HOUSE RESEARCH | Short Subjects

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Is Income Inequality Rising in Minnesota?

This short subject summarizes information on the distribution of income in Minnesota from the *Minnesota Tax Incidence Study*, published by the Department of Revenue. These studies use a dataset consisting of the reported incomes of a sample of households constructed from a variety of administrative sources. Between 1994 and 1998, real incomes rose for all percentiles and then fell between 1998 and 2002. Income inequality may have risen during this period, with the richest 10 percent rising in income relative to the poorest 10 percent.

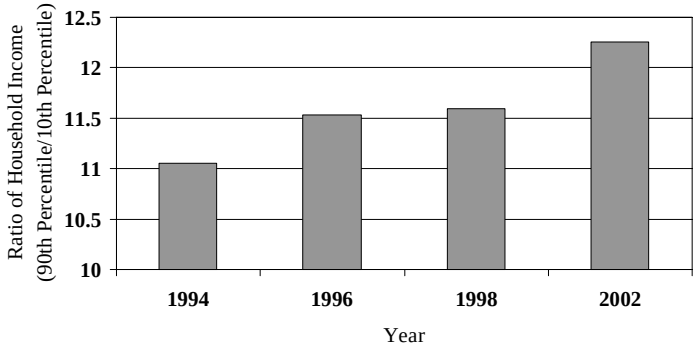
Income inequality is both a statistical and a policy question

Statistically, the incomes of Minnesotans vary from low to high, and that spread can be measured over time. The range of income is often measured as the difference between the highest and lowest incomes in Minnesota. If that range increases or decreases over time, it is deemed important for a number of policy debates. Social differentiation, the spread between one group and another within Minnesota's economy, has been used as an indicator of inequality, and as a reason for supporting or opposing a variety of social policies.

The ratio of income between the lowest and highest incomes has increased

The following figure graphs income for the 90th percentile relative to the 10th percentile. It shows that estimated income for top decile grew from 11.02 to 12.26 times faster than the lowest, with most of that growth between 1998 and 2002.

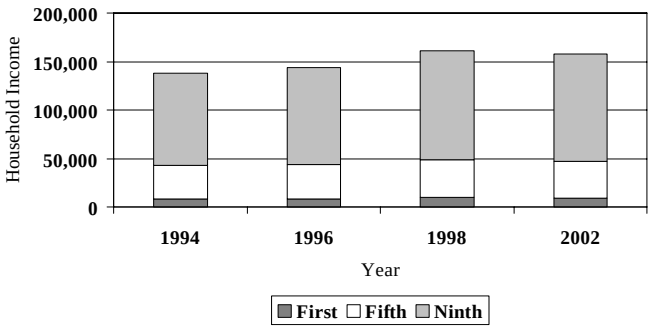
Ratio of Household Income Between the 90th to the 10th Percentile



As shown in the following graph, the share of income of those at the top of the distribution increased relative to those in the middle (50th percentile) or bottom (10th percentile).

Data source: The data are from the *Minnesota Tax Incidence Studies* (from 1997, 1999, 2001, and 2005), which compile income from a variety of sources including state income tax records, property tax refund information, unemployment insurance data, and welfare data. The data may be subject to some error, since they are drawn from a sample of households and programs with slightly different measures of income. Also, there some households who do not file income taxes and will not receive assistance from any other state source. The latest information is from 2002; the Minnesota Department of Revenue plans to release a new report in March 2007.

Percentile Distribution of Household Income in 2005 Dollars



Real household incomes rose between 1994 and 1998 and fell in 2002

Table 1 lists real household incomes for the 10th through 90th percentiles. It shows that real household incomes rose for each percentile between 1994 and 1998 and then fell in 2002.

In 2002, the median household income was $38,366. Median income had risen from $34,184 in 1994 to $38,901 in 1998, before falling in 2002.

Table 1: Real Household Income (2005 dollars) Selected Years from 1994-2002

Percentile	Year			
	1994	1996	1998	2002
10th	8,585	8,666	9,723	8,983
20th	13,287	14,195	15,915	15,123
30th	19,625	20,121	22,628	22,272
40th	26,368	27,502	30,356	29,786
50th (Median)	34,184	35,424	38,901	38,366
60th	43,176	45,111	49,580	48,852
70th	54,844	57,388	63,028	61,919
80th	70,023	73,346	80,562	79,767
90th	94,892	99,942	112,647	110,126

Source: MN Dept. of Revenue, *Minnesota Tax Incidence Study* (1997, 1999, 2001, and 2005).

Alternative measures support the finding of increasing inequality

Income inequality can be more comprehensively measured across the entire population. Given the limited data used here, only a rough inequality measure can be constructed, but this can provide a further verification. Table 2 compares the ratio of income in the top and bottom deciles. It also includes an estimate of the variance of household income. In general, the higher the variance, the wider the disparity in household income. Both measures suggest an increase in income inequality over time.

Table 2. Two Measures of Income Inequality Minnesota Households (1994-2002)

Income Inequality Measure	1994	1996	1998	2002
Ratio of household income between the 90th and 10th percentiles	11.05	11.53	11.59	12.26
Estimated variance in household income*	$966	$1,298	$1,959	$2,629

Source: MN Dept. of Revenue, *Minnesota Tax Incidence Study* (1997, 1999, 2001 and 2005).
http://www.taxes.state.mn.us/legal_policy/research_reports/content/incidence.shtml

* The variance was calculated as $\sum n_j(x_j - \bar{x})^2$ where n_j is the number of persons within each income percentile, x_j is the minimum income for the percentile category, and $\bar{x}$ is the weighted average of income.

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