



An Analysis of a Proposal to Add a Fourth Tier to Minnesota's Individual Income Tax

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In order to balance the budget in a state with a significant deficit, there are really only three alternatives: raise some additional revenue, forego some current spending or adopt a combination of the two. One proposal in Minnesota that has recently attracted attention would increase the state's revenue by adding a fourth, higher-rate tier to its individual income tax.

Unlike many other sources of revenue, an additional tier at the top offers the advantage of raising additional revenue only from taxpayers with the greatest ability to pay. On the other hand, in this current serious recession, with unemployment approaching 9%, the state's residents can ill afford a tax change that might further dampen employment. A particular concern regards the impact of a fourth tier on Minnesota shareholders of Subchapter S corporations¹ — and by extension, on the competitiveness and growth of these businesses.

In these few pages, we use recent historical tax data to sketch out some of the likely consequences of a fourth tier. Along the way, we'll try to answer the following questions, using the most current data available, from 2005 and 2006²:

1. How were taxpayers, income sources and income tax liabilities distributed among the three tiers of the Minnesota individual income tax?
2. What are the general characteristics — number of shareholders, payrolls, and industries — of Subchapter S corporations?
3. What would a fourth tier proposal look like?
4. How would a fourth tier have impacted revenue and income tax liabilities in 2006, holding all else constant?
5. What does the empirical evidence from scholarly research tell us about the likely behavioral responses of taxpayers?

Minnesota's Individual Income Tax in 2006

Under 2006 law, each Minnesota taxpayer fell into one of three brackets, depending upon income: 5.35%, 7.05% or 7.85%.³³ Table 1 summarizes several characteristics of the tax system in 2006, for Minnesota residents.⁴⁴ Of the roughly 2.4 million returns filed in 2006 by state residents, 53.2% fell into the lowest (5.35%) bracket. On average, they earned \$22,681 in (adjusted gross) income and paid \$302 in Minnesota tax, yielding an effective tax rate of 1.14%.⁵⁵ Some 40% fell into the middle bracket (7.05%). These Minnesotans had average incomes of \$73,189

1 These "pass-through" entities, unlike traditional C corporations, are not subject to Minnesota's Corporate Franchise tax. Instead, S-corporation profits are allocated to the entities' owners, who must report them and pay the associated income tax as individuals.

2 Minnesota individual income data is from 2006. National Subchapter S corporation data is from 2005.

3 Income thresholds for each bracket vary with filing status: married, filing joint; married, filing separately; single; and head of household.

4 We have restricted our analysis here to the returns of Minnesota residents, for two reasons. First, our primary concern is with the welfare of Minnesota's citizens. Second, including the residents of other states (or countries) with Minnesota income introduces some anomalies that are not representative of this state's residents.

5 An effective (or average) tax rate is defined as the ratio of taxes paid to gross income earned.



and paid average state tax of \$3,135, for an effective tax rate of 4.28%. 6.6% of Minnesota returns were in the top bracket (7.85%). Their average income was \$317,097 while their average state tax was \$19,553, resulting in a 6.17% effective tax rate.

Table 1
2006 Minnesota Individual Income Tax Returns, Residents

	5.35%	7.05%	7.85%
# returns filed	1,253,663	947,114	155,324
% of returns filed	53.2%	40.2%	6.6%
Mean MN AGI	\$22,681	\$73,189	\$317,097
Mean Tax after all credits	\$302	\$3,135	\$19,553
Effective tax rate	1.14%	4.28%	6.17%

For Minnesota resident taxpayers who itemize deductions on their federal returns, the numbers in this table overstate their state tax burdens and, therefore, their effective tax rates. This is so because the U.S. federal individual income tax code allows a deduction for the payment of state taxes.⁶ Netting out this reduction in federal tax lowers the state tax burden, from the individual’s perspective. From the state’s perspective, the federal deduction effectively exports a portion of the state’s tax revenues.

Table 2 demonstrates that Minnesotans in the bottom bracket pay a smaller share of the total revenue raised by the income tax (5%) than their share of the state’s total adjusted gross income (MN AGI) (19%), while those in the top bracket pay a larger share (48% of the tax and 34% of MN AGI). Middle-income bracket taxpayers pay roughly the same share of the tax as their share of the state’s total adjusted gross income (47%).

Table 2
Comparison of Income & Revenue

Bracket	% of MNAGI	% of Revenue
5.35%	19%	5%
7.05%	47%	47%
7.85%	34%	48%
Overall	100%	100%

Given the concern that has been expressed about the individual income taxes borne by “small” business owners, we have used the 2006 tax return data to explore how various sources of income are distributed across Minnesota’s three tax brackets. Because the Minnesota income tax “piggy-backs” on the federal income tax, we use the federal definitions of income sources, focusing our attention on wages and salaries, and, as measures of individual business income, Schedules C, E, and F. S-corporation profits are reported, along with partnership income, rents and royalties, on Schedule E. Sole proprietor income is reported on Schedule C and Farm income on Schedule F. Wage and salary income, subject to information reporting, is entered directly onto the Form 1040. Figures 1-3 show for each tax bracket the proportions of income (MN adjusted gross income) accounted for by each of these four income sources.⁷

⁶ This deduction is available to taxpayers who are not subject to the Alternative Minimum Tax.

⁷ For clarity, pie chart sections appear only where the contribution to Minnesota AGI of an income source was positive (i.e., losses are not depicted). The “Other” category includes interest and dividends, taxable refunds, alimony received, capital gains, IRA or pension distributions, unemployment compensation and social security benefits.



Figure 1

Components of 2006 MN AGI residents in 5.65% bracket

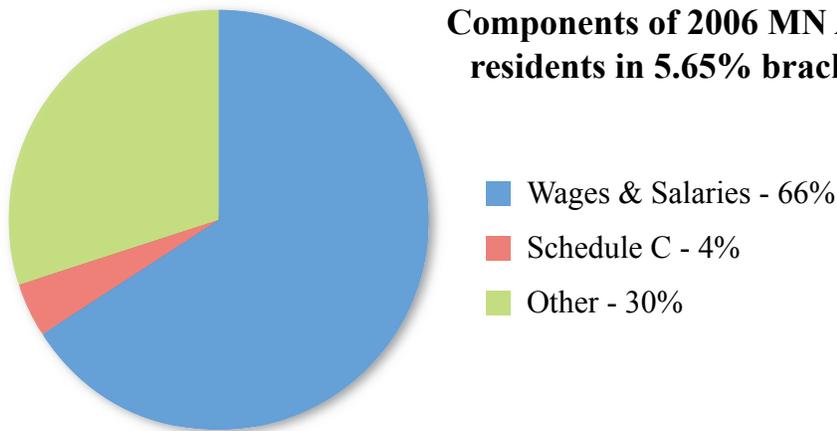


Figure 2

Components of 2006 MN AGI residents in 7.05% bracket

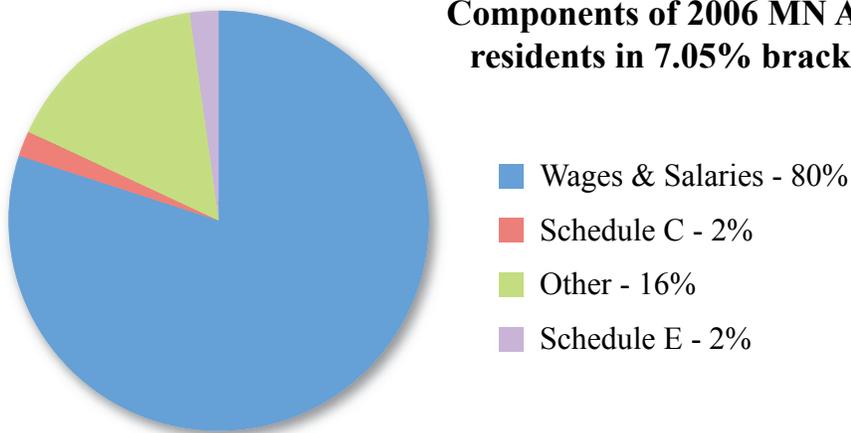
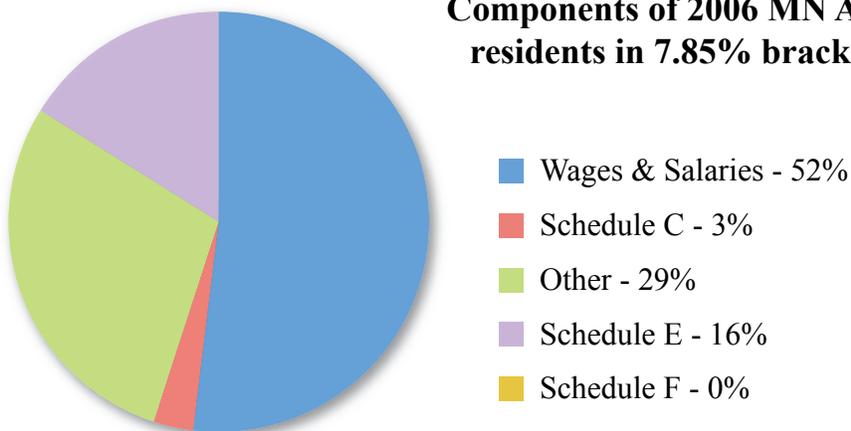


Figure 3

Components of 2006 MN AGI residents in 7.85% bracket





Sole proprietor income (Schedule C) accounts for small proportions of MN AGI: 4 % for those in the lowest bracket, 2% in the middle bracket, and 3% in the highest bracket. S-corporation, partnership and rental/royalty incomes (Schedule E) are negative in the lowest bracket, 2% in the middle bracket and 16% in the top bracket. Farm income (Schedule F) is negative or negligible overall. Wages and salaries, by far, is the largest component, accounting for 66% of AGI in the 5.65% bracket, 80% in the 7.05% bracket, and 52% in the 7.85% bracket. This analysis suggests that the “small” business income associated with partnerships and S-corporations, in 2006, was a significant phenomenon only in the topmost bracket.

Sub-chapter S Corporations

The IRS’s Statistics of Income (SOI) periodically publishes a descriptive summary of the returns of S-corporations (Form 1120S). In the most recent of these (for 2003), Kelly Luttrell documents a substantial increase in the number of these entities, encouraged by the passage of several recent federal laws. In 2003, S-corporations were the most prevalent form of corporate organization, accounting for 61.9% of all corporate entities. Of the \$276.5 billion of positive total net income reported by these firms, net income from a trade or business, the largest component, accounted for 80%. Four industrial sectors were most prevalent: wholesale and retail trade; professional, scientific and technical services; construction; and real estate, rental and leasing.

Measuring entity size by receipts, more than half of all S-corps had receipts of less than \$250,000. Large S-corps, with receipts in excess of \$50 million, accounted for about one-quarter of all S-corp receipts, but for only 0.29% of the entities filing. Most of these were in wholesale and retail trade. Using the number of shareholders as an index of size, almost 34% of S-corp returns had only one shareholder, concentrated in the professional, scientific and technical services sector. Over 99% had 10 or fewer shareholders.⁸

Concentrating on S-corporations with positive net income, we present a selection of items from the SOI data for 2005 1120S filings in Table 3.⁹

Table 3
S-corporation Returns with Net Income from a Trade or Business
2005 (dollars in thousands)

Number of returns	2,275,502
Number of shareholders	3,751,710
Business receipts	\$4,328,451,012
Wages & salaries	\$434,739,638
Compensation of officers	\$157,580,074
Employee benefits	\$38,844,897
Net income from trade or business	\$348,078,943

On average, each of these 2005 S-corporation returns reported 1.65 shareholders, and \$1.9 million in trade or business receipts. The average amount (per return) expended on wages and salaries was \$191,052. Average compensation to officers was \$69,251. Average employee benefits expenditures were \$17,071. Deducting these (and all other expenditures) from receipts yields average net income of \$152,968 per entity return. With an average of 1.65 share-

⁸ Kelly Luttrell, “S Corporation Returns, 2003”, Statistics of Income Bulletin, www.irs.gov/pub/irs-soi/03scorp.pdf

⁹ See Statistics of Income, Internal Revenue Service, U.S. Department of the Treasury, Table 8. <http://www.irs.gov/taxstats/bustaxstats/article/0,,id=96405,00.html>



holders attached to each return, the average net S-corporation income per shareholder was \$92,708. While we cannot assume all shareowners are officers, if officer compensation is taken into account, the average gross income from the trade or business would be closer to \$161,959.¹⁰

While SOI does not break out S-corporation 1120S returns by state (because often the shareholders of multi-owner entities are domiciled in more than one state), Minnesota requires all entities electing federal S-corporation status to file an annual state return (Form M-8) and, if their combined property, payroll and sales within the state exceed \$500,000, to pay a fee. In 2005, there were about 90,000 such S-corporations. Of these, 91% had a Minnesota payroll of less than \$500,000. 195 had payroll exceeding \$10 million; 53 had payroll above \$20 million. Reported positive net income from partnerships and S-corporations together totaled \$7.96 billion or \$65,667 per filer, for individuals reporting such income.¹¹ Note that this is substantially less than the SOI per-shareholder amount for S-corporations.

Partnerships

SOI also frequently publishes a description of Form 1065 Partnership returns. In 2006, 68.9% of all net allocable partnership income emanated from two industries: finance and insurance; and real estate, rental and leasing. Table 4 summarizes some key characteristics of these entities.

Table 4
U.S. Partnership Returns¹²
2006 (dollars in thousands)

Number of partnerships	2,947,116
Number of partners	16,727,803
Business receipts	\$3,571,281,520
Wages & salaries	\$331,851,279
Net business income	\$357,055,417

On average, an entity had 5.68 partners, each of whom received \$21,345 in net business income and was associated with wage and salary payments to employees of \$19,838.

Minnesota also requires each partnership filing a federal return to file a state Form M-3 and, if their Minnesota sales, property and payroll exceed \$500,000, to pay a fee. In 2005, there were about 50,000 M-3 forms filed, of which 96% had payroll under \$500,000, 0.197% above \$10 million and 0.08% above \$50 million.¹³

¹⁰ One must be careful in using averages, as a few extreme values can either depress or inflate the mean, biasing it as a measure of central tendency.

¹¹ Copy of communication from Paul Wilson (MN DOR) to Katherine Blauvelt, Minnesota Budget Project, March 2, 2009. Wilson also reports 50,329 partnerships with Minnesota payroll.

¹² Tim Wheeler and Nina Shumofsky, "Partnership Returns, 2006" Table 1 Statistics of Income, Internal Revenue Service. <http://www.irs.gov/taxstats/productsandpubs/article/0,,id=130681,00.htm>

¹³ Communication from Paul Wilson to Katherine Blauveldt, March 2, 2009.



Proposal for a Fourth Tier in Minnesota’s Individual Income Tax

Senate File 1274 was the first bill to propose adding a fourth tier to the rate structure. Consequently, we chose to use its rate, income thresholds and other features for this analysis. The thresholds, for Minnesota taxable net income, are:

Table 5

Filing Status	4th Tier Threshold
Married, filing jointly	\$250,000
Single	\$141,250
Head of Household	\$212,500

The tax rate in the new tier is to be 8.5%, reduced for one year (2009) to 8.15%. The Alternative Minimum Tax rate will rise, from 6.4% to 6.55%. Taxpayers with partnership, S-corp and limited liability corporation income may subtract 10% of that income from their federal taxable income, in calculating both their regular and AMT MN income tax liabilities.

Fourth Tier Simulation: 2006 Tax Year¹⁴

Since the proposal for a fourth tier is intended for implementation in 2009, simulating its effect with 2006 data required first that the 2009 top tier bracket thresholds be adjusted backward to 2006, as follows: \$225,610 for married, filing joint filers; \$112,805 for married, filing separate; \$127,470 for single filers; and \$191,770 for head of household filers. The Minnesota House of Representatives Research staff has a statistical model for analyzing proposed changes in Minnesota taxes. The model is run on a stratified random sample of over 30,000 returns, selected to represent residents and non-residents, the different filing statuses and different levels of income. The income tax model recalculates federal and state liability based on the data items in each record and the proposed tax changes. For this simulation, the model was run twice, first setting the top rate at 8.15% and a second time at 8.5%. In both cases, a “new” 2006 tax liability was calculated for each taxpayer in the model’s sample and compared with the actual 2006 amount. The results, in Table 6, were then weighted up to represent the entire state population.

Table 6
Fourth Tier Simulation Results

Fourth tier rate	# affected filers	Gross increase in State Revenue	Net Increase in Taxpayer Liability	Average Tax Increase
8.15%	60,500	\$58.1 Million	\$40.6 Million	\$671
8.5%	60,400	\$121.5 Million	\$84.9 Million	\$1,406

With an 8.15% top rate, 60,500 filers would have seen an increase in their income tax liability. The state’s total revenue gain would have been \$58.1 million. About 30% of that (\$17.4 million) would have been offset by lower federal tax liabilities (due to the federal deductibility of state income taxes, for taxpayers not subject to the AMT), resulting

¹⁴ Nina Manzi, State of Minnesota, House Research carried out this simulation.



in a net tax increase for these high-income taxpayers of \$40.6 million.¹⁵ In 2006, 155,324 returns were in the 7.85% bracket. Since the taxpayers affected by a new, higher top tier would come from this segment of the population, the simulation suggests that the new proposal would increase the taxes paid for 39% of those in the “old” top tier and, overall, for 2.6% of all Minnesota taxpayers. The average tax increase for affected returns, net of federal deductibility would have been \$671.

Setting the top rate at 8.5%, 60,400 filers would experience higher taxes. These filers would represent 38.9% of those in the “old” top tier and 2.6% of all Minnesota taxpayers. The state would receive an additional \$121.5 million, \$36.3 million of which would flow back to these taxpayers as lower federal taxes, leaving their net increase in taxes at \$84.9 million. For these affected returns, the average tax increase, net of federal deductibility would have been \$1,406.

Behavioral responses: what does the evidence suggest?

For the 2.6% of Minnesota filers whose 2006 income tax would have increased, on average by \$1,406, one can predict a number of possible behavioral responses.

A taxpayer might:

1. Simply pay the tax increase, reducing consumption and/or saving only as much as necessary, with no further change in their behavior.
2. Engage in legal measures to reduce the amount of income taxed at the higher rate, for example, by redirecting investment to lower-taxed activities.
3. Take up a salaried job and residence in a lower-tax state or country. This option is more available to some businesses and professions than others. Typically, people make decisions to relocate based on a mix of factors.
4. Reduce or shutter operations — for those filers who are partners or shareholders of pass-through entities employing Minnesota workers — resulting in the loss of payroll. Since this is often cited as a potential consequence of a tax increase on high earners, and on S-corporation shareowners particularly, let’s examine how large could this effect be.

The size of this effect hinges first on the proportion of affected taxpayers with some S-corporation or partnership income who employ Minnesota workers. Our preliminary analysis suggests a reasonable estimate would be that 50% in the fourth tier (30,200 taxpayers)¹⁶ could meet both criteria. The 2005 SOI S-corporation data tell us that an average S-corporation, with 1.65 shareholders, had wage, salary and officer compensation expenditures of \$260,302. Since some entities might have more than one Minnesota shareholder, we calculate payroll expenditures per shareholder of \$157,759. The 2006 SOI partnership data tell us that an average partnership, with 5.68 partners, had wage & salary expenditures, per partner, of \$19,838 (assuming partnerships had all Minnesota partners). Suppose that 75% of the affected taxpayers had S-corp income and that 25% had partnership income. Grossing up to the 30,200 affected shareholders results in a total payroll for those businesses of \$3.72 billion.¹⁷ With this as background, we turn to the economics literature on tax elasticities to explore and estimate the magnitude of likely responses to the tax increase.

¹⁵ To be clear, the state of Minnesota would receive another \$58.1 million in tax revenue. But, the net increase in the sum of state and federal tax liabilities, from the taxpayers’ perspective, would be \$40.6 million, holding the federal code constant.

¹⁶ Communication from Paul Wilson, MN Department of Revenue, 4/20/09.

¹⁷ To provide some context, this is 0.77% of total Minnesota payroll in 2005 (\$97 billion). See Table 741 http://www.census.gov/compendia/statab/cats/business_enterprise/establishments_employees_payroll.html. This calculation ignores the impact of inflation on combining 2005 and 2006 payroll expenditures.



The literature suggests that measures of the interregional (e.g., interstate) elasticity of economic activity (measured in terms of employment, investment, or output) with respect to the tax rate vary substantially, depending on the time period studied, the particular independent variables used and how the variables are measured. Bartik (1994) concludes that the interregional elasticity lies somewhere between -0.1 and -0.6. In other words, a 10% rise in all state and local taxes would be associated with a long-run decline in employment or investment or gross state product of between 1 and 6 percent. Wasylenko (1997), reviewing the body of evidence a few years later, calculates a median elasticity for employment of between -0.11 and -0.58, a range very similar to Bartik's range. Considering all of the state and local taxes levied in Minnesota in 2006,¹⁸ enactment of the fourth tier we study here would represent an increase of 0.378%. It follows directly that a tax increase of this magnitude (and an employment elasticity at Bartik's upper end of -0.6) would, over several years, reduce employment by 0.2268%, corresponding to about 5443 jobs or \$220 million in payroll. At the lower end of Bartik's elasticity range (-0.1), the impact on employment would be -0.0378%, corresponding to 907 lost jobs or \$36.7 million in payroll, over several years.¹⁹ These impacts assume that the fourth tier is the only change in state and local tax policy, and that there are no changes in state and local spending. If all of this estimated reduction in employment was traced back to business firms owned by fourth tier taxpayers, then, over a period of time, the payrolls of those S-corporations and partnerships would decline between 1% and 5.91%.

One must be very careful in using these estimates. These elasticity estimates come from published work that is at least 12 years old and, in some cases, dates to the 1970s. As we sit in the midst of the deepest recession since the 1930s, we cannot be certain that the relationships that Bartik or Wasylenko summarized in the 1990's remain unchanged in 2009.

By law, Minnesota is obliged to close its current budget deficit. Whether this state's citizens are well served by a fourth-tier income tax rate depends on the consequences of the policy, relative to the available alternatives. Economists have taught generations of undergraduates that, all other things equal, the "bang" of government expansionary and contractionary fiscal policies is always larger with changes in spending than with changes in taxes. Here, this implies that the contractionary impact on employment of a \$121.5 million increase in taxes would be smaller than that of a \$121.5 decrease in spending.²⁰ This means that Minnesota likely would experience less job loss from an increase in taxes of this magnitude on the state's top earners than it would from a cut of this magnitude in state spending. The challenge for legislators is to enact a budgetary solution that results in the least contraction. We hope this document helps them see that an increase in Minnesota's personal income tax could make a positive contribution to that goal.

18 For 2006, the Federation of Tax Administrators website reports (own source) total state and local tax revenues of \$32.171 billion for Minnesota. <http://www.taxadmin.org/fta/rate/slshare.html>

19 For context, between March 2008 and March 2009, Minnesota's nonfarm payroll dropped by 98,100 jobs (Bureau of Labor Statistics, preliminary data). For a single year, this is over 18 times larger than the upper bound estimate of 5,443 and over 108 times larger than the lower bound estimate of 907. Minnesota had a total of 2.67 million payroll jobs as of March 2009.

20 This maxim is based on the circular flow of payments from business firms to households through the markets for productive inputs (labor, capital, land) and from households back to businesses through the markets for goods and services. Changes in government spending have a direct impact on the flow, while the impact of tax changes is indirect, secondary to households' savings decisions.



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