

# Facing Learning Disruption: Examining the Effects of the COVID-19 Pandemic on K-12 Students



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March 2021



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## Executive Summary

Higher education can help improve Washington residents' outcomes so they will have the opportunity to lead productive and financially rewarding lives and contribute to the economic success and social wellbeing of our state. But the COVID-19 crisis is having a major impact on higher education, and postsecondary enrollment in Washington was down 13 percent in the fall of 2020 compared to the prior year (Kwakye et al., 2021). Engaging with Washington residents to boost postsecondary enrollment is critical for our state, including strengthening the transition from K-12 schools to postsecondary programs.

School closures and remote learning during the ongoing COVID-19 crisis have also profoundly impacted K-12 students' routines and may have an impact on their transitions to postsecondary programs. But the evidence of the effects on students' learning is still limited as many standard academic progress measures have been altered or altogether canceled due to the pandemic. The pandemic has also caused non-academic challenges that have impacted students. Assessing students' academic performance during the pandemic is only going to tell us part of the story of the impact on learning. However, understanding the impact on learning for K-12 students can help prepare educators and policymakers to address the potential effects on future high school graduation rates and transitions to postsecondary education that are critical for our state's economic and social wellbeing.

Piecing together available evidence helps illustrate the impact of education disruptions on students during the current pandemic and suggests that K-12 students are facing learning challenges. This report presents insights about the impact on learning, highlighted below.

- **One out of four public high school students in Washington received a grade that does not earn them credit during the 2020-2021 academic year as of March 2021.** This may indicate that students face challenges that are impacting their coursework and may have the potential to affect their high school graduation outcomes and postsecondary preparedness.
- **There was a 42 percent increase in the proportion of high school students in Washington receiving grades that do not earn them credit in the 2020-2021 academic year compared to the prior year.** A higher proportion of students received an "F," "No Credit," or "Incomplete" grade as of March 2021 than during the same period in the year before.
- **Fewer high school seniors in Washington have completed a FAFSA during the 2020-2021 academic year compared to the previous year.** The drop in financial aid applications may signal the potential for a lower postsecondary transition rate in the coming year.
- **Washington families report that children are spending less time on learning activities than before the pandemic.** In addition, many families report that children have less frequent live contact with teachers (*U.S. Census Household Pulse Survey, 2021*).

- **Almost half of public school students in Washington still have no regular in-person instruction, and in-person instruction is even less common for high school students.** However, an emergency proclamation by Governor Inslee issued on March 15, 2021 aims to increase opportunities for in-person learning for all public K-12 schools by April 19, 2021.
- **National diagnostic testing data for 1<sup>st</sup> through 8<sup>th</sup> grade students revealed that more students were behind grade level at the start of the 2020-2021 academic year during the pandemic compared to historical patterns.** The drop in math proficiency was greater than in reading, and younger students tended to have a greater change from historical patterns than older students (*Curriculum Associates, 2020*).
- **Students from lower-income schools and schools with a higher proportion of students of color tended to have a greater increase in testing below grade level.** These patterns suggest that the pandemic is having an uneven impact and may intensify existing equity gaps in student outcomes for low-income students and students of color (*Curriculum Associates, 2020*).
- **Learning disruption could have profound long-term implications not only for individual students but for our future economy.** National research projects that, if in-person instruction does not resume until Fall 2021, the consequences of learning disruption could create an additional 1 million high school dropouts and cause a loss in national GDP of up to \$483 billion by 2040 (Dorn et al., 2020).

Educators and policymakers need more evidence around students' academic progress during the pandemic to address the impact on learning effectively and proactively. Comprehensive and timely data can help target supports for students who need them most. Strategies to address learning disruption should incorporate practices from evidence-based and emerging programs to have the most impact on Washington students. Some of the evidence-based strategies and emerging policies from other states described in the report are highlighted below.

- **Early warning systems** that identify key predictors of high school graduation can help target interventions to students who are falling behind.
- **High dosage tutoring** that is tied to classroom learning has been shown to improve academic achievement and can help mitigate the pandemic's impact on learning.
- **Extended learning time interventions** can accelerate learning and have been shown to help struggling students improve academic performance.
- **Learning disruption programs** held after school and during summer break are emerging as a key strategy to address the impact of the COVID-19 pandemic on K-12 students.
- **Math and reading corps programs** are being adapted as emerging approaches to provide additional resources to schools to help address the pandemic's impact on learning.

The pandemic's toll on students is not only impacting individual students. It has the potential to have severe consequences for our state in the future. Addressing learning disruption is critical to ensuring that K-12 students can get back on track, make sufficient progress to reach high school graduation, and be prepared with the skills and knowledge they need to pursue postsecondary opportunities.

## Introduction

The COVID-19 crisis has had a profound impact on the education system. Many students across the country have adapted to school closures and shifted to remote learning. Other unprecedented changes, like the cancellation of many assessments and standardized tests, have altered the school year and upended typical metrics of student learning. Many schools have struggled to provide the amount and quality of instruction that students normally receive in person. And many families have struggled to adequately support students who are learning from home. Closures of physical school buildings have not only cut off access to classrooms but, in some cases, services that students and families rely on for their education and wellbeing. Evidence suggests that the interruption in education caused by the COVID-19 crisis may lead to significant impacts on learning that may have a disproportionate impact on low-income students and students of color.

Research suggests that younger students may be the most vulnerable to remote learning challenges (NASEM, 2020). But high school students are not immune to learning disruption caused by the COVID-19 crisis. The impact of learning disruption on high school students may have a pronounced and immediate effect on college enrollment, which has already seen a substantial decline during the pandemic (Kwakye et al., 2021). Evidence of the effects of the pandemic on high school students is limited, however some indicators can help provide a picture of the impact on learning and help guide the discussion around how to address these issues going forward.

The pandemic has not only had a significant impact on students' academic preparation<sup>1</sup>. Students are also struggling with mental health issues due to the effects of the crisis (Leeb et al., 2020). In addition, families are facing unique challenges—like working from home alongside their children's remote learning, financial insecurity, and concerns around health and safety. So, assessing students' academic performance during the pandemic is only going to tell us part of the story of the impact on learning. **However, understanding the impact on learning for K-12 students can help prepare educators and policymakers to address the potential effects on future high school graduation rates and transitions to postsecondary education that are critical for our state's economic and social wellbeing.**

This report compiles national and Washington evidence of the impact of the pandemic on student learning, highlights some potential implications for the future, and offers some evidence-based strategies to help mitigate the impact on learning and ensure all students have the skills and knowledge they need to be successful in the future.

## What is the evidence of the pandemic's impact on learning?

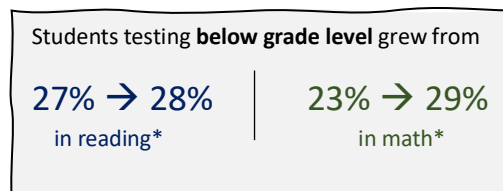
The COVID-19 crisis has ushered in a period of unprecedented changes in education. School closures and online learning have interrupted normal learning cycles, and many students have likely fallen behind academically. Evidence of student learning is still limited as many standard measures, including annual

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<sup>1</sup> This report does not use the term "learning loss" to describe the learning that students have not mastered due to the pandemic. The report instead focuses on the available data and research to provide insights on how the pandemic has impacted students, and how the education system can meet students' needs during this unprecedented time. This reflects the idea that all students can learn if they have equitable learning opportunities, quality instruction, and adequate resources.

assessments and standardized tests, have been altered or altogether canceled due to the pandemic. Piecing together the available evidence helps illustrate the impact of education disruptions on students.

Evidence from national diagnostic testing results that have focused primarily on elementary and middle school students can be used to explore the impact on learning during the COVID-19 crisis. Results for reading and math tests suggest that a greater proportion of students started the 2020-2021 school year with below grade level placement scores than in previous years<sup>2</sup>. For students tested across the United States in 1<sup>st</sup> through 8<sup>th</sup> grades, 1.5 percentage points more students placed below grade level in reading, and 6.4 percentage points more students placed below grade level in math (*Curriculum Associates, 2020*). Further breakdown by grade level revealed that students in lower grades tended to have a more significant increase in the proportion testing below grade level compared to students in higher grades, suggesting that the interruption in school operations in the spring of 2020 may have had a more profound impact on younger students than older ones.



\*Comparison of historical average and Fall 2020 diagnostic testing data for sample of 1<sup>st</sup>-8<sup>th</sup> grade students in the U.S.

Diagnostic testing results also indicate that some groups of students saw larger learning slides than others. Third-grade students who attended schools with a higher proportion of BIPOC students experienced a greater increase in students testing below grade level than their peers at schools with fewer BIPOC students<sup>3</sup>. Students who attended schools with lower median household incomes were also more likely to experience a greater increase in students testing below grade level than their higher-income peers (*Curriculum Associates*). These findings at the national level reveal some of the patterns in learning disruption during the COVID-19 crisis that are likely to be reflected in Washington data. Appendix A provides detailed breakdowns of national diagnostic testing results by grade level, subject, and school characteristics.

Some data about the impact on learning in Washington is available, but data gaps exist around students' academic progress because of challenges with student assessments. Statewide data on grades for high school students helps illustrate academic challenges during this unprecedented school year<sup>4</sup>. As of mid-March 2021, 14 percent of public high school students in Washington received at least one failing grade (F), 9 percent received at least one "No Credit" (NC), and 5 percent received at least one "Incomplete" (I) during the 2020-2021 school year (figure 1). Failing, no credit, or incomplete grades for a course do not count towards students' credits earned for their diploma. Additionally, they offer evidence that students may not have reached proficiency in course content, signifying that they may not be on track to make academic progress towards high school graduation. However, new Washington State Board of Education rules may allow flexibility and waivers for certain high school graduation requirements due to the pandemic<sup>5</sup>.

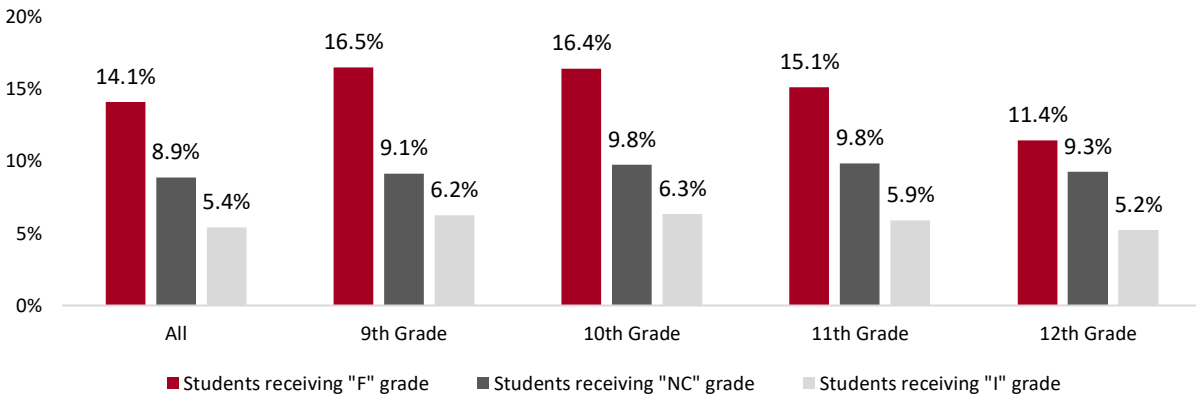
<sup>2</sup> Historical average for comparison includes data from three most recent school years: 2017-2018, 2018-2019, and 2019-2020

<sup>3</sup> BIPOC (Black, Indigenous, and People of Color) students include American Indian/Alaskan Native, Asian, Black/African American, Hispanic, Native Hawaiian/Other Pacific Islander, and Two or More Race students

<sup>4</sup> After the onset of the pandemic in the spring of 2020, the Washington Office of the Superintendent of Public Instruction (OSPI) issued guidance and emergency rules around grading for high school students across the state. The policy was revised for the 2020-2021 school year. See: [https://www.k12.wa.us/sites/default/files/public/communications/OSPI%20Student%20Learning%20and%20Grading%20Guidance\\_4-21-2020.pdf](https://www.k12.wa.us/sites/default/files/public/communications/OSPI%20Student%20Learning%20and%20Grading%20Guidance_4-21-2020.pdf) and <https://www.k12.wa.us/sites/default/files/public/bulletinsmemos/bulletins2020/B088-20.pdf>

<sup>5</sup> The Washington State Board of Education emergency rules adopted on March 11, 2021 allow flexibility and local approval for the waiver of certain high school graduation requirements for the class of 2021 due to the COVID-19 pandemic. See: <https://www.sbe.wa.gov/our-work/waivers>

**Figure 1. Washington public high school students with a failing, no credit, or incomplete grade, August 2020-March 2021**

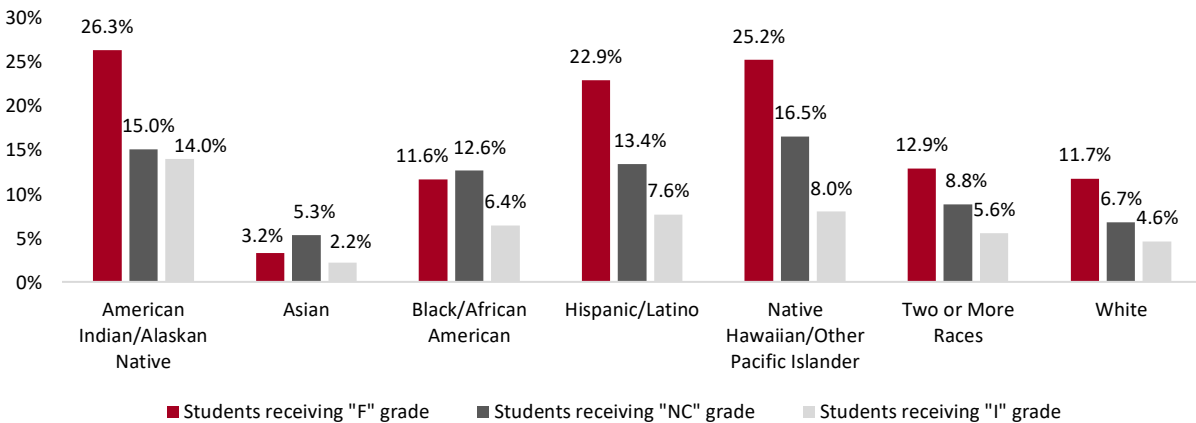


Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Categories are not mutually exclusive

State grading data also shows that the proportion of students receiving failing grades, no credit, or incomplete varies across student groups. For instance, approximately a quarter of American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Hispanic students received at least one failing grade—rates that are substantially higher than some of their peers (figure 2). The disproportionate impact of the pandemic on communities of color may also worsen equity gaps in failing grades, no credit, or incomplete, ultimately contributing to worse outcomes for students of color.

**Figure 2. Washington public high school students with a failing, no credit, or incomplete grade by race, August 2020-March 2021**

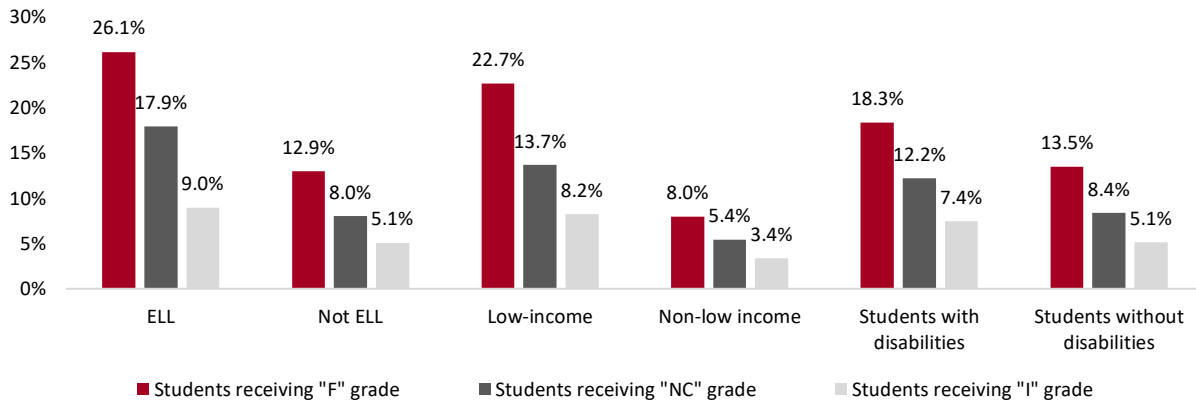


Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Categories are not mutually exclusive

English language learners (ELL), low-income students, and students with disabilities all had higher rates of students receiving a failing grade than their counterparts (figure 3). The most significant difference was by income—23 percent of low-income students received a failing grade, compared to 8 percent of non-low income students.

**Figure 3. Washington public high school students with a failing, no credit, or incomplete grade by other student characteristics, August 2020-March 2021**



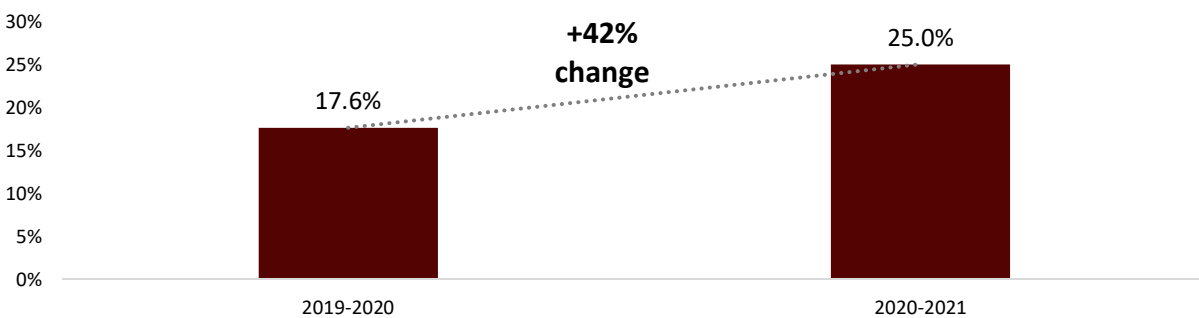
Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Categories are not mutually exclusive

Comparing grades in the 2020-2021 academic year so far with the prior year, it is clear that the pandemic has had an impact on students’ academic progress. Although the proportion of students who received a failing grade during the 2020-2021 academic year fell, there was a large increase in the proportion who received a no credit or incomplete grade. Comparisons of failing, no credit, and incomplete grades for Washington public high school students during the 2019-2020 and 2020-2021 academic years are presented in further detail in Appendix B.

When examining the combined proportion of students receiving either a failing, no credit, or an incomplete grade in a course—which all effectively don’t provide students with credits earned—we see a substantial increase. Between August and March of the 2019-2020 academic year, 18 percent of students did not receive credit for a course they took. During the same time period in the 2020-2021 academic year, that number was 25 percent. This is an increase of 42 percent (figure 4). The Washington State Board of Education’s new emergency rules may waive credit requirements and provide flexibility for high school graduation for the class of 2021. But the spike in failing, no credit, and incomplete grades indicates that students’ learning and academic performance has been impacted by the pandemic. In addition to these emergency rules, students may need extra support to master important course content.

**Figure 4. Washington public high school students with any failing, no credit, or incomplete grade**



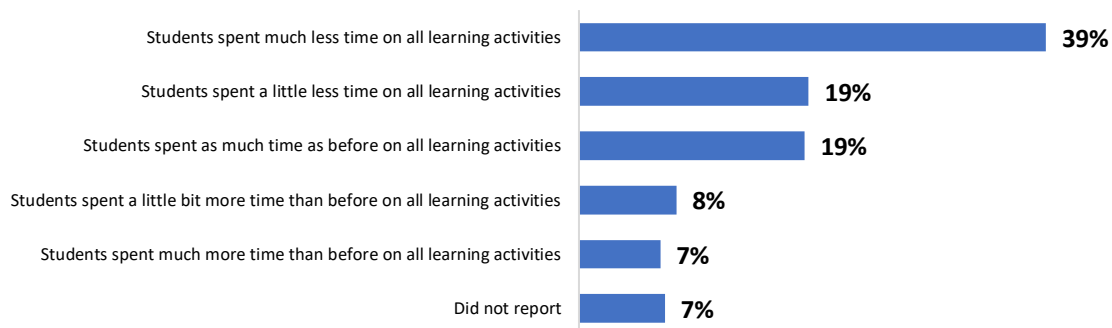
Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Grading data includes students who received an “F,” “NC,” or “I” grade from August through March of each academic year



Beyond diagnostic test results and grades, other indicators can help provide additional context about student learning during the pandemic. Emerging evidence from surveys suggests that students are spending less time on learning activities than before the pandemic began. During the week of February 3<sup>rd</sup>, 2021, about 39 percent of households in Washington with children in school said their children spent much less time on learning activities than they did before the pandemic—and just 19 percent said their children spent the same amount of time as before (figure 5).

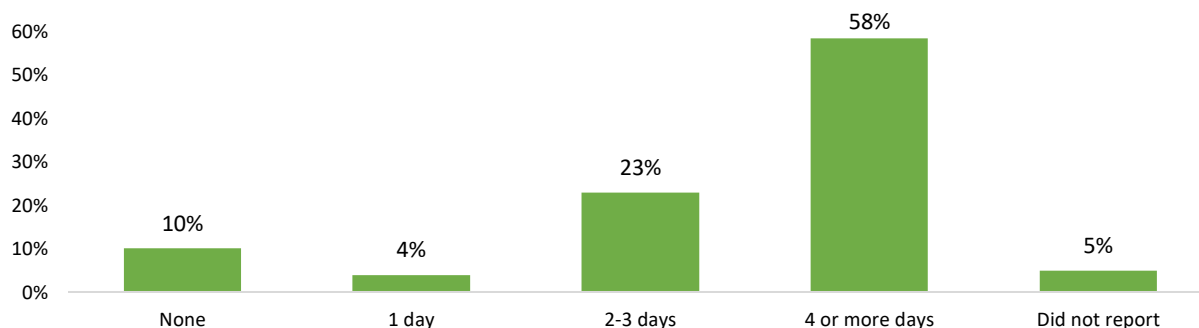
**Figure 5. Time spent on learning activities in the last 7 days relative to before the pandemic among Washington families with children in school**



Source: U.S. Census Bureau Household Pulse Survey, Week 24 (February 3-15).

In addition to less time spent on learning activities, many students received less live contact with teachers. During the week of February 3<sup>rd</sup>, 2021, about 10 percent of families with children in school in Washington reported that their children had no live contact with teachers. During the same time period, about 23 percent of families said that children had just 2-3 days of live contact with teachers per week (figure 6) (U.S. Census Household Pulse Survey, Week 24).

**Figure 6. Frequency of live contact with teachers among Washington families with children in school**



Source: U.S. Census Bureau Household Pulse Survey, Week 24 (February 3-15).

Across the state, almost half of public school students still have no regular in-person instruction, and in-person instruction is even less common for high school students (table 1). Almost 60 percent of high school students had no regular in-person instruction as of mid-March 2021. Less time with teachers and less time in the classroom may contribute to slides in academic progress as the pandemic continues to

impact students and schools. A recent emergency proclamation by Governor Inslee aims to increase opportunities for in-person learning for all public K-12 schools by April 19, 2021<sup>6</sup>.

**Table 1. In-person learning for Washington public school students as of March 15, 2021**

	<b>Enrollment</b>	<b>Percent of students attending in-person on an average day</b>	<b>Percent of students receiving in-person instruction at any point during the week</b>
<b>All grades</b>	877,886	44%	51%
<b>Elementary School (K-5)</b>	400,344	50%	60%
<b>Middle School (6-8)</b>	204,628	35%	46%
<b>High School (9-12)</b>	272,914	30%	42%

Source: OSPI School Reopening Data, Week of 3/15/2021

Note: Enrollment counts are for districts responding to the survey only. Non-responding districts are not included.

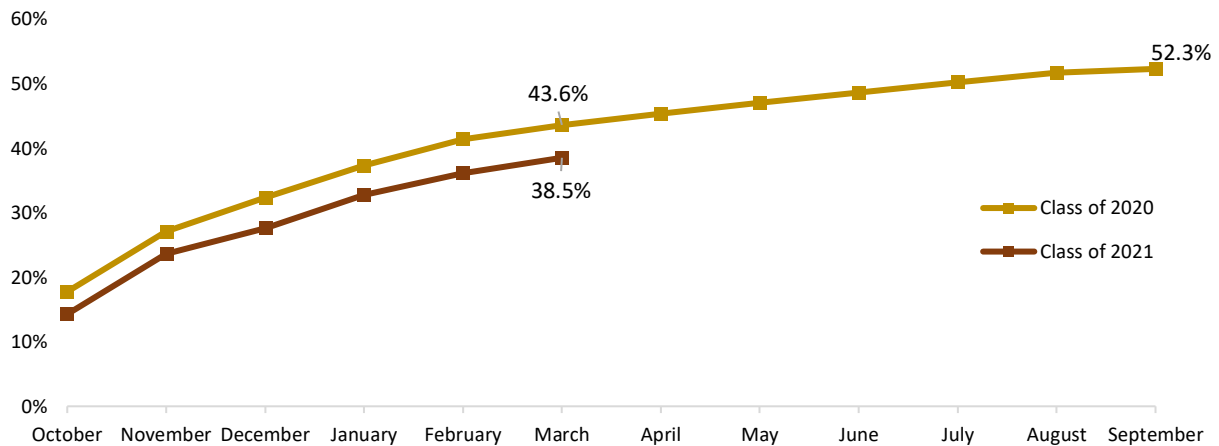
The pandemic is taking a toll on students beyond their academic progress, and indicators outside of traditional classroom learning can help illustrate the impact on learning as well. High school is when students should be preparing for their futures, and for many students that includes preparing to enroll in postsecondary programs. But during the 2020-2021 academic year, some students are submitting college applications in smaller numbers than in previous years. Low-income students and first-generation students each saw a dip in applicants through the Common App, although the number of applicants overall grew slightly compared to last year (Jaschik, 2021).

Evidence from national data findings also shows that fewer students are completing financial aid applications. Nationally, FAFSA completion is 9 percent lower than it was at the same time last year, and the decline is even steeper for Title I schools (down 12 percent) and schools with a higher concentration of students of color (down 15 percent) (NCAN, 2021). This decline in financial aid application submissions suggests that students, and particularly some historically underrepresented student groups, may not be planning to enroll in college or may not be able to receive the aid they need to afford it.

In Washington state, FAFSA completion rates have also been lower during the 2020-2021 academic year than the prior year. Just 39 percent of high school seniors in the state completed a FAFSA by the end of March 2021—five percentage points lower than the statewide FAFSA completion rate in March of 2020 (figure 7).

<sup>6</sup> On March 15, 2021 Governor Inslee issued a proclamation requiring all public K-12 schools in the state to offer in-person education opportunities by April 19, 2021. The proclamation aims to address educational inequities and mental health issues among children and adolescents that have worsened due to prolonged remote learning during the pandemic. See: <https://www.governor.wa.gov/news-media/inslee-signs-emergency-proclamation-requiring-person-education-opportunities-public-k-12>

**Figure 7. FAFSA completion rates for Washington public high school seniors by month**



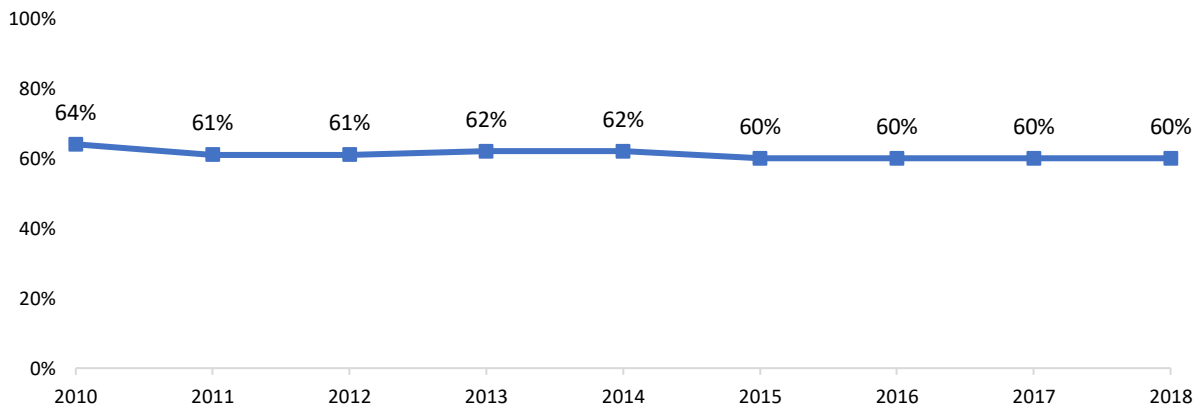
Source: WSAC FAFSA completion dashboard

Note: The number reported for each month is the FAFSA completion rate during the last week of that month. FAFSA completion data is not yet available beyond March 2021 for the class of 2021.

As high school students continue to face challenges and disruptions in their education, postsecondary enrollment may also be impacted as fewer high school students are prepared to transition to postsecondary education. Already, the effect of the pandemic is evident in enrollment data at postsecondary institutions. Fall 2020 postsecondary enrollment in Washington dropped 13 percent compared to the previous year (Kwakye et al.). Also, national data shows that about 7 percent fewer students enrolled in college directly after high school in the fall of 2020 compared to the prior year (*National Student Clearinghouse, 2020*).

Direct postsecondary enrollment rates of high school graduates in Washington have remained flat for years (figure 8). The disruption in education caused by the pandemic may negatively affect postsecondary enrollment trends and cause a decline for future high school graduates if action is not taken to support students in the K-12 schools. The ongoing challenges in K-12 schools could have long-lasting implications that may impact individuals and the state’s ability to meet its economic needs in the future.

**Figure 8. Direct postsecondary enrollment rate in Washington over time**



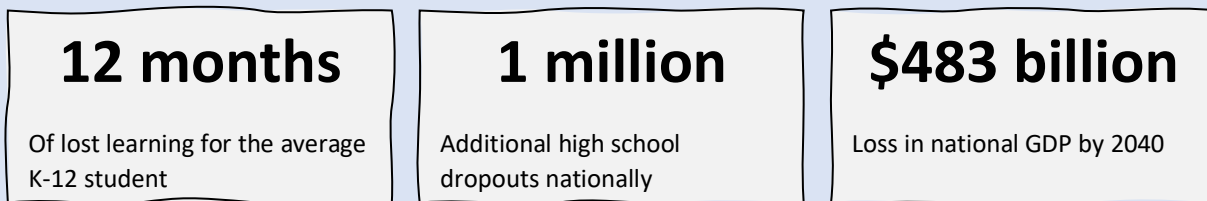
Source: Education Research and Data Center (ERDC), Washington postsecondary enrollment during first year after graduation, 2010-2018 public high school graduates

## What are the long-term implications of the pandemic’s impact on learning?

Interruptions in education, including school closures and suboptimal learning experiences, may have long-term impacts on students and our society. International economic research has demonstrated that each additional year of school increases an individual’s lifetime income between 7.5 percent and 10 percent on average. Therefore, losing one-third of a school year of learning could reduce students’ future income by about 3 percent. Beyond these individual-level effects on future income, learning disruption can impact the supply of skilled workers needed to sustain a healthy economy. A loss of one-third of a year of effective learning for students could lower a country’s GDP by 1.5 percent on average over the rest of the 21st century (Hanushek and Woessmann, 2020).

Research findings in the U.S. paint a similarly drastic picture of the consequences of learning disruption (box 1). According to projections from one model, if in-classroom instruction does not resume until the fall of 2021, students could lose an average of about 12 months of learning<sup>7</sup>. The projection also suggests that an additional one million students could drop out of high school nationally, due to the pandemic disrupting student supports. The projected lost learning and increase in dropouts could result in a less skilled and productive workforce in the future, leading to a \$483 billion loss in our national GDP by 2040 (Dorn et al., 2020).

### Box 1. If students don’t return to school in person until fall of 2021, projections suggest significant consequences in the U.S.



The disruption in education may also worsen inequities. Black, Hispanic, and low-income students are less likely to receive quality remote instruction and are projected to experience significantly more lost learning than their White and wealthy peers (Dorn et al.). The likelihood of learning disruption affecting low-income students and students of color at a disproportionate level may eventually lead to significant losses in future income that further worsen existing income and wealth gaps.

Beyond the impact that lost learning can have on children’s academic outcomes, there are likely other unintended consequences from the disruption to education that could emerge later. Measuring and addressing the pandemic’s impact on learning is imperative to ensuring students’ wellbeing and our state’s economic future.

## How can we effectively measure and track the pandemic’s impact on learning?

More data is needed to measure the impact of the COVID-19 crisis on students’ learning. Many schools are still operating at least partially remotely, and many families continue to endure the challenges associated with the pandemic, so the full impact is not yet known. Ensuring appropriate and continuous

<sup>7</sup> Governor Inslee’s March 15, 2021 proclamation requiring all public K-12 schools to offer in-person education by mid-April 2021 may mitigate some of the consequences projected by this model, but many students in the state may not return to school in person full-time, and the lingering effects of the pandemic could continue to impact schools’ operations.

data collection can help schools and other education leaders understand how students are being impacted.

While many students continue to learn remotely, districts and schools can creatively collect data from different sources to ensure continued learning. For instance, analytics from online education platforms used for instruction could present a better picture of student engagement. Platform analytics can provide insight on intermediate indicators of learning, such as time spent on courses, engagement with teachers and peers, and performance on assignments and quizzes. School staff can also monitor student engagement and performance on assignments and homework to identify struggling or disengaged students. Although an imperfect measure of learning, this insight can offer real-time engagement metrics to help teachers improve instruction and target students who may need additional support.

Once schools reopen on a larger scale, gathering data to gauge student learning and academic progress will critically assess learning disruption and address the pandemic's impact. Schools that take part in national testing programs can use diagnostic testing data to compare students' performance before and after the pandemic and evaluate their academic needs to get back on track. Along with other measures, diagnostic testing data can help inform the discussion around how to best support students to ensure that they receive adequate instruction and preparation to succeed in their academic futures.

### What are other states doing to assess the pandemic's impact on learning?

States' strategies to assess student learning during the pandemic are still evolving. Some states have released guidance to help teachers and schools understand the impact that the pandemic has had on students. For example, **Arizona's** guidance includes reviewing the previous year's course content to identify what was not taught and using assessment tools to determine student learning gaps. Similarly, **South Carolina's** guidance expresses the necessity of evaluating student needs as schools reopen, particularly for students with disabilities and English language learners. Likewise, **Louisiana's** guidance for assessing students' academic needs includes creating individual learning plans for students. And **Kentucky's** guidance encourages schools to use classroom assessments, interim assessments, and formative assessments as diagnostic tools to assess learning. Finally, **California's** guidance emphasizes that teachers should first use informal tools to assess student learning, performance, and social-emotional well-being before administering formal diagnostic assessments after students have reacclimated to the in-person learning community (McDole, 2020). Ultimately, state policies should focus on providing students with the supports they need to advance academically rather than emphasizing missed instruction and skills.

### What policies and programs can Washington use to address the pandemic's impact on learning?

The impact of COVID-19 on schools and students is unprecedented. Evidence from research, including around lost learning during summer breaks and large-scale disasters like Hurricane Katrina, can help guide the discussion around appropriate actions to support students. The following evidence-based programs and practices and emerging state policies can help inform the response to the pandemic's impact on learning and ensure that students have the academic supports they need to be successful in their future academic pursuits.

## Evidence-Based Programs and Practices

**Early warning systems** identify key metrics for student success that have been linked to high school graduation outcomes. Common early warning indicators include attendance, behavior, and course completion, which are all strong predictors of high school graduation (Kemple et al., 2013).

Interventions can target students with poor performance in any of these key areas to support them and reduce their chances of dropping out. These proven predictors can help schools and systems identify students who are most at-risk and provide supports to help them get back on track.

**High-dosage tutoring** that is tied to classroom learning can help accelerate learning for students who are struggling. A study of individualized tutoring in several Boston schools showed that high school students who received regular tutoring significantly improved their English Language Arts performance (Kraft, 2013). Another study showed that high school students in Chicago who worked with tutors for an hour each day during their school day significantly increased math scores, and their grades in both math and non-math subjects also improved (Guryan et al., 2021). Effective individual tutoring interventions can improve academic achievement and narrow equity gaps, but implementation can be expensive. Providing intensive tutoring to students who have fallen furthest behind may accelerate their learning and help them catch up to their peers.

**Extended learning time** interventions can improve students' academic performance. Ninth-grade students in Chicago with low math scores who were placed in an additional math support class alongside their regular algebra course improved their math scores (Nomi and Allensworth, 2009). Notably, the additional support class promoted mathematical reasoning skills using student-centered instructional practices. A follow-up study found positive long-run impacts for students who took the additional math class—including better high school graduation and college enrollment rates (Cortes et al., 2015). In addition to in-school offerings, extended learning time may include after-school and summer academic programming.

**Acceleration academies** that provide students with targeted, small-group instruction during school vacations have also been shown to contribute to improved academic outcomes (Scheuler et al., 2017). Adopting extended learning time interventions after the pandemic may help recover and accelerate student learning.

## What are other states doing to address the pandemic's impact on learning?

**Learning disruption programs** are an emerging approach to addressing COVID-19's impact on learning. Tennessee's *Learning Loss Remediation and Student Acceleration Act* aims to support students by providing after school programming and summer learning camps, targeting elementary school students who are behind in math or reading. The summer learning camp will be offered for free beginning in 2021 and will continue each summer for students who are behind grade level in core subjects (*Tennessee Department of Education, 2020*). Although the legislation targets younger students in Tennessee, it is possible to expand similar programming in other states to older students.

**Math and reading corps** are another emerging approach to address the pandemic's impact on learning. A bill in the Minnesota state senate proposes to expand state reading and math corps programs to provide services to students exhibiting math and reading deficiencies related to the effects of the COVID-19 pandemic (*Minnesota S.F. 64, 2021*). The program engages tutors to work in schools across the state to help improve academic outcomes for prekindergarten through 8<sup>th</sup> grade students.

Expanding successful tutoring and academic services may help reach students who need additional support.

**Flexible grants to support additional resources** for schools can help address local needs. Arizona's *Flexibility and Funding for Schools and Families* plan includes funding for schools to help students academically and address achievement gaps that have been made worse during the pandemic. Acceleration Academy Grants are available for high-need schools to hire math and reading specialists, paraprofessionals, or other resources to help students who need additional academic support (AZCares, 2020). This approach allows districts to design their structures to help their students get back on track.

Other states are issuing guidance to express the importance of learning acceleration as a response to the pandemic. Specifically, **Louisiana's** guidance emphasizes the importance of grade-appropriate, high-quality instructional materials. Also, **Maryland's** guidance mentions the role that "Out of School Time" programs can play in supporting students academically. Finally, **Nebraska** released specific guidance for Student, Family, and Community Engagement, Wellbeing and Connection, Assessment, and Students with Disabilities (McDole, 2020). This learning acceleration guidance can help shape states' response to the pandemic's impact on learning.

## Conclusion

The COVID-19 crisis has impacted nearly all aspects of life, including education for students of all ages. National evidence suggests that the impact of school closures and the ongoing pandemic on students has been significant. Findings from diagnostic testing show that a higher proportion of U.S. students started the school year off behind grade level. Also, the data suggest that students of color and low-income students may be experiencing even greater learning disruption than their peers. In Washington, evidence from high school grading data shows that many students have received grades that will not contribute to credits earned towards high school graduation requirements. The significant increase in non-credit grades received by students during the 2020-2021 academic year compared to the prior year may indicate that students face challenges impacting their coursework and may potentially affect their high school graduation outcomes and postsecondary preparedness.

Due to the effects that the COVID-19 pandemic has had on students over the past year, it is important to examine students' academic progress more closely. Gathering appropriate data to assess student learning and track their academic performance in comparison to previous years may help quantify the impact on learning that has resulted from the COVID-19 crisis. Students should not be penalized for the unprecedented challenges they have faced during the pandemic. Instead, collecting timely data can help educators and policymakers target students who may need additional support to help them get back on track to succeed in their K-12 education and beyond.

Addressing learning disruption issues during the pandemic will be important for individual students and Washington state's future. Supporting K-12 students to acquire the skills and knowledge they need is critical to helping them complete high school and transition to postsecondary opportunities. Promoting positive student outcomes can help close equity gaps and support Washington residents in obtaining a postsecondary credential and ultimately contributing to our state's economic and social well-being in the future.



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## Appendix A

### National Diagnostic Test Results by Grade Level, Subject, and School Characteristics

**Table A1. Percentage of Students Placing Two or More Levels Below Grade Level in Reading, by School Population BIPOC Proportion**

Grade	Less than 25% BIPOC			25%-50% BIPOC			More Than 50% BIPOC		
	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference
1	4%	5%	<b>1%</b>	5%	6%	<b>1%</b>	7%	9%	<b>2%</b>
2	15%	21%	<b>6%</b>	18%	24%	<b>6%</b>	26%	33%	<b>7%</b>
3	20%	25%	<b>5%</b>	24%	28%	<b>4%</b>	34%	41%	<b>7%</b>
4	16%	18%	<b>2%</b>	17%	20%	<b>3%</b>	26%	31%	<b>5%</b>
5	27%	27%	<b>0%</b>	31%	32%	<b>1%</b>	47%	46%	<b>-1%</b>
6	34%	31%	<b>-3%</b>	38%	38%	<b>0%</b>	53%	52%	<b>-1%</b>
7	40%	40%	<b>0%</b>	41%	40%	<b>-1%</b>	53%	52%	<b>-1%</b>
8	38%	37%	<b>-1%</b>	40%	38%	<b>-2%</b>	52%	51%	<b>-1%</b>

Source: Curriculum Associates (2020)

Note: Historical average for comparison includes data from three most recent school years: 2017-2018, 2018-2019, and 2019-2020. Sample for Fall 2020 reading diagnostic test includes 109,066 students across all grades.

**Table A2. Percentage of Students Placing Two or More Levels Below Grade Level in Math, by School Population BIPOC Proportion**

Grade	Less than 25% BIPOC			25%-50% BIPOC			More Than 50% BIPOC		
	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference
1	8%	13%	<b>5%</b>	9%	15%	<b>6%</b>	13%	22%	<b>9%</b>
2	16%	25%	<b>9%</b>	20%	29%	<b>9%</b>	27%	41%	<b>14%</b>
3	21%	29%	<b>8%</b>	24%	32%	<b>8%</b>	32%	44%	<b>12%</b>
4	19%	26%	<b>7%</b>	20%	27%	<b>7%</b>	28%	41%	<b>13%</b>
5	20%	24%	<b>4%</b>	20%	26%	<b>6%</b>	28%	35%	<b>7%</b>
6	25%	31%	<b>6%</b>	25%	31%	<b>6%</b>	35%	41%	<b>6%</b>
7	29%	34%	<b>5%</b>	30%	34%	<b>4%</b>	42%	46%	<b>4%</b>
8	36%	37%	<b>1%</b>	37%	38%	<b>1%</b>	51%	52%	<b>1%</b>

Source: Curriculum Associates (2020)

Note: Historical average for comparison includes data from three most recent school years: 2017-2018, 2018-2019, and 2019-2020. Sample for Fall 2020 math diagnostic test includes 148,868 students across all grades.

**Table A3. Percentage of Students Placing Two or More Levels Below Grade Level in Reading, by School Median Household Income**

Grade	Less than \$50,000			\$50,000-\$75,000			More than \$75,000		
	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference
1	6%	7%	<b>1%</b>	5%	7%	<b>2%</b>	3%	3%	<b>0%</b>
2	21%	29%	<b>8%</b>	19%	26%	<b>7%</b>	14%	16%	<b>2%</b>
3	29%	34%	<b>5%</b>	24%	29%	<b>5%</b>	19%	22%	<b>3%</b>
4	22%	26%	<b>4%</b>	18%	20%	<b>2%</b>	14%	15%	<b>1%</b>
5	40%	39%	<b>-1%</b>	33%	32%	<b>-1%</b>	21%	23%	<b>2%</b>
6	45%	43%	<b>-2%</b>	38%	39%	<b>1%</b>	25%	24%	<b>-1%</b>
7	47%	45%	<b>-2%</b>	40%	40%	<b>0%</b>	26%	31%	<b>5%</b>
8	45%	42%	<b>-3%</b>	40%	39%	<b>-1%</b>	28%	29%	<b>1%</b>

Source: Curriculum Associates (2020)

Note: Historical average for comparison includes data from three most recent school years: 2017-2018, 2018-2019, and 2019-2020. Sample for Fall 2020 reading diagnostic test includes 109,066 students across all grades.

**Table A4. Percentage of Students Placing Two or More Levels Below Grade Level in Math, by School Median Household Income**

Grade	Less than \$50,000			\$50,000-\$75,000			More than \$75,000		
	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference	Historical Average	Fall 2020	Difference
1	11%	18%	<b>7%</b>	10%	16%	<b>6%</b>	7%	11%	<b>4%</b>
2	24%	36%	<b>12%</b>	20%	29%	<b>9%</b>	15%	21%	<b>6%</b>
3	29%	39%	<b>10%</b>	23%	32%	<b>9%</b>	19%	25%	<b>6%</b>
4	25%	35%	<b>10%</b>	21%	28%	<b>7%</b>	17%	21%	<b>4%</b>
5	26%	32%	<b>6%</b>	21%	25%	<b>4%</b>	15%	20%	<b>5%</b>
6	31%	35%	<b>4%</b>	25%	32%	<b>7%</b>	18%	23%	<b>5%</b>
7	35%	39%	<b>4%</b>	29%	34%	<b>5%</b>	20%	25%	<b>5%</b>
8	42%	43%	<b>1%</b>	37%	38%	<b>1%</b>	27%	27%	<b>0%</b>

Source: Curriculum Associates (2020)

Note: Historical average for comparison includes data from three most recent school years: 2017-2018, 2018-2019, and 2019-2020. Sample for Fall 2020 math diagnostic test includes 148,868 students across all grades.

## Appendix B

### Comparison of Failing, No Credit, and Incomplete Grades for Washington Public High School Students During the 2019-2020 and 2020-2021 Academic Years

**Table B1. Washington Public High School Students with Failing, No Credit, and Incomplete Grades by Grade Level**

Grade	Failing Grade			No Credit Grade			Incomplete Grade		
	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change
All	15.5%	14.1%	<b>-9.4%</b>	2.7%	8.9%	<b>224.8%</b>	0.3%	5.4%	<b>1835.3%</b>
9th Grade	18.2%	16.5%	<b>-9.3%</b>	1.6%	9.1%	<b>475.2%</b>	0.2%	6.2%	<b>2470.7%</b>
10th Grade	19.2%	16.4%	<b>-14.6%</b>	2.3%	9.8%	<b>327.8%</b>	0.3%	6.3%	<b>2317.8%</b>
11th Grade	17.8%	15.1%	<b>-15.3%</b>	3.5%	9.8%	<b>179.3%</b>	0.3%	5.9%	<b>1640.8%</b>
12th Grade	12.5%	11.4%	<b>-8.7%</b>	5.1%	9.3%	<b>82.0%</b>	0.4%	5.2%	<b>1142.3%</b>

Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Grading data includes proportion of students who received an "F," "NC," or "I" grade from August through March of each academic year

**Table B2. Washington Public High School Students with Failing, No Credit, and Incomplete Grades by Race**

Race	Failing Grade			No Credit Grade			Incomplete Grade		
	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change
American Indian/ Alaskan Native	28.6%	26.3%	<b>-7.9%</b>	6.1%	15.0%	<b>146.7%</b>	0.2%	14.0%	7719.4%
Asian	6.0%	3.2%	<b>-45.6%</b>	1.2%	5.3%	<b>337.0%</b>	0.1%	2.2%	1353.0%
Black/African American	17.8%	11.6%	<b>-34.6%</b>	3.9%	12.6%	<b>223.8%</b>	0.7%	6.4%	836.4%
Hispanic/Latino of any race(s)	24.4%	22.9%	<b>-6.0%</b>	3.3%	13.4%	<b>300.5%</b>	0.4%	7.6%	1597.1%
Native Hawaiian/Other Pacific Islander	28.6%	25.2%	<b>-11.8%</b>	5.0%	16.5%	<b>232.5%</b>	0.3%	8.0%	2992.2%
Two or More Races	15.4%	12.9%	<b>-16.5%</b>	2.6%	8.8%	<b>234.3%</b>	0.2%	5.6%	2491.5%
White	12.4%	11.7%	<b>-5.8%</b>	2.5%	6.7%	<b>170.7%</b>	0.2%	4.6%	2136.6%

Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Grading data includes proportion of students who received an "F," "NC," or "I" grade from August through March of each academic year

**Table B3. Washington Public High School Students with Failing, No Credit, and Incomplete Grades by Other Student Characteristic**

Student Characteristic	Failing Grade			No Credit Grade			Incomplete Grade		
	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change	2019-2020	2020-2021	Percentage Change
ELL	31.0%	26.1%	<b>-15.7%</b>	4.1%	17.9%	<b>331.8%</b>	0.6%	9.0%	<b>1491.5%</b>
Not ELL	14.1%	12.9%	<b>-8.2%</b>	2.6%	8.0%	<b>208.5%</b>	0.3%	5.1%	<b>1904.8%</b>
Low-income	24.2%	22.7%	<b>-6.4%</b>	3.9%	13.7%	<b>252.1%</b>	0.4%	8.2%	<b>1737.9%</b>
Not low-income	9.1%	8.0%	<b>-12.4%</b>	1.9%	5.4%	<b>190.8%</b>	0.2%	3.4%	<b>2099.0%</b>
Students w/ disabilities	22.9%	18.3%	<b>-19.9%</b>	3.9%	12.2%	<b>213.2%</b>	0.4%	7.4%	<b>1609.0%</b>
Students w/o disabilities	14.5%	13.5%	<b>-7.2%</b>	2.6%	8.4%	<b>226.9%</b>	0.3%	5.1%	<b>1886.2%</b>

Source: OSPI, Student Information, CEDARS, March 15, 2021

Note: Grading data includes proportion of students who received an "F," "NC," or "I" grade from August through March of each academic year