



EDUCATION IN INDIANA DURING A YEAR OF DISRUPTIONS

STUDENT ACHIEVEMENT AND GROWTH DURING THE COVID-19 PANDEMIC

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EXECUTIVE SUMMARY

BACKGROUND

At the end of January 2020, the World Health Organization declared the novel coronavirus (COVID-19) a public health emergency of international concern and the United States Secretary of Health and Human Services declared a public health emergency for the United States. Although many continued to carry out their daily lives without interruption, drastic changes began to occur in Indiana when Governor Eric Holcomb declared a <u>public health disaster emergency</u> on March 6, 2020. Executive orders followed from Governor Holcomb mandating that all public and private schools close and cease in-person instruction <u>temporarily</u>, and ultimately requiring remote instruction for the remainder of the 2019-2020 school year.

The sudden onset of these changes presented immediate challenges for school leaders and educators, and they quickly adapted operations to provide educational access and services upon which students and families relied in a way that ensured the safety and wellbeing of students and school staff. Ultimately, Governor Holcomb <u>cancelled the administration of all statewide assessments</u> and the Indiana Department of Education (IDOE) <u>requested</u> and <u>received</u> a waiver from the federal requirement to administer statewide assessments for the 2019-2020 school year.

On June 11, 2020, Governor Holcomb announced that Indiana's public and private schools were permitted to reopen on July 1, 2020 to provide in-person instruction during the 2020-2021 school year. In collaboration with other state agencies, the IDOE published "Indiana's Considerations for Learning and Safe Schools" (IN-CLASS) to provide guidance for schools when navigating new protocols for re-opening and re-entry of school buildings. Ultimately, the IN-CLASS guidance signaled to schools that a return to in-person instruction did not equate to a return to "normal."

Indiana, like all states, recognized the impact of COVID-19 on its education systems but grappled with the challenge of evaluating the academic impact of the COVID-19 pandemic on students, as well as appropriately responding to these impacts with intentional, targeted, and evidence-based resources. In response to this need, the Indiana General Assembly passed House Enrolled Act 1514-2021, and Governor Holcomb signed into law Public Law 211-2021. Public Law 211-2021 added Ind. Code § 20-26-5-40.6, which requires the IDOE to conduct a "learning loss study" for the 2020-2021 and the 2021-2022 school years to identify specific subject areas, grade levels, and student groups that experienced an academic impact due to COVID-19. Further, the federal American Rescue Plan Act required states to carry out activities to address "learning loss" by supporting the implementation of evidence-based interventions that respond to student needs and address the disproportionate impact of COVID-19 on students. The IDOE contracted with the Center for Assessment to conduct a study that would provide reliable information on COVID-19's academic impact so educators, parents, and state leaders might better understand and support efforts that promote student achievement.



STUDY GOALS AND DATA

It is important to note that there cannot be a one-size-fits-all approach to understanding the impact of the COVID-19 pandemic on student learning, and no single study can comprehensively characterize impact. The goal of this study is to provide Indiana stakeholders with actionable insights into how students were impacted academically by the pandemic. Specifically, the study aims to provide additional context to student performance during the pandemic by identifying which students were impacted, in what content areas students were impacted, and the magnitude of that impact. Understanding COVID-19's impact on student learning is clearly a daunting but vital task to ensure students receive appropriate educational services.

A discussion of academic impact implies a comparison to a situation where the cause of the impact is absent in order to answer the question, Where would the student be academically had the pandemic not occurred? The pandemic together with all the accompanying disruptions to normal learning functioned as a headwind, slowing the academic progress of students starting in March 2020 and continuing through the 2020-2021 school year. The situation is analogous to that of a commuter who experiences a delay when driving due to an unforeseen event like a rain storm. We can ask, Where would the commuter be along their journey if the rain storm had not occurred? and answer that question using assumptions about normal rates of progress in comparison with the actual progress that occurred. For purposes of determining academic impact, we use historical performance data to understand normal, pre-COVID, student progress and compare that to actual student progress in order to determine how the headwind of the pandemic slowed student academic progress.

The IDOE has collected high-quality assessment data that can be used to support its efforts to understand student learning and achievement during the pandemic, and to inform state and local responses to support recovery of learning. This study quantifies change in student academic performance in terms of both academic achievement and growth by using comprehensive current and historical assessment data from three sources: Indiana Learning Evaluation and Readiness Network (ILEARN) summative assessment, WIDA-ACCESS (WIDA-ACCESS) for English language learners (ELLs) assessment, and NWEA Measures of Academic Progress (NWEA-MAP) interim assessment.

The 2021 ILEARN summative assessment data are available for grades 3 to 8 in English/language arts and mathematics. The annual spring 2020 administration of the ILEARN assessment was cancelled due to COVID-19, necessitating the use of spring 2019 ILEARN data as the pre-pandemic point of comparison for analyses of pandemic-related academic impact.

The 2021 WIDA-ACCESS assessment data are available for kindergarten to grade 12. Unlike the ILEARN assessment, the annually administered WIDA-ACCESS assessment was administered in early 2020 prior to the onset of the pandemic. Analyses involving WIDA-ACCESS will utilize 2020 as the pre-pandemic point of comparison.

NWEA-MAP interim assessments are the most frequently used interim assessments in Indiana. The MAP interim assessments are administered three times a year (fall, winter, and spring), and data from fall 2020 and winter 2020-2021 for kindergarten to grade 10 in English/language arts and



mathematics were made available for analyses through data sharing agreements. These interim assessment data comprised the first evidence received regarding the academic impact of the pandemic on students. Data for fall 2020 and winter 2020-2021 student growth data based upon historical growth norms that can be used to assess academic impact during the early part of the 2020-2021 academic year.

The availability of these three, comprehensive data sets places Indiana at the forefront of states nationally in using data to understand the academic impact of the pandemic. Clearly, the three data sets do not cover all ages of students nor all subjects in which students learn. However, they do support an essential first step in examining academic impact and discussing strategies for recovery that apply to all ages and subjects.

RESEARCH QUESTIONS

This study addresses three research topics:

- **Student Population and Test Participation:** Who comprises the population of students in Indiana and who comprises the population for whom academic impact data is available?
- **Academic Impact:** To what extent did COVID-19 disruptions impact student academic performance and learning outcomes? In what content areas/domains did students experience academic impacts? Which demographic and academic student groups, schools, and school corporations experienced academic impacts?
- **Anticipated Recovery Time:** What is the anticipated academic recovery time based on the experienced COVID-19 disruptions?

STUDENT POPULATION AND TEST PARTICIPATION

Descriptions of changes in student enrollment and test participation in 2021 are important for accurately interpreting student academic performance on those tests in terms of status (also referred to as achievement or attainment), trend, and growth. Indiana saw a slight drop in overall public school student enrollment in 2021. Public school PK-12 enrollment in the 2020-2021 school year was 1,050,614¹. This compares to 1,054,903 students in 2019-2020.

More significantly for the determination of academic impact, though, is student participation as part of assessment data collection. Census level educational assessments like ILEARN and WIDA-ACCESS are critical for understanding the academic performance of students and, in turn, investigating the academic impact that the pandemic has had on students. The two population level data sources used for this study, ILEARN and WIDA-ACCESS, both had excellent participation in 2021 that was similar to participation in 2019 and 2020, respectively.

¹ Total public school enrollment as of <u>October 1, 2020.</u>



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Table 1. Assessment Participation Rates from 2018 to 2021

Assessment	2018	2019	2020	2021
ISTEPELA	> 99%	_	_	_
ISTEP Math	> 99%	_	_	_
ILEARN ELA	_	> 99%	_	> 99%
ILEARN Math	_	> 99%	_	> 99%
WIDA-ACCESS	> 99%	> 99%	> 99%	> 99%

Source: Indiana Department of Education Office of School Accountability

NWEA-MAP is the most widely used interim assessment in Indiana. Coverage rates amongst Indiana students vary by grade (Kindergarten to grade 10) and content area (English/language arts and mathematics). In general, coverage rates ranged between 35% and 45%, except in grades 9 and 10 where coverage dipped to near 20% of Indiana's student population.

The data assembled for investigating the academic impact of the pandemic on Indiana students is, from a national perspective, some of the best available due to little change in student enrollment, high participation rates, traditional test administration procedures including in person testing and alignment of data to state content standards. We have high confidence that the academic impact results derived from this data provide an accurate picture of where Indiana students are at this stage of the pandemic.

ACADEMIC IMPACT

The study of performance changes based on 2021 testing results supports an understanding of the pandemic's near-term impact on student achievement and learning outcomes. It is important to note that there may be other intervening variables for which a study of performance changes may not account. Further, data completeness as well as accompanying testing and student conditions are important factors to consider in the interpretation of changes in status and growth at the individual and aggregate levels. Lastly, given the universal nature of the pandemic's impact, there is no control group with which to compare those students who have been impacted by the pandemic to those who have not. Therefore, student performance that is not influenced by pandemic-related conditions will need to be approximated using historical data.

We identify the following questions as a means to guide our investigation of the pandemic's impact on student achievement in Indiana in a way that provides a clear and coherent characterization of changes in performance status and growth:

- To what extent did the disruptions in educational programming due to COVID-19 impact student participation in achievement testing?
- To what extent did the disruptions in educational programming due to COVID-19 impact student academic performance and learning outcomes?



- What are the observed changes in student performance (based on achievement test scores and performance classifications) by grade and subject from 2019 to 2021?
 - How do these changes vary among students, student groups, schools, and districts?
 - Are larger changes associated with identifiable student groups, schools, or districts?
 - Racial/ethnic student groups
 - Special education status
 - English learner status
 - Socio-economic status
 - Type of community (urban, suburban, rural, etc.)
 - Mode of instruction (remote, in-person, hybrid)
 - School type (traditional public, charter public, non-public/choice)
- What are the observed changes in student growth by grade and subject from 2019 to 2021?
 - How do these changes vary among students, student groups, schools, and districts?
 - Are larger changes associated with identifiable student groups, schools, or districts?
 - Racial/ethnic student groups
 - Special education status
 - English learner status
 - Socio-economic status
 - Type of community (urban, suburban, rural, etc)
 - Mode of instruction (remote, in-person, hybrid)
 - School type (traditional public, charter public, non-public/choice)
- What is the projected time for recovery of unfinished learning overall and by district, school, and student groups?



SUMMARY OF RESULTS

ACHIEVEMENT

Student achievement is the most frequently used data from academic assessments. Often reported as student proficiency, the result at the student level is often summarized as percent of students scoring proficient at the school, corporation, or state level. Change in percent proficient is often used as part of accountability system goal setting.

When quantifying pandemic-related academic impact, most laypeople seek to compare where students were before the pandemic with where they are today. The comparison most often performed is to examine changes (decreases) in percent proficient. Changes in percent proficient are, in general, a crude indicator of academic impact due to the fact that performance is considered at a single point (proficiency) on the academic continuum.

Given the size of the academic impacts revealed together with Indiana's excellent participation rate, changes in percent proficient, though crude, are useful as a means of indicating the magnitude of impacts. In our analysis of the data, percent proficient changes were augmented with analyses of mean scale score differences (both unweighted and propensity score weighted) to calculate changes in terms of effect size.

ILEARN ACHIEVEMENT

When comparing 2021 to 2019 ILEARN by grade, content area, and demographic student group, the results show steep declines in percent proficient as well as mean scale score.

- Declines in percent proficient ranged from 6.2 to 8.6 percent in English/language arts and 9.2 to 13.4 percent in mathematics. For reference, historical year-over-year improvement in percent proficient in Indiana is usually between 1 and 2 percent.
- Effect size declines based upon mean scale score decreases in achievement were large, ranging between 0.2 and 0.4 depending upon grade and content area.
- Declines in percent proficient by ethnicity across grades ranged from 6.7 to 8.2 percent in English/language arts and between 10.9 and 12.4 percent in mathematics.
- Declines in percent proficient for students receiving free/reduced price lunch were 7.9 and 10.8 percent in English/language arts and mathematics, respectively.
 Corresponding declines for students not receiving free/reduced price lunch were 7.6 and 11.4 percent.
- Declines in percent proficient for special education students were 2.8 and 4.5 percent in English/language arts and mathematics, respectively. Corresponding declines for general education students were 8.2 and 12.0 percent. Smaller declines for special education students is due to relatively small percentages of students classified as proficient. Student growth results shown later provide a clearer picture of impact for this group.



- Declines in percent proficient for ELLs were 4.6 and 9.0 percent for English/language arts and mathematics, respectively. For non-ELLs the declines were 7.0 and 10.4 percent.
- Declines in percent proficient for Males/Females in English/language arts and mathematics were 6.9/8.1 percent and 9.6/12.2 percent, respectively.
- Declines in percent proficient by school and school corporation were wide spread ranging from very large decreases in percent proficient/mean scale score to modest increases.

As these results indicate, decreases in achievement by students in Indiana between 2019 and 2021 were substantial. Declines were larger in mathematics than in English/language arts but were widespread and fairly uniform by demographic student groups.

WIDA-ACCESS ACHIEVEMENT

WIDA-ACCESS reports achievement using both a ordinal scale ranging from 1 to 6 with increments of 0.1 as well as a vertical scale allowing for cross grade comparison of scores. The ordinal scale is the more commonly used and we use that scale to report status changes from 2020 to 2021. Growth summaries for WIDA-ACCESS which are a superior indicator of academic impact are provided in the next section.

- Change in the median achievement level from 2020 to 2021 ranged from a decline of 0.3 to an increase of 0.1.
- Effect size changes were larger for elementary school ELL students than for middle and high school ELL students.
- Modest to no declines were observed for high school ELL students. Research on this is ongoing but early evidence suggests little to no academic impact occurred due to ineffectual rates of learning pre-COVID.

GROWTH

Pandemic-related impact on academic growth was investigated for each of the three data sources using historical student growth data for each of the three data sources. The extent to which student academic growth slowed down provides the best indication of the extent to which the pandemic impacted students academically as it examines the students over time as they experience the pandemic. The following growth data was utilized from each of the three data sources:

- NWEA-MAP growth data from fall 2019 to fall 2020, winter 2019 to winter 2020-2021, and fall 2020 to winter 2020-2021.
- WIDA-ACCESS growth data from 2020 to 2021 for Grades 1 to 12 in English language proficiency for ELLs.
- ILEARN growth data from 2019 to 2021 (note: ILEARN was not administered in 2020) for Grades 5 to 8 in English/language arts and mathematics.



For each data source, historical growth norms (i.e., baseline student growth percentiles (SGPs)) are utilized to determine the extent to which student learning has slowed down during the pandemic. For ILEARN, 2019 was the pre-COVID base year from which historical growth norms are derived. For WIDA-ACCESS, 2020 was the pre-COVID base year from which historical growth normed are derived. For NWEA-MAP, nationally representative, historical growth norms currently employ data from 2019 (see <a href="https://www.nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.nu/nwea.n

For the historical growth norming population, the median SGP for the population is 50. That is, prepandemic, students in the state grew, on average, at a rate of 50. Deviations below 50 are indicative of the extent to which learning has been impeded by the pandemic.

NWEA-MAP GROWTH

Growth results from NWEA-MAP reflect student performance at an earlier stage in the pandemic than both ILEARN and WIDA-ACCESS growth results. The results derive from fall 2020 MAP administration and winter 2020-2021 MAP administration. As part of data provided by NWEA, historically normed growth (conditional growth percentiles) are supplied and used to investigate the academic impact of the pandemic on the subset of students taking the test in Indiana.

A caveat to current interpretation of NWEA-MAP growth. Historical growth norms calculated by NWEA are national in scope and thus for the base year growth for the national norming sample would be 50. Unlike state derived norms, the pre-COVID growth for Indiana may be different than 50. We are in the process of getting historical data that will allow for an exact calculation of pre-COVID growth for Indiana students with which to compare growth. For this discussion we use 50 as a point of comparison which suffices for the current discussion.

- Fall-to-fall median conditional growth percentiles for Indiana students taking the MAP ranged from 22 to 57 in English/language arts and from 28 to 53 in mathematics. Mathematics was more significantly impacted than English/language arts.
- There was substantial variation by grade in terms of fall-to-fall student growth. For English/language arts elementary schools grades showed larger declines in growth than did middle/high school grades. In mathematics elementary schools showed larger declines than middle/high school grades however the difference was much less than English/language arts.
- Winter-to-winter median conditional growth percentiles showed similar patterns as fall-to-fall. This would be expected as both the fall-to-fall and winter-to-winter cover a pre-pandemic to pandemic time frame. Median conditional growth percentiles ranged from 14 to 47 in mathematics and 28 to 50 in English/language arts.
- Fall-to-winter growth percentiles, by contrast, capture learning at two points during the pandemic. Instead of growth indicating how much student learning has slowed down since the pandemic started, fall-to-winter growth would indicate whether student learning during the pandemic is on par with prior years. In both English/language arts and mathematics, median fall-to-winter conditional growth percentiles ranged from the mid 40s to 50. Assuming Indiana students grew



historically between 50 and 55 relative to national norms, fall-to-winter growth results suggested impeded growth rates continuing during the 2020-2021 academic year – though not as slow as indicated in the early stages of the pandemic.

Beginning in fall 2020, NWEA produced <u>reports</u> providing the national view of academic impact based upon the interim assessment data they collect. Results from Indiana are consistent with some of the findings and inconsistent with others.

WIDA-ACCESS GROWTH

WIDA-ACCESS growth utilizes Indiana based historical growth norms with 2020 as the base year. Decreases from 2020 to 2021 using these historical norms is indicative of slower learning. Growth associated with WIDA-ACCESS are traditionally growth-to-standard analyses where the growth goal is reaching English language proficiency based upon a multi-year time frame. Slower growth for students from 2020 to 2021 means higher growth targets for students if the time line for reaching English language proficiency remains the same.

- By grade, median baseline SGPs for ELLs exhibited decreases between 10 and 19 points (from 50 in 2020).
- In general, median baseline SGP declines for elementary school grades approached 20 for elementary schools (median SGPs in low to mid 30s), approached 10 for middle schools (median SGPs in low to mid 40s). For high school, there were not declines but instead modest improvement.
- Results for high school suggesting no impact and some improvement could be indicative of either lackluster pre-pandemic growth or of those students' English language learning resiliency during the pandemic.

WIDA has done analyses of results across their entire consortium and recently indicated that declines in speaking fluency are primarily driving the decreases in the overall scores that they are observing. Preliminary analysis of sub-scale results on WIDA-ACCESS confirms that finding with Indiana data.

ILEARN GROWTH

ILEARN growth indicates substantial academic impact due to the pandemic. In general, academic impacts in mathematics were larger than they were in English/language arts.

- By grade, decreases in median baseline SGPs for English/language arts ranged between a 10 and 11 point drop (from 50 in 2019). In mathematics the decreases ranged between 19 and 22 points. Decreases in English/language arts are associated with medium effect sizes whereas those in mathematics are large.
- By ethnicity, decreases in median baseline SGPs for English/language arts ranged between a 10 and 14 point drop. In mathematics the decreases ranged between 19 and 24.



- By free/reduced lunch status, decreases in median baseline SGPs for English/language arts ranged between a 9 and 12 point drop. In mathematics the decreases ranged between 19 and 20.
- By special education status, the decrease in median baseline SGPs for English/language arts was 11 points. In mathematics the decrease was 7, going from 36 in 2019 to 29 in 2021. The modest decrease in mathematics during the pandemic seems to suggest that growth prior to the pandemic was rather weak so that pandemic disruptions did little to drive learning down less than it already was.
- By English learner status, the decrease in baseline median SGPs for English/language arts was 14. In mathematics the decrease was 19.
- By gender, the decrease in median baseline SGPs for males in English/language arts and mathematics were 12 and 17, respectively. For females the decreases were 10 and 22, respectively.
- By mode of instruction (Hybrid, In-Person, Remote), the decreases in median baseline SGPs for English/language arts were 8, 11, and 17, respectively. For mathematics the decreases were 23, 14, and 32, respectively.
- Students grouped by starting (i.e., 2019) scale score decile demonstrated differing levels of academic impact dependent upon grade and content area. In middle school mathematics, higher achieving students demonstrated greater academic impact than lower achieving students.
- Schools and school corporations demonstrate highly varied levels of academic impact ranging from severe to no impact/improvement.

Academic impact findings from the examination of ILEARN growth show some overlap with NWEA-MAP findings but also have important discrepancies. Results showing larger impacts in mathematics than in English/language arts are consistent across ILEARN and NWEA-MAP. Unlike NWEA-MAP, ILEARN shows larger academic impacts, particularly in English/language arts. Additionally ILEARN shows consistently large impacts across grades unlike NWEA-MAP which showed lessening impact in middle and high school grades. Reasons for these discrepancies are not apparent. However, given ILEARN's excellent participation rates and alignment with state content standards we believe that the ILEARN results are likely a more accurate depiction of Indiana's current circumstances. The results paint a dire picture of unprecedented academic impact that will require unprecedented effort to recover from.

ACADEMIC RECOVERY

Results derived from the three data sources consistently show moderate to severe impacts on student achievement. The findings are not meant to impugn the efforts put forward to educate students during a once in a century pandemic. Instead, these results are intended as a starting point to help map out viable plans for recovery for students. Absent a accurate understanding of the academic impact on students, it is impossible to understand the scope of the recovery effort necessary.



Characterization of impact as moderate, large, or severe derive both from effect size calculations of what changes in performance historically look like as well as a decade of use of achievement and growth data as part of state accountability systems. The large effect sizes/low growth results associated with state level data are unprecedented. Deviations of this magnitude are most frequently seen with the most underperforming schools, but never with entire states. To that end, recovery will almost certainly require solutions that have not been employed previously.

Based upon level of academic impact, we propose three impact categories that delineate the amount of time and support that is likely necessary for recovery to occur.

- Large to Severe Impact: Implies an expected time frame for academic recovery exceeding one year and likely requiring supplemental academic support.
- **Moderate Impact:** Implies an expected time frame for academic recovery of up to one year and likely requiring supplemental academic support.
- **Modest to No Impact:** Implies little deviation from what was observed historically. Caution in interpreting this group should be exercised particularly when historical performance for a group is poor.

Depending upon school and school corporation impact analyses, tailored solutions will be necessary to facilitate academic recovery. For example, severely impacted schools whose pre-pandemic performance exhibited excellent rates of student learning likely require just enough assistance to get back to what they were doing. By contrast, severely impacted schools who pre-pandemic performance was problematic will need to improve above-and-beyond the prior status quo. Rates of learning necessary to recover (i.e., accelerated learning) will be necessary on a scale never before seen. Historically, only a small percentage of schools have demonstrated these high rates of learning. The current challenge is to get all Indiana students to exhibit high rates of student learning previously seen in just a handful of Indiana schools.

THE COMING YEAR

As of August, 2021, we are still in the midst of a global pandemic. The 2021-2022 school year has begun or will begin shortly for students across Indiana. The results of this study represent the first chapters in an unfolding story, providing an initial glimpse into who was impacted, in what they were impacted, and how much they were impacted.

- The vast majority of students in the state of Indiana exhibited some degree of negative academic impact due to the pandemic. Given the uniform nature of the impacts observed across grades, it seems prudent to assume that similar, large impacts would be observed in non-tested grades (e.g., grades K, 1, 2, 9, 10, 11, 12) were data available. Demographic student groups were similarly impacted though some academic student groups appeared to suffer larger impacts than others.
- Of the content areas investigated, mathematics learning was impacted to a greater extent than English/language arts. Given the large impacts in both content area, it



- would be prudent to assume that impacts in non-tested content areas (e.g. science and social studies) are similarly large.
- The extent of the academic impact is unprecedented and large. The impacts are so large that stakeholders should expect recovery to be a sustained, multi-year effort requiring supplemental educational supports necessary to accelerate learning.

As the 2021-2022 academic year begins, efforts directed toward ameliorating the academic impacts of the pandemic should take center stage. The report provides a first glimpse of the task at hand. Indiana's courage to look at the problem is a necessary first step toward correcting that problem. Data collected in Indiana in the coming months and years will help determine what is helping students recover and what is not so that efforts directed to support students are as effective as possible.

