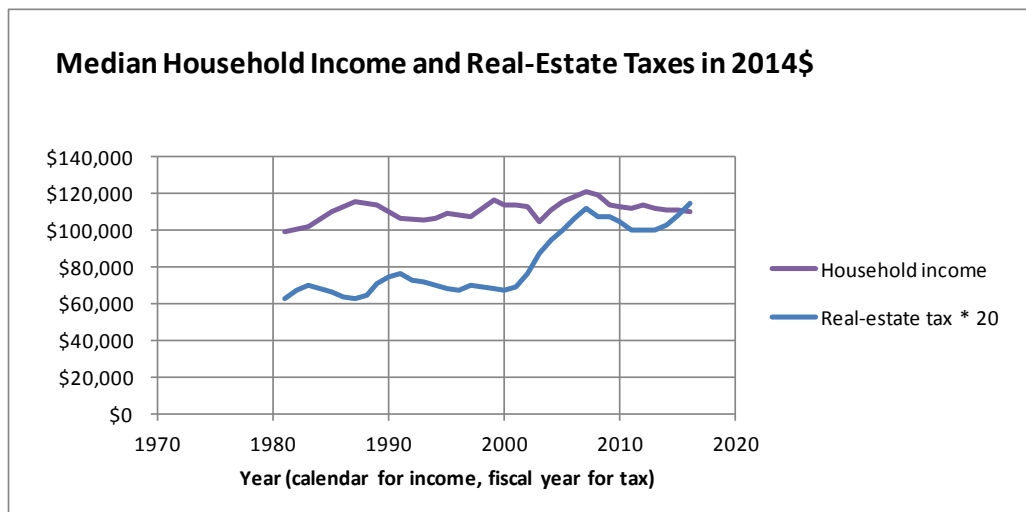


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 March 5, 2015

**Introduction:** The Federation of Citizens Associations will be meeting to vote on its recommended tax rate for FY2015. The purpose of this report is to provide background data by which the rate can justly be chosen.

**Summary:** The real-estate tax rate should be set in part by the ability of the citizens to pay the tax. The ability should be estimated on the basis of the median household income<sup>1</sup> rather than the price of the taxpayer’s house. The median household income has risen 2.2% per year from 2000 to 2014 as compared to 2.4% per year CPI-U increase; therefore, household purchasing power has decreased. The real-estate tax has increased approximately 6.4% per year (Figure 1). Taxes have added considerably to the financial burden on County taxpayers<sup>2</sup>. (In Figure 1, we have multiplied the tax by 20 so the two curves could be more readily compared. The graph shows the tax for FY2016 as if the rate is the same as in FY2015.)



**Figure 1: History of Household Income and Household Real-Estate Taxes**

To keep the taxpayer burden constant, the real-estate tax rate should be increased such that the product of the tax rate and home price should yield a tax increase of no more than the income increase for a given household. The County Executive has given the projected increase in home price for FY2016<sup>3</sup>: 3.39%. We project the increase in median household income to be 1.6%, in keeping with data for the last few years that show that household income increased slightly less than inflation rate (1.7% in FY2016), evident by the downward slope in Figure 1. To keep the tax burden fixed, the tax rate, including stormwater and infestation, should be reduced to \$1.094/\$100 of assessed value.<sup>4</sup> This rate includes stormwater and infestation prevention, which is anticipated to total \$0.026/\$100; therefore, the real-estate rate would be \$1.068/\$100. Note that in recent years approximately 2000 homes (0.5%)

<sup>1</sup> 67% of the homes are owner-occupied ([http://www.fairfaxcounty.gov/demogrph/census\\_summaries/acs-1year/acs2012.pdf](http://www.fairfaxcounty.gov/demogrph/census_summaries/acs-1year/acs2012.pdf)); therefore, the median income is that of a home that the occupant owns (usually with a mortgage). Countywide average income is approximately 30% more than the median; however, the rate of change in the average is approximately the same as for the median.

<sup>2</sup> Notice the sharp rise in taxes over the past two years, especially as compare to the average rise from 1982 to 2000.

<sup>3</sup> <http://www.fairfaxcounty.gov/dmb/fy2016/advertised/fy2016-advertised-cex-budget-presentation.pdf> (Pg 15)

<sup>4</sup> On the median home, the tax in FY2015 was \$5545 for a home assessed at \$497,962. The FY2016 assessed rate will be  $\$497,962 \cdot (1 + 3.39\%) = \$514,843$ . To impose the same burden on the taxpayer, the tax should be  $\$5545 \cdot 1.016$ , where the 1.016 allows for a household income increase of 1.6%. Therefore the tax rate should be  $\$5545 \cdot 1.016 / \$514,843 = 1.094$ . If we subtract the stormwater tax of 0.025 and the infestation prevention tax of 0.001, the quoted tax rate, for no added burden, would be 1.068.

are added to the inventory each year; therefore, county revenues will increase by approximately \$10M even if the tax on existing homes is kept constant or increased at the rate that household income increases.

Tax increases cause high-income people to move out of the county. From 1992 to 2010, Fairfax County lost a net of \$6B per year in Adjusted Gross Income due to this phenomenon<sup>5</sup>. The total income in 2010 was on the order of \$40B (400,000 homes \* \$0.1M income per household); therefore, the loss is approximately 15% (=6/40) per year. The average home price is approximately 4.4 times the median household income; therefore, the loss in real estate value corresponding to the \$6B net income loss is \$26.4B. At the current tax rate of \$1.1135 per \$100 (including stormwater), this is a loss of approximately \$294M per year in tax revenue.

The large increase in the revenue evident in Figure 1 between 2001 and 2008 was spent primarily on the cost-of-living salary increases and the fringe benefits of County employees, including teachers and other school personnel. In addition to increases in remuneration, a 12% increase in school personnel added to the expenditures. This increase exceeded the 8% enrollment increase. Many assistants and specialists were added at all levels. Some of the increases, however, can be attributable to the increase in the number of disadvantaged students.

## **Discussion:**

### *Analysis of the Revenues*

The ability of people to pay taxes depends not so much on the value of the house in which they live as it does on their income; therefore, setting the real-estate tax rate should be based on the income. Data for the median income is available from 1979 to 2013, inclusive, at the County website<sup>6</sup>. Estimates for the more recent years are available from private sources<sup>7</sup>. Data is readily available for the assessed value of real estate from FY2000 through FY2012<sup>8</sup> and extended by the County Executive to 2016<sup>3</sup>. We have taken the data on assessed value and multiplied it by the tax rate. For FY2015, we have used a tax rate of \$1.1135 per hundred dollars of assessed value. This rate may be compared to the \$1.075 for FY2013. The total burden on the taxpayer includes the \$0.0225 for stormwater management in FY2015 and the \$0.001 for infestation prevention; therefore, in FY2015, the total tax burden was \$1.1135 per \$100. Stormwater costs were included in previous years but were not separately delineated.

The curve in the Summary shows a large increase in real-estate taxes from 2001 to 2008. The increase is due to the housing “bubble”, along with a nearly constant tax rate (Figure 2). Instead of decreasing the tax rate to keep the tax burden relatively constant, the County chose to let the tax increase. Other sources of revenue remained relatively constant (as corrected for inflation), but revenue from real estate increased by approximately 50%.

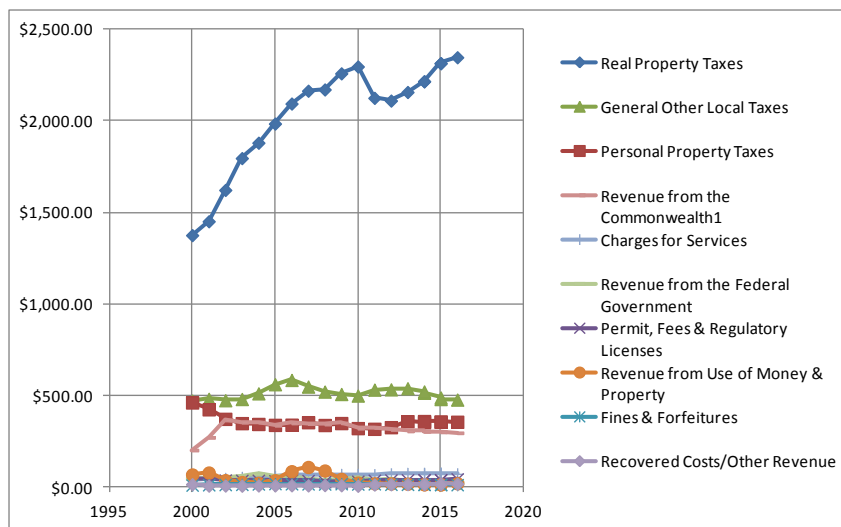
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<sup>5</sup> <http://www.howmoneywalks.com/irs-tax-migration/>

<sup>6</sup> <http://www.fairfaxcounty.gov/demogrph/gendemo.htm#inc>

<sup>7</sup> <http://advisorperspectives.com/dshort/updates/Median-Household-Income-Update.php>

<sup>8</sup> [http://www.fairfaxcounty.gov/dmb/adopted/fy2010/overview/18 Trends Demographics.pdf](http://www.fairfaxcounty.gov/dmb/adopted/fy2010/overview/18_Trends_Demographics.pdf) and <http://www.fairfaxcounty.gov/dmb/fy2012/advertised/overview.htm>

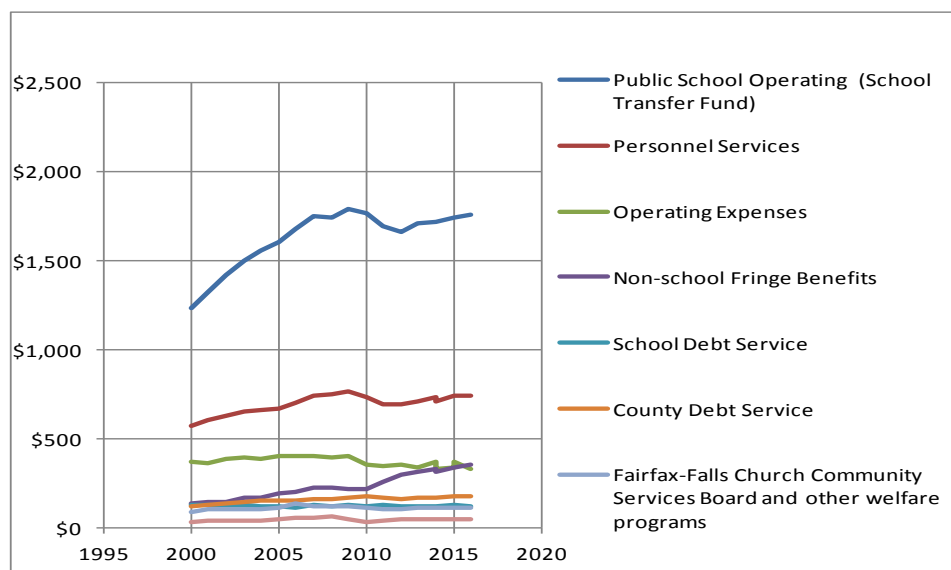


**Figure 2: The History of the Various County Revenue Streams: 1999-2014 (2014\$)**

The next question to answer is: What was done with the increased revenue? We look next at the expenditures.

*Analysis of the County Expenditures*

Of the approximately 40 expenditure streams, the school transfer fund increased the most (32%) from 2001 to 2008. As illustrated in Figure 3, the school transfer fund is the largest expenditure stream in the County budget, with non-school labor costs next. These direct-labor costs increased 25% from 2001 to 2008 while the associated non-school fringe benefits (also a labor cost) increased 48%. We can see that the much of the increased revenue was used for County-worker remuneration (salaries plus benefits).



**Figure 3: History of County Expenditures, in millions of 2014\$**

We next ask: What was done with the increased public-school transfer funds? These funds flow from the County to the Fairfax County public school system, which is free to spend the funds as it wishes.

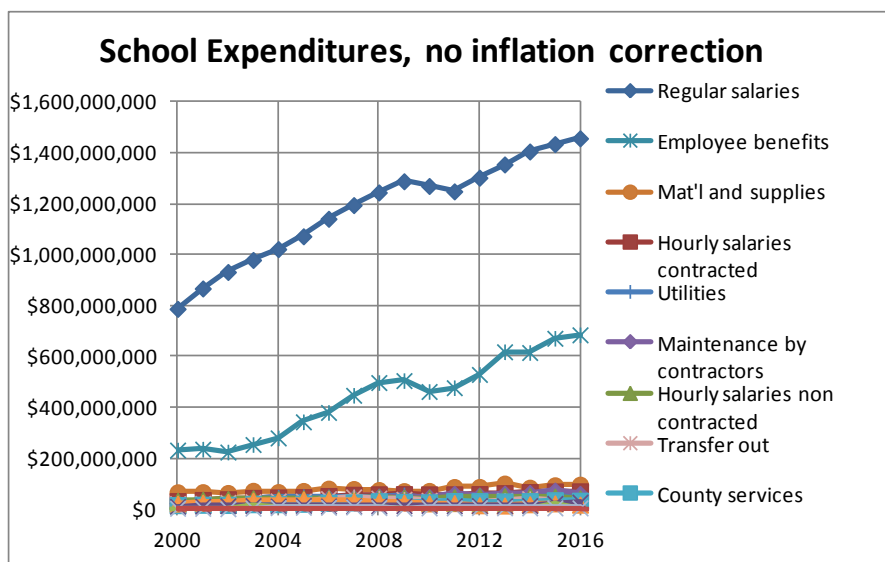
*Analysis of Public School Expenditures*

The increase in school budget was spent primarily on the instruction programs, which are dominated by labor costs. The increase in total compensation (salaries plus benefits) from 2001 to 2008 was 57%. That increase is in the largest single school expenditure stream. This increase consisted of a 44% increase in salary and a 111% increase

in benefits. These increases can be compared to the increase in the cost of living (CPI-U) of 22%<sup>9</sup>. The curve is a composite for the entire teaching staff. With people retiring and younger people being hired to replace them as the others age (a process the school system calls “relapse”), we would expect the expenditures to be constant or, at most, increasing at the inflation rate plus the enrollment rate.

In an attempt to look for justification for the large increases in salaries and benefits during the 2001-2008 housing bubble, we compiled a list of the average rates of increase in areas that might affect the demands on the teachers and other employees (Table 1). The number of ESOL students and the number of free-and-reduced-lunch students increased suddenly from 2011 to 2012 – well after the 2001-2008 increase in spending. The criteria might have changed. One ESOL parent said that her daughter is classified as ESOL because Spanish is spoken at home. English is the family’s first language.

The salary of someone with a Master’s degree at Step 9 earns close to the average teacher salary. The rate of increase from 2001 to 2008 (3.1%) exceeded the rate of increase in inflation (2.8%), but not by much. The number of employees (1.8%) and the number of teachers (2.0%) increased much faster than the number of students (0.7%). So the money seems to have spent on an enlarged staff that was, on the average, paid more and whose fringe benefits were substantially greater. Individual teachers received larger salary increases, because, during these years, they earned a step with each year of experience while the salary scale increased at the inflation rate. Except for smaller increases in the first five years, a one-step increase is accompanied by a salary increase of approximately 2.9%<sup>10</sup>; therefore, an individual teacher realized salary increases averaging 6.0% per year during this time period (3.1% plus 2.9%).



**Figure 4: The History of the Public School Expenditures: 2001-2016**

Not only did the teacher remuneration increase, but many more Assistant Principals, Supervisors, Specialists, Instructional Assistants, and Specialized Assistants were added.

The total expenditure increase in Figure 4 matches the increase shown in Figure 3; therefore, we have found where the increased revenue from 2001 to 2008 has been spent.

<sup>9</sup> We used the County’s estimate of the CPI-U for 2013 and 2014.

<sup>10</sup> Teacher compensation handbook.pdf

|  |  |  |  | Annual Rates of Increase |                 |                 |                 |                 |                 |                 |
|--|--|--|--|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  |  |  |  | 2001 to<br>2008          | 2001 to<br>2011 | 2011 to<br>2012 | 2012 to<br>2013 | 2013 to<br>2014 | 2014 to<br>2015 | 2015 to<br>2016 |
| Total student membership                               |  |  |  | 0.7%                     | 1.0%            | 1.7%            | 1.9%            | 1.5%            | 1.6%            | 0.7%            |
| ESOL enrollment  |  |  |  | 5.0%                     | 3.9%            | 23.4%           | 2.8%            | 3.5%            | 21.1%           | -10.7%          |
| Free/Reduced-Price Meal Eligible                       |  |  |  | 1.8%                     | 3.1%            | 9.3%            | 7.5%            | 1.5%            | 4.6%            | 0.0%            |
| Self-contained special education enrollment or Level 2 |  |  |  | 3.5%                     | 3.4%            | 1.7%            | 1.4%            | 2.6%            | 2.5%            | 1.6%            |
| Classroom teachers                                     |  |  |  | 2.0%                     | 1.6%            | 2.5%            | 3.5%            | -1.4%           | -1.0%           | 0.0%            |
| Salary, Masters at Step 9                              |  |  |  | 3.1%                     | 1.8%            | 1.0%            | 0.4%            | 3.0%            | 2.0%            | 1.0%            |
| Number of FCPS employees                               |  |  |  | 1.8%                     | 1.1%            | 2.8%            | 4.6%            | 0.0%            | -1.6%           | 0.0%            |
| County population                                      |  |  |  | 0.9%                     | 1.0%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.0%            |
| Housing units  |  |  |  | 1.1%                     | 0.9%            | 0.7%            | 0.7%            | 0.7%            | 0.7%            | 0.0%            |
| School budget  |  |  |  | 6.6%                     | 4.4%            | 4.3%            | 7.7%            | 2.3%            | 5.5%            | -0.5%           |
| CPI-U  |  |  |  | 2.8%                     | 2.4%            | 2.1%            | 1.4%            | 2.0%            | 2.0%            | 2.0%            |

**Table 1: Annual Rates of Increase for Budget-Related Items**