MINNESOTA CENTER for Fiscal Excellence

ISSUE BRIEF

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Minnesota, Millionaires, and Mobility
What's the Economic Incentive for Leaving Minnesota?

Summary

Although national evidence suggests that higher individual income taxation does not cause large numbers of wealthy individuals to change their state of residence, there can be no dispute that Minnesota's new fourth tier income tax and recent estate tax changes do alter the economics of residence decisions. National research suggests that if tax-induced behavioral changes do occur, they are most likely to occur at the very highest income levels.

In this Issue Brief we quantify the economic incentive for leaving Minnesota (or alternatively, the economic disincentive for migrating here) for four different very high-income levels ($1 million, $2 million, $5 million and $10 million). We model tax returns and estimate the additional federal/state income tax burden the new fourth tier creates. We examine both the marginal effects created by the new fourth tier and compare the total state and federal income tax burden in Minnesota (under a four-tier income tax system) with bordering states. To evaluate the opportunity cost of staying in Minnesota from a longer-term perspective we calculate a range of returns that could be realized if one year's worth of income tax differential between Minnesota and other states were invested over a ten-year period.

For the income levels studied, the additional state/federal income taxes the fourth tier creates for Minnesota filers ranges from $14,000 to $182,000. Investing that marginal tax differential over ten years yields a longer-term opportunity cost of remaining in Minnesota ranging from $18,000 to $411,000 depending on assumed returns and income level.

When comparing the combined tax year 2011 state/federal individual income tax burden in Minnesota under a four-tier system to burdens in neighboring states we find higher burdens for Minnesota residents ranging from $25,000 to $682,000 depending on income level and comparison state. Again calculating the value of one year's worth of tax differential invested over ten years, we estimate the opportunity cost of remaining a Minnesota resident ranges from $33,000 to $1.5 million depending on income level, assumed investment return, and state of relocation.

These opportunity cost estimates represent only one year of income tax differentials but relocation decisions are much likely to be based on a multi-year perspective. Assuming similar differentials in future years is problematic because of the volatility and significance of capital gains income in these filer profiles. However, if similar tax savings could be realized annually over a ten-year period, the opportunity cost of maintaining a Minnesota residency would increase roughly 6.5 to 8.5 times depending on the rate of return.

We conclude by noting that an economic incentive to leave Minnesota is also an economic disincentive to come. Recent tax changes also alter the economics a firm or an entrepreneur faces in locating senior, well-paid managers and talent. In addition, higher taxes on flow-through entities (businesses that choose to be taxed under the individual income tax system) will reduce the retained earnings available to fund capital expenditures or other growth. In these circumstances, the opportunity cost with respect to the impact on business objectives may be a greater consideration in decision making than any wealth maximization interests. Such business-related considerations are likely to be of greater potential impact and consequence to the state's long-term economic health than actual tax flight.

Our analysis provides some sense about the magnitude of the incentives while recognizing that many other qualitative and financial considerations come into play in location decisions. We leave judgments about whether these estimates are sufficiently significant to help trigger actual behavioral changes for others to debate.

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Introduction: The Continuing Debate Over "Tax Flight"

Will higher individual income taxes drive the wealthy and job creators out of Minnesota? Many opponents of a fourth income tax bracket expressed concern during the 2013 legislative session about the "flight risk" higher income taxes could create for high-income Minnesotans. With the fourth tier now in place, some continue to be concerned as anecdotal stories from tax accountants, lawyers, and estate planners actively engaged in relocation investigations for wealthy clients are not uncommon.

Encouragingly, there is little national evidence to support the idea that higher state individual income taxes result in large amounts of out-migration. High profile studies that have purported to find evidence of this behavior have often been found, upon closer review, to have methodological problems or interpretation issues. For example, a Maryland study that received considerable national attention found significant losses of millionaires from state tax rolls following Maryland's increase in its top income tax bracket rate. Closer examination of actual tax return data revealed that the vast majority of the decline came about as incomes fell and investments performed poorly during the most recent recession. Most of these households were still in Maryland; their incomes simply weren't in the millions any more.

Researchers have offered several reasons why higher state individual income taxes do not prompt more tax flight. Employment ties, costs and risks of business and personal relocation, and family structures are three chief factors while other research suggests that housing prices have a much stronger effect on household welfare and are a stronger determinant on state migration than taxes. Such reasoning makes intuitive sense and has led some to flatly and boldly declare tax flight a "myth."[1]

But such absolute statements about the lack of influence of taxes have in location decisions are also susceptible to overstatement. One of the most cited research studies on this issue is a 2004 research paper *Do the Rich Flee High Tax States? Evidence from Federal Estate Tax Returns,* co-authored by one of the nation's most distinguished and authoritative tax experts, Joel Slemrod of the University of Michigan.[2] The conclusion states:

> This paper finds that the number of federal estate tax return filers reported as residing in each state is negatively influenced by the level of taxes imposed on high income and high wealth people in that state. The most compelling results are for estate and inheritance taxes and sales taxes, but income and property taxes have statistically significant effects of similar magnitudes in some reasonable specifications. Our evidence is consistent with the idea that some rich individuals flee states that tax them relatively heavily although it may reflect other modes of tax avoidance as well.[3]

Still other research has found that although the vast majority of income earners display little evidence of behavioral responses to tax changes, there is significant evidence of various forms of behavioral responses in the top 1% of earners.[4]

There is an old saying that the only certain conclusion about social science research is "some do and some don't." However, there can be no dispute that Minnesota's new fourth income tax bracket and recent estate tax changes alter the economics of residence decisions by creating incentives for high-income residents to leave (or conversely, disincentives for coming to) Minnesota.

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[1] *Tax Flight Is A Myth: Higher State Taxes Bring More Revenue, Not More Migration,* Center on Budget and Policy Priorities (CBPP), August 2011.

[2] John Bakija and Joel Slemrod *Do the Rich Flee High Tax States? Evidence from Federal Estate Tax Returns,* NBER Working Paper 10645, July 2004.

[3] We note that this research was cited in CBPP's report, "Tax Flight Is a Myth". However, the CBPP report's authors interpreted Bakija and Slemrod's findings as having "failed to find conclusive evidence that difference in state income taxes affect the location of the rich." (p.8)

[4] Emmanuel Saez "Reported Incomes and Marginal Tax Rate, 1960-2000: Evidence and Policy Implications." In Tax Policy and the Economy (2004) National Bureau of Economic Research.

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This Issue Brief attempts to quantify these economic (dis)incentives by estimating the additional income tax burden (combined state and federal) that Minnesota's new fourth tier creates at four very high-income levels. We look at the marginal effects of the new fourth tier and compare total state and federal income tax burdens in Minnesota with bordering states. To evaluate the cost of staying in Minnesota from a longer-term perspective we calculate a range of investment returns that could be realized if the tax differential between Minnesota and other states were invested over a ten-year period.

By calculating the opportunity cost very high-income individuals incur by continuing to reside in Minnesota, our analysis provides some sense as to the magnitude of the exposure this new tax policy creates. In making actual relocation decisions, affected taxpayers would obviously weigh these income tax-related opportunity costs against a host of other qualitative and cost considerations. We leave judgments about whether these additional tax burdens are sufficiently significant to trigger actual behavioral changes for others to debate.

Our Focus: Millionaires

Based on the literature review, any analysis of "flight risk" incentives seems best directed towards their impact on the very highest income households. This Issue Brief focuses on the economic incentives Minnesota's fourth income tax bracket has created for households with $1 million or more in federal adjusted gross income. How large is this population of interest? This question is difficult to answer because of volatility in the number of filers exposed to the fourth tier in any tax year (largely due to volatility in capital gains income), lag time in Minnesota Department of Revenue ("DOR") data reporting, and data privacy concerns. Based on information provided by DOR for tax year 2010, we estimate approximately 5,000 resident returns that year had at least $1 million of FAGI.

Methodology

To calculate income taxes on high-income filers, we created model taxpayers and made assumptions about where their income comes from, and what levels of deductions they clam. Our assumptions are based on federal individual income tax return data published in the *Statistics of Income (SOI)* from tax year 2011 as follows[5].

FAGI Ranges – SOI Data	Model Taxpayer
$1 million to $1.5 million $1.5 million to 2 million	$1 million
$2 million to $5 million	$2 million
$5 million to $10 million	$5 million
$10 million or more	$10 million

At each income level, we used the "50%-plus-one" rule, only including a specific stream of income if it appeared on a majority of returns. Taxpayers at all income levels had wage, taxable interest, nontaxable interest, dividend, and business income. The federal data indicated that our $2 million, $5 million, and $10 million examples should also include long-term capital gains income. We allocated income based on the overall proportions found in the strata. We further assume that our taxpayers are married couples with two children with total wages divided between spouses on an 85%/15% basis for the $1 million filer, on a 90%/10% basis for the $2 million filer, and on a 95%/5% basis for the $5 million and $10 million filer.

For purposes of computing the AMT, we calculated the deductions for real estate taxes, charitable contributions, and "other limited miscellaneous" deductions separately. Otherwise we treat all itemized deductions as a single group and prepared estimates based on overall totals.

Generally, filers at these income levels are not eligible for tax credits, such as the federal child tax credit. However, we do test for eligibility for the Minnesota Marriage Credit and apply it as applicable.

We used the National Bureau of Economic Research's TAXSIM Version 9.2 income tax simulator (available at http://users.nber.org/~taxsim/taxsim-calc9/index.html) to calculate most federal and state tax liabilities for tax year 2011, the most recent available year as of this writing. To determine the effect of the fourth tier on federal and state

[5] *Statistics of Income*, Internal Revenue Service, Fall 2013.

income tax liabilities, we hand-generated 2011 federal and Minnesota tax returns as though the fourth income tax bracket were in place for that year. Since tax brackets are adjusted each year for inflation we set the threshold for the fourth income tax tier for tax year 2011 at $237,960 for married-joint filers. We were unable to use TAXSIM to generate these alternative-scenario tax returns since the program does not offer users the ability to test the effects of tax policy changes.

Income Profiles of Millionaires

Although income shares among the very highest earners are hugely volatile, our income profiles can provide some perspective on exposure to tax flight. As noted earlier, the taxpayer profiles presented below employ the "50%-plus-one" rule where we identify which income sources are reported by a majority of filers in each income strata, then create the taxpayer profiles assuming that income is divided in proportion to the relevant income sources.

Table 1: Income Distribution for Model Taxpayers

Income Source	Filer Income Level, Tax Year 2011			
	$1 million	$2 million	$5 million	$10 million
Salary/Wages	55.5%	38.7%	33.2%	17.5%
Business Income	32.7%	30.0%	27.6%	24.0%
Qualified Dividends	4.6%	4.5%	5.1%	7.1%
Taxable Interest plus Non-Qualified Dividends	4.5%	4.5%	4.9%	6.2%
Tax Exempt Interest	2.7%	2.4%	1.9%	1.3%
Long-Term Capital Gains	0.0%*	20.1%	27.4%	43.9%
Total	100.0%	100.0%	100.0%	100.0%

Note: No long-term capital gains for the $1 million filer because a majority of returns did not include such income.

The share of income from salary and wages – which tend to tie earners to employment locations – unsurprisingly decreases at higher incomes but remains significant even at the highest filer levels (about $1.75 million for the $10 million filer). Conversely, dividends, interest, and long-term capital gains are footloose and recognizable anywhere. Capital gains income is especially footloose because individuals can exercise considerable control over both when they realize that income but also where they live at the time. Business income has both tethering and footloose qualities. Active business owners may draw wages or otherwise be tied to firm operations but some passive owner/investors may find it economically advantageous to leave Minnesota even if the business remains in the state since by relocating the taxpayer would limit the proportion of his or her overall income Minnesota can tax. Moreover, business ownership itself is a huge source of unrealized capital gains potentially affecting residence decisions in concert with the sale of ownership. According to federal Survey of Consumer Finance data, aggregate unrealized capital gains on active business assets are almost six times larger than aggregate unrealized capital gains on corporate stock.[6]

Findings: Marginal Impacts Created by the New Fourth Tier

Minnesota's new fourth income tax bracket with a 9.85% rate creates a marginal (or additional) economic incentive for high-income residents to leave the state beyond the previous three-tier system with a top rate of 7.85%. We estimate that the incremental federal-state income tax liability ranges from $14,000 to $182,000 per year (Table 2), depending on the filer's income level. To estimate the longer-term opportunity cost created by remitting higher levels of income tax instead of investing the proceeds and increasing personal net worth, we calculate the future value of this tax differential at the end of ten years using two rates: a risk free rate of 2.75% based on 10-year Treasury yield curve and a high risk rate of 8.5% – the same used by Minnesota's State Board of Investment – based on the assumption that these high-income individuals have similar access to sophisticated investment vehicles. The long-term opportunity cost ranges from $18,000 to $411,000.

[6] William Gentry, Capital Gains Taxation and Entrepreneurship , Northwestern University 2010

Table 2: Minnesota Fourth Tier Income Tax Impact on Tax Year 2011 Liabilities at Selected Incomes and Value of Marginal Tax Invested Over 10-Year Period

FAGI	Fourth Tier Impact on Tax Year 2011 Liabilities*	Value of Marginal Tax, Invested Over 10 Years	
		2.75% Annual Return	8.50% Annual Return
$1 million	$14,000	$18,400	$31,700
$2 million	$28,300	$37,100	$64,000
$5 million	$58,300	$76,500	$131,800
$10 million	$181,900	$238,600	$411,300

*Combined state and federal effect.
Note: All amounts rounded to nearest hundred dollars.

This is likely a conservative estimate of the opportunity cost because the analysis is based on only one year of tax savings. For example, if we assume the filer would realize a $14,000 income tax savings impact every year for the next ten years, the value of this "tax savings annuity" increases to $158,700 at the risk free return rate and $207,700 at the SBI assumed rate of return.

Findings – Total Income Tax Burden Comparisons to Neighboring States

We also examine the opportunity cost of continuing to reside in Minnesota under a four-tier income tax system by comparing the federal and Minnesota income tax burden to burdens in other states. We calculated total federal and state income tax burdens for Minnesota for tax year 2011 assuming a fourth tier and also for the border states of Iowa, North Dakota, South Dakota, and Wisconsin. We found higher combined income tax burdens for Minnesota residents than for residents of any of these other states.

The estimated income tax savings by moving to a neighboring state ranges from $25,000 to $682,000 depending on filer income and destination state. As before, we estimated the longer-term opportunity cost of remaining a Minnesota resident by calculating the value of one year's worth of tax differential invested over ten years. The ten year opportunity cost associated with one year of income tax savings ranges from $33,000 to $1.5 million depending on income level, assumed investment return, and state of relocation.

Table 3: Federal and State Income Tax Burdens at $1 Million of Federal Adjusted Gross Income, Minnesota and Neighboring States, Tax Year 2011, and Value of the Tax Differential Invested Over Ten Years

State	Total Federal and State Income Tax Liability	Income Tax Savings Compared to MN	Value of Tax Differential, Invested Over 10 Years	
			2.75% Annual Return	8.50% Annual Return
MN (with fourth tier)	$330,500	NA	NA	NA
Iowa	$305,200	$25,200	$33,100	$57,000
North Dakota	$289,300	$41,200	$54,000	$93,200
South Dakota	$268,600	$61,900	$81,200	$140,000
Wisconsin	$284,400	$46,100	$60,500	$104,200

Table 4: Federal and State Income Tax Burdens at $2 Million of Federal Adjusted Gross Income, Minnesota and Neighboring States, Tax Year 2011, and Value of the Tax Differential Invested Over Ten Years

State	Total Federal and State Income Tax Liability	Income Tax Savings Compared to MN	Value of Tax Differential, Invested Over 10 Years	
			2.75% Annual Return	8.50% Annual Return
MN (with fourth tier)	$624,400	NA	NA	NA
Iowa	$578,800	$45,600	$59,800	$103,100
North Dakota	$541,000	$83,400	$109,400	$188,600
South Dakota	$500,100	$124,300	$163,000	$281,000
Wisconsin	$577,400	$47,000	$61,600	$106,300

Table 5: Federal and State Income Tax Burdens at $5 Million of Federal Adjusted Gross Income, Minnesota and Neighboring States, Tax Year 2011, and Value of the Tax Differential Invested Over Ten Years

State	Total Federal and State Income Tax Liability	Income Tax Savings Compared to MN	Value of Tax Differential, Invested Over 10 Years	
			2.75% Annual Return	8.50% Annual Return
MN (with fourth tier)	$1,537,600	NA	NA	NA
Iowa	$1,438,500	$99,100	$130,000	$224,100
North Dakota	$1,339,400	$198,200	$260,000	$448,100
South Dakota	$1,237,100	$300,500	$394,200	$679,400
Wisconsin	$1,426,300	$111,300	$146,000	$251,600

Table 6: Federal and State Income Tax Burdens at $10 Million of Federal Adjusted Gross Income, Minnesota and Neighboring States, Tax Year 2011, and Value of the Tax Differential Invested Over Ten Years

State	Total Federal and State Income Tax Liability	Income Tax Savings Compared to MN	Value of Tax Differential, Invested Over 10 Years	
			2.75% Annual Return	8.50% Annual Return
MN (with fourth tier)	$2,782,800	NA	NA	NA
Iowa	$2,520,000	$262,800	$344,700	$594,200
North Dakota	$2,289,400	$493,400	$647,200	$1,115,600
South Dakota	$2,100,400	$682,400	$895,100	$1,542,900
Wisconsin	$2,452,700	$330,100	$433,000	$746,400

Again, if we assume the income tax savings could be realized each year, the opportunity cost of maintaining Minnesota residency increases. In the case of the $1 million filer, the value of this "income tax savings annuity" ranges depending on the comparison state: from $286,000 to $701,000 at the risk free rate of return, and from $374,000 to $918,000 at the investment rate of return used by the SBI. The volatility and significance of capital gains income in the very highest profiles makes the predictability of future tax savings very problematic. However, if similar tax savings could be realized annually over a ten-year period, the opportunity cost of maintaining a Minnesota residency would increase roughly 6.5 to 8.5 times depending on the rate of return.

Sidebar: What About the Minnesota Estate and Gift Taxes?

State estate and gift taxes are another major potential influence affecting the residence decisions of high-income Minnesotans. Minnesota is one of 19 states with an estate or inheritance tax. Minnesota's estate tax is imposed using tiered rates that range from 0.8 to 16%, with the rates increasing as the size of the taxable estate increases. In 2013, Minnesota established a new stand-alone gift tax that prevents property owners from avoiding tax by making lifetime gifts. Minnesota and Connecticut are the only two states in the nation with such a tax.

Intuitively, the more relatively footloose a high-wealth household is (that is, not tied to location by employment or family responsibilities), the seemingly greater the risk of tax flight would be. Estate tax research appears to bear this out. In the Bakija/Slemrod paper cited previously, investigators found the strongest relationship between taxation and tax flight in estate and inheritance taxation. They found that estates over $5 million were especially sensitive to the estate tax, with estate tax returns declining nearly four percent in response to a one percentage point increase in the effective estate/inheritance tax rate. In Minnesota, an estate with $5 million of taxable value would pay $391,600 in Minnesota estate taxes for an effective rate of 8%. Given that most states (31) do not have any estate or inheritance taxes (and therefore have an effective estate/inheritance tax rate of zero), the out-migration potential for Minnesota estates exceeding $5 million would appear to be relatively significant. New limitations on estate planning created by the newly enacted gift tax may exacerbate the incentive to move.

How large is this "at risk" group? It's extremely difficult to determine, since information on household wealth is even more difficult to obtain than information on household income. According to the latest available (2007) IRS personal wealth estimates, Minnesota had roughly 24,000 wealth holders with net worth exceeding $2,000,000.

Final Considerations

Incentives surrounding relocation decisions are complex and abundant and involve both qualitative and quantitative matters. Even when a relocation decision is made, the influence of taxes and/or the role of a specific tax will vary by situation. For some, taxation may be a primary cause; for others, one of many contributing factors; and still for others, a completely inconsequential issue. Incentives undoubtedly have the greatest impact when the ties to employment and business activity are the weakest and when individuals employ a strong wealth maximization approach to their decision-making.

On this controversial and complex topic, we offer three final observations. First, an economic incentive to leave is also, by definition, an economic disincentive to come. Although the question "will they leave" has been the focus of the policy debate, the question "will they come" is far more relevant and important to economic development and long-term state health. States are engaged in intense competition for entrepreneurs, venture capital, and attraction of high end, well-paid talent. Because of the popularity of organizing businesses as flow-through entities (i.e. – they choose to be taxed under the individual income tax system) and the wage effects of income taxes on the compensation of in-demand, high paid workers, income taxation will remain an important competitiveness-related issue. Discerning the impact of recent tax changes on in-migration will remain a question because the effect of higher taxation on decisions not made is essentially impossible to research. But policymakers still need to consider the implications of these income tax differentials on Minnesota's economy.

Second, for active businesses organized as flow-through entities, higher taxes result in less after tax retained earnings available to fund capital expenditures or other growth. In these circumstances, the opportunity cost with respect to the impact on business objectives may be more important and relevant in decision making than any wealth maximization considerations.

Finally, the benefit to a state of retaining high-income and high net worth individuals extends beyond the taxes they provide. Because national research has generally found that any revenue loss linked to such households leaving a state is extremely small relative to the additional revenue collected when higher taxes are imposed, many consider the costs of tax-induced migration are always outweighed by the benefits greater levels of public service provide. However, high-income and high net worth households provide other benefits to a state, including philanthropic activity, venture networking, and access to business capital. Even small amounts of tax flight have the potential to harm these socially and economically beneficial activities as well.

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