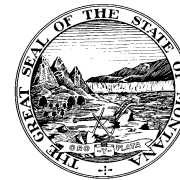


Dan Bucks
Director

Montana Department of Revenue



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.

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 returns⁵, 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 models⁶ 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	Mean 2008 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 married⁷ 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 dummies – 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.

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. Table A-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 migrating⁹. 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

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

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 \geq 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 \leq 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 ratios 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

Parameter	Model 1: Out-migration								Model 2: In-migration								Model 3: In-Migration				
	Resident to Part-Year or Non-Resident				Resident to Non-Resident				Part-Year or Non-Resident to Resident				Non-Resident to Resident				Non-Resident Filer to Resident				
	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	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

Parameter	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			95 % Confidence			95 % Confidence			95 % Confidence			95 % Confidence		
	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