

Appendix D: Federal funding to address effects of pandemic

The state and school divisions have started to address COVID-19 related impacts to students and staff, primarily using one-time federal funding. The federal government has directed significant funding to school divisions and states to support schools and mitigate the impact that the COVID-19 pandemic has had on public education. This funding was part of three stimulus bills passed in 2020 and 2021: the Coronavirus Aid, Relief, and Economic Security Act (CARES); the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA), and the American Rescue Plan Act (ARPA). Funding from each of these bills was provided to the Elementary and Secondary School Emergency Relief (ESSER) and Governor’s Emergency Education Relief (GEER) funds.

In total, Virginia received approximately \$3.3 billion in federal COVID-19 relief funding (Table D-1). The amount of federal funding the state received is in proportion to the amount of funding it receives under Title I-A of the Elementary and Secondary Education Act (ESEA). The state is required to distribute at least 90 percent (\$3.0 billion) of federal funding to school divisions, while the remaining 10 percent (\$329 million) can be used by the Virginia Department of Education (VDOE). The amount of funding each school division received is also based on its proportional share of funding under ESEA Title I-A, and ranged from \$322,000 (West Point) to \$189 million (Fairfax County).

TABLE D-1

Virginia has received nearly \$3.3 billion in federal pandemic relief funding

	Total allocation
CARES	\$239M
CRRSA	939
ARPA	2,109
Total	3,287

SOURCE: NCSL Elementary and Secondary School Emergency Relief Fund Tracker.

NOTE: CARES = Coronavirus Aid, Relief, and Economic Security Act. CRRSA = Coronavirus Response and Relief Supplemental Appropriations Act. ARPA = American Rescue Plan Act.

Beyond a few requirements, school divisions can use federal COVID-19 relief funding at their own discretion. Among other things, funding can be used for health and safety measures, school construction and renovations, teacher salaries, and interventions to address student needs. Funding provided through CARES and CRRSA was generally aimed at supporting schools while they were navigating disruptions to in-person instruction, while ARPA funding was aimed more at addressing the impacts of the pandemic. As such, at least 20 percent of ARPA funding must be used by school divisions to address learning loss that resulted from lost instructional time. School divisions need to obligate funding by September 30, 2024.

School divisions and VDOE are required to report to the federal government how they plan to use federal pandemic relief funding. In general, VDOE has used federal relief funding to expand access to technology, develop resources to support virtual learning, develop a formative assessment to measure learning loss, implement strategies to address learning loss, and support school staff recruitment

efforts. Likewise, school divisions have used funding to implement health and safety measures, conduct school construction and renovations, pay salaries, increase salaries, expand staff recruitment efforts, and implement interventions to address learning loss.

The 2022 General Assembly required VDOE to report on divisions' plans regarding remaining federal funds (2022 Appropriation Act Item #137.B.31). The Act requires VDOE to "prescribe the format and timeline required for the reporting of such information, which shall include obligated and unobligated amounts, planned uses and planned timing for the use of the remaining obligated and unobligated amounts." VDOE is directed to submit the report to the money committees no later than September 1, 2023 and September 1, 2024.

Appendix E: Chronic absenteeism data

This appendix provides data on chronic absenteeism by grade level, student subgroups, and school division. This data was used to examine the extent to which the pandemic affected K–12 student attendance (Chapter 2). Comparing pre-pandemic trends to results from pandemic-era school years can provide understanding of how the pandemic affected chronic absenteeism in Virginia.

Students are considered chronically absent if they miss 10 percent or more days in the school year (approximately 18 of 180 days in a typical school division). This includes excused absences, unexcused absences, suspensions, and quarantining due to COVID-19. Chronic absenteeism is the primary measure available for assessing attendance statewide. In 2017, the Virginia Board of Education added chronic absenteeism to the state’s Standards of Accreditation as an indicator of school quality.

TABLE E-1
Change in chronic absenteeism rates by grade level

Grade level	% of students chronically absent				% point change pre-pandemic to SY22
	Pre-pandemic average	SY20	SY21	SY22	
K–5	8%	10%	12%	18%	10%
6–8	10%	11%	9%	19%	9%
9–12	16%	15%	11%	24%	9%
All students	11%	12%	11%	20%	9%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. SY22 = 2021–22 school year. Pre-pandemic average represents a five-year average rate of chronic absenteeism from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22.

TABLE E-2
Change in chronic absenteeism rates by student subgroup

% of students chronically absent					
Student subgroup	Pre-pandemic average	SY20	SY21	SY22	% point change pre-pandemic to SY22
Asian	6%	8%	3%	11%	5%
Black	13%	14%	18%	25%	12%
Hispanic	12%	14%	14%	25%	13%
White	10%	11%	8%	17%	7%
EDS	16%	17%	19%	30%	14%
Non-EDS	7 %	8 %	5 %	12%	5 %
ELL	11%	13%	14%	23%	12%
Non-ELL	11%	12%	11%	20%	9 %
SWD	17%	17%	16%	26%	10%
Non-SWD	10%	11%	10%	19%	9 %
All students	11%	12%	11%	20%	9%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. SY22 = 2021–22 school year. Pre-pandemic average represents a five-year average rate of chronic absenteeism from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K-12 enrollment. 11. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students that receive special education and related services under the Individuals with Disabilities Education Act.

TABLE E-3
Change in chronic absenteeism rates by school division

% of students chronically absent					
Division	Pre-pandemic average	SY20	SY21	SY22	% point change pre-pandemic to SY22
Accomack County	10%	14%	21%	17%	7%
Albemarle County	7%	10%	5%	16%	9%
Alexandria City	10%	8%	32%	23%	12%
Alleghany County	16%	24%	23%	41%	25%
Amelia County	17%	13%	6%	22%	5%
Amherst County	16%	12%	26%	26%	10%
Appomattox County	10%	11%	29%	18%	8%
Arlington County	6%	9%	5%	9%	4%
Augusta County	10%	11%	7%	17%	7%
Bath County	12%	14%	10%	20%	8%
Bedford County	10%	9%	17%	15%	5%
Bland County	15%	12%	4%	17%	2%

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Botetourt County	6%	6%	6%	8%	2%
Bristol City	22%	19%	26%	35%	13%
Brunswick County	20%	19%	14%	26%	6%
Buchanan County	21%	18%	31%	33%	12%
Buckingham County	18%	20%	3%	29%	12%
Buena Vista City	13%	16%	19%	27%	14%
Campbell County	9%	9%	6%	16%	7%
Caroline County	21%	24%	20%	28%	7%
Carroll County	9%	8%	12%	14%	5%
Charles City County	14%	21%	13%	38%	24%
Charlotte County	17%	14%	13%	23%	6%
Charlottesville City	9%	10%	10%	19%	9%
Chesapeake City	7%	7%	9%	19%	12%
Chesterfield County	8%	12%	9%	20%	12%
Clarke County	12%	14%	5%	24%	12%
Colonial Beach	6%	8%	17%	13%	7%
Colonial Heights City	13%	17%	18%	17%	4%
Covington City	19%	28%	23%	47%	28%
Craig County	10%	11%	32%	40%	30%
Culpeper County	11%	10%	9%	34%	23%
Cumberland County	16%	19%	2%	34%	19%
Danville City	17%	19%	23%	28%	10%
Dickenson County	26%	19%	17%	43%	17%
Dinwiddie County	15%	11%	27%	28%	13%
Essex County	12%	12%	36%	23%	11%
Fairfax County	9%	10%	5%	15%	7%
Falls Church City	5%	5%	3%	8%	3%
Fauquier County	6%	9%	4%	15%	9%
Floyd County	10%	12%	14%	31%	21%
Fluvanna County	16%	18%	15%	42%	27%
Franklin City	16%	24%	39%	52%	36%
Franklin County	16%	11%	17%	18%	2%
Frederick County	13%	12%	11%	21%	8%
Fredericksburg City	8%	11%	70%	36%	28%
Galax City	12%	8%	20%	18%	6%
Giles County	14%	15%	7%	13%	0%
Gloucester County	13%	15%	11%	14%	1%
Goochland County	10%	10%	8%	13%	3%
Grayson County	16%	10%	10%	15%	-1%
Greene County	15%	15%	10%	21%	6%
Greensville County	25%	18%	18%	28%	3%
Halifax County	13%	14%	7%	44%	31%
Hampton City	15%	14%	10%	19%	5%
Hanover County	4%	6%	5%	8%	4%
Harrisonburg City	13%	14%	20%	29%	16%
Henrico County	10%	10%	10%	19%	9%
Henry County	11%	12%	14%	21%	10%

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Highland County	23%	31%	16%	26%	2%
Hopewell City	12%	18%	21%	39%	27%
Isle of Wight County	9%	12%	8%	30%	21%
King and Queen County	16%	17%	5%	21%	6%
King George County	14%	13%	10%	21%	7%
King William County	16%	15%	11%	16%	0%
Lancaster County	22%	18%	15%	26%	4%
Lee County	22%	21%	13%	31%	9%
Lexington City	6%	6%	4%	7%	1%
Loudoun County	7%	10%	5%	13%	6%
Louisa County	10%	9%	5%	10%	1%
Lunenburg County	16%	14%	10%	15%	-1%
Lynchburg City	14%	15%	33%	29%	15%
Madison County	9%	9%	10%	19%	11%
Manassas City	15%	18%	12%	23%	8%
Manassas Park City	10%	13%	16%	25%	16%
Martinsville City	16%	11%	5%	28%	12%
Mathews County	13%	13%	13%	25%	12%
Mecklenburg County	16%	14%	6%	35%	19%
Middlesex County	14%	12%	14%	24%	10%
Montgomery County	10%	12%	12%	17%	7%
Nelson County	12%	14%	7%	35%	23%
New Kent County	10%	16%	5%	25%	16%
Newport News City	15%	15%	23%	28%	14%
Norfolk City	16%	17%	17%	24%	8%
Northampton County	18%	18%	14%	33%	15%
Northumberland County	15%	12%	29%	29%	15%
Norton City	19%	19%	9%	31%	13%
Nottoway County	17%	18%	29%	26%	9%
Orange County	14%	13%	27%	38%	24%
Page County	13%	19%	5%	29%	16%
Patrick County	11%	10%	5%	14%	3%
Petersburg City	24%	28%	33%	39%	15%
Pittsylvania County	13%	13%	7%	20%	7%
Poquoson City	6%	11%	5%	13%	7%
Portsmouth City	16%	17%	29%	30%	14%
Powhatan County	8%	7%	6%	15%	7%
Prince Edward County	18%	19%	36%	35%	16%
Prince George County	12%	13%	14%	32%	20%
Prince William County	12%	14%	5%	21%	9%
Pulaski County	13%	12%	25%	21%	8%
Radford City	10%	12%	6%	9%	-2%
Rappahannock County	26%	14%	4%	28%	2%
Richmond City	19%	18%	16%	28%	9%
Richmond County	9%	10%	4%	15%	6%
Roanoke City	17%	15%	29%	27%	10%
Roanoke County	7%	8%	5%	14%	7%

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Rockbridge County	17%	10%	5%	29%	12%
Rockingham County	7%	10%	9%	26%	19%
Russell County	18%	14%	4%	27%	9%
Salem City	8%	9%	9%	19%	10%
Scott County	11%	9%	14%	21%	9%
Shenandoah County	12%	14%	10%	36%	24%
Smyth County	16%	15%	14%	23%	6%
Southampton County	12%	7%	3%	20%	8%
Spotsylvania County	13%	13%	31%	25%	12%
Stafford County	8%	11%	7%	17%	8%
Staunton City	11%	17%	19%	31%	20%
Suffolk City	11%	16%	17%	27%	16%
Surry County	9%	9%	15%	30%	21%
Sussex County	21%	16%	28%	26%	5%
Tazewell County	22%	15%	7%	54%	32%
Virginia Beach City	9%	10%	11%	18%	10%
Warren County	20%	18%	16%	33%	14%
Washington County	14%	13%	11%	21%	7%
Waynesboro City	12%	15%	33%	26%	14%
West Point	11%	10%	2%	15%	4%
Westmoreland County	16%	13%	11%	22%	6%
Williamsburg-James City County	11%	12%	13%	15%	5%
Winchester City	14%	14%	12%	28%	13%
Wise County	16%	14%	11%	19%	3%
Wythe County	13%	12%	15%	32%	19%
York County	7%	8%	4%	13%	6%
Statewide	11%	12%	11%	20%	9%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. SY22 = 2021–22 school year. Pre-pandemic average represents a five-year average rate of chronic absenteeism from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22.

Appendix F: Virginia student performance prior to the pandemic

Appendix F shows Virginia students' academic performance and achievement across several key indicators for the school years before the pandemic. Examining student performance before the pandemic is important for understanding (i) where Virginia students stood before the impacts of the pandemic and (ii) the magnitude of the impacts of the pandemic relative to changes that had previously been occurring.

Overall, Virginia students' academic performance remained relatively stable before the pandemic, with the exception of reading among younger students, which was declining slightly across several indicators.

- The proportion of kindergarten students meeting the benchmark for Virginia's **Phonological Awareness Literacy Screening (PALS)** assessment was declining about 1 to 2 percentage points annually in years before the pandemic (2016–17 to 2018–19).
- Student performance on **Virginia's Standards of Learning assessments (SOLs)** remained relatively stable year-to-year before the pandemic across tests from different grade levels and subject areas. However, third-grade reading SOL scores did decline by 0.8 percent on average annually during the five years before the pandemic.
- Statewide **graduation, dropout, and grade retention rates** were relatively unchanged during the five school years before the pandemic (2014–15 to 2018–19).
- Virginia students' performance on the **National Assessment of Educational Progress (NAEP) tests** mostly mirrored national trends prior to the pandemic (2010–11 to 2018–19). Scores were declining slightly for students in both Virginia and nationally, on average, in fourth- and eighth-grade reading and eighth-grade math; fourth-grade math scores were improving in Virginia and were relatively steady nationwide.

PALS performance

Kindergarten students' performance on the PALS assessments was generally declining before the pandemic (2015–16 to 2018–19). The proportion of kindergarten students that met PALS benchmarks generally declined year-to-year before the pandemic, declining 1 percent annually on average, respectively (Table F-1).

TABLE F-1
Kindergarten PALS performance was generally declining before pandemic

Indicator	2015–16	2016–17	2017–18	2018–19	4-year annual change	2020–21	2021–22	PPA average pass rate	2021–22 vs. PPA
% Kindergarteners meeting PALS benchmark	85%	84%	83%	82%	-1.0%	73%	74%	84%	-10%

SOURCE: JLARC analysis of PALS data, 2015–16 to 2021–22.

NOTE: PPA = Pre-pandemic average (i.e., average score from 2015–16 to 2018–19). 4-year annual change represents the average annualized change in scores across the four school years prior to the pandemic.

SOL scores

SOL scores remained relatively stable across subjects and grade levels during the five school years before the pandemic (2014–15 to 2018–19) (Table F-2). Statewide third-grade reading scores experienced the most meaningful average annual decline during that time period, at 0.8 percent annually. Conversely, third-grade math scores were improving at the greatest rate during that period, 0.5 percent annually.

TABLE F-2
SOL test scores were relatively stable prior to the pandemic

Indicator	2014–15	2015–16	2016–17	2017–18	2018–19	5-year annual % change	2021–22	PPA average score	2021–22 vs. PPA % change
3 rd grade reading	440	431	433	430	426	-0.8%	419	432	-3.0%
3 rd grade math	436	437	432	429	444	0.5%	417	436	-4.4%
5 th grade science	445	450	445	444	442	-0.2%	411	445	-7.7%
8 th grade reading	429	432	433	432	429	-0.1%	423	431	-1.8%
8 th grade math	424	421	422	419	428	0.2%	399	423	-5.6%
8 th grade science	436	436	437	434	436	0.0%	408	436	-6.4%
8 th grade writing	439	439	444	441	438	-0.1%	408	440	-7.3%

SOURCE: JLARC analysis of VDOE data, 2014–15 to 2021–22.

NOTE: PPA = Pre-pandemic average (i.e., average score from 2014–15 to 2018–19). 5-year annual change represents the average annualized change in scores across the five school years prior to the pandemic.

NAEP scores

NAEP scores were generally declining slightly in Virginia and nationwide during the five testing periods before the pandemic (2010–11 to 2018–19). Virginia's fourth-grade reading scores experienced an average annual decline of 0.2 percent over the five testing periods prior to the pandemic, similar to the nationwide trend of a 0.1 percent average annual decline (Table F-3). Likewise, Virginia's eighth-grade math scores were declining at the same rate as national scores, 0.2 percent annually. Virginia's eighth-grade reading scores were declining before the pandemic faster than the national average (-0.5 percent annually vs. -0.2 percent annually). Finally, Virginia's fourth-grade math scores were increasing by an average of 0.2 percent annually compared with nationwide scores that remained stable.

TABLE F-3
NAEP scores were declining slightly in Virginia and nationwide prior to the pandemic

Indicator	2010–	2012–	2014–	2016–	2018–	Pre-pandemic	2021–	PPA average	2021–22 vs.
	11	13	15	17	19	average annual % change	22	rate	PPA % change
VA 4 th grade reading	226	229	229	228	224	-0.2%	214	227	-5.8%
National 4 th grade reading	220	221	221	221	219	-0.1%	216	220	-2.0%
VA 4 th grade math	245	246	247	248	247	0.2%	236	247	-4.3%
National 4 th grade math	240	241	240	239	240	0.0%	235	240	-2.1%
VA 8 th grade reading	267	268	267	268	262	-0.5%	260	266	-2.4%
National 8 th grade reading	264	266	264	265	262	-0.2%	259	264	-2.0%
VA 8 th grade math	289	288	288	290	287	-0.2%	288	288	-3.3%
National 8 th grade math	283	284	281	282	281	-0.2%	282	282	-3.3%

SOURCE: JLARC analysis of National Center of Education Statistics data, 2011–2022.

NOTE: PPA = Pre-pandemic average (i.e., average score from 2010–11 to 2018–19). 5-year annual change represents the average annualized change in scores across the five school years prior to the pandemic

Graduation, dropout, and grade retention rates

Virginia’s statewide graduation, dropout, and grade retention rates remained relatively stable before the pandemic (2014–15 to 2018–19). The statewide graduation rate improved slightly year-to-year, on average, at 0.2 percent annually (Table F-4). The statewide dropout rate worsened slightly, with high school dropouts increasing by an average of 0.1 percent annually. The statewide grade retention rate improved slightly, averaging 0.1 percent fewer students each year.

TABLE F-4
Graduation, dropout, and grade retention rates relatively stable in years before pandemic

Indicator	2014–	2015–	2016–	2017–	2018–	Pre-pandemic	2019–	2020–	2021–	PPA average	2021–22
	15	16	17	18	19	average annual change (% point)	20	21	22	score	vs. PPA (% point)
Graduation rate	90.6%	91.4%	91.2%	91.6%	91.5%	0.2%	92.5%	93.0%	92.1%	91.3%	0.9%
Dropout rate	5.2%	5.3%	5.8%	5.5%	5.6%	0.1%	5.1%	4.3%	5.2%	5.5%	-0.3%
Grade retention rate	1.8%	1.7%	1.6%	1.6%	1.5%	-0.1%	1.1%	2.1%	N/A	1.6%	-1.6%

SOURCE: JLARC analysis of VDOE data, 2014–15 to 2021–22.

NOTE: PPA = Pre-pandemic average (i.e., average score from 2014–15 to 2018–19). 5-year annual change represents the average annualized change in scores across the five school years prior to the pandemic. Dropout rate represents only high school dropouts.

Appendix G: Academic achievement and outcomes data

This appendix provides data on various academic performance indicators and outcomes referenced in Chapter 4 of this report. This data was used to examine the extent to which the pandemic affected K–12 students’ academic achievement. These include (1) third and eighth grade math and reading Standards of Learning test scores and pass rates, (2) Phonological Awareness Literacy Screening benchmark achievement, (3) Virginia Kindergarten Readiness Program benchmark achievement, (4) high school graduation rates, (5) high school dropout rates, and (6) grade retention rates. Comparing pre-pandemic trends to results from pandemic-era school years can provide understanding of how the pandemic affected students’ academic achievement in Virginia. For the purposes of this report, the pre-pandemic trend constitutes a five-year pre-pandemic average from the 2014–15 through 2018–19 school years.

Standards of Learning (SOL) test scores and pass rates

Virginia students in grades three through 12 generally complete SOL tests in two to four subject areas each year. SOLs are scored on a scale from 0–600. Students must score a 400 to pass their SOL. Scores from 400–499 are considered proficient, and scores from 500–600 are considered advanced.

TABLE G-1

Change in SOL scores by student subgroup

*PPA: Pre-pandemic average

Student subgroup	3 rd Grade Reading			3 rd Grade Math			8 th Grade Reading			8 th Grade Math		
	PPA*	SY22	% change	PPA*	SY22	% change	PPA*	SY22	% change	PPA*	SY22	% change
Asian	459	447	-3%	471	454	-4%	463	462	0%	463	440	-5%
Black	404	394	-3%	407	384	-6%	402	399	-1%	401	377	-6%
Hispanic	409	394	-3%	415	393	-5%	411	403	-2%	411	385	-6%
White	447	434	-3%	450	434	-3%	444	435	-2%	434	411	-5%
EDS	405	395	-2%	411	391	-5%	403	399	-1%	405	381	-6%
Non-EDS	452	438	-3%	455	437	-4%	449	441	-2%	438	414	-5%
ELL	386	378	-2%	400	381	-5%	353	349	-1%	376	354	-6%
Non-ELL	438	426	-3%	441	423	-4%	434	428	-1%	426	403	-5%
SWD	378	379	0%	382	374	-2%	378	379	0%	380	366	-4%
Non-SWD	441	426	-3%	444	424	-5%	441	432	-2%	433	407	-6%
All students	432	419	-3%	436	417	-4%	431	423	-2%	423	399	-6%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

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NOTE: Scores represent the average scaled score across given student subgroup. PPA = pre-pandemic average. SY22 = 2021–22 school year. % change = change from pre-pandemic average to SY22. EDS = economically disadvantaged students. Pre-pandemic average represents a five-year average SOL score from 2014–15 through 2018–19. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students that receive special education and related services under the Individuals with Disabilities Education Act.

TABLE G-2
Change in SOL scores by school division

*PPA: Pre-pandemic average

Division	3 rd Grade Reading			3 rd Grade Math			8 th Grade Reading			8 th Grade Math		
	PPA*	SY22	% change	PPA*	SY22	% change	PPA*	SY22	% change	PPA*	SY22	% change
Accomack County	404	393	-3%	412	388	-6%	413	424	2%	414	407	-2%
Albemarle County	433	420	-3%	431	410	-5%	441	434	-2%	402	371	-8%
Alexandria City	420	408	-3%	416	394	-5%	418	411	-2%	334	331	-1%
Alleghany County	416	405	-3%	410	415	1%	414	406	-2%	418	389	-7%
Amelia County	424	404	-5%	434	414	-5%	422	416	-1%	436	401	-8%
Amherst County	426	408	-4%	420	404	-4%	429	403	-6%	427	383	-10%
Appomattox County	425	428	1%	435	434	0%	427	414	-3%	415	393	-5%
Arlington County	455	439	-4%	454	436	-4%	450	443	-2%	437	426	-3%
Augusta County	421	414	-2%	431	419	-3%	424	423	0%	402	406	1%
Bath County	435	393	-10%	427	406	-5%	427	413	-3%	413	409	-1%
Bedford County	432	423	-2%	424	424	0%	431	425	-1%	406	405	0%
Bland County	432	414	-4%	432	442	2%	421	434	3%	399	385	-3%
Botetourt County	446	449	1%	443	447	1%	441	439	0%	427	418	-2%
Bristol City	422	414	-2%	432	403	-7%	419	420	0%	412	393	-5%
Brunswick County	389	384	-1%	396	391	-1%	408	383	-6%	403	361	-10%
Buchanan County	417	419	1%	415	397	-4%	419	403	-4%	408	384	-6%
Buckingham County	398	390	-2%	408	391	-4%	411	389	-5%	426	395	-7%
Buena Vista City	411	434	5%	434	436	1%	410	407	-1%	391	384	-2%
Campbell County	428	416	-3%	436	423	-3%	419	417	-1%	409	383	-6%
Caroline County	428	414	-3%	431	410	-5%	413	393	-5%	389	374	-4%
Carroll County	432	421	-2%	430	421	-2%	424	437	3%	412	408	-1%
Charles City County	416	392	-6%	417	366	-12%	407	419	3%	372	358	-4%

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Charlotte County	430	422	-2%	430	429	0%	423	407	-4%	437	402	-8%
Charlottesville City	432	426	-1%	430	404	-6%	425	409	-4%	416	359	-14%
Chesapeake City	434	428	-1%	437	434	-1%	435	427	-2%	437	412	-6%
Chesterfield County	437	415	-5%	439	407	-7%	430	410	-5%	453	387	-14%
Clarke County	415	416	0%	421	412	-2%	433	415	-4%	404	402	-1%
Colonial Beach	421	438	4%	429	415	-3%	422	422	0%	410	405	-1%
Colonial Heights City	424	416	-2%	423	407	-4%	423	401	-5%	404	368	-9%
Covington City	414	437	6%	423	442	5%	403	400	-1%	397	394	-1%
Craig County	430	411	-5%	425	406	-4%	428	431	1%	415	417	0%
Culpeper County	420	400	-5%	434	410	-6%	426	417	-2%	443	412	-7%
Cumberland County	416	405	-3%	446	422	-5%	412	413	0%	394	397	1%
Danville City	396	382	-4%	396	369	-7%	395	392	-1%	374	358	-4%
Dickenson County	433	399	-8%	435	400	-8%	428	410	-4%	431	403	-6%
Dinwiddie County	430	419	-3%	442	421	-5%	412	407	-1%	416	393	-6%
Essex County	414	405	-2%	418	399	-5%	405	402	-1%	401	387	-4%
Fairfax County	439	430	-2%	442	427	-3%	449	443	-2%	443	418	-6%
Falls Church City	472	451	-4%	469	452	-4%	467	472	1%	452	456	1%
Fauquier County	429	415	-3%	429	413	-4%	431	419	-3%	402	392	-3%
Floyd County	426	421	-1%	433	426	-2%	425	421	-1%	415	406	-2%
Fluvanna County	434	410	-6%	431	402	-7%	430	426	-1%	440	403	-8%
Franklin City	380	369	-3%	407	361	-11%	406	391	-4%	414	347	-16%
Franklin County	436	423	-3%	438	427	-2%	428	422	-1%	432	413	-4%
Frederick County	421	412	-2%	427	409	-4%	426	414	-3%	418	388	-7%
Fredericksburg City	407	380	-7%	412	378	-8%	419	388	-7%	412	357	-13%
Galax City	429	418	-3%	460	420	-9%	417	421	1%	317	383	21%
Giles County	430	375	-13%	443	363	-18%	422	405	-4%	413	378	-8%
Gloucester County	437	424	-3%	451	435	-3%	423	422	0%	413	416	1%
Goochland County	440	415	-6%	444	422	-5%	441	441	0%	425	410	-4%
Grayson County	438	426	-3%	444	418	-6%	428	432	1%	412	409	-1%
Greene County	415	395	-5%	417	402	-4%	421	410	-3%	390	349	-11%
Greensville County	390	390	0%	406	405	0%	397	388	-2%	391	371	-5%
Halifax County	424	407	-4%	425	409	-4%	413	413	0%	411	409	0%
Hampton City	418	411	-2%	422	409	-3%	420	419	0%	424	412	-3%
Hanover County	447	424	-5%	458	436	-5%	441	435	-1%	438	435	-1%

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Harrisonburg City	404	385	-5%	411	378	-8%	411	394	-4%	384	350	-9%
Henrico County	433	419	-3%	435	414	-5%	426	413	-3%	398	370	-7%
Henry County	423	409	-3%	434	417	-4%	422	418	-1%	422	401	-5%
Highland County	452	433	-4%	446	435	-3%	420	455	8%	360	406	13%
Hopewell City	405	384	-5%	398	371	-7%	411	400	-3%	433	362	-16%
Isle of Wight County	444	426	-4%	446	430	-4%	437	429	-2%	424	406	-4%
King and Queen County	435	401	-8%	422	368	-13%	420	406	-3%	394	390	-1%
King George County	437	416	-5%	438	414	-5%	437	431	-1%	425	393	-8%
King William County	427	412	-4%	437	412	-6%	416	408	-2%	409	359	-12%
Lancaster County	415	410	-1%	427	418	-2%	403	325	-19%	376	321	-15%
Lee County	434	415	-4%	431	404	-6%	418	412	-1%	404	396	-2%
Lexington City	476	484	2%	489	477	-2%	459	452	-1%	417	386	-7%
Loudoun County	445	430	-4%	447	432	-3%	449	434	-3%	403	401	0%
Louisa County	424	412	-3%	433	419	-3%	424	413	-3%	419	404	-4%
Lunenburg County	422	392	-7%	417	392	-6%	417	382	-8%	404	356	-12%
Lynchburg City	418	405	-3%	419	396	-6%	412	411	0%	414	387	-6%
Madison County	403	344	-15%	417	342	-18%	418	401	-4%	411	389	-5%
Manassas City	413	394	-5%	417	385	-8%	411	414	1%	398	380	-5%
Manassas Park City	416	392	-6%	412	379	-8%	425	407	-4%	434	386	-11%
Martinsville City	401	394	-2%	406	401	-1%	401	414	3%	350	384	10%
Mathews County	428	437	2%	425	432	2%	416	401	-3%	379	361	-5%
Mecklenburg County	426	426	0%	440	435	-1%	417	423	1%	413	415	0%
Middlesex County	423	393	-7%	435	406	-7%	432	407	-6%	398	422	6%
Montgomery County	440	435	-1%	442	439	-1%	434	426	-2%	411	400	-3%
Nelson County	418	399	-4%	416	406	-2%	421	425	1%	422	450	7%
New Kent County	446	428	-4%	440	430	-2%	432	405	-6%	407	391	-4%
Newport News City	409	393	-4%	411	379	-8%	407	405	-1%	382	374	-2%
Norfolk City	413	409	-1%	416	396	-5%	407	406	0%	400	373	-7%
Northampton County	410	388	-5%	406	368	-9%	401	394	-2%	385	364	-5%
Northumberland County	447	411	-8%	470	413	-12%	421	407	-3%	396	355	-10%
Norton City	433	419	-3%	436	408	-7%	427	426	0%	427	421	-1%
Nottoway County	427	407	-5%	435	400	-8%	406	398	-2%	402	386	-4%
Orange County	429	404	-6%	433	403	-7%	430	402	-7%	418	372	-11%
Page County	416	396	-5%	422	399	-5%	425	417	-2%	428	402	-6%

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Patrick County	441	442	0%	440	441	0%	425	437	3%	389	379	-3%
Petersburg City	403	378	-6%	403	365	-9%	384	366	-5%	389	343	-12%
Pittsylvania County	445	436	-2%	447	439	-2%	429	430	0%	427	413	-3%
Poquoson City	463	455	-2%	466	455	-2%	449	448	0%	415	431	4%
Portsmouth City	415	396	-5%	421	387	-8%	403	405	0%	393	379	-4%
Powhatan County	446	416	-7%	441	420	-5%	433	416	-4%	415	382	-8%
Prince Edward County	407	396	-3%	421	410	-3%	407	402	-1%	401	374	-7%
Prince George County	439	415	-6%	436	417	-4%	421	418	-1%	397	393	-1%
Prince William County	432	424	-2%	441	427	-3%	433	423	-2%	435	404	-7%
Pulaski County	423	410	-3%	428	412	-4%	416	407	-2%	414	382	-8%
Radford City	431	376	-13%	432	361	-17%	438	386	-12%	368	366	0%
Rappahannock County	423	409	-3%	440	408	-7%	433	417	-4%	422	413	-2%
Richmond City	401	376	-6%	403	366	-9%	388	388	0%	382	350	-8%
Richmond County	429	417	-3%	435	422	-3%	425	408	-4%	412	384	-7%
Roanoke City	421	388	-8%	432	383	-11%	413	399	-3%	401	365	-9%
Roanoke County	445	438	-2%	446	437	-2%	444	434	-2%	429	418	-2%
Rockbridge County	428	420	-2%	433	419	-3%	417	424	2%	419	426	2%
Rockingham County	428	400	-7%	428	395	-8%	428	403	-6%	420	373	-11%
Russell County	441	429	-3%	443	432	-2%	430	430	0%	442	309	-30%
Salem City	448	426	-5%	451	431	-4%	436	433	-1%	418	404	-3%
Scott County	441	424	-4%	450	434	-3%	428	420	-2%	453	439	-3%
Shenandoah County	404	408	1%	417	417	0%	410	402	-2%	411	380	-8%
Smyth County	426	411	-4%	427	405	-5%	425	423	-1%	419	404	-4%
Southampton County	430	406	-6%	441	412	-7%	425	414	-3%	431	389	-10%
Spotsylvania County	428	420	-2%	438	421	-4%	427	418	-2%	406	377	-7%
Stafford County	430	414	-4%	437	412	-6%	435	420	-3%	420	370	-12%
Staunton City	431	428	-1%	438	435	-1%	412	422	2%	401	389	-3%
Suffolk City	422	410	-3%	423	407	-4%	416	423	2%	429	406	-5%
Surry County	428	405	-5%	414	385	-7%	409	438	7%	414	419	1%
Sussex County	427	416	-2%	440	411	-7%	417	438	5%	425	408	-4%
Tazewell County	439	428	-3%	440	432	-2%	431	424	-2%	448	428	-4%
Virginia Beach City	449	431	-4%	453	427	-6%	437	438	0%	429	417	-3%
Warren County	418	420	1%	418	416	0%	422	409	-3%	402	387	-4%
Washington County	459	441	-4%	452	442	-2%	430	441	3%	440	432	-2%

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Waynesboro City	408	401	-2%	411	389	-5%	409	367	-10%	418	395	-5%
West Point	473	457	-3%	496	468	-6%	452	430	-5%	427	416	-3%
Westmoreland County	417	407	-3%	419	404	-3%	415	428	3%	429	429	0%
Williamsburg-James City County	440	426	-3%	445	429	-4%	439	437	0%	393	400	2%
Winchester City	415	402	-3%	424	396	-7%	417	407	-2%	406	415	2%
Wise County	450	435	-3%	451	438	-3%	441	437	-1%	465	439	-6%
Wythe County	443	429	-3%	438	428	-2%	435	444	2%	435	429	-1%
York County	456	456	0%	454	453	0%	441	447	1%	431	442	2%
Statewide	432	419	-3%	436	417	-4%	431	423	-2%	423	399	-6%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: Scores represent the average scaled score across given school division. PPA = pre-pandemic average. SY22 = 2021–22 school year. % change = change from pre-pandemic average to SY22. Pre-pandemic average represents a five-year average SOL score from 2014–15 through 2018–19.

TABLE G-3
Change in SOL pass rates by student subgroups

*PPA: Pre-pandemic average

Student subgroup	3 rd Grade Reading			3 rd Grade Math			8 th Grade Reading			8 th Grade Math		
	PPA*	SY22	change	PPA*	SY22	change	PPA*	SY22	change	PPA*	SY22	change
Asian	86%	83%	-3%	90%	84%	-6%	90%	89%	-1%	90%	81%	-9%
Black	60%	53%	-7%	62%	47%	-15%	59%	58%	-1%	60%	41%	-19%
Hispanic	62%	51%	-11%	67%	52%	-15%	65%	59%	-6%	67%	45%	-22%
White	81%	77%	-4%	83%	78%	-5%	84%	79%	-5%	81%	67%	-14%
EDS	60%	53%	-7%	64%	51%	-13%	60%	57%	-3%	62%	44%	-18%
Not EDS	84%	79%	-5%	85%	79%	-6%	86%	82%	-4%	83%	69%	-14%
ELL	49%	40%	-9%	60%	43%	-17%	22%	19%	-3%	43%	20%	-23%
Not ELL	76%	71%	-5%	78%	70%	-8%	78%	75%	-3%	75%	60%	-15%
SWD	42%	39%	-3%	44%	39%	-5%	34%	34%	0%	38%	27%	-11%
Not SWD	78%	72%	-6%	81%	71%	-10%	82%	77%	-5%	80%	62%	-18%
All students	73%	68%	-5%	76%	67%	-9%	76%	72%	-4%	73%	57%	-16%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

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NOTE: PPA = pre-pandemic average. SY22 = 2021–22 school year. Change = difference from pre-pandemic average to SY22. Pre-pandemic average represents a five-year average SOL pass rate from 2014–15 through 2018–19. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act.

TABLE G-4
Change in SOL pass rates by school division

*PPA: Pre-pandemic average

Division	3 rd Grade Reading			3 rd Grade Math			8 th Grade Reading			8 th Grade Math		
	PPA*	SY22	change	PPA*	SY22	change	PPA*	SY22	change	PPA*	SY22	change
Accomack County	60%	54%	-6%	66%	53%	-14%	69%	73%	4%	75%	64%	-11%
Albemarle County	72%	66%	-6%	72%	62%	-10%	78%	75%	-4%	62%	37%	-25%
Alexandria City	67%	58%	-8%	66%	50%	-16%	66%	60%	-6%	--	--	--
Alleghany County	69%	61%	-8%	67%	60%	-7%	69%	69%	0%	76%	44%	-32%
Amelia County	70%	52%	-18%	77%	60%	-17%	73%	68%	-5%	84%	57%	-27%
Amherst County	72%	56%	-16%	71%	59%	-11%	78%	59%	-19%	80%	46%	-33%
Appomattox County	72%	70%	-3%	77%	75%	-2%	75%	67%	-9%	74%	53%	-22%
Arlington County	84%	77%	-7%	84%	76%	-8%	84%	80%	-4%	83%	73%	-10%
Augusta County	68%	63%	-5%	76%	68%	-8%	74%	72%	-2%	67%	60%	-6%
Bath County	81%	46%	-35%	72%	71%	-2%	78%	62%	-16%	72%	61%	-11%
Bedford County	75%	69%	-5%	72%	70%	-2%	78%	72%	-6%	68%	56%	-12%
Bland County	75%	68%	-7%	81%	85%	4%	74%	75%	0%	62%	49%	-13%
Botetourt County	81%	87%	6%	82%	88%	6%	86%	84%	-2%	84%	81%	-3%
Bristol City	70%	69%	-1%	73%	61%	-12%	71%	70%	-1%	71%	48%	-22%
Brunswick County	48%	48%	1%	55%	57%	3%	63%	48%	-14%	62%	31%	-31%
Buchanan County	66%	67%	0%	71%	51%	-20%	72%	58%	-15%	57%	47%	-10%
Buckingham County	54%	51%	-4%	64%	54%	-9%	66%	52%	-14%	79%	50%	-29%
Buena Vista City	62%	81%	19%	73%	81%	7%	72%	61%	-11%	53%	44%	-9%
Campbell County	73%	68%	-5%	79%	76%	-3%	75%	68%	-7%	73%	40%	-33%
Caroline County	72%	65%	-7%	74%	63%	-11%	65%	52%	-13%	51%	40%	-11%
Carroll County	76%	70%	-6%	76%	68%	-8%	75%	81%	6%	72%	63%	-9%
Charles City County	69%	43%	-26%	68%	23%	-44%	60%	59%	-1%	43%	18%	-25%
Charlotte County	76%	67%	-9%	77%	73%	-5%	75%	65%	-11%	86%	71%	-14%

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Charlottesville City	72%	70%	-2%	73%	57%	-16%	68%	54%	-15%	70%	19%	-51%
Chesapeake City	75%	74%	-1%	79%	78%	-1%	80%	75%	-5%	84%	66%	-18%
Chesterfield County	78%	68%	-10%	80%	64%	-16%	77%	67%	-10%	84%	53%	-31%
Clarke County	64%	64%	-1%	67%	62%	-5%	78%	70%	-8%	95%	58%	-37%
Colonial Beach	68%	88%	20%	77%	65%	-12%	75%	71%	-4%	61%	48%	-13%
Colonial Heights City	74%	68%	-7%	73%	58%	-16%	75%	63%	-12%	70%	36%	-34%
Covington City	64%	84%	20%	76%	88%	11%	67%	54%	-13%	55%	43%	-11%
Craig County	73%	68%	-5%	77%	63%	-14%	76%	73%	-3%	76%	71%	-5%
Culpeper County	66%	56%	-10%	77%	65%	-12%	74%	64%	-10%	86%	63%	-23%
Cumberland County	66%	53%	-13%	79%	71%	-8%	65%	64%	0%	50%	59%	8%
Danville City	54%	39%	-15%	55%	33%	-22%	54%	47%	-7%	35%	22%	-13%
Dickenson County	78%	59%	-20%	77%	57%	-20%	81%	70%	-12%	82%	72%	-10%
Dinwiddie County	76%	70%	-6%	81%	70%	-12%	68%	60%	-8%	68%	49%	-19%
Essex County	74%	55%	-19%	73%	53%	-20%	63%	59%	-5%	61%	--	--
Fairfax County	76%	72%	-4%	78%	71%	-7%	83%	79%	-3%	81%	66%	-15%
Falls Church City	89%	87%	-2%	87%	86%	-1%	92%	93%	2%	87%	85%	-2%
Fauquier County	73%	66%	-7%	73%	64%	-9%	77%	74%	-3%	64%	55%	-9%
Floyd County	71%	63%	-8%	76%	70%	-6%	72%	68%	-3%	64%	62%	-2%
Fluvanna County	75%	62%	-13%	75%	56%	-18%	75%	68%	-7%	85%	54%	-30%
Franklin City	50%	30%	-20%	66%	37%	-30%	72%	56%	-16%	75%	19%	-56%
Franklin County	77%	71%	-6%	80%	73%	-7%	75%	74%	-1%	81%	65%	-16%
Frederick County	68%	64%	-4%	72%	63%	-9%	74%	65%	-8%	73%	50%	-24%
Fredericksburg City	60%	42%	-18%	66%	44%	-22%	71%	51%	-20%	68%	31%	-37%
Galax City	71%	65%	-6%	86%	66%	-19%	72%	71%	-1%	--	38%	--
Giles County	73%	58%	-15%	82%	46%	-36%	73%	73%	1%	68%	61%	-7%
Gloucester County	78%	72%	-6%	86%	77%	-8%	75%	74%	-1%	76%	71%	-5%
Goochland County	77%	65%	-12%	79%	73%	-6%	84%	80%	-4%	81%	71%	-10%
Grayson County	79%	73%	-6%	86%	72%	-14%	79%	82%	3%	66%	72%	6%
Greene County	65%	48%	-17%	69%	59%	-10%	72%	63%	-9%	55%	22%	-33%
Greensville County	51%	46%	-6%	62%	60%	-3%	55%	46%	-10%	51%	30%	-21%
Halifax County	69%	61%	-8%	72%	65%	-7%	67%	62%	-5%	71%	69%	-2%
Hampton City	68%	65%	-3%	72%	63%	-9%	73%	73%	0%	79%	74%	-5%
Hanover County	81%	75%	-5%	85%	81%	-4%	83%	81%	-3%	86%	82%	-4%
Harrisonburg City	60%	42%	-18%	68%	42%	-26%	63%	48%	-15%	50%	15%	-35%

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Henrico County	74%	67%	-7%	76%	63%	-13%	73%	67%	-6%	60%	44%	-16%
Henry County	71%	60%	-12%	78%	68%	-9%	72%	68%	-4%	75%	56%	-20%
Highland County	--	71%	--	--	71%	--	78%	89%	11%	--	60%	--
Hopewell City	62%	46%	-16%	58%	35%	-22%	66%	57%	-9%	83%	27%	-56%
Isle of Wight County	79%	73%	-5%	82%	77%	-5%	80%	77%	-4%	80%	60%	-19%
King and Queen County	74%	63%	-11%	71%	31%	-39%	78%	67%	-11%	50%	63%	12%
King George County	77%	70%	-7%	79%	72%	-7%	80%	75%	-5%	77%	52%	-25%
King William County	71%	69%	-2%	79%	78%	-1%	71%	60%	-11%	73%	35%	-38%
Lancaster County	66%	65%	0%	76%	71%	-5%	63%	43%	-20%	43%	28%	-15%
Lee County	76%	64%	-13%	78%	61%	-17%	72%	64%	-8%	66%	54%	-12%
Lexington City	88%	94%	6%	92%	96%	4%	83%	87%	5%	74%	--	--
Loudoun County	80%	76%	-4%	81%	76%	-5%	85%	78%	-7%	64%	62%	-2%
Louisa County	71%	66%	-5%	77%	74%	-3%	75%	74%	-1%	76%	67%	-10%
Lunenburg County	69%	48%	-21%	65%	57%	-8%	70%	61%	-10%	63%	46%	-17%
Lynchburg City	67%	59%	-8%	68%	52%	-15%	62%	63%	1%	68%	43%	-25%
Madison County	61%	38%	-22%	69%	44%	-25%	71%	58%	-13%	76%	44%	-32%
Manassas City	63%	51%	-12%	69%	43%	-25%	65%	62%	-2%	61%	41%	-20%
Manassas Park City	65%	46%	-19%	64%	39%	-25%	73%	60%	-13%	87%	43%	-44%
Martinsville City	60%	54%	-6%	66%	61%	-4%	59%	68%	8%	44%	40%	-4%
Mathews County	77%	83%	6%	73%	84%	11%	70%	67%	-3%	51%	29%	-23%
Mecklenburg County	72%	74%	2%	80%	81%	1%	71%	73%	2%	66%	62%	-5%
Middlesex County	67%	44%	-23%	76%	60%	-16%	78%	60%	-18%	--	77%	--
Montgomery County	78%	76%	-1%	80%	79%	-1%	79%	73%	-6%	69%	61%	-9%
Nelson County	65%	59%	-6%	68%	57%	-11%	72%	65%	-7%	79%	85%	6%
New Kent County	81%	75%	-7%	80%	77%	-3%	77%	70%	-7%	65%	58%	-8%
Newport News City	62%	50%	-12%	64%	41%	-23%	61%	59%	-2%	45%	34%	-10%
Norfolk City	64%	59%	-5%	67%	51%	-16%	63%	59%	-4%	61%	32%	-29%
Northampton County	65%	51%	-14%	65%	35%	-30%	62%	55%	-7%	52%	33%	-19%
Northumberland County	84%	63%	-21%	91%	69%	-23%	69%	67%	-2%	53%	21%	-33%
Norton City	80%	71%	-9%	82%	64%	-19%	73%	81%	8%	79%	70%	-8%
Nottoway County	72%	59%	-14%	75%	59%	-16%	60%	56%	-4%	61%	42%	-19%
Orange County	71%	61%	-11%	74%	63%	-11%	77%	62%	-15%	75%	46%	-29%
Page County	68%	55%	-13%	70%	56%	-14%	72%	64%	-8%	77%	60%	-17%
Patrick County	81%	86%	5%	83%	84%	1%	75%	84%	9%	55%	40%	-15%

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Petersburg City	60%	38%	-22%	61%	32%	-29%	43%	47%	3%	50%	28%	-22%
Pittsylvania County	81%	79%	-2%	84%	81%	-3%	77%	75%	-1%	77%	66%	-11%
Poquoson City	88%	89%	0%	90%	86%	-4%	87%	85%	-2%	71%	84%	13%
Portsmouth City	66%	55%	-12%	70%	46%	-24%	61%	58%	-3%	55%	39%	-16%
Powhatan County	80%	65%	-15%	80%	69%	-11%	78%	71%	-7%	75%	58%	-18%
Prince Edward County	58%	55%	-4%	70%	61%	-8%	60%	58%	-2%	60%	31%	-29%
Prince George County	83%	72%	-11%	83%	76%	-8%	76%	72%	-3%	60%	59%	-1%
Prince William County	75%	71%	-3%	79%	74%	-6%	77%	72%	-5%	79%	61%	-17%
Pulaski County	72%	66%	-6%	76%	68%	-8%	70%	64%	-6%	73%	49%	-24%
Radford City	72%	57%	-15%	73%	51%	-21%	81%	73%	-8%	--	64%	--
Rappahannock County	68%	55%	-14%	82%	53%	-28%	80%	75%	-5%	76%	65%	-11%
Richmond City	57%	43%	-13%	59%	37%	-22%	48%	46%	-1%	43%	18%	-26%
Richmond County	75%	71%	-4%	81%	75%	-7%	75%	62%	-12%	74%	45%	-30%
Roanoke City	70%	44%	-26%	77%	43%	-34%	67%	55%	-12%	64%	27%	-37%
Roanoke County	82%	81%	0%	83%	80%	-3%	83%	80%	-3%	82%	74%	-8%
Rockbridge County	73%	66%	-6%	80%	66%	-14%	70%	73%	4%	76%	77%	1%
Rockingham County	73%	56%	-17%	74%	52%	-23%	75%	63%	-12%	78%	44%	-34%
Russell County	81%	82%	1%	85%	82%	-3%	78%	78%	0%	76%	--	--
Salem City	81%	73%	-8%	84%	79%	-5%	80%	76%	-4%	72%	64%	-8%
Scott County	83%	77%	-6%	89%	80%	-8%	78%	82%	5%	88%	79%	-9%
Shenandoah County	59%	61%	2%	67%	71%	4%	66%	59%	-7%	69%	43%	-26%
Smyth County	73%	65%	-8%	74%	59%	-15%	75%	70%	-5%	75%	48%	-27%
Southampton County	74%	57%	-17%	85%	62%	-23%	75%	65%	-11%	82%	39%	-43%
Spotsylvania County	72%	69%	-3%	77%	67%	-10%	74%	67%	-7%	65%	36%	-29%
Stafford County	73%	66%	-7%	77%	65%	-11%	80%	70%	-9%	75%	29%	-46%
Staunton City	72%	68%	-4%	76%	74%	-2%	68%	67%	-1%	66%	53%	-12%
Suffolk City	70%	63%	-7%	72%	63%	-9%	72%	73%	1%	82%	58%	-24%
Surry County	76%	62%	-14%	70%	58%	-12%	70%	89%	20%	80%	73%	-7%
Sussex County	75%	67%	-8%	82%	63%	-19%	72%	78%	6%	75%	60%	-15%
Tazewell County	81%	72%	-8%	83%	81%	-2%	79%	76%	-3%	86%	80%	-5%
Virginia Beach City	81%	76%	-6%	84%	75%	-9%	81%	82%	0%	79%	72%	-7%
Warren County	69%	67%	-1%	70%	67%	-3%	73%	66%	-7%	--	46%	--
Washington County	86%	82%	-4%	85%	83%	-2%	79%	81%	3%	85%	80%	-4%
Waynesboro City	63%	56%	-7%	64%	51%	-13%	62%	48%	-14%	75%	50%	-26%

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West Point	93%	87%	-5%	96%	91%	-5%	93%	78%	-15%	88%	65%	-23%
Westmoreland County	66%	59%	-7%	68%	58%	-10%	68%	76%	8%	80%	74%	-6%
Williamsburg-James City County	77%	71%	-6%	81%	74%	-7%	81%	78%	-2%	--	60%	--
Winchester City	66%	51%	-15%	71%	49%	-21%	68%	65%	-3%	66%	66%	0%
Wise County	85%	82%	-2%	87%	83%	-5%	85%	82%	-3%	95%	85%	-10%
Wythe County	82%	77%	-5%	82%	75%	-7%	80%	84%	4%	82%	79%	-2%
York County	87%	86%	0%	87%	86%	-1%	83%	84%	1%	82%	82%	0%
Statewide	73%	68%	-5%	76%	67%	-9%	76%	72%	-4%	73%	57%	-16%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: PPA = pre-pandemic average. SY22 = 2021–22 school year. Change = difference from pre-pandemic average to SY22. Pre-pandemic average represents a five-year average SOL pass rate from 2014–15 through 2018–19. In some cases, data for Alexandria, Essex, Galax, Highland, Lexington, Middlesex, Radford, Russell, Warren, and Williamsburg-James City were excluded due to issues in how data was reported.

Phonological Awareness Literacy Screening (PALS) performance

The PALS is a statewide assessment that measures students' early literacy in kindergarten, first, and second grade. Students who fall below the PALS benchmark are considered at-risk for third grade reading failure in the absence of effective interventions. PALS was not administered in the spring of 2020 because of the pandemic.

TABLE G-5
Change in PALS performance among first grade students by student subgroup

Student subgroup	% of first grade students meeting PALS benchmark				change fall 2019 to fall 2021	change spring 2019 to spring 2022
	Spring 2019	Fall 2019	Fall 2021	Spring 2022		
Asian	90%	92%	83%	86%	-9%	-4%
Black	70%	77%	51%	58%	-26%	-12%
Hispanic	68%	69%	47%	54%	-22%	-14%
White	83%	87%	73%	78%	-14%	-5%
EDS	69%	74%	49%	57%	-25%	-12%
Non-EDS	86%	88%	75%	80%	-13%	-6%
ELL	64%	66%	43%	51%	-23%	-13%
Non-ELL	80%	84%	67%	72%	-17%	-8%
SWD	54%	62%	46%	46%	-16%	-8%
All students	78%	82%	63%	69%	-19%	-9%

SOURCE: JLARC analysis of PALS data, 2019 through 2022.

NOTE: PALS was not administered in spring 2020 due to the pandemic. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K-12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act.

TABLE G-6
Change in PALS performance among second grade students by student subgroup

Student subgroup	% of second grade students meeting PALS benchmark				change fall 2019 to	change spring 2019
	Spring 2019	Fall 2019	Fall 2021	Spring 2022	fall 2021	to spring 2022
Asian	88%	83%	82%	83%	-1%	-5%
Black	69%	64%	44%	54%	-20%	-15%
Hispanic	66%	58%	43%	53%	-15%	-13%
White	80%	77%	66%	74%	-11%	-6%
EDS	67%	62%	43%	54%	-19%	-13%
Non-EDS	83%	79%	70%	77%	-9%	-6%
ELL	63%	53%	42%	50%	-11%	-13%
Non-ELL	78%	73%	60%	68%	-13%	-10%
SWD	46%	45%	35%	41%	-10%	-5%
All students	76%	71%	58%	65%	-13%	-11%

SOURCE: JLARC analysis of PALS data, 2019 through 2022.

NOTE: PALS was not administered in spring 2020 due to the pandemic. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act.

Virginia Kindergarten Readiness Program (VKRP) performance

The VKRP is a statewide assessment that measures students' literacy, math, self-regulation, and social skills at the beginning and end of kindergarten. Students are measured relative to benchmarks on three assessments: the Early Mathematics Assessment System, the Child Behavior Rating Scale, and the Phonological Awareness Literacy Screening (PALS). If a student does not meet one of the three benchmarks, they are considered to not meet the overall benchmark. VKRP was first administered statewide in the fall of 2019. It was not administered in the spring of 2020 because of the pandemic.

TABLE G-7
Change in VKRP performance by assessment

Student subgroup	% of students meeting VKRP benchmark					change fall 2019	change fall 2019
	Fall 2019	Fall 2020	Spring 2021	Fall 2021	Spring 2022	to fall 2021	to spring 2022
Literacy	82%	74%	68%	75%	78%	-7%	-4%
Math	79%	79%	66%	77%	75%	-2%	-4%
Self-regulation	80%	83%	76%	83%	81%	3%	1%
Social skills	78%	77%	82%	84%	79%	6%	1%
Overall	56%	55%	48%	58%	56%	2%	0%

SOURCE: JLARC analysis of VKRP data, 2019 through 2022.

NOTE: VKRP was not administered in spring 2020 because of the pandemic. Failing to meet one or more assessment benchmarks results in student not meeting overall benchmark. The VKRP Literacy component is the Kindergarten level Phonological Awareness Literacy Screening (PALS).

High school graduation rates

High school graduation rates represent the proportion of students who graduated high school with a Board of Education approved-diploma in four years or less.

TABLE G-8
Change in four-year high school graduation rate by student subgroups

% of high school students who graduated in four years or less					
Student subgroup	Pre-pandemic average	SY20	SY21	SY22	% point change pre-pandemic to SY22
Asian	96.8%	98.1%	98.5%	98.3%	1.4%
Black	88.5%	91.4%	90.9%	90.3%	1.8%
Hispanic	81.8%	82.0%	85.2%	83.1%	1.3%
White	94.0%	95.4%	95.3%	95.0%	0.9%
EDS	86.8%	89.2%	89.3%	87.7%	0.9%
Non-EDS	93.5%	94.4%	95.2%	94.8%	1.4%
ELL	70.5%	73.0%	77.2%	72.7%	2.2%
Non-ELL	92.6%	94.3%	94.3%	93.7%	1.1%
SWD	88.1%	90.4%	90.7%	89.9%	1.8%
Non-SWD	91.7%	92.8%	93.3%	92.4%	0.7%
All students	91.3%	92.5%	93.0%	92.1%	0.9%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. SY22 = 2021–22 school year. Pre-pandemic average represents a five-year average four-year high school graduation rate from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act.

High school dropout rates

High school dropout rates represent the percentage of students in the graduation cohort who left high school permanently at any time during the four-year cohort period or whose whereabouts are unknown. Dropout calculations exclude students who have transferred, have a school recognized temporary absence, or have died.

TABLE G-9
Change in high school dropout rate by student subgroup

Student subgroup	% of student who dropped out of high school				% point change pre-pandemic to SY22
	Pre-pandemic average	SY20	SY21	SY22	
Asian	2.0%	1.2%	0.9%	1.1%	-0.8%
Black	6.4%	5.0%	4.8%	5.5%	-0.9%
Hispanic	14.7%	15.8%	12.2%	14.0%	-0.8%
White	3.3%	3.0%	2.8%	2.7%	-0.6%
EDS	7.9%	6.8%	6.0%	7.7%	-0.1%
Non-EDS	4.3%	4.1%	3.3%	3.7%	-0.6%
ELL	25.7%	25.5%	21.2%	24.8%	-0.9%
Non-ELL	4.1%	3.2%	2.9%	3.6%	-0.6%
SWD	9.5%	7.5%	7.3%	7.9%	-1.6%
Non-SWD	4.9%	4.8%	3.9%	4.8%	-0.1%
All students	5.5%	5.1%	4.3%	5.2%	-0.3%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2021–22.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. SY22 = 2021–22 school year. Pre-pandemic average represents a five-year average cohort dropout rate from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act. Dropout calculations exclude students who have transferred, have a school recognized temporary absence, have graduated or have died.

Grade retention rates

Grade retention rates represent the proportion of students retained in their grade for an additional school year because of their academic performance.

TABLE G-10
Change in grade retention rates by grade level

Grade level	% of students retained in their grade			% point change pre-pandemic to SY22
	Pre-pandemic average	SY20	SY21	
K-5	1.0%	0.7%	1.0%	0.0%
6-8	0.4%	0.2%	0.4%	0.1%
9-12	3.6%	2.5%	4.8%	1.2%
All students	1.7%	1.1%	2.1%	0.4%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2020–21.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. Pre-pandemic average represents a five-year average grade retention rate from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22.

TABLE G-11
Change in grade retention rates by student subgroup

Student subgroup	% of students retained in their grade			% point change pre-pandemic to SY22
	Pre-pandemic average	SY20	SY21	
Asian	0.7%	0.5%	0.6%	0.0%
Black	2.8%	1.6%	3.3%	0.5%
Hispanic	2.3%	1.5%	2.4%	0.2%
White	1.1%	0.9%	1.6%	0.5%
EDS	2.5%	1.5%	3.0%	0.6%
ELL	2.5%	1.5%	2.1%	-0.4%
SWD	4.6%	3.5%	4.7%	0.1%
All students	1.7%	1.1%	2.1%	0.4%

SOURCE: JLARC analysis of VDOE data, 2014–15 through 2020–21.

NOTE: SY20 = 2019–20 school year. SY21 = 2020–21 school year. Pre-pandemic average represents a five-year average grade retention rate from 2014–15 through 2018–19. % point change = difference from pre-pandemic average to SY22. EDS = economically disadvantaged students. ELL = English language learners. SWD = students with disabilities. In SY22, Asian, Black, Hispanic, and white students comprised 93 percent of total K–12 enrollment in SY22. VDOE defines economically disadvantaged students as students who are eligible for free or reduced price lunch, receive Temporary Assistance for Needy Families, are eligible for Medicaid, and/or are identified as either migrant or experiencing homelessness. VDOE defines English language learners as students whose native language is a language other than English, and whose difficulties speaking, reading, writing, or understanding English may hinder their education. VDOE defines students with disabilities as students who receive special education and related services under the Individuals with Disabilities Education Act.

Appendix H: Virginia performance on National Assessment of Educational Progress test data

This appendix provides data from the National Assessment of Educational Progress (NAEP) tests, which can provide an understanding of how the pandemic's impact on Virginia students compares to students nationally (Chapter 4).

The NAEP tests are national assessments of student achievement administered biennially by the National Center for Education Statistics (NCES) and are considered the most useful standardized test metric when making comparisons by state and nationwide. The assessments measure fourth- and eighth-grade reading and math performance across a representative sample of students in each state. As a result of representative sampling, NAEP test scores can be used to compare state performance to other states and to national averages.

During the pandemic, Virginia fourth-grade students' performance on the NAEP tests declined to a greater extent than students nationwide, while eighth-grade students' performance declined at a rate that was relatively similar to students nationwide. Virginia fourth-grade students' statewide average reading and math scores were 6 percent and 5 percent lower, respectively, in 2022 than before the pandemic on average (Table H-1). Nationally, NAEP scores decreased 2 percent in 2022 compared with before the pandemic for both fourth-grade reading and math. Pandemic-related declines in Virginia students' eighth-grade statewide average reading and math NAEP scores were more consistent with national declines. Scores among Virginia students and students nationwide each declined 2 percent in eighth-grade reading and 3 percent in eighth-grade math in 2022 when compared with years before the pandemic.

TABLE H-1
NAEP scores decreased following pandemic in Virginia and nationally but more significantly in Virginia in fourth-grade reading and math

	4 th Grade Reading			4 th Grade Math			8 th Grade Reading			8 th Grade Math		
	PPA	2022	% change	PPA	2022	% change	PPA	2022	% change	PPA	2022	% change
Virginia	227	214	-6%	247	236	-5%	266	260	-2%	288	279	-3%
National	220	216	-2%	240	235	-2%	264	259	-2%	281	273	-3%

SOURCE: JLARC analysis of National Center of Education Statistics data, 2015–2022.

NOTE: PPA = pre-pandemic average. % change = percentage change from pre-pandemic average to 2022. Pre-pandemic average represents average score from 2015–2019.

The proportion of Virginia students who scored at the basic or proficient levels on the NAEP tests also declined in Virginia and nationwide during the pandemic, but more so among Virginia fourth-grade students. The proportion of Virginia students who scored at or above a proficient level on the fourth-grade reading and math tests decreased 9 and 10 percentage points, respectively, in 2022 compared with years before the pandemic (Table H-2). In contrast, the proportion of students nationally that scored at or above a proficient level decreased 3 and 5 percentage points, respectively, on those tests. Conversely, the difference in the proportion of Virginia students and those nationally that scored at or above a proficient level on the eighth-grade tests was the same in reading in 2022 compared with years before the pandemic, and differed by only 1 percentage point in math.

TABLE H-2
NAEP performance decreased during pandemic in Virginia and nationally but more significantly in Virginia in fourth-grade reading and math

Achievement level	Region	4 th Grade Reading			4 th Grade Math			8 th Grade Reading			8 th Grade Math		
		PPA	2022	Change	PPA	2022	Change	PPA	2022	Change	PPA	2022	Change
Basic	Virginia	72%	60%	-12%	87%	75%	-12%	75%	69%	-6%	77%	65%	-12%
	National	67%	61%	-6%	80%	74%	-6%	74%	68%	-6%	71%	60%	-11%
Proficient	Virginia	41%	32%	-9%	48%	38%	-10%	35%	31%	-4%	39%	31%	-8%
	National	35%	32%	-3%	40%	35%	-5%	33%	29%	-4%	33%	26%	-7%

SOURCE: JLARC analysis of National Center of Education Statistics data, 2015–2022.

NOTE: Represents the proportion of students that achieved at or above the respective achievement level. PPA = pre-pandemic average. Change = percentage point change from pre-pandemic average to 2022. Pre-pandemic average represents average proportion of students meeting achievement level from 2015–2019. NAEP tests also have an “advanced” achievement level which is not included in the table.

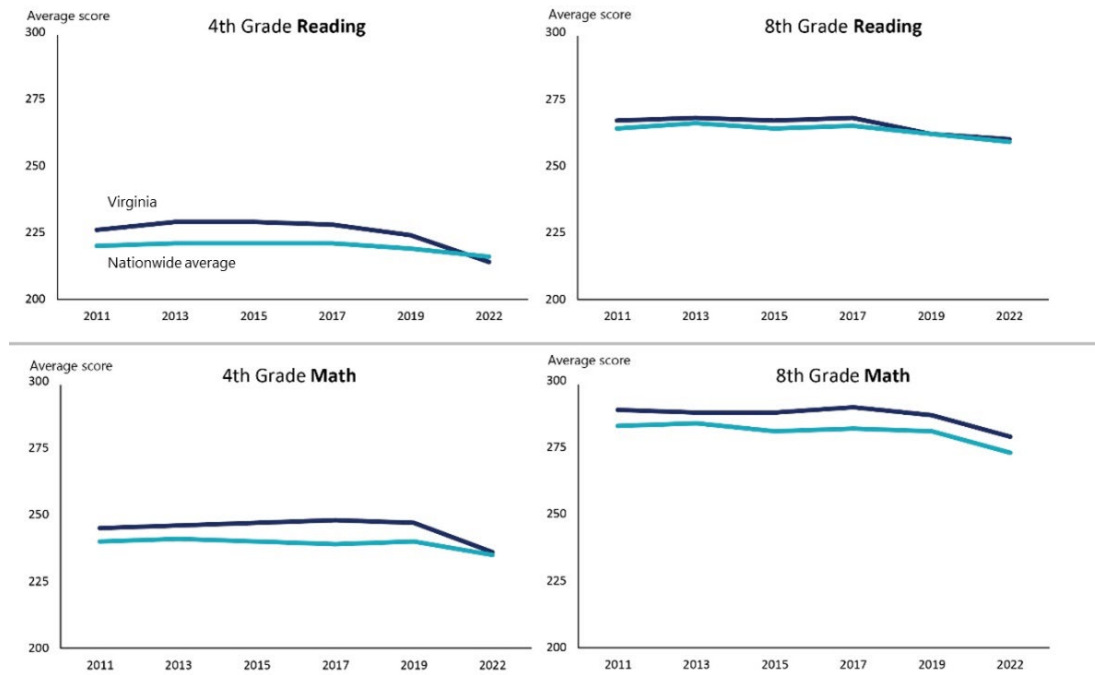
Historically, Virginia students consistently scored above students nationwide on the NAEP assessments, but greater declines among Virginia students during the pandemic have brought Virginia’s statewide average scores closer to nationwide averages in 2022 (Figure H-1). Before the pandemic, Virginia’s fourth-grade reading and math scores were each 3 percent higher than national scores. In 2022, Virginia students’ scores declined to 1 percent below the national average in fourth-grade reading and equal to the national average in fourth-grade math. Virginia students’ eighth-grade reading scores were 1 percent higher than national averages before the pandemic, but declined slightly in 2022 to be in-line with the nationwide average. In contrast, Virginia’s eighth-grade math scores were 2 percent above national averages prior to the pandemic and remained that way in 2022.

The larger decline in Virginia’s fourth-grade NAEP test scores compared with national averages adversely affected Virginia’s 50-state ranking on the fourth-grade reading and math tests. Before the pandemic, Virginia ranked seventh and fourth out of 50 states for fourth-grade reading and fourth-grade math tests on average but declined to 34th and 20th for those two tests in 2022 (Figure H-2). Because average NAEP test scores across states tend to be relatively close to each other, the relatively larger decline in Virginia’s fourth-grade scores compared with the national average (e.g., 6 percent in reading and 5 percent in math compared with the national average of 2 percent) had a large impact on its 50-state ranking.

Given the smaller pandemic-related declines that were more in-line with national averages, Virginia’s 50-state ranking did not change as much on the eighth-grade reading and math tests. Before the pandemic, Virginia ranked 26th and seventh out of 50 states for eighth-grade reading and math tests, on average. In 2022, Virginia ranked 22nd and 10th, respectively.

Despite Virginia’s relatively larger pandemic-related declines, NCES generally characterizes Virginia students’ performance in 2022 as not being significantly different from the national averages. NCES indicates that Virginia students’ average scores are not significantly different from students nationwide in fourth- and eighth-grade reading and fourth-grade math. In eighth-grade math, NCES indicates that Virginia students performed significantly better than the national average.

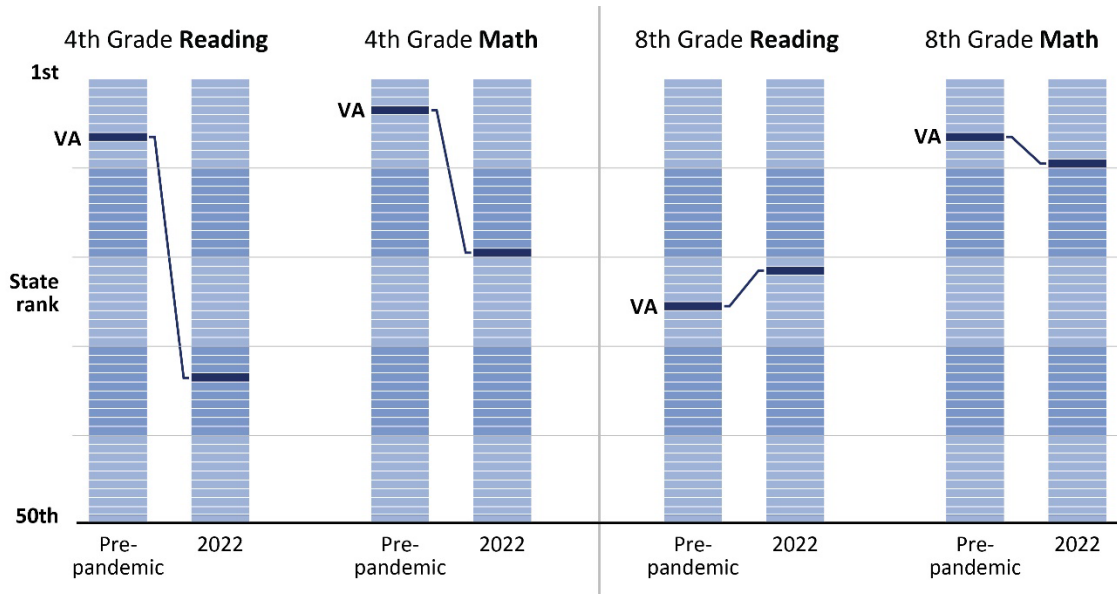
FIGURE H-1
Larger pandemic-related declines in NAEP scores among Virginia students resulted in Virginia’s performance becoming more in-line with national averages



SOURCE: JLARC analysis of National Center of Education Statistics data, 2011–2022.

NOTE: The NAEP is administered every two years to a representative sample of students across all states. Because of the pandemic, 2021 testing was conducted in 2022. Pre-pandemic performance referenced in report text represents three years of NAEP test results from 2015, 2017, and 2019. Five years of test results appear in figure to illustrate longer term trends.

FIGURE H-2
Pandemic-related declines in Virginia’s NAEP affected ranking relative to other states



SOURCE: JLARC analysis of National Center of Education Statistics data, 2015–2022.

NOTE: Pre-pandemic average represents average from 2015–2019.

Appendix I: School staffing and workforce

The pandemic's impact on school mental health staff and classroom teachers were addressed in Chapters 3 and 5, respectively. This appendix provides information on the pandemic's impacts on other types of school staff, as well as additional data on mental health staff that was not included in Chapter 3.

Most types of school staff experienced changes to their responsibilities and increased workload during the pandemic. For example:

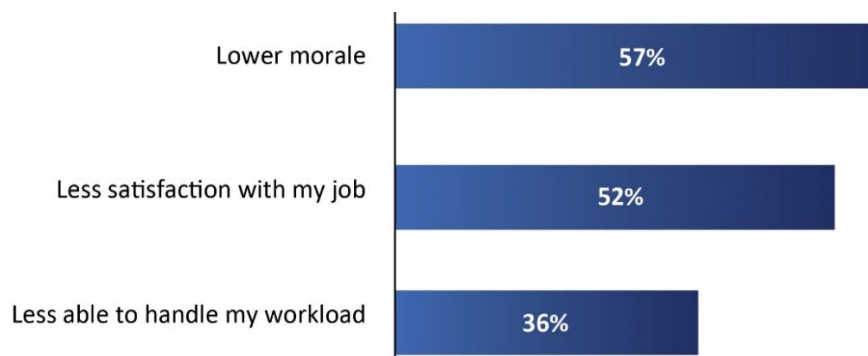
- **Bus drivers** were responsible for more routes because of reduced bus capacity from social distancing and driver shortages, and additional cleaning responsibilities.
- **Principals and administrators** gained new responsibilities, such as changing school scheduling and format (in-person vs. virtual); covering classes for teachers who were absent because of illness and quarantine; handling logistical considerations such as redesigning classroom and cafeteria space or changing bus routes and drop-off procedures; managing workforce challenges such as staffing shortages and resignations; and addressing public concerns and criticism regarding health and safety policies.
- **Mental health support staff** faced students with social issues stemming from isolation, students facing trauma and loss, students dealing with stress from changes in their routines, and lack of supports at home.
- **School nurses** had new responsibilities such as COVID-19 screening procedures, contact tracing, and COVID testing of staff and students.

Pandemic negatively affected staff morale, job satisfaction, and workload

The COVID-19 pandemic has had a negative impact on the working conditions for school staff. As of spring 2022, staff who had been in their position for more than two years indicated that their morale, job satisfaction, and ability to handle their workload effectively had decreased since before the pandemic (Figure I-1).

FIGURE I-1

Slightly more than half of school staff say morale and job satisfaction have decreased during pandemic



SOURCE: JLARC survey of local school staff, May 2022.

NOTE: Percentages indicate percentage of school staff (excluding teachers) who said "somewhat decreased" or "greatly decreased."

The effects of the pandemic, as well as other factors, are the primary reasons for staffs' lower job satisfaction. According to JLARC's survey, staff cited the following issues as the most serious problems they face:

- a more challenging student population, including student anxiety and mental health (63 percent said this is a very serious issue) and student behavior issues (60 percent);
- lack of respect from parents and the public (53 percent); and
- higher workload because of temporary staff absences due to COVID (39 percent).

In addition, 54 percent of principals reported that their ability to fill vacant positions was a very serious issue that they faced.

An increasing number of school staff are considering leaving their jobs. Ten percent of school staff responding to the JLARC survey indicated they are "definitely leaving" or "likely to leave" their job in K–12 public education in Virginia by the end of the next school year (June 2023). This is an increase from before the pandemic; just 5 percent of school staff were considering leaving in 2019 and 6 percent in 2021, according to the VDOE survey of School Climate and Working Conditions.

Some school staff positions had high vacancy rates, and vacancies for some positions increased during pandemic

Several types of school staff had high vacancy rates as of October 2021 (Table I-1). Bus drivers had the highest vacancy rate: 16 percent of full-time bus driver positions were vacant (1,624 vacant positions) and 13.5 percent of part-time positions were vacant (421 vacant positions). Mental health and wellness staff also had high vacancy rates, with psychologists having the second highest vacancy rate (11 percent) after bus drivers.

TABLE I-1
Bus drivers and some mental health staff had highest vacancy rates statewide (fall 2021)

	Vacancy rate	Number of vacancies
Bus driver (full time)	16%	1,624
School psychologist	11	117
School social worker	8	74
Special ed. paraprofessional (ages 6-21)	7	715
Instructional aides & paraprofessional	6	596
Math specialist	4	15
School counselor	4	167

SOURCE: VDOE Positions and Exits Collection, October 2021.

Vacancies for some positions have also increased during the pandemic (Table I-2).

TABLE I-2
Statewide vacancies for some positions have increased since before the pandemic

	Pre-pandemic avg. vacancies	2020–21 vacancies	% change in vacancies
School social worker	5	74	1,509%
School counselor	18	167	828%
School psychologist	27	117	327%
Gifted education	8	28	241%
Library media	29	73	155%
English as a second language PK–12	39	92	136%
Reading specialist	26	45	74%
Mathematics specialist (elem./middle)	10	14	37%

SOURCE: VDOE Supply and Demand data (2015–16 to 2020–21) and Positions and Exits Collections data as of October 2021.

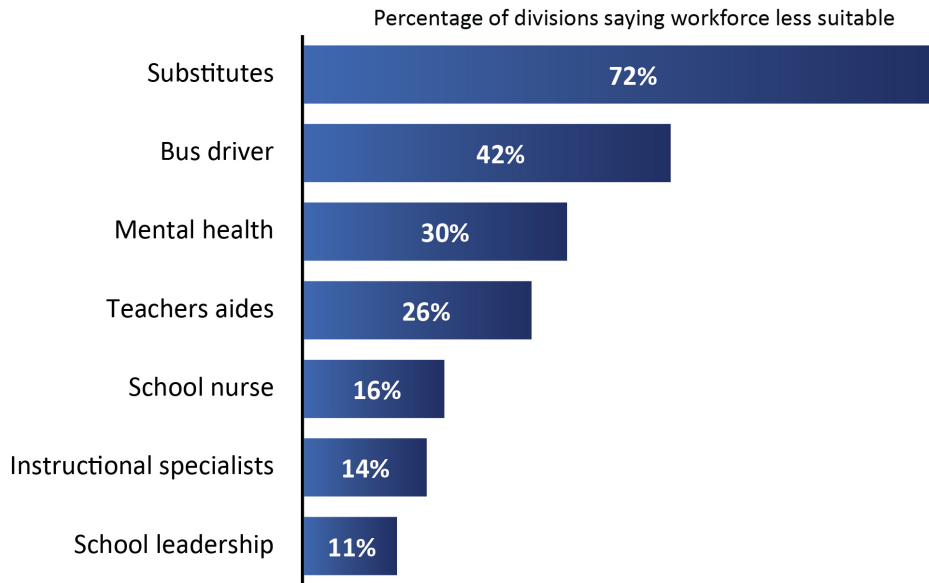
NOTE: Pre-pandemic data was not available for all types of staff, including bus drivers. “Pre-pandemic average vacancies” represents a statewide 5-year average vacancy rate across the 2015-16 through 2019-20 school years.

Divisions concerned about suitability of some staff positions—especially substitute teachers and bus drivers—and are not optimistic about maintaining an adequate workforce for 2022–23 school year

School divisions indicate that several types of staff positions have been negatively impacted since the start of the pandemic (Figure I-2). JLARC’s survey of school divisions defined a suitable workforce as one with a “sufficient number of qualified staff to effectively deliver day-to-day instruction.” More than 70 percent of school divisions responding to the JLARC survey indicated their substitute teacher workforce is less suited to conduct day-to-day operations than it was before the pandemic. Forty-two percent of divisions said their bus driver workforce is less suited.

Divisions are not optimistic about meeting their substitute teacher and bus driver staffing needs during the 2022–23 school year. Divisions were most pessimistic about their ability to employ suitable numbers of substitute teachers, bus drivers, and mental health and well-being staff (counselors, school psychologists, social workers) over the course of the next year (74, 60, and 53 percent of divisions were “very” or “somewhat” pessimistic, respectively). Divisions were less pessimistic about other positions, including instructional assistants and teachers’ aides (35 percent of divisions were pessimistic), school nurses (29 percent), instructional specialists (24 percent), and school leadership (15 percent).

FIGURE I-2
Divisions report some positions are less suitable to effectively conduct day-to-day school operations now compared to before the pandemic



SOURCE: JLARC survey of local school divisions, July 2022.

NOTE: Percentages indicate percentage of divisions who said each position is “much less suitable now” or “somewhat less suitable now” compared to before the pandemic.

Appendix J: Teacher workforce data

This appendix provides division-level data on the teacher workforce statistics referenced in Chapter 5 of this report. Data includes (1) teacher vacancies, (2) number of teachers leaving each division (i.e., turnover), and (3) teacher quality data, including provisionally licensed teachers and out-of-field teachers. Pre-pandemic averages are compared to school years following the onset of the pandemic to determine impacts to the teacher workforce.

Teacher vacancies

The Virginia Department of Education (VDOE) collects data on the number of vacant teacher positions in each division in October of each year. Prior to 2021, this data was collected through Supply and Demand reports. In 2021, VDOE started collecting vacancy data through the Positions and Exits Collection (PEC) system. For both data collection methods, data is as of a specific point in time.

TABLE J-1
Number of teacher vacancies by school division

*PPA: Pre-pandemic average

Division	PPA* # vacant	SY22 # vacant	SY22 % vacant	% change
Accomack County	5.8	12.0	3%	107%
Albemarle County	1.2	17.3	2%	1,344%
Alexandria City	10.6	29.1	3%	175%
Alleghany County	0.2	4.0	2%	1,900%
Amelia County	0.8	2.0	2%	150%
Amherst County	0.6	4.0	1%	567%
Appomattox County	3.8	0.0	0%	-100%
Arlington County	9.8	18.0	1%	84%
Augusta County	0.8	2.0	0%	150%
Bath County	1.6	0.0	0%	-100%
Bedford County	2.2	7.0	1%	219%
Bland County	3.8	0.0	0%	-100%
Botetourt County	0.6	1.0	0%	67%
Bristol City	0.0	0.0	0%	
Brunswick County	7.2	2.0	3%	-72%
Buchanan County	3.0	3.0	2%	0%

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Buckingham County	0.0	5.0	5%	
Buena Vista City	0.2	3.0	5%	1,400%
Campbell County	0.2	21.0	4%	10,400%
Caroline County	8.6	4.0	2%	-53%
Carroll County	1.0	1.0	0%	0%
Charles City County	1.0	18.0	15%	1,700%
Charlotte County	0.6	2.0	1%	233%
Charlottesville City	2.8	9.5	3%	239%
Chesapeake City	20.2	81.1	3%	301%
Chesterfield County	16.4	229.5	5%	1,299%
Clarke County	1.4	0.0	0%	-100%
Colonial Beach	1.2	4.0	9%	233%
Colonial Heights City	1.6	3.0	1%	88%
Covington City	0.2	3.0	4%	1,400%
Craig County	0.2	0.0	0%	-100%
Culpeper County	4.2	25.0	4%	495%
Cumberland County	1.2	0.0	0%	-100%
Danville City	26.6	39.5	9%	48%
Dickenson County	3.2	4.0	2%	25%
Dinwiddie County	6.4	2.0	1%	-69%
Essex County	3.2	4.0	4%	25%
Fairfax County	97.0	193.4	1%	99%
Falls Church City	0.4	7.0	3%	1,650%
Fauquier County	6.2	34.5	4%	456%
Floyd County	0.2	1.0	1%	400%
Fluvanna County	0.2	1.0	0%	400%
Franklin City	5.6	28.0	32%	400%
Franklin County	1.6	6.5	1%	306%
Frederick County	15.4	28.0	3%	82%
Fredericksburg City	1.0	11.0	4%	1,000%
Galax City	0.6	0.0	0%	-100%
Giles County	0.6	2.0	1%	233%
Gloucester County	3.2	4.0	1%	25%
Goochland County	0.4	0.0	0%	-100%
Grayson County	0.6	3.0	2%	400%
Greene County	2.0	2.0	1%	0%

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Greensville County	18.4	7.0	4%	-62%
Halifax County	3.2	1.0	0%	-69%
Hampton City	9.8	20.7	1%	111%
Hanover County	2.2	15.5	1%	605%
Harrisonburg City	2.0	7.0	1%	250%
Henrico County	17.2	117.5	3%	583%
Henry County	3.6	7.0	1%	94%
Highland County	0.8	0.0	0%	-100%
Hopewell City	2.8	11.0	3%	293%
Isle of Wight County	3.4	3.8	1%	13%
King and Queen County	0.6	1.0	2%	67%
King George County	2.8	24.0	8%	757%
King William County	2.4	0.0	0%	-100%
Lancaster County	2.8	0.0	0%	-100%
Lee County	1.8	2.0	1%	11%
Lexington City	0.4	0.0	0%	-100%
Loudoun County	24.2	101.5	2%	319%
Louisa County	0.6	2.0	1%	233%
Lunenburg County	2.2	4.0	3%	82%
Lynchburg City	0.6	29.3	5%	4,783%
Madison County	0.6	6.0	5%	900%
Manassas City	10.0	19.0	4%	90%
Manassas Park City	1.6	17.0	7%	961%
Martinsville City	5.8	7.0	5%	21%
Mathews County	2.0	0.0	0%	-100%
Mecklenburg County	8.2	24.6	8%	200%
Middlesex County	8.0	7.0	7%	-12%
Montgomery County	0.2	2.0	0%	900%
Nelson County	0.0	1.7	1%	-
New Kent County	1.4	0.0	0%	-100%
Newport News City	16.6	101.4	6%	511%
Norfolk City	52.2	365.0	17%	599%
Northampton County	2.8	8.0	6%	186%
Northumberland County	0.4	0.0	0%	-100%
Norton City	0.2	0.0	0%	-100%
Nottoway County	1.4	11.0	7%	686%

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Orange County	2.0	10.0	3%	400%
Page County	0.8	5.0	2%	525%
Patrick County	0.8	1.0	1%	25%
Petersburg City	24.2	14.0	5%	-42%
Pittsylvania County	5.8	14.7	2%	153%
Poquoson City	0.4	6.0	4%	1,400%
Portsmouth City	40.2	102.5	11%	155%
Powhatan County	0.4	1.0	0%	150%
Prince Edward County	5.8	20.0	13%	245%
Prince George County	4.8	26.5	6%	452%
Prince William County	37.2	269.8	5%	625%
Pulaski County	3.2	4.0	1%	25%
Radford City	0.2	0.0	0%	-100%
Rappahannock County	2.0	1.0	1%	-50%
Richmond City	33.0	48.6	2%	47%
Richmond County	0.2	2.0	2%	900%
Roanoke City	4.4	33.5	3%	661%
Roanoke County	0.2	2.0	0%	900%
Rockbridge County	0.4	0.0	0%	-100%
Rockingham County	2.4	7.7	1%	219%
Russell County	6.4	10.2	3%	59%
Salem City	0.0	0.0	0%	-
Scott County	0.6	1.0	0%	67%
Shenandoah County	3.8	16.5	4%	334%
Smyth County	2.2	1.5	0%	-32%
Southampton County	4.4	9.0	6%	105%
Spotsylvania County	13.8	53.0	4%	284%
Stafford County	25.4	86.0	5%	239%
Staunton City	0.4	4.0	2%	900%
Suffolk City	23.4	53.7	5%	129%
Surry County	2.6	1.0	1%	-62%
Sussex County	0.0	2.0	2%	-
Tazewell County	7.0	10.2	2%	46%
Virginia Beach City	11.8	107.8	2%	814%
Warren County	0.8	8.0	2%	900%
Washington County	5.0	5.0	1%	0%

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Waynesboro City	5.6	25.0	11%	346%
West Point	0.2	0.0	0%	-100%
Westmoreland County	5.4	6.0	5%	11%
Williamsburg-James City County	3.4	1.0	0%	-71%
Winchester City	1.4	9.0	3%	543%
Wise County	1.4	2.0	0%	43%
Wythe County	1.6	2.0	1%	25%
York County	5.8	26.4	3%	355%

SOURCE: JLARC analysis of Virginia Department of Education vacancy data, 2015–16 through 2021–22

NOTE: SY22 vacancies are as of October 2021. Pre-pandemic average represents a five-year average from 2015–16 through 2019–20.

Teacher turnover

JLARC staff used teacher licensure data from VDOE’s Master Schedule Collection database to calculate the number of teachers who departed employment from each school division from one school year to the next (Appendix B). The number of teachers departing each division includes teachers who left employment in Virginia’s public school system altogether, teachers who became administrators in their current school division or another school division, and teachers who accepted a teaching position in another division; it does *not* include teachers who took another teaching job in their current division.

TABLE J-2
Teacher turnover by school division

*PPA: Pre-pandemic average

Division	# departing from SY21 and SY22	% departing from SY21 and SY22	PPA* departing per year	% point change
Accomack County	62	21%	14%	7%
Albemarle County	167	16%	14%	2%
Alexandria City	254	23%	21%	2%
Alleghany County	32	22%	15%	7%
Amelia County	21	19%	19%	0%
Amherst County	51	19%	14%	5%
Appomattox County	20	13%	15%	-2%
Arlington County	322	16%	15%	1%
Augusta County	93	13%	12%	1%
Bath County	6	13%	18%	-5%

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Bedford County	92	15%	13%	1%
Bland County	3	6%	16%	-10%
Botetourt County	34	11%	10%	1%
Bristol City	22	14%	13%	1%
Brunswick County	31	28%	26%	2%
Buchanan County	13	7%	12%	-5%
Buckingham County	28	21%	11%	10%
Buena Vista City	11	19%	21%	-2%
Campbell County	79	15%	15%	0%
Caroline County	34	16%	25%	-8%
Carroll County	33	13%	10%	3%
Charles City County	12	24%	26%	-2%
Charlotte	120	n.a.	n.a.	n.a.
Charlottesville City	78	24%	20%	4%
Chesapeake City	319	12%	9%	2%
Chesterfield County	594	14%	12%	2%
Clarke County	31	25%	15%	10%
Colonial Beach	11	29%	26%	3%
Colonial Heights City	36	18%	11%	6%
Covington City	9	14%	11%	3%
Craig County	13	28%	23%	5%
Culpeper County	101	18%	17%	2%
Cumberland County	7	7%	19%	-12%
Danville City	121	29%	21%	8%
Dickenson County	20	12%	13%	-1%
Dinwiddie County	41	15%	14%	1%
Essex County	32	29%	25%	4%
Fairfax County	1737	13%	13%	0%
Falls Church City	31	20%	17%	2%
Fauquier County	166	20%	14%	6%
Floyd County	22	20%	16%	4%
Fluvanna County	35	15%	12%	3%
Franklin City	24	32%	31%	0%
Franklin County	92	18%	14%	4%
Frederick County	136	14%	14%	0%
Fredericksburg City	53	22%	20%	1%

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Galax City	14	14%	12%	2%
Giles County	31	17%	10%	7%
Gloucester County	55	16%	12%	4%
Goochland County	35	17%	14%	3%
Grayson County	20	17%	14%	3%
Greene County	24	15%	19%	-5%
Greensville County	32	18%	20%	-1%
Halifax County	73	20%	12%	8%
Hampton City	190	15%	20%	-5%
Hanover County	172	17%	12%	4%
Harrisonburg City	76	17%	15%	2%
Henrico County	353	12%	15%	-3%
Henry County	78	16%	14%	3%
Highland County	7	29%	11%	18%
Hopewell City	48	17%	22%	-5%
Isle of Wight County	60	17%	14%	4%
King and Queen County	22	37%	20%	16%
King George County	59	21%	16%	4%
King William County	33	22%	14%	8%
Lancaster County	15	21%	26%	-5%
Lee County	23	10%	11%	-2%
Lexington City	3	8%	14%	-6%
Loudoun County	719	12%	11%	2%
Louisa County	50	14%	12%	2%
Lunenburg County	20	17%	15%	3%
Lynchburg City	116	20%	20%	0%
Madison County	18	17%	17%	0%
Manassas City	106	21%	19%	3%
Manassas Park City	57	23%	17%	6%
Martinsville City	20	15%	24%	-9%
Mathews County	13	15%	11%	4%
Mecklenburg County	55	17%	16%	1%
Middlesex County	14	15%	18%	-3%
Montgomery County	111	14%	12%	2%
Nelson County	17	13%	13%	0%
New Kent County	41	19%	13%	6%

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Newport News City	353	20%	17%	3%
Norfolk City	340	17%	18%	-2%
Northampton County	34	29%	23%	6%
Northumberland County	9	9%	13%	-4%
Norton City	6	12%	18%	-6%
Nottoway County	24	17%	17%	0%
Orange County	69	23%	15%	8%
Page County	30	14%	14%	-1%
Patrick County	32	19%	16%	3%
Petersburg City	70	25%	30%	-6%
Pittsylvania County	79	13%	10%	3%
Poquoson City	29	20%	18%	2%
Portsmouth City	181	19%	17%	2%
Powhatan County	32	11%	9%	1%
Prince Edward County	32	23%	25%	-2%
Prince George County	81	20%	14%	5%
Prince William County	709	12%	14%	-1%
Pulaski County	43	15%	16%	0%
Radford City	32	22%	15%	7%
Rappahannock County	13	19%	13%	6%
Richmond City	368	23%	23%	0%
Richmond County	8	10%	14%	-4%
Roanoke City	147	16%	16%	0%
Roanoke County	120	12%	11%	1%
Rockbridge County	38	18%	12%	7%
Rockingham County	110	14%	11%	4%
Russell County	56	20%	10%	10%
Salem City	33	12%	10%	3%
Scott County	29	12%	9%	3%
Shenandoah County	68	16%	18%	-2%
Smyth County	47	15%	9%	6%
Southampton County	46	26%	15%	11%
Spotsylvania County	268	19%	14%	4%
Stafford County	393	22%	17%	5%
Staunton City	25	14%	17%	-3%
Suffolk City	161	16%	14%	2%

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Surry County	12	16%	19%	-3%
Sussex County	18	19%	17%	2%
Tazewell County	65	18%	13%	5%
Virginia Beach City	656	15%	13%	2%
Warren County	63	18%	17%	0%
Washington County	64	13%	10%	3%
Waynesboro City	26	14%	19%	-5%
West Point	8	14%	12%	1%
Westmoreland County	29	24%	21%	3%
Williamsburg-James City County	134	19%	15%	3%
Winchester City	79	25%	17%	8%
Wise County	47	11%	9%	2%
Wythe County	29	10%	12%	-1%
York County	149	18%	13%	5%

SOURCE: JLARC analysis of Virginia Department of Education data, 2015–16 to 2021–22.

NOTE: Pre-pandemic average includes five years from 2015-16 school year through the 2019-2020 school year. n.a. = not available.

Teacher quality

JLARC staff assessed the change in teacher quality during the pandemic by analyzing two indicators of teacher quality: proportion of teachers that are provisionally licensed and proportion that are teaching out-of-field (e.g., a subject area they are not certified to teach).

TABLE J-3
Teacher quality by school division

*PPA: Pre-pandemic average

Division	Provisionally licensed teachers			Out-of-field teachers		
	SY22	PPA*	% point change	SY22	PPA*	% point change
Accomack County	17%	14%	3%	15%	5%	10%
Albemarle County	5%	4%	1%	4%	6%	-2%
Alexandria City	8%	8%	0%	8%	2%	5%
Alleghany County	13%	8%	5%	8%	1%	8%
Amelia County	11%	6%	4%	2%	3%	-1%
Amherst County	5%	4%	1%	4%	1%	3%
Appomattox County	8%	11%	-3%	12%	8%	3%

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Arlington County	7%	6%	1%	3%	2%	0%
Augusta County	7%	3%	4%	4%	1%	3%
Bath County	10%	9%	1%	2%	1%	0%
Bedford County	9%	5%	4%	4%	2%	2%
Bland County	9%	14%	-5%	5%	5%	0%
Botetourt County	6%	2%	3%	4%	1%	3%
Bristol City	5%	3%	1%	7%	5%	2%
Brunswick County	15%	19%	-4%	4%	9%	-4%
Buchanan County	11%	5%	6%	0%	3%	-3%
Buckingham County	9%	7%	2%	11%	0%	11%
Buena Vista City	5%	10%	-4%	20%	2%	18%
Campbell County	5%	5%	0%	4%	2%	2%
Caroline County	13%	10%	3%	14%	4%	10%
Carroll County	3%	3%	0%	5%	3%	3%
Charles City County	9%	8%	1%	4%	10%	-5%
Charlotte County	NA	7%	NA	NA	3%	-3%
Charlottesville City	6%	6%	0%	4%	2%	2%
Chesapeake City	7%	3%	4%	1%	0%	1%
Chesterfield County	10%	6%	4%	4%	1%	3%
Clarke County	12%	8%	3%	10%	4%	6%
Colonial Beach	18%	28%	-10%	38%	12%	26%
Colonial Heights City	11%	6%	5%	2%	1%	1%
Covington City	3%	6%	-3%	0%	0%	0%
Craig County	20%	12%	7%	0%	0%	0%
Culpeper County	13%	10%	3%	8%	2%	5%
Cumberland County	10%	6%	4%	3%	3%	0%
Danville City	16%	16%	0%	10%	6%	3%
Dickenson County	9%	5%	4%	1%	0%	1%
Dinwiddie County	12%	6%	6%	3%	1%	3%
Essex County	18%	18%	-1%	9%	3%	6%
Fairfax County	7%	8%	-1%	9%	3%	6%
Falls Church City	6%	5%	2%	6%	2%	3%
Fauquier County	15%	10%	5%	13%	4%	8%
Floyd County	6%	10%	-5%	12%	8%	4%
Fluvanna County	7%	3%	4%	2%	0%	1%
Franklin City	41%	24%	16%	35%	4%	32%

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Franklin County	12%	9%	3%	3%	4%	-1%
Frederick County	6%	9%	-2%	3%	2%	1%
Fredericksburg City	24%	14%	10%	6%	0%	6%
Galax City	10%	3%	7%	7%	2%	5%
Giles County	7%	5%	2%	2%	1%	2%
Gloucester County	11%	6%	5%	1%	0%	1%
Goochland County	5%	7%	-2%	5%	3%	2%
Grayson County	12%	5%	7%	7%	2%	5%
Greene County	4%	5%	-1%	8%	5%	4%
Greensville County	29%	33%	-3%	8%	9%	-1%
Halifax County	23%	12%	11%	22%	4%	18%
Hampton City	15%	12%	3%	1%	0%	1%
Hanover County	6%	5%	0%	6%	1%	4%
Harrisonburg City	8%	5%	3%	6%	4%	2%
Henrico County	8%	6%	2%	2%	3%	0%
Henry County	7%	5%	1%	3%	2%	1%
Highland County	20%	19%	1%	31%	16%	14%
Hopewell City	17%	13%	4%	15%	4%	11%
Isle of Wight County	11%	8%	3%	11%	2%	10%
King and Queen County	11%	16%	-6%	12%	10%	2%
King George County	21%	14%	7%	15%	7%	8%
King William County	12%	6%	6%	4%	2%	2%
Lancaster County	17%	19%	-2%	4%	4%	0%
Lee County	6%	9%	-3%	8%	4%	4%
Lexington City	0%	3%	-3%	0%	1%	-1%
Loudoun County	7%	7%	0%	3%	2%	2%
Louisa County	11%	10%	0%	1%	1%	0%
Lunenburg County	13%	9%	3%	13%	4%	9%
Lynchburg City	11%	9%	2%	15%	3%	12%
Madison County	9%	11%	-2%	7%	7%	-1%
Manassas City	12%	10%	2%	14%	3%	11%
Manassas Park City	17%	14%	3%	6%	3%	3%
Martinsville City	18%	17%	1%	8%	3%	5%
Mathews County	6%	4%	2%	1%	5%	-4%
Mecklenburg County	14%	16%	-2%	12%	6%	5%
Middlesex County	9%	13%	-4%	13%	8%	4%

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Montgomery County	4%	3%	1%	1%	1%	1%
Nelson County	9%	6%	4%	5%	1%	4%
New Kent County	6%	4%	2%	3%	0%	3%
Newport News City	19%	9%	10%	12%	2%	10%
Norfolk City	17%	11%	6%	7%	3%	4%
Northampton County	19%	27%	-8%	4%	3%	0%
Northumberland County	14%	10%	4%	3%	0%	2%
Norton City	8%	6%	3%	16%	2%	14%
Nottoway County	13%	7%	6%	7%	3%	3%
Orange County	13%	13%	-1%	20%	8%	12%
Page County	8%	6%	1%	7%	3%	4%
Patrick County	7%	11%	-5%	4%	4%	0%
Petersburg City	37%	35%	1%	13%	9%	3%
Pittsylvania County	7%	5%	2%	3%	3%	0%
Poquoson City	7%	5%	2%	6%	2%	5%
Portsmouth City	19%	15%	4%	10%	2%	7%
Powhatan County	6%	2%	4%	1%	0%	1%
Prince Edward County	17%	19%	-2%	9%	3%	6%
Prince George County	9%	9%	0%	9%	3%	6%
Prince William County	9%	9%	0%	6%	4%	2%
Pulaski County	7%	5%	2%	3%	2%	1%
Radford City	5%	2%	3%	4%	1%	3%
Rappahannock County	15%	5%	10%	9%	3%	6%
Richmond City	18%	17%	1%	4%	5%	0%
Richmond County	5%	12%	-7%	8%	2%	6%
Roanoke City	12%	4%	7%	9%	0%	9%
Roanoke County	6%	5%	1%	1%	0%	0%
Rockbridge County	7%	5%	2%	4%	1%	4%
Rockingham County	3%	3%	1%	3%	1%	2%
Russell County	7%	6%	1%	3%	3%	1%
Salem City	6%	1%	4%	6%	2%	3%
Scott County	9%	7%	2%	9%	6%	3%
Shenandoah County	9%	10%	-1%	6%	3%	3%
Smyth County	7%	4%	2%	9%	11%	-3%
Southampton County	21%	14%	7%	20%	9%	11%
Spotsylvania County	10%	9%	2%	11%	3%	8%

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Stafford County	19%	10%	9%	15%	2%	13%
Staunton City	4%	3%	2%	4%	1%	3%
Suffolk City	11%	9%	2%	6%	3%	3%
Surry County	23%	7%	15%	15%	2%	13%
Sussex County	18%	10%	8%	8%	3%	5%
Tazewell County	8%	7%	1%	15%	1%	14%
Virginia Beach City	7%	5%	2%	3%	0%	3%
Warren County	12%	10%	2%	9%	1%	8%
Washington County	4%	2%	2%	4%	0%	3%
Waynesboro City	8%	3%	5%	7%	1%	6%
West Point	6%	3%	3%	14%	2%	12%
Westmoreland County	11%	21%	-10%	13%	8%	5%
Williamsburg-James City County	7%	4%	4%	4%	1%	3%
Winchester City	9%	6%	4%	12%	1%	11%
Wise County	7%	2%	5%	1%	0%	0%
Wythe County	5%	7%	-1%	2%	4%	-1%
York County	4%	2%	1%	3%	1%	2%

SOURCE: JLARC analysis of Virginia Department of Education teacher licensure data, 2014–15 through 2021–22

NOTE: Provisionally licensed teachers include both provisionally licensed and unlicensed teachers. Pre-pandemic average for provisionally licensed teachers represents a three-year average from 2016–17 through 2018–19; pre-pandemic average for out-of-field teachers represents a five-year average from 2014–15 through 2018–19.