RECOMMENDATIONS FOR IMPROVED GOAL-SETTING UNDER THE EVERY STUDENT SUCCEEDS ACT

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Establishing Achievable Goals



## FORESIGHT LAW+POLICY

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# INTRODUCTION

Since 2002 the federal government has required states to have accountability systems that measure the quality of schools. When the No Child Left Behind (NCLB) Act ushered in the accountability era nationwide, it did so with the ambitious goal of ensuring that by 2014 "all children . . . reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments." That goal was not achieved. In 2015 the federal government hit the reset button on its accountability approach with the passage of the Every Student Succeeds Act (ESSA). The ESSA gives states flexibility to set their own goals and gives states greater flexibility in measuring progress toward those goals.

Federally-mandated accountability systems provide the public with important data about school and district performance, and also require states to support improvement activities in the lowest-performing schools. Under NCLB and ESSA the primary metrics of school performance have been results on standardized assessments — and in the case of high schools, graduation rates. ESSA has also opened the possibility of additional metrics, but assessment results remain the primary indicators of school performance. The stated goal of accountability systems is to lead to improved student outcomes, both in school and beyond.

One underlying assumption of the accountability era is clearly correct — we need to make dramatic changes in how students are doing, because too many students are not graduating from high school prepared to succeed in college or the workforce. But we also need to be clear-eyed about how to support those changes. While states are empowered to set their own goals for student performance, it is important that they not set aspirational goals that are unattainable. If they do, they risk undermining the very improvements they are designed to stimulate at the school and district levels.

This article examines how the federal ESSA offers new opportunities to improve teaching and learning in

Illinois. It also examines how current state goals match up with growth and proficiency rates in the nation's most successful schools. Our conclusions:

- Current goals will be impossible for most Illinois schools and districts to reach because they require growth rates that far exceed those of the nation's most successful districts;
- State goals that are challenging, data-informed, and attainable offer a better way to inspire local improvements that will allow Illinois to reach its 90% college and career readiness goal by 2032;
- Available data provide useful insights into the strategies that are most likely to help us achieve our goals. These include an increased focus on the early learning and early elementary years, and a stronger emphasis on improving instruction for all learners as a necessary condition for increasing proficiency, especially among lower-achieving students.

To reach higher levels of proficiency schools need to increase annual growth rates well beyond current levels and at a rate greater than one grade level per year. But we need to be realistic about what is possible, about how that success can be achieved, and about what needs to be done prior to third grade to achieve the levels of proficiency that all students deserve.

This paper begins by examining the new Illinois accountability system under ESSA and explains the rationale for the state's current approach. It then examines recent research about how student performance improves, which is an essential metric in Illinois' accountability system. It then evaluates Illinois' goals in light of current research to illustrate that those goals are simply not realistic. The paper concludes with recommendations for an approach that is realistic and would create the right incentives for schools and districts.

## A New Way of Measuring Quality: Using Both Proficiency and Growth to Assess Effectiveness

Illinois' new ESSA plan measures school quality by looking at both overall proficiency levels of students at the school **and** the students' year-to-year growth on standardized tests<sup>1</sup>:

- In a "proficiency" model, the state defines a level of achievement that it considers to be "proficient." School effectiveness is measured by the percentage of students who achieve that level of proficiency. This level is intended to capture the knowledge that a student needs to have in order to be on track to be prepared for college.
- In a "growth" model, the state defines how much achievement is expected to grow across a year. School effectiveness is measured by the percentage of students who meet or exceed expected growth levels or the average amount that the achievement of all students in a school has grown.

There are benefits and drawbacks to each approach. This is why many states — including Illinois — have chosen to use a combination of both.<sup>2</sup> Proficiency is important to measure because achievement levels influence student admission to college and career preparation programs. Growth is important because it measures the impact of schools on student learning and demonstrates the extent to which students who have fallen behind are on track to catch up.

A serious limitation of using proficiency alone to assess school quality is that proficiency is strongly correlated with socio-economic status (SES). This means that schools with students from wealthier families often perform better, primarily based on the wider range of social and academic supports that students experience outside of school.<sup>3</sup>

Historically, another problem with using proficiency benchmarks is that they encourage schools to focus on students whose achievement is just below the benchmark score. This incentive to "work the bubble" trivializes the school improvement process, does little to support improvement of teaching and learning for all students, and is not aligned with how schools improve (see Appendix B).<sup>4</sup> Moreover, proficiency metrics are often misused by looking at the overall proficiency rate of a school, rather than looking at end-point proficiencies such as 3<sup>rd</sup>, 5<sup>th</sup>, 8th and 12th grade.

For their part growth measures provide useful information about how students are improving, but do not indicate whether students are likely to be successful in later years. Students in schools with strong growth but lower levels of proficiency often need additional supports — in school, outside of school, and in the years before formal schooling begins.

For schools to succeed in reaching higher levels of proficiency, all students need to grow at a pace that will be substantially greater than current year-to-year averages. An accountability approach that assesses both growth and proficiency accounts for the fact that students come to school with very different levels

<sup>1</sup> Advance Illinois, (2017, November 6). Essence of ESSA: Growth versus proficiency. In *Advance Illinois*. Retrieved from http://www. advanceillinois.org/2017/11/essence-of-essa/

<sup>2</sup> Wright, B. L., & Petrilli, M. J. (2017, November 17). Rating the Ratings: An Analysis of the 51 ESSA Accountability Plans. In *Thomas B. Fordham Institute*. Retrieved May 18, 2018, from https://edexcellence.net/publications/rating-the-ratings

<sup>3</sup> Mackey, A. P., Finn, A. S., Leonard, J. A., Jacoby-Senghor, D. S., West, M. R., Gabrieli, C. F., & Gabrieli, J. D. (2015). Neuroanatomical correlates of the income-achievement gap. Psychological science, 26(6), 925-933; Goldfarb, Z. A. (204, March 5). These four charts show how the SAT favors rich, educated families. In Washington Post. Retrieved from https://www.washingtonpost.com/ news/wonk/wp/2014/03/05/these-four-charts-show-how-the-sat-favors-the-rich-educated-families?noredirect=on&utm\_ term=.aObfefec7fa0; https://www.the74million.org/article/barnum-the-growth-vs-proficiency-debate-and-why-al-franken-raised-a-boring-but-critical-issue/ Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? Educational evaluation and policy analysis, 26(3), 237-257.

<sup>4</sup> Lauen, D. L., & Gaddis, S. M. (2016). Accountability pressure, academic standards, and educational triage. Educational Evaluation and Policy Analysis, 38(1), 127-147.

of preparation. It also offers a more accurate picture of school effectiveness and highlights a relationship between growth and proficiency that is important, especially for lower-achieving students.

In Illinois' ESSA plan<sup>5</sup> proficiency still counts for 20% of a school's overall score, but at elementary and middle schools, growth now counts for 50%. The high school system may include a growth metric in later years, but currently relies exclusively on proficiency for the assessment-driven portion of the accountability system. The remaining percentages are accounted for by factors other than test scores — including high school graduation rates, which have played an important role in high school accountability for years and continue to under ESSA.

## THE USE OF STANDARDIZED ASSESSMENTS FOR ACCOUNTABILITY

Federal law mandates the use of assessments in state accountability systems — including in their goals.<sup>6</sup> In the No Child Left Behind era there was extensive debate about the use of assessments in accountability systems; the passage of the ESSA reaffirmed the federal government's commitment to using standardized statewide assessments in accountability<sup>7</sup>, while giving states new flexibility in how to use those results.

A standardized assessment-based standard is a useful counterweight to other performance indicators such as grades, attendance, and high school graduation. If schools are expected to demonstrate increases in other measures — such as high school graduation — but are not held to high standards for improving assessment performance, schools will have an incentive to award diplomas to students who may not really be qualified. In contrast, if schools are expected to raise test scores but not held accountable for graduation rates, an incentive is created to "push out" lower achievers. Accountability systems have long acknowledged that each of these data points has significant value as a complement to the other.<sup>8</sup>

For this reason and others, civil rights groups have argued that standardized assessments are needed to make comparisons across communities and expose achievement gaps.<sup>9</sup> If we do not use assessment results in an appropriate and technically sound manner, however, those results will not necessarily be treated as credible by educators and the public. Our purpose in this paper is not to opine on the quality of the assessments used as a part of the ESSA plan or the specific proficiency benchmarks set by the state, but to ensure that the state's goals for student performance on these assessments are ambitious, reasonable, and technically sound.

The use of growth measures under ESSA is a significant change, because NCLB focused exclusively on proficiency.<sup>10</sup> Because NCLB also demanded that states achieve 100% proficiency by 2014 most states — including Illinois — lowered their cut scores to allow more students to be "proficient." This effort to game the system undermined public trust. Ironically, even after cut scores were lowered to two or more years below grade level, no state ever achieved NCLB's 100% goal.

<sup>5</sup> Illinois State Board of Education (2017, 8 29). ESSA State Plan for Illinois. Retrieved from https://www.isbe.net/Documents/ ESSAStatePlanforIllinois.pdf.

<sup>6</sup> Section 1111, (c)(4)(A)

<sup>7</sup> https://www.edweek.org/ew/articles/2018/07/23/anti-test-movement-slows-to-a-crawl.html

<sup>8</sup> Swanson, C. B. (n.d.). Graduation Rates: Real Kids, Real Numbers. Retrieved November 14, 2018, from https://www.urban.org/ sites/default/files/publication/57831/311114-Graduation-Rates.PDF

<sup>9</sup> EhrenFruend, M. (2015, April 14). Why civil rights groups support standardized tests. Washington Post

<sup>10</sup> The Department of Education did allow for the inclusion of growth as a measure through a growth model pilot (https://www2.ed.gov/rschstat/eval/disadv/growth-model-pilot/index.html) and then later through a waiver process (https://www2.ed.gov/policy/elsec/guid/esea-flexibility/index.html).

The failure to set realistic expectations was a significant factor in the collapse of public support for the law. When even the very best schools in the country could not meet NCLB's expectations, it was difficult to take those expectations seriously.<sup>11</sup>

## What Research Tells Us About Growth

The purpose of goals is to motivate progress. Illinois needs to set goals that push schools and districts toward high levels of achievement and set ambitious but achievable growth targets.

New research on student performance allows us to define ambitious growth and proficiency expectations based on what is currently being achieved in the nation's most effective schools and districts. This research provides a framework for setting ambitious but achievable growth and proficiency expectations at different points on the PK-12 continuum.<sup>12</sup>

Almost all students make progress in school. The challenge is to help all students make *enough* progress each year to realize their full potential as learners:

- If students come into a given grade at a less than proficient level and make one year's
  progress that year, they will still be behind, and with less time to make up ground before high
  school graduation.
- Students who come to a grade achieving at a proficient level but fail to make a full year of progress face a different problem. Their achievement declines relative to their peers.
- If students who were on track for college and career readiness in earlier grades make less than average growth in later grades, they can fall below proficiency benchmarks.

Overall, national data based on growth over time in over 11,000 school districts provides strong guidance about setting ambitious but realistic goals for growth based on growth trajectories in highly successful districts.

We define "realistic" growth based on the upper boundaries of current growth data. Figure 1 shows 5-year growth rates between third grade and eighth grade in 2,000 of the nation's largest school districts, plotted against the average socio-economic status of each district's students. Figure 1 shows that the very best school districts in the country are providing the equivalent of six years of progress in five years — or about 1.2 grade equivalents per year.

<sup>12</sup> While we believe it may be possible to have greater growth than the most effective districts in the nation, we think it is inappropriate to set goals assuming that such greater growth is immediately possible. Our hope is that with appropriate goals and supports that districts will be able to reach even higher levels of effectiveness. If and when that occurs, goals can be updated to reflect these new norms. Until then, we should set goals for the Illinois system based on the data we currently have.



#### **FIGURE 1**

Source: https://www.nytimes.com/interactive/2017/12/05/upshot/a-betterway-to-compare-public-schools.html?hp&action=click&pgtype=Homepage &clickSource=story-heading&module=second-column-region&region=topnews&WT.nav=top-news&\_r=0

<sup>11</sup> Illinois Report Card.

A key lesson from this chart is that in the near term expecting more than a small percentage of districts to achieve more than six years of growth in a five-year period is unrealistic.

Another lesson is that most districts, regardless of level of wealth, can realistically improve 5-year growth rates above their current baseline. For example, there is no reason to believe that students in Anne Arundel County, MD are any less capable of making 1.1 grade equivalents of progress per year than students in U-46. Currently, however, the growth rate of students in Anne Arundel County is just a little over 0.8 grade equivalents per year.

Chicago and U-46 offer good guidance for goal-setting that is both ambitious **and** realistic. Chicago the third largest district in the country—has a growth rate of 1.2 grade equivalents per year between third grade and eighth grade. Only 3% of all districts in the country grow learning at or above that rate. U-46—the second largest district in Illinois—has a growth rate of 1.1 grade equivalents per year. Just 20% of all other districts in the nation can make that claim. Both districts offer clear evidence of growth rates that are both ambitious and achievable at scale.

## **ISBE's Current Goals Are Set Too High Based on Existing Data**

Illinois needs to set ambitious goals. The most obvious reason is that only 37% of Illinois students in ninth through twelfth grade currently have literacy skills that put them on track to meet the state's college and career readiness standards. In math, the number drops to 34%. While there is still no clear consensus among test professionals about scoring levels that best predict college and career readiness, these numbers make it clear that there is certainly room for improvement.

Beyond the immediate needs of students, clear and appropriate goals help schools, districts, and the state monitor the improvement process and allocate resources more effectively. Goals also provide a framework for communication with educators, parents, and the public at large about what schools and districts are trying to accomplish. Finally, monitoring progress toward the state's goals gives practitioners and policymakers clear information about the results of improvement efforts — and whether those results align with expectations.

During the development of Illinois' ESSA plan, the State Board of Education adopted four ambitious proficiency goals for all schools and districts to achieve by 2032. These goals call for:

- 90% of all students to meet statewide proficiency standards in reading by the end of third grade;
- 90% of all students to meet statewide proficiency standards in math by the end of fifth grade;
- 90% of all students to be on track for high school graduation by the end of ninth grade; and
- 90% of all students to be college and career ready by the end of twelfth grade.

Illinois' goals are well-intentioned in that they represent a commitment to equity and high achievement. But they are inconsistent with the best information we have about achievement growth in the nation's most effective schools.

Expecting Illinois schools to increase proficiency at rates comparable to the highest in the nation is a bold but empirically defensible alternative. Expecting all or most Illinois districts to dramatically outperform what are now the highest growth rates in the country sets the stage for the same kind of political theater and public mistrust that was generated under No Child Left Behind.

#### STATE GOALS DEFINED BY ESSA

90	)%	3rd Grade students are reading at or above grade level
90	%	5th Grade students meet or exceed expectations in math
90	)%	9th Grade students are on track to graduate with their cohorts
90	)%	Students graduate from high school ready for college & career
100	)%	Kindergartners assessed for readiness
100	)%	Students have highly prepared effective teachers & school leaders
100	)%	Schools have a safe & healthy learning environment for all students

### ASSESSING THE FEASIBILITY OF ACHIEVING 90% PROFICIENCY

When the State Board of Education approved current ESSA goals in 2016, about 36% of Illinois third graders met statewide proficiency standards. This measure reflected a statewide distribution of reading achievement that looked roughly the same as the one shown below in Figure 4. Blue bars show students who scored at or above the proficiency benchmark of 750. Orange bars show students who scored below that benchmark. The black line shows the median score for all students tested.



PARCC Scale Score



**Source**: <u>ftp://ftp.isbe.net/SchoolReportCard/</u>

Figure 5 below shows what eighth grade reading achievement would look like if teachers and parents in a typical Illinois school were able to increase third to eighth grade growth rates by one full grade equivalent.





Source: <a href="http://ftp.isbe.net/SchoolReportCard/">http://ftp.isbe.net/SchoolReportCard/</a>

Figure 5 demonstrates that adding one additional year of learning (6 years of academic growth in 5 years) to the elementary years would raise eighth grade proficiency rates from 36% to 58% in an average Illinois school district. This proficiency rate falls well short of 90%, but is nine percentage points higher than the proficiency rate achieved by Massachusetts eighth graders on the 2017 NAEP reading exam. To put this in context, Massachusetts eighth graders have led the nation in NAEP reading proficiency for more than a decade. Proficiency benchmarks on the NAEP are roughly comparable to those that Illinois currently uses to assess proficiency at grades 4 and 8.<sup>13</sup>

Figure 6 illustrates that, to reach the current Illinois ESSA goal of 90% proficiency, elementary instruction would need to add close to *three full grade equivalents* to current learning levels. In short, achieving ISBE's stated goal would require a typical Illinois district to generate eight years of learning in the five years between the end of third and the end of eighth grade.

As discussed earlier, districts that achieve just one additional year of growth in a five-year period are among the highest performing in the country. Current ISBE goals call for growth in a typical Illinois district to increase by **three times** that rate. In lower-achieving districts, growth rates would need to be **five times** higher than the nation's highest growth rates to meet current goals by eighth grade.<sup>14</sup>

<sup>13</sup> In 2017, 37% of Illinois fourth graders scored proficient or higher on the PARCC exam while 35% scored proficient or higher on the NAEP; in eighth grade, 37% Illinois students scored proficient or higher on the PARCC exam in 2017 while 36% scored proficient or higher on the NAEP.

<sup>14</sup> Grade equivalents as shown here are defined statistically by movement of the mean by approximately a half a standard deviation of the overall distribution. Half a standard deviation is roughly equivalent to a difference of one full grade level on a normal distribution of student test scores.

#### ONE EXTRA YEAR OF PROFICIENCY

#### CURRENT AVERAGE STATEWIDE RATE





TWO EXTRA YEARS OF PROFICIENCY

CURRENT ILLINOIS PROFICIENCY GOAL



**FIGURE 6** 

Source: <a href="mailto:ftp://ftp.isbe.net/SchoolReportCard/">ftp://ftp.isbe.net/SchoolReportCard/</a>

#### **ISSUES WITH GOALS BEYOND REACHING 90% PROFICIENCY**

The analysis above demonstrates that setting a 90% proficiency goal for eighth grade is not reasonable. A variety of other feasibility issues are also worth noting:

- We explore above what it would take to accomplish 90% proficiency by the end of eighth grade. But current state goals call for 90% proficiency as early as the end of third grade. Reaching 90% proficiency by the end of third grade is even more ambitious than reaching that target by the end of eighth or twelfth grade.
- While a 90% target is currently out of reach for third grade, higher levels of achievement in high school will require improvement in performance prior to third grade. Improving school effectiveness prior to third grade will be essential to reaching 90% proficiency in later grades.
- It is not clear that 90% proficiency on state assessments is actually an appropriate goal. The state has invested significant effort to develop a broader definition of college and career readiness.<sup>15</sup> While achievement on standardized assessments is an important component of readiness, research makes it clear that a wider range of metrics is needed to predict college and career success. There may be students who are not proficient on standardized assessments who are positioned for later success in ways that other metrics would capture more fully.

<sup>15</sup> https://www.isbe.net/Documents/College-Career-Readiness-Indicator.pdf

• Finally, the accountability benchmarks need to be reasonable about the pace of improved rates of growth. While 1.2 years of growth in a year is possible, schools cannot flip a switch and produce that level of growth in a year; gradual progress by schools over time toward that level of performance is the only way to get there. A realistic model for how the state might improve performance in PK through 3, third through eighth and in high school needs to be developed to map out appropriate pacing (see Appendix A).

### Focusing on the Early Years is Essential

Low achievement in middle school and high school are best addressed before third grade. At present, an analysis of nationwide data makes it clear that districts only rarely achieve more than six years of growth in the five years between third and eighth grade. These data also show that growth in learning slows as children get older. If a cohort is two years behind at the end of third grade, the likelihood of that cohort catching up by the end of high school is very low. Indeed, even a cohort that is just one year behind at the end of third grade will only catch up to expectations in the top three to five percent of American school districts.

There are several complementary strategies available to improve proficiency by the end of third grade. First, the state can continue to increase its investment in kindergarten readiness. Illinois has long been a leader nationally for birth-to-five initiatives that focus on getting children ready for kindergarten. But far too many children still do not have access to high-quality programs, which is underscored by recent findings that only 24% of Illinois children are on track for school success at the beginning of kindergarten.<sup>16</sup>

There is also much room for progress in what school districts can do to assess and strengthen new learning from kindergarten through third grade.<sup>17</sup> Illinois has committed to using a P-2 indicator as part of its accountability system to emphasize to district and school leaders the importance of the early years.<sup>18</sup> Although there are no statewide accountability assessments prior to the end of grade three, there are numerous diagnostic assessments that can be used to assess student needs and improve instructional effectiveness. In addition, new tools are becoming available to help districts and schools assess learning needs more successfully. For example, national and international data on the power of formative assessment at the classroom level point to big opportunities for improved teaching and learning that remain untapped in most schools and districts.<sup>19</sup>

As described in the main narrative, improvement efforts that only address the years after third grade have a very low likelihood of moving schools significantly closer to state proficiency goals.<sup>20</sup> Creating conditions that help educators and parents increase new learning from PK through third grade by an average of one full grade equivalent statewide would propel achievement in Illinois to first-in the-nation status for primary grades. It would also create a stronger foundation for learning in later grades, without which we can never hope to achieve 90% college and career readiness.

<sup>16</sup> https://www.isbe.net/kids

<sup>17</sup> Illinois' P-20 Council has a Kindergarten Transition Advisory Committee that is developing recommendations regarding the transition from preschool into kindergarten, and best practices for improving early elementary education. https://www2.illinois. gov/sites/P20/Pages/Kindergarten-Transition-Advisory.aspx

<sup>18</sup> https://www.isbe.net/Documents/17-3249\_P-2\_Indicator\_Working\_Group\_Report.pdf

<sup>19</sup> See, for example, Wiliam (2018) Embedded Formative Assessment, and Goldstein (2017) Restorative Assessment

<sup>20</sup> The Illinois Early Learning Council has made a specific set of recommendations on this topic. <u>http://files.constantcontact.</u> <u>com/10769473401/6b4ac107-b08f-4555-83a5-fefcc2e6ff54.pdf.</u> The Illinois P-20 Council later adopted those recommendations.

## **Recommendations: Creating a System of Ambitious, and Attainable Goals**

We are strong supporters of ambitious goals. But current goals far exceed what the nation's most effective districts have been able to achieve. It invites failure and cynicism to expect Illinois school districts to radically outperform the most successful districts in the country.

Going forward, we recommend the following critical actions:

• Set goals that are ambitious but realistic.

While there is value in having aspirational long-term goals for the system, they are not useful unless they provide a realistic roadmap for improvement in the short-term. If we want communities to engage in productive conversations about how to improve their schools, we need to support that conversation with goals that are **both** ambitious **and** achievable. Appendix A describes one possible approach that meets these criteria.

- Base growth expectations on data from the nation's most successful schools and districts. One shortcoming of NCLB was that its high expectations were not modeled on existing data. We have the opportunity to learn from NCLB and draw upon data to inform goal setting. State goals will be stronger and more useful if they are reflective of current data and research, and provide systems of support that give schools and districts a reasonable chance to achieve those goals.
- Focus improvement efforts in areas where data show that leverage for progress is high.

As Nobel Prize-winning economist James Heckman has said, skills beget skills. Children who have strong educational experiences early are more likely to have continued success later on. Illinois has done better than many states at reflecting this value in its ESSA goals. Making this an even more prominent focus of the state's school improvement efforts will be essential to achieving ambitious but achievable goals.

Being realistic about how much growth can be achieved in a given year — and understanding that growth currently slows as children get older — places a premium on ensuring that children experience academic success as early as possible.

#### Use data to shape the design of future improvement efforts.

A decade and a half of data from the NCLB era offers powerful, sometimes surprising, insights about scaled improvements in schools and district achievement. For example, meaningful growth in proficiency at the school, district, and state levels rarely occurred by simply raising achievement among low-achieving students. Rather, improved achievement among lower-achieving students typically requires raising the proficiency of students across all achievement levels. Appendix B explains this phenomenon in greater detail. • Recommend clear mechanisms based on known best practices that describe how ambitious goals can be achieved incrementally over time.

Schools and districts are accountable for promoting continuous social and academic growth across the full spectrum of development from birth through twelfth grade. The state and its partners should map out how ambitious improvements in new learning in earlier years make it possible for student cohorts to experience equally ambitious learning growth at grades 3-5, 6-8, and 9-12.

Setting ambitious goals for educational outcomes is a good thing. So is the inclusion of growth measures in the state's school accountability system. But more work is needed to ensure that growth and proficiency goals are set and supported in the most effective ways possible.

ESSA offers a once-in-a-generation opportunity to set the right goals and to support the growth needed to meet or exceed those goals. ISBE's initial goals are based on a deep belief that all students should have the opportunity to succeed, but they are not based on realistic data that create the right incentives for the schools helping those students to succeed. The state does schools and students no favors when it creates unrealistic expectations; instead, the state should use data to set expectation levels that represent real progress and that schools have a chance to achieve.

## **Appendix A**

### IT IS POSSIBLE TO PROJECT AMBITIOUS STATEWIDE GAINS IN GROWTH AND PROFICIENCY BASED ON THE KNOWN ACCOMPLISHMENTS OF THE NATION'S MOST SUCCESSFUL SCHOOL DISTRICTS

How long will it take the state to reach the growth rate of districts like CPS or U-46? An optimistic estimate is that raising statewide growth rates to this level would take at least five to seven years. At this rate, improved proficiency for each statewide cohort would be small in the beginning but increase over time as improvement efforts gain traction.

Figure A1 shows the type of proficiency gains that could expected from each successive statewide cohort over a 10-year period as growth rates increase.<sup>21</sup> This represents the increase in percent of proficiency that could be expected in a given year for each cohort with students in third through eighth grade.

Year	Improved Proficiency per Cohort per Year	Year	Improved Proficiency per Cohort per Year
2019	0%	2024	3%
2020	1%	2025	3%
2021	1%	2026	4%
2022	2%	2027	4%
2023	2%	2028	5%

### FIGURE A1

Based on these assumptions, an ambitious but achievable model of attainment over the next 15 years would reflect the following statewide expectations:

- Within the next 15 years, new learning during the period between the beginning of PK and the end of third grade would increase by a full grade equivalent.<sup>22</sup>
   Achieving this goal in all Illinois school districts would increase third grade reading proficiency to 58% by 2032. This rate of proficiency would match the highest level of third grade reading yet achieved by any state in the nation once NAEP scores are controlled for differences in student demographics.
- Within the next 10 years, growth would increase such that learning during the period between the end of third grade and the end of eighth grade would increase by a full grade equivalent.

<sup>21</sup> The translation of growth rates into proficiency gains is impacted by the distribution of student test scores and could be more or less depending on the starting level of proficiency and variance of test scores. Therefore, this table is an approximate illustration of possible changes in proficiency. A full model would have to be developed to provide more precise estimates.

<sup>22</sup> According to the Urban Institute states made average gains of approximately six months learning in 4<sup>th</sup> grade reading and math between 2003 and 2013 adjusted for demographics, making this an ambitious but achievable goal (<u>https://www.urban.org/research/publication/breaking-curve-promises-and-pitfalls-using-naep-data-assess-state-role-student-achievement/view/full\_report</u>)

- Long-term proficiency goals for eighth grade would be based on the combined impact of:
  - new learning achieved during the five years between PK and the end of third grade
  - new learning achieved during the five years between the end of third grade and the end of eighth grade
- 90% college and career readiness by high school graduation would continue to be set as the ultimate goal.

Illinois has expanded the definition of college and career readiness (CCR) to include more than a single test score. Using that expanded definition, CCR includes grade point average, attendance, post-secondary workforce readiness and other measures in addition to test scores. The state should continue to aim for 90% college and career readiness by 2032 with the understanding that this can be achieved even though only 70% of high school graduates are reaching academic proficiency on state assessments by the end of eleventh grade.<sup>23</sup>

Figure A2 simulates shifts in state proficiency based on the expectations outlined above. The result of simulating these shifts demonstrate how students' scores might change over time. For example:

- Reviewing the vertical axis of the table, third grade proficiency rises from 38% to 45% between 2020 and 2024 and would eventually rise to 58% in 2035. This aligns with the concept that early childhood performance will increase by 1 grade equivalent over the next 15 years. This simulation shows no growth initially, then minimal improvement of 1% point per year with eventually a 2% point improvement each year. While these may seem like minimal jumps, the compounding move from 37% to 58% represents significant growth. Future analysis should look at how many districts in Illinois are already making this type of improvement between third grade cohorts.
- Reviewing the horizontal axis of the table, proficiency gains within student cohorts rise more slowly during the early years of ESSA. For example, the statewide cohort of third graders with 38% proficiency in 2020 only grows to 49% proficiency as eighth graders in 2023, whereas the 2024 cohort at 45% in third grade achieves 66% in eighth grade. This aligns with the concept captured in table A1 that growth rates will take time to hit the highest levels. This means that the 2018 cohort only ever realizes improvement of 2% points between seventh and eighth grade (2022 and 2023), but that the 2024 cohort realizes improvement of 3% points, 4% points, and 5% points in later grades, when the state has a growth level on par with the best districts now.
- The increase in proficiency in the years before third grade for each cohort, combined with growth rate increases (and therefore improved rates of improvement in proficiency) in the later years of ESSA, lead to overall improved rates of proficiency. For example, the statewide cohort of third graders starting in 2020 would start with a proficiency of 38% in third grade and end eleventh grade with 54% proficiency, but a cohort in 2024 would start with a proficiency of 45% and end with a proficiency of 73%.

Note that the assumptions for improvement in both growth over time and improvement in third grade proficiency can be slightly modified, but we believe that these are ambitious because these expect statewide growth rates in line with the best districts in the country, and achievable because there are districts achieving these growth rates.

<sup>23</sup> Illinois State Board of Education, 4/18/2018, Illinois' Support and Accountability System College and Career Readiness Indicator (CCRI), Retrieved from <a href="https://www.isbe.net/Documents/College-Career-Readiness-Indicator.pdf">https://www.isbe.net/Documents/College-Career-Readiness-Indicator.pdf</a> on 9/11/2018

3 <sup>rd</sup> Grade Year	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	<b>7</b> <sup>th</sup>	8 <sup>th</sup>	11 <sup>th</sup> *	11 <sup>th</sup> Grade Year
2018	37%	37%	38%	39%	41%	43%	47%	2026
2019	37%	38%	39%	41%	43%	46%	50%	2027
2020	38%	39%	41%	43%	46%	49%	54%	2028
2021	39%	41%	43%	46%	49%	53%	58%	2029
2022	41%	43%	46%	49%	53%	57%	63%	2030
2023	43%	46%	49%	53%	57%	62%	68%	2031
2024	45%	48%	52%	56%	61%	66%	73%	2032

\*This column is a 3 year span vs. 1 year span of prior columns

### FIGURE A2

It is true that in this table, no group of students reaches 90% proficiency based on current proficiency benchmarks. But if students were able to attain 70% proficiency in eleventh grade on state assessments, the state would be well on its way to preparing 90% of all students for post-high school success. It is also worth noting that the average proficiency rate across the state (or in a similarly situated school) would be significantly below 90% because this model builds toward a goal of higher levels of proficiency in later grades.

Concerted efforts to help all schools and districts achieve growth rates comparable to Chicago's at all grades from PK through 12 would put Illinois' goal of 90% college and career readiness within reach by the end of twelfth grade. This approach would clearly require unprecedented efforts to revamp conventional approaches to schooling both inside PK-12 classrooms and in early childhood experiences in students' homes and communities. To date, these changes in homes and communities have only been hinted at in ESSA planning and have not yet been acknowledged in ways that could make 90% college and career proficiency by twelfth grade more than a distant aspiration.

## **Appendix B**

## DISTRICTS THAT IMPROVE ACHIEVEMENT AT SCALE DO NOT *JUST* FOCUS ON THEIR LOWEST-ACHIEVING STUDENTS

For many years, it has been an article of faith in the policy community that scaled improvements in proficiency are mostly driven by remediating low achievement. But recent analyses of proficiency gains in Illinois and nationwide reveal something surprising: *Proficiency gains among lower achievers rarely occur at scale unless average and higher achievers make equivalent or higher gains.* 

These findings are important because they illustrate that schools and districts cannot simply remediate their way to increased proficiency. On the contrary, fifteen years of data from the NCLB era show that instructional depth and quality need to be increased for **all students** before supplemental supports for lower achievers produce sustainable gains. This new evidence helps explain why a half-century of federal and state education policy targeted exclusively toward support for lower achievers has not produced stronger results.

Figure B1 shows how fifteen-year proficiency gains in Chicago occurred in roughly equal proportions across all proficiency levels in third through eighth grade. Color bands in each chart show proficiency levels in grade-equivalents. Pink and tan bands in charts on the left show that 68% of Chicago students in third through eighth grade scored below grade level in math in 2001. By 2016, this number dropped to 49%.

If all or most proficiency gains in Chicago came from remediation alone, the green band (representing grade-level proficiency) would have expanded by close to 19 percentage points while the blue and purple bands (representing higher grade equivalents) would have stayed about the same. What actually happened was that each one of the higher-achieving proficiency bands grew substantially. In other words, proficiency gains occurred among all students, not just among lower achievers.



**FIGURE B1** 

Source: Zavitkovsky & Tozer (2017) Upstate/Downstate <u>http://urbanedleadership.org/what-we-do/research/upstate-downstate-report/</u>

National data on proficiency tell the same story. Figure B2 shows the relationship between proficiency, race, and socio-economic status in all US school districts that have at least 100 black, 100 Latino and 100 white students in each grade three through eight. Like the charts in Figure B1, the two sample school districts shown in Figure B2 illustrate that higher overall proficiency rates typically reflect improved achievement among all students, not just improved achievement among lower achievers.

In Charlotte-Mecklenburg, average achievement for all students in third through eighth grade is about 0.4 grade equivalents above grade level. In Simi Valley, average achievement for all students is about 0.6 grade equivalents below grade level, one full grade equivalent lower than Charlotte-Mecklenburg.

In order for average achievement in Simi Valley to mirror average achievement in Charlotte-Mecklenburg across racial sub-groups, black achievement would need to increase by about 1.6 grade equivalents and Latino achievement would need to increase by about 0.9 grade equivalents. But the biggest lift would need to happen among white students at the upper end of Simi Valley's achievement continuum. Average achievement there would need to increase by a whopping 2.4 grade equivalents to match white achievement in Charlotte-Mecklenburg.



#### **FIGURE B2**

**Source**: https://www.nytimes.com/interactive/2016/04/29/upshot/money-race-and-success-how-your-school-district-compares.ht ml?action=click&contentCollection=upshot&region=rank&module=package&version=highlights&contentPlacement=1&pgtype=section=root&school=click&contentPlacemen

## SCALED INCREASES IN PROFICIENCY TYPICALLY REQUIRE ACROSS-THE-BOARD GAINS IN NEW LEARNING

Statewide trends on the National Assessment of Educational Progress (NAEP) also illustrate that when proficiency among average and higher-achieving students increases, gains among lower achievers are more likely to happen. When proficiency flattens among average and higher achieving students, achievement among lower achievers is more likely to decline.

Figure B3 below shows NAEP scoring trends in eighth grade reading in Chicago and the State of Illinois from 2003 through 2017. Blue lines show trends for Chicago alone. Green lines show statewide trends that include Chicago. The chart on the left shows scores achieved by students at the lower end of each scoring distribution. The chart in the middle show scores achieved by students at the midpoint, or 50th percentile, of each distribution. The chart on the right shows scores achieved at the

upper end of each distribution. Dotted blue lines at the top of each chart show the NAEP cut score for eighth grade reading proficiency. This cut score is roughly equivalent to Illinois' current standard for eighth grade reading proficiency.<sup>24</sup>





Source: <u>https://www.nationsreportcard.gov/ndecore/xplore/NDE</u>

The scoring trends shown in Figure B3 echo the storyline of Figures B1 and B2:

- Between 2003 and 2013, blue lines show that 12 point gains at the lower end of Chicago distributions were matched by 13 and 16 point gains in the middle and upper levels of the distribution. Nine point gains among lower-achieving students statewide (including Chicago) were matched by statewide gains at the 50th and 75th percentiles of seven and eight points respectively.
- Between 2013 and 2017, Chicago gains continued to occur across the entire scoring distribution. During that same period, statewide declines occurred across all three achievement levels<sup>25</sup>.

<sup>24</sup> In both 2015 and 2017, 32% of Illinois eighth graders scored proficient or higher on both PARCC and NAEP exams

<sup>25</sup> Since Chicago accounts for close to 20% of all students tested statewide, achievement gains outside of Chicago between 2003 and 2013 were less pronounced than green lines indicate. For the same reason, achievement declines outside of Chicago between 2013 and 2017 were more pronounced than green lines show.



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