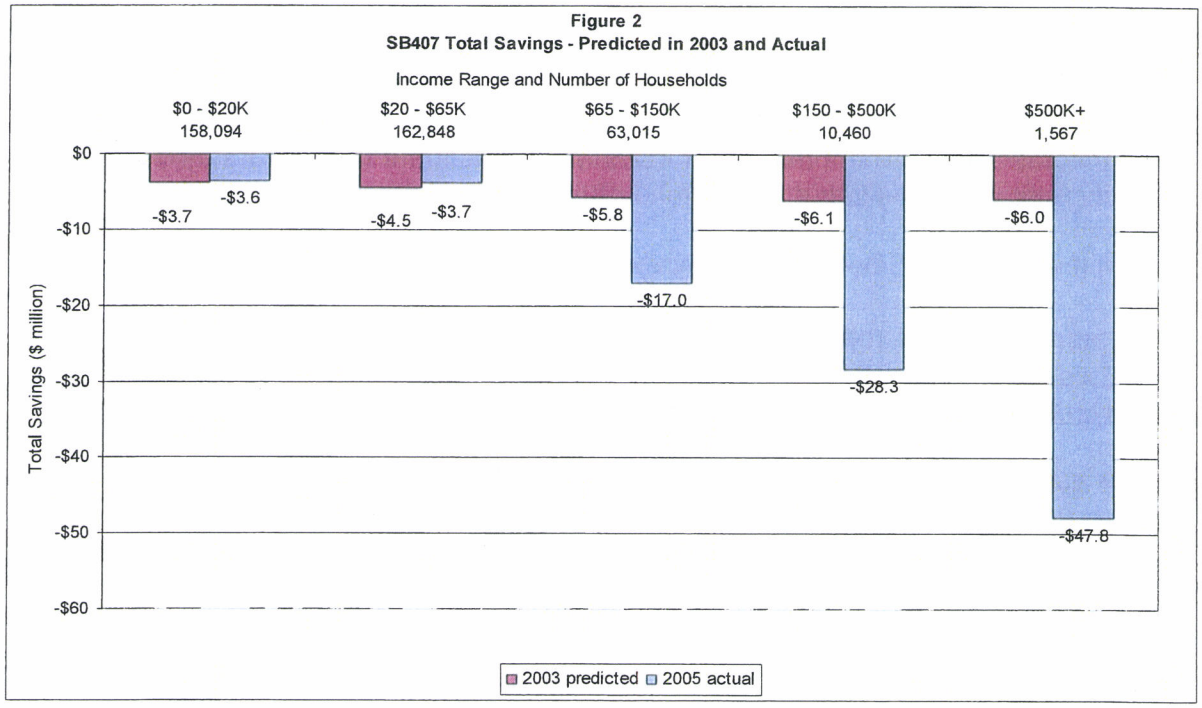


Table 3, on the next page, combines the income brackets in Tables 1 and 2 into five broad income groups and shows how the tax reduction was distributed among them. The two lowest groups combine the low and middle income brackets that received larger than expected reductions. The third group combines the middle income brackets that received smaller than expected reductions. The fourth and fifth groups combine the high income brackets that received larger than expected reductions.

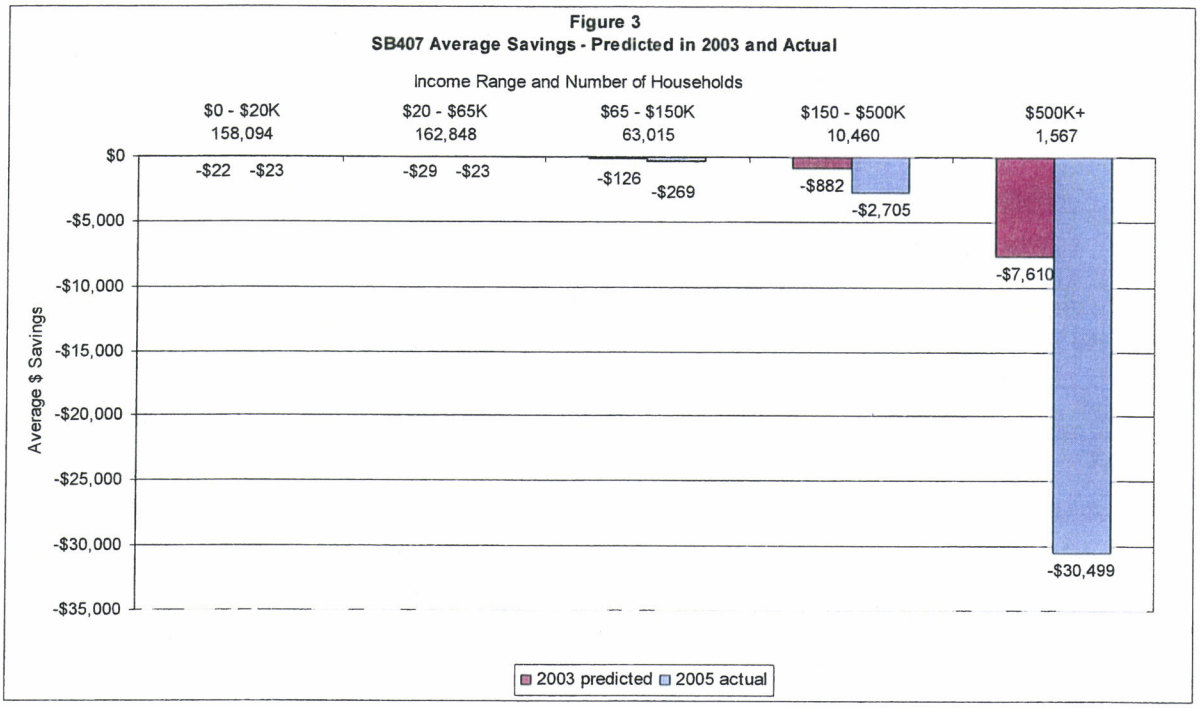
Table 3 2005 Income Tax Reductions from SB 407				
Income Bracket				
Income Range	Number of Households in Bracket	Percent of Households	Tax Reduction	Percent of Tax Reduction
$0 - $20,000	158,094	39.9%	($3,562,807)	3.6%
$20,000 - $65,000	162,848	41.1%	($3,685,842)	3.7%
$65,000 - $150,000	63,015	15.9%	(16,966,894)	16.9%
$150,000 - $500,000	10,460	2.6%	(28,293,560)	28.2%
$500,000 +	1,567	0.4%	(47,792,546)	47.6%
Total	**395,984**	**100.0%**	**($100,301,650)**	**100.0%**

Almost half of the tax cut went to the 0.4% of households with income over $500,000.

Figures 2 and 3 compare the 2003 predictions with the actual reductions for these five income groups.



In 2003, each of the three higher income groups was predicted to receive tax reductions totaling about $6 million. The actual reductions for these groups were much larger, and the difference is larger in each succeeding higher income group. Both of the lower income groups received smaller reductions than predicted in 2003.



Figures 4 and 5, on the next page, show the difference between the forecasted and actual impact of SB407 across income groups as a plot of average effective tax rates for each income bracket. The average effective tax rate is the total tax paid by households in an income bracket divided by the total of their household incomes.

Figure 4 and Figure 5 both show average effective tax rates under:

- the pre-SB407 (old) law using tax year 2005 return information,
- as predicted for SB407 in 2003, and
- actual SB407 from 2005 tax returns.

Figure 4, which shows all tax brackets, shows what happened to high-income taxpayers well. But 95% of taxpayers are in the area to the left of $110,000 of household income. To better show what happened to these taxpayers, Figure 5 shows only the brackets with incomes less than $110,000.

Figure 4
Average Effective Tax Rates - Predicted in 2003 and Actual
All Taxpayers

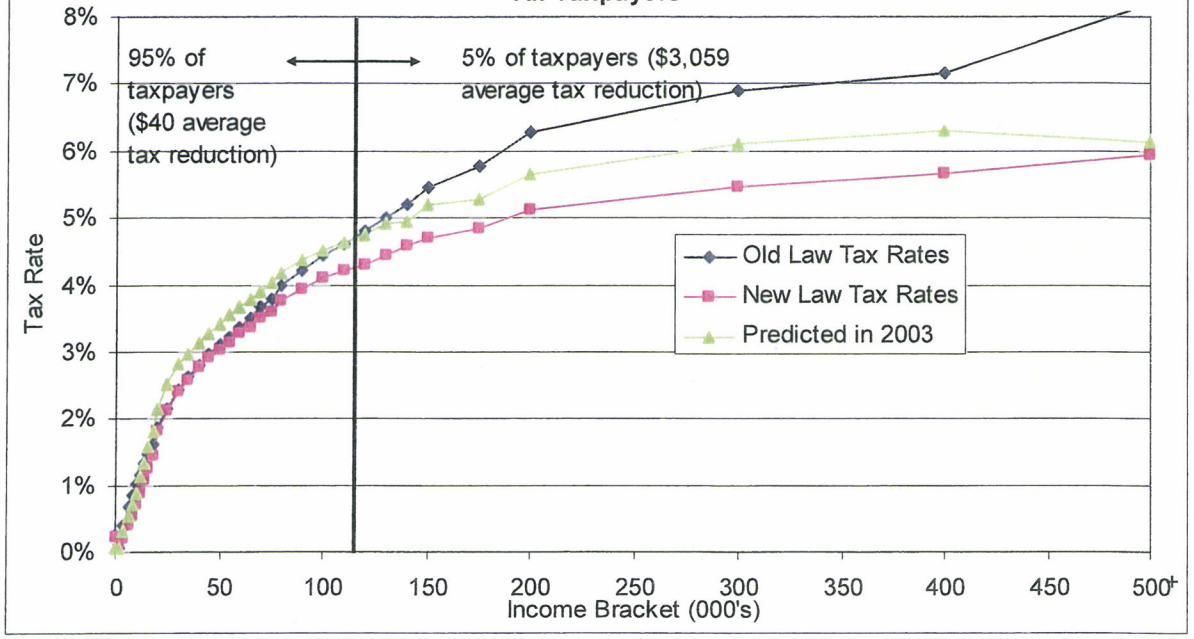
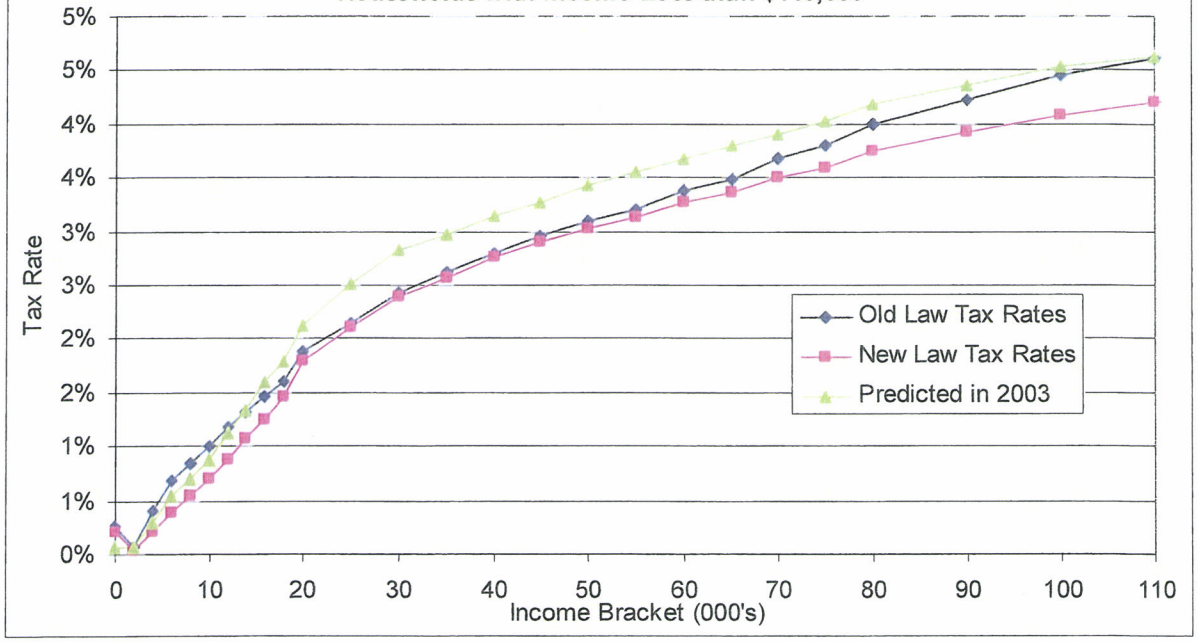


Figure 5
Average Effective Tax Rates - Predicted in 2003 and Actual
Households with Income Less than $110,000



Winners and Losers

Not all taxpayers received a tax cut because of SB407. The rate table changes reduced the marginal rate at most taxable income levels but increased it in some ranges. The capital gains tax credit reduced taxes for those taxpayers who have capital gains income, but only 17% of households reported positive capital gains for 2005. The cap on the itemized deduction for federal income taxes increases Montana income tax for those taxpayers who itemize deductions and paid federal income taxes that were more than the cap.

In most income brackets, some taxpayers pay less with SB407, some pay more, and some have essentially "no change" in their tax liability. (To be consistent with the original analysis done during the 2003 session, taxpayers with a change in liability of less than $50, either up or down, are considered to have "no change" in their tax.)

Table 4, on the next page, shows the number of taxpayers in each income bracket with a tax reduction of more than $50, with a tax increase of more than $50, and with a change of less than $50 either way.

Table 4
Winners and Losers from SB 407

Income Brackets		Tax Reduction > $50		Tax Increase > $50		Change < $50	
Income Range	Number of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket
$ 0 - $ 1,999	13,549	27	0.2%	1	0.0%	13,521	99.8%
$ 2,000 - $ 3,999	17,822	14	0.1%	1	0.0%	17,807	99.9%
$ 4,000 - $ 5,999	18,096	19	0.1%	2	0.0%	18,075	99.9%
$ 6,000 - $ 7,999	17,239	267	1.5%	1	0.0%	16,971	98.4%
$ 8,000 - $ 9,999	16,723	1,997	11.9%	2	0.0%	14,724	88.0%
$ 10,000 - $ 11,999	16,095	6,981	43.4%	0	0.0%	9,114	56.6%
$ 12,000 - $ 13,999	15,301	6,758	44.2%	3	0.0%	8,540	55.8%
$ 14,000 - $ 15,999	14,825	3,370	22.7%	5	0.0%	11,450	77.2%
$ 16,000 - $ 17,999	14,645	2,713	18.5%	10	0.1%	11,922	81.4%
$ 18,000 - $ 19,999	13,799	2,289	16.6%	7	0.1%	11,503	83.4%
$ 20,000 - $ 24,999	29,860	4,504	15.1%	61	0.2%	25,295	84.7%
$ 25,000 - $ 29,999	24,717	3,979	16.1%	146	0.6%	20,592	83.3%
$ 30,000 - $ 34,999	21,401	3,705	17.3%	383	1.8%	17,313	80.9%
$ 35,000 - $ 39,999	18,447	4,190	22.7%	783	4.2%	13,474	73.0%
$ 40,000 - $ 44,999	16,572	4,364	26.3%	1,410	8.5%	10,798	65.2%
$ 45,000 - $ 49,999	14,713	4,650	31.6%	1,770	12.0%	8,293	56.4%
$ 50,000 - $ 54,999	13,603	4,975	36.6%	2,041	15.0%	6,587	48.4%
$ 55,000 - $ 59,999	12,312	5,007	40.7%	2,361	19.2%	4,944	40.2%
$ 60,000 - $ 64,999	11,223	4,809	42.8%	2,395	21.3%	4,019	35.8%
$ 65,000 - $ 69,999	9,832	4,557	46.3%	1,973	20.1%	3,302	33.6%
$ 70,000 - $ 74,999	8,699	4,408	50.7%	1,694	19.5%	2,597	29.9%
$ 75,000 - $ 79,999	7,549	4,280	56.7%	1,293	17.1%	1,976	26.2%
$ 80,000 - $ 89,999	11,930	7,500	62.9%	2,166	18.2%	2,264	19.0%
$ 90,000 - $ 99,999	8,388	5,775	68.8%	1,541	18.4%	1,072	12.8%
$100,000 - $109,999	5,670	4,150	73.2%	990	17.5%	530	9.3%
$110,000 - $119,999	4,092	3,015	73.7%	752	18.4%	325	7.9%
$120,000 - $129,999	2,965	2,297	77.5%	471	15.9%	197	6.6%
$130,000 - $139,999	2,210	1,752	79.3%	320	14.5%	138	6.2%
$140,000 - $149,999	1,680	1,390	82.7%	229	13.6%	61	3.6%
$150,000 - $174,999	2,957	2,491	84.2%	389	13.2%	77	2.6%
$175,000 - $199,999	1,856	1,614	87.0%	206	11.1%	36	1.9%
$200,000 - $299,999	3,585	3,171	88.5%	363	10.1%	51	1.4%
$300,000 - $399,999	1,353	1,235	91.3%	105	7.8%	13	1.0%
$400,000 - $499,999	709	644	90.8%	61	8.6%	4	0.6%
$500,000+	1,567	1,468	93.7%	91	5.8%	8	0.5%
TOTALS	**395,984**	**114,365**	**28.9%**	**24,026**	**6.1%**	**257,593**	**65.1%**

Twenty-nine percent of households had a tax reduction of at least $50. In general, the percentage of households with tax liability at least $50 lower with SB407 is higher at higher incomes. It increases from essentially 0% in the lowest income brackets to 93.7% in the highest. The only exception to the steady increase in the percent of households with a reduction as income rises is between $10,000 and $20,000. Households in this income range benefited from the drop in the lowest tax rate from 2% to 1%.

Above $75,000 of income, a majority of taxpayers had a tax decrease. Below $75,000 of household income, a majority of taxpayers had no change or a tax increase.

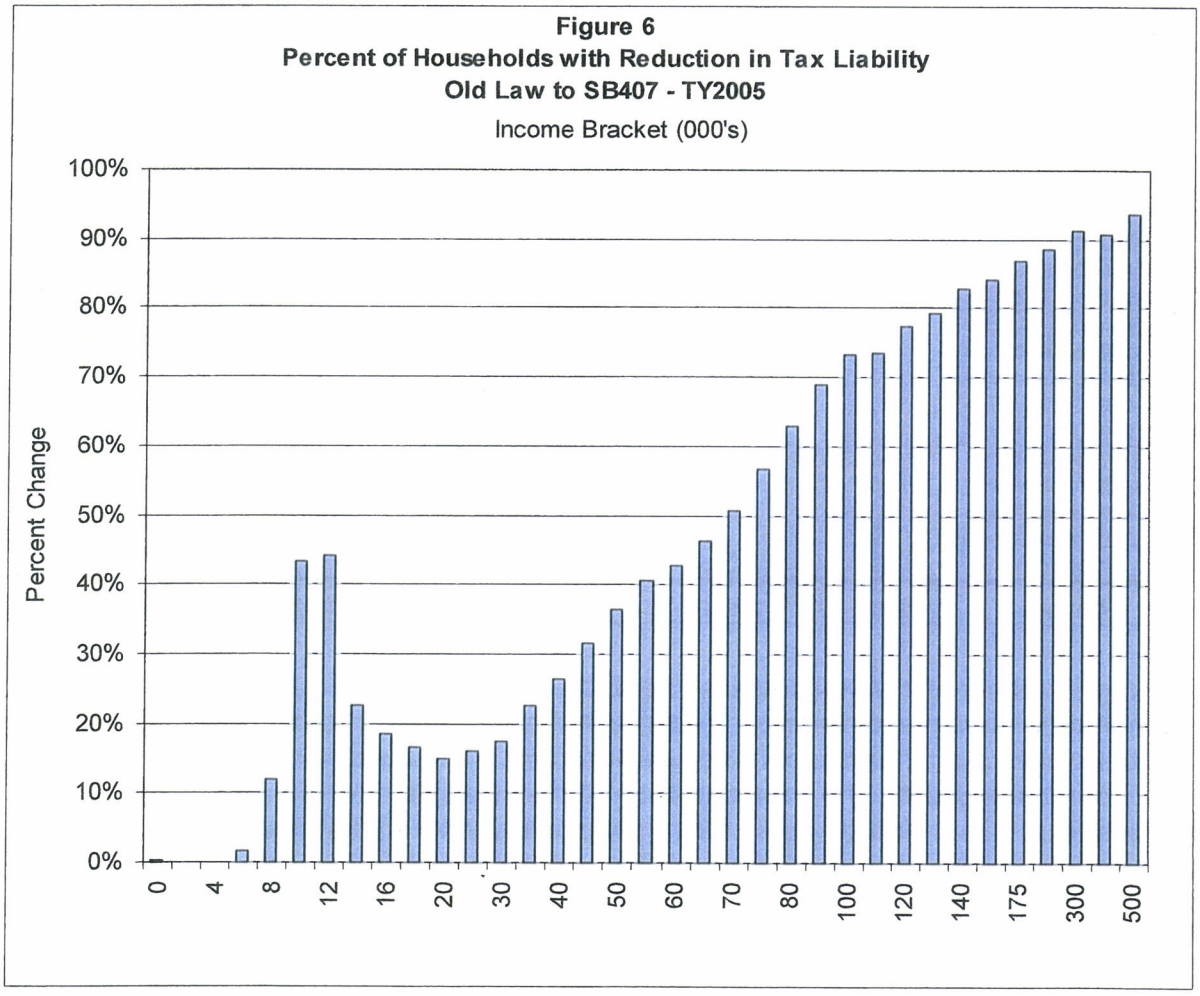
Six percent of households paid at least $50 more with SB407. The percentage paying at least $50 more is highest at 21.0% for the $60,000 to $65,000 income bracket. From this point, the percentage paying at least $50 more generally decreases as income either rises or falls, but averages 10% or more for households in all income brackets between $45,000 and $300,000.

Sixty-five percent of households saw a change in tax liability of less than $50. This percentage decreases from essentially 100% of households with the lowest incomes to less than 1% of households with the highest incomes.

These figures are very close to the original 2003 estimates which forecast that 27% of households would have a tax reduction of $50 or more; 6.4% of households would have a tax increase of $50 or more; and 67% of households would have "no change".

Figure 6 shows the percent of households in each income bracket with a tax reduction of at least $50.

Figure 6
Percent of Households with Reduction in Tax Liability
Old Law to SB407 - TY2005



Revenue Impacts of SB 407

Executive Summary

The 2003 legislature passed SB 407. This bill reduced income tax rates, capped the itemized deduction for federal taxes, and provided a credit equal to 2% of capital gains income. It also imposed new taxes on lodging and rental cars and increased taxes on cigarettes and tobacco products.

The fiscal note for SB 407 estimated that the net reduction in general fund revenue for FY 2008 would be about $17 million. The actual net revenue reduction for FY 2009 was $43.9 million.

Revenue from the new taxes and excise tax increases in SB 407 is about what was predicted in 2003. The reduction in income tax revenue is much larger than predicted, largely because

Income is higher than was predicted,
Capital gains income is higher than was predicted,
Income growth after 2003 went disproportionately to higher income taxpayers, who received the largest percentage tax cuts from SB 407, and
The cap on the deduction for federal income tax limited the revenue windfall the state received from federal tax cuts.

High and low income taxpayers received the highest percentage reductions in income tax liability. The average reduction was less than 2% for taxpayers with incomes between $30,000 and $80,000. It was more than 10% for taxpayers with incomes less than $20,000 or more than $200,000.

More than half the reduction in income taxes went to taxpayers with income over $500,000.

Introduction and Summary

The 2003 Legislature passed SB 407, which reduced income tax rates, capped the itemized deduction for federal taxes at $5,000 ($10,000 for a joint return), and provided a credit for a percentage of capital gains income (1% in 2005 and 2006 and 2% beginning in 2007). SB 407 also raised taxes on cigarettes and other tobacco products and imposed new taxes on lodging and rental cars.

In 2006, the Department of Revenue analyzed the impacts of SB 407. This paper updates and expands that analysis using information from 2008 income tax returns.

The first section explains the changes that SB 407 made to the individual income tax and other taxes.

The second section presents estimates of the reductions in 2008 income tax liability for full year resident taxpayers, both in total and by income group. For each group, it also shows the percentage change in tax liability and the change in average effective tax rate.

The third section presents estimates of the number and percentage of winners and losers in each income group, where winners and losers are defined in terms of having 2% lower or 2% higher income tax liability.

The final section looks at the net revenue impact of SB 407. It gives estimates of the reduction in income tax revenue and the revenue from the increases in lodging, rental car, cigarette, and tobacco taxes. It looks at reasons why the net revenue reduction has been larger than was predicted in 2003 and looks at how the impact of SB 407 may change in the next several years.

SB 407

SB 407 reduced income tax rates, imposed two new selective sales taxes, and increased taxes on cigarettes and other tobacco products. During the 2003 session, it was estimated that the net effect on state revenue would be close to zero in FY 2006 but that there would be increasing revenue losses in later fiscal years.

SB 407 reduced the number of income tax rates, lowered the top and bottom rates, and made rate brackets much narrower. It also capped the itemized deduction for federal income taxes at $5,000 ($10,000 for a married couple filing a joint return), and created a new non-refundable credit equal to 2% of a taxpayer's capital gains income. This new credit is equivalent to taxing capital gains at a lower rate than ordinary income.

Table 1 shows the income tax changes in SB 407.

Table 1
Income Tax Provisions of SB 407

Income Tax Rates
Brackets Adjusted for Inflation to 2008

Old Law		SB 407	
Taxable Income	Marginal Tax Rate	Taxable Income	Marginal Tax Rate
$0 to $2,700	2.0%	$0 to $2,600	1.0%
$2,701 to $5,300	3.0%	$2,601 to $4,600	2.0%
$5,301 to $10,600	4.0%	$4,601 to $7,000	3.0%
$10,601 to $15,900	5.0%	$7,001 to $9,500	4.0%
$15,901 to $21,200	6.0%	$9,501 to $12,200	5.0%
$21,201 to $26,500	7.0%	$12,201 to $15,600	6.0%
$26,501 to $37,100	8.0%	Over $15,600	6.9%
$37,101 to $53,100	9.0%		
$53,101 to $92,900	10.0%		
Over $92,900	11.0%		

Deduction for Federal Income Taxes

Old Law	SB 407
Itemized deduction allowed for full amount of federal income tax paid during year.	Deduction limited to $5,000 ($10,000 for joint return).

Taxation of Capital Gains Income

Old Law	SB 407
Same as ordinary income.	Credit equal to 2% of capital gains income.

Table 2 shows the new taxes and the increases in cigarette and tobacco taxes.

Table 2
Other Tax Provisions of SB 407

Accommodations	New 3% sales tax
Rental Cars	New 4% sales tax
Cigarettes	Increased tax rate by $0.52 per pack
Other Tobacco Products	Increased tax rate from 12.5% to 25% (rate for moist snuff expressed in cents/ounce)

These new taxes and tax increases were imposed beginning in 2003, while the income tax changes went into effect in 2005, with the capital gains credit going from 1% to 2% in 2007. SB 407 was expected to result in net revenue increases in FY 2003 through FY 2005, be close to revenue neutral in FY 2006, and to result in net revenue decreases in later fiscal years.

Income Tax Revenue Reduction

Tax liability for 2008 was calculated for all timely-filed full year resident returns under current law and under the law as it existed before SB 407. Table 3, on the next page, shows the total change in tax liability and the change for thirty-five income groups. The left side of the table shows the range of income for each group, the number of households in the group, and the total income of these households. In this context, a household is defined as a married couple, filing either a joint return or separate returns on the same form, or an individual filing as single, head-of-household, or married with the spouse either filing on a separate form or not filing a return. Total household income is the sum of total income reported on the taxpayer's federal return and state additions to federal income. The right side of the table shows total tax liability of households in each group under pre-SB 407 law and under current law and the difference.

Table 4, on the following page, shows the changes in tax liability in the right-hand column of Table 3 as a percent of pre-SB 407 tax liability and as the average change per household. It also shows the average effective tax rate, which is tax liability divided by total household income, under the old law and under current law.

Table 3

Impact of SB 407 on Full-Year Resident's 2008 Income Tax

Income Brackets			Tax Liability of Households in Bracket		
Income Range	Number of Households in Bracket	Total Income of Households in Bracket	Old Law	SB 407	Difference Due to SB 407
$ 0 - $ 1,999	14,398	$14,188,170	$1,350	$568	-$782
$ 2,000 - $ 3,999	16,895	51,055,669	128,540	63,118	-65,422
$ 4,000 - $ 5,999	17,661	88,147,148	462,625	239,991	-222,633
$ 6,000 - $ 7,999	16,794	117,280,013	870,358	507,505	-362,854
$ 8,000 - $ 9,999	16,059	144,576,885	1,306,423	841,857	-464,566
$ 10,000 - $ 11,999	15,554	170,937,665	1,693,420	1,169,297	-524,122
$ 12,000 - $ 13,999	15,273	198,426,889	2,195,964	1,629,510	-566,454
$ 14,000 - $ 15,999	14,706	220,531,089	2,759,927	2,170,382	-589,545
$ 16,000 - $ 17,999	14,483	246,138,801	3,392,557	2,813,535	-579,021
$ 18,000 - $ 19,999	14,083	267,441,258	4,043,593	3,517,560	-526,033
$ 20,000 - $ 24,999	32,019	717,573,586	12,555,431	11,661,593	-893,839
$ 25,000 - $ 29,999	27,247	747,589,458	14,990,597	14,634,714	-355,884
$ 30,000 - $ 34,999	23,197	752,200,482	17,099,356	16,910,410	-188,946
$ 35,000 - $ 39,999	20,269	759,034,226	18,492,156	18,315,272	-176,885
$ 40,000 - $ 44,999	17,862	758,148,246	19,373,501	19,231,036	-142,464
$ 45,000 - $ 49,999	16,143	765,941,603	20,656,203	20,632,595	-23,608
$ 50,000 - $ 54,999	14,721	772,451,949	21,540,018	21,509,026	-30,992
$ 55,000 - $ 59,999	13,736	789,165,831	22,955,846	22,874,354	-81,492
$ 60,000 - $ 64,999	12,340	770,829,411	22,906,790	22,771,111	-135,679
$ 65,000 - $ 69,999	11,314	763,080,532	23,580,031	23,294,272	-285,758
$ 70,000 - $ 74,999	10,303	746,221,434	23,851,995	23,527,030	-324,965
$ 75,000 - $ 79,999	9,177	710,926,944	23,737,640	23,293,393	-444,247
$ 80,000 - $ 89,999	15,578	1,320,470,093	46,218,032	45,060,738	-1,157,295
$ 90,000 - $ 99,999	11,488	1,088,065,205	40,405,398	39,146,947	-1,258,451
$100,000 - $109,999	8,651	905,930,223	35,207,595	34,163,418	-1,044,177
$110,000 - $119,999	6,170	707,960,211	28,896,963	27,762,444	-1,134,519
$120,000 - $129,999	4,510	562,351,003	23,700,569	22,760,017	-940,553
$130,000 - $139,999	3,210	432,563,957	18,897,031	18,066,993	-830,038
$140,000 - $149,999	2,410	348,945,462	15,842,359	14,962,435	-879,924
$150,000 - $174,999	4,207	679,109,982	32,258,974	29,982,857	-2,276,116
$175,000 - $199,999	2,555	477,058,411	24,173,219	22,008,771	-2,164,448
$200,000 - $299,999	4,531	1,083,103,605	58,878,584	52,186,555	-6,692,029
$300,000 - $399,999	1,659	570,088,687	34,243,577	29,334,079	-4,909,499
$400,000 - $499,999	843	376,344,684	23,316,363	20,041,962	-3,274,401
$500,000 +	1,829	2,439,137,383	168,670,538	129,559,207	-39,111,332
Totals	431,875	$21,563,016,195	$809,303,523	$736,644,551	-$72,658,972

Table 4

Impact of SB 407 on Full-Year Resident's 2008 Income Tax

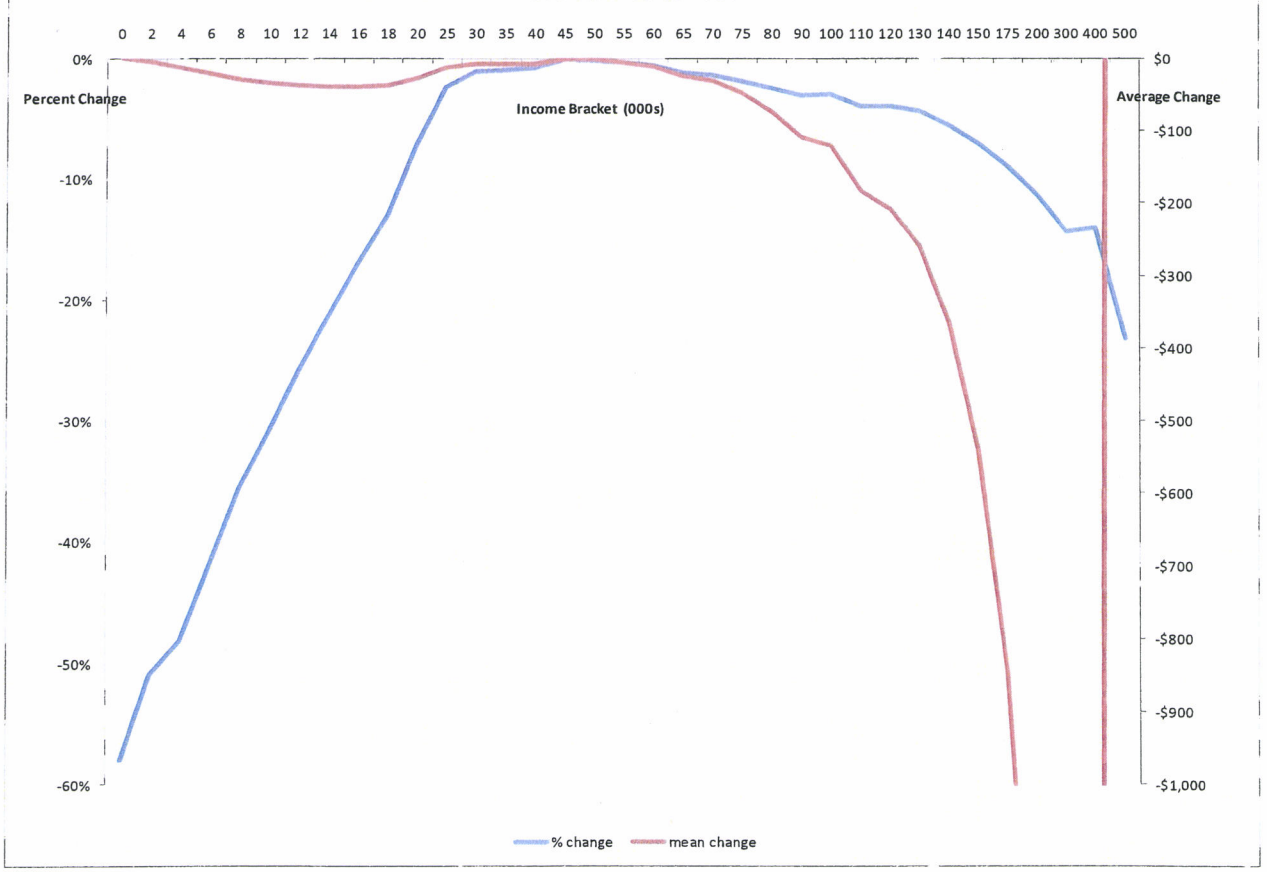
Income Range	Change in Tax Liability: Percent Change	Change in Tax Liability: Average Change	Average Effective Tax Rate: Old Law	Average Effective Tax Rate: SB 407
$ 0 - $ 1,999	-58.0%	-$0.05	0.01%	0.00%
$ 2,000 - $ 3,999	-50.9%	-3.87	0.25%	0.12%
$ 4,000 - $ 5,999	-48.1%	-12.61	0.52%	0.27%
$ 6,000 - $ 7,999	-41.7%	-21.61	0.74%	0.43%
$ 8,000 - $ 9,999	-35.6%	-28.93	0.90%	0.58%
$ 10,000 - $ 11,999	-31.0%	-33.70	0.99%	0.68%
$ 12,000 - $ 13,999	-25.8%	-37.09	1.11%	0.82%
$ 14,000 - $ 15,999	-21.4%	-40.09	1.25%	0.98%
$ 16,000 - $ 17,999	-17.1%	-39.98	1.38%	1.14%
$ 18,000 - $ 19,999	-13.0%	-37.35	1.51%	1.32%
$ 20,000 - $ 24,999	-7.1%	-27.92	1.75%	1.63%
$ 25,000 - $ 29,999	-2.4%	-13.06	2.01%	1.96%
$ 30,000 - $ 34,999	-1.1%	-8.15	2.27%	2.25%
$ 35,000 - $ 39,999	-1.0%	-8.73	2.44%	2.41%
$ 40,000 - $ 44,999	-0.7%	-7.98	2.56%	2.54%
$ 45,000 - $ 49,999	-0.1%	-1.46	2.70%	2.69%
$ 50,000 - $ 54,999	-0.1%	-2.11	2.79%	2.78%
$ 55,000 - $ 59,999	-0.4%	-5.93	2.91%	2.90%
$ 60,000 - $ 64,999	-0.6%	-11.00	2.97%	2.95%
$ 65,000 - $ 69,999	-1.2%	-25.26	3.09%	3.05%
$ 70,000 - $ 74,999	-1.4%	-31.54	3.20%	3.15%
$ 75,000 - $ 79,999	-1.9%	-48.41	3.34%	3.28%
$ 80,000 - $ 89,999	-2.5%	-74.29	3.50%	3.41%
$ 90,000 - $ 99,999	-3.1%	-109.54	3.71%	3.60%
$100,000 - $109,999	-3.0%	-120.70	3.89%	3.77%
$110,000 - $119,999	-3.9%	-183.88	4.08%	3.92%
$120,000 - $129,999	-4.0%	-208.55	4.21%	4.05%
$130,000 - $139,999	-4.4%	-258.58	4.37%	4.18%
$140,000 - $149,999	-5.6%	-365.11	4.54%	4.29%
$150,000 - $174,999	-7.1%	-541.03	4.75%	4.42%
$175,000 - $199,999	-9.0%	-847.14	5.07%	4.61%
$200,000 - $299,999	-11.4%	-1,476.94	5.44%	4.82%
$300,000 - $399,999	-14.3%	-2,959.31	6.01%	5.15%
$400,000 - $499,999	-14.0%	-3,884.22	6.20%	5.33%
$500,000 +	-23.2%	-21,384.00	6.92%	5.31%
Totals	-9.0%	-$168.24	3.75%	3.42%

The percentage reduction in tax liability is smallest in the middle of the income distribution. It is 1% or less for households with income between $35,000 and $65,000. The percentage reduction is much higher for low- and high-income households. It is more than 10% for households with income less than $20,000 or more than $200,000.

The average reduction per household shows a more complicated pattern. It is lowest for the lowest income group, where most households have no tax liability under either old law or current law. The average reduction per household increases up to about $40 at $16,000 of household income and then decreases to about $1 at $45,000 to $50,000 of household income. It then rises steadily with income, to more than $21,000 for households with income over $500,000.

Figure 1 shows this information graphically. The blue line, plotted against the left-hand axis, shows the percentage change for each income group. The red line, plotted against the right-hand axis, shows the average dollar change for each group. The right-hand axis is truncated at $1,000 to show the variation at lower income levels.

Figure 1
Changes in 2008 Average Tax Liability
Old Law to SB 407



Average effective tax rates are lower for all income groups under SB 407 than under current law, but the differences follow a pattern that is similar to the pattern of percentage difference in tax liability. The difference is tiny, 1/100th of a percent, for the lowest income group, increases up to about $10,000 of income, and then decreases up to about $45,000 of income. Between $45,000 and $55,000 of income, the difference is 1/100th of a percent, and then increases with income, up to the highest income group, where the difference is 1.6 percentage points.

Figures 2 and 3 show average effective tax rates. Figure 2 shows average effective tax rates under old law and current law for all income groups. It shows that the difference in average effective tax rates is small up to about $150,000 of income and widens as income increases beyond that point. Under old law, the highest income group, with income over $500,000, had a significantly higher average effective tax rate than other taxpayers. Under current law, the group with income between $400,000 and $500,000 has the highest average effective tax rate, and the highest income group has a slightly lower average effective tax rate.

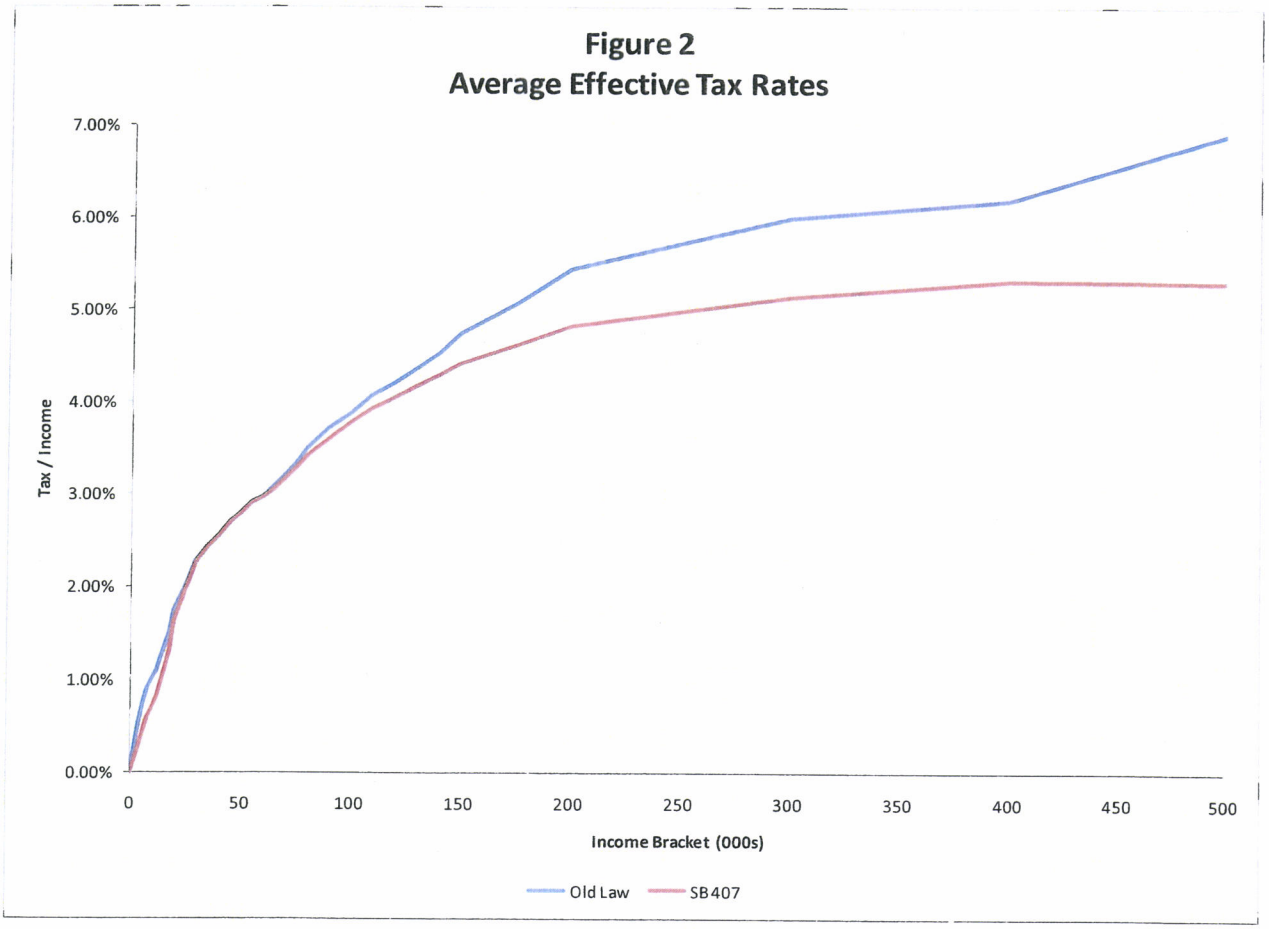
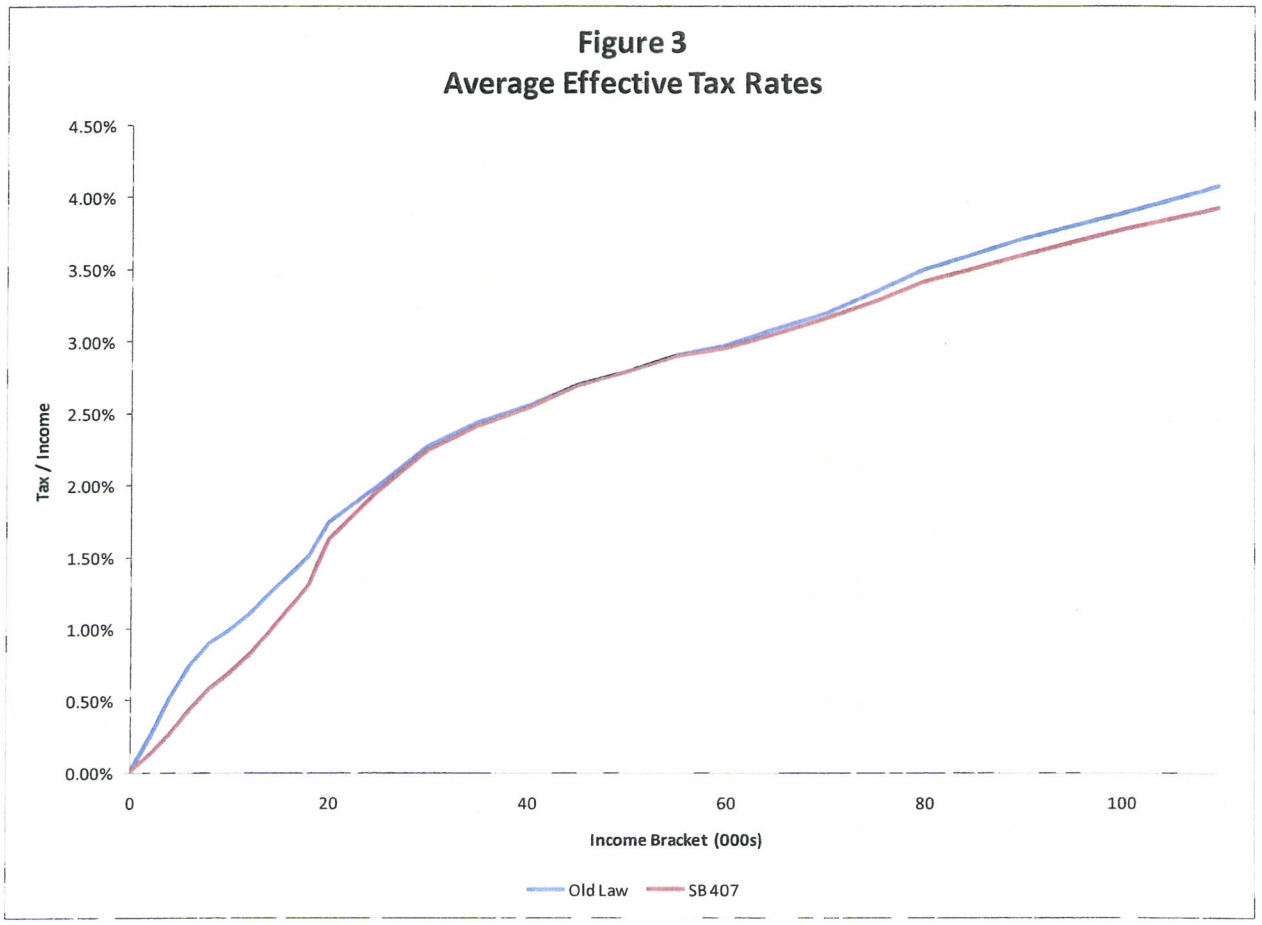


Figure 3 shows average effective tax rates for taxpayers with incomes of $110,000 or less. This includes 93% of households with 64% of total income. Figure 3 shows the very small difference in average effective tax rates for households with incomes between $30,000 and $65,000.



Tables 5 and 6 show some of the same information with households divided into only five income groups. The boundaries between groups are $20,000, $65,000, $150,000, and $500,000 of income.

The first three columns of Table 5 show the five income ranges and the number and percent of households in each group. The next two column show the income reported by each group and each group's percent of the total. The four right-hand columns show total tax liability for each group and each group's percent of total tax liability under pre-SB 407 law and under current law.

Table 5
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

	Households		Income		Old Law Tax		Current Law Tax	
Income Range	Number	%	$	%	$	%	$	%
$ 0 - $ 19,999	155,906	36.1%	$1,518,723,587	7.0%	$16,854,757	2.1%	$12,953,324	1.8%
$ 20,000 - $ 64,999	177,534	41.1%	$6,832,934,792	31.7%	$170,569,898	21.1%	$168,540,110	22.9%
$ 65,000 - $149,999	82,811	19.2%	$7,586,515,064	35.2%	$280,337,613	34.6%	$272,037,686	36.9%
$150,000 - $499,999	13,795	3.2%	$3,185,705,369	14.8%	$172,870,717	21.4%	$153,554,223	20.8%
$500,000 +	1,829	0.4%	$2,439,137,383	11.3%	$168,670,538	20.8%	$129,559,207	17.6%
Totals	431,875		$21,563,016,195		$809,303,523		$736,644,551	

The two highest income groups had 3.6% of households but 26.1% of income . While SB 407 reduced tax liability for all groups, the share of liability increased for each of the lower three income groups and decreased for both of the higher income groups. The top two groups' share of liability would have been 42.2% under the pre-SB 407 law but was actually 38.4%.

Table 6 repeats the information on number of households and old-law tax for each group and shows each group's tax reduction from SB 407. The third column from the right shows the total tax liability reduction for each group. The next column shows the percentage that reduction is of the group's old-law tax, and the right-hand column shows each group's share of the total reduction. For example, the middle income group had a total tax reduction of $8.3 million, which as 3.0% of their old-law tax liability and 11.4% of the total reduction for all taxpayers.

Table 6
Impact of SB 407 on Full-Year Resident's 2008 Income Tax

	Households		Old Law Tax		Tax Reduction		
Income Range	Number	%	$	%	$	Average % Reduction	% of Total Reduction
$ 0 - $ 19,999	155,906	36.1%	$16,854,757	2.1%	-$3,901,433	-23.1%	5.4%
$ 20,000 - $ 64,999	177,534	41.1%	$170,569,898	21.1%	-$2,029,787	-1.2%	2.8%
$ 65,000 - $149,999	82,811	19.2%	$280,337,613	34.6%	-$8,299,927	-3.0%	11.4%
$150,000 - $499,999	13,795	3.2%	$172,870,717	21.4%	-$19,316,493	-11.2%	26.6%
$500,000 +	1,829	0.4%	$168,670,538	20.8%	-$39,111,332	-23.2%	53.8%
Totals	431,875		$809,303,523		-$72,658,972	-9.0%	

The highest and lowest income groups had the largest percentage reductions, with both being over 23%. The groups with income between $20,000 and $150,000 had much smaller percentage reductions.

Each group's share of the total tax reduction reflects the combination of its share of old-law tax liability and its percentage reduction. The highest income group had about one-fifth of tax liability under old law, but because it had the highest percentage tax reduction, it received over half of the total reduction. The groups with income between $20,000 and $150,000 had over half of old-law tax liability, but because their percentage reductions were so small, they received about one-seventh of the total reduction.

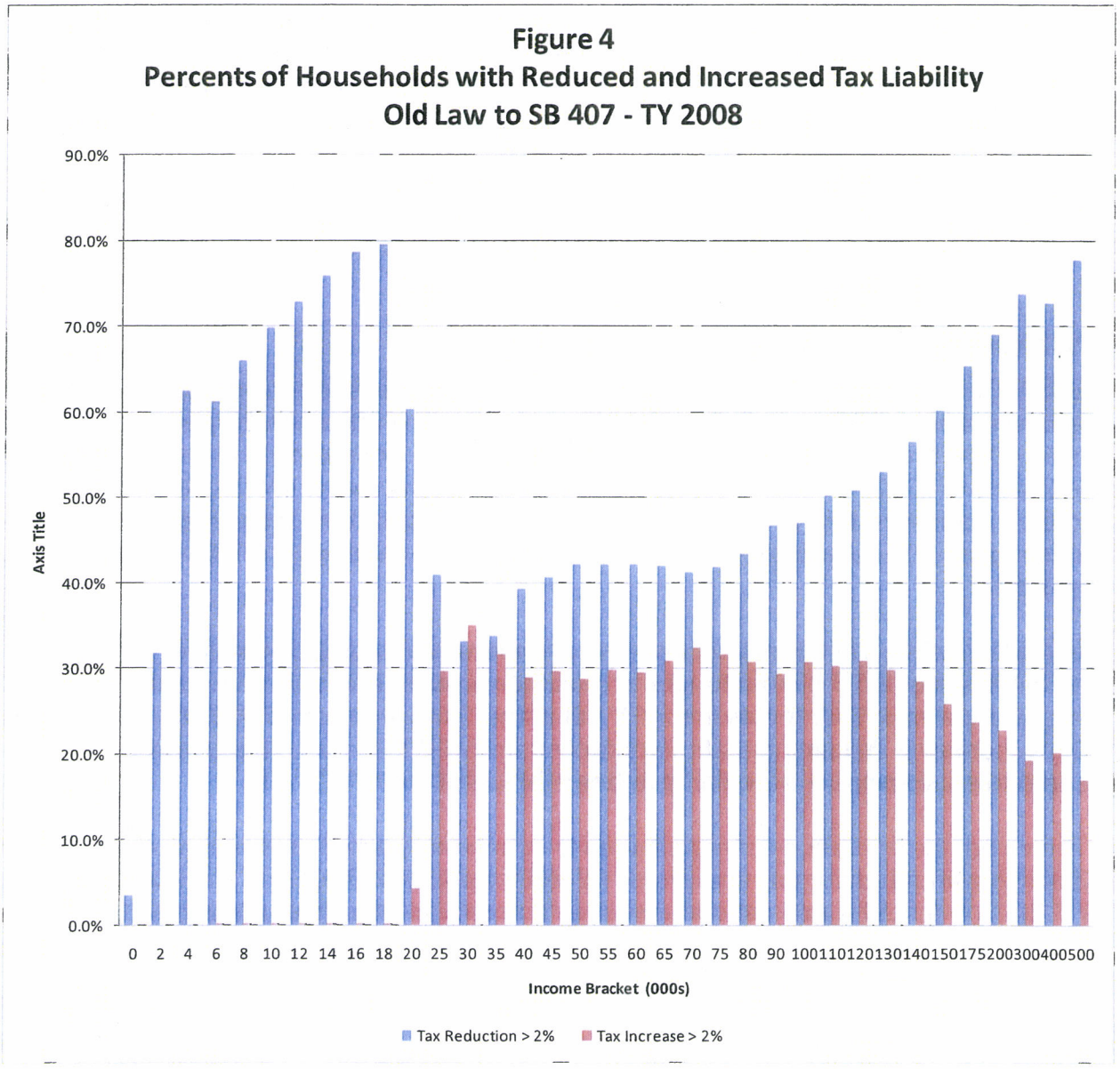
Winners and Losers

Taxpayers with similar incomes were not necessarily affected the same by SB 407. Table 7 shows, for each of the 35 income groups, the number and percent of households with a tax reduction of more than 2%, with a tax increase of more than 2%, and with a change of less than 2%.

Table 7
Taxpayers with Higher and Lower Taxes from SB 407

Income Brackets		Tax Reduction > 2%		Tax Increase > 2%		Change < 2%	
Income Range	Number of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket	Number of Households	% of Households in Bracket
$ 0 - $ 1,999	14,398	515	3.6%	0	0.0%	13,883	96.4%
$ 2,000 - $ 3,999	16,895	5,371	31.8%	0	0.0%	11,524	68.2%
$ 4,000 - $ 5,999	17,661	11,027	62.4%	0	0.0%	6,634	37.6%
$ 6,000 - $ 7,999	16,794	10,298	61.3%	1	0.0%	6,495	38.7%
$ 8,000 - $ 9,999	16,059	10,604	66.0%	10	0.1%	5,445	33.9%
$ 10,000 - $ 11,999	15,554	10,861	69.8%	10	0.1%	4,683	30.1%
$ 12,000 - $ 13,999	15,273	11,127	72.9%	9	0.1%	4,137	27.1%
$ 14,000 - $ 15,999	14,706	11,171	76.0%	23	0.2%	3,512	23.9%
$ 16,000 - $ 17,999	14,483	11,383	78.6%	29	0.2%	3,071	21.2%
$ 18,000 - $ 19,999	14,083	11,202	79.5%	33	0.2%	2,848	20.2%
$ 20,000 - $ 24,999	32,019	19,303	60.3%	1,403	4.4%	11,313	35.3%
$ 25,000 - $ 29,999	27,247	11,146	40.9%	8,082	29.7%	8,019	29.4%
$ 30,000 - $ 34,999	23,197	7,697	33.2%	8,118	35.0%	7,382	31.8%
$ 35,000 - $ 39,999	20,269	6,850	33.8%	6,428	31.7%	6,991	34.5%
$ 40,000 - $ 44,999	17,862	7,003	39.2%	5,148	28.8%	5,711	32.0%
$ 45,000 - $ 49,999	16,143	6,562	40.6%	4,792	29.7%	4,789	29.7%
$ 50,000 - $ 54,999	14,721	6,212	42.2%	4,237	28.8%	4,272	29.0%
$ 55,000 - $ 59,999	13,736	5,800	42.2%	4,098	29.8%	3,838	27.9%
$ 60,000 - $ 64,999	12,340	5,205	42.2%	3,650	29.6%	3,485	28.2%
$ 65,000 - $ 69,999	11,314	4,758	42.1%	3,498	30.9%	3,058	27.0%
$ 70,000 - $ 74,999	10,303	4,258	41.3%	3,342	32.4%	2,703	26.2%
$ 75,000 - $ 79,999	9,177	3,840	41.8%	2,901	31.6%	2,436	26.5%
$ 80,000 - $ 89,999	15,578	6,767	43.4%	4,793	30.8%	4,018	25.8%
$ 90,000 - $ 99,999	11,488	5,379	46.8%	3,371	29.3%	2,738	23.8%
$100,000 - $109,999	8,651	4,072	47.1%	2,658	30.7%	1,921	22.2%
$110,000 - $119,999	6,170	3,101	50.3%	1,871	30.3%	1,198	19.4%
$120,000 - $129,999	4,510	2,293	50.8%	1,396	31.0%	821	18.2%
$130,000 - $139,999	3,210	1,701	53.0%	955	29.8%	554	17.3%
$140,000 - $149,999	2,410	1,363	56.6%	684	28.4%	363	15.1%
$150,000 - $174,999	4,207	2,530	60.1%	1,088	25.9%	589	14.0%
$175,000 - $199,999	2,555	1,669	65.3%	605	23.7%	281	11.0%
$200,000 - $299,999	4,531	3,125	69.0%	1,032	22.8%	374	8.3%
$300,000 - $399,999	1,659	1,224	73.8%	320	19.3%	115	6.9%
$400,000 - $499,999	843	613	72.7%	170	20.2%	60	7.1%
$500,000 +	1,829	1,422	77.7%	310	16.9%	97	5.3%
Totals	431,875	217,452	50.4%	75,065	17.4%	139,358	32.3%

Figure 4 shows the percent of households in each group with a decrease of more than 2% and the percent with an increase of more than 2%.



In the lowest two income groups, the majority of households had less than a 2% change from SB 407. In the groups with income between $4,000 and $25,000, over 60% of households had a tax reduction of at least 2%. In all be the highest of these groups, less than 1% of households had a tax increase of at least 2%, while in the highest of these groups about 4% had a 2% increase.

The groups with income between $25,000 and $150,000 all had about 30% of households with at least a 2% tax increase. Above $150,000 of income, the percent of

households with a 2% increase steadily drops, to about 17% for the highest income group.

The percent of households with at least a 2% tax reduction is lowest, about 33%, for households with income between $30,000 and $40,000. For households with income between $40,000 and about $80,000, the percentage hovers around 40%. Above $80,000 of income, the percent with at least a 2% tax reduction rises steadily with income, to about 78% for the highest income group.

The percent of taxpayers with less than a 2% change generally decreases with income, from 96.4% for the lowest income group to 5.3% for the highest.

Net Revenue Impact

SB 407 was passed in the spring of 2003. It immediately imposed new taxes on lodging and rental cars and increased the taxes on cigarettes and other tobacco products. It did not change the income tax until 2005. The fiscal note prepared during the 2003 session indicates that SB 407 was expected to increase state revenue in FY 2003 through FY 2005, be approximately revenue neutral in FY 2006, and then to reduce state revenue in later years. The reduction was expected to be $17.0 million in FY 2008 and to grow over time.

The fiscal note estimated that income tax revenue would be $38.9 million lower in FY 2006 because of SB 407 and that the reduction would grow over time. Actual income tax revenue was $768.9 million for FY 2006 and $815.1 million for FY 2009. This is a 6.0% increase. Assuming that the reduction from SB 407 would have grown at the same rate as revenue, it would have been $41.2 million for FY 2009.

The income tax revenue estimating model was used to estimate revenue under the pre-SB 407 law and under current law for FY 2006 through FY 2013. For FY 2006 through FY 2008, the model was used to recalculate taxes for returns from tax years 2005 through 2008 as if SB 407 had not been in effect. For FY 2009 through FY 2013, the model was used to forecast future tax liability, with and without SB 407, using the growth assumptions in the 2009 legislative revenue estimate. Figure 5 shows full-year residents' tax liability for tax years 2005 through 2013, with and without SB 407. Table 8 shows the estimated difference in revenue due to SB 407 in each of those years.

Figure 5
Full Year Resident Income Tax Liabilty
With and Without SB 407

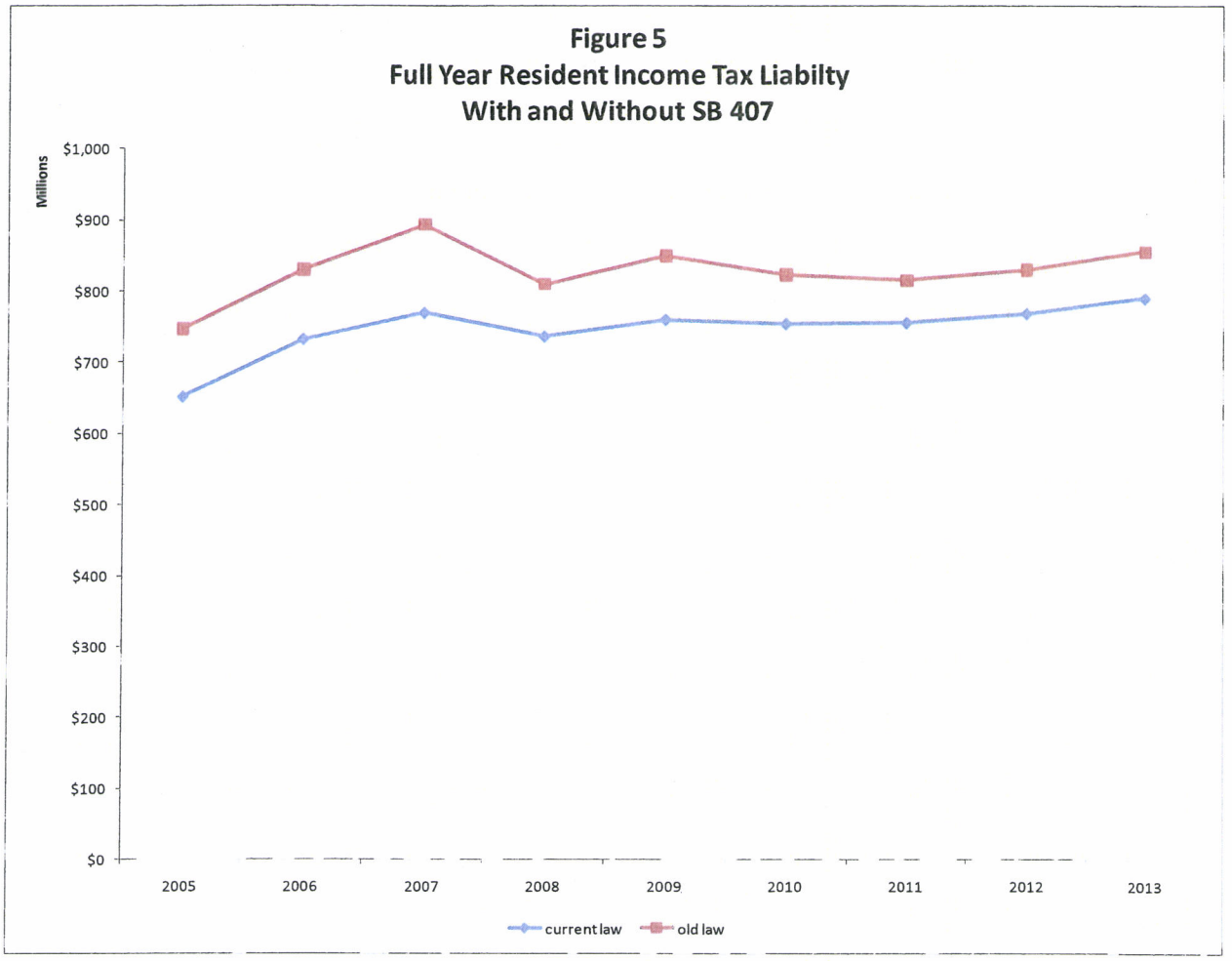


Table 8
Estimated Income Tax Revenue Reductions from SB 407
FY 2009 to FY 2013

Fiscal Year	$ million
FY 2006	-$101.539
FY 2007	-$116.920
FY 2008	-$104.210
FY 2009	-$86.310
FY 2010	-$84.376
FY 2011	-$69.364
FY 2012	-$66.790
FY 2013	-$70.981

For FY 2006, the income tax revenue reduction is 2.6 times as large as estimated in the fiscal note. The estimated reduction increases in FY 2007, decreases each year from FY 2008 through FY 2012, and then increases again in FY 2013.

Table 9 compares the estimated income tax reduction for FY 2009 to actual revenue from the new taxes and tax increases in SB 407.

Table 9
FY 2009 Revenue Impact of SB 407
($ million)

Income Tax	-$86.3
Accomodations Sales Tax	$12.5
Rental Car Sales Tax	$2.9
Cigarette Tax ($0.52 of $1.70)	$24.4
Tobacco Tax (12.5% of 50%)	$2.6
Net Impact	-$43.9

The net revenue loss for FY 2009 is more than two-and-half times the FY 2007 net revenue loss estimated in the fiscal note. This difference is primarily from actual revenue being different from the 2003 predictions, rather than from growth between FY 2007 and FY 2009. Revenue from the accommodations sales tax and the tobacco tax increase are significantly higher than the FY 2005 estimates from the fiscal note. Revenue from the rental car sales tax is slightly higher, and revenue from the cigarette tax is lower. Overall, revenue from the new revenue sources in SB 407 is slightly higher than projected, but the loss in income tax revenue is much higher than projected.

A number of factors contributed to the fact that revenue reductions are larger than was predicted in 2003[1]. In 2005, Montana adjusted gross income was 16% higher than forecast. A larger tax base led to larger revenue reductions from rate cuts. In 2005, capital gains income was approximately twice what had been predicted in 2003. This made the revenue reduction from the capital gains credit much larger than predicted. Income growth from 2003 to 2005 went disproportionately to high-income taxpayers, who received larger-than-average percentage tax reductions from SB 407.

Between 2003 and 2005, Congress enacted several changes that reduced federal income taxes in 2005, particularly for higher income taxpayers. Under the old law, this would have resulted in a windfall for the state, as taxpayers with smaller deductions for federal taxes paid higher state taxes. With SB407, these federal tax changes did not affect state taxes for higher-income taxpayers whose deductions for federal taxes are capped. This made the state windfall from reduced federal taxes smaller than it would have been under old law.

One of the reasons that the revenue impact of SB 407 was smaller for 2008 than for 2005 was the fact that there was a jump in federal taxes paid in 2008. This appears to have been primarily from taxpayers who had under-paid during 2007 making payments

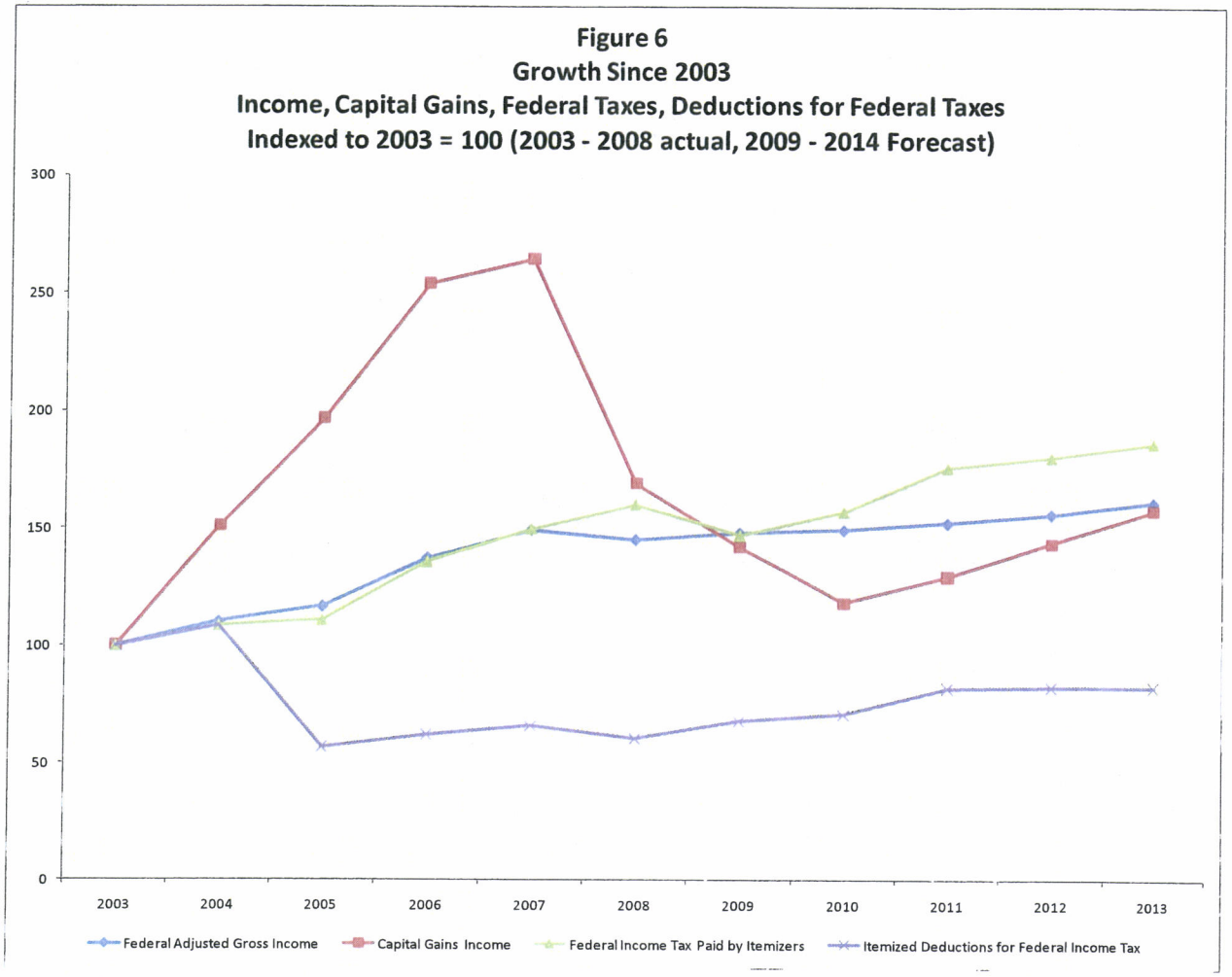
[1] For a full analysis, see "Explaining the Difference Between the Forecast and Actual Impacts of Senate Bill 407," Montana Department of Revenue, January 2007.

with their 2007 returns in the spring of 2008 and increasing their estimated payments for 2008. Another reason for the smaller impact in 2008 is that capital gains income was lower in 2008 than in 2005, and therefore the impact of the capital gains credit increasing from 1% to 2% was lower than it would have been.

Figure 6 shows actual and projected growth since 2003 in some of the more important factors affecting the fiscal impact of SB 407. It shows federal adjusted gross income, capital gains income, federal income tax paid by Montana taxpayers who itemized deductions, and itemized deductions for federal taxes, all as indexes with their 2003 values as the base. Thus, the index value for each series tells the ratio of the value in a later year to the value in 2003. For example, the index value for federal taxes in 2008 is 150, which means that federal taxes in 2008 were 150% of what they had been in 2003.

Income grew steadily and rapidly between 2003 and 2007, but growth is predicted to be much slower through 2013. The capital gains component of income grew dramatically from 2003 through 2007, but then dropped in 2008. It is forecast to drop again in 2009 and 2010 and then to grow more slowly through 2013.

Federal taxes are not growing in lock-step with income. The slower growth in 2005 reflects changes in federal law between 2003 and 2005 which included temporary tax reductions and acceleration of several tax reductions that had been passed in 2001 but were not scheduled to go into effect until later years. The divergence in 2008 reflects the extra payments made that year by high-income taxpayers who had underpaid in 2007. The gap between the indices for federal taxes and income beginning in 2011 is due to higher taxes when temporary tax reductions passed in 2001 through 2003 expire.



Total deductions for federal taxes do not follow federal taxes very closely. The large drop in 2005 is from the first year of the cap on the deduction. In 2008, when federal taxes increased, deductions for federal taxes actually fell, because the additional federal tax payments made in 2008 were mostly made by taxpayers whose deductions for federal taxes were capped. Deductions for federal taxes are forecast to increase much less than federal taxes in 2011 because much of the expected increase in federal taxes will go to taxpayers whose deduction is capped.

The cap on the deduction for federal taxes appears to have somewhat insulated state revenue from changes in federal taxes. The state missed out on a revenue windfall from federal tax reductions in 2005 but will also miss a large revenue hit from federal tax increases in 2011.

The falling income tax revenue reduction appears to be due largely to falling capital gains income in 2008 through 2010, high federal income tax payments in 2008, and federal income tax increases in 2011.

EXPLAINING THE DIFFERENCE BETWEEN THE FORECAST AND ACTUAL IMPACTS OF SENATE BILL 407

January, 2007

Explaining the Difference Between the Forecast and Actual Impacts of Senate Bill 407 (2003 Legislative Session)

Executive Summary

Senate Bill 407 (SB407,2003) significantly changed Montana's individual income tax by:

- reducing the top marginal tax rate from 11% to 6.9%;
- capping the previously unlimited deduction for federal income tax at $5,000 ($10,000 if married and filing a joint return); and
- providing for a new tax credit equal to 1% of capital gains income.

During the 2003 session, SB407 was forecast to reduce tax year 2005 tax liability for full-year residents by $26 million, which represented a 4.8% reduction. Information from actual TY2005 returns shows this reduction to be $100 million, representing a reduction of over 13%. The difference between these figures can be attributed to a variety of factors, including the following:

- Montana adjusted gross income is 16.3% higher than originally forecast, and taxable income is 21.8% higher. Higher incomes likely result in a higher *difference* between old law and SB407 law.

- As a result of higher incomes, actual tax liability under SB407 is $131.3 million (25.2%) higher than forecast. Even more remarkable, tax liability under old law would have been $205.6 million (37.6%) higher than what had been forecast. It is this enormous growth in what would have been tax liability under *old law* that results in the $100 million *difference* between old law and SB407 law. Had tax liability under old law also been 25.2% higher than forecast, the difference between old law and SB407 law liability would have been just $32 million, which represents a 4.7% reduction.

- Over the period 2001-2005 growth in income was skewed largely to higher income households. Total household income grew by about $4 billion (28%), with nearly 54% of this amount accruing to the top 10% of households as measured by income.

- More importantly, capital gains income nearly doubled over this period, with 89% of the growth accruing to the top 10% of households. One consequence of this growth in capital gains income is that the capital gains tax credit is double the forecast credit, which accounts for about $8 million of the difference between the forecast and actual impact of SB407.
- After the forecast had been made, the federal government changed federal income tax law in a manner that reduced federal taxes for most

taxpayers, but reduced federal taxes for high income households much more than for lower income households.

- In particular, federal tax rates applied to capital gains income were greatly reduced. This acted to greatly benefit high income households, as in Montana the top 4% of all households as measured by income received 75% of all capital gains income in TY2005, and capital gains comprised nearly one-quarter of all income received by these households.

- The original estimate of the change in tax liability from adopting SB407 reflected the net effect of a large drop in total liability from reducing the top marginal rate from 11% to 6.9%, and the offsetting increase in liability from capping the previously unlimited deduction for federal income taxes at $5,000. The net effect of these two offsetting features depends entirely on the relationship between federal income taxes and income. Generally speaking, the smaller the ratio of federal taxes to income, the greater the tax reduction effect of reducing the top marginal rate and the smaller the offsetting effect of capping the deduction for federal taxes.

- The changes to federal tax law that occurred after the original estimate of the impact of SB407 was made acted to greatly reduce the ratio of federal tax to income, particularly in high income households where capital gains comprised a large portion of total income. Because these federal tax law changes were not included in the forecasting model used to estimate the impacts of SB407, the model significantly overstated the forecast of federal tax liabilities. This acted to overstate the amount of federal tax that would be deducted for state tax purposes, and thereby greatly understate state tax liabilities *under old law*.

- Because incomes grew more rapidly than forecast, while federal income taxes grow more slowly than forecast, *the tax reduction effect of the rate reduction from 11% to 6.9% outweighed the offsetting tax increase effect of capping the deduction for federal taxes paid far more than forecast*, with the end result being that the actual net impact of SB407 is much larger than originally forecast.

- In short, the shift in the relationship between total household income and federal tax liability that arose because of changes to federal law, resulted in a much larger than anticipated difference between state liability under old law and under SB407 law, primarily because the forecast of liability under old law was underestimated proportionately more than the forecast of liability under SB407 was underestimated. This effect is particularly pronounced for the 1,586 households in the highest income bracket (households with income of $500,000 or more) which received almost half of the total tax reduction benefit of SB407.

Explaining the Difference Between the Forecast and Actual Impacts of Senate Bill 407 (2003 Legislative Session)

Introduction

Senate Bill 407 (SB407, 2003) significantly revised Montana individual income tax law by reducing the top marginal income tax rate from 11% to 6.9%, reducing the number of tax brackets from ten to seven, and providing for a new bottom marginal tax rate of 1% (previously 2%). To offset the cost of reducing the top rate, the bill also capped the previously unlimited itemized deduction for federal income taxes paid during the tax year at $5,000 ($10,000 if married and filing a joint return). Finally, SB407 instituted a new nonrefundable capital gains tax credit equal to 1% of net positive capital gains income. These changes were scheduled to take effect for the 2005 tax year.

During the 2003 legislative session, the forecasted impacts of SB407 for TY2005 showed a reduction in total tax liability for full-year residents of $26 million, which represented a 4.8% reduction in tax. A recent examination of actual returns filed for TY2005 showed the actual reduction to be about $100 million, which represents a reduction of over 13%. The actual reduction in tax is $74 million larger – *almost three times larger* – than the forecast reduction. This document provides an explanation for why the actual impact of SB407 is so much larger than that predicted during the 2003 session.

Before getting into more detailed explanations, it's apparent that one reason for the difference is that many of the factors that influence total tax liability are simply much larger than anticipated during the 2003 session. This is illustrated in the following table.

Difference Between 2003 Session Forecast and TY2005 Actual Amounts For Selected Items of Information

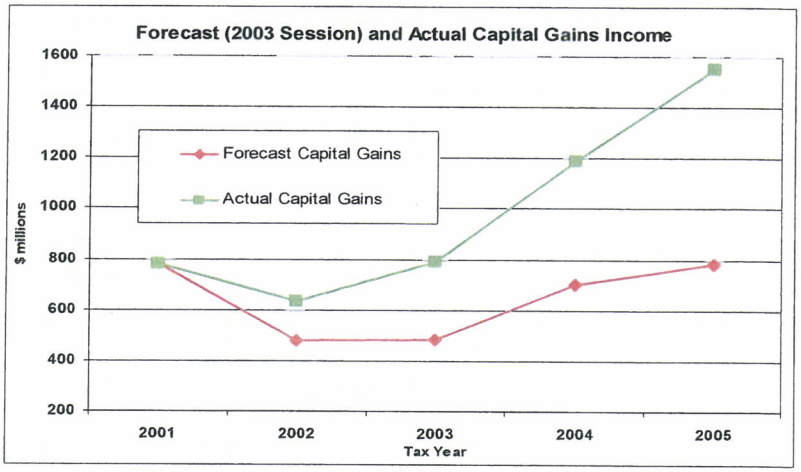
Item of Information	2003 Session Forecast	TY2005 Actual Amount	Difference	% Difference
Households	384,220	402,271	18,051	4.7%
Montana Adjusted Gross Income	14,419,492,000	16,773,601,215	2,354,109,215	16.3%
Capital Gains Income	783,716,244	1,554,054,359	770,338,115	98.3%
Montana Taxable Income	9,790,706,782	11,927,345,254	2,136,638,472	21.8%
Montana Tax Liability - Old Law	547,200,205	752,790,057	205,589,852	37.6%
Montana Tax Liability - SB407	521,141,556	652,487,295	131,345,739	25.2%
SB407 v. Old Law Tax Liability	(26,058,649)	(100,302,762)	(74,244,113)	284.9%

First, the population of taxpayers is almost 5% higher than those used to forecast the impact of SB407. This could be important depending on the income levels of these additional 18,000 households.

Montana adjusted gross income (MAGI) is $2.4 billion (over 16%) higher than forecast. Obviously, a higher level of income will result in a larger total tax liability under both old law and under SB407, and would very likely result in a larger dollar *difference* between old law tax and SB407 tax than that predicted during the 2003 session. As following discussions indicate, however, more important is where this growth in income occurred across different income brackets, and in the types of income that grew relatively faster or slower.

For example, when looking at the new 1% capital gains tax credit, differences in the forecast and actual growth of capital gains income will contribute to the overall differences in forecast and actual tax liabilities. As the above table shows, actual capital gains income in TY2005 turned out to be nearly twice as large as forecast during the 2003 session.

The chart to the right shows the 2003 forecast of capital gains income, and the actual growth in capital gains income over the period 2001-2005.



In TY2005, the *forecasted* amount of capital gains income would have resulted in a tax credit of about $8 million; but the actual amount of capital gains income resulted in a tax credit of nearly $16 million. The difference in these two credit amounts alone explains nearly $8 million of the $74 million difference between the forecast and actual difference between old law and SB407 law total tax liability.

While gross income was16% higher than forecast, taxable income – the income subject to tax after deductions and exemptions – was $2.14 billion (nearly 22%) higher than forecast. The fact that gross income was 16% higher than forecast, while taxable income was 22% higher suggests that there may have been a fundamental shift in the relationship between gross income and taxable income between the time when the forecast was made and when actual results became available. These implications of a fundamental shift in this relationship are discussed in greater detail in the following section.

The last three lines in the table show the forecast and actual TY2005 amounts for tax liability under old law, under SB407, and the difference between old law and SB407 liability.

Actual TY2005 tax liability under SB407 was $131.3 million (*over 25%*) higher than the amount that was forecasted during the 2003 session. This in itself is not surprising given that there is an additional $2.14 billion of income subject to tax above the amount projected. At the TY2005 actual average tax rate of 5.6%, this additional $2.14 billion of taxable income translates into an additional $120 million of liability. Given that incomes were so much higher than originally forecast, it is not surprising that tax liability also is much higher than forecast.

More surprising, however, is how much higher TY2005 tax liability actually would have been under *old law* relative to the amount that was forecast. As it turns out, actual liability under old law is almost $206 million (*nearly 38%*) higher than the amount originally forecast under old law.

Actual tax liability for all full-year resident taxpayers under SB407 was $652.5 million; tax liability for these taxpayers would have totaled $752.8 million if old law had been in place in TY2005. The difference between these two figures is the previously reported and widely discussed $100.3 million.

While it is interesting to note that the difference in tax liability between old law and SB407 law is $100 million, the real reason for this difference lies in why actual tax liability under SB407 is 25% higher than forecast, but actual tax liability under old law is nearly 38% higher than forecast; because it is this remarkable growth in tax liability under *old law* that is largely responsible for the *difference* between old law tax and SB407 tax.

To illustrate, if tax liability under old law had also grown by 25%, then total tax liability under old law would have been $684 million. This would have resulted in a $32 million reduction in liability as a result of SB407, which represents a 4.7% reduction, as opposed to the 13% reduction that actually occurred.

Following sections discuss in greater detail the reasons for the difference between forecast and actual tax liability under old law and SB407 law.

How Was the Forecast Made?

To understand the difference between the forecast and actual impacts of SB407 it is important to understand the components used in forecasting the original impact, and how that forecast was made.

There are essentially three components used in forecasting the impacts of any individual income tax reform proposal. Any difference between forecasted impacts

and actual impacts must be attributable to one, or all, of these three main components that make up the forecasting process. These include:

- the 5-year simulation model used by both the administrative and legislative branches of state government for revenue estimation purposes;
- the forecast growth rates contained in HJR2 that are integral to this model; and
- the computer program that is applied to the model and designed to forecast the impacts of any specific piece of legislation relative to the current law *baseline* model forecast.

This discussion assumes that the last item – *the computer program applied to the model to forecast the impacts of SB407 relative to the baseline impacts* – does not explain any of the difference between forecast and actual impacts of SB407. First, the changes to the tax structure that were included in SB407 are very straightforward and extremely easy to program. More importantly, because the same computer programming/modeling was applied to both the original forecast and the calculation of the actual impact, the computer programming could not contribute to any of the difference.

This leaves the 5-year simulation model itself, and the growth parameters in HJR2 that are integral to that model.

5-Year Simulation (Revenue Forecasting) Model and Growth Rates

There were at least three significant problems with the simulation model itself that prevented it from accurately forecasting the impacts of SB407. Two of these problems relate to the income growth rates that were used in the model; the third problem pertains to the interaction between federal and state individual income taxes that arises as a consequence of Montana's itemized deduction for federal taxes.

Income Growth Rates

First, the forecast of income growth rates used in the original forecast was not accurate; particularly with respect to the forecast growth rate of capital gains income. This latter growth rate is particularly important because of:

- the effect of the new capital gains tax credit on state tax liabilities;
- the effect of unanticipated reductions in federal tax rates applied to capital gains income not contemplated in the model; and
- how the reduced federal tax rates on capital gains income acted to change the relationship between federal tax liabilities and income.

The following table provides a comparison of the forecast growth rates used in the tax reform simulation model used to forecast the impacts of SB407, and the actual

growth rates that occurred over the period 2001-2005. For reference, the actual amount of each item of income reported on TY2005 full-year resident income tax returns is shown in the last column of the table.

Comparison of Forecast and Actual Growth Rates
Individual Income Tax Income Items
Tax Year 2001 to Tax Year 2005

Item of Income	Forecast	Actual	% Difference	TY2005 Amount
Wage and Salary Income	**12.0%**	**20.3%**	**8.3%**	**10,840,673,693**
Interest Income	-9.4%	-27.5%	-18.1%	480,087,683
Dividend Income	6.4%	53.1%	46.7%	463,027,085
Net business Income	-2.7%	21.3%	24.0%	749,587,514
Capital Gains Income	**-0.3%**	**97.8%**	**98.0%**	**1,554,054,359**
Supplemental Gains Income	1.7%	80.9%	79.2%	77,631,349
Rent, Royalties, Partnerships, etc.	**24.5%**	**87.9%**	**63.4%**	**1,704,629,493**
IRA Distributions	13.1%	16.5%	3.4%	308,394,240
Pensions/Annuities	**15.1%**	**25.5%**	**10.5%**	**1,216,408,584**
Social Security Income	21.5%	39.7%	18.2%	359,184,070
Farm Income	35.6%	-11.8%	-47.5%	(125,935,382)
Other Income	5.6%	-216.4%	-222.0%	(70,992,520)
Federal Adjusted Gross Income	**10.2%**	**27.5%**	**17.3%**	**17,188,787,002**

With the exceptions of interest income, farm income, and other income, the actual rate of growth of all income items exceeded the forecast growth rates, in most cases substantially. Wage and salary income, forecast to grow 12% over this time period actually grew by 20.3%. Capital gains income was forecast to remain constant, but instead nearly doubled. Rent, royalty, and partnership income, forecast to grow by almost 25% grew by nearly 88%. Pension and annuity income, forecast to grow by 15% grew by 25%. These four items of income comprise roughly 90% of total income.

As a result of the above differences between forecast and actual growth rates, federal adjusted gross income, which had been forecast to grow by just over 10% over this time frame, actually grew by almost 28%. These differences in growth rates explain why actual TY2005 tax liability under SB407 is so much larger than forecast liability.

The second problem with the model is that it applies the exact same growth rates for each income type to all households. To the extent that certain types of income (e.g., capital gains income, or wage and salary income) grow at dramatically different rates between households in different income brackets, the model does not accurately forecast future tax liabilities by income bracket.

The following table shows how total household income has grown from tax year 2001 to tax year 2005, by decile group[1]. Over this time period, total household income grew by almost $4 billion (27.8%), which represents an average *annual* growth rate of about 6.3%. Because part of this growth reflects a 4.7% increase in the number of households paying tax, overall growth in average income per household drops to 22.1%, which represents about a 5.1% average annual growth rate.

Distribution of Total Household Income (TY2001 and TY2005)
Change in Total Income; Share of Change; and % Change in Average Income - by Decile Group - TY2001 to TY2005

	TY2001			TY2005					
Decile Group	Total Households	Total Income	Average Income	Total Households	Total Income	Average Income	Change in Total Income	Share of Change	% Change in Ave. Inc.
1	37,845	88,462,369	$2,337	39,612	106,924,156	$2,699	18,461,787	0.5%	15.5%
2	37,845	238,783,222	$6,310	39,612	288,191,812	$7,275	49,408,590	1.2%	15.3%
3	37,845	403,885,977	$10,672	39,612	481,280,846	$12,150	77,394,869	2.0%	13.8%
4	37,845	581,829,512	$15,374	39,612	692,261,510	$17,476	110,431,998	2.8%	13.7%
5	37,845	782,304,874	$20,671	39,612	936,907,340	$23,652	154,602,466	3.9%	14.4%
6	37,845	1,042,375,101	$27,543	39,612	1,254,071,189	$31,659	211,696,088	5.3%	14.9%
7	37,845	1,383,401,057	$36,554	39,612	1,668,580,016	$42,123	285,178,959	7.2%	15.2%
8	37,845	1,818,645,709	$48,055	39,612	2,209,445,159	$55,777	390,799,450	9.8%	16.1%
9	37,845	2,419,798,946	$63,940	39,612	2,961,259,090	$74,757	541,460,144	13.6%	16.9%
10	37,845	5,519,874,054	$145,855	39,614	7,648,491,317	$193,075	2,128,617,263	53.6%	32.4%
Total	**378,450**	**14,279,360,821**	**$37,731**	**396,122**	**18,247,412,435**	**$46,065**	**3,968,051,614**	**100.0%**	**22.1%**
10A	12,615	1,019,006,810	$80,777	13,204	1,265,658,629	$95,854	246,651,819	6.2%	18.7%
10B	12,615	1,253,943,681	$99,401	13,204	1,593,600,123	$120,691	339,656,442	8.6%	21.4%
10C	12,615	3,246,923,563	$257,386	13,206	4,789,232,565	$362,656	1,542,309,002	38.9%	40.9%

Income growth across decile groups was not uniform, however. In tax year 2001, households in the 10th decile group received 38.7% of total income. But over the period 2001 to 2005 nearly 54% of the total growth in income accrued to households in the top decile group, so that by 2005 this decile group received 41.9% of total income. Average income for households in the top decile group increased by 32.4% over this time period, which is twice as fast or more than any other decile group. For the top one-third of the top decile group, average income increased by 41% over this time period.

The following table provides the same information with respect to capital gains income.

Growth in capital gains income is even more tilted towards higher income households than was growth in total income. Overall, capital gains income nearly doubled over the period 2001 to 2005; but the vast majority (nearly 90%) of the *growth* in capital gains income accrued to households in the top decile group. About 77% of the growth in capital gains income accrued to the top one-third of households in the top decile group.

[1] Decile groups divide the population of taxpayers/households into ten groups each containing 10% of the population. Taxpayers and households having the lowest incomes are in the first decile group, and taxpayers and households with the highest incomes are in the top decile group. In this and the following table, the top decile group is broken out into thirds with the very highest income households in the top third of the 10th decile.

Distribution of Total Capital Gains Income (TY2001 and TY2005)
Change in Capital Gains Income; Share of Change; and % Change in Ave. Capital Gains Inc. - by Decile Group - TY2001 to TY2005

	TY2001			TY2005					
Decile Group	Total Households	Total Capital Gains	Average CG Income	Total Households	Total Income	Average CG Income	Change in CG Income	Share of Change	% Change in Ave. CG
1	5,629	252,095	$45	5,724	545,950	$95	293,855	0.0%	113.0%
2	5,297	3,363,460	$635	5,476	2,987,488	$546	(375,972)	0.0%	-14.1%
3	5,763	5,022,867	$872	5,852	7,082,767	$1,210	2,059,900	0.3%	38.9%
4	6,398	7,819,574	$1,222	6,228	11,136,318	$1,788	3,316,744	0.4%	46.3%
5	7,250	12,188,568	$1,681	6,934	15,740,005	$2,270	3,551,437	0.5%	35.0%
6	8,312	16,879,227	$2,031	8,388	22,094,597	$2,634	5,215,370	0.7%	29.7%
7	9,764	24,764,804	$2,536	10,003	34,052,299	$3,404	9,287,495	1.2%	34.2%
8	11,272	33,896,669	$3,007	11,728	57,483,399	$4,901	23,586,730	3.1%	63.0%
9	13,912	52,330,111	$3,762	14,608	90,838,350	$6,218	38,508,239	5.0%	65.3%
10	21,761	614,110,139	$28,221	23,310	1,292,393,472	$55,444	678,283,333	88.8%	96.5%
Total	**95,358**	**770,627,514**	**$8,081**	**98,251**	**1,534,354,645**	**$15,617**	**763,727,131**	**100.0%**	**93.2%**
10A	5,665	30,654,497	$5,411	6,012	59,314,490	$9,866	28,659,993	3.8%	82.3%
10B	6,812	59,064,196	$8,671	7,311	121,152,618	$16,571	62,088,422	8.1%	91.1%
10C	9,284	524,391,446	$56,483	9,987	1,111,926,364	$111,337	587,534,918	76.9%	97.1%

For households in the top decile group, *average* capital gains income also nearly doubled (96.5%), while growth in average gains in the first 7 decile groups averaged around 33%; and growth in average gains in the 8th and 9th decile group averaged around 64%.

As a result, whereas in 2001 households in the top decile group received 79.7% of all capital gains income, by 2005 these households received 84.2% of all capital gains. In 2005, the top 4% of highest income households received 75% of all capital gains income.

Importantly, the much faster growth in capital gains income relative to total income shifted the relationship between capital gains income and total income. For households in the top decile group, capital gains comprised 11% of total income in 2001; by 2005 capital gains comprised 17% of total income. For households in the top one-third of the top decile group, capital gains comprised 16% of total income in 2001 and almost one-quarter (23%) of total income in 2005.

Federal Tax Law and the State Deduction for Federal Income Tax

More than anything else, understanding why there is a $100 million dollar difference between old law and SB407 law requires a thorough understanding of the relationship between federal and state income tax law.

Prior to SB407 (i.e., under old law), a taxpayer's federal income taxes paid during the tax year could be deducted in full for state income tax purposes. Because of this interaction between federal and state tax liabilities, an accurate forecast of state tax liabilities requires an accurate forecast of federal tax liabilities for all taxpayers who deduct their federal taxes. Consequently, the simulation model used to forecast revenue (and the impacts of proposed legislation) goes to great lengths to provide a

reasonably accurate forecast of federal tax liabilities for each taxpayer. Indeed, over half the programming in the model is devoted to this task alone.

For taxpayers who itemized their deductions for state income tax purposes, the relationship between federal tax liability and state tax liability under pre-SB407 law meant that *the higher the taxpayer's federal tax the lower his state tax, and the lower the taxpayer's federal tax the higher his state tax*.

During the 2003 legislative session, the forecast of the change in tax liability from adopting SB407 relied on a forecast of tax liability under old law and under SB407 law. The forecast of tax liability under old law was based on federal tax law as it was known at the time of the forecast.

Unfortunately, there have been many changes to federal tax law since the passage of SB407 that were not included in the simulation model used to make the forecast. For the most part, these federal changes either accelerated the original schedule of federal tax reductions in the *Economic Growth and Tax Relief Reconciliation Act of 2001*, or enacted additional federal tax reductions.[2] Because a significant feature of these federal tax changes included a greatly reduced tax rate on capital gains income, and because nearly all capital gains income accrues to high income households, these changes to federal law acted to greatly benefit high income households.

Because these interim federal tax law changes were not known at the time of the original estimate, the forecasting model overstated the forecast of federal tax liabilities. *This acted to overstate the amount of federal tax that would be deducted for state tax purposes, and thereby understate state tax liabilities under old law.*[3]

Consequently, this shift in the relationship between total household income and federal tax liability resulted in a much larger than anticipated difference between state liability under old law and under SB407 law, primarily because the forecast of liability under old law was greatly underestimated.

The following taxpayer example illustrates the underlying relationship between capping the deduction for federal taxes and the reduction in the top tax rate, and how a shift in this relationship would account for a difference in the forecast and actual impact of SB407.

In the example, assume the taxpayer was originally forecast to have TY2005 income of $1,000,000; a federal tax deduction of $300,000 under old law, and a 4.4%

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[2] Federal tax law changes included in the *Jobs and Growth Tax Relief Reconciliation Act of 2003*; the *American Jobs Creation Act of 2004*; and the *Working Families Tax Relief Act of 2004*; were not included in the simulation model used to forecast the impacts of SB407. For the most part, these changes acted to reduce federal tax liabilities, in no small part by reducing federal tax rates on capital gains income.

[3] On the other hand, overstating the forecast of federal tax in itself would have little impact on the forecast of liability under SB407 because the deduction for federal taxes is capped at $5,000.

reduction in liability as a result of capping the deduction at $5,000 and reducing the top marginal rate from 11% to 6.9%.

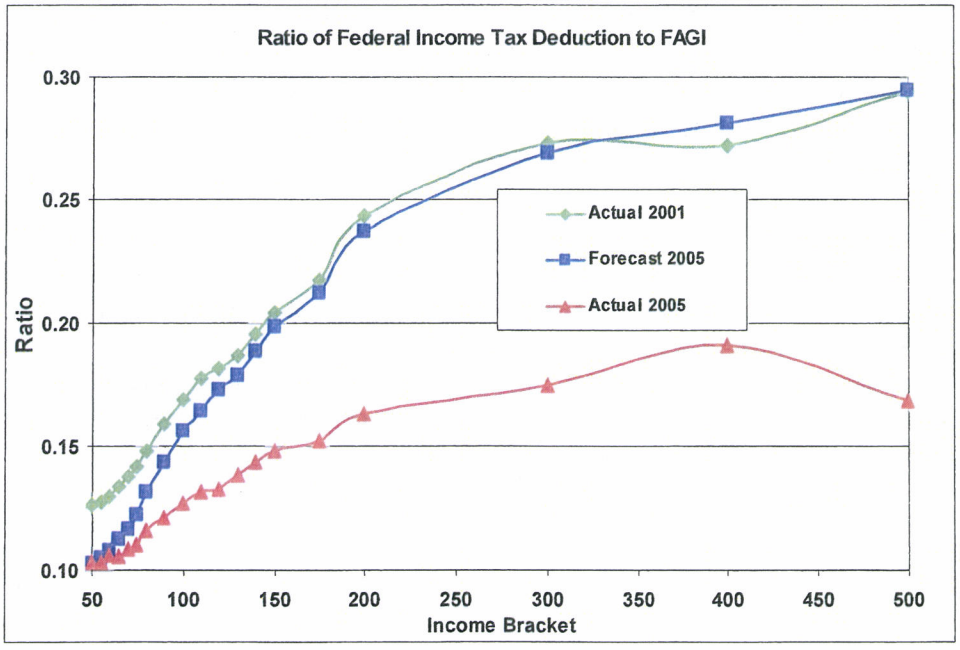
If in fact the actual relationship between income and the deduction for federal income taxes turns out to be that income grew substantially faster than forecast, while the deduction for federal taxes grew only modestly more than forecast, then the percentage reduction in tax due to SB407 would be much larger than what was forecast.

Shift in Relationship Between Federal Income Tax and Total Income - Taxpayer Example

	Forecast		Actual	
	Old Law	SB407	Old Law	SB407
Total Income	1,000,000	1,000,000	1,600,000	1,600,000
FITD	300,000	5,000	320,000	5,000
Other Ded	135,000	135,000	135,000	135,000
Total Ded	435,000	140,000	455,000	140,000
Pers Exemption	2,800	2,800	2,800	2,800
Taxable Income	562,200	857,200	1,142,200	1,457,200
Tax @ 11%	61,842		125,642	
Tax @ 6.9%		59,147		100,547
Difference		(2,695)		(25,095)
% Change		**-4.4%**		**-20.0%**

As illustrated in the example, suppose the taxpayer's income actually grew to $1,600,000 but the deduction for federal taxes only increased an additional $20,000 over the amount forecast. In this case the resulting tax reduction is 20%, explained mostly by the fact that the forecast ratio of federal tax liability to income of 30% ($300,000 / $1,000,000) actually turned out to be just 20% ($320,000 / $1,600,000).

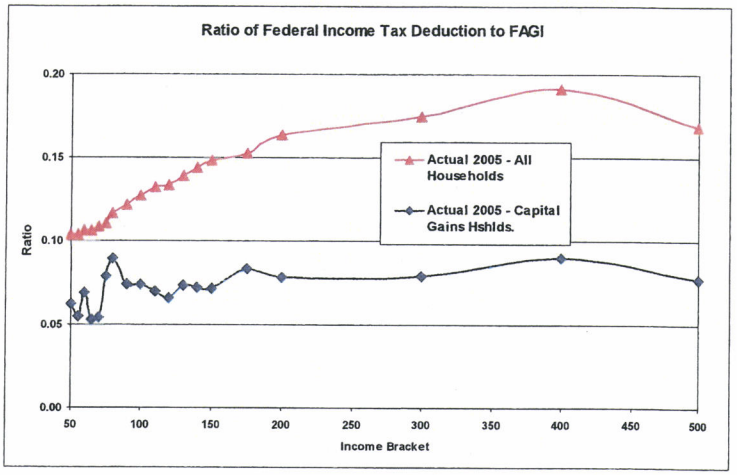
The following chart shows how the relationship between federal income taxes and federal adjusted gross income (FAGI) shifted between the time the forecast was made and tax year 2005.



As the chart shows, the actual tax year 2001 ratio of total federal income taxes to gross income rose from around 10% for households with $50,000 of income to almost 30% for households in the top income bracket ($500,000 or more). The 2003 forecast of what this relationship would look like in tax year 2005 very closely mirrors the actual relationship that existed in tax year 2001.

But actual experience shows that this relationship changed substantially by tax year 2005. While the ratio of federal taxes to total income was still around 10% for households with $50,000 of income, the ratio rose to a high of 19% for households with incomes between $400,000 and $500,000 and then dropped to just 17% for households with incomes over $500,000.

Furthermore, for households with substantial capital gains income the ratio of federal tax paid during the tax year to gross income is even further below that of all households. The chart to the right compares actual TY2005 ratios for all households and those households where capital gains income comprises 50% or more of total income. For this latter group of households, the ratio varies between 5% and 9%, with the ratio for households in the top income bracket being about 8%.



Had the forecast relationship between federal taxes and gross income for all households actually occurred in TY2005, the itemized deduction for federal taxes would have been almost a half billion dollars higher, and total tax liability as much as $50 million lower. This would have reduced the *difference* between old law tax and SB407 tax from $100 million to $50 million.

The forecasted impact of SB407 inherently assumed that, for old law, incomes and the deduction for federal income taxes would grow commensurately based on what was then federal tax law. But because incomes grew more rapidly than forecast, while federal income taxes grow more slowly than forecast, *the tax reduction effect of the rate reduction from 11% to 6.9%*[4] *outweighed the offsetting tax increase effect of capping the deduction for federal taxes paid far more than forecast*, with the end result being that the actual net impact of SB407 is much larger than originally forecast.

[4] Note that when all other things are held constant, for taxpayers with very high incomes a reduction in the top marginal rate alone from 11% to 6.9% represents a reduction of 37.3% (11 – 6.9 = 4.1 / 11 = .373).