

MEASURING GROWTHⁱⁿ2021

What State Leaders
Need To Know



The suspension of 2020 assessments is a roadblock for measuring growth—but it's not the end of the road.

States can and should continue to measure student growth in 2021. Growth data will be crucial to understanding how school closures due to COVID-19 have affected student progress and what supports they will need to get back on track. Education leaders will also need growth data to ensure that any recovery efforts are equitable as well as effective and to demonstrate their commitment to transparency. In this resource, we will outline considerations for measuring growth when missing annual assessment data for the prior year, discuss uses of this data, and recommend actions states can take **right now** to measure growth in 2021.

Growth remains the most comprehensive and equitable way to measure student progress and school quality.

Growth measures use multiple years of data to capture changes in student learning over time. This information paints a richer picture of student performance than proficiency data alone because proficiency data shows student performance at a single moment in time. Parents and teachers can use growth information to understand how students are progressing and provide students the support they need to achieve their goals. This support is especially important for students who may not meet proficiency benchmarks but are still improving.

At the school level, growth measures show how well educators are helping their students learn. Growth data is less closely tied to student demographics than proficiency data is, making it a better way to measure how well educators and schools are serving students.¹ Using this information, school and district leaders can compare how schools are supporting their students and identify those that are going above and beyond to help their students succeed.

Education leaders and communities have prioritized growth as a tool to understand how schools are serving their students. Currently, all but two states use student growth as a metric in school accountability systems, and 42 states and the District of Columbia also report growth on their annual report cards.^{2,3,4} Having access to growth data matters to parents and community members:

- » *They recognize the value of growth data.* In the Data Quality Campaign's (DQC) 2019 national parent poll, 49 percent of parents surveyed said they wanted student growth data when asked what information they wanted to have about their children's schools.⁵
- » *They see growth as fundamental to school quality.* When provided with growth data, parents changed their opinions of their children's schools based on how well those schools were supporting student learning. Proficiency data, meanwhile, did not sway parents' prior views.⁶
- » *They are demanding it from their state and local leaders.* Last year, a coalition of parents in California—one of the two states that does not publicly report student growth—captured national attention when they successfully petitioned the Los Angeles Unified School District to release school-level growth data.⁷



By measuring student progress between the 2019 and 2021 annual assessments, state leaders can still get the vital insights they will need to understand and continue to support student learning.

Typically, states measure students' year-to-year growth: using assessment data from the prior year and the current year, they measure how much students have progressed over the academic year. In the absence of prior-year assessment data, states can still measure skip-year growth.

In this approach, states use assessment data from both two years ago and the current year to measure student progress over the past two academic years combined. In terms of the upcoming academic year (2020–21), states can measure skip-year growth using assessment data from the 2019 and 2021 annual assessments; the resulting growth data will capture student progress over the 2019–20 and 2020–21 academic years combined.

While this approach might be a departure from business as usual, skip-year growth data is a viable substitute for year-to-year growth data:

- » *It can be disaggregated by student group.* Disaggregated growth data provides crucial information on how schools are serving all of their students and will be necessary to understand the impact of COVID-19-related school closures on different populations.
- » *It works with different types of growth models.* All commonly used model types, such as student growth percentiles or value-added models, can be modified to measure skip-year growth.
- » *It works with models that use multiple years of assessment data.* The strategy is the same—the model would measure growth using data from three years ago, two years ago, and the current year. In the context of next year, this approach would mean measuring growth using data from the 2018, 2019, and 2021 annual assessments (rather than from 2019, 2020, and 2021).⁸

Moreover, skip-year growth provides the same critical insights into school quality and student learning as year-to-year growth. Many states currently use year-to-year growth to measure and share school quality information with the public; they can just as well use skip-year growth data for this purpose. System leaders can use skip-year growth to compare how schools are supporting their students' growth and identify those doing a particularly good job of supporting their students. Parents and community members can also use skip-year growth data to see how their schools are serving all of their students and advocate for their children's needs.

Growth and Annual Assessments

To measure skip-year growth in 2021, states must hold 2021 annual assessments. Comparable performance data is necessary to capture student progress from prior years. While some leaders are expressing concerns about testing students following school closures, having assessment data next year will be crucial to understanding learning loss and informing recovery actions. Even if the assessments look different than they have in prior years, they are still valuable tools for measuring and understanding student growth. State leaders need to start planning now for how they will administer assessments in 2021, taking into account in-person *and* online options. Federal leaders should promote, support, and incentivize state efforts.

Although these may seem like uncharted waters, states have successfully used skip-year growth models when prior-year assessment data has been unavailable or unusable.

Skip-year growth is not just a possibility—it is a tried-and-tested solution to measuring growth when year-to-year growth data is not an option.

Skip-year growth data is routinely used to measure student growth following untested grades. In Massachusetts, for instance, ninth graders do not participate in standardized testing. In the absence of 9th-grade assessment data, Massachusetts measures student growth for high school students using their 8th- and 10th-grade assessments.⁹ By employing this skip-year strategy to measure high school growth, Massachusetts state leaders are better able to understand the impact of high school transitions on student learning.



Some states have already committed to measuring skip-year growth in 2021. In May 2020, the Florida Department of Education announced plans to use students' 2019 and 2021 assessment scores to measure skip-year growth.^{10, 11} SAS, a leading vendor of state growth models, has also highlighted skip-year growth as an option for states to consider for measuring growth next year.¹²



Research into the use of skip-year growth models finds that the resulting growth data closely matches year-to-year growth data over the same period. Before deciding to measure skip-year growth next year, Florida tested this approach using actual data from its 2017, 2018, and 2019 statewide assessments. After measuring 2019 growth using both a skip-year and a year-to-year approach, the state found that the resulting growth data was nearly identical.¹³ These findings are supported by research conducted by SAS, which showed high correlation between skip-year and year-to-year student growth estimates in Tennessee.¹⁴

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Spotlight: Tennessee

In 2016, Tennessee experienced widespread issues with the transition to an online standardized test, TNReady, which forced the Tennessee Department of Education (TDOE) to suspend annual statewide assessments for grades three through eight. In the wake of this decision, TDOE announced modeling adjustments to the 2016–17 Tennessee Value-Added Assessment System (TVAAS) growth model. Because there was no assessment data for the 2015–16 academic year, the 2016–17 TVAAS reporting measured change in achievement between 2014–15 and 2016–17 for grades five through eight. By pivoting to a skip-year model, TDOE ensured that even without 2016 assessment data, parents and community members would not be left in the dark about students' progress.

While skip-year growth data is sound, states should carefully consider how these measures will work in their context.

Although skip-year growth measures serve many of the same purposes as year-to-year growth measures, the information captured by these measures is somewhat different.

Skip-year growth data shows student progress over two academic years *combined*, rather than just a single year of learning. At the school level, this means that skip-year growth measures capture the collective impact of two years of instruction on a cohort of students' learning trajectories. For students that join the cohort during this time frame, however, states must consider how to fairly apportion credit between the schools the student attended during that time. States should therefore explore strategies to control for factors such as **student mobility** and **transition grades** when designing their skip-year growth models.

Additionally, states may find they cannot measure skip-year growth for every situation in which they would measure year-to-year growth. Examples include the following:

- » *Available test scores may limit the calculation of skip-year growth in early grades.* In some cases, students do not participate in federally required testing until third grade (Table 1). Because skip-year growth requires assessment data from two years before, this means states may not be able to measure growth for students in grades below fifth grade. This situation could limit the growth data available for early grades and may leave some K-4 elementary schools without any growth data.
- » *Sample size requirements may limit schools' ability to disaggregate growth data.* As described in the bullet above, transitioning to skip-year growth will decrease the number of elementary-age students with available data to measure growth. As a result, schools may not have enough students in each student group to meet minimum n-size (sample size) requirements and will be unable to report disaggregated growth data for those groups.

These situations are not deal-breakers; they are considerations as states explore their options for skip-year growth. As always, more sophisticated models produce more robust and accurate growth data—it is up to state leaders to weigh the trade-offs between simplicity and comprehensiveness in their growth model. State leaders are encouraged work with department staff, researchers, and vendors in their state to determine the approach that best serves their schools and communities.

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Table 1: Potential Availability of Growth Data for Elementary Grades

Grade	Tested annually?	Year-to-year growth data available?	Skip-year growth data available?
K	✗	✗	✗
1	✗	✗	✗
2	✗	✗	✗
3	✓	✗	✗
4	✓	✓	✗
5	✓	✓	✓
6	✓	✓	✓

Having growth data next year will be crucial to guiding recovery efforts; keeping parents and families informed; and reinforcing states' commitments to transparency, equity, and communication.

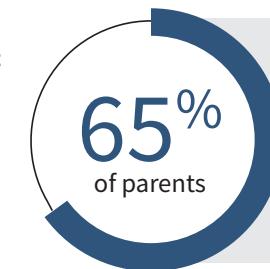
State and local leaders will need growth data to understand how school closures affected student learning.

It is already clear that the impact of school closures because of COVID-19 will not be uniform and will likely exacerbate existing equity gaps. State and district leaders will need disaggregated growth data next year to understand this impact, identify disparities, and determine where supports should be targeted to ensure an equitable recovery.

Growth data will also be a crucial resource in guiding and evaluating recovery efforts. States and districts will need to act to help students make up learning losses, but it is not yet clear which strategies will be most effective in doing so. With access to growth data next year, state and local leaders can begin to compare the impact of different strategies for keeping students on track to meet their learning goals. Using this information, they can identify best practices and drive continuous improvement efforts.

Parents and community members want and deserve this data. By sharing it, state leaders can affirm their commitment to the principles of transparency and helping all students succeed. In DQC's 2020 national parent and teacher polls, conducted in the midst of COVID-19-related school closures, 65 percent of parents and 61 percent of teachers said that they wanted information about student academic growth while schools were closed.^{15, 16} The public recognizes the importance of student growth as a measure of student progress—now is not the time for states to give up on it.

By sharing skip-year growth data, states can retain growth “muscle memory”—ensuring that state leaders, educators, and parents continue to value and use growth in decisionmaking and recognize its significance in understanding student learning. Moreover, calculating skip-year growth will allow state leaders to demonstrate their commitment to transparency and working in partnership with parents and community members to help all students succeed.



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States should start laying the groundwork now to ensure that they are ready to measure skip-year growth in 2021.

To position themselves to successfully measure and use skip-year growth next year, states should start preparing now.

- ✓ **Plan for 2021 annual assessments.** To measure growth next year, states must hold 2021 annual statewide assessments. Next year's tests may look different than they have in prior years, and state leaders can start working with their assessment providers now to ensure that their tests are resilient in the face of a range of circumstances (e.g., aligning to revised curricula, being administered in a different format or time frame, etc.). Community members and local leaders may still have concerns about whether testing students at all next year is appropriate or about the potential applications of any assessment results. State leaders should address these concerns head-on, stating why it is important to have assessment data next year and the steps they are taking to limit any negative effects on students and teachers.
- ✓ **Explore different models for measuring skip-year growth.** There is no single way to measure skip-year growth; it is up to each state to design a model based on its needs and current growth model. States should start talking to their test vendors, researchers, and other authorities *now* to determine what existing assessment data they can use and how to design their growth model to ensure the accuracy of any skip-year growth estimates. As they explore their options, states should consider using existing prior-year assessment data to "test drive" potential growth models, as state leaders in Tennessee and Florida did. These types of simulations will allow them to understand how using a skip-year approach will affect resulting growth data and identify any factors they need to take into account to ensure accuracy.
- ✓ **Consider the regulatory implications.** State laws or regulations may specify how student growth is to be measured; in such cases, state leaders will have to seek legislative approval to temporarily switch to skip-year growth. The Florida Department of Education, for example, recently announced its intention to measure skip-year growth next year; however, because state law defines learning gains as "annual" and specifies that growth measures from "one school year to the next," this decision must be approved by Florida's legislature before going into effect. Any similar specifications in states' Every Student Succeeds Act plans may mean that state leaders have to seek federal approval as well. As they explore the use of skip-year growth, state leaders should consider any relevant laws and regulations in their state.
- ✓ **Be transparent about what skip-year growth is and how it will be used.** State leaders should be upfront about what skip-year growth is, what information it captures, and how it is different from year-to-year growth. They should also be clear about how that information *will* and *will not* be used next year. Skip-year growth data will be a valuable tool to understand how school closures have affected student learning. State leaders should communicate this value to parents and community members and explain why having this information is crucial to supporting long-term recovery efforts. At the same time, they could assuage lingering concerns among teachers and local leaders by stating clearly that the data will not be used to evaluate or penalize any teachers or schools. Transparent communication is key to securing local buy-in and ensuring that skip-year growth will be effectively used to support student success.

Endnotes

- 1 Polikoff, M. (2017, March 20). *Proficiency vs. growth: Toward a better measure*. FutureEd. <https://www.future-ed.org/work/proficiency-vs-growth-toward-a-better-measure/>
- 2 Data Quality Campaign. (2019). *Growth data: It matters, and it's complicated*. <https://dataqualitycampaign.org/wp-content/uploads/2019/04/DQC-Growth-Data-Resources.pdf>
- 3 National Council on Teacher Quality. (2019). *Measures of student growth*. <https://www.nctq.org/yearbook/national/Measures-of-Student-Growth-95>
- 4 Data Quality Campaign. (2020). *Show me the data 2020*. [Forthcoming].
- 5 Online survey conducted within the United States by The Harris Poll on behalf of the Data Quality Campaign: May 1–6, 2019, among 1,013 parents with at least one child age 5–17 who attends school.
- 6 Houston, D., Henderson, M., Peterson, P., & West, M. (2020). *Status, growth, and perceptions of school quality* (Working Paper No. 20-238). Annenberg Institute at Brown University. https://www.edworkingpapers.com/sites/default/files/ai20-238_1.pdf
- 7 Burke, M. (2019, Dec. 5). *LA Unified releases new data measuring academic success of students over time*. EdSource. <https://edsource.org/2019/la-unified-releases-new-data-measuring-academic-success-of-students-over-time/620786>
- 8 While possible, this approach to measuring growth works only for students that have assessment data from at least three years before—significantly limiting the availability of growth data for younger grades. Alternatively, these states can consider temporarily adjusting their model to measure growth using the 2019 and 2021 assessments in 2021 and the 2021 and 2022 assessments in 2022. Then they can return to their original model when the full testing queue repopulates in 2023.
- 9 Massachusetts Department of Elementary and Secondary Education. (2011). *Massachusetts student growth percentiles—frequently asked questions (FAQ)*. <http://www.doe.mass.edu/mcas/growth/faq.html?section=overview>
- 10 Florida Department of Education. (2020, May 20). *K-12 accountability update* [Webinar]. <http://www.fl doe.org/core/fileparse.php/19861/urll/K12AccountabilityWebinar.pdf>
- 11 In its official guidance, the Florida Department of Education uses the terminology *prior prior year growth* to describe skip-year growth.
- 12 SAS. (2020). *COVID-19 impact on statewide testing and measuring student growth*. <https://drive.google.com/file/d/1OsXq8Gv4FgWFmzO5GfLGs4a38wTHotTa/view>
- 13 Florida Department of Education. (2020).
- 14 SAS EVAAS. (2017). *Technical documentation of 2017 TVAAS analysis*. Tennessee Department of Education. https://www.tn.gov/content/dam/tn/education/data/tvaas/tvaas_technical_documentation_2017.pdf
- 15 Online survey conducted within the United States by The Harris Poll on behalf of the Data Quality Campaign: April 28–May 1, 2020, among 1,725 parents of children ages 5–17 (1,565 whose children attend school).
- 16 Online survey conducted within the United States by The Harris Poll on behalf of the Data Quality Campaign: April 27–May 8, 2020, among 750 full-time teachers in the United States, all of whom were currently employed teaching grades K–12.

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