



Pandemic Impact on Public K–12 Education

Study mandate

- Review the impact of the COVID-19 pandemic on Virginia's K-12 education system:
 - Student well-being
 - Student academic achievement and achievement gaps
 - Programs to address learning loss, including resource gaps
 - School staffing

SJ 308 (2021)

Research activities

- Review of academic research on effective K–12 practices
- Interviews and focus groups: subject-matter experts, school and division staff, VDOE staff, parents
- Analysis of data on: use of remote learning, student attendance, student assessments and academic outcomes, school staffing
- Surveys of all school divisions and a representative sample of school staff

In brief

The pandemic was an unprecedented disruption for K–12 students and staff.

As students returned to in-person learning, chronic absenteeism, classroom behavior, and reported mental health issues have worsened.

Multiple indicators of student academic achievement declined during the pandemic; some started to rebound as students returned to in-person learning.

The teacher workforce is smaller, less qualified, and less satisfied with their jobs than prior to the pandemic.

In this presentation

Background

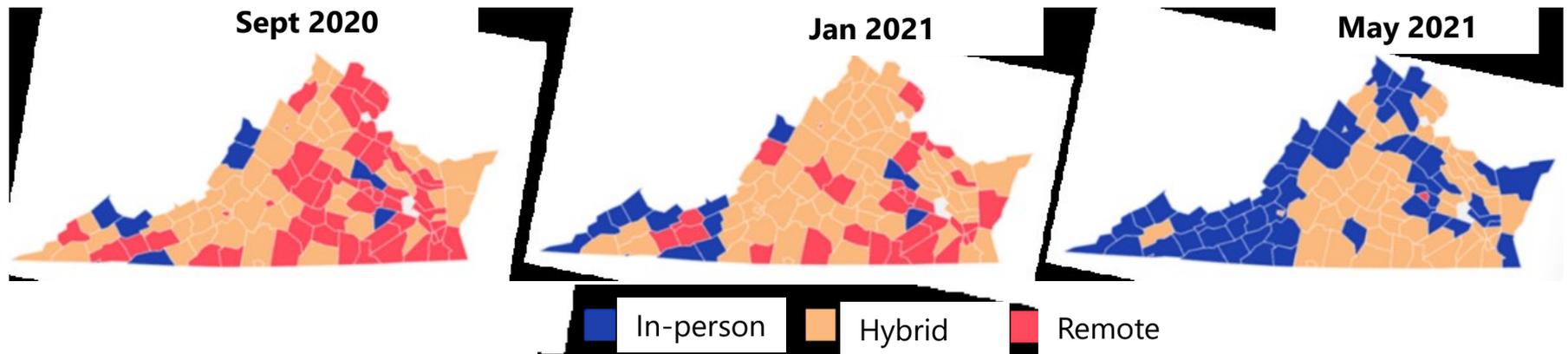
Student attendance, behavior, & mental health

Student academic performance

Teacher recruitment, retention, & quality

School divisions used remote learning during pandemic; returned in-person at varying rates

- Spring 2020 - State closed schools; all divisions remote
- Fall 2020 through Spring 2021 - Divisions returned to in-person instruction at varying rates



- Fall 2021 - All divisions used in-person instruction

Students faced numerous challenges; some left or delayed enrolling in the public K–12 system

- Remote instruction caused numerous challenges for many students
 - Inability to stay focused or pay attention
 - Lack of a responsible adult at home to help
- Some students lacked adequate internet access ($\approx 6\%$); others lacked a dedicated IT device ($\approx 5\%$)
- K–12 enrollment declined slightly ($\approx 3\%$), primarily because of parents homeschooling children, waiting to send children to kindergarten, or switching to private school

Substantial federal and state assistance is already being provided

- Federal government provided \$3.3 billion to Virginia through three separate federal stimulus bills
- Divisions likely have substantial remaining federal funds to be used through 2024
- Major recent state initiatives include:
 - Attendance support program
 - New and expanded early childhood reading initiatives
 - Funding for school staff raises and bonuses

In this presentation

Background

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Finding

Chronic absenteeism substantially increased when students returned to in-person instruction, which a state attendance support program will try to address.

Chronic absenteeism nearly doubled after onset of pandemic

- 19% of students statewide (~245,000) were chronically absent in 2021–22
 - Some, but not all, of increase in absenteeism due to quarantining and illness
 - Poor attendance affects student engagement, ability to learn, progression toward a diploma, and outcomes
- 2022 budget includes \$3.5 million for VDOE to contract with a private vendor to develop an attendance support program in 2023

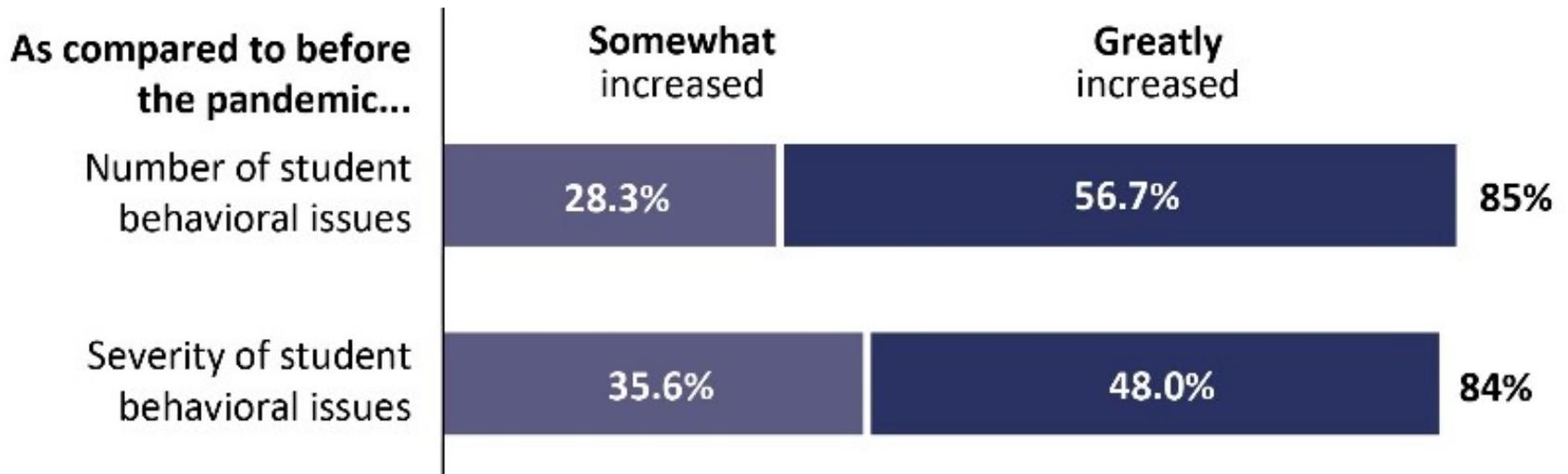
Chronic absenteeism = student missing 10% or more days in the school year (approximately 18+ of 180 days)

Finding

Student behavior was a major problem when students returned to in-person learning.

Staff rate student behavior as most serious issue to address and cite increases in behavioral issues

- School staff rated student behavior as the most serious issue when asked to select from a list of 15 potential issues
- Over half of school staff reported student behavior was a “very serious” problem



JLARC survey of staff at 47 schools in 12 school divisions, spring 2022.

Existing behavior support program likely has unmet demand after increase in student behavior issues

- State-funded program through VTSS to provide support and training to schools
- VTSS provides staff at participating schools with coaching and training on behavior and classroom management
- Program shows positive impacts on student behavior
- Based on current resource levels, behavior support program can reach only 1/3 of schools statewide; likely has unmet demand

VTSS: Virginia Tiered Systems of Supports

Policy option

The General Assembly could fund Virginia Tiered Systems of Supports to provide training and coaching on behavior and classroom management to staff at additional schools.

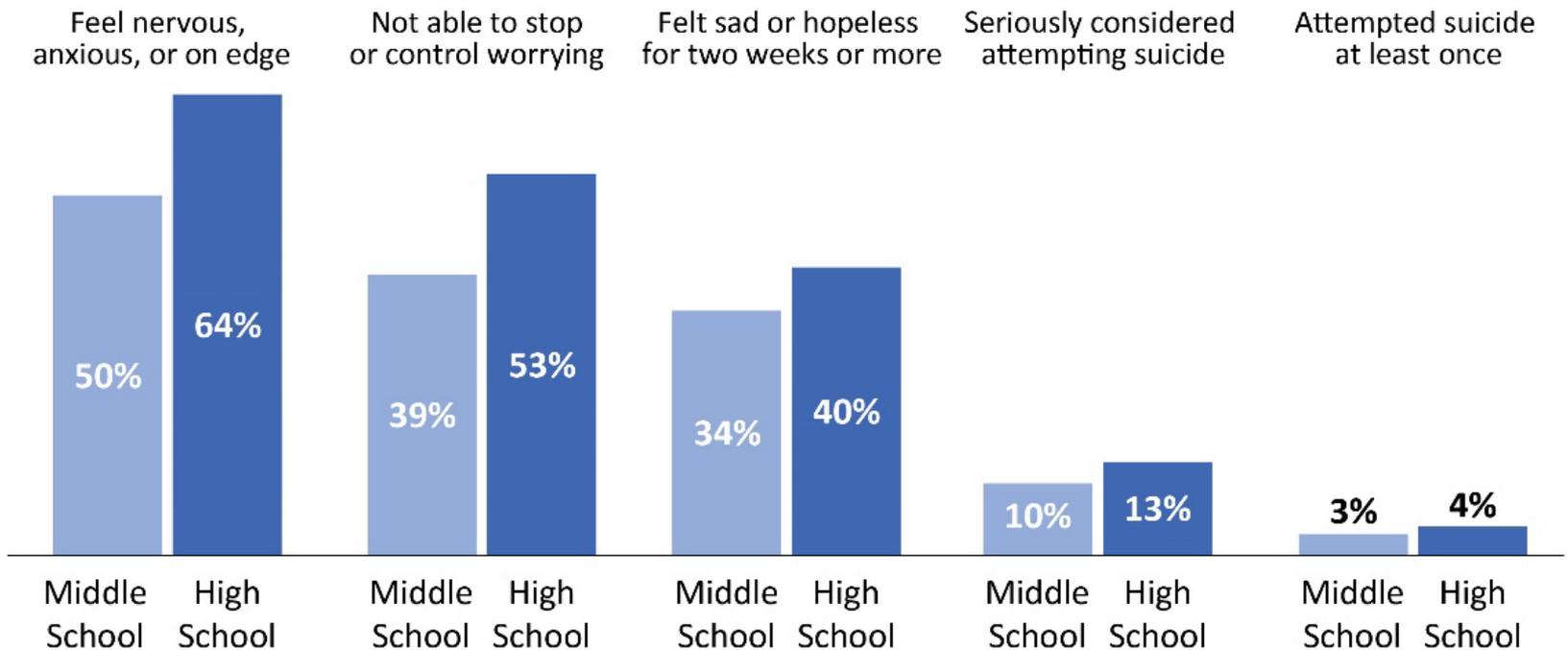
Finding

K-12 staff, experts, and students report concerns about student mental health during pandemic.

School staff and mental health professionals reported concerns about student mental health

- Half of school staff reported student anxiety or mental health were “very serious” issue
- Youth mental health providers and pediatricians shared similar concerns:
 - “Pandemic of anxiety.”
 - “My practice has become a mental health practice.”
- Student mental health issues can negatively affect academic performance and staff working conditions

Students reported high levels of mental health issues during the pandemic



Source: VDOE School Climate Survey results - 2021 survey of middle school students and 2022 survey of high school students

Finding

The role of school counselor is not clearly defined, which can limit direct counseling to students.

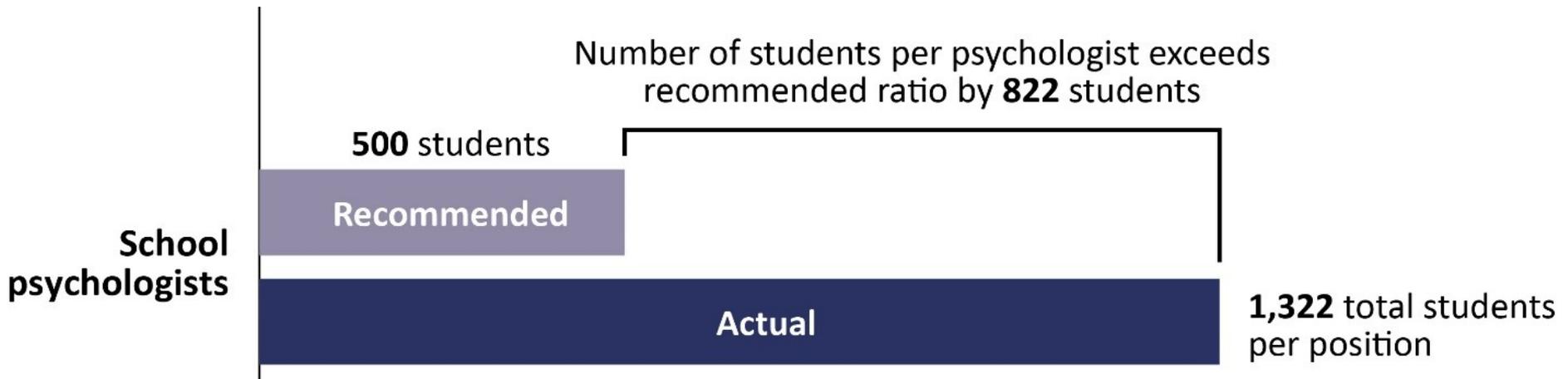
Divisions have particularly high vacancy rates for school psychologists.

Counselors cannot maximize student counseling because of time spent on non-counseling activities

- School counselors comprise the largest portion of school mental health staff
- Code of Virginia requires counselors to spend at least 80% of their time on “direct counseling” but does not define which activities qualify
- Counselors report performing non-counseling activities (e.g., test administration, clerical duties, covering classes)
 - In lieu of providing counseling and support to students
 - Non-counseling activities are considered inappropriate role by American School Counselor Association

Divisions have high vacancy rates for school psychologists and employ fewer than recommended

- Eleven percent of school psychologist positions statewide are vacant, one of the highest rates among all staff
- Virginia employs fewer psychologists than recommended by the National Association of School Psychologists



Source: VDOE Position and Exits Collection, October 2021.

Recommendations

The General Assembly may wish to consider amending the Code of Virginia to:

- more clearly define direct school counseling and to expressly exclude administrative and support activities that are not considered direct counseling.
- allow qualified, licensed psychologists in other fields to be provisionally licensed as a school psychologist.

In this presentation

Background

Student attendance, behavior, & mental health

Student academic performance

Teacher recruitment, retention, & quality

Multiple indicators of academic achievement declined during the pandemic

- Early childhood literacy declined during the pandemic
- Reading and math SOL scores have generally begun to rebound in 2022, but scores remain below pre-pandemic levels
- From 2019 to 2022
 - 4th grade reading and math scores declined more than the national average on nationwide assessment
 - 8th grade reading and math scores follow national trends
- Some pre-existing achievement gaps among Virginia students widened, especially among younger students

Pandemic-related declines in academic performance were not typical, will take time to resolve

- Prior to the pandemic, student achievement was fairly stable with the exception of a declining trend in reading
- Divisions that relied longer on remote instruction generally experienced larger declines but have also rebounded by more
- Experts estimate that it could take three-to-five years for students to return to pre-pandemic achievement levels

See Chapter 4 and Appendix F of written report for detail on student performance prior to and during the pandemic.

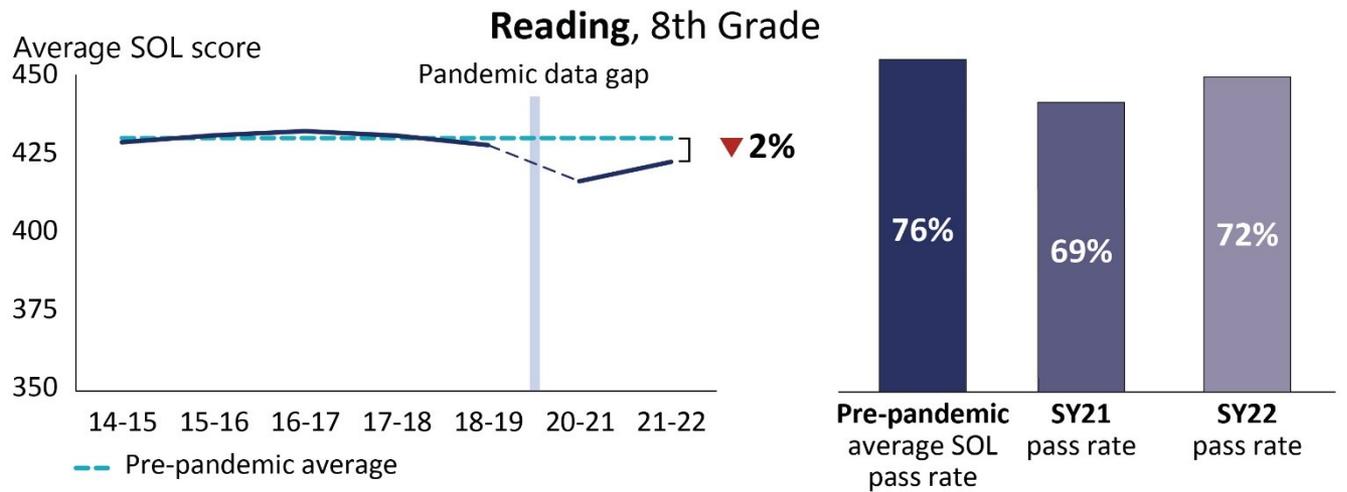
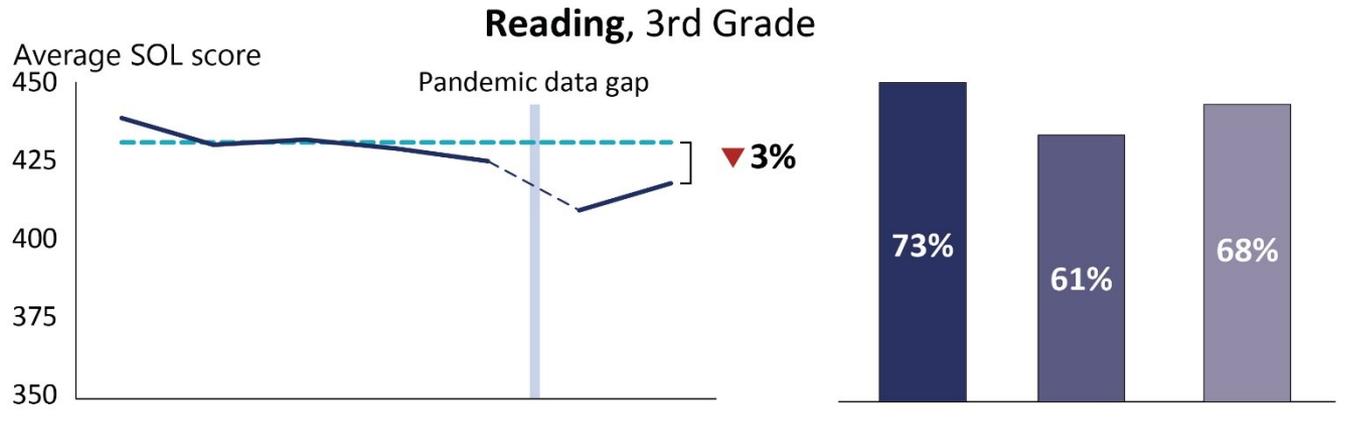
State and school divisions have many efforts underway or plan to address decline

- Divisions report hiring more instructional staff, providing tutoring, and providing additional instructional time (e.g., before or after school and summer school programs)
- State recently funded new early childhood reading programs; VDOE planning to establish learning recovery grants and tutoring programs
- Improvement will take time:
 - Teachers report students can only absorb so much additional instruction at one time
 - Staff burnout and vacancies can limit amount of additional instruction that can be delivered

Finding

Multiple indicators show a decline in reading and literacy skills during the pandemic.

3rd and 8th grade reading SOL scores are lower than pre-pandemic scores



Reading SOL scores declined across most school divisions; some experienced greater declines

- 2022 reading scores were lower than the pre-pandemic average in 113 of 132 school divisions
- Some school divisions have low performance that is of greater concern
 - Scores declined 5% or more in 21 divisions
 - More than half of students failed the 3rd grade reading SOL in 17 divisions

Many pre-existing achievement gaps widened in literacy among young students

	Kindergarten PALS	1 st Grade PALS	2 nd Grade PALS
Black students vs. white students	↑	↑	↑
Hispanic students vs. white students	↑	↑	↑
Economically disadvantaged students vs. peers	≈	↑	↑
English language learners vs. peers	↑	↑	≈
Students with disabilities vs. peers	≈	≈	↑

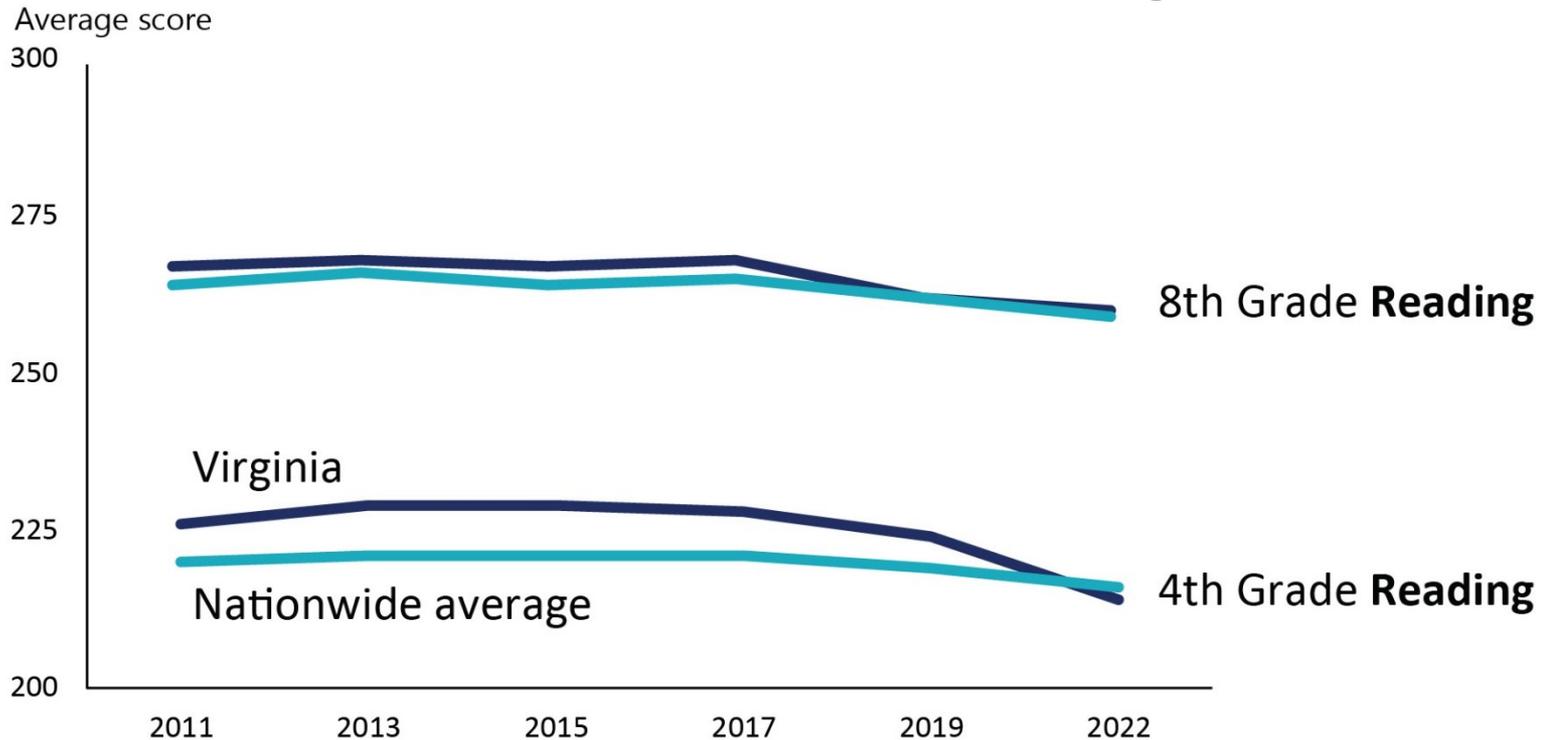
↑ = achievement gap widened in 2021–22 compared to pre-pandemic

≈ = achievement gap stayed about the same in 2021–22 compared to pre-pandemic

PALS = Phonological Awareness Literacy Screening. PALS achievement gaps widened if the relative difference in the proportion of students that met PALS benchmarks changed by 5 percentage points or more.

Virginia 4th grade reading performance declined more than, and 8th grade reading declined similarly to, national average decline

National Assessment of Educational Progress



State-led efforts for improving reading performance are underway

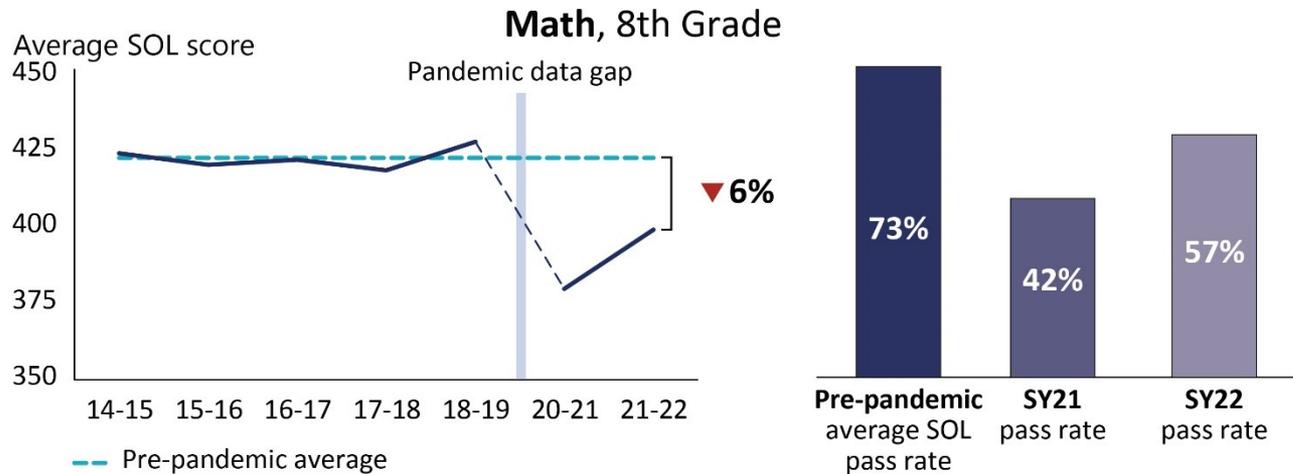
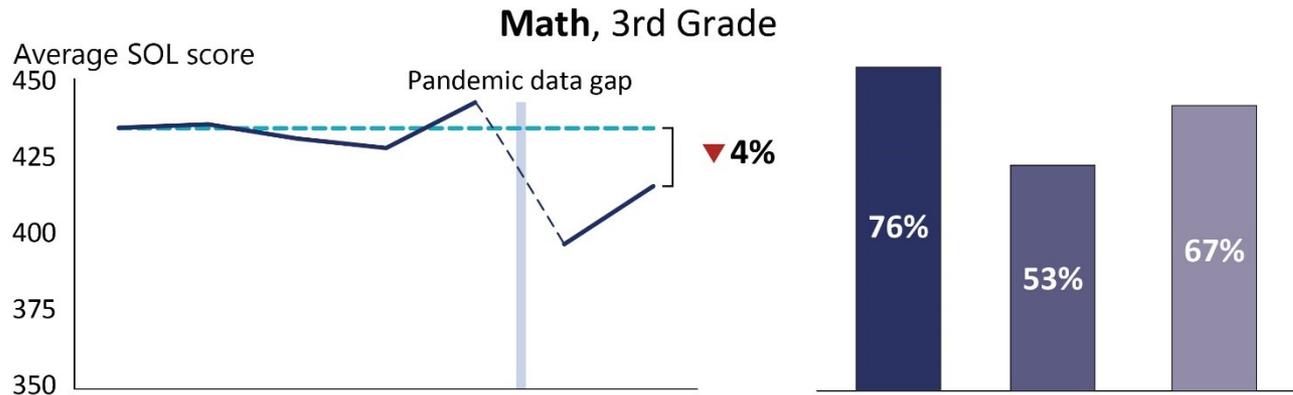
- Early Intervention Reading Initiative funding nearly doubled (\$27M to \$51M) beginning with the current school year
- Virginia Literacy Act was passed: requires evidence-based instruction, more reading specialists, professional development, and individualized student reading plans
- Low-performing schools receiving funds to hire additional reading specialists

Findings

Multiple indicators show a decline in math skills during the pandemic.

The state lacks a program to specifically address decline in elementary student math.

Math SOL scores declined and then rebounded, but are still below pre-pandemic averages



Math SOL scores declined across most school divisions; some experienced greater declines

- 2022 math scores were lower than the pre-pandemic average in 122 of 132 school divisions
- Some school divisions have low performance that is of greater concern
 - Scores declined 5% or more in 62 divisions
 - More than half of students failed the 3rd grade math SOL in 18 divisions
 - More than half of students failed the 8th grade math SOL in 58 divisions

SOL score achievement gaps widened for Black and Hispanic students in 3rd grade math

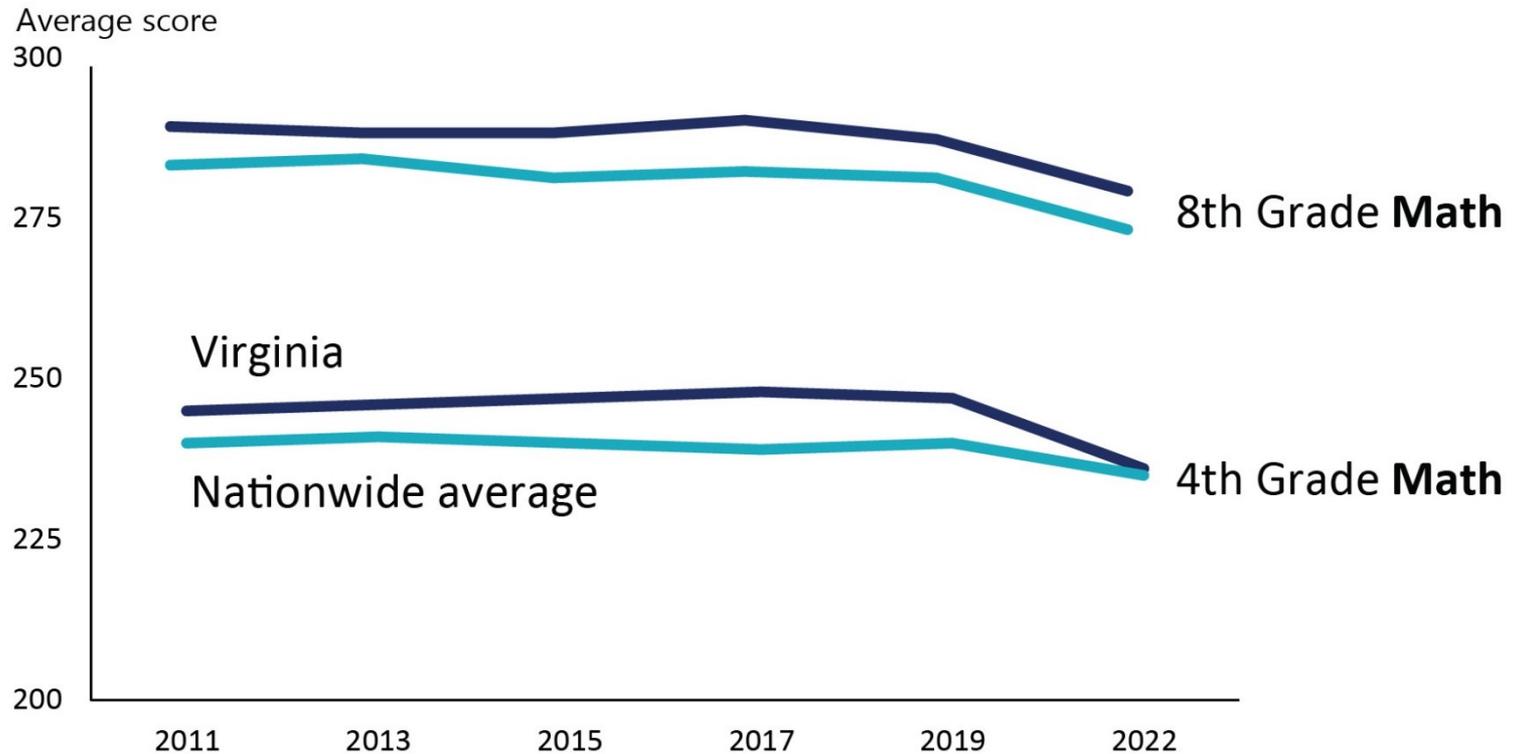
	3 rd Grade Reading	3 rd Grade Math	8 th Grade Reading	8 th Grade Math
Black students vs. white students	≈	↑	≈	≈
Hispanic students vs. white students	≈	↑	≈	≈
Economically disadvantaged students vs. peers	≈	≈	≈	≈
English language learners vs. peers	≈	≈	≈	≈
Students with disabilities vs. peers	↓	↓	↓	↓

- ↑ = achievement gap widened in 2021–22 compared to pre-pandemic
- ↓ = achievement gap narrowed in 2021–22 compared to pre-pandemic
- ≈ = achievement gap stayed about the same in 2021–22 compared to pre-pandemic

SOL achievement gaps widened/narrowed if the relative difference in average SOL scores changed by 2 percentage points or more.

Virginia 4th grade math performance declined more than, and 8th grade math declined similarly to, national average decline

National Assessment of Educational Progress



Math instructional support program could be created to provide targeted, intensive help to students

- Initiative could be designed similarly to states existing ARI and EIRI programs
- New math support program could
 - be targeted to elementary students who fail math SOLs
 - provide 2.5 hours of additional instruction per week
 - use a lower instructor-to-student ratio than general classroom

Number of eligible students	Potential lower-end cost estimate (based on ARI ratio)	Potential high-end cost estimate (based on EIRI ratio)
90,878	\$19M	\$38M

ARI: Algebra Readiness Initiative. EIRI: Early Intervention Reading Initiative.

Recommendation

The General Assembly may wish to consider creating and funding a temporary math instructional improvement program to help elementary school students who fail their math Standards of Learning test.

Finding

Test scores and teachers indicate wider variation in academic skills among students in same grade and classes.

Variation in academic skills and achievement among students increased during the pandemic

- Difference in individual students' SOL scores compared with the average score was greater in 2021–22 than before the pandemic
- 80% of teachers and principals surveyed indicated wider variation in academic skills among students

Variation in skills requires individualized or small group instruction, difficult for a single teacher

- Providing individualized or small group instruction to students with similar skill levels is a best practice that allows tailoring instruction to student needs
- Teachers emphasized the difficulty of individualized or small group instruction without another adult in the classroom
 - “I cannot close the gaps of students working at four different levels in every content area on my own.”
 - “If I’m with that small group, there’s 24 other students that I’m not with. It would help so much to have an instructional assistant in every classroom.”

Instructional assistants could facilitate individualized instruction; address other pandemic-related issues

- Instructional assistants likely more feasible and cost-effective than hiring more teachers
- Can help provide individualized instruction, also address teacher workload and classroom management challenges
- Could be temporary, targeted initiative to support the schools most in need of assistance

Accreditation rating (2022–23)	Number of schools	Fall enrollment among schools	1 assistant per 100 students	1 assistant per 20 students
Schools with performance below <i>five or more</i> accreditation standards	20	13,598	\$3M	\$12M
Schools with performance below <i>three or more</i> accreditation standards	59	36,903	7M	34M

Recommendation

- The General Assembly may wish to consider providing additional, temporary funding for a subset of schools accredited with conditions to hire more instructional assistants to:
 - provide small group and individualized instruction necessitated by bigger variation in academic skills,
 - manage challenging student behaviors within classrooms, and
 - reduce teacher workloads.

In this presentation

Background

Student attendance, behavior, & mental health

Student academic performance

Teacher recruitment, retention, & quality

Teachers cited serious issues contributing to lower job satisfaction

- Teachers cited the following as the most serious issues they face since the onset of the pandemic:
 - more students with behavior and mental health issues
 - low pay
 - lack of respect from parents and the public
 - higher workload because of unfilled vacancies
- Strategies most favored by division leadership and teachers to address concerns are higher-cost, longer-term changes: higher salaries, smaller class sizes, and less standardized testing

JLARC surveys of school division leadership (summer 2022) and school staff (spring 2022).

State and school divisions have efforts underway to address teacher workforce challenges

- Virginia has alternative paths to teaching and licensure
 - Career Switchers
 - Provisional licensure
- 2022 General Assembly funded 5% raises for teachers in FY23 and FY24, one-time \$1,000 bonus, and teacher signing bonuses
- VDOE publicizing the teaching profession and developing a plan to address teacher shortages

Findings

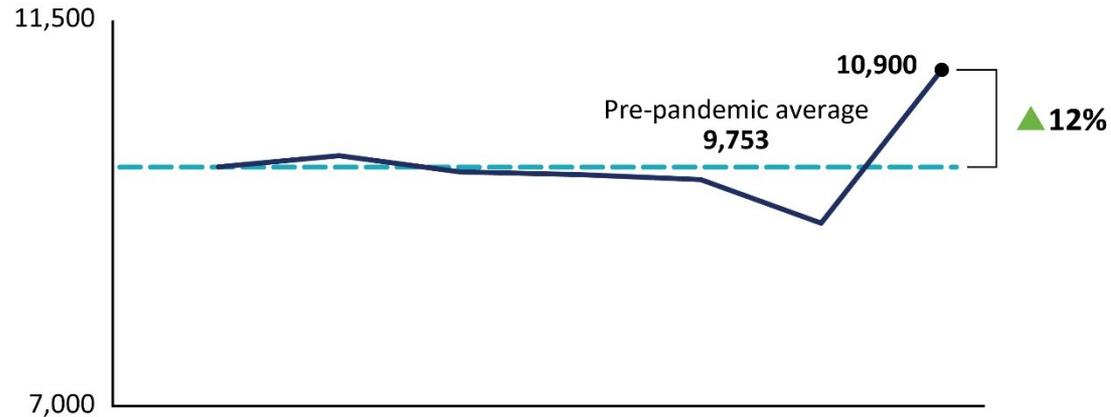
More teachers have been leaving the workforce and fewer have been entering.

The number of vacant teaching positions has increased.

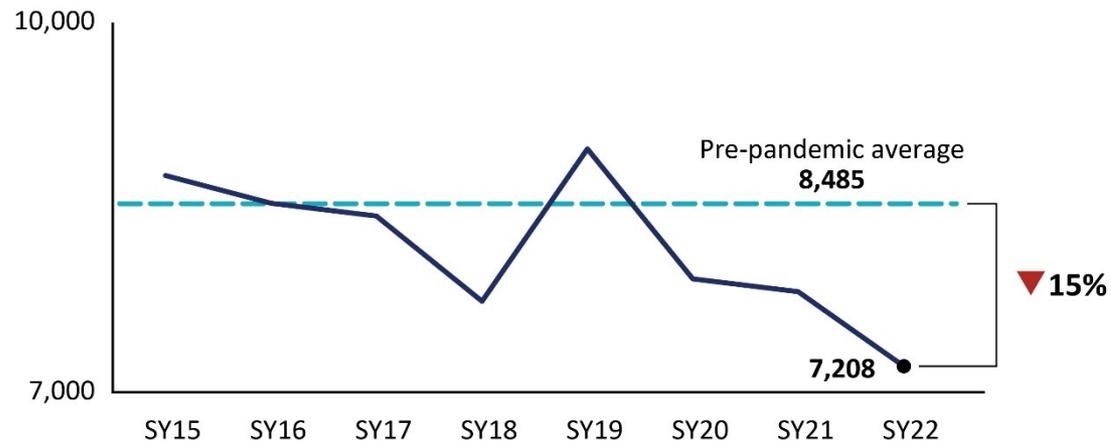
Virginia is relying more on teachers who are not fully qualified.

More Virginia teachers are leaving and fewer are entering the teacher workforce

Teachers Leaving the Workforce



Teachers Entering the Workforce (First-time licenses)



Number of teacher vacancies has increased statewide and in most school divisions

- 2,800 teacher vacancies in October 2021 (~3% of workforce); compared to about 800 in a typical year prior to the pandemic
- Preliminary teacher vacancy data (August 2022) indicates further increases
- Majority of divisions (93 of 132) had increase in teacher vacancies compared with before the pandemic
- Ten percent or more of teacher positions were vacant in six divisions

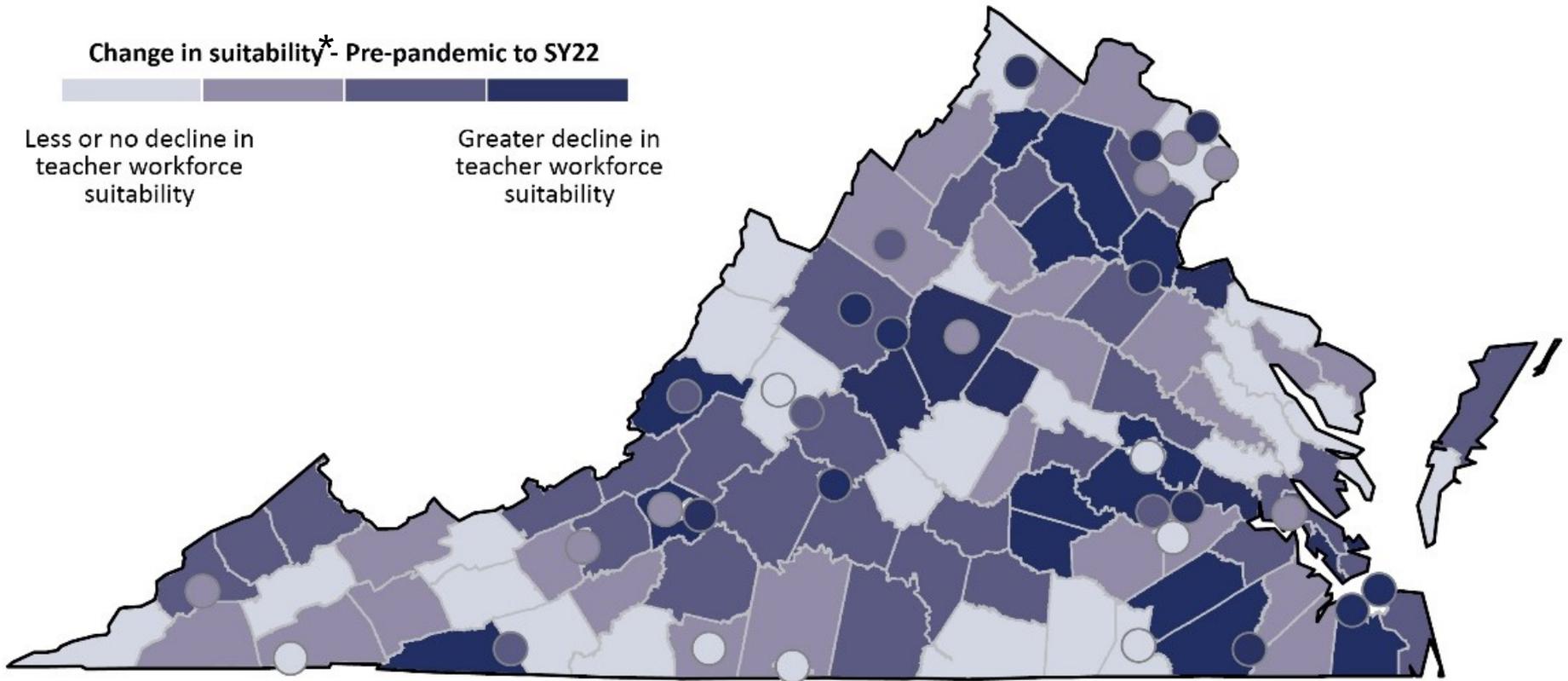
Virginia is relying more heavily on teachers who are not fully qualified

- Many factors contribute to student performance, but research concludes that teacher quality matters most
- Indicators of teacher quality declined during the pandemic

	Pre-pandemic	2021–22
Provisionally licensed teachers	7.7%	9.5%
“Out-of-field” teachers	2.4%	6.2%

Provisionally licensed teachers include both provisionally licensed teachers and unlicensed teachers. Out-of-field teachers are those teaching subject matter that differs from their area of certification.

Some divisions experienced substantial declines in both number of teachers and teacher quality



*“Suitability” defined as adequate number of fully qualified teachers.

Findings

Divisions are pessimistic about their ability to employ a suitable teacher workforce for the 2022–23 school year.

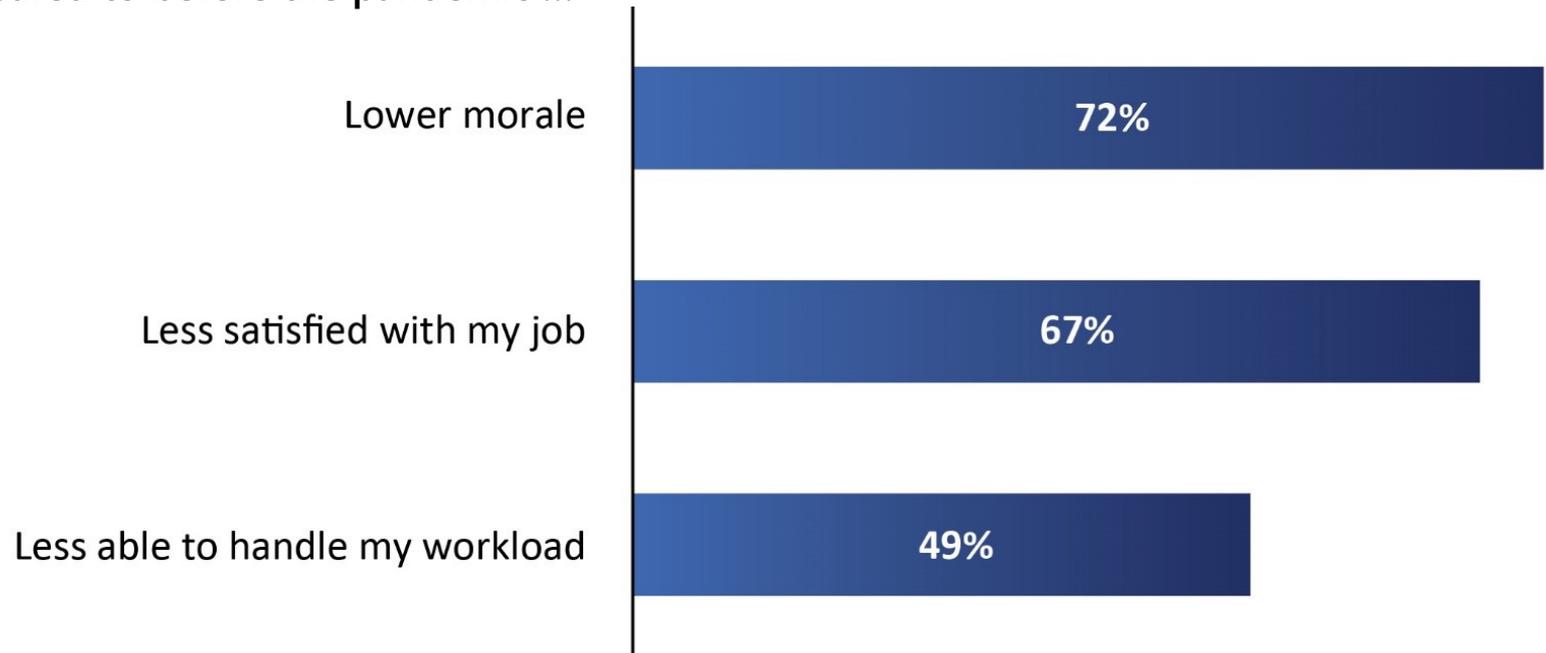
Teacher morale and job satisfaction is worse since the pandemic.

Many divisions were not confident they would have suitable teacher staffing this school year

- 52% of divisions were not optimistic about their ability to employ a suitable teacher workforce
- Majority of divisions indicated recruitment and retention were more difficult for 2022–23 than previous two years
- Preliminary 2022–23 teacher vacancy and teacher departure data indicates further increase in number of vacant positions and teachers leaving the workforce
- Teacher quality data is not yet available for 2022–23 but has likely worsened due to higher turnover rates

Many teachers report lower morale and being less satisfied with their job than before the pandemic

Compared to before the pandemic ...



JLARC survey of staff at 47 schools in 12 school divisions, spring 2022.

Teacher incentives—using state and unused federal funding at localities—would likely help

Problem	Potential solution	Target divisions with:	Potential amount to teachers	Potential cost of state share
Current teachers leaving	Teacher retention bonuses	More teacher turnover	\$1,000 to \$5,000	<\$1M to \$11M
Difficulty hiring teachers	Teacher signing bonuses	More teacher vacancies	\$1,000 to \$5,000	<\$1M to \$4M
Not enough licensed teachers	Reimburse costs to become licensed	More provisionally licensed teachers	\$450 to \$1,350	\$50K to \$1.2M

Recommendations

The General Assembly may wish to consider providing the state share of funding* to divisions with increased:

- teacher turnover to be used for teacher retention bonuses.
- teacher vacancies for signing bonuses for new teachers.
- number of provisionally licensed teachers to provide tuition assistance for the cost of becoming fully licensed.

*State share intended to be an incentive for localities to use appropriated—but unspent—pandemic funding in local school divisions.

Key findings

The pandemic was an unprecedented disruption for K–12 students and staff.

As students returned to in-person learning, chronic absenteeism, classroom behavior, and reported mental health issues have worsened.

Multiple indicators of student academic achievement declined during the pandemic; some started to rebound as students returned to in-person learning.

The teacher workforce is smaller, less qualified, and less satisfied with their jobs than prior to the pandemic.

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