

Minnesota Moves Ahead: Tax Fairness in the 50 States

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May 2014



MINNESOTA 2020



Minnesota 2020

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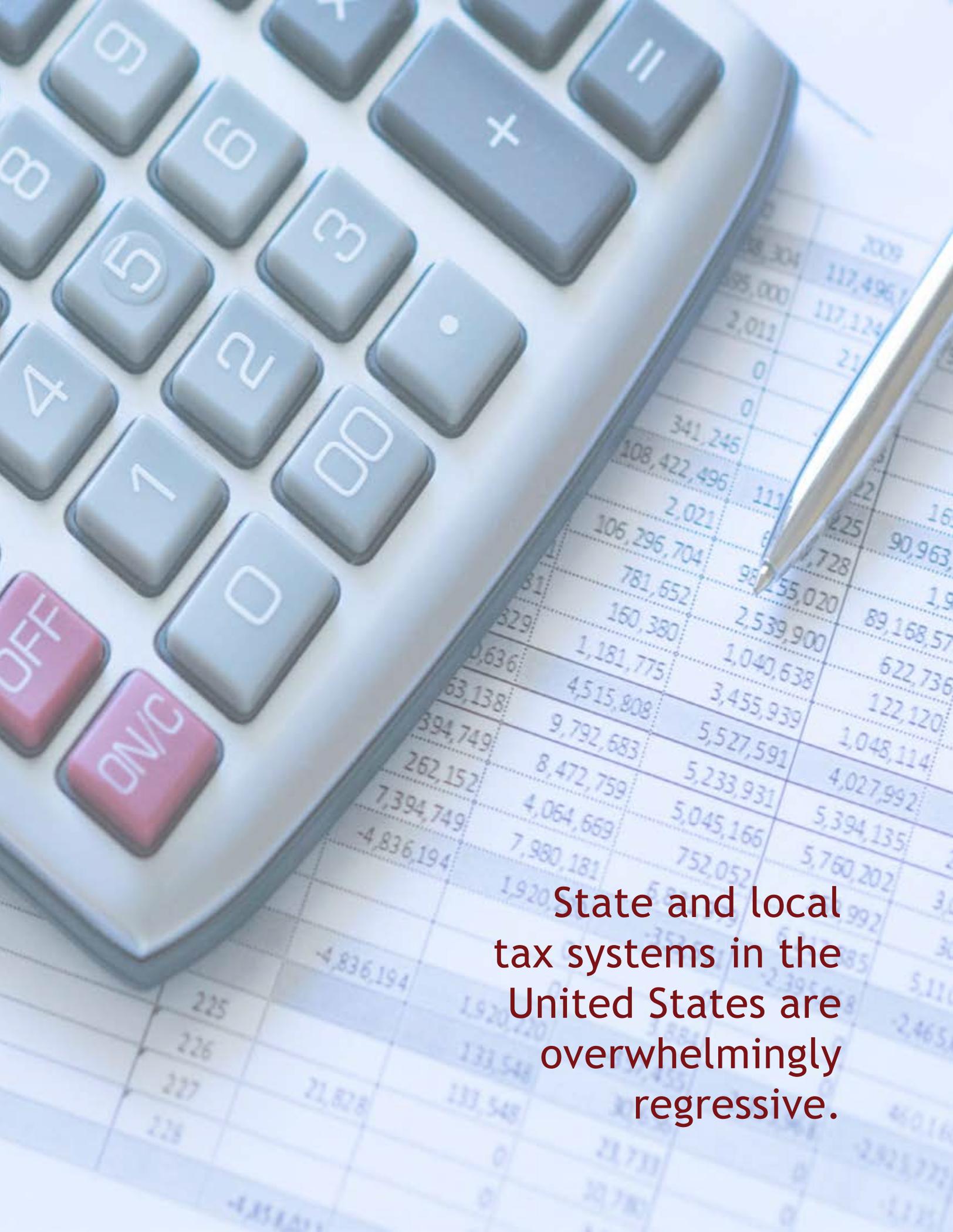
Editing: Joe Sheeran
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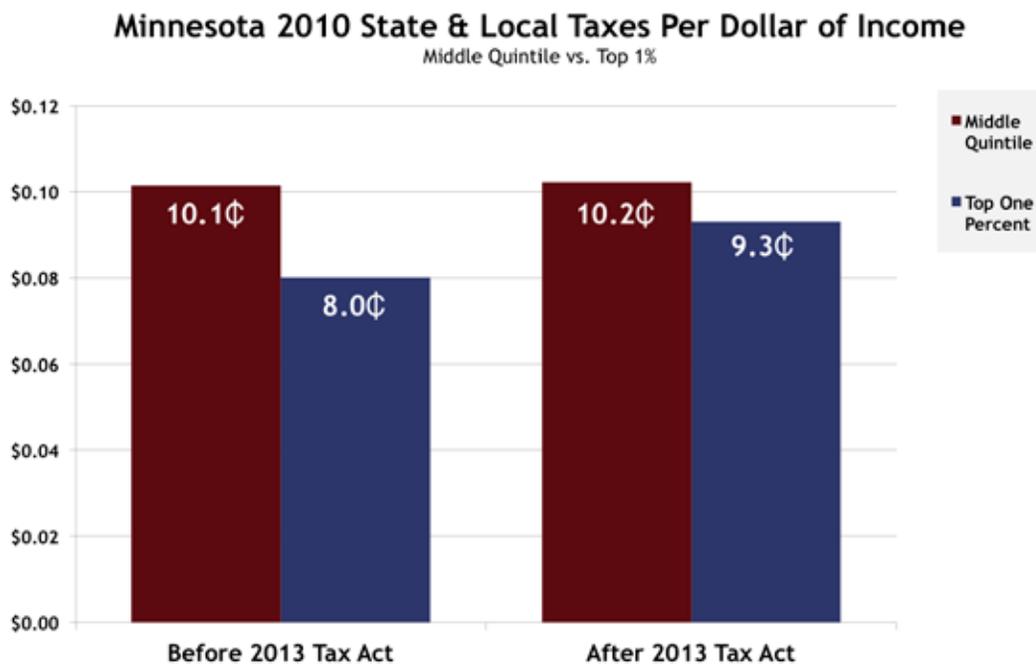
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State and local tax systems in the United States are overwhelmingly regressive.

EXECUTIVE SUMMARY

State and local tax systems in the United States are overwhelmingly regressive. Minnesota is no exception to this rule, although taxes in Minnesota are somewhat less regressive than the national average. In 2000, Minnesota had the 11th least regressive tax system in the nation. While regressivity declined in the rest of the nation from 2000 to 2010, it increased in Minnesota. As a result, Minnesota's regressivity ranking slipped to the 16th by 2010. However, thanks to the powerfully progressive tax act of 2013, Minnesota is projected to improve to the 10th least regressive state.



A state tax system is said to be regressive if low- and moderate-income households pay a higher percentage of their income in state and local taxes than high income households. There are at least three reasons why policymakers should be concerned about state and local tax regressivity:

- ✓ **Fairness.** People benefit from social order and stability in proportion to their income and thus should pay taxes in proportion to their income. It is unjust to shift a disproportionate share of the tax load to low- and moderate income families.
- ✓ **Revenue adequacy.** State and local governments will be hard pressed to adequately fund public services if they are over dependent on tax dollars from families who don't have any dollars to spare. To have revenue adequacy, government should tax citizens in proportion to their ability to pay.

- 
- ✓ **Economic necessity.** A robust recovery and sustainable economic growth will not be achieved until we reverse the trend of growing income inequality and halt the erosion of low- and middle-income purchasing power. One thing that state government can do to address these problems is to keep more dollars in the pockets of low- and middle-income families through reduced tax regressivity.

Using data provided by the Institute on Taxation & Economic Policy (ITEP), Minnesota 2020 was able to (1) rank all fifty states on the degree of state and local tax regressivity in 2000 and 2010, (2) examine factors that affected the degree of tax regressivity in 2010, and (3) examine factors that affected change in the degree of tax regressivity from 2000 to 2010. The impact of the 2013 tax act upon Minnesota's regressivity ranking was approximated using data from the Minnesota Department of Revenue. This report focuses exclusively on state and local income (individual and corporate), property, and consumption (sales and excise) taxes. Federal taxes are not included in this analysis.

The mix of taxes that a state relies on is the most powerful determinant of the degree of tax regressivity within a state in 2010. For example, states that rely heavily on progressive income taxes tend to have the least regressive tax systems, while states that rely on regressive consumption taxes tend to have the most regressive tax systems. The degree of income concentration (i.e., the extent to which income is concentrated in the hands of the highest income households) had a measurable but not statistically significant impact on the degree of state and local tax regressivity in fifty states.

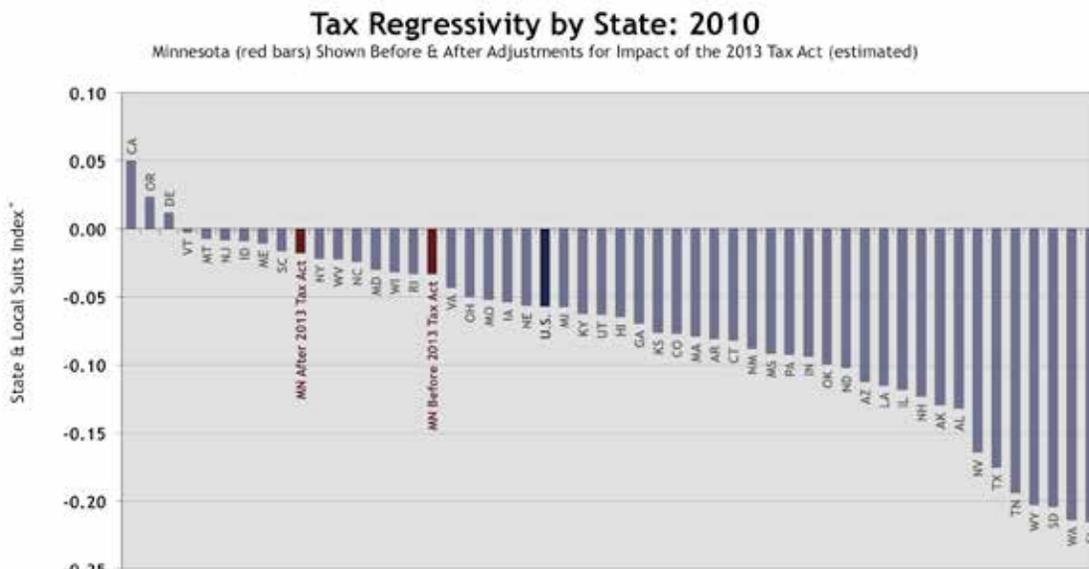


A robust recovery and sustainable economic growth will not be achieved until we reverse the trend of growing income inequality and halt the erosion of low- and middle-income purchasing power.

Change in the mix of taxes over time was also the most powerful determinant of the change in tax regressivity from 2000 to 2010. For example, growth in dependence on progressive income taxes led to reduced tax regressivity, while growth in dependence on regressive consumption taxes led to increased regressivity. An increase in income concentration contributed to increased tax regressivity and vice versa, although changes in income concentration were far less potent than changes in tax dependence in influencing changes in the degree of tax regressivity over time.

Tax regressivity in Minnesota increased significantly from 2000 to 2010, in contrast to the national trend of reduced regressivity. Over the decade, only 13 states saw a more significant increase in tax regressivity than Minnesota.

While broader economic trends played a role, the growth in Minnesota tax regressivity over this ten year span appears to have been primarily the result of state policy decisions—specifically, the decision to balance recurring state budget deficits through reductions in state aid to local governments, thereby leading to an increase in regressive property taxes, rather than through an increase in progressive income taxes. Decisions to reduce funding for the highly progressive renters’ property tax refund also played a role in increasing the regressivity of Minnesota’s property tax at the same time that dependence on property taxes was increasing.



The Suits index is a measure of tax regressivity. A positive Suits index (bars extending above the zero axis) denotes a progressive tax system, while a negative Suits index (bars extending below the zero axis) denotes a regressive tax system. In this graph, the length of the bars corresponds to the degree of tax regressivity or progressivity.

Just as policy decisions played a role in the growth in Minnesota tax regressivity from 2000 to 2010, policy decisions also played a role in the subsequent reduction in regressivity. While the 2013 tax act contained some regressive tax increases (most notably a cigarette tax increase), they were more than offset by a highly progressive state income tax increase and an expansion of the homeowners and renters property tax refund that will direct tax relief to low- and middle-income Minnesotans. Based on 2010 ITEP data, state and local taxes per dollar of income for middle-income households were 27 percent higher than that of the top one percent; after passage of the 2013 tax act, they are just 10 percent higher.



It is possible to approximate the impact of the 2013 tax act upon tax regressivity in Minnesota relative to other states using 2010 ITEP data and a June 2013 Revenue Department assessment of the 2013 act. Based on an analysis of data from these sources, the 2013 tax act was successful in:

- ✓ Cutting the degree of regressivity in Minnesota's state and local tax system by nearly half relative to the level indicated in 2010 ITEP data
- ✓ Restoring the degree of Minnesota tax regressivity to the 2000 level, thereby reversing the regressivity that accumulated from 2000 to 2010
- ✓ Improving Minnesota's rank among the fifty states in terms of the degree of tax regressivity from 16th (based on 2010 data) to 10th, one spot better than in 2000, when Minnesota ranked 11th. This analysis assumes no change in the degree of regressivity in other states.

The level of tax regressivity in Minnesota and other states is a cause for concern for several reasons, but most importantly because it undermines the notion of fairness which is essential for public support of the tax system. The 2013 tax act made major progress in reducing tax regressivity in Minnesota; policymakers in the Gopher State should protect and preserve these accomplishments, while policymakers in other states should consider steps they can take to reduce tax regressivity and promote tax fairness.

I. INTRODUCTION

In recent years, increasing emphasis has been paid to the distribution of state and local taxes by income level. A tax system is regressive if lower- and middle-income households pay a higher percentage of their income in taxes than higher income households. If the reverse is true, the tax system is progressive.

Why Tax Regressivity is Important

There are at least three reasons why policymakers should be concerned about tax regressivity and—if necessary—take measures to reduce it.

Social Stability

The first is fairness. People benefit from many public services in proportion to their income. The owner of a business not only benefits from his own education, but from the education of his workforce—and there is a good chance that a significant portion of that education was paid for with tax dollars. In addition, roads and bridges help get materials and finished products to and from businesses and the legal system protects property rights and enforces contracts. In short, high income households benefit from the social stability that public expenditures make possible, without which they would not enjoy the standard of living that they do. To the extent that people benefit from social order and stability in proportion to their income, they should pay taxes in proportion to their income.

Revenue Adequacy

Second, policymakers should be concerned about tax regressivity for reasons of revenue adequacy. In recent decades, the purchasing

power of the middle- and lower-income families has eroded; increasingly, these families are having a hard time maintaining a middle class lifestyle. If state and local governments are trying to fund state and local services by disproportionately taxing low- and middle-income households, these same households will find it increasingly difficult to support public expenditures, regardless of their merit. State and local governments will be hard pressed to adequately fund public services if they are overdependent on tax dollars from households that don't have any dollars to spare. To have revenue adequacy, we should be taxing citizens at least in proportion to their income.

Economic Necessity

The third reason why policymakers need to be concerned about tax regressivity is economic necessity. It is well established that low- and middle- income households spend a larger share of each dollar of income than do high income households. Without more consumer purchasing power in the hands of lower- and middle-income consumers, the aggregate demand for private sector goods and services will be weak and as a result job growth will be weak. We will not have a robust recovery and sustainable economic growth until the purchasing power of low- and middle-income households recovers. One thing that state government can do to further this recovery is to reduce tax regressivity.

Reducing tax regressivity is not the only tax goal that policymakers should be concerned about, but it should be one of them.

Information on State and Local Tax System Regressivity

Minnesota is fortunate in that we have an excellent series of reports tracking the degree of regressivity or progressivity of the state and local tax system in the form of the Minnesota Tax Incidence Study (MTIS) from the Minnesota Department of Revenue.¹ Published in every odd numbered year since 1991, this report examines the distribution of taxes in Minnesota not just for the entire state and local tax system, but for individual types of taxes (e.g., sales, income, property, and excise taxes, etc.). The most recent version of the MTIS was published in March 2013 and is based on 2010 tax information with projections for 2015.

Another excellent resource is a periodic publication from the Institute on Taxation and Economic Policy (ITEP) entitled “Who Pays? A Distributional Analysis of the Tax Systems in All 50 States.”² Whereas the MTIS focuses on Minnesota, the “Who Pays?” report includes data for every state. While the data for Minnesota from “Who Pays?” is not as comprehensive or detailed as the MTIS, “Who Pays?” is nonetheless an invaluable resource because it provides tax incidence information in a comparable format for all fifty states. The most recent version of the “Who Pays?” report was published in 2013 and is based on 2010 income data and tax policy changes made through January 2013.

Based on information from the “Who Pays?” reports, it is clear that the state and local tax systems in the vast majority of states are regressive. However, neither “Who Pays?” nor any other national publication ranks all fifty

states by the degree of state and local tax system regressivity or progressivity.

This report fills this gap by applying statistical tools to data from the “Who Pays?” report and supplemental information provided by ITEP to quantify the degree of tax regressivity in each state. With this information, it is possible for the first time to rank all fifty states based on overall state and local tax regressivity. In addition, these statistical measures allow us to address critical questions regarding the factors that determine the degree of tax regressivity in state and local tax systems and the factors that affect changes in regressivity over time.

In 2008 Minnesota 2020 did the first fifty state tax regressivity ranking based on income data for 2000 as presented in the 2003 “Who Pays?” report; this analysis was summarized in the 2009 MTIS. In 2011 Minnesota 2020 updated the fifty state ranking based on 2007 income data as presented in the 2009 “Who Pays?” report; this analysis was featured in a 2011 Minnesota 2020 report³ and was again summarized in the 2011 MTIS.

This report is based on 2010 income data, adjusted to reflect tax changes enacted through January 2013, as presented in the January 2013 “Who Pays?” report. A preliminary analysis based on this data was summarized in the 2013 MTIS. The findings cited in this report are based on more detailed information provided to Minnesota 2020 by ITEP that was not included in the published version of the 2013 “Who Pays?” report. Because this report uses more detailed information that was not incorporated into the preliminary analysis, the findings presented in this report will differ slightly from the preliminary findings reported in the 2013 MTIS.

1 The most recent version of the MTIS can be found on-line at: http://www.revenue.state.mn.us/research_stats/research_reports/2013/2013_tax_incidence_study_links.pdf

2 The most recent version of “Who Pays?” can be found on-line at: <http://www.itep.org/pdf/whopaysreport.pdf>

3 “Minnesota’s Tax Fairness Retreat: A 50-State Study,” Minnesota 2020, January 2011 (http://www.mn2020.org/assets/uploads/article/tax_fairness.pdf).

No discussion of state and local tax regressivity in Minnesota is complete without consideration of the 2013 tax act, which significantly reduced the regressivity of Minnesota's tax system. Unfortunately, the most recent "Who Pays?" report, released in January 2013, does not include the impact of the 2013 tax act enacted in May 2013. This report uses data from the Minnesota Department of Revenue to adjust Minnesota's regressivity measurement (calculated from ITEP "Who Pays?" data) to reflect the impact of the 2013 act. Minnesota's ranking among the fifty states is then recalculated based upon this adjusted measure, holding the regressivity measures for all other states constant.



The 2013 tax act significantly reduced the regressivity of Minnesota's tax system.

Two other less far reaching tax acts were passed during the 2014 legislative session. The impact of the 2014 tax acts is not included in this analysis because a tax incidence analysis of these acts has yet to be published by the Minnesota Department of Revenue. However, it is clear that the impact of the 2014 tax acts on Minnesota tax regressivity will be small relative to the 2013 tax act because the 2013 act involved a much greater volume of revenue.⁴ To the extent that the 2014 tax acts do have an impact, it is expected that they will reduce the overall degree of state and local tax regressivity.

The "Who Pays?" data upon which the findings of this report are based include state and local income, property, and consumption (i.e., sales and excise) taxes. As with the MTIS and the "Who Pays?" report, this report does not include federal taxes.

Effective Tax Rates

A key concept in the analysis of tax regressivity is the "effective tax rate." The effective tax rate (or ETR) refers to taxes as a percentage of income. For example, a household that pays \$10,000 in state and local taxes and has an income of \$100,000 would have an effective tax rate of 10.0 percent ($\$10,000 \text{ taxes} \div \$100,000 \text{ income}$). The ETR can be applied not only to a single household, but to an entire group of households. For example, if total state and local taxes for all households in Minnesota equal ten percent of total statewide household income, the aggregate statewide household ETR would be 10.0 percent.

In a progressive tax system, the ETR rises as income rises. In other words, in a progressive tax system higher income households tend to pay a larger percentage of their income in taxes than do low income households. Figure 1 shows an example of a progressive tax system.

In a regressive tax system, the opposite is true: ETRs fall as income rises. In a regressive system, higher income households tend to pay a lower percentage of their income in taxes than do low income households. Figure 2 shows an example of a regressive tax system.

⁴ The 2013 tax act involved \$2.1 billion in state tax increases (a portion of which was used to reduce local property taxes), while the 2014 tax acts involved \$0.55 billion in tax reductions.

In its simplest form, a proportional tax system is one in which the ETR of all households is the same, regardless of income. In other words, the ETR remains constant as income rises, as illustrated in figure 3.

However, the ETRs of all households do not necessarily have to be the same under a proportional tax system. The hallmark of a proportional tax system is not that all ETRs are identical, but that there is no simple linear relationship between income and ETRs.

In a proportional system, particularly high or low ETRs among households in some income ranges are offset by correspondingly high or low ETRs among households in other ranges, so that there is no aggregate bias for high or low ETRs among households of differing income levels.

FIGURE 1

A Progressive Tax System

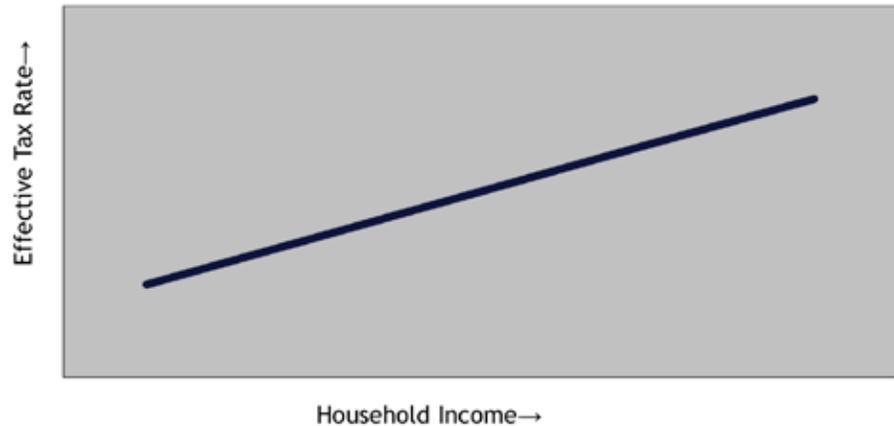


FIGURE 2

A Regressive Tax System

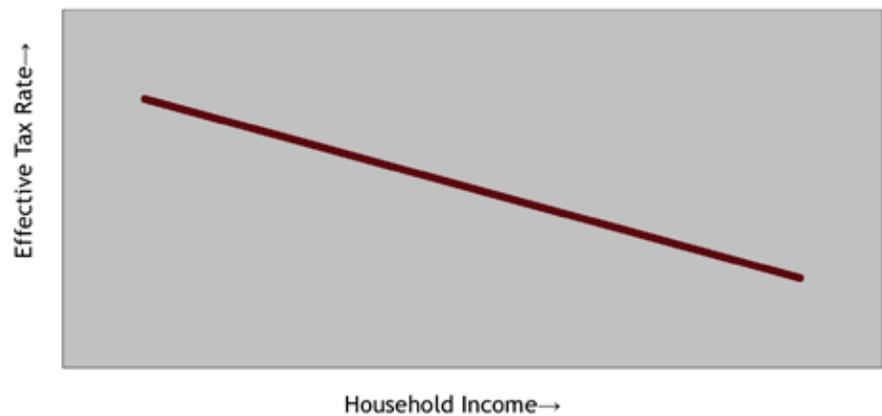
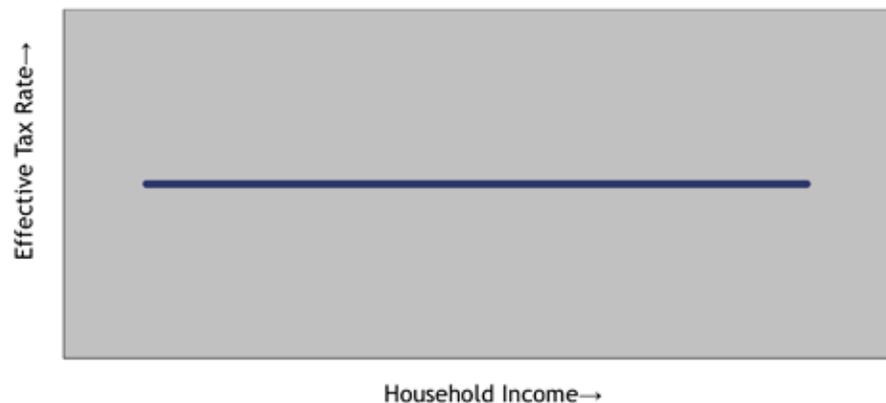


FIGURE 3

A Proportional Tax System



Measuring Regressivity: The Suits Index

As noted in the 2013 Minnesota Tax Incidence Study (MTIS), “it is sometimes difficult to summarize the overall distribution of a tax (progressive, proportional, or regressive) from the individual effective tax rates.” In other words, it can be difficult to judge the overall regressivity or progressivity of a tax system simply by “eyeballing” the ETRs.

To overcome this problem, the MTIS uses a statistical measure known as the “Suits index” to quantify the degree of regressivity in Minnesota’s tax system. According to the MTIS, “The Suits index has numerical properties that make it easy to identify the degree of progressivity or regressivity of a tax.” This report will also measure the progressivity / regressivity of the state and local tax systems using the Suits index; unlike the MTIS, this report will calculate the value of the Suits index for all fifty states, not just for Minnesota.

The value of the Suits index ranges from +1.0 to -1.0, with values above zero denoting a progressive tax system and values below zero denoting a regressive system. A Suits index with a value of zero denotes a tax system that is proportional.

For a Suits index to reach +1.0, all taxes would have to be paid exclusively by the wealthiest household(s). For a Suits index to reach -1.0, all taxes would have to be paid by the poorest household(s). Values of the Suits index at the extreme ends — +1.0 and -1.0 — never occur in the real world.

In practice, a Suits index with a value of +0.2 or higher is considered extremely progressive, while a Suits index of -0.2 or less is considered extremely regressive.⁵

More About ITEP’s “Who Pays?” Reports

The calculation of the Suits index for all fifty states is based on 2000 and 2010 data from the 2003 and 2013 editions of “Who Pays? A Distributional Analysis of the Tax Systems in All 50 States” published by ITEP,⁶ along with supplemental information provided to Minnesota 2020 by ITEP. “Who Pays?” includes information for the following state and local taxes in all 50 states: sales and excise taxes (referred to in this report as “consumption taxes”), property taxes, and personal and corporate income taxes (referred to in this report collectively as “income taxes”).

The information in “Who Pays?” is derived from ITEP’s “microsimulation tax model.” According to ITEP, this model “is a tool for calculating revenue yield and incidence, by income group, of federal, state and local taxes.” The ITEP model “relies on one of the largest databases of tax returns and supplementary data in existence, encompassing close to three quarters of a million records. To forecast revenues and incidence, the model relies on government or other widely respected economic projections.”⁷

5 Even a Suits index with a value as high as -0.05 or -0.025 denotes a tax system that is significantly regressive. (For example, the 2013 MTIS characterizes a tax system with a -0.046 Suits index as “quite” regressive.) For more on this, please see: “How Regressive is Minnesota’s Tax System? Very Regressive,” Minnesota 2020, April 29, 2009 (<http://www.mn2020.org/issues-that-matter/fiscal-policy/how-regressive-is-minnesota-s-tax-system-very-regressive>).

6 The 2003 edition of “Who Pays?” is based on 2000 income data and 2002 tax laws. The 2013 edition of “Who Pays?” is based on 2010 income data and tax laws as of January 2013.

7 Additional technical information regarding ITEP’s microsimulation model can be found at: http://www.itep.org/about/itep_tax_model_full.php

TABLE 1

2010 Income Ranges ("Who Pays?")		Minnesota		All States	
		Income Range	Average Income	Income Range	Average Income
First (Lowest) Quintile		Less than \$23,000	\$12,500	Less than \$18,000	\$10,700
Second Quintile		\$23,000 - \$41,000	\$31,900	\$18,000 - \$33,000	\$25,600
Third (Middle) Quintile		\$41,000 - \$62,000	\$52,200	\$33,000 - \$54,000	\$42,900
Fourth Quintile		\$62,000 - \$96,000	\$77,700	\$54,000 - \$88,000	\$69,000
Fifth (Highest) Quintile	Next 15%	\$96,000 - \$182,000	\$123,900	\$88,000 - \$175,000	\$118,100
	Next 4%	\$182,000 - \$433,000	\$268,800	\$175,000 - \$419,000	\$253,700
	Top 1%	\$433,000 or more	\$1,308,300	\$419,000 or more	\$1,297,700

"Who Pays?" reports the effective tax rate (ETR) by type of tax for income quintiles (i.e., groups of 20 percent of the population), with the highest income quintile broken down into three sub-groups, for a total of seven income groups, as listed below:

- ✓ The 20 percent of household with the lowest income (i.e., the first or bottom quintile)
- ✓ The second 20 percent (i.e., the second quintile)
- ✓ The third 20 percent (i.e., the third or middle quintile)
- ✓ The fourth 20 percent (i.e., the fourth quintile)
- ✓ The next 15 percent
- ✓ The next 4 percent
- ✓ The 1 percent of households with the highest income (i.e., the top 1 percent).

Table 1 above shows the income ranges and average income for each of these seven groups for 2010 as reported in the 2013 ITEP "Who Pays?" report both for Minnesota and the entire U.S.

Using the income group data from the "Who Pays?" reports, it is possible to calculate Suits indices for all fifty states.

According to the Minnesota Department of Revenue, the methodology used in "Who Pays?" is "relatively close" to what is used in the MTIS. However, due to the fact that "Who Pays?" is examining data for all 50 states, while the MTIS has the luxury of focusing on only one state, the 50 state data in "Who Pays?" is generally less comprehensive and detailed than the Minnesota data in the MTIS.

Differences between the two reports are summarized below.

- ✓ The MTIS includes some types of taxes not included in “Who Pays?,” including mortgage and deed taxes and mining production taxes.
- ✓ The most recent MTIS (released in March 2013) is based tax data for 2010, with projections for 2015. “Who Pays?” is based on 2010 income data, but the tax amounts are based on tax laws in place as of January 2013 as estimated by the ITEP microsimulation model.
- ✓ While both the MTIS and “Who Pays?” examine the final incidence of taxes after taxes imposed on businesses have been shifted to those who bear the final burden (e.g., consumers, labor), the two studies may employ different assumptions regarding these shifts.
- ✓ “Who Pays?” focuses exclusively on non-senior households because state tax systems often treat “elderly families very differently from other families and these differences cloud the incidence of state tax structures.” (“Who Pays?,” 2013, p. 18). The MTIS, on the other hand, focuses on all Minnesota households, including seniors.

- ✓ The MTIS reports the distribution of taxes within Minnesota based on ten equal sized groups known as “deciles,” with additional detail reported for the tenth decile (i.e., the decile with the highest income).⁸ As noted above, “Who Pays?” reports the distribution based on seven groups. Because they are based on ten groups instead of just seven, Suits indices calculated from data in the MTIS⁹ are more accurate than Suits indices calculated from data in “Who Pays?”

In order to make interstate comparisons—including fifty state regressivity rankings—it is necessary to use Suits indices calculated from ITEP data because the MTIS Suits indices are only available for one state: Minnesota. Suits indices referenced in this report were calculated using ITEP “Who Pays?” data unless otherwise noted.

This report also examines data from the 2003 edition of “Who Pays?” based on 2000 income data. In this way, this report can not only examine the incidence of state and local taxes among the 50 states currently, but trends in tax incidence over the decade between 2000 and 2010. Based on Suits indices calculated using 2000 and 2010 data, it is possible to examine the change in tax regressivity for each state, including Minnesota, in an absolute sense and relative to other states.

8 The MTIS reports information based on two different types of deciles: population deciles and income deciles. For population deciles, each decile represents one-tenth of the statewide households. For income deciles, each decile consists of one-tenth of statewide household income. For both population and income deciles, deciles are ordered by income, so that the first decile consists of the lowest income households and the tenth decile consists of the highest income households.

9 In addition to calculating Suits indices by population and income deciles (see previous footnote), the MTIS also calculates a “full sample” Suits index, which is based on the entire sample of households. Suits indices calculated based on the full sample maintain all available detail because they are not dependent on any grouping of data. For this reason, “full sample” Suits indices are more accurate than Suits indices based on deciles.

II. TAX REGRESSIVITY IN MINNESOTA

Information from ITEP’s “Who Pays?” demonstrates that in 2010 the state and local tax systems in the vast majority of states are regressive. Minnesota is no exception to this rule.

Effective Tax Rates by Income Groups

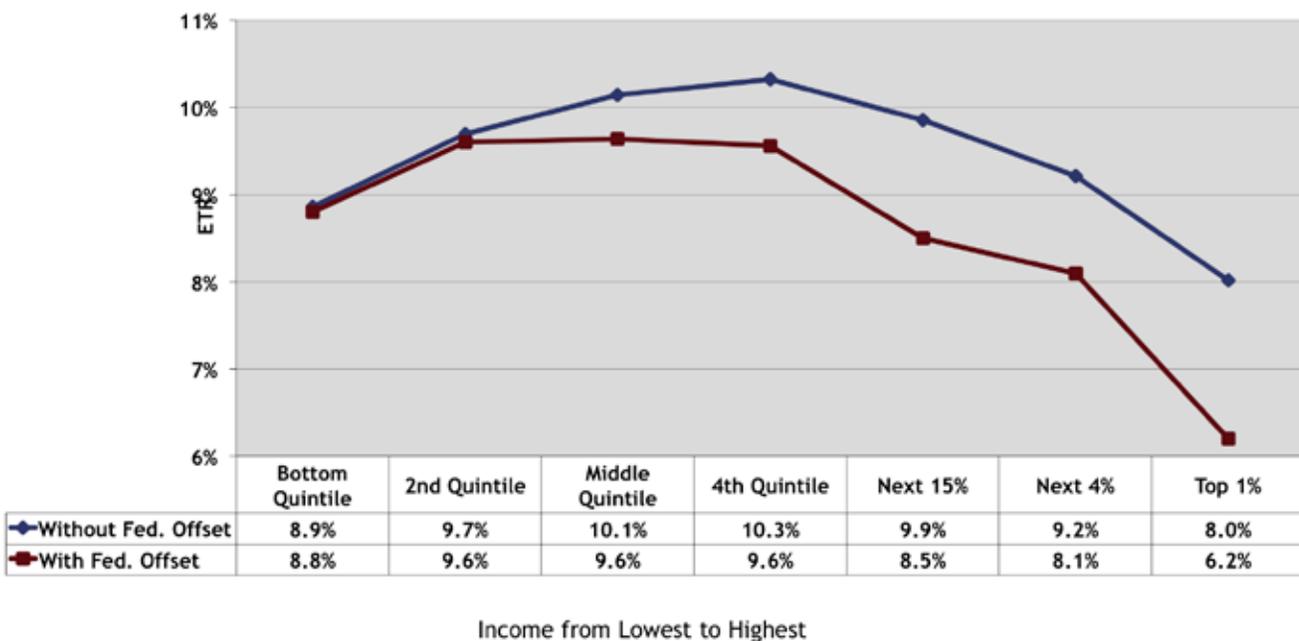
As noted in the Introduction, the ITEP report examines effective tax rates in each state by quintiles—or groups of 20 percent—ranging from lowest to highest income—with the highest income quintile further broken down into the top one percent, the next four percent, and the next 15 percent. The average state and local effective tax rates in Minnesota for the 20 percent of households with the lowest income—the bottom quintile—is 8.8 percent. The ETR climbs in the second and third quintiles before peaking at 9.9 percent in the fourth quintile.

However, within the highest income quintile, the ETR falls significantly before bottoming out at 8.0 percent for the top one percent of households by income. (The income ranges corresponding to each quintile are displayed in table 1 in the Introduction.)

Taxpayers who “itemize” on their federal income tax return can deduct state and local income and property taxes from their federally taxable income, thereby reducing their federal tax liability. “Who Pays?” and the MTIS refers to this feature of the federal tax code as the “federal offset.” Because higher income households are more likely to be itemizers than low income households, the benefit of the federal offset is generally much greater for high income households than for low income households.

FIGURE 4

Minnesota 2010 State & Local Effective Tax Rate
(ETR) by Income With & Without Federal Offset



“Who Pays?” also reports the average effective tax rates for all seven income groups taking into account the reduction in federal taxes resulting from the federal offset. The incidence of state and local taxes with and without the federal offset is shown in figure 4.

The relatively greater benefit derived by higher income households as a result of the federal offset is apparent from this graph. Taxpayers in the lowest income quintile derive scarcely any benefit from the federal offset; however, the reduction in ETR’s becomes more pronounced as income increases. For the top one percent, the state and local ETR is reduced from 8.0 percent prior to the federal offset to 6.2 percent after the offset. As a result of this, the regressivity of Minnesota’s tax system increases significantly after taking into account the impact of the federal offset.



The regressivity of Minnesota’s tax system increases significantly after taking into account the impact of the federal offset.

At first glance, this graph might appear to indicate that Minnesota’s tax system is not all that regressive, especially based on ETRs before taking into account the federal offset. After all, only those in the top one percent have an average ETR that is significantly below that of all other income groups. However, this interpretation of the data does not take into account the fact that 17 percent of all Minnesota income is concentrated within the top one percent, based on 2010 ITEP income data. Contrast this with the bottom quintile, which has just three percent of statewide income.

Fortunately, the Suits index is sensitive to the concentration of income within the various income groups. Minnesota’s 2010 Suits index excluding the impact of the federal offset is -0.0331, which denotes a moderate degree of tax regressivity. After taking into account the federal offset, Minnesota’s index falls to -0.0704, denoting a much more significant degree of tax regressivity.

In the 2013 MTIS the Minnesota Department of Revenue makes a case for not adjusting the state and local ETRs for the effects of the federal offset. The Department argues that:

If all states levy deductible taxes, then the federal government presumably makes up for the lost revenue by raising the federal tax rate. It is unlikely that the deductibility of state and local taxes actually lowers the total federal tax burden on Minnesota residents.

While it is likely that federal tax rates are higher as a result of the revenue lost through the deductibility of state and local income and property taxes, it is unknown how these higher rates impact the federal taxes paid by any particular income group. Because the impact of the federal offset upon tax regressivity or progressivity is unclear, the Department excludes the affects of the federal offset from the tax incidence analysis presented in the 2013 MTIS, with the exception of one brief section in which the federal offset is discussed (chapter 4, section C). For similar reasons, the remainder of this report will be based on tax information that does not include the effects of the federal offset.

Differences Between Minnesota Suits Indices Based on ITEP and MTIS Data

Incidentally, the Suits index reported for Minnesota in the 2013 MTIS based on 2010 data is -0.056 ,¹⁰ significantly more regressive than the -0.0331 Suits index for Minnesota calculated using “Who Pays?” data. There are several reasons for this disparity:

- ✓ The data in the 2013 MTIS is based on more accurate and complete tax information for Minnesota than “Who Pays?” Furthermore, some of the taxes excluded from the “Who Pays?” analysis are very regressive, helping to explain why the Suits index calculated using “Who Pays?” data indicates significantly less regressivity than the Suits index from the 2013 MTIS.
- ✓ “Who Pays?” excludes data for senior households. Insofar as senior households have lower income than non-senior households, they probably pay a smaller percentage of their total tax in the form of the progressive income tax and a larger share in the form of regressive consumption and property taxes. Thus, excluding seniors from the population probably further reduces the observed regressivity of Minnesota tax system.

- ✓ “Who Pays?” may employ different assumptions than the MTIS regarding the shifting of business taxes to labor and consumers.
- ✓ The Suits index calculated using data from “Who Pays?” is based on seven income groups, while the Suits index reported in the MTIS is based on ten groups (in the case of the population decile Suits index). As a general rule, Suits indices calculated using fewer groups are less accurate and are more likely to understate the regressivity of a tax system.

While the Suits indices calculated for Minnesota from “Who Pays?” data may not be quite as accurate as the Suits indices reported in the MTIS, they are nonetheless based on the widely used and trusted ITEP microsimulation model that incorporates data for the major tax types in each state. Furthermore, the “Who Pays?” report—along with supplemental information provided by ITEP—is the only source of tax incidence information for all 50 states that is consistent from state to state and thus is the only source of data for calculating comparable Suits indices for all fifty states. For this reason, the interstate comparisons and rankings reported in the remainder of this report will be based exclusively on Suits indices calculated using ITEP “Who Pays?” data.

¹⁰ This is Minnesota’s Suits index based on population decile data. As noted in the preceding footnote, the full sample Suits index is more accurate than the population decile Suits index. Minnesota’s 2010 full sample Suits index is -0.060 .

III. REGRESSIVITY IN THE FIFTY STATES

Based on 2010 data from the most recent ITEP “Who Pays?” report, Minnesota’s state and local tax system is somewhat less regressive than the national average. On the other hand, during the period from 2000 to 2010, while the rest of the nation was moving toward less regressivity in state and local taxes, Minnesota was moving toward greater regressivity.

Suits Indices in the Fifty States

Based on the Suits indices calculated using ITEP data, the state and local tax systems in 47 of the 50 states were regressive in 2010. The degree of regressivity ranges from slight (Vermont with a Suits index of -0.0026) to extreme (Florida with a Suits index of -0.2152). Only three states—California, Oregon, and Delaware—had progressive state and local tax systems in 2010. The most progressive of these states was

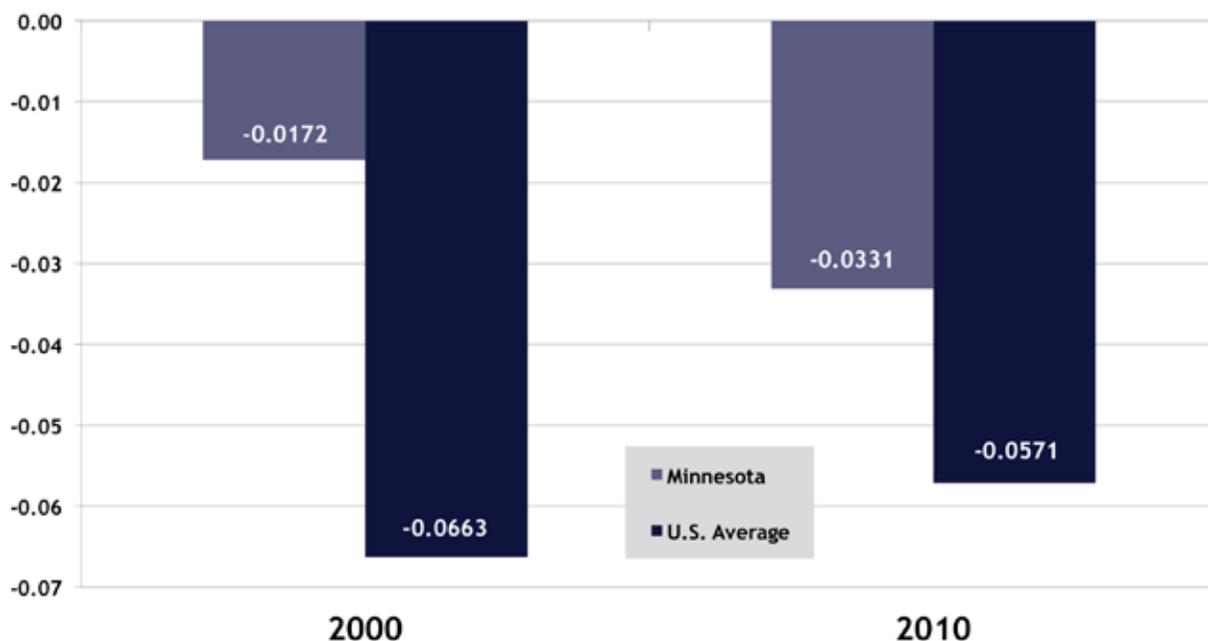
California, with a Suits index of +0.0497. The aggregate state and local Suits index for the entire nation in 2010 was -0.0571, which is quite regressive.

Minnesota had the 16th least regressive state and local tax system in the nation in 2010, with a Suits index of -0.0331—modestly greater (i.e., less regressive) than the national state and local Suits index. Thus, while Minnesota’s tax system is less regressive than in most states, Minnesota is not among the least regressive states in the nation; nearly a third of all states have tax systems that are less regressive than Minnesota’s.

During the period from 2000 to 2010, there were modest changes in the relative degree of tax regressivity among the fifty states, with the Suits index increasing in approximately half of the states (i.e., becoming less regressive)

Figure 5

2000 and 2010 State & Local Suits Indices based on ITEP
Data: Minnesota vs. U.S. Average



and decreasing in the other half (i.e., becoming more regressive). However, in aggregate state and local tax systems across the nation became modestly less regressive over the decade, with the national Suits index falling from -0.0663 in 2000 to -0.0571 in 2010.

Minnesota’s Suits index fell from -0.0172 in 2000 to -0.0331 in 2010, denoting an increase in tax regressivity over the decade. In 2000, Minnesota had the 11th least regressive tax system in the nation; as noted above, by 2010 Minnesota had slipped to 16th. Minnesota’s ranking among states in terms of the decline in its Suits index from 2000 to 2010 (-0.0159) is 37th. In other words, tax regressivity in Minnesota over this ten year period increased more rapidly than in all but 13 states. In short, while tax systems nationwide were becoming less regressive, Minnesota’s tax system was becoming more regressive.

Table 2 shows the 2000 and 2010 state and local Suits indices for all fifty states and nationally, as well the regressivity rank for all states based on the Suits indices for both years, with the state with least regressive (i.e., most progressive) tax system having a rank of 1 and the most regressive state having a rank of 50. In addition, table 2 shows the change in the Suits index from 2000 to 2010 for all states and each state’s rank in terms of the Suits index change, with the state with the largest increase in the Suits index (i.e., the most substantial reduction in tax regressivity) having a rank of 1 and the state with the largest decrease in the Suits index (i.e., the largest increase in tax regressivity) have a rank of 50.

The next two sections of this report will examine the factors affecting the degree of tax regressivity among states in 2010 and the factors effecting the change in regressivity from 2000 to 2010.

FIGURE 6

Change in Suits Index from 2000 to 2010 by State

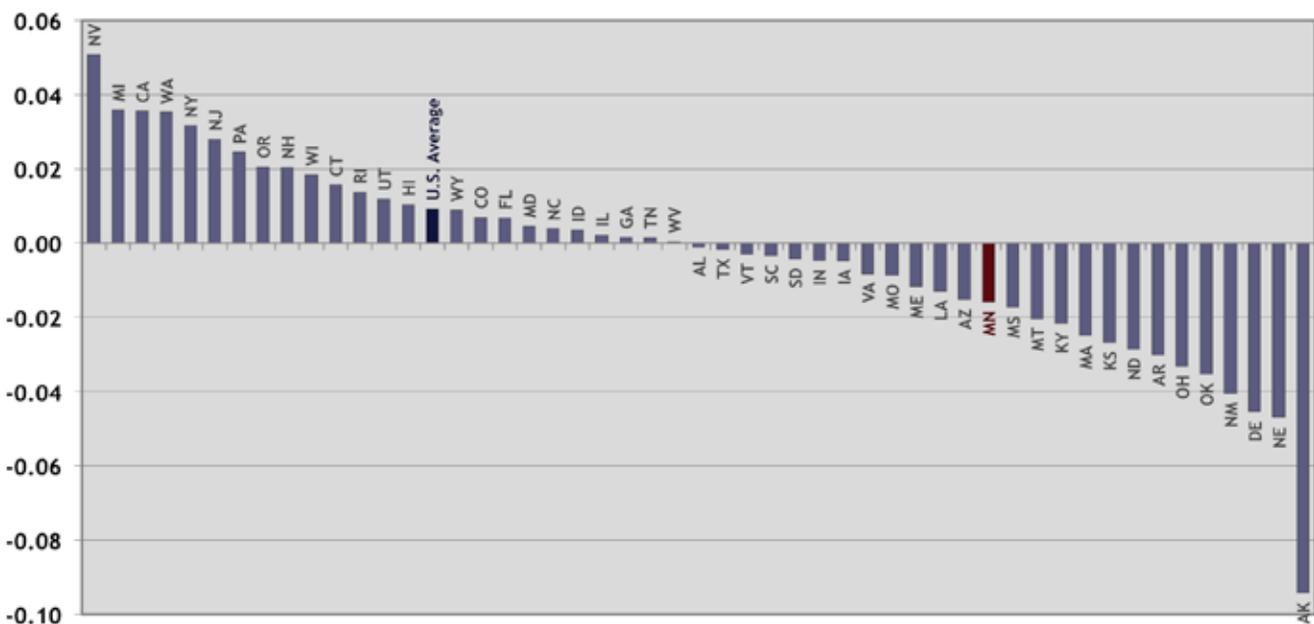


TABLE 2

SUITS INDICES FOR TOTAL STATE & LOCAL TAXES: 2000 & 2010						
State	2000		2010		Change: 2000-2010	
	Index	Rank	Index	Rank	Index	Rank
Alabama	-0.1310	42	-0.1321	43	-0.0011	25
Alaska	-0.0352	16	-0.1295	42	-0.0942	50
Arizona	-0.0971	37	-0.1124	38	-0.0152	36
Arkansas	-0.0505	25	-0.0806	30	-0.0301	44
California	0.0141	2	0.0497	1	0.0356	3
Colorado	-0.0837	34	-0.0768	28	0.0069	16
Connecticut	-0.0978	38	-0.0821	31	0.0157	11
Delaware	0.0569	1	0.0115	3	-0.0454	48
Florida	-0.2220	49	-0.2152	50	0.0068	17
Georgia	-0.0710	29	-0.0694	26	0.0016	22
Hawaii	-0.0751	33	-0.0648	25	0.0103	14
Idaho	-0.0124	8	-0.0089	7	0.0035	20
Illinois	-0.1202	41	-0.1181	40	0.0021	21
Indiana	-0.0892	35	-0.0938	35	-0.0046	30
Iowa	-0.0492	22	-0.0539	20	-0.0047	31
Kansas	-0.0496	23	-0.0763	27	-0.0267	42
Kentucky	-0.0407	18	-0.0624	23	-0.0216	40
Louisiana	-0.1021	39	-0.1151	39	-0.0129	35
Maine	0.0011	5	-0.0106	8	-0.0117	34
Maryland	-0.0347	14	-0.0301	13	0.0046	18
Massachusetts	-0.0541	27	-0.0789	29	-0.0249	41
Michigan	-0.0933	36	-0.0575	22	0.0359	2
Minnesota	-0.0172	11	-0.0331	16	-0.0159	37
Mississippi	-0.0743	31	-0.0916	33	-0.0173	38
Missouri	-0.0432	19	-0.0519	19	-0.0087	33
Montana	0.0130	3	-0.0074	5	-0.0204	39
Nebraska	-0.0094	7	-0.0564	21	-0.0470	49
Nevada	-0.2151	48	-0.1643	44	0.0508	1
New Hampshire	-0.1436	43	-0.1232	41	0.0205	9
New Jersey	-0.0364	17	-0.0084	6	0.0280	6
New Mexico	-0.0475	21	-0.0880	32	-0.0405	47
New York	-0.0535	26	-0.0219	10	0.0316	5
North Carolina	-0.0279	13	-0.0241	12	0.0038	19
North Dakota	-0.0739	30	-0.1023	37	-0.0284	43
Ohio	-0.0169	10	-0.0500	18	-0.0332	45
Oklahoma	-0.0639	28	-0.0992	36	-0.0353	46
Oregon	0.0025	4	0.0230	2	0.0206	8
Pennsylvania	-0.1169	40	-0.0924	34	0.0245	7
Rhode Island	-0.0467	20	-0.0330	15	0.0137	12
South Carolina	-0.0130	9	-0.0163	9	-0.0033	28
South Dakota	-0.1997	46	-0.2040	48	-0.0043	29
Tennessee	-0.1955	45	-0.1940	46	0.0015	23
Texas	-0.1737	44	-0.1754	45	-0.0017	26
Utah	-0.0750	32	-0.0631	24	0.0119	13
Vermont	0.0004	6	-0.0026	4	-0.0030	27
Virginia	-0.0349	15	-0.0431	17	-0.0082	32
Washington	-0.2491	50	-0.2138	49	0.0353	4
West Virginia	-0.0225	12	-0.0221	11	0.0004	24
Wisconsin	-0.0502	24	-0.0316	14	0.0185	10
Wyoming	-0.2118	47	-0.2029	47	0.0089	15
All U.S.	-0.0663		-0.0571		0.0092	

IV. FACTORS AFFECTING TAX REGRESSIVITY IN 2010

As noted in “Who Pays?” the degree of tax regressivity in a state is largely a function of the type of taxes that state and local governments rely on. For example, states that rely heavily on regressive property and consumption taxes are likely to have a regressive overall tax system, while states that rely more on progressive income taxes are likely to have a less regressive or progressive system.¹¹ Another factor affecting the degree of tax regressivity in a state is the degree of income concentration, with states with a high concentration of income at the top tending to have greater tax regressivity.¹²

Factors Affecting the Degree of Tax Regressivity

Fortunately, data provided by ITEP allows us not only to quantify the degree of tax regressivity via the Suits index, but also the mix of taxes that a state relies on and the degree of income concentration. Using ITEP data, measures of tax dependence for each of the three major categories of state and local taxes were created:

- ✓ Income tax dependence is equal to the percentage of total income, property, and consumption tax revenue within a state derived from income taxes (i.e., individual and corporate).
- ✓ Property tax dependence is equal to the percentage of total income, property, and consumption tax revenue within a state derived from property taxes.
- ✓ Consumption tax dependence is equal to the percentage of total income, property, and consumption tax revenue within a state derived from consumption taxes (i.e., sales and excise taxes).

The Gini coefficient is used to measure the degree of income concentration or income inequality. The Gini coefficient ranges from 0 to 1, where 0 corresponds to complete income equality (i.e., all households have the same income) and 1 corresponds to complete income inequality (i.e., one household has all of the income).¹³ Gini coefficients for each state were calculated using 2010 income data from the 2013 ITEP “Who Pays?” report.

11 It should be noted that while income taxes are generally progressive and property taxes are generally regressive, there are exceptions to these rules. For example, as noted in the “Who Pays?” report, a minority of states have individual income taxes that are levied at a flat rate at all income levels and/or exemptions that primarily benefit high income households; the individual income tax in these states is not particularly progressive and in one state (Pennsylvania) is slightly regressive. Meanwhile, in Louisiana the property tax is significantly progressive as a result of refundable credits and an exemption for the first \$75,000 of homestead market value. While there is significant variation in the incidence of income and property taxes from state to state, in the large majority of states (including Minnesota) income taxes are generally progressive and property taxes are generally regressive. Consumption taxes are steeply regressive in every state, without exception.

12 As a general rule, a concentration of income at the top of the income spectrum (i.e., a high degree of income inequality) will tend to make a regressive tax system more regressive and a progressive tax system more progressive, all other things being equal. Because state and local tax systems in the fifty states are generally regressive, a high level of income concentration at the top tends to contribute to greater tax regressivity.

13 Wikipedia has a good description of the Gini coefficient, which can be found at: http://en.wikipedia.org/wiki/Gini_coefficient

Using the Gini coefficient as a measure of income concentration combined with the three tax dependence measures, it is possible to use standard statistical tools to determine the extent to which variation in regressivity among the fifty states as measured by the Suits index is driven by the mix of taxes that a state relies on versus the degree of income concentration. All correlations presented below are based upon 2010 ITEP data and are statistically significant unless otherwise noted.¹⁴

Not surprisingly, this analysis reveals that the type of taxes that a state depends on is a powerful determinant of the variation in the degree of tax regressivity. As a general rule,

the greater the extent to which a state relies on progressive income taxes, the more progressive a state's overall tax system is.¹⁵ Income tax dependence explains 71.6 percent of the variation in tax regressivity among the states.

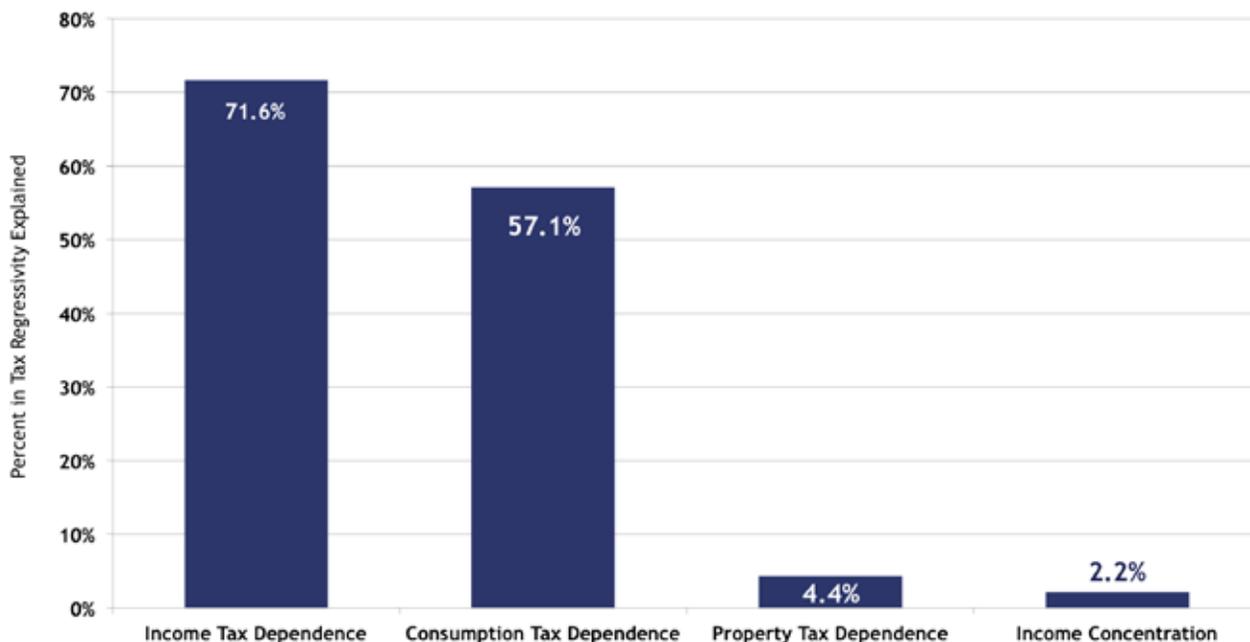
Consumption tax dependence is the next most significant factor in explaining variation in tax regressivity among states. Consumption taxes are the most regressive of the three major types of state and local taxes and thus regressivity tends to increase as dependence on consumption taxes increases. Consumption tax dependence explains 57.1 percent of the variation in tax regressivity among the states.

14 A relationship is said to be "statistically significant" if we can be 95 percent confident that the observed relationship is not the result of random chance.

15 The exception to this rule occurs among a minority of states in which the income tax is not particularly progressive. For more on this, see footnote 11.

FIGURE 7

Factors That Explain Variation in 2010 State and Local Tax Regressivity Among States



Of the three major types of state and local taxes, the property tax dependence explains the least variation in tax regressivity among the states. This is almost certainly because the degree of property tax regressivity nationwide (Suits = -0.0650) is only modestly different than the degree of overall state and local tax regressivity (Suits = -0.0571).

Thus, variation in property tax dependence would generally have a small effect in increasing or decreasing tax regressivity in a state relative to the other two major tax types, which were much more powerfully regressive (in the case of consumption taxes) or progressive (in the case of income taxes). Property tax dependence explains only 4.4 percent of the variation in tax regressivity among the states—a correlation that is not statistically significant.

As income concentration as measured by the Gini coefficient increases, the degree of tax regressivity among the states also tends to increase. However, income concentration explains only 2.2 percent of the variation in tax regressivity among states.¹⁶ This correlation is also not statistically significant.

The implications of this analysis are clear: the mix of taxes that a state relies on is much more important than the degree of income concentration in determining the degree of tax regressivity in a state at a fixed point in time. However, which factors are most significant in explaining changes in the degree of state and local tax regressivity over time? This is the subject of the next section.

¹⁶ The percentage of variation in tax regressivity explained by income tax dependence (71.6 percent), property tax dependence (57.1 percent), consumption tax dependence (4.4 percent), and income disparity (2.2 percent) when, summed together, exceed 100 percent. This is easily explained by the fact that the three tax dependence measures are heavily collinear (i.e., when one increases, one or both of the others by definition must decrease). For this reason, a portion of the variation in regressivity explained by any one tax dependence measure is also explained by variation in the other two tax dependence measures.

V. FACTORS AFFECTING CHANGE IN TAX REGRESSIVITY FROM 2000 TO 2010

As noted in the previous section, the mix of taxes that a state chooses to rely on was more potent than the degree of income concentration in explaining variation in the degree of tax regressivity in 2010. This section will address an equally important question: how did changes in the mix of taxes and the degree of income concentration over time affect changes in the degree of tax regressivity among states?

Factors Affecting Change in Tax Regressivity Over Time

To examine this question, this analysis will use the same measures described in the preceding section—the income, property, and consumption tax dependence measures and the Gini coefficient. Changes in these factors will be correlated with changes in the Suits indices for all fifty states from 2000 to 2010 to determine which had the greatest impact on changes in tax regressivity.

As income tax dependence increased from 2000 to 2010, tax regressivity decreased and vice versa. However, income tax dependence, which explained nearly 72 percent of the variation in tax regressivity among the states in 2010, explained only 19.3 percent of the change in tax regressivity from 2000 to 2010.

As consumption tax dependence increased from 2000 to 2010, tax regressivity increased and vice versa. Change in consumption tax dependence explained 50.7 percent of the change in tax regressivity over this period—more than double that of any other factor examined in this analysis.

These findings in regard to income tax and consumption tax dependence raise an interesting question: why was the income tax the most potent factor in explaining the degree of regressivity in 2010, while consumption taxes were the most potent factor in explaining the change in regressivity from 2000 to 2010? A closer examination of data reveals clues as to the answer.

- ✓ Three of the four states with the largest change in income tax dependence from 2000 to 2010 have income taxes that are significantly less progressive than the income taxes in other states. As a result, the large change in income tax dependence in these states had a relatively minor impact on the overall level of tax regressivity in these states. Consumption taxes, on the other hand, are steeply regressive in every state and thus the change in consumption tax dependence consistently translates into a significant change in overall tax regressivity.
- ✓ The average change in consumption tax dependence among the fifty states from 2000 to 2010 was nearly twice as large as the average change in income tax dependence. The larger change in consumption tax dependence helps to explain why consumption tax dependence change explained a higher percentage of the change in overall tax regressivity.

As property tax dependence increased from 2000 to 2010, tax regressivity declined and vice versa, although the relationship was weak in comparison to consumption and income tax dependence, explaining just 10.2 percent of the change in tax regressivity over the ten years.

The relatively weak correlation between property tax dependence change and overall tax regressivity change is not surprising, given that—on a nationwide basis—property taxes are only slightly more regressive than the overall state and local tax systems. Thus, a change in property tax dependence has a relatively small impact on changes in the overall degree of tax regressivity.

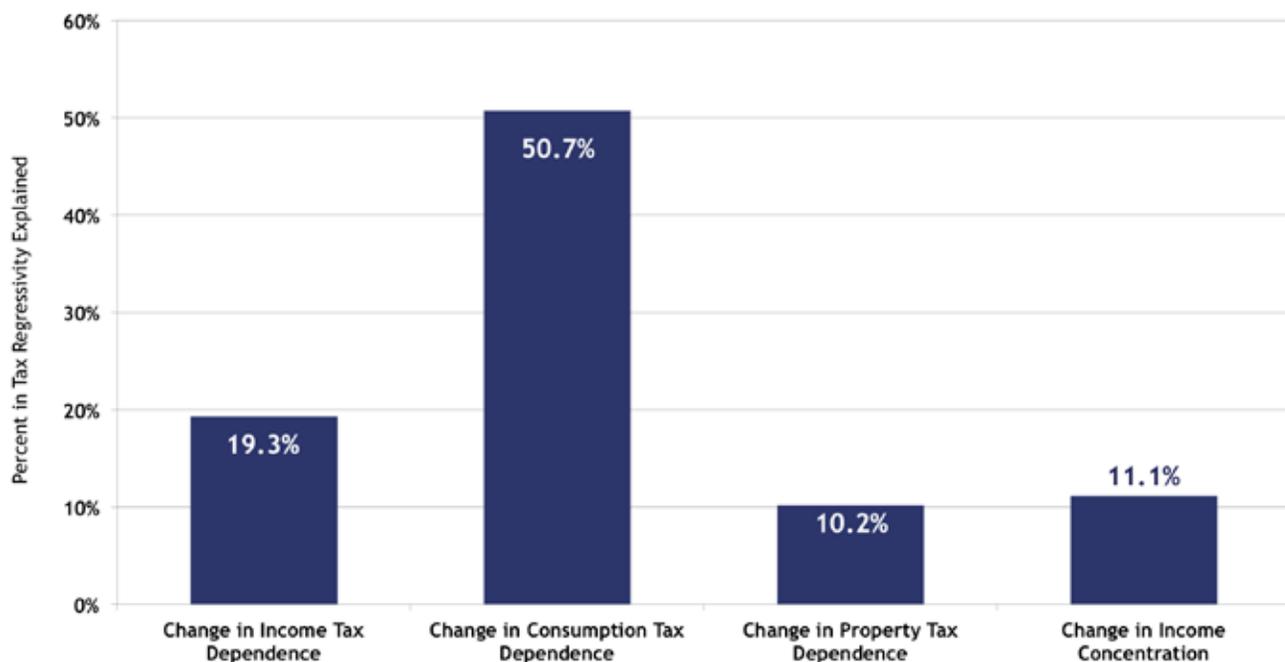


In most instances an increase in property tax dependence was offset by a reduction in consumption tax dependence, thereby reducing overall tax regressivity.

However, the nature of the relationship between property tax dependence and the tax regressivity change is the opposite of what might be expected. Being a regressive tax, one would expect that as property tax dependence increases, the degree of tax regressivity will increase. However, the observed relationship is the exact opposite: as property tax dependence increases, the level of overall tax regressivity declines and vice versa.

FIGURE 8

Factors That Explain Variation in Change in State and Local Tax Regressivity Among States from 2000 to 2010



Once again, a close examination of the data reveals the answer to this apparent paradox. During the period from 2000 to 2010, in most states the change in property tax dependence was offset by a corresponding change in consumption taxes, which are even more regressive than property taxes. Thus, in most instances an increase in property tax dependence was offset by a reduction in consumption tax dependence, thereby reducing overall tax regressivity. Conversely, a decrease in property tax dependence was usually offset by an increase in consumption tax dependence, thereby leading to greater tax regressivity.

From 2000 to 2010, increasing income concentration as measured by the Gini coefficient corresponded with an increase in tax regressivity and vice versa. The change in the degree of income concentration explained 11.1 percent of the change in tax regressivity over this ten year period.

Changes in Minnesota Tax Regressivity

As noted in section III, Minnesota state and local tax regressivity increased from 2000 to 2010 both in an absolute sense and relative to other states. While the national state and local Suits index increased by 0.0092 over this period, Minnesota's index declined 0.0159. Minnesota's state and local tax system remained less regressive than in most other states, although Minnesota tax regressivity increased over this period, while state and local tax regressivity nationally declined.

The ITEP data allows us to identify three factors that contributed to the growth in Minnesota tax regressivity over the decade.

- ✓ Income concentration in Minnesota as measured by the Gini coefficient increased from 2000 to 2010. As noted in section IV, an increase in income concentration generally coincides with an increase in tax regressivity. While the increase in income concentration is not a particularly potent determinant of the change in regressivity and while the change in income concentration in Minnesota was not large, it likely did have at least some impact on growth in Minnesota tax regressivity over the decade.
- ✓ Over the decade, Minnesota was becoming more dependent on regressive property taxes and less dependent on progressive income taxes. In 2000, 24.4 percent of total Minnesota income, property, and consumption tax revenues were derived from property taxes; by 2010, this percentage had increased to 28.3 percent. Meanwhile, the income tax share fell from 46.1 percent in 2000 to 42.8 percent in 2010. The shift from progressive income taxes to regressive property taxes was probably the single largest contributor to growth in Minnesota tax regressivity over the decade.¹⁷

17 Nationally an increase in property tax dependence was associated with a reduction in tax regressivity during the period from 2000 to 2010; as noted above, this was due to the fact that increases in property tax dependence in most states were offset primarily by a decrease in even more regressive consumption taxes, there leading to reduced tax regressivity. However, in Minnesota the increase in property tax dependence was offset by a reduction in progressive income taxes, thereby leading to increased regressivity.

- ✓ At the same time that property tax dependence in Minnesota was increasing, the property tax itself was becoming more regressive. Minnesota's property tax Suits index fell from -0.0657 in 2000 to -0.0980 in 2010, denoting a significant increase in regressivity. (At the same time that Minnesota's property tax Suits index was falling by 0.0323, the national property tax Suits index increased by 0.0206.)

One of the factors listed above—the growth in income concentration—is the result of broad economic trends that cannot be directly attributed to decisions made by Minnesota policymakers. However, the other two factors that contributed to increased tax regressivity—the increase in property tax dependence and the growth in property tax regressivity—were to some extent the product of state policy decisions.

For example, the growth in reliance on property taxes to fund public services is the direct result of state policy decisions to deal with recurring budget deficits through reductions in real state aid to Minnesota local governments, thereby compelling local governments to increase property taxes at the same time that they were cutting budgets.¹⁸ Similarly, the growth in property tax regressivity is at least partially the result of the failure of progressive renter property tax refunds to keep pace with the growth in regressive rental property taxes—a trend that was exacerbated by direct cuts to the program enacted in 2010 and 2011.

To some extent, growth in tax regressivity in Minnesota was due to forces beyond the control of state policymakers. However, to a considerable extent the growth in regressivity was the result of decisions made at the State Capitol.

¹⁸ These trends were explored in a 2010 Minnesota 2020 report: "Minnesota 2020 Property Tax Report: 2002-2010," August 31, 2010 (<http://www.mn2020.org/issues-that-matter/fiscal-policy/minnesota-2020-property-tax-report-2002-2010>).

VI. IMPACT OF THE 2013 TAX ACT ON REGRESSIVITY

No discussion of tax regressivity in Minnesota would be complete without consideration of the impact of the tax act enacted during the 2013 legislative session. While this act did contain some regressive tax increases (most notably a cigarette tax increase), they were more than offset by a highly progressive state income tax increase and an expansion of the homeowners and renters property tax refund that will direct tax relief to low- and middle-income Minnesotans.

A Minnesota Department of Revenue tax incidence analysis of the 2013 act demonstrated that it will significantly increase Minnesota's state and local Suits index, denoting a significant decline in tax regressivity.¹⁹

¹⁹ "Tax Incidence Analysis: 2013 Omnibus Tax Bill," Minnesota Department of Revenue, June 24, 2013. (http://www.revenue.state.mn.us/research_stats/revenue_analyses/2013_2014/hf0677%28sf0552%29_6.pdf)

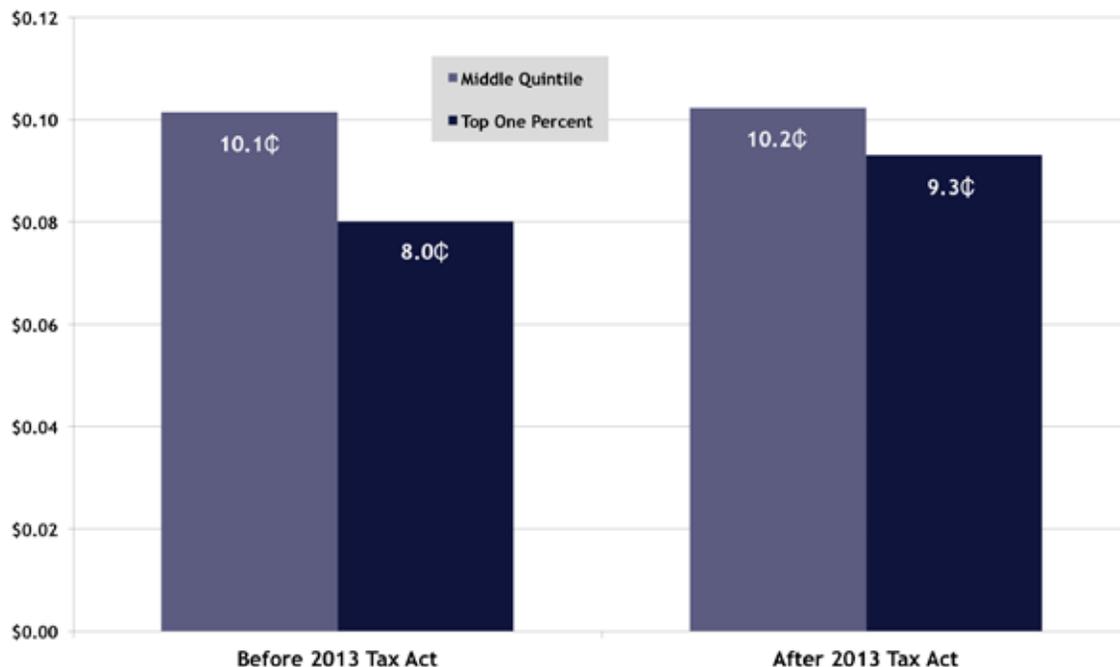
Adjusting Minnesota's Suits Index for the Effects of the 2013 Tax Act

The impact of the 2013 tax act is not reflected in the latest ITEP "Who Pays?" report, which was released four months before the act was passed. However, by adjusting Minnesota 2010 tax amounts from the "Who Pays?" report for the effects of the 2013 tax act, it is possible to estimate the impact of the act upon Minnesota's state and local Suits index.

FIGURE 9

Minnesota 2010 State & Local Taxes Per Dollar of Income

Before and After Adjusting for Impact of the 2013 Tax Act: Middle Quintile vs. Top 1%



With this new Suits index, it is possible to approximate the impact of the 2013 tax act upon Minnesota's ranking among states in terms of the degree of state and local tax regressivity. In this analysis, the Suits indices of all other states are held constant at the 2010 level.



Minnesota's tax system will remain regressive, but the degree of that regressivity has been substantially reduced due to the 2013 tax act.

Based on this analysis, Minnesota's Suits index based on ITEP data will increase from -0.0331 to -0.0178 as a result of the 2013 tax act. This represents nearly a 50 percent reduction in the degree of state and local tax regressivity.²⁰

Admittedly, the Suits index is an abstract concept. In more concrete terms, state and local taxes per dollar of income for middle-income households (defined as the middle quintile) were 27 percent higher than that of the top one percent based on 2010 ITEP data; as a result of the 2013 tax act, they are just 10 percent higher. This change in effective tax rates is illustrated in figure 9.

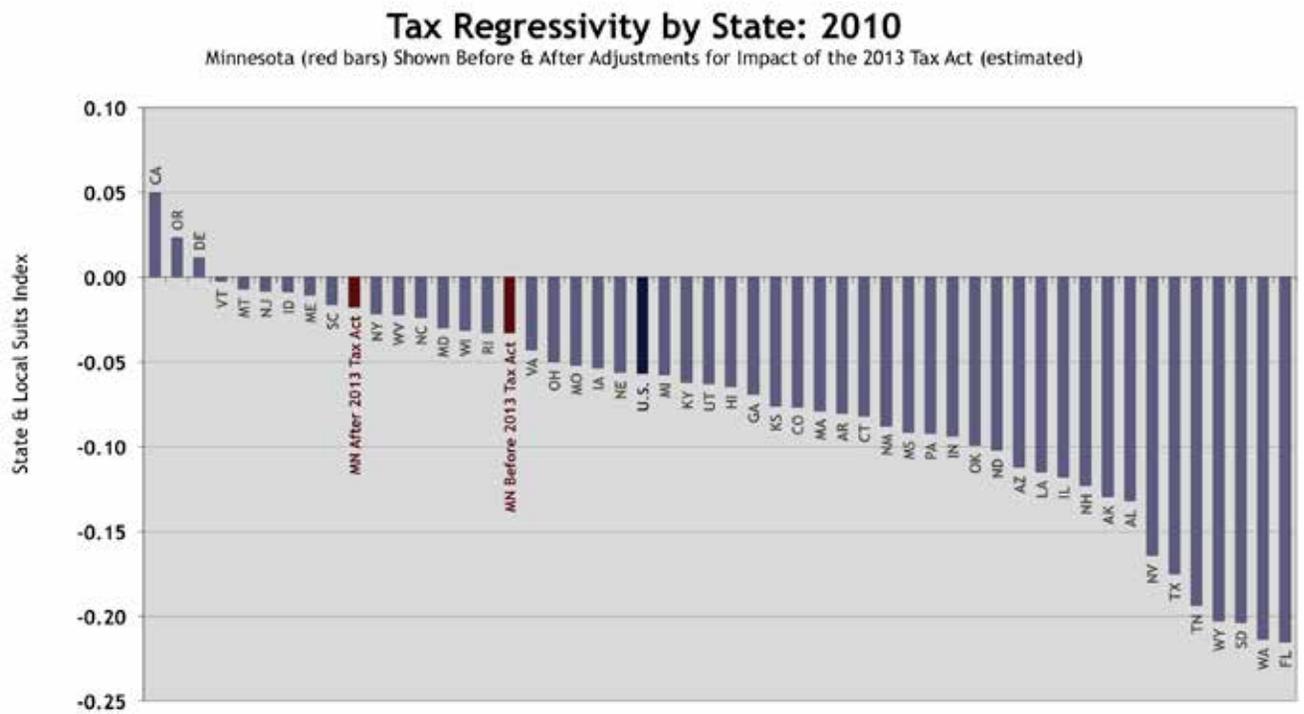
By this standard, Minnesota's tax system will remain regressive, but the degree of that regressivity has been substantially reduced due to the 2013 tax act.

In 2000, the Suits index for Minnesota's state and local tax system was -0.0172 and Minnesota had the 11th least regressive state and local tax system. Over the course of the next decade, Minnesota's Suits index fell to -0.0331 as the state slid to the 16th least regressive state. As a result of the 2013 tax act, Minnesota's Suits index will increase to approximately -0.0178 and the state will improve to the tenth least regressive. Figure 10 shows Minnesota's position relative to the other 49 states before and after the 2013 tax act.

The progressive measures in the 2013 tax act restored Minnesota's Suits index and ranking relative to other states in terms of state and local tax regressivity to the 2000 level, effectively reversing a decade's long trend toward increased tax regressivity. Both in an absolute sense and relative to the rest of the nation, the 2013 tax act will have a significant impact on mitigating tax regressivity in Minnesota.

²⁰ According to the Revenue Department incidence analysis of the 2013 tax act (see preceding footnote), the reduction in tax regressivity due to the 2013 tax act is about one-third. As noted in the Introduction, Revenue Department tax incidence analyses include several relatively minor (and generally regressive) taxes that are excluded from the ITEP 50 state incidence analysis.

Figure 10





VII. CONCLUSION

Data from the most recent “Who Pays?” report and supplemental information provided by ITEP confirms the conventional wisdom that state and local tax systems in the fifty states are generally regressive. Based on 2010 data adjusted for tax changes through January 2013, 47 of the 50 states have a Suits index that is less than zero, which denotes tax regressivity.

Factors Affecting the Change in Regressivity Among States

Not surprisingly, the states with the most regressive tax systems are the states that are most dependent on regressive taxes. Based on the 2010 “Who Pays?” data, there is a strong positive correlation between dependence on income taxes and the Suits index, denoting that states that rely heavily on progressive income taxes generally have the least regressive tax systems. Conversely, there is a strong negative correlation between dependence on consumption taxes and the Suits index, indicating that states that rely heavily on these regressive taxes generally have the most regressive systems. The mix of taxes that a state relies on is the most critical factor in determining the degree of tax regressivity within a state.

Furthermore, changes in the mix of taxes that a state relies on are also the principal determinant of changes in regressivity over time. Based on a comparison of “Who Pays?” data for 2000 and 2010, overall tax regressivity declined as dependence on progressive income taxes increased, while overall regressivity increased as dependence on consumption taxes increased.

The degree of income concentration or income inequality also affects the degree of tax regressivity in a state, but its impact is small in comparison to the mix of taxes that a state relies on. The impact of income concentration on regressivity based on 2010 “Who Pays?” data was small and failed to reach statistical significance. The impact of the change in income concentration on the change in tax regressivity from 2000 to 2010 was greater, but was not nearly as powerful as changes in the mix of taxes in predicting change in tax regressivity.

The Role of Tax Policy Decisions in Shaping Regressivity

Policy decisions by state and local elected officials are not the only factors that determine the degree of tax regressivity in a state, but they do play a major role. The most direct way in which policy decisions affect the degree of tax regressivity is through changes in the mix of taxes that a state chooses to rely on; as noted above, decisions to increase dependence on regressive taxes will increase tax regressivity and decisions to increase dependence on progressive taxes will reduce regressivity, all other things being equal.

Tax policy impacts the degree of regressivity in a state not only by shaping the type of taxes that a state relies on, but also by impacting the degree of regressivity of each of the individual types of taxes. For example:

- ✓ State tax policies can make the personal income tax less progressive by providing exemptions that disproportionately benefit high income households. Conversely, state policies can make the income tax more progressive through a graduated rate system that taxes higher income households at a higher rate than low income households or by providing refundable low-income tax credits.
- ✓ State tax policies can make consumption taxes less regressive by exempting items that comprise a particularly large portion of the budgets of low income households, such as food. Furthermore, the regressivity of sales taxes can be reduced through sales tax credits.²¹ In addition, consumption taxes within a state can be relatively less regressive to the extent that they are based on sales taxes as opposed to relatively more regressive excise taxes.
- ✓ Property taxes can be made less regressive through property tax refund programs (i.e., circuit breakers) that target property tax relief to low-income households. Conversely, state policies can make the property tax more regressive through reductions in refund programs or by shifting taxes from relatively less regressive commercial and industrial property taxes to more regressive residential taxes.

Some advocacy groups have argued that state policymakers should not be concerned about state and local tax regressivity because it is the product of forces beyond their control. The results of this analysis cast serious doubt upon this assertion. State policymakers can significantly impact tax regressivity by altering the mix of taxes that a state depends on and by making changes to particular types of taxes that alter the regressivity of those taxes.

Regressivity in Minnesota

Like most states, Minnesota's tax system in 2010 was regressive. Minnesota's Suits index—excluding the impact of the federal offset—was -0.0331, which denotes a moderate degree of tax regressivity. Including the impact of the federal offset (i.e., the ability of high income households to reduce their federal taxes by deducting state and local income and property taxes), Minnesota's 2010 Suits index falls to -0.0704, denoting a much more significant degree of regressivity. For reasons noted in section II, the Department of Revenue's Minnesota Tax Incidence Study does not include the impact of the federal offset in its tax incidence analysis. For the same reasons, this report—with the exception of references in section II and this paragraph—focuses on Suits indices calculated without regard to the federal offset.

²¹ A 2011 ITEP policy brief discusses exemptions and sales tax credits as a way of reducing the regressivity of the sales tax. This publication can be found at: <http://www.itep.org/pdf/pb14crex.pdf>.





From 2000 to 2010, Minnesota’s tax system grew more regressive, while state and local tax systems in the rest of the nation in aggregate grew less regressive. Over this decade, Minnesota’s Suits index fell by 0.0159 (from -0.0172 in 2000 to -0.0331 in 2010), while nationally the Suits index increased by 0.0092 (from -0.0663 to -0.0571). Only 13 other states had a greater increase in state and local tax regressivity over this period. Minnesota has fallen from the 11th least regressive state in 2000 to the 16th least regressive in 2010.

The data from “Who Pays?” enables us to identify three reasons for the growth in tax regressivity in Minnesota over this period. First, over the decade Minnesota increased its dependence on regressive property taxes and decreased its dependence on progressive income taxes. Second, at the same time that property tax regressivity in Minnesota was increasing, Minnesota property taxes were becoming more regressive. Third—and probably the least significant in terms of impact on regressivity—income inequality in Minnesota increased over the course of the decade.

Tax policy was not the only factor contributing to the decline in Minnesota’s Suits index from 2000 to 2010. However, choices made by Minnesota policymakers undoubtedly contributed to a growth in state and local tax regressivity both in an absolute sense and relative to other states.

By the same token, tax policy choices made by state elected officials during the 2013 legislative session had a significant impact in reducing Minnesota tax regressivity. By increasing dependence on progressive income taxes and reducing dependence on regressive property taxes, the 2013 tax act succeeded in increasing Minnesota’s Suits index from -0.0331 to approximately -0.0178 based on “Who Pays?” data adjusted for the impact of 2013 tax. This was sufficient to dramatically reduce the tax disparity between middle-income and high-income households and raise Minnesota from the 16th least regressive state to the 10th least regressive. In effect, the 2013 tax act succeeded in reversing the regressivity that accumulated from 2000 to 2010.

Minnesota’s experience since 2000 demonstrates that state policy decisions can and do have a significant impact upon the degree of state and local tax regressivity. Diminished tax fairness results when policymakers forget this lesson.

Reduced Regressivity in the Context of Other Tax System Goals

The quest for tax progressivity or at least reduced regressivity is certainly not the only goal that policymakers need to be concerned about. Tax systems should also promote revenue adequacy and stability and enhance economic growth and quality of life. How does pursuit of reduced regressivity affect achievement of these other goals?

In 2008, Minnesota 2020 examined the connection between (1) the degree of tax regressivity and (2) state performance based on six different measures of state economic health, business vitality, and livability.²² This analysis found that “There was a slight tendency of states with more progressive [or less regressive] state and local tax systems to perform better on each of the six state performance indices.”

One explanation for this, as noted in the article, is “that states with the most progressive tax systems are better able to finance the educational and transportation infrastructure and the public services that a modern economy requires because they don’t shift a disproportionate share of the burden of paying for these investments to households with the least ability to pay.” Conversely, states with heavily regressive tax systems will have a hard time funding public investments because a disproportionate share of the cost is borne by families that can least afford it.

On the other hand, the principle form of progressive taxation—the income tax—has the disadvantage of being the least stable. A state that is exclusively dependent on income taxes for funding public services could have significant volatility problems as revenues increase when the economy is performing well and taxable income is up and decrease when the economy is performing poorly and taxable income is down. Thus, some dependence on regressive but stable revenues—such as the property tax—is unavoidable.

The volatility of the income tax revenue can be cushioned through adequate budget reserves. In January, Minnesota 2020 called for an increase in the state budget reserve during the 2014 legislative session,²³ and a \$150 million increase was part of the omnibus tax act passed in March. Adequate reserves can mitigate income tax volatility by shoring up state finances during periods when income tax collections are low; these reserves can then be replenished when income tax collections are up.

22 This analysis is based on tax incidence information from the 2003 “Who Pays” report along with state economic performance, business vitality, competitiveness, and livability information from the corresponding period. For more information, see “Progressive Taxation: Not So Bad for Business After All,” which can be found on-line at: <http://www.mn2020.org/issues-that-matter/fiscal-policy/progressive-taxation-not-so-bad-for-business-after-all> .

23 For example, see “Minnesota’s Fiscal Future: 2014 and Beyond” (<http://www.mn2020.org/issues-that-matter/fiscal-policy/minnesotas-fiscal-future-2014-beyond>) and “November-December Revenues Exceed Expectations” (<http://mn2020hindsight.org/view/november-december-revenues-exceed-expectations>).





Revenue stability is an important goal for state and local governments. However, there are ways of promoting stability without shifting a disproportionate share of taxes to low- and middle-income families. The goal of progressivity (or reduced regressivity) need not be sacrificed on the altar of revenue stability.

Regressivity and Perceptions of Government Growth

A pernicious effect of growth in tax regressivity is that it can create the illusion that government is growing much faster than it actually is. For example, property taxes—the most visible and arguably most unpopular of the major three taxes levied by state and local government—increased significantly from 2000 to 2010 for households that comprise the middle 60 percent of Minnesota’s income distribution based on “Who Pays?” data, resulting in a 19 percent increase in property taxes paid per dollar of income for these households.

However, the increased property taxes paid by these middle-income families were not paying for bigger government, as inflation-adjusted per capita state and local government revenues and expenditures declined from 2000 to 2010.²⁴ Rather, the property tax increases paid by middle-income families offset reductions in real per capita and per pupil state aid to local governments that were imposed in response to perennial state budget shortfalls. An alternative budget balancing mechanism that would have spread the cost of budget balancing more uniformly among all income groups—namely, an increase in progressive income taxes—was off the table at the insistence of “no new state tax” policymakers.

In short, ITEP data indicates that the cost of budget balancing in Minnesota during the first decade of the century was born disproportionately by middle-income families through regressive property tax increases. This increase in property taxes—combined with opportunistic propagandizing from anti-tax conservatives—fueled the perception that government was growing, when in fact the real per capita size of government was declining.

A related consequence of an overly regressive state and local tax system is that it makes it more difficult to generate the dollars needed to pay for public services and infrastructure, since a disproportionate share of these dollars are coming from the pockets of families who are already scratching to make ends meet and thus are reluctant to pay higher taxes, regardless of the merit of the public assets that these tax dollars are paying for.

²⁴ This is based on an analysis of inflation-adjusted per capita state and local government general revenues and expenditures as compiled by the U.S. Census Bureau.

As a result, education, transportation, and other forms of public services and infrastructure are underfunded, to the detriment of the state's economy and quality of life. One does not have to look far into Minnesota history to find manifestations of these trends.²⁵

By reversing the tide of rising tax regressivity, the 2013 tax act has made it possible for Minnesota to reinvest in early childhood, K-12 and higher education, transportation, workforce development, healthcare, and other public assets. These investments would likely have been unattainable if they had to be funded primarily through regressive property and consumption taxes.

Economic Arguments

While the Great Recession is behind us, unemployment remains high by historical standards, the rate of job creation is disappointing, and median household incomes are flat or declining. While Minnesota is outpacing the national average, the disappointingly slow rate of economic improvement is largely the result of an inability of consumers to purchase goods and services that businesses produce, which in turn results in reluctance among businesses to increase production and create new jobs. A vicious cycle ensues. In the words of public policy professor and former U.S. labor secretary Robert Reich, "Without enough purchasing power, the middle class will be unable to sustain a strong recovery. Over the longer term, the economy will stagnate."²⁶

Increased tax regressivity compounds the problem of lagging aggregate demand by reducing the purchasing power of those consumers that spend the largest share of their income on goods and services: lower- and middle-income families. State and local governments have a particular incentive to reduce the share of the tax load borne by low and middle income households, since these are the households that tend to spend a larger share of their income in the state and local economies and thus provide the most "bang for the buck" in terms of state and local stimulus.²⁷

The 2013 tax act succeeded in reversing a decade long trend of disinvestment in critical public assets without significantly reducing the purchasing power of middle-income households by shifting most of the cost of these investments to higher income households through progressive tax increases. In fact, state and local taxes on non-smoking middle-income households should decline slightly as a result

25 A 2010 Minnesota 2020 report, "On Our Way to Average: Ranking Minnesota's Economic Performance" documented the correlation between declining public investment and Minnesota's performance relative to other states in key measures of income, wages, job creation, educational achievement, and transportation infrastructure. This report can be found at: http://www.mn2020.org/assets/uploads/article/economic_development/rankings2010.pdf.

26 Robert B. Reich, "Aftershock: The Next Economy and America's Future," 2010.

27 This is among several points raised by Nobel Laureate Joseph Stiglitz and former director of the U.S. Office of Management and Budget Peter Orszag in a 2001 piece published by the Center for Budget and Policy Priorities entitled, "Budget Cuts vs. Tax Increases at the State Level: Is One More Counter-Productive than the Other During a Recession?," which can be found on-line at: <http://www.cbpp.org/archiveSite/10-30-01sfp.pdf>.





of the 2013 tax act.²⁸ While the final chapter on the impact of the 2013 tax act has yet to be written, initial indications are positive; currently Minnesota job and income growth rates are exceeding the national average.

Moral Arguments

Opponents of reduced regressivity have argued that high income households should have lower effective tax rates because they consume fewer public services. This argument is unconvincing. Suppose that I am a well-to-do owner of a successful widget company. I not only benefit from my own education, but from the education of my workers, which makes my company more productive and profitable. Insofar as these workers are educated in public schools, I am benefiting from public investment. I am also benefiting from public transportation infrastructure, which allows me to transport raw materials and finished products to and from my business.

The profitability of my business is also dependent upon a court system that enforces contracts and protects property rights. Furthermore, high income households benefit disproportionately from public safety functions geared to protecting property because they own more property. For example, a high-income individual who owns more than one house benefits more from police and fire protection than does the typical family who owns or rents a single residential unit.

Tax dollars support a system of state and local public services and infrastructure geared to protecting property rights, promoting commerce, and enhancing the social stability from which high income households derive the most benefit. For this reason, it is only fair that these households pay for this system in proportion to their income.

Ultimately, the most potent moral arguments are in favor of reduced tax regressivity. Low- and middle-income families, who are already struggling to make ends meet, should not be asked to pay a larger percentage of their income to fund state and local government services than high income households. Efforts to reduce regressivity are not “socialism” or “class warfare,” but simple tax fairness.

The increase in regressivity in Minnesota and other states noted in this report is a cause for concern for many reasons, but most importantly because it undermines the notion of fairness which is essential for public support for the tax system. Minnesota’s 2013 tax act made major progress in restoring tax fairness; policymakers in Minnesota should protect and preserve these accomplishments, while policymakers in other states should consider steps they can take to reduce tax regressivity and promote tax fairness.

²⁸ This conclusion is based on a Minnesota 2020 examination of a Revenue Department incidence analysis of the 2013 tax act as published in a July 22 article, which can be found at <http://www.mn2020.org/issues-that-matter/fiscal-policy/flawed-conservative-tax-incidence-analysis>.



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