## Needs and Conditions of Virginia School Buildings

Prepared for the Commission on School Construction and Modernization June 2021



## **Overview**

- VDOE acquired data from the following sources in response to data requests from the Commission:
  - School division population projections
  - VDOE School/Building Inventory application
  - School division Capital Improvement Plans (CIP)
  - VDOE budget and financial records
  - Local reports/records from Virginia Department of General Services, Virginia Department of Housing and Community Development, and the U.S. Census
- Presentation provides a brief summary of state- and region-level results to supplement school- and division-level data provided to the Commission via Excel Workbooks



## **Summary of Primary Findings**

- Across the provided data sources, the following highlights emerged:
  - Aside from widespread enrollment declines due to COVID-19, student enrollment is expected to increase in northern Virginia and decrease in south and southwestern Virginia over the next 5 years.
  - School divisions report many schools either at/above capacity (41%) or nearing capacity (29%). Half of school buildings are more than 50 years old.
  - Capital Improvement Plans (CIP) projects total over \$9.8B, with the most common projects identified as renovations, HVAC repair/replacement, and grounds & parking lot maintenance.
  - Since COVID-19, 62% of divisions completed HVAC renovations to address deficiencies highlighted by the pandemic.
  - State financial support for school facility capital and debt service costs is limited to loan programs and a portion of state Lottery funding. For FY20, divisions reported \$1.105B in school facility capital costs, \$476.1M in debt service costs, and \$7.158B in outstanding debt on school facilities.



## Virginia's Eight Superintendent's Regions

https://www.doe.virginia.gov/directories/va\_region\_map.pdf

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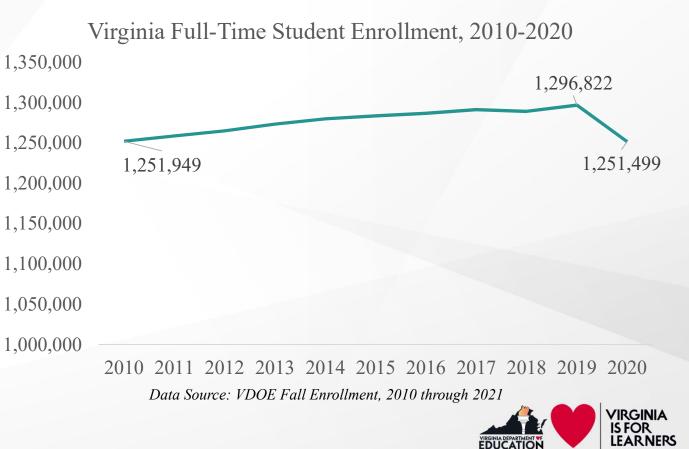


## **Student Enrollment and Projections**

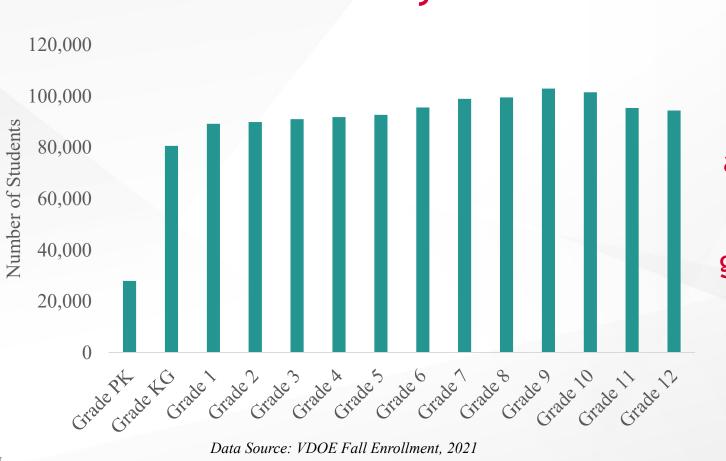


## Virginia's Student Enrollment Trend

Between 2010 and 2019, student enrollment increased by 3.6 percent, but then dropped by that same percentage within the last year due to the COVID-19 pandemic.



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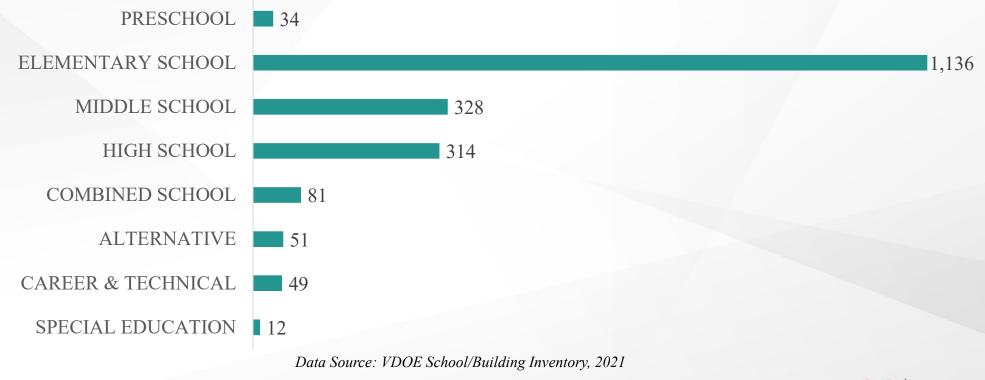


## Student Enrollment By Grade

Virginia averages approximately 95,000 students per grade between Kindergarten and Grade 12.



## Number of Virginia School Buildings by Type





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## Student Enrollment and School Density

## • Student enrollment per square mile:

- Division Minimum = 0.44 (Highland County)
- Division Maximum = 1,250 (Falls Church City)
- Division Average = 112

### • Schools per square mile:

- Division Minimum = Less than 0.01 (17 divisions)
- Division Maximum = 2.50 (Falls Church City)
- Division Average = 0.19



## **5 Year Population Projections by Region**

- Population projections by Weldon Cooper Center indicate Virginia's population will grow 4.7% by 2026
  - Nearly 8 percent increase in total population predicted for Northern Neck (Region 3) and Northern Virginia (Region 4)
  - Total population losses predicted for Southwest (Region 7) and Southside (Region 8)

| Region   | Percent Population<br>Change by 2026 |
|--|--------------------------------------|
| 1: Central Virginia                            | 5.18%                                |
| 2: Tidewater                                   | 1.92%                                |
| 3: Northern Neck<br>(including Fredericksburg) | 7.75%                                |
| 4: Northern Virginia                           | 7.91%                                |
| 5: Valley                                      | 4.49%                                |
| 6: Western Virginia                            | 0.37%                                |
| 7: Southwest                                   | -2.02%                               |
| 8: Southside                                   | -0.55%                               |
| Virginia                                       | 4.69%                                |
|  |                                      |



## 5 Year Enrollment Projections by Region

- Student enrollment projections generally align with population projections and predict 4.0% growth in total student enrollment by 2026
  - Greatest enrollment growth predicted for Northern Neck (Region 3) and Northern Virginia (Region 4)
  - Enrollment losses predicted for Western Virginia (Region 6), Southwest (Region 7) and Southside (Region 8)

| Region   | Percent Enrollment<br>Change by 2026 |
|--|--------------------------------------|
| 1: Central Virginia                            | 5.84%                                |
| 2: Tidewater                                   | 1.43%                                |
| 3: Northern Neck<br>(including Fredericksburg) | 11.08%                               |
| 4: Northern Virginia                           | 7.94%                                |
| 5: Valley                                      | 3.01%                                |
| 6: Western Virginia                            | -6.78%                               |
| 7: Southwest                                   | -10.01%                              |
| 8: Southside                                   | -7.40%                               |
| Virginia                                       | 4.03%                                |

Enrollment projections unlikely to include impacts of COVID-19 Data Source: School Construction Survey, 2021



## **School Building Conditions**



## School Building Inventory

- VDOE occasionally inventories school buildings in response to legislative inquiries
  - Data were collected for the first time in 2013 and updated in 2021 for this Commission
- In 2021, divisions reported 2,005 school buildings\*
  - 128 of 132 divisions reported data for 97 percent of school buildings
- For each building owned by the school board, the inventory collects:
  - Student capacity levels, building square footage, and site acreage
  - Year building put in service
  - Date of last major renovation and associated costs
  - Replacement value (new construction)
  - American with Disabilities Act (ADA) compliance and associated costs

\*School buildings include all elementary, middle, high, and combined schools, as well as alternative centers, career and technical centers, special education centers, and preschools.



## School Building Capacity Estimates

• Divisions reported 40.5% of school buildings being currently at or above capacity and an additional 29.4% are nearing capacity

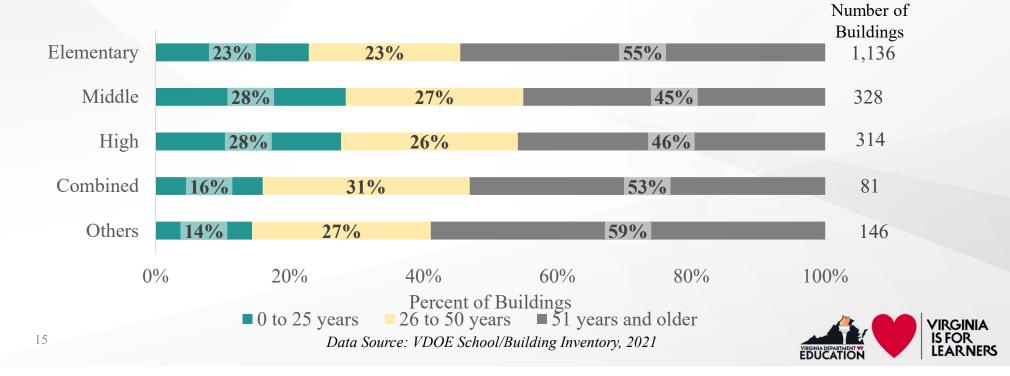
| Capacity Level                               | Number of Schools | <b>Percent of Schools</b> |
|--|-------------------|---------------------------|
| Above Capacity<br>(100% or more of capacity) | 239               | 13.65%                    |
| At Capacity<br>(85 to 99% of capacity)       | 469               | 26.80%                    |
| Nearing Capacity<br>(70 to 84% capacity)     | 515               | 29.42%                    |

Capacity is calculated by dividing the serving student enrollment count with the student building capacity count Data Source: VDOE School/Building Inventory, 2021



## School Building Age by Type

 More than half of all school buildings are greater than 50 years old



## Age of School Buildings by Region

 Regions 6, 7 and 8 have the highest median age of school buildings (58 years), while Region 3 has the lowest age (median 32 years)

| Region               | Newest<br>(Years) | Oldest<br>(Years) | Median |
|----------------------|-------------------|-------------------|--------|
| 1: Central Virginia  | 0                 | 110               | 50     |
| 2: Tidewater         | 2                 | 111               | 50     |
| 3: Northern Neck     | 2                 | 98                | 32     |
| 4: Northern Virginia | 0                 | 105               | 48     |
| 5: Valley            | 2                 | 184               | 55     |
| 6: Western Virginia  | 0                 | 101               | 58     |
| 7: Southwest         | 1                 | 107               | 58     |
| 8: Southside         | 13                | 113               | 58     |
| State                | 0                 | 184               | 52     |

Data Source: VDOE School/Building Inventory, 2021



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## Replacement Costs for School Buildings over 50 Years Old

| Usage Type | Number of Schools over<br>50 Years Old | Total Square<br>Footage | Total Replacement<br>Cost |
|------------|--|-------------------------|---------------------------|
| Elementary | 619                                    | 40,286,230              | \$10,071,557,500          |
| Middle     | 148                                    | 18,467,374              | \$4,616,843,500           |
| High       | 144                                    | 25,225,870              | \$7,567,761,000           |
| Combined   | 43                                     | 3,883,406               | \$1,165,021,800           |
| Others     | 86                                     | 4,751,318               | \$1,369,651,700           |
|            |  |                         |                           |
| Total      | 1,040                                  | 92,614,198              | \$24,790,835,500          |

Note: Replacement costs were estimated at \$250 per sq ft for schools serving PK-8 students, and \$300 per sq ft for schools serving 9-12 students, for an average costs of \$267 per sq ft for the state. At \$185 per sq ft, total replacement costs would be reduced to \$879M.



Data Source: VDOE School/Building Inventory, 2021

## Total Construction and Renovation Costs, July 2010 to May 2021

• Since July 2010, divisions reported constructing 118 new schools at a total cost of \$4.184 billion and completing 544 addition/renovation projects at a total cost of \$3.191 billion

|  | Virginia Public Schoo | l Construction and | Renovation Costs, | July 2010-May 2021 |
|--|-----------------------|--------------------|-------------------|--------------------|
|--|-----------------------|--------------------|-------------------|--------------------|

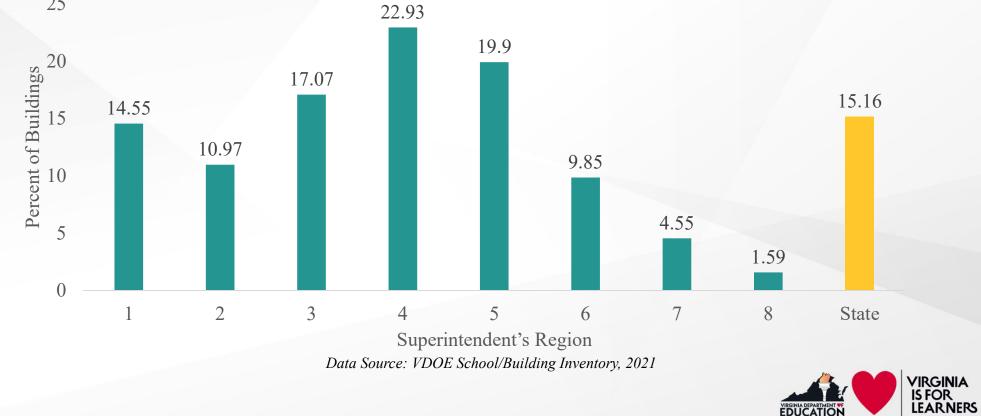
|                             | Total Number of<br>Schools | <b>Total Costs</b> | Total Square<br>Footage | Costs per<br>Square Foot |
|-----------------------------|----------------------------|--------------------|-------------------------|--------------------------|
| New Elementary Schools      | 65                         | \$1,480,215,361    | 6,352,068               | \$233.03                 |
| New Middle Schools          | 17                         | \$650,547,138      | 2,725,476               | \$238.69                 |
| New High Schools            | 21                         | \$1,402,309,778    | 5,549,672               | \$252.68                 |
| New Combined Schools        | 15                         | \$651,025,693      | 2,395,561               | \$271.76                 |
| Total New Schools           | 118                        | \$4,184,097,970    | 17,022,777              | \$254.79                 |
| Total Additions/Renovations | 544                        | \$3,191,227,290    | 24,726,994              | \$129.06                 |

*Data Source: VDOE School Construction Cost Data* 18



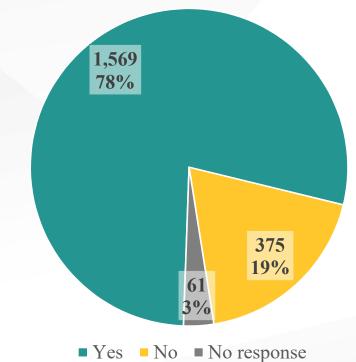
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## Percent of Buildings with Major Renovation Projects since 2015, by Region



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## Percent of School Buildings That Meet Americans with Disabilities Act (ADA) Requirements



Data Source: VDOE School/Building Inventory, 2021

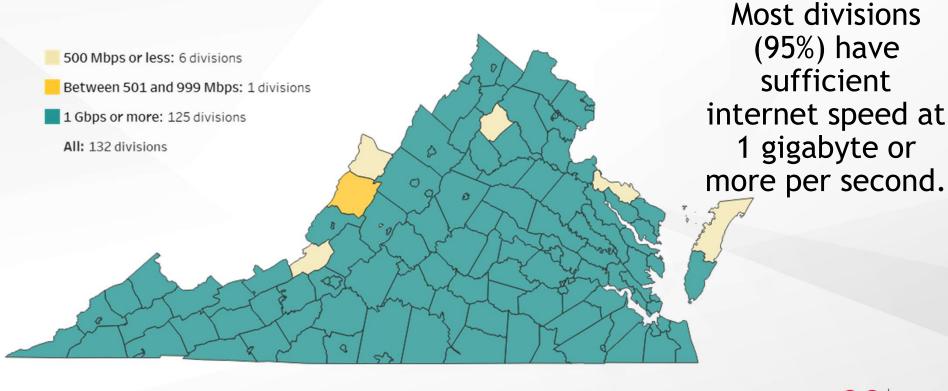
- The majority of school buildings (78%) meet ADA requirements.
- Estimated renovation costs for ADA Compliance total \$204,976,120.



## Percent of School Buildings ADA Compliant by Region



## 2021 Division On-Campus Internet Speeds





## State-level Summary: HVAC Projects and COVID-19

- 62% of school divisions have completed at least one HVAC project since March 2020 in response to COVID-19
- 12% of responding school divisions have no planned HVAC projects in response to COVID-19

| HVAC System Projects in Response to COVID-19    | Average Number of<br>Projects per Division | Total Number of<br>Projects, All Divisions |
|---|--|--|
| Number completed since March 2020               | 8  | 975  |
| Number begun but not completed since March 2020 | 8  | 942  |
| Number planned but not begun since March 2020   | 12   | 1,527                                      |
| Total   | 26   | 3,444                                      |

Note: Total counts include multiple HVAC projects per school if school has no central HVAC or multiple HVAC systems. Data Source: School Construction Survey, 2021



## Prior School Building Inventories or Conditions Surveys

- VDOE Triennial Survey, last conducted in 1995-1996:
  - More than 50% of divisions reported deferred maintenance in their schools
  - 45% of schools used temporary classrooms
  - Nearly 33% of schools had overcrowded classrooms
  - 27% of schools reported having classrooms considered obsolete
  - Estimated 7,900 new classrooms needed over the next five years
  - 63% of schools were more than 25 years old and needed major renovation or replacement
- In 2002, at the request of Governor Warner:
  - Lack of maintenance/repairs was the most frequently reported driver of construction needs
  - 65% of schools housed enrollment that was 90%-115%+ of school capacity
  - 77% of divisions reported using some type of temporary or portable classroom space (i.e., trailers) to alleviate overcrowding or due to lack of adequate instructional space
  - 59% of schools were 23 or more years old since originally built or significantly renovated



## **Capital Improvement Plans**



## Review of School Division Capital Improvement Plans

- VDOE received 117 current Capital Improvement Plans from school divisions
- VDOE staff analyzed plans up to 10 plan years (FY21 to FY30) to determine type, number, and costs of projects by school
- State-level summaries include the total number of schools with a given project type and the total project costs
- Region-level data summaries were also developed and include the number of schools with a given project type and the average (median) and total costs by project type



## **CIP** Length by Region

 Statewide, school division CIPs ranged from 1 to 27 years, with a median plan length of 5 years

| Region               | Minimum CIP Length (Years) | Maximum CIP Length (Years) |
|----------------------|----------------------------|----------------------------|
| 1: Central Virginia  | 1                          | 27                         |
| 2: Tidewater         | 1                          | 10                         |
| 3: Northern Neck     | 4                          | 10                         |
| 4: Northern Virginia | 1                          | 10                         |
| 5: Valley            | 1                          | 20                         |
| 6: Western Virginia  | 1                          | 10                         |
| 7: Southwest         | 5                          | 10                         |
| 8: Southside         | 4                          | 10                         |



## Statewide Summary of CIP Review

- The largest share of CIP estimated costs are for new schools and renovations
  - 81 new schools planned for a total cost of \$3.834B
  - 566 renovations planned for a total cost of \$3.318B
- Following renovations, school divisions most frequently planned for HVAC repair and replacement projects and grounds and parking lot projects
  - 463 HVAC projects for a total cost of \$623M
  - 353 grounds and parking lot projects for a total cost of \$128M



## School Division CIP Projects by Total Costs

| Project Type               | Number of Schools with<br>Project Type | Total Costs     |
|----------------------------|--|-----------------|
| New Schools                | 81                                     | \$3,834,076,026 |
| Renovations                | 566                                    | \$3,318,205,135 |
| HVAC Repair/Replacement    | 463                                    | \$623,451,926   |
| School Additions           | 48                                     | \$514,763,904   |
| Roof Repair/Replacement    | 344                                    | \$467,944,657   |
| Other Items*               | 171                                    | \$376,585,276   |
| Technology Upgrades        | 132                                    | \$172,340,570   |
| Electrical & Plumbing      | 226                                    | \$169,013,619   |
| Sports & Playgrounds       | 287                                    | \$161,815,993   |
| Grounds & Parking Lots     | 353                                    | \$127,645,348   |
| Safety Upgrades & Lighting | 191                                    | \$50,664,811    |

\*Other most often included transportation-related costs



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## **CIP Costs: New Schools by Region**

| Region                | Number of<br>New Schools  | New School Type  | Total Costs   | Median Costs |
|-----------------------|---|--|---------------|--------------|
| 1: Central Virginia   | 17  | 11 ES; 2 MS; 2 HS; 1 Comb; 1 Pre                       | \$593,967,376 | \$32,250,425 |
| 2: Tidewater          | 16  | 5 ES; 4 MS; 3 HS; 1 Pre; 1 Unspec; 2<br>Other Div Bldg | \$498,484,245 | \$22,000,000 |
| 3: Northern Neck      | 5   | 5 1 ES; 1 HS; 1 Comb; 1 Alt; 1 Other Div<br>Bldg       |               | \$54,322,416 |
| 4: Northern Virginia  | 31  | 31 19 ES; 4 MS: 6 HS; 1 C&T 1 Alt                      |               | \$62,172,219 |
| 5: Valley             | 3 2 ES; 1 HS  |  | \$85,000,000  | \$29,000,000 |
| 6: Western Virginia   | 0   | 0  | \$0           | \$0          |
| 7: Southwest          | 2   | 1 ES; 1 MS   | \$37,391,934  | \$18,695,967 |
| 8: Southside          | 7   | 1 ES; 3 HS; 1 Alt; 2 Other Div Bldg                    | \$214,660,000 | \$30,000,000 |
| ES: Elementary School | S: Elementary School Comb: Combined School Other Div Bldg: Other Division Building (often Central |  |               |              |

ES: Elementary SchoolComb: Combined SchoolMS: Middle SchoolAlt: Alternative SchoolHS: High SchoolC&T: Career & Technical School

Other Div Bldg: Other Division Building (often Centra Office buildings, or School Board buildings) Unspec: School Unspecified



## **CIP Costs: Renovations by Region**

| Region               | Number of<br>Schools with<br>Renovations | Total Costs     | Median Costs |
|----------------------|--|-----------------|--------------|
| 1: Central Virginia  | 36                                       | \$399,192,673   | \$345,000    |
| 2: Tidewater         | 99                                       | \$513,973,329   | \$650,000    |
| 3: Northern Neck     | 52                                       | \$111,081,406   | \$281,250    |
| 4: Northern Virginia | 170                                      | \$1,808,662,674 | \$435,833    |
| 5: Valley            | 61                                       | \$196,616,603   | \$367,248    |
| 6: Western Virginia  | 59                                       | \$182,347,652   | \$186,228    |
| 7: Southwest         | 59                                       | \$61,781,135    | \$157,760    |
| 8: Southside         | 30                                       | \$44,549,663    | \$100,000    |



## CIP Costs: HVAC Repair/Replacement by Region

| Region               | Number of Schools<br>with HVAC<br>Repairs/Replace | Total Costs   | Average (Median) Costs |
|----------------------|---|---------------|------------------------|
| 1: Central Virginia  | 34  | \$52,386,507  | \$475,000              |
| 2: Tidewater         | 91  | \$296,016,508 | \$1,200,000            |
| 3: Northern Neck     | 44  | \$19,452,900  | \$256,500              |
| 4: Northern Virginia | 113   | \$52,255,045  | \$200,000              |
| 5: Valley            | 49  | \$75,511,912  | 4,704,797              |
| 6: Western Virginia  | 39  | \$33,071,010  | 4,492,043.82           |
| 7: Southwest         | 72  | \$78,838,541  | \$184,000              |
| 8: Southside         | 21  | \$16,467,002  | \$410,000              |



## CIP Costs: School Addition by Region

| Region               | Number of Schools with<br>School Additions | Total Costs   | Average (Median)<br>Costs |
|----------------------|--|---------------|---------------------------|
| 1: Central Virginia  | 7  | \$90,544,000  | \$5,631,065               |
| 2: Tidewater         | 11   | \$139,690,277 | \$12,000,000              |
| 3: Northern Neck     | 3  | \$10,641,963  | \$697,000                 |
| 4: Northern Virginia | 12   | \$140,376,616 | \$7,953,300               |
| 5: Valley            | 8  | \$110,236,048 | \$14,535,000              |
| 6: Western Virginia  | 1  | \$450,000     | \$450,000                 |
| 7: Southwest         | 4  | \$22,425,000  | \$5,800,000               |
| 8: Southside         | 1  | \$400,000     | \$400,000                 |



## CIP Costs: Roof Repair/Replacement by Region

| Region               | Number of Schools with<br>Roof Repairs/<br>Replacement | Total Costs   | Average (Median)<br>Costs |
|----------------------|--|---------------|---------------------------|
| 1: Central Virginia  | 38   | \$29,923,810  | \$300,000                 |
| 2: Tidewater         | 64   | \$157,071,809 | \$1,425,000               |
| 3: Northern Neck     | 24   | \$64,342,254  | \$523,500                 |
| 4: Northern Virginia | 63   | \$139,999,837 | \$831,900                 |
| 5: Valley            | 51   | \$25,539,379  | \$321,000                 |
| 6: Western Virginia  | 31   | \$26,994,674  | \$497,935                 |
| 7: Southwest         | 55   | \$20,678,848  | \$261,548                 |
| 8: Southside         | 18   | \$3,394,046   | \$125,000                 |



## **CIP Costs: Other Items by Region**

| Region               | Number of Schools with<br>Other Items | Total Costs   | Average (Median)<br>Costs |
|----------------------|---------------------------------------|---------------|---------------------------|
| 1: Central Virginia  | 30                                    | \$67,253,411  | \$491,500                 |
| 2: Tidewater         | 17                                    | \$49,798,443  | \$515,000                 |
| 3: Northern Neck     | 21                                    | \$17,358,356  | \$110,000                 |
| 4: Northern Virginia | 30                                    | \$100,511,694 | \$70,000                  |
| 5: Valley            | 12                                    | \$72,840,575  | \$387,250                 |
| 6: Western Virginia  | 21                                    | \$22,085,125  | \$81,423                  |
| 7: Southwest         | 21                                    | \$27,880,500  | \$459,000                 |
| 8: Southside         | 19                                    | \$18,857,171  | \$319,366                 |

Note: The Other Items category most commonly contained transportation (i.e. buses) costs.



## CIP Costs: Technology Upgrades by Region

| Region               | Number of Schools with<br>Technology Upgrades | Total Costs  | Average (Median)<br>Costs |
|----------------------|---|--------------|---------------------------|
| 1: Central Virginia  | 8   | \$33,488,729 | \$239,428                 |
| 2: Tidewater         | 10  | \$27,123,303 | \$4,232,900               |
| 3: Northern Neck     | 23  | \$9,071,069  | \$62,070                  |
| 4: Northern Virginia | 50  | \$83,138,289 | \$35,500                  |
| 5: Valley            | 12  | \$7,261,998  | \$352,333                 |
| 6: Western Virginia  | 11  | \$5,551,732  | \$45,000                  |
| 7: Southwest         | 12  | \$5,575,000  | \$459,000                 |
| 8: Southside         | 6   | \$1,130,450  | \$107,975                 |



# CIP Costs: Electrical & Plumbing by Region

| Region               | Number of Schools with<br>Electrical & Plumbing | Total Costs  | Average (Median) Costs |
|----------------------|---|--------------|------------------------|
| 1: Central Virginia  | 17  | \$5,571,808  | \$105,072              |
| 2: Tidewater         | 33  | \$6,847,700  | \$100,000              |
| 3: Northern Neck     | 16  | \$3,858,000  | \$164,000              |
| 4: Northern Virginia | 69  | \$85,312,300 | \$116,000              |
| 5: Valley            | 23  | \$10,421,467 | \$325,000              |
| 6: Western Virginia  | 26  | \$10,721,798 | \$171,625              |
| 7: Southwest         | 28  | \$41,790,100 | \$622,150              |
| 8: Southside         | 14  | \$4,490,445  | \$66,480               |



# CIP Costs: Sports & Playground by Region

| Region               | Number of Schools with<br>Sports & Playground<br>Repairs/ Replacement | Total Costs  | Average (Median)<br>Costs |
|----------------------|---|--------------|---------------------------|
| 1: Central Virginia  | 28  | \$14,646,589 | \$125,000                 |
| 2: Tidewater         | 29  | \$43,757,487 | \$510,075                 |
| 3: Northern Neck     | 36  | \$21,294,441 | \$150,000                 |
| 4: Northern Virginia | 91  | \$31,798,977 | \$92,000                  |
| 5: Valley            | 27  | \$14,242,599 | \$150,000                 |
| 6: Western Virginia  | 25  | \$19,037,245 | \$254,000                 |
| 7: Southwest         | 41  | \$13,953,155 | \$100,000                 |
| 8: Southside         | 10  | \$3,085,500  | \$81,750                  |



# CIP Costs: Grounds & Parking Lot by Region

| Region               | Number of Schools with<br>Grounds & Parking Lot<br>Repairs | Total Costs  | Average (Median) Costs |
|----------------------|--|--------------|------------------------|
| 1: Central Virginia  | 17   | \$7,542,690  | \$120,000              |
| 2: Tidewater         | 57   | \$31,996,591 | \$159,400              |
| 3: Northern Neck     | 31   | \$13,357,650 | \$264,775              |
| 4: Northern Virginia | 117  | \$43,198,005 | \$84,583               |
| 5: Valley            | 30   | \$6,914,577  | \$135,000              |
| 6: Western Virginia  | 16   | \$2,567,617  | \$99,822               |
| 7: Southwest         | 55   | \$17,644,330 | \$141,315              |
| 8: Southside         | 30   | \$4,423,887  | \$101,500              |

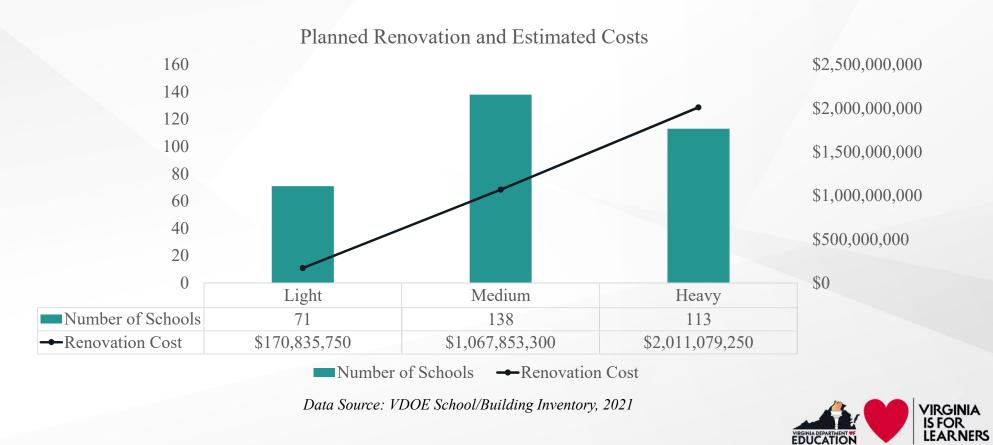


# CIP Costs: Safety Upgrades & Lighting by Region

| Region               | Number of Schools with<br>Safety Upgrades &<br>Lighting | Total Costs  | Average (Median)<br>Costs |
|----------------------|---|--------------|---------------------------|
| 1: Central Virginia  | 10  | \$2,694,000  | \$107000                  |
| 2: Tidewater         | 14  | \$2,746,000  | \$73,500                  |
| 3: Northern Neck     | 26  | \$3,897,197  | \$98,083.5                |
| 4: Northern Virginia | 82  | \$23,526,819 | \$120,000                 |
| 5: Valley            | 20  | \$11,712,099 | \$190,000                 |
| 6: Western Virginia  | 10  | \$2,538,359  | \$50,362.5                |
| 7: Southwest         | 18  | \$1,989,641  | \$69,012.5                |
| 8: Southside         | 11  | \$1,560,696  | \$110,001                 |



# Planned Renovations not Captured in CIP



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# **School Construction Funding**



# History of State Assistance for School Construction

- A 1993 JLARC report (*State/Local Relations and Service Responsibilities: A Framework for Change*) provides historical information on state support for local school construction:
  - Virginia state gov't. was active in school construction during the early 1900s. However, in the 1930s, responsibility for two major areas of infrastructure was changed with passage of the Byrd Road Act, the state took over responsibility for county road construction with the understanding that localities would be primarily responsible for school construction.
  - Federal funding was available for local school construction. In 1938, the federal government funded 45% of local construction costs. In subsequent decades, federal funding for capital costs significantly decreased to less than 1% of local costs.
  - While this level of support was not sustained, at various points during the 1940s and 1950s, the state provided localities with grants for school construction - example: state appropriations of \$45M in 1950 (\*\$504.9M in 2021 \$) and \$30M in 1952 (\*\$302.3M in 2021 \$) for local school building needs.
  - Beginning in the 1960s, the state moved primarily toward providing loans only through the Literary Fund and the new Virginia Public School Authority (VPSA). As of 1993, state aid for school construction continued to be provided in the form of loans through the Literary Fund and VPSA.

\*Based on CPI-All Urban Consumers inflation adjustment



# History of Federal Assistance for School Construction

- While historically a state/local responsibility, federal support for school construction has been through both tax policy and some grant support:
  - Favorable tax treatment of debt financing, including:
    - Federal tax-exemption on bonds issued by state/local governments to finance school construction
    - "Tax credit bonds," in which holders receive a federal tax credit in lieu of interest payments allowing state/local issuers to usually pay no interest (not currently available)
    - Tax-exempt "private activity bonds" where private entities build public school facilities financed by tax-exempt bonds

Source: Congressional Research Service, School Construction and Renovation: A Review of Federal Programs and Legislation, August 2020



# History of Federal Assistance for School Construction - Grant Assistance (1 of 2)

- During the Great Depression, the Works Progress Administration (WPA) financed 4,383 new schools and renovated thousands more in the U.S. from 1935-40.
- In 1950, federal legislation authorized funds to assist states in surveying school construction needs and the Impact Aid program was created to fund school construction in areas affected by federal activities and facilities damaged by major disasters.
- From 1989 to 2001, in response to Supreme Court rulings regarding equitable services to private school students, school districts received federal assistance for capital expenses.
- Since 1992, Federal Emergency Management Agency (FEMA) provides disaster assistance for school reconstruction following disasters.
- In 2001, a one-time \$1.2B program for emergency school renovation/repair/other activities, with over 75% of the funds designated for school facilities and targeting high poverty and rural districts. VDOE awarded \$12.4M to 17 high poverty/rural divisions for renovations in 116 schools, and \$4.2M to 14 divisions for educational technology infrastructure.

Source: Congressional Research Service, School Construction and Renovation: A Review of Federal Programs and Legislation, August 2020



# History of Federal Assistance for School Construction - Grant Assistance (2 of 2)

• In 2001, legislation provided grant support for charter school facilities.

• In 2009, the American Recovery and Reinvestment Act (ARRA) provided \$54B for the State Fiscal Stabilization Fund (SFSF), with most of the funding allocated for PreK-12 and postsecondary education. Funds could be used for modernization, renovation, or repair of public school facilities, and later guidance allowed SFSF to be used for new K-12 school construction.

 Programs providing funds to local governments/school districts to compensate for federal activities reducing local tax revenue, and can be used for school construction/renovation: U.S. DOE Impact Aid programs; Department of Interior "Payments in Lieu of Taxes" (PILT) formula program; and the U.S. Forest Service Secure Rural Schools Payments formula program, which the Code of Virginia requires be allocated to school divisions.

Source: Congressional Research Service, School Construction and Renovation: A Review of Federal Programs and Legislation, August 2020



## Use of Federal Funds for School Construction - Existing Grants & Pandemic Funds (1 of 2)

- Existing federal education funds cannot be used for large-scaled school construction and renovation. However, minor building and classroom renovations to facilitate delivery of programs (e.g., Title I, IDEA, Head Start) is permitted, and divisions occasionally use these federal funds this way.
- The primary source of pandemic federal funds for PreK-12 the ESSER funds may be used for school construction & renovation, but current federal guidance emphasizes using the funds to modify school facilities to increase social distancing, facilitate cleaning, and improve ventilation/air quality (i.e., HVAC upgrades). VDOE has approved divisions using their ESSER funds for such purposes.



## Use of Federal Funds for School Construction - Existing Grants & Pandemic Funds (2 of 2)

- May guidance from U.S. DOE clarifies that ESSER (and GEER) funds may be used for new school construction with various conditions and with state approval, but is discouraged due to the time involved and since may limit divisions' ability to respond to more immediate COVID-19 needs.
- The guidance says construction activities with ESSER/GEER funds must meet various standards and requirements - i.e., "to prevent, prepare for, and respond to COVID-19", that costs be "necessary and reasonable", and projects meet various federal requirements governing construction expenditures.



# Recent State Funding Support for School Facilities

- The next several slides summarize more recent sources of state support for school construction/renovation/maintenance in Virginia:
  - Standards of Quality (SOQ) funding formula for operations & maintenance and facilities (non-capital costs)
  - Previous state Maintenance Supplement grants
  - Previous state School Construction grants
  - Previous and then Resumed Lottery funding for division "Nonrecurring Costs" such as school facilities



# SOQ Funding for Facilities and Operations and Maintenance

- The Standards of Quality (SOQ) funding formula does not include support for division capital outlay or debt service costs.
- However, the Basic Aid per pupil formula does provide <u>non-capital</u> support for Operations & Maintenance and Facilities.
  - Funding is provided on a "prevailing cost" basis in these two areas for staffing and non-capital items such as utilities, insurance, and materials and supplies.
- Estimated state share of funding in the FY22 Basic Aid formula is \$628.4M for Operations & Maintenance and only \$790K for Facilities. SOQ funding changes made during the 2008-10 recession reduced funding provided for the Facilities category.



# Previous State Maintenance Supplement Grants

- From FY93-FY02, "Maintenance Supplement" funding was appropriated to support public school facilities.
  - General funds were provided to divisions on a per pupil basis for ongoing maintenance needs or debt service payments. The funds were distributed using the composite index and required a local match.
- This funding was provided through FY02, at approx. \$9.5M per year for the last several years it was appropriated.



## **Previous State School Construction Grants**

- Beginning in FY99, \$55.0M per year GF was appropriated for grants to divisions for public school facilities. Funding reduced to \$27.5M per year from FY03-FY09.
  - Funding distributed based on a "floor" of \$200K per division (\$100K FY03 thereafter), with remainder of funds distributed based on the division's proportion of enrollment weighted by the composite index.
  - Funds used only for "nonrecurring expenditures" defined as: "school construction, additions and renovations, infrastructure, site acquisition, technology, other expenditures related to modernizing classroom equipment, payments to escrow accounts, school safety equipment or renovations, and debt service payments on projects completed during the last ten years."
- This funding ended after FY09 during the recession.



# Previous Lottery Funds for "Non-recurring Costs"

- From FY99 to FY10, Lottery proceeds were allocated to divisions, with at least 50 percent to be spent for "non-recurring costs."
  - Non-recurring costs included: "school construction, additions, infrastructure, site acquisition, renovations, technology, and other expenditures related to modernizing classroom equipment and debt service payments on school projects completed in the last 10 years."
  - Funds were distributed on a per pupil basis, adjusted for the division composite index, and required a local match (but not in FY10).
  - This funding was discontinued after FY10 during the recession.



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# Previous Lottery Funds for "Non-recurring Costs"

• The funding amounts provided from Lottery from FY99 to FY10 (with at least 50% spent by divisions on "nonrecurring" costs) were as follows:

FY99 = \$123.5M FY00 = \$125.5M FY01 = \$122.3M FY02 = \$144.6M FY03 = \$158.2M FY04 = \$146.2M FY05 = \$156.5M FY06 = \$160.4M FY07 = \$155.4M FY08 = \$149.0M FY09 = \$132.2M FY10 = \$72.4M



## Lottery Funds Resumed for "Non-recurring Costs" But Flexible

- In FY17, the state resumed allocating per pupil Lottery funds to divisions through a "flexible" funding program.
  - Funds were allocated based on ADM and adjusted for the composite index. School divisions were permitted to spend the funds on both recurring and nonrecurring expenses *"in a manner that best supported the needs of the divisions."* No local match was required. These provisions were in place from FY17-FY20.

#### • Total Lottery funding provided under this approach was:

- FY17 = \$36.6M
- FY18 = \$191.3M
- FY19 = \$253.2M
- FY20 = \$255.5M



# Current 2020-22 Lottery Funds for "Non-recurring Costs"

- For 2020-22 (Chp. 552), 40% of Lottery is designated for the per pupil formula allocation to school divisions (\$283.3M in FY21 & \$276.4M in FY22). Several changes compared to the FY17-FY20 flexible funding, incl. reinstating required % for "non-recurring" uses:
  - Small divisions receive a minimum of \$200K in funding.
  - A local match of funding based on the composite index is required beginning in FY22.
  - At least 30% in FY21 and 40% in FY22 must be spent on "nonrecurring" costs (i.e., school construction, additions, infrastructure, site acquisition, renovations, school buses, technology, other expenditures for modernizing classroom equipment, and debt service payments on projects completed during the last 10 years).



# Debt Financing and School Facilities Spending



# Previous Information on School Construction Needs and Debt

#### • From 2002 statewide survey:

- \$5.33B in outstanding debt reported for school buildings
- Debt service for school buildings in FY02 was \$607M and est. \$633M for FY03
- New debt issued for school buildings in FY03 est. at \$829M
- Reported \$4.76B in school construction needs for FY 2003-08, with \$4.07B to be financed by debt and \$0.68B by cash/direct appropriation
- Reported an additional \$2.60B in unfunded construction needs expected to go unmet



# Local Approaches to Financing School Facilities

- Local school boards have the responsibility "for erecting, furnishing, equipping, and non-instructional operating of necessary school buildings..." (Sec. 22.1-79, COV). School boards in Virginia do not have taxing power or the ability to issue debt.
- Common financing approaches used locally in Virginia for school capital projects are:
  - Cash/direct appropriation (current local revenues and/or allowable state/federal funds)
  - Bank Loans
  - Bonds



# Local Approaches to Financing School Facilities - Bonds

- Types of Bonds
  - General Obligation Bonds issued directly by locality (voter approval in counties).
  - Subject to Appropriation Bonds (issued through local Economic/Industrial Development Authority) the IDA/EDA borrows the funds to construct the school and leases it to the school division; annual division appropriations cover the lease payments.
  - Virginia Public School Authority state authority authorized to issue its own bonds and use the proceeds to buy public school obligations issued by Virginia localities making up the "pool." The Pooled Bond Program offered each fall/spring offers localities access to the bond market at rates below what they could achieve on their own credit. (State Treasurer has provided the Commission more detailed information on recent division use of this program).

An interest rate subsidy component provides a direct cash grant from the Literary Fund to school divisions, in addition to the bond proceeds issued by the VPSA, so that the effective interest rate paid on the VPSA loan is equivalent to the interest rate they would have paid on a direct Literary Fund loan (subsidy component currently suspended).

• Literary Fund loans



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## Local Approaches to Financing School Facilities - Literary Fund Loans

- Literary Fund a revolving loan fund administered by the BOE providing low-interest loans for school construction & renovation for projects on the First Priority Waiting List (\$7.5M per project loan limit; \$20M cap on outstanding loans per division; interest rate from 2%-6% based on division Composite Index)
- When Literary Fund principal is at least \$80M, the General Assembly may use additional funds for other public school purposes - the majority of Literary Fund revenue in past years has been used for state's share of teacher retirement required by the SOQ and for debt service on VPSA notes issued for the educational technology and school security equipment grants to divisions - this limits the on-going availability of funds for direct construction loans.



# State Summary: Debt Financing Mechanisms

• While local general obligation bonds are most frequently reported, 32% of divisions indicate that their local government rarely issues debt to finance school construction and renovation

| Debt Financing Mechanism  | <b>Count of Divisions</b> | <b>Percent of Divisions</b> |
|---|---------------------------|-----------------------------|
| Local general obligation bonds issued by the local government on behalf of the school division                    | 69                        | 53.1%                       |
| Local general obligation bonds sold to the Virginia Public<br>School Authority (VPSA) via the Pooled Bond Program | 63                        | 48.5%                       |
| Bank Loans  | 15                        | 11.5%                       |
| Literary Fund Loans   | 14                        | 10.7%                       |
| Bonds issued by the local Economic/Industrial Development<br>Authority (EDA/IDA) for school Construction          | 13                        | 10.0%                       |

N = 130 responding school divisions Data Source: School Construction Survey, 2021



# Division Spending for O&M, Facilities, & Debt Service, & Outstanding Debt - FY 20

- School divisions' FY20 expenditures for building operations & maintenance, facilities, and debt service were:
  - Operations & Maintenance (Buildings):
    - Non-capital = \$1.292B
    - Capital = \$29.8M
    - Total = \$1.321B
  - Facilities:
    - Non-capital (salaries, benefits, supplies, etc.) = 181.5M
    - Capital = 1.075B
    - Total = 1.257B
  - Debt Service
    - Principal/interest payments = \$476.1M
- Divisions reported outstanding debt at the end of FY20 of \$7.158B (i.e., debt attributable to the division on either the books of the division or the locality)



63 Data Source: FY20 Annual School Report

## Amount of Outstanding Locality Debt and Stress on Locality Budget

- Outstanding debt for Virginia localities in FY19 for <u>all</u> local government functions (*per APA Comparative Cost Report*) was:
  - Statewide total all localities = \$53.372B
  - Average per locality = \$398.3M
  - Average per capita = \$4,808
- APA also publishes local stress measures related to volume of outstanding locality debt:
  - Outstanding debt as a % of local tax base (taxable real estate and personal property) - avg.=1.6%; min.=0.0%; max.=8.6%
  - % of operating budget used for debt service avg.=9.2%; min.=0.0%; max.=42.1%



## Amount of Outstanding Locality Debt and Stress on Locality Budget

- The Comm. on Local Gov. publishes a "fiscal stress index" indicating localities' ability to generate additional local revenues relative to the rest of the state.
  - A composite score based on revenue capacity per capita, revenue effort, and median household income.
  - State average index value is 100, with greater than 100 above state average fiscal stress and less than 100 below average stress.
  - For FY18, the locality values range from 90 to 108, with the county average 99 and the city average 103.



## Relationships among Community Wealth Indicators

Virginia Department of Education 2020-2022 Composite Index 2019-2020 Free Lunch Eligibility Percent

#### Virginia Department of Taxation

Tax Year 2019 Total Fair Market Value of Real Estate Tax Year 2019 Real Estate Tax Rate per \$100

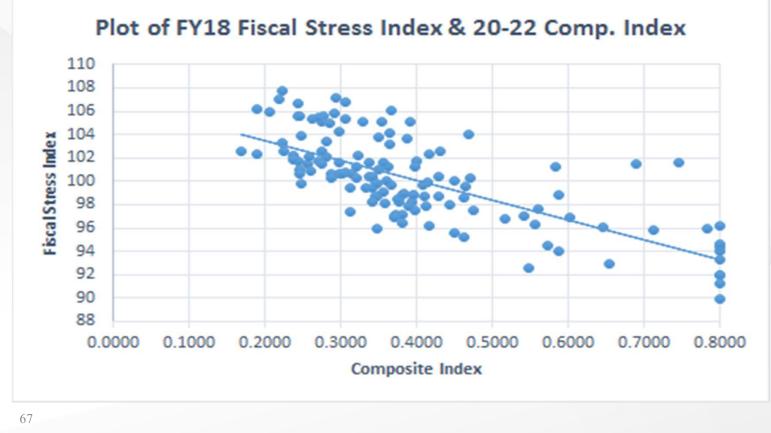
#### Auditor of Public Accounts/Commission on Local Government

Fiscal Year 2019 Total Outstanding Debt of the Locality Fiscal Year 2018 Fiscal Stress Index Value (COLG) Fiscal Year 2018 Debt Outstanding as a Percent of Locality's Fair Market Value of Total Taxable Real Estate and Personal Property (Local Fiscal Stress Ratio #5) Fiscal Year 2018 Percent of the Operating Budget Used for Annual Debt Service (Local Fiscal Stress Ratio #9)

#### **U.S. Census Bureau** Percentage of All Persons in Poverty

VIRGINIA IS FOR LEARNERS

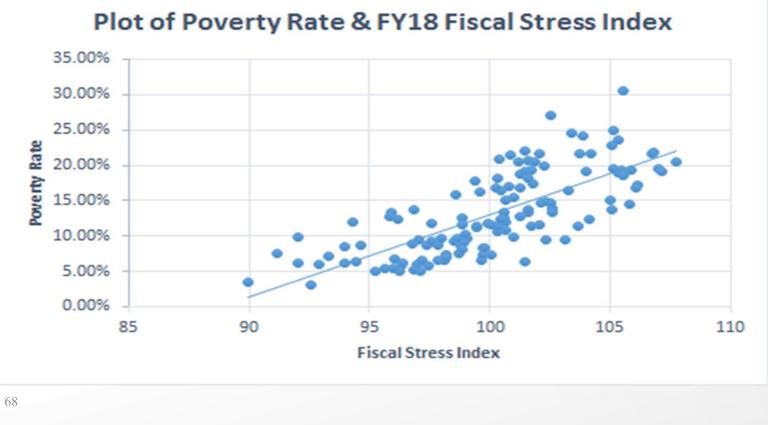
# Higher fiscal stress among localities with lower ability to pay (Composite Index)





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# Higher fiscal stress among localities with higher poverty





### Moderate relationship between ability to pay (Composite Index) and percent of students qualifying for free lunch program





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# No relationship between community poverty rate and real estate tax rate





## Other State Resources: School Division Efficiency Reviews & "M-R FIX" Tool (1 of 2)

- The efficiency review program, begun in 2004 and managed by DPB, identifies ways divisions can realize cost savings in noninstructional operations that can be redirected to classroom activities. DPB has identified best practices from past reviews divisions may replicate.
  - One of the operational areas reviewed is "facilities use and management," which could identify savings redirected to facility capital improvements.
  - Examples of best practices in the Facilities area include: using performance measures and peer/industry benchmarks for costs, efficiency, and staff ratios; energy management practices; school capacity reviews and enrollment projections; prototype school designs; tracking historical costs; inventory controls and automated work order systems; preventive maintenance programs; sharing resources/functions with local gov't./other divisions; creating master plans and on-going condition assessments.



## Other State Resources: School Division Efficiency Reviews & "M-R FIX" Tool (2 of 2)

- DGS has developed a facility conditions assessment tool the Maintenance Reserve Facilities Index or "M-R FIX" - that indexes the age, condition, and uses of state facilities and can be used in allocating facilities funding based on facility needs.
  - Such a tool could be used at the state or local level to assess the condition and needs of school facilities and in making funding allocation decisions.

