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ABSTRACT

Vermont's Act 60 is arguably the most equitable school funding system in the nation. However, it is also one of the most controversial. The disputes are primarily focused on the recapture provision that sends excess revenues from property-rich towns to the state's education trust fund. After a 4-year implementation period, the system is now in its second year of full operation. This evaluation addresses the equity effects and the associated educational achievement trends since this reform was implemented. It also discusses the adequacy issues being brought to the forefront as a result of the February 1997 Supreme Court decision ("Brigham versus the State of Vermont") and the reforms. The major findings include equality of tax rates, equality of tax burden, variation in tax rate and spending between towns, and general improvement in state test scores. While controversies remain as well as strong efforts to repeal the recapture portion of the state funding system, Vermont's Act 60 reforms have provided tax-rate and tax-burden equity. Education spending levels have become more equitable and educational test scores have improved across the board with the biggest gains being for the traditionally lowest scoring towns. (Contains 18 endnotes and 5 tables.) (RT)

**The Equity, Adequacy and Educational Effects of a Property Tax
Redistribution Finance System: Vermont's Act 60**

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Executive Summary

Vermont's Act 60 is arguably the most equitable school funding system in the nation. It is also one of the most controversial. The disputes are primarily focused on the recapture provision that sends excess revenues from property rich towns to the state's education trust fund. After a four-year implementation period, the system is now in its second year of full operation. This evaluation addresses the equity effects and the associated educational achievement trends since this reform was implemented. The paper also discusses the adequacy issues being brought to the forefront as a result of the court case and the reforms.

The major findings are:

- Equality of tax rates - There is a virtual straight-line relationship between the educational budget voted by the citizens and the corresponding property tax rate.
- Equality of Tax Burden - There is a direct and near perfect relationship between the percent of income a homesteader pays and the amount voted by the town. The relationship is true for all incomes below \$88,000 and holds across all towns. The disproportionate tax burdens of less affluent families within and across towns have been eliminated. This is due to a unique "income sensitivity" provision in the law.
- Tax Rate and Spending Variation - The variation in tax rates and in school spending between towns decreased significantly over the past five years even though each town votes to spend as much or as little as they like. During the past two years, the variation increased on some measures. The reason for this phenomenon is that traditionally high spending towns increased their spending (and taxes) at a faster rate than traditionally low spending towns. Further, different districts reacted to declining enrollments in different ways. Some maintained staffing (which increased per pupil costs) while others did not. The effect was to increase the variation.
- State test scores generally improved above national averages for all grade levels and subject matters over the past four years. At the same time, the variation decreased indicating that improvements were found for high as well as low scoring towns and students.

While controversies remain as well as strong efforts to repeal the recapture portion of the state funding system, Vermont's Act 60 reforms have provided tax rate and tax burden equity. Education spending levels have become more equitable and educational test scores have improved across the board with the biggest gains being for the traditionally lowest scoring towns.

I. Introduction

Vermont's Act 60 has received national attention not only because of the controversy surrounding the sharing pool (or recapture provision) but also because it "has the potential for being the most equitable system in the country."¹ The key features:

- A large block grant is provided for each pupil² designed to cover about 80% of average expenditures (\$5566 for FY03). The block grant is funded by a state property tax of \$1.10 for each \$100 of property value.
- "Local control" is maintained as towns can vote to spend above this block grant. If they do, they will be taxed at a uniform rate across the state for "above block" spending. Thus, it is as easy (or as hard) to spend the same amount per pupil in one town as it is in another.
- Recapture - If town property wealth produces more than the predictable³ yield (A one percent increase on the tax rate guarantees \$42 per pupil for FY03), then the monies above \$42 are returned to the Education Trust Fund for redistribution to less property wealthy towns. This recapture and redistribution feature is the most controversial element of the funding plan.
- Income Sensitive Property Tax – Tax Burden Cap – A unique feature of the law is that property tax burdens are equalized by income. For the block grant and state property tax portions, a homesteader⁴ pays no more than two percent of his/her income for the basic block grant portion. If a local district votes to spend higher, individual tax bills go up the same proportion for all homesteaders in the town. Likewise, similar spending levels will have similar tax bills across all towns in the state. The protection phases out at \$88,000 household income.

The law was phased in over a period of four years (FY98-01). A number of transition features ("soft landings") were built in so that the previous low tax rate towns were buffered from immediate and large tax increases. The lowest pre reform school tax rate was two cents while the highest was \$2.40. The gapping disparities were reflected in a federal range ratio of 271%.⁵ Even though the more property affluent towns had enjoyed dramatically low taxes, seeing their school tax rate increase to the statewide property tax of \$1.10 plus what they voted locally above the block grant was a large proportionate increase.

Although the four year phase-in is complete and the system is nearing the end of its' second year of full implementation, the system remains controversial among some. In particular, "Gold Towns" (defined as those who contribute more in local and state property taxes than they receive) continue to legislatively press for elimination of their contributions to the state education fund.

II. Background

In a unanimous February 1997 state Supreme Court decision (*Brigham v. State of Vermont*), the Vermont educational funding system was declared unconstitutional. Large inequities in property tax burden combined with the inability of poorer towns to raise sufficient monies to meet minimal state standards led to the decision. Legal scholars reviewing the case have uniformly noted that the decision was based on equity rather than adequacy.⁶

Reform opponents took their objections to court and were rebuffed in a string of cases. Efforts to impeach the Supreme Court also failed. On April 11, 2000, the last of the towns refusing to pay the statewide property tax revenues sent in their check. While the state property appraisal system has been in place in substantially the same form since 1965,⁷ correct and comparable property values took on far more importance when the system moved from a 28% state finance share to an 88% state share. Before the reforms, property appraisal fairness within the town was the important consideration. With a statewide property tax, fairness of appraisals of market value across the towns became an important and volatile state issue.

Act 60 opponents predicted dire consequences. The state's economy would collapse and the reforms would depress the educational performance in previously high spending/ low tax towns. Ironically, some opponents said a reduction in money would harm affluent schools while others claimed "money doesn't matter" for the poor schools. The subsequent positive performance of the economy, the continued economic growth in the affluent towns, and the improved test scores in these same towns have yet to prove the doomsayers right.

Purposes of the Reform Act – The law (16VSA 1) states the "Right to Equal Educational Opportunity" and says, " To keep Vermont's democracy competitive and thriving, Vermont students must be afforded substantially equal access to a quality basic education." Citing various aspects of the court decision and interpretations of the law, differing purposes are put forth by opponents and proponents of the Act. Various change proponents emphasize the Supreme Court's use of the term "reasonably equal share" in their interpretations. They see this as a legal justification which would allow dilution of the equity provisions.⁸

This paper examines each of the explicit and implicit purposes of the Act claimed by the various groups.

II. Are the Reforms Working?

The four-year phase-in of Act 60 is complete. Tax rate equity and tax burden equity would logically be the first effects to be manifest. Spending level would show up next as schools readjusted fixed expenses, union contracts, etc. Effects on educational outcomes would take longer to be demonstrated simply because of the time needed for assessment, instruction, and curriculum changes to be implemented. Likewise, shifting economic conditions, which vary across the state,

would also moderate the effects in various ways. Thus, this analysis must be considered preliminary.

Tax Rate Equity – Vermont adjusts the listed value of all properties in a town based on sales history. In short, when a property changes hands, the listed value is compared to the selling price. The difference between listed and selling prices is used to calculate the "Fair Market Value" of the town's property. The state's "School Equalized Tax Rate" is calculated for each town based on the amount the town is over or under appraised.

Tax equity is improved if the different towns are paying equivalent taxes for the same amount of education spending. Thus, the less the dispersion in tax rates, the more equitable the system. This dispersion is examined in three different ways; federal range ratio, standard deviation, and the coefficient of variation. Greater equity is found when these indicators become smaller.

Tax Rate Equity						
	Range	5 th %ile	95 th %ile	FRR	S.D.	Coeff. Var.
FY98	\$0.12-\$2.28	\$0.68	\$1.95	187%	\$0.45	.34
FY99	\$0.17-\$2.33	\$0.89	\$1.81	103%	\$0.29	.21
FY00	\$0.55-\$2.22	\$0.96	\$1.84	92%	\$0.26	.18
FY01	\$0.62-\$2.25	\$1.10	\$2.00	82%	\$0.28	.18
FY02	\$1.10-\$2.47	\$1.10	\$2.13	93%	\$0.30	.19

Clearly, the Federal Range Ratio (FRR) is getting smaller as is the coefficient of variation through FY01. The standard deviation also becomes smaller but has a slight increase in FY01 due to higher levels of spending for all districts and some towns not being able to offset budget increases with gifts. ("Gifts" are free from recapture and several affluent towns engage in substantial fund-raising for the purpose of avoiding tax rates at the same level as less property wealthy towns). The range, standard deviation and coefficient of variation increase slightly in FY02.

In an attempt to understand why these measures of dispersion leveled off (and actually increased), a closer examination of tax patterns was required. The primary reason is that the traditionally high spending towns increased their spending and therefore their tax levels faster than the low spending towns (see Table I). Thus, the measures of dispersion spread out.

Tax Rate Equity: Equal Taxes for Equal Spending - However, Act 60 defines equity as equal tax rates for equal spending. Each town maintains local control and, thus, can vote to spend at the level they choose. Thus, equity is not defined as equality of taxes as much as it is defined as equality of taxes for the same level of spending. The important question becomes whether towns pay the same tax rate for the same level of spending. Prior to reform, a shotgun scatter-plot existed (Chart II). As can be seen in Chart III, by FY02 the relationship between tax rates and spending is virtually linear.⁹ The exceptions being only gores (i.e. -unorganized

territories) and a town with special legislative dispensation due to a nuclear power plant.

Tax Burden Equity – Reform critics contend that tax rate equity is not the right measure. They point to what they see as a flawed property tax appraisal system. They contend that this system results in unfair and excessive tax burdens on high property wealth towns. In other words, they claim, property value is a poor indicator of the wealth of the town or of tax burden.

For this analysis, tax burden is defined in the conventional way of percent of income spent on education.

- In FY94, town school tax burdens ranged from 0.0% to 8.2% of resident income. The federal range ratio was 248%.
- In FY01, the full range was reduced to a low of 2% and a high of 4.25%. The federal Range Ratio is 107%.

Tables IV and V illustrate tax burden for different income levels for each Vermont town before and after Act 60.

Three key points can be seen in these comparisons:

- Tax burdens go up as a direct function of local spending decisions,
- tax disparities on incomes below \$88,000 become equalized, and
- overall property tax burdens have declined significantly across the board.

Thus, in terms of tax equity (whether burden or rate), the reform is clearly achieving its goals for town to town equity and for individual taxpayer equity.

Property Tax Burdens and the Income Sensitive Property Tax – One of the most unique features of the system is the income sensitive property tax. This is the primary mechanism that provides for the tax burden equity noted above. This means that the amount of taxes paid by a "homestead" is limited to no more than 2% of income for the block grant. If the town spends more than the block grant (and most do) the amount of tax burden (percent of income spent on school taxes) increases in direct proportion to the amount the voters choose to spend.

As noted, Table IV shows how tax burdens varied by town and by income for each of Vermont's towns before reform. For a \$100,000 house with \$40,000 income, the tax burden ranged from 0.0% to 5.7% of income, depending on where you lived. Under Act 60 (Table V) the tax burden is the same for all income groups below \$88,000. As previously noted, the range in tax burdens is greatly reduced as a result.

An added protection is provided by the "super circuit-breaker." In short, the amount of property taxes paid for both school and municipal purposes combined is capped, on a sliding scale, for incomes below \$47,000. These protections turn the basic "flat tax" in Act 60 into a less regressive overall property tax system. This

conclusion is amply supported in Jimerson's Rural Trust Report as well as the state department of education's report.¹⁰

In short, the tax burden protections are serving their intended purposes.

Some Act 60 opponents argue for removing income sensitivity and such a bill is quite active in spring 2002 (H-741). "Gold towns" wish to use the tax burden protection money to lower their tax obligations to the state. In other words, this bill would increase taxes for moderate and low incomes while giving lower tax rates to high-income people and people in property wealthy towns.¹¹ The basic rationale is that the income sensitivity protections encourage irresponsible increases in educational spending. However, since the top spending 20% of towns would get 30% of the tax breaks under this plan, its' effectiveness as a cost-control measure is unlikely.

Educational Spending Equity – Preliminary data indicates that differences in spending are diminishing. The following analysis and Federal Range Ratios are based on "Local Education Spending" per pupil. "Local Education Spending" (LES) is the official state measure but suffers from a number of shortcomings. Chief among these is that "Gold Towns" can escape part or all of recapture by fundraising. That is, "gifts" are not subject to recapture. Thus, individuals and corporations fund-raise and provide gifts that reduce the tax burden and the amount of money sent to the state's education trust fund. The number of towns raising \$100,000 or more had dropped to 14 by FY00 but the effect is to underreport actual expenditures.¹²

"Local Education Spending Equity"

	Range	5 th %ile	95 th %ile	FRR	Mean	s.d.	coef.var
FY98	\$0 - \$17,247	\$4812	\$8711	81%	\$6219	\$1766	0.29
FY99	\$0 - \$12,421	\$5004	\$8312	66%	\$6143	\$1526	0.25
FY00	\$0 - \$ 9131	\$4904	\$7795	59%	\$6188	\$1364	0.22
FY01	\$0 - \$ 9359	\$5056	\$8402	66%	\$6620	\$1470	0.22
FY02	\$0 - \$12,819	\$5380	\$9240	71%	\$7198	\$1597	0.22

Spending equity whether measured by reductions in the federal range ratio, the standard deviation or the coefficient of variation all show increasing equity in education spending -- up until 2001. The coefficient of variation levels off at that point.

This increase in the measures of dispersion is due to the high end increasing at a faster rate than the low end. The fifth percentile case went up \$500 from FY00 while the ninety-fifth percentile went up \$1400 per pupil. Further, the considerable fund-raising efforts of many "Gold Towns" did not show up in spending figures in earlier years. As this fund-raising began to dry-up in FY01 and FY02, these hidden spending disparities came into view.

In comparing traditionally high spending districts from year to year, individual districts maintained their historical positions in the high spending queue. In other words, towns have traditions as to whether they are high or low spenders. High spenders remained high spenders.

An interactive effect can be attributed to declining enrollments. The state as a whole saw enrollments go down just under one percent (0.86%) between FY01 and FY02. If schools maintained staffing while enrollments declined, this would result in an increase in per pupil spending. To examine this question, changes in school spending between FY01 and FY02 (local education spending) were correlated with changes in enrollment. This resulted in a Pearson r of 0.46. This moderate coefficient along with a low statewide budget increase of 4.7% (as compared with recent years that averaged a 7% annual increase) indicates a not unexpected lag between declining enrollments and expenditures.

Educational Quality – As part of the Act 60 reforms, educational quality reforms were implemented. These required a state testing program, implementation of standards, technical assistance to under performing schools and ultimately, state intervention if technical assistance was not sufficient.

In FY00, four schools were identified for technical assistance by the state based on low-test scores. In year two, 39 schools were identified as in need of assistance. A most curious factor is that none of the original four schools were represented in the 39 identified the following year. A disproportionate number of poor schools and high schools were also identified.

The state accountability program is based on the New Standards Reference Examinations and administered by Harcourt Educational Measurement. Comparable data is available for 1998 through 2001 and is presented below. The comparisons are in Normal Curve Equivalent (NCEs) where 50 is the national average.

	Mean	Standard Deviation	Coefficient of Variation	N
4th Grade ELA				
1998	60.3	18.9	0.3127	7648
1999	61.1	17.9	0.2929	7595
2000	60.6	18.4	0.3033	7502
2001	63.7	19.9	0.3123	7283
4th Grade Math				
1998	64.2	21.5	0.3349	7666
1999	65.7	21.2	0.3229	7881
2000	65.9	21.4	0.3243	7563
2001	67.7	20.9	0.3082	7326
8th Grade ELA				
1998	62.5	19.7	0.3143	7683
1999	63.1	19.1	0.3022	7453
2000	63.5	18.9	0.2978	7502
2001	63.1	19.1	0.3027	7622

8th Grade Math				
1998	65.7	21.4	0.3260	7764
1999	66.7	21.3	0.3194	7602
2000	67.7	20.8	0.3067	7540
2001	69.0	20.6	0.2985	7671
10th Grade ELA				
1998	57.1	22.3	0.3914	6059
1999	57.3	22.1	0.3854	6206
2000	58.2	21.8	0.3755	7092
2001	66.6	21.3	0.3197	7204
10th Grade Math				
1998	63.0	24.9	0.3951	6089
1999	63.9	24.7	0.3871	6204
2000	65.5	24.6	0.3765	7002
2001	63.7	25.8	0.4045	7244

The most outstanding feature of these results is the high performance level for all students in both English/Language Arts and Mathematics. For a state to average thirteen to nineteen NCE points above the national average is an exceptionally high performance level.

The second most striking feature is that the advantage over the nation on these norm referenced measures increases over time for all comparison groups. If these tests are considered to be a measure of school quality, then Vermont student performance is on the rise.

The third interesting feature is that the gains were across the entire student population. Generally (but not always), the coefficient of variation becomes smaller indicating that the bottom is coming up as well as the top. The differences in cohort groups, the small magnitude of the changes and lack of stability in the testing program counsel caution against over-interpreting these gains using this methodology.

In Jimerson's 2002, Rural School and Community Trust Analysis,¹³ she used an entirely different technique to analyze achievement gains under Act 60. Examining fourth grade student data, she divided the towns into quintiles by property wealth. The percent reaching state standards (mastery levels) in English/Language arts and mathematics went up substantially for all groups with the low-wealth towns registering the largest achievement gains.

However, this is the expected pattern at this stage in the reforms. The degree of fidelity between state standards and the state assessment program and instructional practices is not definitively known nor is the interaction clear.

Nevertheless, a pattern of consistent and substantial high achievement, as compared to the nation, is clearly indicated. Improvements in academic equity are also emerging.

III. Adequacy Debates

As contrasted with other states, Vermont has not attempted to define an adequacy level using a market basket, statistical or exemplary school model.¹⁴

This is not for lack of trying.

During the fall 2000 elections, the House of Representatives shifted from Democrat control to a sizable Republican majority. A key plank in Republican campaigns was eliminating recaptured funds for the Education Trust Fund (a.k.a. – sharing pool or "shark tank"). One aggressively pursued approach is to redefine the court's equity decision as an adequacy decision. The thinking is that if an adequacy level could be defined and funded by the state, then all funds raised locally above this level would be retained locally and not subject to recapture. The myriad and difficult problems of defining an adequacy criterion that would meet court approval are considerable. After hearing the assumptions needed for an adequacy model, one Republican legislator compared this to peering into *Alice's Looking Glass*.

In January 2002, the House Ways and Means Committee called together a panel of lawyers from diverse perspectives to analyze the Supreme Court decision and the meaning of the court's phrase "substantially equal" with the purpose of seeing if an adequacy definition could be substituted. Each of the panel members, regardless of political perspective, said that the decision was based on equity principles.

The Republican House leadership continued to press for re-defining the decision in terms of adequacy. Thus, John Myers of Auginblick and Myers was invited to analyze the Court's decision and to provide a seminar on how adequacy studies were conducted. The advantages and disadvantages of the various methods were examined.¹⁵ Mr. Myers reported to the groups that the Supreme Court's decision was an equity decision and that the current system was quite equitable although politically unpopular with various towns.

Nevertheless, the Ways and Means Committee has earmarked an appropriation of \$160,000 for FY03 to conduct an adequacy study in Vermont.

The Block Grant Amount - The amount of the block grant is tied to the increase in the cost of government goods and services. The block grant can also be seen as a foundation level or an adequacy figure.

In a perplexing set of cross-currents, school boards argue the low increase in the block grant does not keep up with the increases in fixed costs of special education, health insurance, state mandates, accountability costs and the like. Thus, they argue for a higher figure.

The Marron-Livingston Republican reform plan also argues for increasing the statewide property tax from \$1.10 to \$1.38 and increasing the block grant to \$7000. This move to increase taxes and spending by political forces generally pushing for reductions is unusual. However, the purpose is to eliminate recaptures from the gold towns.

Meanwhile, small and rural school advocates are loath to increase the block grant in a time of declining enrollment and in a political choice context. As three

studies have shown that choice systems in Vermont cause centralization and migration toward larger schools, small schools are worried about their very existence.¹⁶

Even if the court decision did allow an adequacy basis, there is considerable controversy on how an adequacy level (or flat grant amount) would be determined and maintained.

Property Equalization – As noted earlier, Vermont uses an “Aggregate Fair Market Value” approach for determining the property wealth of towns. Basically, market values are determined by comparing the assessed value to the actual selling price. These sales are then extrapolated to a market value for the town. This system was designed to compensate for the unique effects of different property listers in the different towns.

Needless to say, property value determinations are prone to controversy and Vermont is no exception. The driving force in reviewing and improving this system now comes from the more affluent towns who previously were not significantly affected by within town and across town disparities. As a result, Almy and Associates of Chicago were commissioned to study and recommend improvements to the system. Among the twenty recommendations were reducing the number of property classifications, using a third year of sales in the determinations, using town wide ratios in categories with too few sales to generalize to the town and training of district advisors. These recommendations are now being implemented by the administration.¹⁷

Town Clerks, Selectboards, property listers, school boards and administrators which historically did not pay much attention to market values and listed values often received a rude shock when market values were higher than listed values and the town received less state aid and faced large tax increases. Simplifying, improving and clarifying this system garners broad support from all towns.

IV. Conclusions

If equity is measured by the relationship between tax rates and the amount voters elect to spend on education each year; the relationship is linear and near perfect. Vermont’s educational reform act of 1997 is clearly achieving taxpayer equity.

If measured by the equivalence of tax rates, the system is becoming more equitable. The pattern is slightly confounded during the past two years by the disproportionate increases in spending by historically high spending districts and the uneven effects of declining enrollments on spending. That is, budget increases and decreases historically lag unevenly behind population changes. Only in FY03 have budgets began to see smaller increases. If this trend continues, then the dispersion measures of equity should again become smaller.

As measured by tax burdens, the percent of a person’s income spent on education is a direct function of the voted level of spending, regardless of town, up to a homestead income of \$88,000.

Education spending equity is clearly emerging even as spending increases and enrollments decrease. Other researchers confirm the findings of this analysis: When districts were divided into quintiles in Jimerson's Rural Trust report, a strong spending equity trend emerged. Carolyn Clinton's work for the Northeast Regional Laboratory and the State Department of Education's Report also find increases in tax and spending equity.¹⁸

Educational achievement is increasing across the board. Academic equity is also emerging when state test data are used as a measure. This study found high and sustained student achievement with the difference between high and low students converging at a slow rate. The Rural Trust data shows the bottom quintile of school spenders increasing in mastery levels while the top quintile also increased. Thus, the "dumbing down" effect feared by many has not occurred.

Thus, for the major explicit as well as the ascribed purposes of the Act 60 reforms, the funding system is achieving its goals of tax, spending and achievement equity. The greatest single question is whether the legislature will weaken the provisions of the legislation and cause greater inequities or whether the legislature will improve the deficiencies in the formula so that it can work more effectively.

¹ Lawrence O. Picus, "Vermont Spending Plan Seems to Help Schools." New York Times, January 31, 2001.

² The per pupil block grant is based on "equalized" pupils. An equalized pupil is the sum of the students and categorical weights for high school, poverty, etc. divided by the total number of students.

³ The law started with a traditional guaranteed yield and was to shift to a self-sustaining equalized yield. In a compromise to give predictability to local budget planners, the equalized yield is to be set in the fall prior to local board budget development.

⁴ A homestead is the primary home and two acres along with the sum of the income of all people residing in the household.

⁵ "A Scorecard for School Finance." Vermont Department of Education, March 1996.

⁶ Testimony of a panel of lawyers before the House Ways and Means Committee, January 2001. Testimony of John Myers, Auginblick and Myers, to House and Senate Education and Finance Committees, January 16-17, 2002.

⁷ The system faced exactly the same maladies in 1965 when the old formula was thrown out and an earlier version of a state property tax was implemented. The state then built the current market value model which has been in existence since that time.

⁸ For example, Governor Howard Dean's remarks on Vermont Public Radio, March 19, 2002 and testimony before the House Ways and Means Committee, February 28, 2002.

⁹ Brad James and William Talbott, state department of education.

¹⁰ Lorna Jimerson, "Still A Reasonably Equal Share: Educational Equity in Vermont." Rural School and Community Trust, Washington, DC, February 2002.

¹¹ Joint Fiscal Office Analysis, Comparison of Marron-Livingston with Act 60, February 2002.

¹² Jimerson's analysis includes fund-raising revenues as spending. She reports the same trends as are found in this study.

¹³ *ibid*

¹⁴ See, for example, Ladd, H.F., R. Chalk and J. S. Hansen's "Equity and Adequacy in Education Finance: Issues and Perspectives." Washington, DC: National Academy Press, 1999. The methods

are further explicated in Mathis' "Analyzing your state's educational finance system," Rural School and Community Trust, Washington, DC, 2001.

¹⁵ January 16 and 17, 2002. John Myers meetings with the House Ways and Means Committee, the Republican Caucus, and a joint meet with the Senate Finance and Senate Appropriations committees.

¹⁶ See Mathis and Etzler, "Academic, Socioeconomic and Transportation Correlates in a Rural Public School Voucher System." AEFA 2002; H. W. Meyers, "School Choice Lessons Learned from Research in Britain and Vermont," Statehouse, Montpelier, February 1999; and Gordon Schnare, "Choosing a High School in a Rural Context." Unpublished doctoral dissertation, University of Vermont, 1994.

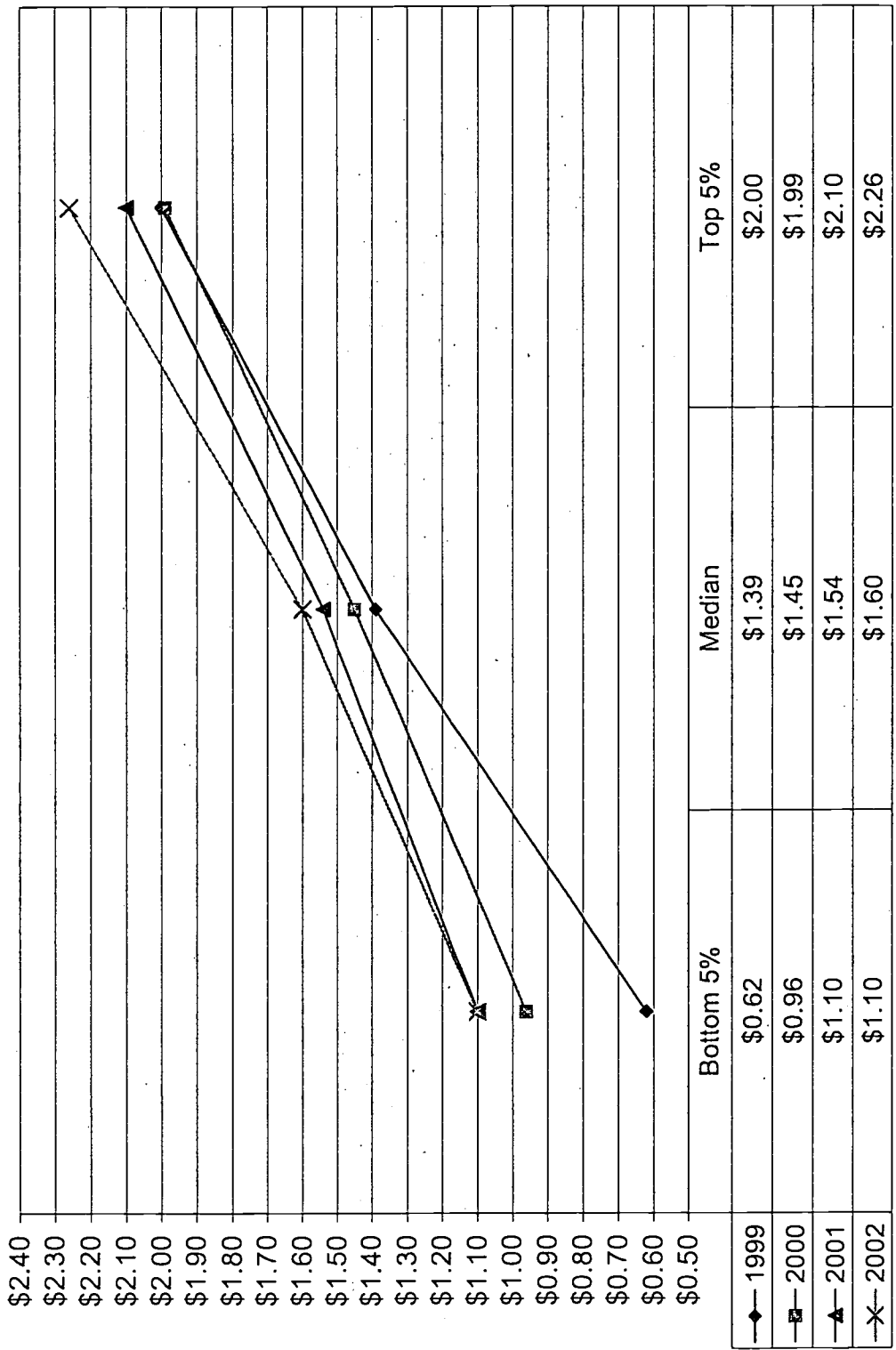
¹⁷ Almy, Gloude-mans, Jacobs and Denne. "Study of Equalization Procedures: Vermont Department of Taxes." Chicago: July 1999.

¹⁸ Jimerson, op.cit.;

Clinton, Carolyn. "The Impact of Vermont's Act 60: Year Four Report (2000-2001). Northeast Islands regional Laboratory at Brown University, February 2002.

Meyers. Herman and William Talbott. Report by the State Department of Education. Spring 2001.

1999-2002 Tax Trends



◆ 1999
 ■ 2000
 ▲ 2001
 ✕ 2002

**Before (source Vt. Dept. of Education)
FY1998 Effective Tax Rates vs. Local Education Spending**

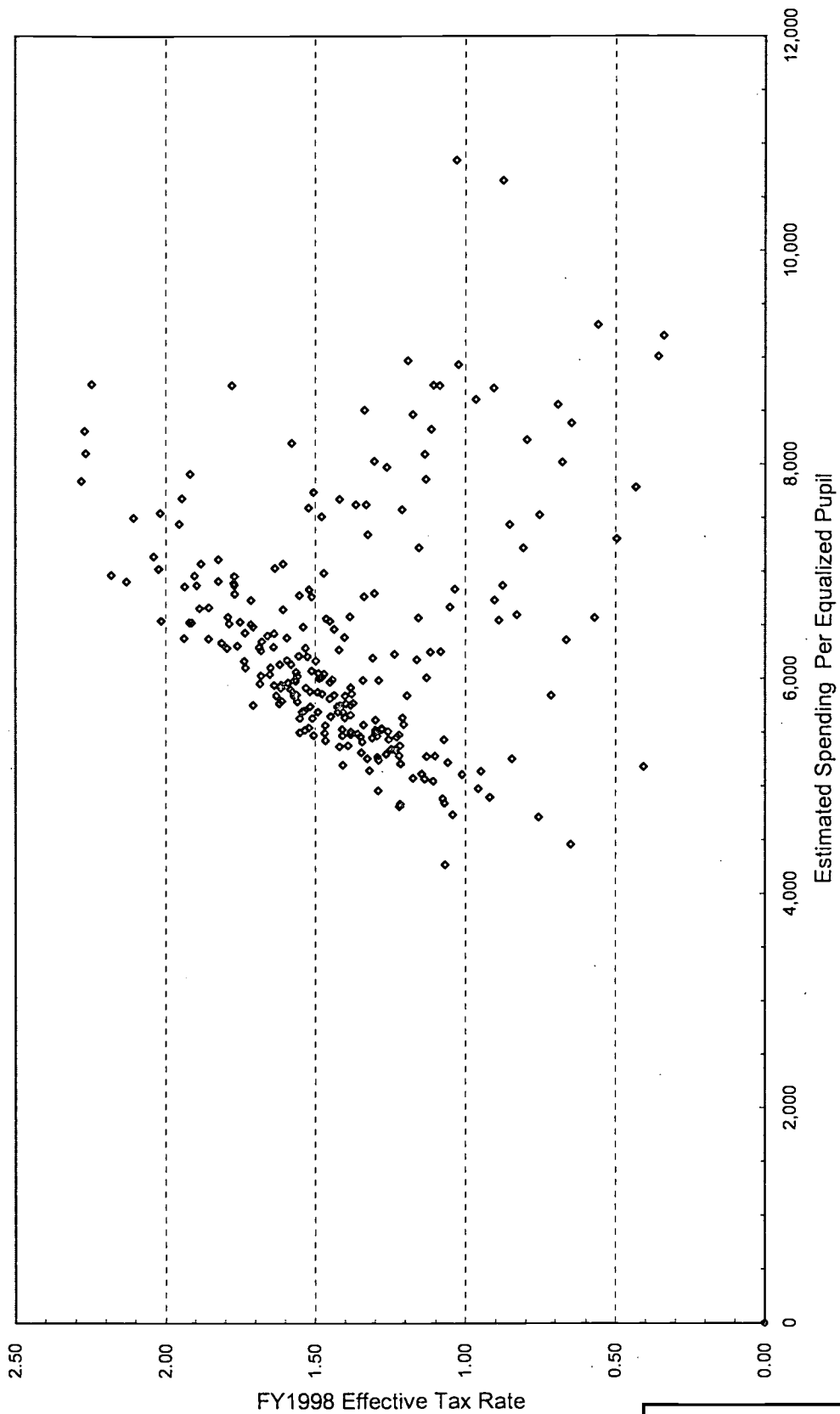


Table II

After (source Vt. Dept. of Education)
FY2002 Effective Tax Rates vs. Local Education Spending

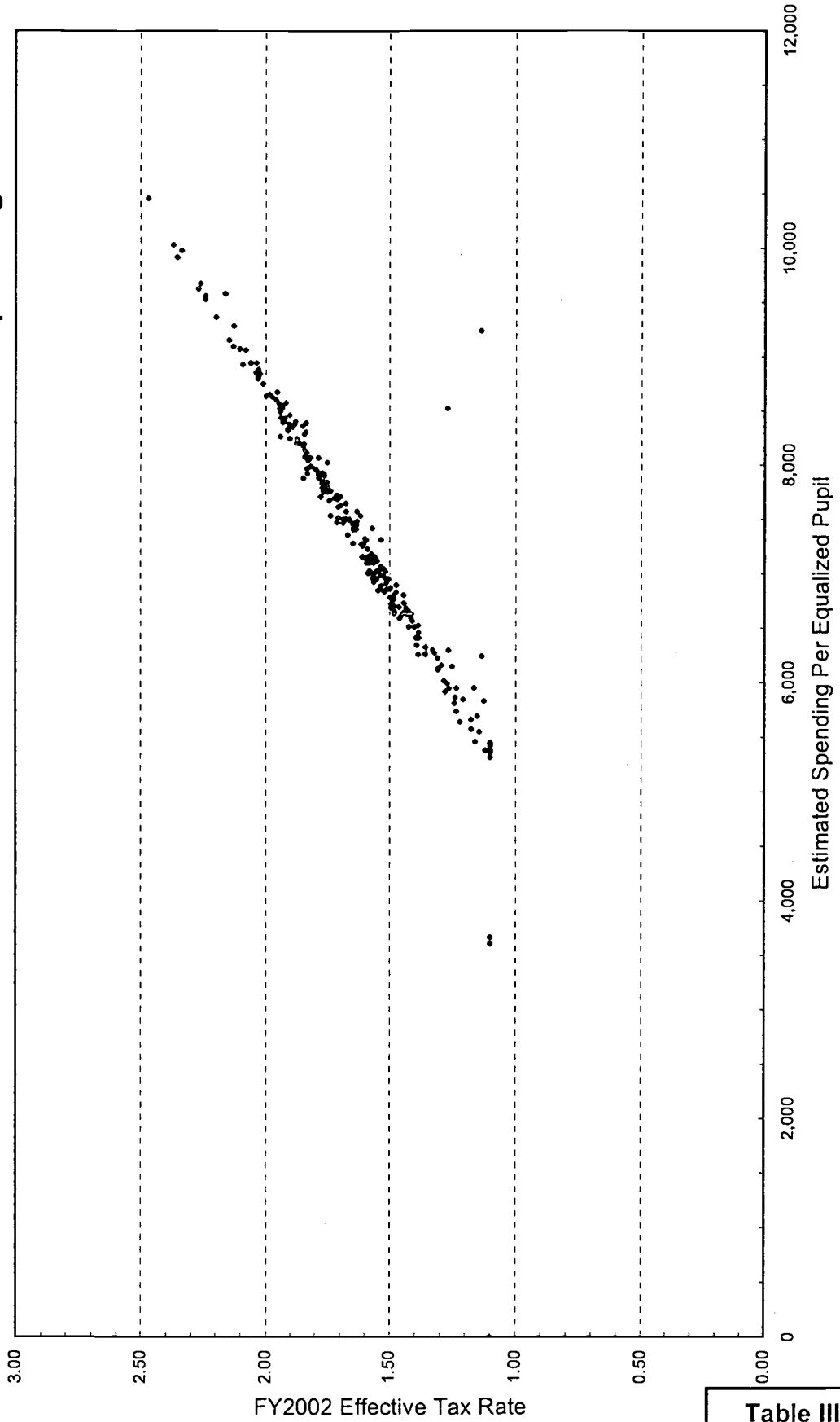
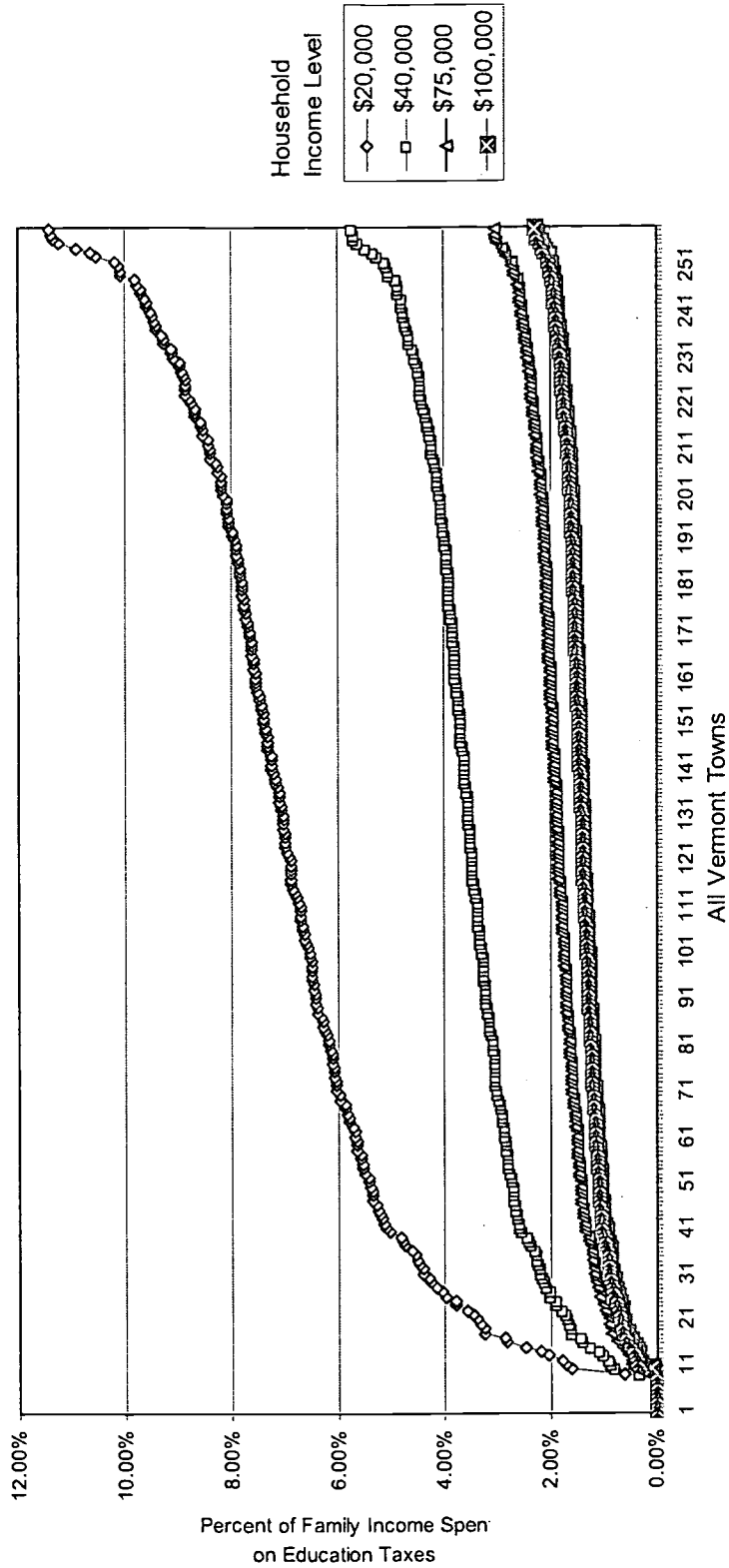


Table III

**Before Act 60:
Percent of Income Spent on School Taxes by Income Level
for a \$100,000 Homestead**



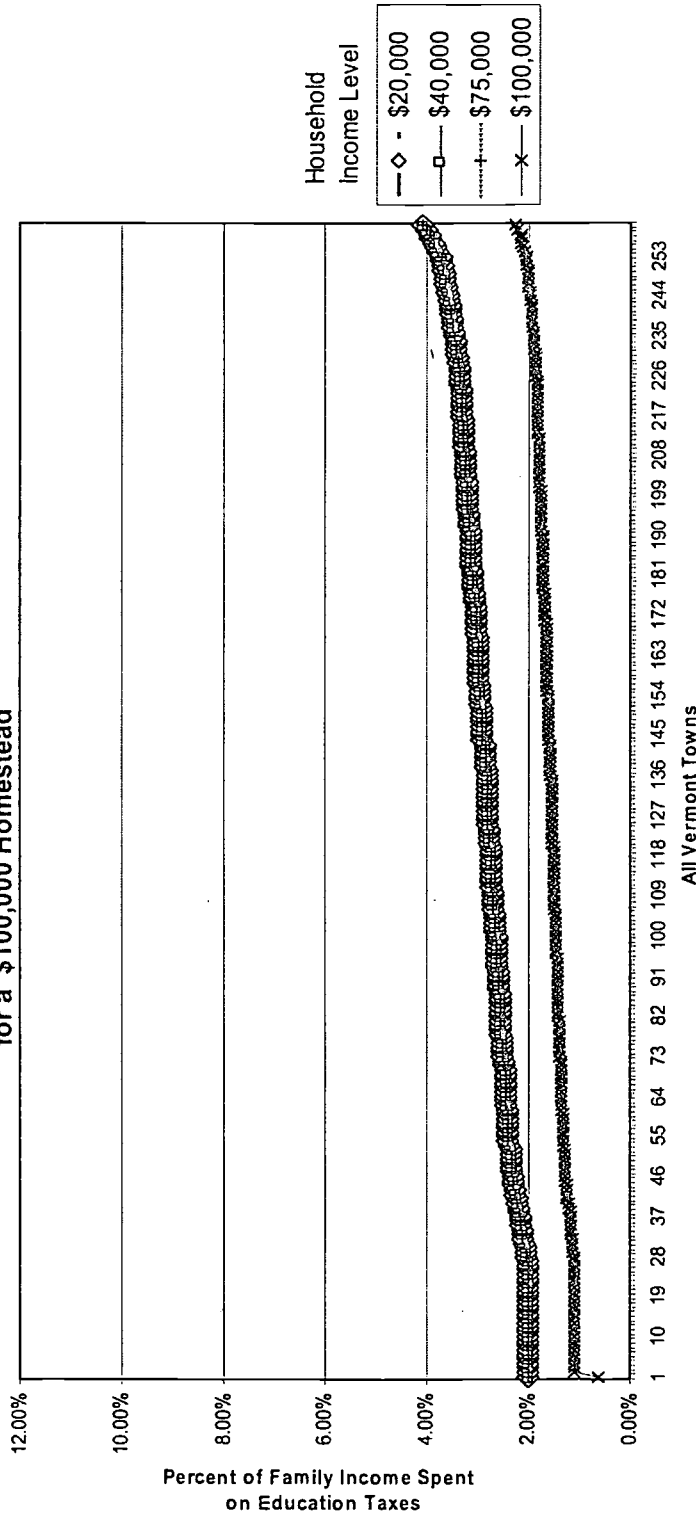
Lower income households consistently paid a higher percentage of their income for school taxes in all towns.

For illustration purposes, this analysis assumes the same household values and various household incomes across all towns, although a family with \$100,000 income in a \$100,000 homestead is unlikely.

Source: Vermont Department of Education FY 98 Data base, prepared by Brad James.

Table IV

After Act 60:
 Percent of Income Spent on School Taxes by Income Level
 for a \$100,000 Homestead



- *Property tax burdens were reduced for all towns and income levels.
- *With income sensitivity, all households below \$88,000 income in all towns had the percent of their income spent on school taxes increase in direct proportion to what the citizens voted at town meeting.
- *Property tax burdens were equalized across the board except for the \$100,000 household group which paid a lower percentage.

Table V



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