Paying for Schooling in Rural Virginia

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Introduction

Schools are central to the social, economic, and political life of rural communities. Along with churches, schools provide one of the major sources of community identity, pride, and social interaction. As the largest single item in local government budgets, schools are a primary local employer, an important force in the local economy for work force preparation, a central focus of parents concerned for the future of their children, and the object of much local political debate. School budgets comprise 55.9 percent of local expenditures across all communities in the Commonwealth (Figure 1). In rural communities, school spending constitutes 62.9 percent of local expenditures.

Having a lot of money to spend on schools does not assure that the schools will be effective. Not having adequate school funding does limit the variety and size of classes, the quality of teachers attracted, and the enriching extra-curricular activities that a school system can offer. Further, many students who graduate from schools in rural communities do not return to live and work in the community that provided their education. Consequently, local people, particularly those without school age children, believe they are paying for education that does not benefit the community.

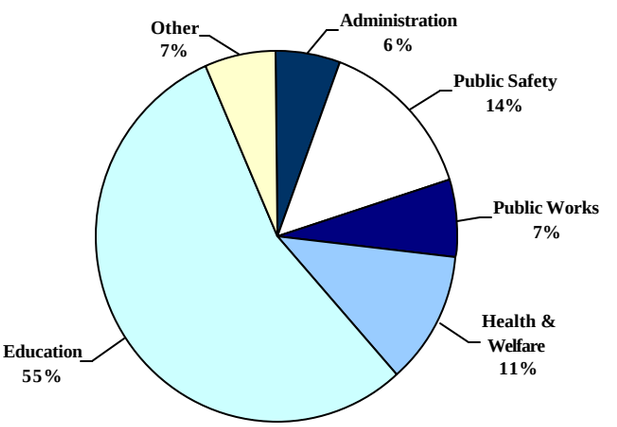

Figure 1. Statewide average local ependitures, 2000
Source: Auditor of Public Accounts

Many communities face these dilemmas but particularly rural communities. This report is the story of paying for schooling in rural Virginia and its implications for the Commonwealth as a whole.

How we characterize rural

Rural can be characterized in many ways. Rural is not necessarily agricultural as it once was. Rural is characterized by low population density (Figure 2) and long distances to populated areas, services, and schools. It is characterized by low incomes and few highly skilled jobs. It is characterized by a less well-educated population (Figure 3), many of whom could not fill highly skilled jobs if they were available. Rural is characterized by an older population because the youth, once educated, leave for better jobs in more affluent areas offering better opportunities and more amenities. The out-migration of young people, who take with them their potential for leadership, leaves behind an aging, more poorly educated population, who are more cautious than the folks who left the community. The definition of rural used in this report is population density. Counties with less than 120 persons per square mile were classified as rural.

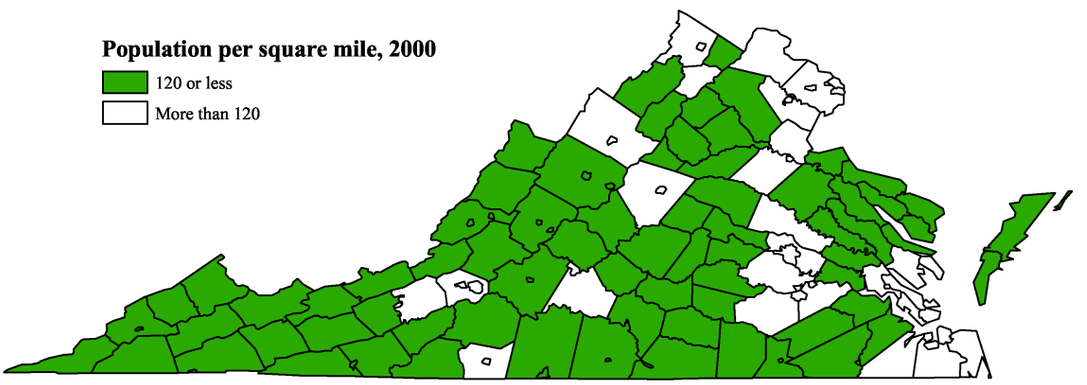

Figure 2. Population per square mile
Source: U.S. Dept. of Commerce

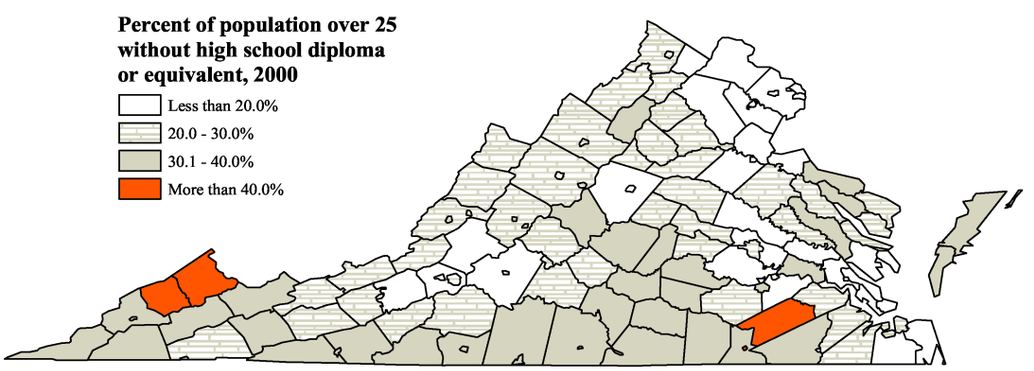

Figure 3. Percent of population over 25 without high school diploma, 2000
Source: U. S. Dept. of Commerce

Where the prosperity is

The prosperity in the United States as the 21st century approached did not reach rural Virginians. The lack of prosperity is nothing new for rural areas. In 1968, the Virginia General Assembly established a commission to study why rural populations were declining. Lack of jobs and low salaries and wages were cited as two reasons for the decline. By 1998, per capita incomes of rural Virginians were $10,000 less than urban/suburban Virginians (Figure 4).

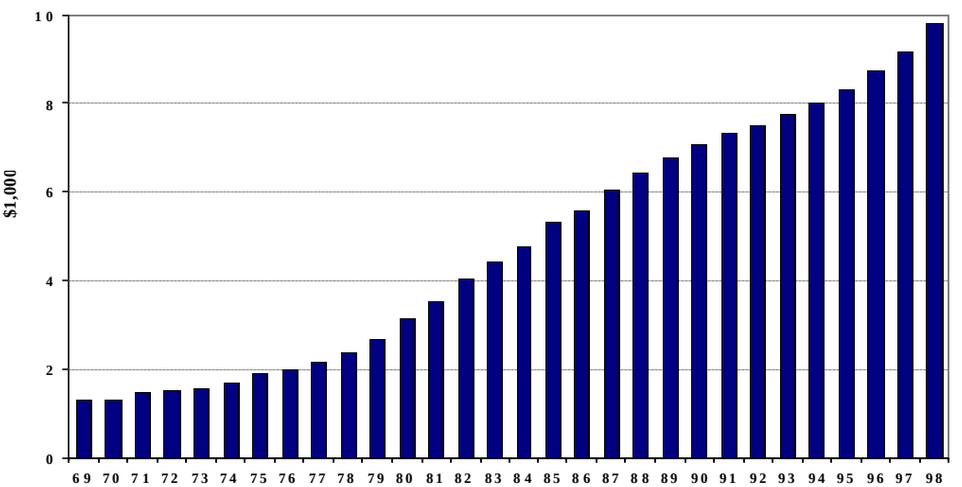

Figure 4. Difference in per capita income, rural versus urban, 1969-1998
Source: U.S. Dept. of Commerce, Bureau of Economic Research

Much of the financing and determination of school programs is left to the local school divisions that are part of local government in Virginia. However, because of the state's obligations to all its citizens, particularly for schooling but for other services as well, substantial state funds flow to localities. In 1998, total state transfers to 46 rural communities amounted to $189 million more from the state than they contributed (Va. Dept. of Taxation)—a substantial reason for all Virginians to be concerned about what happens in rural communities (Figure 5).

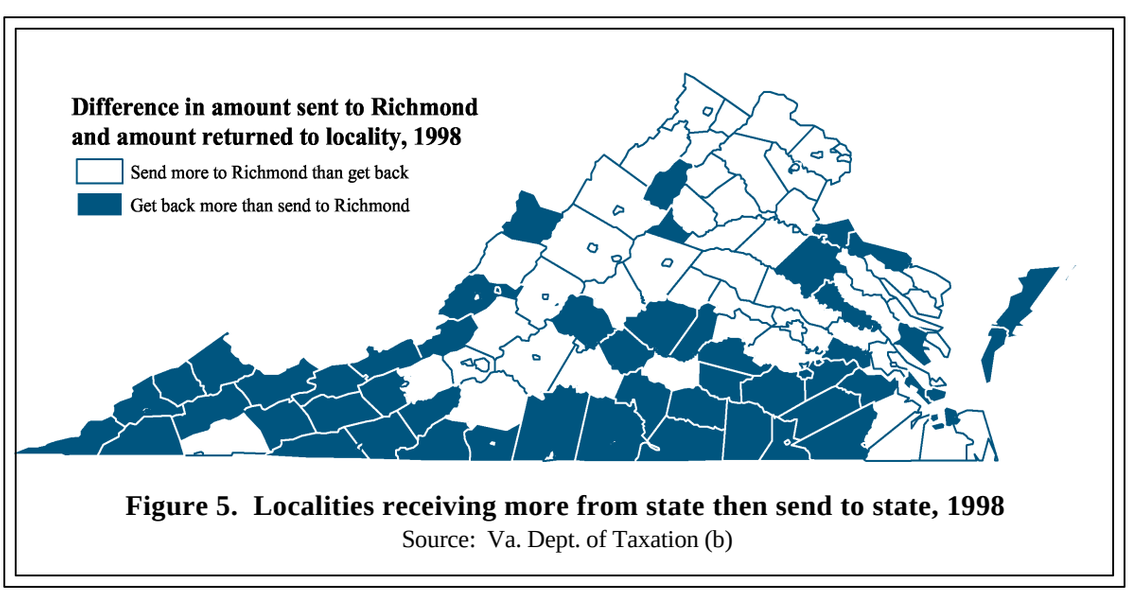

Figure 5. Localities receiving more from state then send to state, 1998
Source: Va. Dept. of Taxation (b)

Resources to Support Schools

Describing the circumstances of rural schools in Virginia requires describing the resources available to Virginia schools and school children in general. Because the absence of resources does limit what can be done in schools, the great disparity in access to resources among school districts suggests problems in the ability of the schools to equitably serve Virginia's school children. Notwithstanding the Virginia Supreme Court's 1992 decision asserting that the state's obligation for schools has nothing to do with equity in resources only in the existence of public schools that meet "minimum educational standards" (1992 WL 885029 [Va. Cir. Court]), the disparity in access to schooling resources further aggravates the impoverishment of rural communities

Virginians spent about $7.9 billion dollars on K – 12 schooling in school year 1999-2000. The single, largest source is raised from local sources (Figure 6), primarily from real property taxes.

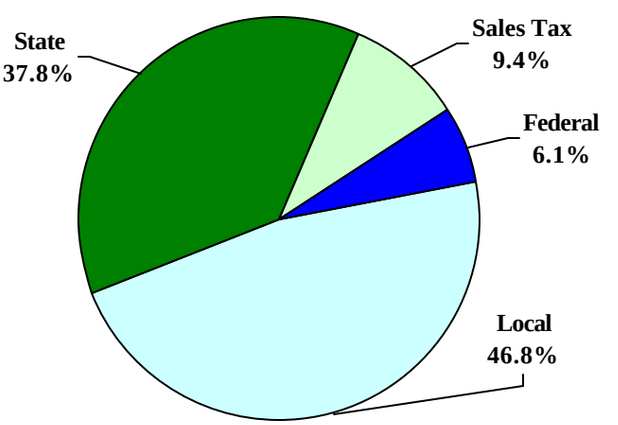

Figure 6. Percentage of Spending by Source for Virginia Schools, $7.9 Billion, 1999-2000
Source: Va. Dept. of Ed.

The average statewide expenditure was $6,985 per pupil for each of the 1,124,547 children in the Virginia public schools in 1999-2000. However, the $7.9 billion spent on public schools are not uniformly available to all children in the Commonwealth as is shown in Figure 7.

Figure 7 is constructed by ranking the school divisions from the lowest to the highest in total per pupil spending from all sources. The lines of the graph are then plotted on the basis of the number of children in the respective school divisions, which gives rise to the flat places on the graph. For example, the long flat lines on the far right of the graph represent the over 150,000 pupils in the Fairfax County school district.

The top line represents the total school budget for the state in 1999-2000 ($7.9 billion) and how it was distributed across school children. It shows that nearly 748,000 children in the state—more than 66 percent—are below the statewide average of $6,985 per pupil. The line representing total per pupil expenditures also shows that the highest spending school division spends $11,697 per pupil, which is more than twice as much as the lowest spending school division $5,436 and more than the average cost ($10,424) of educating a student at Virginia Tech in 2000 (Va. Tech Office of Budget).

The bottom line represents local spending and how it is distributed. Similarly, the area between the bottom line and the top line is the amount of money a school division receives from state and federal sources. Clearly, the disparity represented by the total spending (top line) is primarily the result of local spending (the bottom line) on schools. The disparity in total spending per pupil would be much greater if it were not for non-local spending, mostly state monies.

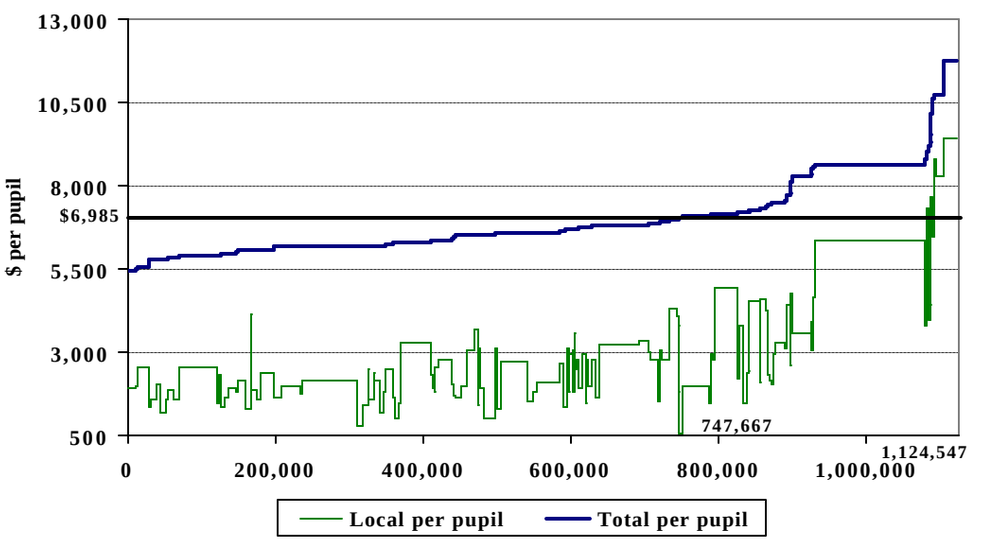

Figure 7. Virginia Spending on School Children by Sources, 1999-2000

Source:Va. Dept. of Ed.

To compare rural schools to urban/suburban schools, Figure 8 is constructed by first ranking rural school divisions by total per pupil spending and then by doing the same for urban/suburban schools. Total and local expenditures per pupil are then plotted across the number of children in each school district. Only 14 percent of all rural children have available the state average of $6,985 per pupil. By contrast, in urban/suburban schools 44 percent of the children have available to them that state average amount or more. Thus, the disparity in availability to schooling resources is such that if children live in a rural community they are almost assured of having access to less than the state average in resources.

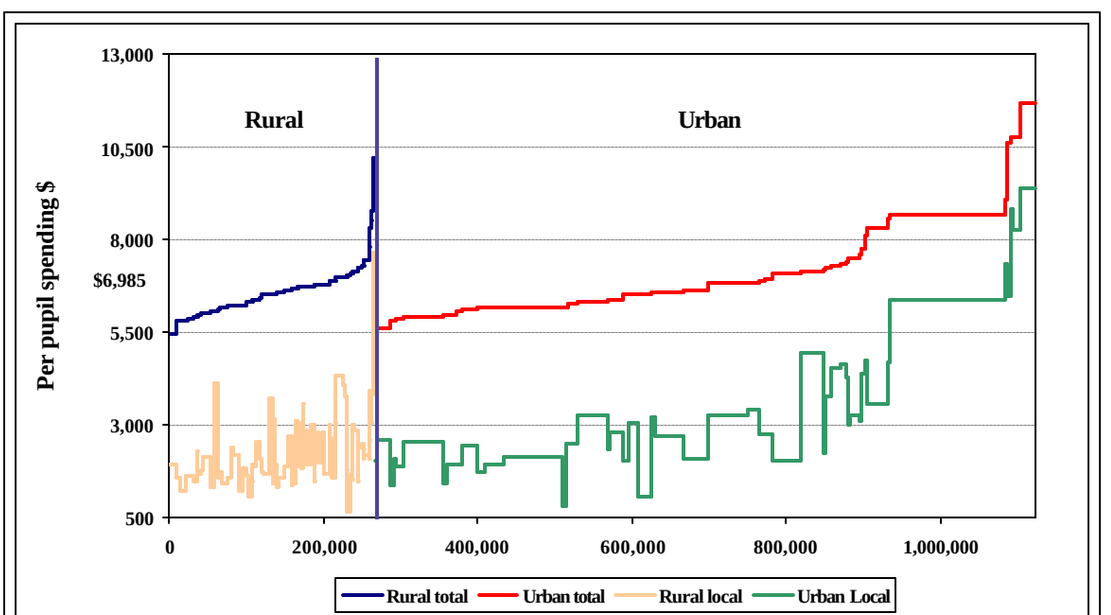

Figure 8. Spending on Virginia School Children by Community Types, 1999-2000

Source: Va. Dept. of Ed.

The bottom line in Figure 8, representing local spending, again makes the point that the major resource limitation is in the availability of local resources. That limitation explains much of why most spending on rural school children for instructional resources is below the state average.

School Spending and Ability To Pay

The Constitution of Virginia of 1971, Article VIII, and the State Bill of Rights provide that the state is responsible to "provide for a system of free public elementary and secondary schools for all children of school age throughout the commonwealth, and … to ensure that an educational program of high quality is established and continually maintained." The Commonwealth of Virginia places substantial control and responsibility for schools in local communities, relying on citizens' self-interest in educating their children to prompt them to provide local support. Yet, the disparity in access to resources persists and is primarily the lack of local resources.

Rural communities, some people assert, could correct the disparity in resources available to them if they would simply make a greater effort by taxing themselves at rates that would overcome the disparity. The perception is that rural communities have inappropriately low tax rates and simply do not make sufficient effort.

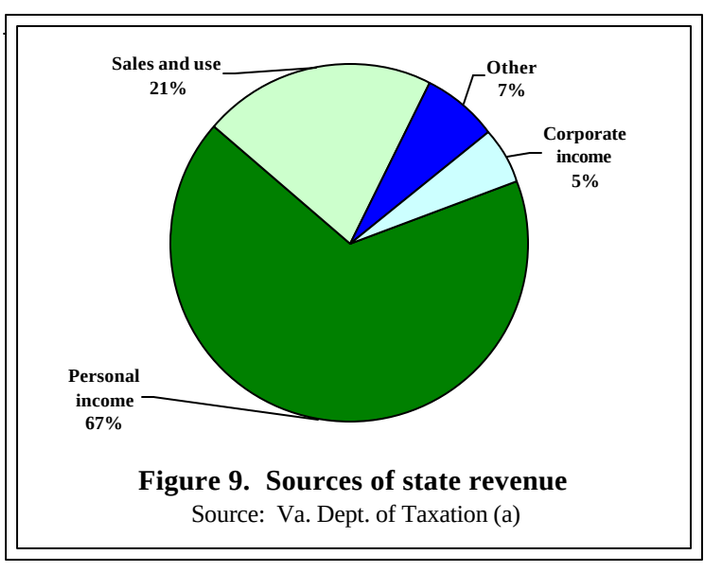

Figure 9. Sources of state revenue
Source: Va. Dept. of Taxation (a)

The evidence about the ability to pay taxes does not support this assertion. Local taxes are levied based primarily on real property values. In contrast, state government revenues are mostly based on personal income taxes (Figure 9) and on sales taxes (Dept. of Taxation (a)). In many rural and urban/suburban localities, most of the real property value is in peoples' residential property. Residential property generally reflects people's consumption rather than a source of income. People do not pay their taxes from those residential property assets, nor do they vote and show their willingness to support government with their taxes based on those assets. People pay their taxes from their stream of income. People do not express their willingness to pay for government services on the basis of their total incomes but rather on the amount of money they have after they have taken care of the basic family needs. We call this income after basic needs are provided for *discretionary income*.

Clearly, the cost of meeting minimum living requirements is different in different localities. Those differences have been taken into account by constructing a county-by-county standard of living index.[1] An estimate of discretionary income is made by subtracting $4,250 adjusted by the standard of living index from per capita income. The federal government defines poverty income for a family of four as $17,000 (U.S. Dept. Commerce (b)). Thus, $4,250 per person as the survival adjustment to get to discretionary income is reasonable. That $4,250 is then modified by the standard of living index. The total cumulative survival income for the people in any community is

$4,250 * standard of living * population of the community.

That amount subtracted from the total Adjusted Gross Income for the community gives the total community discretionary income. Comparisons between communities with respect to schools are made on the basis of per pupil discretionary income (community discretionary income/number of pupils). This process acknowledges that both cost and style of living is different in more affluent parts of the state and acknowledges that difference in making the determination of what "survival income" is for different communities. The correlation between actual per pupil spending on schools and per pupil discretionary income is strong and positive (+0.73). Local spending in the communities of the Commonwealth is equal, on average, to 3.5 percent of discretionary income (Figure 10).[2]

With only a few exceptions, the majority of the communities in the Commonwealth spend about 3.5 percent of discretionary income regardless of their overall wealth . Two major exceptions are the communities of Surry and Bath,[3] which have unique, high value assets that generate exceptional local government revenues. The people in those communities clearly spend in response to the special revenue circumstances of the communities. When that exceptional spending is expressed as a percentage of discretionary income, it appears as if they are making an extra effort when, in fact, it really reflects their unique circumstances.

Most poor and most rural communities of the state are concerned that the brightest and best of their students will leave the community to make their living in more economically vigorous parts of the state and nation. Thus, in the context of assessing the investment in schooling by a community, we would normally expect that spending on schooling would be proportionally lower in the poorer communities where they cannot capture the payoff from their investment. That the proportional investment is flat at 3.5 percent across all communities regardless of wealth is somewhat surprising.

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[1] A standard of living index for each county was constructed using the Expenditure Score supplied by zip code from the commercial website **move.com**. The Expenditure Score is based on average yearly household spending on retail and non-retail expenses. The non-retail expenses include mortgages, rent, insurance, repairs, and maintenance. The Expenditure Score does not include savings, income taxes, or retirement plans. It ranges from 0.61 to 1.66 in Virginia. Thus, the community with the highest cost of living would have 1.661 times $4,250 subtracted, and the lowest cost of living community would have 0.61 times $4,250 subtracted. Note: this website has been changed and the data are no longer available in the format used in this research.

[2] A similar relationship estimated on the basis of 1997-98 data and using $4,000 as the basis of survival income indicated spending at 5.1 percent of discretionary income. Higher survival income and discretionary incomes that rose 77.5 percent compared to school spending that rose only 7.6 percent in the intervening years account for the decline to 3.5 percent on the 1999-2000 data. The magnitude of the percent spent on schooling is less important than the consistency of the value across all communities.

[3] Bath County has Dominion Resources (was VEPCO) and The Homestead. Surry County has a nuclear power

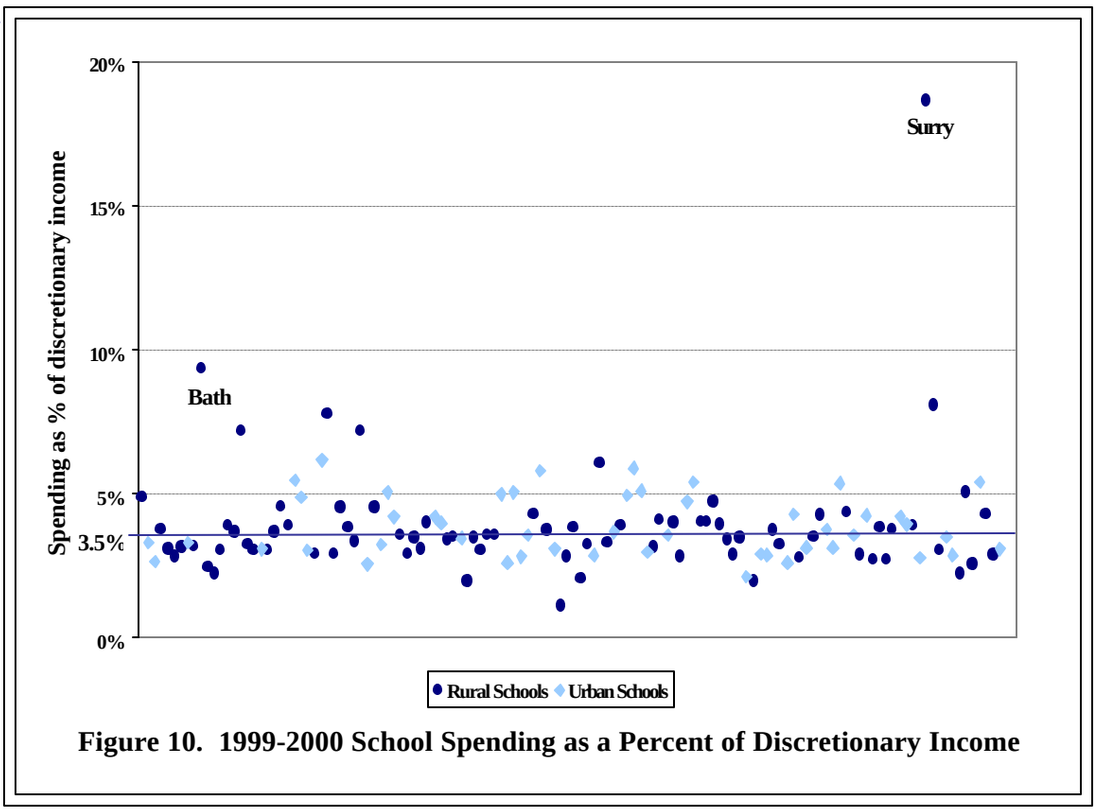

Figure 10. 1999-2000 School Spending as a Percent of Discretionary Income

Figure 11 shows per pupil discretionary income and the per pupil spending on schools, ranking the communities from the poorest to the wealthiest as measured by per pupil discretionary income. Figures 10 and 11 illustrate two important points:

- The dispersion around the 3.5 percent line is no different for rural than for urban/suburban communities, confirming that rural communities are making as much effort to support schools as are the urban/suburban communities. Further, as can be observed, many rural communities spend above the 3.5 percent line and many urban/suburban communities spend below the line. This pattern suggests that within the dispersion of spending some rural communities are making a greater effort to support their schools than are some urban/suburban communities.

- The close relationship between actual local spending and the discretionary income measure (correlation of +0.73) reinforces the use of discretionary income as an indicator of ability to pay and of tax effort.

The clear relationship between discretionary income and school spending across all communities, from very poor to quite wealthy, suggests that as community incomes rise in the poorer communities, people in those communities will be willing to spend some of that income gain on schooling. Thus, support for economic development efforts in the poorer communities of the state is an additional policy strategy available to reduce the disparity in school spending between the well-to-do communities and the poorer communities of the Commonwealth. Economic development spending will have the additional value of addressing the loss of talented people from the community by providing more jobs in those rural communities that provided the education.

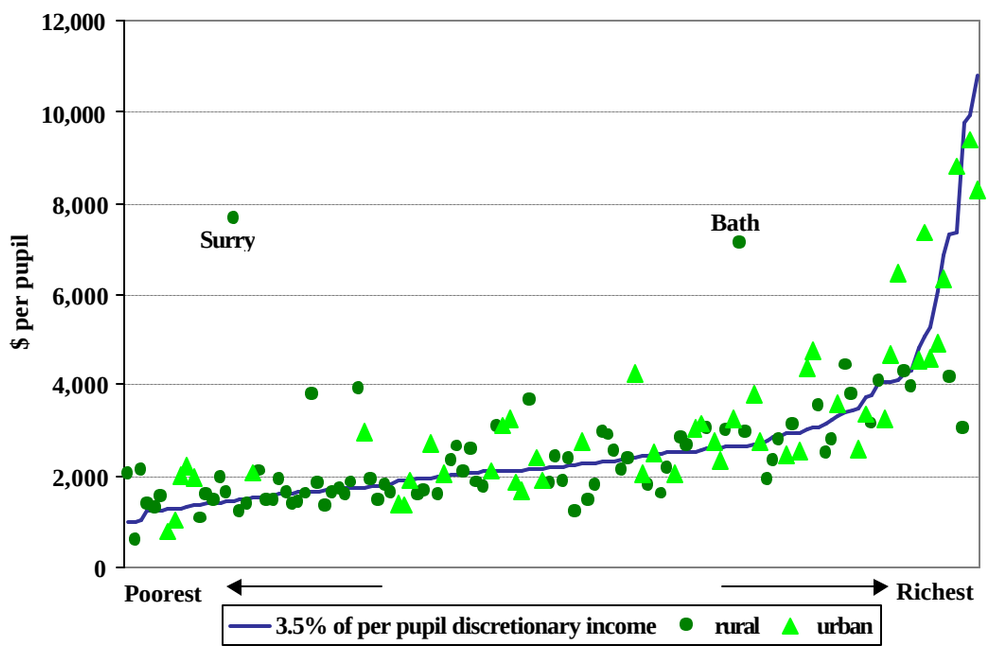

Figure 11. School division local spending compared to 3.5 percent times per pupil discretionary income, ranked by per pupil discretionary income, 1999-2000

Great differences are evidenced in peoples' ability to pay for schools and other governmental services across the communities of the Commonwealth. For an example of a **family's ability to pay**,[4] data for Dickenson County and Alexandria City, the poorest and wealthiest localities based on per pupil disposable income, are presented in Table 1. Arguably, the survival income for a family of four in Dickenson County, $12,814, and $23,614 in Alexandria City would not provide more than the barest minimum of shelter, food, and clothing. The family discretionary income in Dickenson provides for something above minimum shelter, food, and clothing but certainly not the level of comfort that family discretionary income in Alexandria provides. Further, increasing the amount spent on schooling by $100 or $200 ***per family*** in both localities will have a far greater impact on the amount left for comforts in Dickenson than in Alexandria.

Table l. Ability to pay for schooling

	Dickenson	***Alexandria***
Average ***family income***[1]	$31,964	$129,300
Standard of living index	0.7538	1.3891
Survival income ($4250 * std living index * 4)	$12,814	$ 23,614
Family discretionary income	$19,150	$105,986
3.5% of discretionary income for schools	$ 670	$ 3,699
Discretionary income after paying for schools	$18,480	$101,986

[1] Average family income is assumed to be a family of four for purposes of this example.

[4] Per family discretionary income assumes a family of four.

Yet another way to illustrate the issues surrounding the ability to pay is shown in Figure 12. The top bar represents local per pupil spending on schools. The much larger area underneath is the amount of discretionary income remaining for other expenditures. Communities are ranked from poorest to wealthiest based on per pupil discrteionary income.

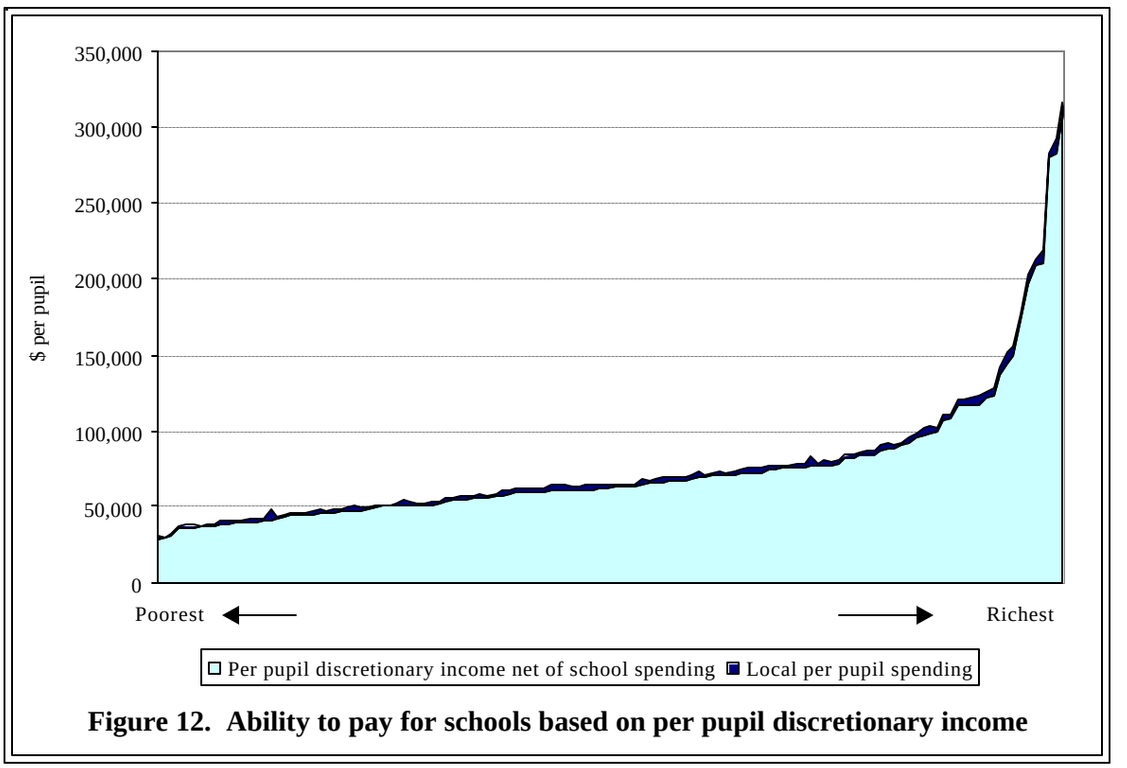

Figure 12. Ability to pay for schools based on per pupil discretionary income

With discretionary income per pupil varying from $28,542 to $308,549, an 11-fold difference, several points must be made.

- 3.5 percent of very little is a small amount of money to spend on the schools and substantially accounts for the disparity in school spending in the State of Virginia.
- 3.5 percent of very little means that spending the 3.5 percent may be a hardship on many families.
- 3.5 percent of a lot of money provides a lot of money for schooling and leaves families with a lot of money remaining.

Citizens in some communities must choose between voting to support schools or having a decent car, home, or some other claim on their discretionary income – the things that are above survival but bring grace and comfort to life.

One of the major sources of grief and concern for people in rural communities is that regardless of how much they spend on schools, the students who perform best usually leave to work and make their lives in other parts of the state or nation. Thus, notwithstanding the greater proportion that rural communities garner in state school aide (Figures 7 and 8), many of the economic benefits of local school spending are captured in communities that are more active in the state's economy than in the communities that provided the education. Economic development efforts that enhance rural

community incomes have the additional advantage of providing more economic opportunities for locally educated students. Therefore, more of the benefits of local schooling expenditures will be captured in the community making the expenditure and would further move the community towards becoming a net fiscal contributor to the state budget.

Conclusions

A great disparity exists in children's access to schooling resources based on where they live in the state. Most rural children have access to less than the statewide average in per pupil expenditures for schooling. This disparity in access to schooling resources is principally a function of local ability to support schools and is reflected in local expenditures for schooling.

All communities across the state spend, on average, 3.5 percent of their per pupil discretionary income on schools. The dispersion around that average is no different for rural communities than for urban/ suburban communities. Thus, some poor rural communities are making as much of an effort to support schools as are urban/suburban communities, and some rural communities are making a greater effort than some urban/suburban communities. The consistency of this spending pattern in response to discretionary income across communities suggests that as community incomes rise, residents will spend some of that increase on their schools.

The results of this analysis suggest that economic development assistance to rural communities will contribute to alleviating the disparity issue. Economic development will also deal directly with increasing jobs in the community so that it is more attractive for rural school graduates to remain in the community.

Rural schools are as important for their role in maintaining and developing rural communities as they are for their preparation of tomorrow's workers. Many of those young workers will arrive in the more prosperous communities of the state with or without adequate educations. As rural places become more economically viable and attractive places to live, the burden on non-rural Virginia residents to subsidize those communities will decline from the current $189 million or more per year. If all of Virginia's schools are more equitably financed, the impacts will be particularly helpful to rural communities because of the especially low level of resources available to most rural schools and because of the especially large portion of rural budgets committed to schooling. All Virginians have a vested interest in improving Virginia's schools. Not all Virginians have understood clearly all aspects of their vested interest, particularly as it relates to rural schools and rural communities.

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