


## Impact of Aging on Income Tax Revenue: Comparison of Minnesota and Iowa Results

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Full Minnesota paper, coauthored with Nina  
Manzi and Joel Michael, is available in:

- *State Tax Notes* (January 23, 2006): 215-240.
- *NTA Proceedings* (2005 Tax Conference),  
forthcoming.

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## Minnesota Study's Questions:

 How would MN income tax revenue have changed in 2002 if:

- The 2002 population had the same age distribution as projected for 2030.
- Population and total income are unchanged, but
- 2002 income shares (earned income, capital income, retirement income, etc) equaled those projected for 2030.

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2. How would the answer differ if MN law **already** provided additional senior tax preferences?

*(Hold law constant in 2002 and 2030)*

*We hoped this would provide rough but useful estimates for other states.*

*Note: Minnesota taxes social security and pension income the same as the federal income tax.*

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## What is Different?

- Iowa study makes “same law” comparisons for 2030 (not 2002).
  - “2030 tax assuming 2003 age distribution” compared to “2030 tax assuming 2030 age distribution.”
- Iowa study does not hold income constant, but allows aging to *increase* total income.

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## What is Different? (contd)

- MN study scaled each type of income to match the national shares projected for 2030.
    - GII forecast; CBO for retirement income; SSA for social security.
    - Grew each type of income to projected 2030 levels, then shrank total real income to 2002 level.
- Iowa study suggest this as future work.

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Table 1. Minnesota Estimates: Same Law in Both Years (Income held constant)	Revenue impact as percent of		Total change 2002 to 2030 with preference in both years
	2002 base revenues	2030 projected revenues	
Current Minnesota law ("2010 Law")	NA	NA	-1.8%
Full exemption of Social Security	-2.3%	-5.0%	-4.5%
Index of Social Security benefits	NA	-1.9%	-3.7%
\$1,000 senior exemption, not indexed	-0.4%	-0.4%	-1.8%
\$10,000 pension exclusion, not indexed	-2.7%	-2.7%	-1.8%
\$10,000 pension exclusion, indexed	-2.7%	-4.6%	-3.8%
Full pension exclusion	-6.4%	-12.6%	-8.3%
Full exemption for Social Security and \$10,000 pension exclusion, not indexed	-4.9%	-7.4%	-4.4%
Full exemption for Social Security and \$10,000 pension exclusion, indexed	-4.9%	-9.2%	-6.3%
Full exemption for Social Security and pension exclusion	-8.1%	-15.8%	-10.0%

Percentage in last row is -1.8% plus the *difference* between percentages in the first two columns.

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Table 2. Iowa Estimates -- Same Law in Both Years (Income <u>not</u> held constant)	Revenue impact (Dollars in millions)		Total change due to aging population
	2030 with 2003 population distribution	2030 with 2030 population distribution	
<b>No senior preferences</b>			
AGI	\$71,935	\$74,612	3.7%
Tax	\$2,166	\$2,215	2.3%
Tax as percent of income	3.01%	2.97%	-1.4%
<b>2030 law (fully phased in)</b>			
Tax	\$1,958	\$1,918	-2.0%
Tax as percent of no preference AGI	2.72%	2.57%	-5.6%
<b>2030 law but add full indexing of \$12,000 pension exemption</b>			
Tax	\$1,921	\$1,865	-2.9%
Tax as percent of no preference AGI	2.67%	2.50%	-6.4%

Note: Shaded percentages are similar to percent change in tax with aging *if income is held constant*.

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## MN results if only adjust population:

Income: +5%

Tax: +1.7%

Effective tax rate: -3.2%

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### ■ Conclusion (at NTA Conference):

- “States that follow federal law and limit senior preferences may not face large declines in income tax revenue due to the aging population.”

But ... what if aging is combined with expanded tax breaks for seniors?

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## 2002 to 2030 in Minnesota

- Seniors' effective tax rate up from 2.90% to 3.43%
- Ratio of seniors' effective tax rate to that of others up from 68% to 82%
- Seniors' share of tax up from 10.6% to 21.6%

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Table 3. Minnesota Estimates – Impact of Aging <i>and</i> Added Senior Preferences (Income held constant)	Revenue impact as percent of		Total change 2002 to 2030 with preference in both years	Total change 2002 to 2030 if add new senior tax benefit
	2002 base revenues	2030 projected revenues		
Current Minnesota law (“2010 Law”)	NA	NA	-1.8%	NA
Full exemption of Social Security	-2.3%	-5.0%	-4.5%	-6.8%
Index of Social Security benefits	NA	-1.9%	-3.7%	-3.7%
\$10,000 pension exclusion, not indexed	-2.7%	-2.7%	-1.8%	-4.5%
Full exemption for Social Security and \$10,000 pension exclusion, not indexed	-4.9%	-7.4%	-4.4%	-9.2%
Full exemption for Social Security and \$10,000 pension exclusion, indexed	-4.9%	-9.2%	-6.3%	-11.1%
Full exemption for Social Security and pension exclusion	-8.1%	-15.8%	-10.0%	-17.6%

**Note:** Shaded column is the sum of -1.8% (current law) plus the 2030 projected revenue loss for each new provision (in second column).

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## Conclusions

- Changes in effective tax rates (based on total income) allow comparison of the two studies.
- Results seem reasonably consistent (?).
- Biggest question: Will matching income mix to some long-run forecast significantly change the results.
- Sensitivity analysis
- Show etr’s by income class for seniors and nonseniors

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