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An Analysis of the Proposed School Tuition Subsidies in the "Virginia Children's Educational Opportunity Act 2000" (H.B. 68 and S.B. 336)

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Overview and summary:

The Institute on Taxation and Economic Policy (ITEP) has analyzed the proposed "Virginia Children's Educational Opportunity Act 2000" (H.B. 68 and S.B. 336), to measure the effects of the bill's proposed tuition subsidies on Virginia families with children by income group.

H.B. 68 and S.B. 336 would provide Virginia parents with children in kindergarten though high school with state subsidies for tuition payments (generally to private schools). The subsidies would nominally be as much as $2,500 per child by the time the bill is fully phased in (in 2005). The subsidies would be structured as credits against Virginia income taxes otherwise due.[1]

In summary, ITEP's analysis finds that the proposed subsidies for Virginia K-12 tuition, when fully effective, would cost a minimum of $144 million annually, in 1999 dollars—ignoring any possible increases in private school enrollment, if any, that the subsidies might cause. These subsidies would go primarily to the best-off Virginia families with children. Specifically, when the subsidies are fully effective in 2005:

More than three-quarters of the tuition subsidies would go to the 24 percent of Virginia families making more than $75,000 (in 1999 dollars).

More than half the subsidies (55 percent) would go to the 14 percent of Virginia families making more than $100,000.

In contrast, most Virginia families with children would qualify for tuition subsidies that are only small fractions of the maximum amounts. And in practice, most Virginia families with children would receive little or nothing from the bills.

These odd tuition subsidy patterns stem from two factors: First of all, better-off Virginia families are much more likely to send their children to private schools than are other families. Second, by structuring the tuition subsidies as credits against income taxes, the authors of H.R. 68 and S.B. 336, by design or inadvertence, have produced an "upside-down" subsidy system that inherently favors high-income families.

Methodological Note: The analysis presented in this report was largely performed using the ITEP Tax Model, a powerful and widely recognized microsimulation computer model. The methodological appendix at the end of the report provides details about the model and how the Virginia tuition subsidy analysis was conducted.

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[1]For families with incomes up to 185 percent of the federal poverty guideline, the $2,500 per year tuition subsidy limit would not apply. This exception from the subsidy cap would have no practical effect, however, because, as noted, the subsidy would also be limited by the amount of Virginia income tax otherwise due. The Virginia income tax on a family at the federal poverty guideline is far less than $2,500.

1. "Upside-down" Subsidies.

The proposed school tuition subsidies in H.B. 68 and S.B. 336 are structured as credits against Virginia income tax. As a result, the subsidies would be fully available only to higher-income families—those who owe enough Virginia income tax before credits to use the full tuition credit.[2] For example:

When the program is fully in place in 2005, a family with one child in private school would not qualify for the maximum $2,500 tax credit until the family's income exceeded about $55,000.

A family with two potentially eligible children would not qualify for the full $5,000 tax credit until its income exceeded $104,000.

A family with four potentially eligible children could not qualify for the full $10,000 tax credit until its income exceeded $203,000.

Table 1 illustrates the percentage of the maximum $2,500 per child tuition subsidy that would potentially be available to Virginia families with children by income level and number of K-12 children.

Table 1. Tuition Credits Useable in 2005 as % of Nominal $2,500 per Child Maximum

# of K-12 kids paying tuition	Married Couples				Single Parents			
	1	2	3	4	1	2	3	4
AGI								
$ 6,600	—	—	—	—	—	—	—	—
8,200	0.6%	—	—	—	1.3%	0.3%	—	—
10,000	2.1%	0.7%	0.1%	—	2.9%	1.0%	0.3%	—
15,000	10.0%	4.2%	1.7%	0.8%	11.6%	5.0%	2.3%	1.0%
20,000	20.0%	9.2%	5.1%	3.0%	21.6%	10.0%	5.6%	3.4%
30,000	41.7%	19.9%	12.1%	8.1%	43.5%	20.8%	12.7%	8.6%
40,000	64.7%	31.4%	19.7%	13.9%	66.5%	32.3%	20.3%	14.3%
50,000	87.7%	42.9%	27.4%	19.6%	89.5%	43.8%	28.0%	20.1%
55,400	100.0%	49.1%	31.5%	22.7%	100.0%	50.1%	32.1%	23.2%
75,000	100.0%	69.7%	45.2%	33.0%	100.0%	70.6%	45.8%	33.4%
100,000	100.0%	95.8%	62.7%	46.1%	100.0%	96.7%	63.3%	46.5%
104,000	100.0%	100.0%	65.4%	48.2%	100.0%	100.0%	66.1%	48.6%
153,600	100.0%	100.0%	100.0%	74.1%	100.0%	100.0%	100.0%	74.6%
203,100	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Addendum, Max. Credits:								
At Poverty Guideline	12.2%	8.6%	9.0%	9.5%	7.3%	6.1%	7.4%	8.1%
At 185% of Pov. Guide	41.2%	26.6%	25.8%	25.2%	29.1%	20.6%	21.8%	22.4%
Incomes:								
Poverty Guideline	$ 16,097	$ 19,367	$ 25,908	$ 32,448	$ 12,826	$ 16,097	$ 22,637	$ 29,178
185% of Pov. Guide	29,779	35,829	47,929	60,029	23,728	29,779	41,879	53,979

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[2]The bill offers a three-year carryover rule for unused tuition credits, but this feature would be of only small relative benefit to families whose children attend school for more than a year or two.

Although the sponsors of H.B. 68 and S.B. 336 chose to structure their tuition subsidies as tax credits, it might have been more straightforward to design a direct subsidy program—using a benefit table similar to that shown in Table 1. The effects on families would have been the same, but the distribution of the benefits would have been easier for taxpayers to understand.

2. Potential Benefits to Virginia Families with K-12 Children.

Table 1 above gives examples of how Virginia families in the middle of the income scale or below could qualify at best for only sharply reduced tuition subsidies compared to the advertised amounts. Table 2 below, based on ITEP's computer simulation, offers a more precise distribution of the proposed tuition credits. It shows:

\# The 24 percent of Virginia families making $20,000 or less (in 1999 dollars) would on average qualify for only 5 percent of the fully-phased-in maximum possible tuition subsidy, even if they send their children to private school.

Table 2
Potential & Actual Tuition Credits Under Virginia H.B. 68 & S.B. 336
(Fully phased in, at 1999 income levels and in 1999 dollars)

Family Income Group	Virginia Families with Children			Potential Credits (if all K-12 children attend private school)		Actual Tuition Credits (based on current private school enrollment)	
	Average Income	% of All Families with Children	% of All K-12 Children	Maximum possible credit per K-12 child*	Potential credits as % of nominal maximum	Total tuition credits ($-million)	Share of Total Credits
<$10,000	$ 5,940	6.0%	5.3%	$ 4	0%	$ 0.0	0.0%
$10-20,000	15,290	18.3%	14.0%	157	7%	0.3	0.2%
$20-30,000	25,250	11.9%	9.3%	349	16%	0.9	0.6%
$30-40,000	33,870	8.0%	9.0%	575	27%	3.6	2.5%
$40-50,000	45,130	11.7%	12.1%	873	40%	7.7	5.3%
$50-75,000	61,230	19.6%	22.1%	1,065	49%	22.5	15.6%
$75-100,000	84,920	10.5%	11.9%	1,502	70%	30.1	20.9%
$100-200,000	131,590	10.2%	11.7%	1,940	90%	48.4	33.7%
$200,000+	555,280	3.5%	4.3%	2,116	98%	30.3	21.1%
ALL	$ 68,140	100.0%	100.0%	$ 943	44%	$ 143.7	100.0%
Addendum: $75,000+	$ 173,340	24.2%	27.9%	$ 1,781	82%	$ 108.8	75.7%

Notes: Table shows the effects of H.B. 68 and S.B. 336 as fully phased in (2005), at 1999 income levels and in 1999 dollars. The median income for all Virginia families with children in 1999 is $44,300.

*The maximum possible credit per child in 2005 is $2,500, equal to $2,160 in 1999 dollars.

Source: Institute on Taxation and Economic Policy Tax Model, Feb. 2000.

The 20 percent of Virginia families making $20,000 to $40,000 would on average qualify for only 21 percent of the maximum possible tuition subsidy, even if they send their children to private school.

The 12 percent of Virginia families making $40,000 to $50,000 (about the median) would on average qualify for only 40 percent of the maximum possible subsidy, even if they send their children to private school. (The median income for Virginia families with children in 1999 is $44,300.)

Only families at the highest income levels, above $100,000 a year, could qualify for close to the maximum possible tuition subsidies if they send their children to private school.

3. Actual Benefits to Virginia Families with K-12 Children.

The tuition subsidies that would actually be granted under the bill are even more skewed than the maximum potential subsidies, because better-off families are much more likely to send their children to private schools. As Table 2 also details, based on current school enrollment patterns:

More than three-quarters of the actual tuition credits provided by H.B. 68 and S.B. 336 would go to the 24 percent of Virginia families making more than $75,000 (at 1999 levels).

More than half the credits (55 percent) would go to the 14 percent of Virginia families making more than $100,000.

Enactment of the proposed tuition subsidies would probably not significantly increase the number of Virginia children attending private schools. Middle- and low-income families who might prefer to send their children to private schools but cannot afford to do so would generally not receive subsidies large enough to make such schools affordable. Instead, most of the subsidies would go to better-off families who can already afford to enroll their children in private schools without a state subsidy. Of course, to the extent that the new subsidies would in fact induce more parents to enroll their children in private schools, then the annual cost of the subsidies would be higher than the $144 million per year (in 1999 dollars) that we estimate the subsidies would cost with no induced changes in private school enrollment.

Appendix: Methodological Notes

The data on potential and actual tuition subsidies under H.B. 68 and S.B. 336, as shown in Table 2, were generated using the ITEP Tax Model. This large microsimulation tax model includes information on a large sample of taxpayers, statistically valid on a state-by-state basis.

The Institute on Taxation & Economic Policy has engaged in research on tax issues since 1980, with a focus on the distributional consequences of both current law and proposed changes. ITEP's research has often been used by other private groups in their work, and ITEP is frequently consulted by government estimators in performing their official analyses. Over the past several years, ITEP has built a microsimulation model of the tax systems of the U.S. government and of all 50 states and the District of Columbia.

What the ITEP Model Does

The ITEP model is a tool for calculating revenue yield and incidence, by income group, of federal, state and local taxes. It calculates revenue yield for current tax law and proposed amendments to current law. Separate incidence analyses can be done for categories of taxpayers specified by marital status, the presence of children and age.

In computing its estimates, 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.

The ITEP model's federal tax calculations are very similar to those produced by the congressional Joint Committee on Taxation, the U.S. Treasury Department and the Congressional Budget Office (although each of these four models differs in varying degrees as to how the results are presented). The ITEP model, however, adds state-by-state estimating capabilities not found in those government models.

Below is an outline of each area of the ITEP model and what its capabilities are:

The Personal Income Tax Model analyzes the revenue and incidence of current federal and state personal income taxes and amendment options including changes in:
  # rates—including special rates on capital gains,
  # inclusion or exclusion of various types of income,
  # inclusion or exclusion of all federal and state adjustments,
  # exemption amounts and a broad variety of exemption types and, if relevant, phase-out methods,
  # standard deduction amounts and a broad variety of standard deduction types and phase-outs,
  # itemized deductions and deduction phase-outs, and
  # credits, such as earned-income and child-care credits.

The Consumption Tax Model analyzes the revenue yield and incidence of current sales and excise taxes. It also has the capacity to analyze the revenue and incidence implications of a broad range of base and rate changes in general sales taxes, special sales taxes, gasoline excise taxes and tobacco excise taxes. There are more than 250 base items available to amend in the model, reflecting, for example, sales tax base differences among states and most possible changes that might occur.

The Property Tax Model analyzes revenue yield and incidence of current state and local property taxes. It can also analyze the revenue and incidence impacts of statewide policy changes in property tax—including the effect of circuit breakers, homestead exemptions, and rate and assessment caps.

The Corporate Income Tax Model analyzes revenue yield and incidence of current corporate income tax law, possible rate changes and certain base changes.

Local taxes: The model can analyze the statewide revenue and incidence of aggregate local taxes (not, however, broken down by individual localities).

Data Sources

The ITEP model is a "microsimulation model." That is, it works on a very large stratified sample of tax returns and other data, aged to the year being analyzed. This is the same kind of tax model used by the U.S. Treasury Department, the congressional Joint Committee on Taxation and the Congressional Budget Office. The ITEP model uses the following micro-data sets and aggregate data:

Micro-Data Sets:

IRS Individual Public Use Tax File, Level III Sample; IRS Individual Public Use Tax File; Current Population Survey: Consumer Expenditure Survey; U.S. Census, 1990.

Partial List of Aggregated Data Sources:

Miscellaneous IRS data; Congressional Budget Office and Joint Committee on Taxation forecasts; other economic data (Commerce Department, WEFA, etc.); state tax department data; data on overall levels of consumption for specific goods (Commerce Department, Census of Services, etc.); state specific consumption and consumption tax data (Census data, Government Finances, etc.); state specific property tax data (Govt. Finances, etc.); American Housing Survey 1990; 1990 Census of Population Housing; etc.

A more detailed description of the ITEP Microsimulation Tax Model can be found on the ITEP internet site at www.itepnet.org.

Issues specific to the analysis of the proposed Virginia tuition subsidies. The effects of the proposed tuition subsidies were first modeled as if every Virginia K-12 student paid school tuition, in order to determine the maximum possible tuition tax credits by income group, as limited by Virginia income taxes otherwise due.

These maximum possible credits were then adjusted to take account of actual school attendance patterns in Virginia. The primary data source for this second step is the U.S. Bureau of the Census's annual CPS survey of school enrollment, which provides data on K-12 school attendance by income level and type of school. These data can be disaggregated by state, but are rather thin on a state-by-state basis. In the analysis here, multiple survey years (1995-1998) were combined for Virginia to expand the sample size. The resulting data were adjusted to match actual current Virginia public and private school enrollment figures.