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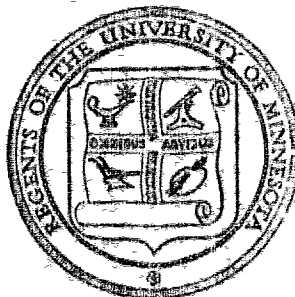
# Staff Papers Series

Staff Paper P82-24

December 1982

Minnesota's "Progressive" Income Tax:  
Myth and Reality

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Staff papers are published without formal review  
by the Department of Agricultural and Applied Economics.

MINNESOTA'S "PROGRESSIVE" INCOME TAX:  
MYTH AND REALITY

Glenn Nelson<sup>1</sup>

You may fool all the people some of the time; you can  
even fool some of the people all the time; but you  
can't fool all of the people all the time.

Abraham Lincoln

The Problem

Minnesota's personal income tax is regressive for significant numbers of people. Many Minnesotans would probably be surprised and dismayed if made aware of this. The personal income tax is widely described as progressive, and many people support it for this reason. A structure of nominal tax rates which increase with rising incomes contributes to the misperception that the tax is progressive. In addition, the complexity of the tax law makes it difficult for citizens to discover the actual, regressive tax rates implicit in the nominal rates.

Deductibility of federal taxes in calculating Minnesota personal income taxes is a major, although not the only, factor underlying these problems. The deduction adds complexity, even requiring a separate form in tax returns filed in 1982. The deduction forces nominal tax rates to be considerably higher, especially for wealthier people, than

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the rates necessary to yield equal revenue in the absence of the deduction of federal taxes. For 1981 returns filed in 1982, the bracket rates ranged up to 16 percent for taxable incomes of over \$35,915. These high rates contribute to a perception of Minnesota as a state with high taxes. High personal income taxes, in turn, are popularly believed to have a negative impact on the business climate although the analytic results are not clear cut.<sup>2</sup> A more accurate perception of state tax rates actually paid on income would be a constructive development in the debate of Minnesota's business climate.

Finally and most importantly, deductibility of federal taxes reduces the apparent progressivity of the Minnesota personal income tax. The regressive features of the federal tax deduction overwhelm the apparent progressivity of Minnesota tax rates for people with high incomes. Partly for this reason, Minnesota is one of only sixteen

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<sup>2</sup> Roger J. Vaughan's chapter on "What Should States Do About Personal Taxes?" in his book State Taxation and Economic Development (Washington, D.C.: Council of State Planning Agencies, 1979, pages 113-131) contains a good characterization of the range and uncertainty of the findings. The conclusion of another researcher, Roger W. Schmenner, may be relevant to Minnesota (excerpted from "Location Decisions of Large Firms: Implications for Public Policy," Commentary, Vol.5, No. 1, National Council for Urban Economic Development, January 1981, pp. 3-7).

States and localities should avoid being "fiscally conspicuous." ...Instead of levying a single conspicuous tax, states and localities should levy many smaller taxes and charges that are difficult to compare across sites. If a state can avoid being discarded early on by a manager's irrational look at some conspicuous tax, it stands a better chance of being favorably reviewed by a company.

states allowing the deduction of federal income taxes.<sup>3</sup>

Objective

The objective of this paper is to develop alternative personal income tax schedules which:

- o eliminate the deduction of federal income taxes, in order to reduce regressivity, complexity, and misperception;
- o hold state tax revenues at the levels anticipated with current tax policies; and
- o eliminate the regressivity of state rates relative to Minnesota gross income.

The first and second conditions, considered together, imply that the tax rates in the alternative schedules will be lower than those in current schedules. The second and third conditions, considered jointly, imply the alternative tax schedules will have a somewhat different pattern over income brackets than current effective tax rates.

Two alternative personal income tax schedules are developed in order to reflect two different philosophies of appropriate taxation. The "predominantly proportional" schedule embodies the view that most taxpayers should pay income taxes which are proportional to their income. The "predominantly progressive" schedule incorporates the belief that higher income people should pay higher tax rates. Throughout the paper, the terms regressive, proportional, and progressive rates are used in the conventional sense as the rate on marginal income. Thus,

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<sup>3</sup> All States Tax Handbook 1982, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1982, p. 181. The Handbook describes tax laws as of October 31, 1981.

regressive, proportional, and progressive rates are respectively defined as decreasing, constant, and increasing tax rates on successive increments to income.

The current tax schedule and two alternatives are displayed in Table 1. A substantial lowering of tax rates is possible with the elimination of the deduction of federal taxes, while holding state revenues approximately constant. The changes in state tax revenues from the "current law" base of \$2.0 billion to the "predominantly progressive" alternatives are -\$1 million (0.06%) and \$8 million (0.4%), respectively. Further refinement towards no change would be insignificant for analytic or policy purposes.

#### Analytic Context

The calculations underlying the results presented in this paper were performed on the Minnesota Tax Analysis Program maintained by the Minnesota Department of Revenue.<sup>4</sup> This program utilizes a large sample of actual returns in the analysis of tax policy and is widely regarded as the best tool available for analyzing state income tax policy. The program is utilized by people in the executive and legislative branches, including members of both political parties. Thus, the program serves as a useful common denominator which minimizes disputes over operational

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<sup>4</sup> The author gratefully acknowledges the assistance of the Minnesota Department of Revenue in performing necessary calculations on the Minnesota Tax Analysis Program. Everyone in the Department who was contacted was helpful. Special acknowledgement, however, is given to Jack Paulson who bore the greatest burden of requests with professional expertise and good cheer. The design of the analysis and the interpretation of the results are of course the sole responsibility of the author.

Table 1. Three Tax Rate Schedules Which Generate Equivalent State Revenues in 1983.

Current Law (Regressive At Higher Incomes) 1/		Elimination of Deduction of Federal Taxes	
Taxable Income (\$)	Rate (%)	Predominantly Proportional Taxable Income (\$)	Rate (%)
0 - 721	1.6	0 - 2,000	2.0
722 - 1,442	2.2	2,001 - 4,000	4.0
1,443 - 2,881	3.5	4,001 - 6,000	6.0
2,882 - 4,320	5.8	6,001 - 8,000	8.0
4,321 - 5,759	7.3	8,001 - 10,000	9.4
5,760 - 7,198	8.8	10,001 - 15,000	9.0
7,199 - 10,076	10.2	15,001 - 20,000	9.5
10,077 - 12,954	11.5	20,001 - 25,000	10.0
12,955 - 17,992	12.8	25,001 - 35,000	10.5
17,993 - 28,786	14.0	35,001 - 50,000	11.0
28,787 - 39,580	15.0	50,001 - 100,000	11.5
39,581 and over	16.0	100,001 and over	12.0

1/ The regressive features are not self-evident in the nominal rates displayed in this table. Tables 2 through 4 display the actual marginal rates which are regressive at higher incomes.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.



assumptions and focuses debate on policy issues.

The analysis is based upon estimates for 1983 incomes reported on returns to be filed in 1984, the first period during which policy changes could be made. All federal and state tax laws scheduled to be effective in 1983 as of this analysis (July 15, 1982) are included. The analysis is a forward looking procedure rather than a retrospective look at "what would have happened" in a past year. The latter tends not to be satisfactory in a time such as this when future tax schedules are very different from those in effect prior to 1982, due to changes in state and federal legislation. All assumptions needed to calculate 1983 taxes, such as rates of increase of income and price levels, are the standard assumptions developed by the Department of Finance.

### Results

The problems of misperception and regressivity inherent in the current law are shown in Tables 2, 3 and 4 (columns 3 and 4) for three different households. The three examples represent diverse situations — a married couple with two dependents, a married couple without dependents, and a single person without dependents. The misperception of tax rates flows from the large gap between the nominal rates given considerable publicity and the actual rates paid. The gap is especially large for higher income taxpayers. Filers who are paying nominal rates of 14 to 16 percent pay actual rates of only 7 to 10 percent. The regressivity appears as a decline in the actual tax rates paid as households move from upper-middle to higher income levels. Put differently, the maximum tax rates on additional income are paid by middle and upper-middle income households rather than by higher income

Table 2. Tax Burden in 1983 on a Married Couple Filing Jointly, Assuming Two Dependents and Personal Deductions Equal to 16 Percent of Income, for Three Alternative Tax Rate Schedules.

Minnesota Gross Income (\$)	Elimination of Deduction of Federal Taxes										
	Current Law			Predominantly Proportional			Predominantly Progressive				
	Total Tax (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)	Actual <sup>2/</sup> (%)	Total Tax (\$)	Tax Change <sup>3/</sup> (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)	Actual <sup>2/</sup> (%)	Total Tax (\$)	Tax Change <sup>3/</sup> (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)	Actual <sup>2/</sup> (%)
4,000	0	5.8	0.0	0	0	4.0	0.0	0	0	4.0	0.0
5,000	0	5.8	0.0	0	0	6.0	0.0	0	0	6.0	0.0
6,000	0	7.3	0.0	0	0	6.0	0.0	0	0	6.0	0.0
7,000	0	8.8	6.6	0	0	6.0	1.5	0	0	6.0	0.7
8,000	66	8.8	7.1	15	-51	8.0	7.1	7	-59	7.0	6.2
9,000	137	10.2	7.8	86	-50	8.0	7.9	69	-68	8.0	6.7
10,000	215	10.2	7.6	165	-43	9.4	8.3	136	-79	8.0	7.1
11,000	291	10.2	7.6	248	-35		8.4	207	-84	8.0	7.3
12,000	367	10.2	7.8	332	-30		8.3	280	-87	9.0	8.0
13,000	445	11.5	8.3	415	-31		8.2	360	-85	9.0	7.9
14,000	528	11.5	8.4	497	-31		8.4	439	-89	9.0	8.0
15,000	612	11.5	9.2	581	-31		8.3	519	-93	9.0	8.2
20,000	1,070	12.8	9.6	997	-73			929	-141	9.5	8.5
25,000	1,548	14.0	9.8	1,412	-136			1,356	-192	10.0	8.9
30,000	2,039	14.0	9.5	1,828	-211			1,802	-237	10.5	9.3
35,000	2,515	14.0	9.2	2,244	-271			2,267	-248	10.5	9.3
40,000	2,976	14.0	9.2	2,660	-316			2,731	-245	10.5	9.7
50,000	3,898	15.0	8.9	3,493	-406			3,701	-198	11.0	10.0
75,000	6,115	16.0	8.3	5,573	-542			6,207	92	11.5	10.2
100,000	8,199	16.0	---	7,652	-547			8,752	553	11.5	---

1/ Bracket rate applicable to the taxable income (see Table 1 for a listing of these rate schedules) consistent with applying the alternative assumptions to the Minnesota Gross Income in the left-hand column.

2/ Change in the total tax divided by the change in Minnesota Gross Income.

3/ Change from current law.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.

Table 3. Tax Burden in 1983 on a Married Couple Filing Separately on a Combined Form, Assuming No Dependents and Personal Deductions Equal to 16 Percent of Income, for Three Alternative Tax Rate Schedules.

Minnesota Gross Income (\$)	Elimination of Deduction of Federal Taxes					
	Current Law		Predominantly Proportional		Predominantly Progressive	
	Total Tax (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)	Total Tax (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)	Total Tax (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)
4,000	0	3.5	0	4.0	0	4.0
5,000	0	3.5	0	4.0	0	4.0
6,000	0	5.8	0	4.0	0	4.0
7,000	26	5.8	13	4.0	-13	4.0
8,000	65	5.8	51	4.0	-14	4.0
9,000	102	7.3	98	6.0	-4	6.0
10,000	152	7.3	143	6.0	-9	6.0
11,000	201	7.3	191	6.0	-10	6.0
12,000	249	7.3	242	6.0	-7	6.0
13,000	304	8.8	306	8.0	2	7.0
14,000	359	8.8	369	8.0	-2	7.0
15,000	417	8.8	433	8.0	16	8.0
20,000	748	10.2	802	9.4	54	8.0
25,000	1,115	11.5	1,199	8.3	84	9.0
30,000	1,499	12.8	1,615	116	-3	9.0
35,000	1,896	12.8	2,031	135	11	9.5
40,000	2,295	12.8	2,447	152	28	9.5
50,000	3,091	14.0	3,279	188	97	10.0
75,000	5,041	14.0	5,359	318	431	10.5
100,000	6,955	15.0	7,439	484	917	11.0
						Actual <sup>2/</sup> (%)
						Actual <sup>2/</sup> (%)

1/ Bracket rate applicable to the taxable income of the higher income member of the household (see Table 1 for a listing of these rate schedules) consistent with applying the alternative assumptions to the Minnesota Gross Income in the left-hand column.

2/ Change in the total tax divided by the change in Minnesota Gross Income.

3/ Change from current law.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.

Table 4. Tax Burden in 1983 on a Single Filer, Assuming No Dependents and Personal Deductions Equal to 16 Percent of Income, For Three Alternative Tax Rate Schedules.

Minnesota Gross Income (\$)	Current Law			Elimination of Deduction of Federal Taxes					
	Marginal Tax Rate		Total Tax (\$)	Predominantly Proportional		Total Tax (\$)	Predominantly Progressive		
	Nominal <sup>1/</sup> (%)	Actual <sup>2/</sup> (%)		Tax Change <sup>3/</sup> (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)		Actual <sup>2/</sup> (%)	Tax Change <sup>3/</sup> (\$)	Marginal Tax Rate Nominal <sup>1/</sup> (%)
4,000	5.8	4.3	33	24	-9	24	-9	4.0	4.2
5,000	5.8	5.0	76	66	-10	66	-10	6.0	5.3
6,000	7.3	5.3	126	119	-7	119	-7	6.0	5.2
7,000	7.3	6.0	179	171	-8	171	-8	6.0	6.2
8,000	8.8	6.4	239	242	3	233	-6	7.0	6.3
9,000	8.8	6.8	303	313	10	296	-7	7.0	6.7
10,000	10.2	7.3	371	392	21	363	-8	8.0	7.0
11,000	10.2	7.5	444	475	31	433	-11	8.0	7.4
12,000	10.2	7.5	519	558	39	507	-12	9.0	7.9
13,000	10.2	7.8	594	641	47	586	-8	9.0	8.0
14,000	11.5	8.3	672	724	52	666	-6	9.0	8.0
15,000	11.5	8.4	755	808	53	746	-9	9.0	8.2
20,000	12.8	8.5	1,175	1,224	49	1,156	-19	9.5	8.5
25,000	12.8	8.9	1,599	1,639	40	1,583	-16	10.0	8.9
30,000	14.0	8.6	2,043	2,055	12	2,029	-14	10.5	9.3
35,000	14.0	8.2	2,474	2,471	-3	2,494	20	10.5	9.3
40,000	14.0	8.1	2,884	2,887	3	2,958	74	10.5	9.7
50,000	15.0	7.7	3,697	3,719	22	3,927	230	11.0	10.0
75,000	16.0	7.5	5,622	5,800	178	6,434	812	11.5	10.2
100,000	16.0	---	7,497	7,879	382	8,979	1,482	11.5	---

1/ Bracket rate applicable to the taxable income (see Table 1 for a listing of these rate schedules) consistent with applying the alternative assumptions to the Minnesota Gross Income in the left-hand column.

2/ Change in the total tax divided by the change in Minnesota Gross Income.

3/- Change from current law.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.

households.<sup>5</sup> In the case of married couples filing jointly, as shown in Table 2, a couple with Minnesota gross income of \$75,000 pays a marginal tax rate equal to that paid by a couple with income of \$13,000 -- and couples with incomes of \$14,000 to \$50,000 pay higher rates than the couple with income of \$75,000.

The tax data displayed in Tables 2, 3, and 4 for the predominantly proportional and predominantly progressive alternatives indicate how elimination of the deduction of federal taxes contributes to solving the problems of misperception and regressivity. The gap between nominal bracket rates and actual tax rates, measuring the latter relative to Minnesota gross income, is considerably lessened. For those taxpayers currently subject to nominal bracket rates of 14-16 percent, the gap between nominal and actual marginal rates falls from a range of 4-8 percent under current law to 1 to 2 percent under the alternatives. The structure of the nominal schedule becomes an accurate indicator of the actual tax rates borne by taxpayers with different incomes. The extensive range of nominal proportional tax rates in the "predominantly proportional" alternative is reflected in actual proportional tax rates over the same range. The progressivity of the nominal rates in the "predominantly progressive" alternative leads to a pattern of progressivity in actual rates. These results are in stark contrast to the current law, under which a system of progressive nominal

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<sup>5</sup> While this result may be surprising to those who focus on nominal tax rates, the regressive impact of allowing deduction of federal taxes at the state level is commonly recognized in public finance. For example, see Richard A. Musgrave and Peggy B. Musgrave, Public Finance In Theory and Practice, third edition, N.Y.: McGraw-Hill, 1980, pp.390-2.

rates leads to a range of regressive actual rates.

Adoption of either of the alternative tax schedules presented here would shift the tax burden among income categories, as shown in Table 5. The predominantly proportional schedule, as structured here with an initial progressive range for lower income taxpayers, tends to reduce the taxes of lower income people and of higher income people while raising the taxes of middle income people. The estimated number of returns with an increased tax, assuming the predominantly proportional alternative, approximately equals the number with a decreased tax. The predominantly progressive schedule raises the taxes of higher income people, as expected since the regressive range at the upper end is eliminated. Lower and middle income taxpayers tend to pay lower taxes, under the predominantly progressive alternative, as the revenue generated by the elimination of the regressive range is redistributed among other taxpayers. The number of people who pay lower taxes is three times the number who pay higher taxes, as a result of a shift to the predominantly progressive schedule.

The estimated distribution among taxable income brackets of taxable income and of filers with a tax liability for the two alternative schedules is shown in Table 6. The proportional segment (i.e., the brackets with a 9.4 percent tax rate) of the predominantly proportional schedule includes 68 percent of tax returns and 56 percent of distributed taxable income. The detail of the predominantly progressive schedule is best seen by referring to the table rather than by repeating the data here in the text. Perhaps one noteworthy feature is that the top two tax brackets

Table 5. Numbers of Tax Returns With a Tax Change and the Average Tax Change Per Return, by Minnesota Adjusted Gross Income, Associated With Two Alternative Plans for the Elimination of Deduction of Federal Taxes, Estimates for 1983.

Minnesota Gross Income (\$)	Predominantly Proportional				Predominantly Progressive					
	Number (thou.)	Aggregate Returns With Current Law Percent	Increases (thou.)	Returns With A Tax Change Decrease (thou.)	Difference (thou.)	Tax Change Per Return (\$)	Increases (thou.)	Returns With A Tax Change Decrease (thou.)	Difference (thou.)	Tax Change Per Return (\$)
Less than zero	24.6	1.4	0.0	1/	1/	2/	0.0	1/	1/	2/
0 - 5,000	344.4	19.8	5.8	98.7	-92.8	-3	5.8	98.7	-92.8	-3
5,001 - 10,000	276.2	15.8	48.2	161.8	-113.6	-4	28.6	184.4	-155.8	-12
10,001 - 20,000	395.7	22.7	283.3	92.9	190.4	20	52.8	323.6	-270.8	-30
20,001 - 30,000	290.9	16.7	168.3	120.2	48.1	4	53.9	235.0	-181.1	-59
30,001 - 40,000	205.7	11.8	108.4	97.3	11.1	-15	63.3	141.1	-77.8	-62
40,001 - 50,000	104.2	6.0	59.7	44.5	15.3	2/	49.4	54.5	-5.1	-18
50,001 - 100,000	86.5	5.0	44.8	41.2	3.5	-41	64.2	21.8	42.5	192
100,001 and over	15.4	0.9	6.5	8.8	-2.3	-98	14.5	0.8	13.7	2,536
Total	1,743.5	100.0	725.0	665.4	59.6	-1	332.7	1,060.0	-727.2	5

Detail may not add to total due to rounding.

1/ Absolute value is greater than 0.00 but less than or equal to 0.05

2/ Absolute value is greater than 0.0 but less than or equal to 0.5.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.

Table 6. Distributions of Filers With A Tax Liability and of Taxable Income Over Taxable Income Brackets, Following the Elimination of the Deduction of Federal Taxes, Estimates for 1983.

Minnesota Taxable Income (\$)	Tax Rate		Filers Falling In Bracket			Taxable Income Within Brackets <sup>1/</sup>		
	Predominantly Proportional (%)	Predominantly Progressive (%)	Number (thou.)	Percent	Cumulative Percent	Dollars (bil.)	Percent	Cumulative Percent
0 - 2,000	2.0	2.0	115	6	6	3.7	13	13
2,001 - 4,000	4.0	4.0	140	7	13	3.5	12	24
4,001 - 6,000	6.0	6.0	190	10	23	3.1	11	35
6,001 - 8,000	8.0	7.0	170	9	32	2.8	9	44
8,001 - 10,000	9.4	8.0	162	8	41	2.4	8	53
10,001 - 15,000		9.0	375	20	60	4.7	16	68
15,001 - 20,000		9.5	301	16	76	3.0	10	79
20,001 - 25,000		10.0	187	10	86	1.8	6	85
25,001 - 35,000		10.5	172	9	95	1.8	6	91
35,001 - 50,000		11.0	62	3	98	1.0	3	94
50,001 - 100,000		11.5	33	2	100	1.0	3	98
100,001 and over		12.0	9	2/	100	0.7	2	100
Totals	---	-----	1,916	100	---	29.5	100	---

Detail may not add to total due to rounding.

1/ Allocates the income of filers among the brackets, i.e., these figures are not the total taxable income of filers falling in the brackets.

2/ Greater than 0.0 but less than or equal to 0.5.

Source: Calculations performed on the Minnesota Tax Analysis Program of the Minnesota Department of Revenue.



of 11.5 and 12.0 percent contain only 2 percent of total filers having a tax liability.

Conclusion

Elimination of the deduction of federal taxes and the simultaneous reduction of state tax rates would

- o enable elimination of the regressive features of the current law without raising nominal tax rates for higher income taxpayers,
- o reduce the complexity of the state personal income tax, and
- o narrow the gap between highly publicized nominal rates and actual rates paid by lowering nominal rates, thus lessening misperception and possibly improving the state's business climate.