## For All Kids

## How Kentucky is Closing the High School Graduation Gap for Low-Income Students

A report by Civic Enterprises and the Everyone Graduates Center at the School of Education at Johns Hopkins University

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## Foreword

Over the last decade, the nation has been responding to its high school dropout challenge. Goals have been set, evidence-based plans developed, and coalitions built to meet the challenge and put more students on a better path. As a result of the hard work of students, parents, teachers, administrators, community-based organizations, business leaders, faith leaders, and policymakers at all levels, significant progress has been made. High school graduation rates have risen more than 11 percentage points in the past decade and two million more students have crossed the graduation line rather than dropping out.

Along the way, we have seen schools, districts, and states that have been setting a fast and sustained pace of progress that could inspire the rest of the country. One of those states is the Commonwealth of Kentucky. As you will learn in this carefully researched case study, Kentucky is a state with rates of poverty that exceed the national average, but with graduation rates for lowincome students that are its envy. Kentucky is a diverse state with large urban centers in northern, central, and western Kentucky and some of the most impoverished areas in Appalachia and Eastern Kentucky. It was there in Martin County, Kentucky, in 1964 that President Lyndon Johnson launched his famous "War on Poverty" on Tom Fletcher's front porch. It is in Floyd County next door that a school district and community embraced its dropout challenge and became one of the best in the state.

The challenges are significant and leaders from multiple sectors in Kentucky have worked hard together over the last 25 years to make steady and sustained progress in educating all students from all backgrounds. In an America that is too often the story of two nations - where higher economic status leads to stronger educational outcomes - Kentucky is a story of educational achievement for all kids.

We encourage you to study this report, learn about the approaches and innovations that emerged from the Bluegrass State, and adopt those reforms and strategies that help you create your own culture of success.


John M. Bridgeland
President and CEO
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## Robert Balfanz

Director
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## Executive Summary

In 2013, Kentucky had the highest graduation rate for low-income students and the smallest graduation rate gap between low-income and non-low-income students in the United States. Across the country, high school graduation rates have risen significantly from 71 percent in 2002 to 82.3 percent by 2014 . However, such progress has not been universal in all states and districts and graduation rates for low-income students have been, on average, 15 percentage points lower than for their higher income peers nationally and in some states more than 25 percentage points lower. Such disparities in graduation rates threaten America's creed of equality of opportunity. This report undertakes to understand how Kentucky has successfully closed its low-income graduation rate gap and to share lessons with other states.

In the 2012-13 school year, Kentucky led the nation with an 85.4 percent high school graduation rate for low-income students and a one-percentage-point graduation gap between low-income and non-low-income students. In 2013-14 the state ranked fourth in the nation with a seven-percentage-point incomebased graduation rate gap. Even though Kentucky's low-income graduation rate decreased slightly in 2014 to 84 percent and the gap grew largely because graduation rates for non-low-income students continued to rise, the state remains near the top in the nation for boosting graduation rates for low-income students, proving that this achievement is not an anomaly. In fact, Kentucky's progress reflects steady improvement since 2003 and shows that the state's efforts to raise graduation rates and increase educational attainment have paid off.
This report examines how Kentucky made such gains in an era of higher standards and at a time when the number of low-income students has dramatically risen.
This study is driven by three key questions:

- What has Kentucky done to raise the high school graduation rate for all students and narrow the income-based achievement gap?
- What are the historical roots over the last 25 years and recent contributions to this success? What leadership, legislation, policies, and practices have been the chief drivers of progress?
- What lessons can be learned from Kentucky's continued progress and remaining challenges that can be shared within the state and beyond its borders?


## High School Graduation in Kentucky versus Other States

Kentucky's slow and steady progress is evident in its increasing 11-percentage-point graduation rate gain from 2003 (71 percent) to 2012 (82 percent) as measured by the Averaged Freshman Graduation Rate. Since 2013 under the Adjusted Cohort Graduation Rate, Kentucky's high school graduation rate has continued to rise from 86.1 percent to 87.5 percent. This consistent progress, in addition to its narrow gap between low-income and non-low-income students, raises the question: what is happening in Kentucky that leads to such outcomes?

Kentucky has 173 public school districts, encompassing some 1,233 public K-12 schools. Half of Kentucky's school districts are designated as rural, with about one-third of its 2014 graduates from those districts. In addition, nearly 80 percent of Kentucky's districts had graduating cohorts of no more than 300 students, and only a handful had cohorts of more than 1,000.

During the 2013-14 school year:

- Nearly 70 percent of Kentucky school districts reported graduation rates of 90 percent or above;
- Twenty-seven percent of Kentucky districts graduated 80 percent or more of their students; and
- Only two percent of Kentucky districts had a graduation rate below 80 percent.

Low-income students graduate at remarkably high rates across Kentucky:

- Only 21 districts (12.5 percent of districts) had low-income graduation rates below 80 percent;
- Sixty-five school districts (39 percent) graduate between 80 and 89 percent of low-income students; and
- Eighty-one districts ( 48.5 percent) graduate 90 percent or more of their low-income students on time.

To better understand Kentucky's progress, this study reviewed graduation rate data between Kentucky and its neighboring states, as well as a set of states that is also primarily rural.

- In comparison to neighboring states (Illinois, Indiana, Missouri, Ohio, Tennessee, Virginia, and West Virginia), Kentucky outperforms all but Indiana in its graduation gap between low-income and non-low-income students. And while Indiana's graduation gap between non-low-income and low-income students is narrower than Kentucky's, the state also has the second lowest rate of low-income students in its cohort at 35.5 percent, as compared to Kentucky's 48.3 percent.
- When compared to other states that are primarily rural (Alabama, Alaska, Arkansas, Maine, Montana, Wyoming, for example), Kentucky continues to stand out with the smallest graduation gap for low-income students in 2013 and 2014. Other primarily rural states have graduation rates for their low-income students approximately 20-percentage-points lower than for their non-low-income students.


## Major Findings

Our research highlights four major themes that have driven much of Kentucky's progress over the last 25 years, and contributed to its narrow gap between low-income and non-low-income students.

## 1. Slow and Steady Wins the Race

Kentucky began its journey of education reform and improvement 25 years ago with the enactment of the Kentucky Education Reform Act (KERA) in 1990. In 1983, superintendents of 66 of Kentucky's 173 school districts filed suit for equity in school funding, and in 1989, the Kentucky Supreme Court ruled in Rose vs. Council of Education that the entire Kentucky system of public education was unconstitutional, based on inequitable distribution of funds, among other factors. KERA reforms included the rewriting of education laws for curriculum, governance, and finance; increased and equalized school funding; the transference of authority from the local superintendent's office to a site-based decision-making council composed of elected parents and teachers; and a high stakes accountability system that included standardized assessments at multiple grade levels, interim benchmark testing, and school and district report cards to provide feedback to local communities, districts, schools and the Kentucky Department of Education. KERA was adopted in one year, and its impact continues to reverberate across the state.
While this legislation kick-started the process of making school funding more equitable, providing increased support to struggling districts, improving data systems, and engaging parents and the community in improving their local schools, none of these changes happened overnight. State and local leaders have worked hard to stay the course and keep the education community focused on the reforms to which it committed. Without this steady, persistent, and focused leadership and commitment to children and the state's future, it is doubtful that the reforms that KERA began would have made such positive changes.

## 2. A Strong and Diverse Coalition of Supporters Focused on Student Outcomes

Improving Kentucky's public schools was not only the work of education professionals or state leaders. A diverse group of stakeholders rallied to the cause, collaborated across sectors, and remained strong partners in reform efforts for the long haul. Examples include the leaders who stepped up after KERA, the formation of the Prichard Committee for Academic Excellence, which became a trusted force for education improvement, and continues to this day; nonprofit organizations that have formed long-lasting partnerships with school districts to provide much needed supports for their students; local businesses and national corporations that partner with schools and districts to offer students work experience and mentorship; and the parents and community leaders who serve on site-based decision-making councils and consistently advocate for the practices that will most benefit the students. This wide group of stakeholders has been a constant source of support and accountability for innovative efforts throughout the state. Moreover, these stakeholders have done so with the mindset that the most important outcome is not getting the credit or the power to direct the process - it is the success of Kentucky's young people.

## 3. Smart Use of Data

Data collection and reporting are buzzwords in education today, and schools and districts across the country are asked more and more to track student progress and outcomes. Just because data is collected, however, does not mean that it is used effectively afterward. Kentucky has implemented data collection methods that are accessible to the adults who most need that information in schools - teachers, counselors, and administrators. The systems observed for this study in multiple school districts provide detailed feedback on student progress, are designed to be used by school staff to quickly understand a student's progress or struggles, and match them to the intervention and supports that will help him succeed.
4. Unique Aspects of the Kentucky Educational System

- Impact of Federal Grants: Kentucky has been ingenious in ensuring that federal funds are directed toward low-income students, and that districts and schools have the flexibility to align those funds to student needs. Colleges, universities and community-based organizations are all working to bring federal funds to the state. In many of the rural and isolated districts in Kentucky, these federal grants provide students with opportunities and experiences that would otherwise be far out of reach, and are enhancing college preparation
and access beginning in the middle grades. Across the state, federal funds support college readiness, thirdgrade reading proficiency efforts, credit recovery, and summer programming.
- Lack of Charter Schools: Kentucky has no charter schools. Many education leaders credit the lack of this option with strengthening public schools and districts because parents are more invested in their community schools, and there is greater impetus for districts to improve their schools.
- Local Control: Site-based decision-making councils are charged with local school hiring decisions, as well as determining the number and type of positions available within a school.
- Accelerated Education Options: Kentucky also works to provide accelerated and rigorous coursework to students, and help them obtain college credits along the way.
- The Challenge of Poverty: Statewide, the percentage of Kentuckians living in poverty has hovered between three and five percentage points higher than the national average for the greater part of the last several decades. The demise of big coal presents a further challenge to Kentuckians, and state leaders are rethinking how best to prepare students for their future careers, and increase educational attainment and employment within the state in this face of a shifting employment landscape.


## Case Studies

This report takes a deep dive into three regions of Kentucky to better understand what educators and communities are doing on the ground to improve educational opportunities for students.

## Central Kentucky

Central Kentucky contains the state's two largest cities, Louisville in Jefferson County and Lexington in Fayette County, as well as the state capital, Frankfort. This is the most urban and populous region, and is also home to the largest school districts. Jefferson County Public Schools (Louisville) serves more than 100,000 students, while Fayette County Public Schools (Lexington) enrolls nearly 40,000 . These districts also serve a greater proportion of black and Hispanic/Latino students than the rest of the state. The size and diversity of these central Kentucky school districts set them apart, and bring many challenges common to urban school systems, such as racial disparities, high rates of student mobility, and harnessing
community will to raise educational opportunities and attainment for all.
Jefferson County Public Schools in Louisville is profiled in this section, with a focus on the challenges the school district faces, as well as best practices that are building success within the district.

## Appalachia and Eastern Kentucky

The challenges of Eastern Kentucky are generational and geographic. Participation in the labor force is low - nearly 20 percent less in Central Appalachia than nationally. Schools offer far fewer AP classes than the rest of Kentucky or nationally. Access to the experiences that prepare students for college and careers outside of their community are far less accessible than in more urban areas. This region has heavily leveraged federal and state grant programs to bring access and opportunities to their students. Examples include the Appalachian Renaissance Initiative (ARI), Race to the Top, Investing in Innovation (i3), Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), AmeriCorps, and the Promise Neighborhoods grants.

This section profiles three different school districts: Floyd County, Owsley County, and Leslie County. Each faces challenges around rural isolation, high rates of poverty, and dwindling populations and resources to draw upon. Each has tackled these challenges head on, ensuring that their students have access to high-quality learning opportunities, with an emphasis on college and career readiness.

## Northern Kentucky

The districts of Northern Kentucky have high school graduation rates ranging from 98 percent in Fort Thomas and Walton-Verona to 82 percent in Covington. Covington is the only district within the region that serves a significant proportion of black and Hispanic/Latino students (42.4 percent), as well as a significant proportion of low-income students.

This section looks at Covington Independent School District, with a focus on the challenges of serving a student body with high rates of poverty, homelessness, and special education needs.

## On the Horizon

Change may be coming to Kentucky in the wake of a new state government and new federal policies. State legislators considered important revisions to the SB1 legislation that advanced KERA-based education reform. The changes under consideration would have
shifted power from the Commissioner of Education, the Kentucky Department of Education, and the Kentucky State Board of Education to the General Assembly and local boards of education, as well as changes in teacher evaluations and accountability measures. Though the only significant change adopted is a shift away from using the ACT as the specified college readiness assessment, the proposed revisions provide insight into how Kentucky lawmakers may seek to alter the current education system in years to come.
Kentucky lawmakers also considered introducing charter schools into the state educational system this year, though the legislation has stalled. While some leaders and lawmakers believe charter schools will help to eliminate gaps and spur innovation and there is evidence around the country of such success, it should be noted that Kentucky is already among the top performing states in its narrow graduation gaps between low-income and non-low-income students, and has consistently adopted innovative and significant measures to allow schools to "re-think" student learning.

In addition, the passage of the federal Every Student Succeeds Act (ESSA) that replaces No Child Left Behind will shift educational dominance from the U.S. Department of Education to the states, meaning that it may be time to re-synchronize efforts among local and state leadership.

## Conclusion

The Commonwealth of Kentucky has undertaken significant reform efforts that have happened steadily over several decades and have been driven by diverse stakeholders across the state. Kentucky's success reinforces that positive change does not happen instantaneously - there is no silver bullet in education reform. Through consistent support for efforts demonstrating steady progress, legislative reforms, smart use of data, accountability, support for schools and students, and a multi-sector commitment to every child, Kentucky has built a public education system geared toward benefitting not just the most affluent or the easiest to serve, but all students.


## Introduction

Across the United States, many students, especially low-income students, struggle to graduate from high school. Low-income students are now a majority of public school students in our country ( 50.3 percent), and their percentage is projected to increase. Low-income students, on average, fail to graduate high school at the same rates as their higher-income peers. They enter, persist in, and graduate from college at lower rates as well. They also do not find employment in the higher-paying, skilled workforce in percentages similar to middle- and high-income students. Most business leaders anticipate fewer jobs requiring less than a college degree or technical certificate, and there is mounting concern nationwide about the lack of upward mobility for many Americans. Ensuring all students earn a high school diploma is therefore a critical first step.

Helping students to be successful in high school, college, and their future careers is especially important in the Commonwealth of Kentucky where poverty rates have averaged at least three percentage points above the national average in every decade since the 1970s.
Nationally, graduation gaps between low-income students and their higher-income peers are as large as 20 or more percentage points in some states, with a national average of about 15 points. Kentucky has been breaking that trend.

## ACGR: The Adjusted Cohort Graduation Rate

(ACGR) is a method for tracking a group (or cohort) of students who enter high school together, as first-time ninth-graders (or tenth-graders, in schools that begin in tenth grade) and graduate "on-time" (i.e., within three or four years) with a regular diploma. The ACGR accounts (or adjusts) for students who transfer into the school, transfer out to another school in the state, or die. The ACGR is based on a state's ability to follow individual students, made feasible by assigning a single student identifier to each student.

## AFGR: The Averaged Freshman Graduation Rate

 (AFGR) was developed by the National Center for Education Statistics (NCES) to calculate graduation rates in the absence of data systems based on individual student identifiers. The AFGR depends on enrollment by grade reported annually by each school and district to the NCES' Common Core of Data or CCD, and is calculated by dividing the number of diploma recipients by the average of the number of ninth-graders three years earlier, the number of tenth-graders two years earlier, and the number of eighth-graders four years earlier. The AFGR does not account for transfers in or out.Adjusted Cohort Graduation Rates (ACGR, 2013-14) Gap Between Low-income and Non-Low-Income Students Mapped over School Districts in Kentucky


[^0]- In 2012-13, Kentucky led the nation with a one-per-centage-point income-based graduation gap and ranked fourth in the nation with a seven-percent-age-point gap in 2013-14, the most recent year for which comparable federal rates are published.
- In 2013-14, Kentucky also reported one of the highest high school graduation rates in the country, 87.5 percent, compared with the national average of 82.3 percent under the Adjusted Cohort Graduation Rate (ACGR) used by all 50 states.
Kentucky's experience is a positive example for other states, and this report shares progress made, lessons learned, and the challenges that remain.


## This report seeks to answer three key questions:

- What has Kentucky done to raise the high school graduation rate for all students and narrow the income-based achievement gap?
- What are the historical roots over the last 25 years and recent contributions to this success? What leadership, legislation, policies, and practices have been the chief drivers of progress?
- What lessons can be learned from Kentucky's continued progress and remaining challenges that can be shared within the state and beyond its borders?

With the support of Kentucky and Ohio grant-making organizations, Civic, LLC and The Everyone Graduates Center of the Johns Hopkins University School of Education examined Kentucky's educational progress. The research underpinning this report includes in-depth interviews with Kentucky educators, policymakers, and committed community members, as well as extensive analysis of pertinent documents and local, state and national data sets.
This report examines high school graduation rate data; the origins and evolution of leadership in schools, districts and the Commonwealth; and reform policies and practices in raising the high school graduation rate and narrowing the socio-economic graduation gap. It also takes a deep dive into five school districts representative of the Northern, Central, and Eastern Appalachian regions of Kentucky to better understand how policies and practices have affected these different districts.

- Jefferson County Public Schools (Louisville), the state's largest district, in north central Kentucky;
- Covington Independent Public Schools, in Kenton County, a diverse and economically struggling district on the Ohio border with Cincinnati; and
- Three Appalachian districts in eastern Kentucky: Floyd, Leslie, and Owsley County Public Schools.
The story of each of these districts illustrates how longterm Kentucky reforms play out in originally low-performing districts.


## Examining the Data: High School Graduation Rates in Kentucky

## State Level Data

Kentucky recently achieved one of the highest graduation rates in the nation.

- In 2012-2013, Kentucky reported ACGR for the first time, with a rate of 86.1 percent, almost five points above the national average of 81.4. That number continued to climb as one year later the Kentucky Department of Education (KDE) reported the 20132014 ACGR as 87.4.
- In 2012-2013 Kentucky also achieved the highest graduation rate in the nation for low-income students at 85.4 percent. This is a marked achievement, as only six states have low-income graduation rates above the 2013-2014 national average of 82.3, while nearly one-third of states graduate less than 70 percent of low-income students.
- In 2012-2013, Kentucky also reported the narrowest gap ( 1.4 percentage points) between low-income students and their middle- and high-income peers. While this gap increased to 7.2 percentage points in 2013-2014, Kentucky still maintains one of the smallest gaps in the country. Across the nation, graduation gaps between low-income and non-low-income students range from a high of 25.6 percentage points in South Dakota, to a low of just 4.0 percentage points in Indiana. In nearly half of all states, that gap is at least 5 percentage points.
Kentucky's current graduation rate is the end result of many years of slow and steady progress. The trends shown by an earlier federal measure of graduation rates (the Averaged Freshman Graduation Rate, or AFGR) over the last decade (Kentucky did not report the Average Cohort Graduation Rate (ACGR) until 2012-2013) show Kentucky increasing from 71 percent in 2003 to 82 percent by 2012, an 11-percentage-point gain. ${ }^{1}$

[^1]
## Comparisons with Neighboring and Other Primarily Rural States

To put some context around Kentucky's progress, this study compared graduation rate data from Kentucky and its neighboring states, as well as with states that are also primarily rural.

- All but one of the neighboring states show much wider graduation gaps between low-income and non-low-income students. Kentucky, West Virginia, and Tennessee have significant numbers of low-income students within their public schools, at 54.3 percent, 52.4 percent, and 58.2 percent, respectively. Yet as seen in Table 1, West Virginia and Tennessee have gaps between their low-income and non-low-income students upwards of 10 percentage points, while adjacent Ohio shows gaps of more than 20 points.
- Indiana, on the other hand, has high graduation rates and a comparatively narrow gap between low-income and middle- and high-income students of only 6.7 and
4.0 percentage points in the past two years for which data is available. However, it also has the second lowest percentage of low-income students in its cohort, at 35.5 percent, as compared to Tennessee, which has 58.9 percent, or Kentucky, with 48.3 percent.

When compared to other primarily rural states ${ }^{2}$, Kentucky continues to stand out with the smallest gap in both 2013 and 2014, closely followed by Oklahoma, Arkansas, and Alabama. Other primarily rural states show far wider gaps between income groups, with states like Alaska posting a graduation rate of just 59.6 percent for its low-income students in 2014 ( 20 percentage points lower that its non-low-income graduation rate), and Wyoming and South Dakota both reporting rates in the 60s (with non-low-income graduation rates in the mid to high 80s, respectively).

2 The Census Bureau defines "rural" areas as those that do not lie inside an urbanized area or urbanized cluster ("densely settled 'cores' of Census-defined blocks with adjacent densely settled surrounding areas" with populations of 2,500 or greater).


## Table 1. Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR, Gap between Low-Income and Non-Low-Income, from 2012-13 to 2013-14 in States Neighboring Kentucky



Sources: U.S. Department of Education, provisional data file of SY2012-13 District and State Level SY2013-14 Four-Year Regulatory Adjusted Cohort Graduation Rates; The Everyone Graduates Center

Table 2. Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR, Gap between Low-Income and Non-Low-Income, and Gap Change, for Primarily Rural States (i.e., 50 Percent rural or more) from 2012-13 to 2013-14


[^2]Table 3. Kentucky's Five Largest School Districts - Low-Income Graduation Rates and Gaps


Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).

## Kentucky Graduation Rates by District

Kentucky has 173 public school districts - 120 county districts and 53 independent school districts - and 1,233 public K-12 schools. The size of the graduating cohort ${ }^{3}$ in Kentucky's public districts in 2013-14 varied greatly, from 20 students in Silver Grove Independent Schools to 7,016 students in Jefferson County Schools. Nearly 80 percent of districts had graduating cohorts of no more than 300 students, and only a handful of districts had cohorts greater than 1,000 students.
Kentucky is a heavily rural state, with about half of its districts designated as such, and roughly a third of its 2014 graduates from these districts. Six districts are designated as urban, based on federal definitions, and nearly a quarter of the state's graduates came from these larger urban districts.
Federally reported 2013-14 high school graduation rates ranged from a low of 77 percent in Middlesboro Independent, Jackson County, and Breathitt County to 100 percent in Taylor County. The 2013-14 graduation rates across Kentucky break down as follows:

- Nearly 70 percent of school districts reported graduation rates of 90 percent or above;
- Twenty-seven percent of districts graduated 80 percent or more of their students; and
- Only two percent of districts had a graduation rate below 80 percent.


## Low-Income Students and High School Graduation Rates

There is wide variation in the number of low-income students in Kentucky's school districts. Two of its smaller

[^3]school districts (under 100 in cohort) had low-income student populations under 15 percent, while Owsley County and Covington Independent served 87 and 88 percent low-income students, respectively.
Across the state:

- The low-income graduating cohort in three school districts ( 1.7 percent of districts) was below 20 percent;
- Twenty-four school districts (14.2 percent) had graduating cohorts between 21 and 40 percent low income;
- Seventy-eight school districts (46.4 percent) had cohorts between 41 and 60 percent low income;
- The cohorts in 53 districts ( 31.5 percent) were between 61 and 80 percent low income; and
- Ten school districts (6 percent) had low-income cohorts greater than 80 percent.
The number of low-income students served by different districts is not correlated with their graduation rates for those students. For example, Beechwood Independent and Burgin Independent both have low-income populations under 30 percent, but both have low-income graduation rates of 75 percent, at the low end of the Kentucky graduation spectrum. On the other hand, the graduating classes in Mayfield Independent and Leslie County were both 66 percent low-income, but their graduation rates for low-income students ranked highest in the state at 98 percent.
Overall, low-income students graduate at remarkably high rates across Kentucky:
- Only 21 districts ( 12.5 percent of districts) had low-income graduation rates below 80 percent;
- Sixty-five school districts (39 percent) graduate between 80 and 89 percent of low-income students; and
- Eighty-one districts (nearly half at 48.5 percent) graduate 90 percent or more of their low-income students on time

Adjusted Cohort Graduation Rates (ACGR, 2013-14) Gap Between Low-income and Non-Low-Income Students Mapped over School Districts in Kentucky and Surrounding States


ACGR Gap between Low-income and Non-Low-Income Students (2013-14)


Notes. ACGR Gap between Low-income and Non-Low-Income Students (2013-14) = the estimated non-low-income ACGR minus the ACGR for low-income students; therefore, positive values indicate that the estimated non-low-income ACGR is higher than that of the low-income ACGR per school district. This also means that negative values (e.g., more green colors) indicate that low-income students have a higher ACGR graduation rate than that of the non-low-income students. White or blank spaces in the above map represent uninhabitable land or lakes.
Source: Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).
(four years from the time of high school entry) and 15 of those 81 districts are within two percentage points of graduating 100 percent of low-income students.
Non-low-income peers graduate at similarly high rates:

- Only three districts (1.8 percent) graduate less than 80 percent of non-low-income students on time;
- Twenty-four school districts (14.4 percent) graduate between 80 and 89 percent of non-low-income students; another 108 districts ( 64.7 percent) graduate between 90 and 99 percent of non-low-income students on time; and
- A striking 32 districts (nearly one-fifth at 19.1 percent) graduated 100 percent of non-low-income students in 2014.

The gap in the majority of school districts is below 10 percentage points, and most of those districts either have gaps of zero or their low-income students outperform their non-low-income peers.

- Thirteen districts ( 7.8 percent), with graduation cohorts ranging from 39 to 443 students, graduate low-income students at higher rates than their non-low-income peers (this progress is found in both very small schools and schools from some of the state's largest districts);
- In 48 school districts (28.7 percent), there was no gap between low-income and non-low-income students;
- Fifty-four school districts (32.3 percent) had a low-in-come/non-low-income graduation rate gap below 10 percentage points;
- Forty-three districts (25.7 percent) had a graduation rate income gap of between 10.1 and 20 percentage points; and
- Nine districts ( 5.4 percent) had a graduation rate gap between low-income and non-low-income students of greater than 20 percentage points, with the highest gap at 30.5 points in Carlisle County.

We can find no distinct quantitative indicator - cohort size, percentage of low-income students, locale - that explains why some districts do better at graduating low-income students or have narrowed the graduation gap between their low-income and non-low-income students. Instead,
it is likely that the differences are qualitative, and center on education basics - equity of access to quality curriculum and instruction; access to in-school support systems; measurement by assessment and accountability for student outcomes; analysis of data and action steps related to that data; and strong leadership, community backing, and deep commitment to students' success.
The map on page 15 shows Kentucky's overall small gap between low-income and non-low-income students and the contrast with districts in neighboring states that share some economic and geographic characteristics. Illinois has a heavy cluster of districts with gaps of more than 20 percentage points, while Tennessee, Virginia, and Ohio show more districts with gaps in the five to 10 percentage point range.
The clear implication is that something positive is occurring within Kentucky's borders that is unique and less common in the nearby states.


## Key Themes of Progress

## Theme 1: Slow and Steady Wins the Race

Kentucky's journey of educational reform and improvement began with the enactment of the Kentucky Education Reform Act (KERA) in 1990. In 1983, superintendents of 66 of Kentucky's 173 school districts filed suit for equity in school funding, and in 1989, the Kentucky Supreme Court ruled in Rose vs. Council of Education that the entire Kentucky system of public education was unconstitutional, based on inequitable distribution of funds, among other factors.

KERA reforms included:

- Rewriting education laws for curriculum, governance and finance;
- Increasing and equalizing school funding;
- Transferring authority from the local superintendent's office to site-based decision-making councils composed of elected parents and teachers. These councils became responsible for hiring the principal and other staff, setting policies and salary scales, and guiding the school in partnership with the principal (who became the council's head once hired);
- Giving local superintendents more power over local school boards' decisions;
- Creating a Commissioner of Education and a Board of Elementary and Secondary Education, and empowering the state commissioner of education and the Kentucky Department of Education (KDE) to set high expectations and to support schools in meeting these expectations through a system of technical assistance and interventions targeted toward improvement;
- Implementing a high stakes accountability system that developed over time to include standardized assessments at multiple grade levels, interim benchmark testing, and clear and frequently refined school and district report cards to provide feedback to local communities, districts, and schools as well as KDE;
- Providing that grades K-3 be grouped by needs rather than age and grade, and taught by teams of teachers with expertise in differentiating instruction for students who enter early grades with varying skill levels, particularly for literacy;
- Creating a system of support for students with a range of services that included establishing family and youth resource centers for every school, and providing for extra tutoring services and pre-kindergarten for
economically deprived students and those with disabilities. Alternative education strategies were eventually implemented, not for disciplinary reasons but to give more students access to educational opportunity in non-standard settings.
Three leading CEOs (Ozzie Nelson of UPS, David Jones Sr. of Humana, and David Osborne of Ashland, Inc.) made a 10-year financial and strategic commitment to galvanize other businesses and the state power structure to push for adoption of KERA, which subsequently occurred within one year. KERA's impact continued to reverberate across the state over the following decades.


## KERA and Related Strategies, 2000 and on

In the years following its inception KERA went through changes that included dropout prevention strategies in 2000, and the 2009 legislation, Senate Bill1 or Unbridled Learning, which focused on more rigorous standards and college and career readiness. This new goal, looking beyond earlier and continuing efforts to boost high school graduation rates, went hand-in-hand with the state's need for economic growth. In 2014, the Education Commission of the States (ECS) analyzed policies and practices in K-12 and higher education: Kentucky was the only one of six middle Appalachian states (Kentucky, North Carolina, Ohio, Tennessee, Virginia, and West Virginia) that addressed nine college and career readiness policies deemed significant by ECS. in.ii

Youth Service Centers and Family Resource Centers. All middle and high schools are served by a school-based youth service center, established as part of KERA and state-funded with a goal of removing non-academic barriers to learning. The centers offer referrals to health and social services, career exploration and development, summer and part-time jobs, substance abuse education and counseling, and family crisis and mental health counseling. Family Resource Centers serve each elementary school and coordinate pre-school childcare, after-school care, family literacy services, and health services and referrals.
Support for Low-Performing Schools. Since the late 1990s, there has been a tradition of support for struggling schools through state technical assistance teams, which provide embedded professional development on many topics. The 2002 federal No Child Left Behind (NCLB) legislation led to further structures for identifying and supporting schools in need of help through regulations regarding persistently low-performing schools,
intervention options, diagnostic reviews, assistance, and accountability, recognition, support and consequence. Notably, Kentucky serves all of its lowest performing schools, not just those tied to Title I funding as happens in many other states.

## Current Initiatives

The work inspired by KERA continues, with focus on dropout prevention, data collection and reporting, and collaboration and sharing of best practices among districts.

- Starting in 2013-14, KDE started distributing Regional Dropout Prevention grants to spread best practices in lowering dropout rates. Districts with low dropout rates ( 0.6 percent or less) receive these grants to provide peer training and professional development for other districts with high dropout rates.
- Nudged by the reformed No Child Left Behind law, Kentucky set up strong support for schools identified under federal law as Priority (the lowest five percent in performance) and Focus (schools with room for improvement in specific areas). There are 41 schools receiving assistance, with a strong track record of schools exiting their Priority or Focus status after receiving state support. For 2015-2016, there are 27 Priority Schools. Out of the previous year's group, 11 schools exited Priority status, four were recognized as Distinguished, and nine were recognized as Proficient. Three "hub" schools were selected from the Priority list to reflect on and share best practices with other schools. For 2015-2016, there are 282 Focus schools and 17 Focus districts. There is also a strong reward and incentive system that identifies Districts of Distinction (eight each year) and Districts of Innovation.
- Recently, the Kentucky Department of Education established District 180, an organizational unit within its office of Next Generation Schools and Districts that coordinates and delivers school and district support. Currently, there are three educational recovery directors and 55 educational recovery leaders and specialists.


## Theme 2: A Strong and Diverse Coalition of Supporters

Achieving even the first phase of KERA required the support of individuals, businesses, the judicial system, the governor and legislature. Without their steady, focused, and persistent leadership, it is doubtful that the reforms begun by KERA would have made such positive changes. This diverse network of stakeholders who became deeply involved in the reform process fundamentally altered the balance of educational influence within the state.

In 1983, Ed Prichard helped found the Prichard Committee for Academic Excellence. This organization would lead and drive improvement in a state characterized then by low educational achievement, extremes of regional wealth, frequent nepotism and cronyism emanating from superintendents' offices. Also, in the eastern third, high poverty and a long culture of geographic and cultural isolation as well as unique, place-based identity and individualism.

Initially focused on higher education, the Prichard Committee evolved into a non-profit organization focused on pre-K-12 improvement. For many years the Prichard Committee, its inspirational leaders, partners and key data consultants have set the national standard for private sector and community engagement in educational improvement and sustained culture-building.
The Prichard Committee has spearheaded a number of initiatives intended to engage community members, and students themselves, in improving their local education system. Examples include:

- Governor's Commonwealth Institute for Parent Leadership (GCIPL): This institute provides multiple training opportunities for parents and community members to develop capacity to support and advocate for public schools. Participants learn the value of shared decision-making in the school improvement process, and the important role data plays in tracking school and district progress. GCIPL was formed in 1997 to support parents to be effective advocates for school improvement. Since then, it has trained 2,000 Kentucky parents; nearly 50 have served on local school boards, and more than 760 on school councils.
- Strong Start KY: Strong Start is a nonpartisan, citizen-led effort to ensure that every child has access to a highquality preschool education. Launched in 2007 with the support of Pre-K Now, Strong Start was sustained until 2015 with support from the Pew Charitable Trust. Today, multiple United Ways and other local foundations contribute to the effective work of this coalition.
- Student Voice Team: A group comprised of self-selected middle school to college students who work to elevate the voices of Kentucky youth on the classroom impact of education issues, and the challenges of successful transition to postsecondary. Their work includes: speaking at education summits and local rallies, drafting and championing state legislation, making presentations at educational conferences targeting youth, and testifying before legislative committees
Throughout the years, the Prichard Committee has leveraged its role as an independent advocate for students.


## Reflections from Former First Lady Jane Beshear

In 2012, the Beshear administration held a two-day summit - Graduate Kentucky - to address dropout prevention and raise high school graduation rates.

## Q: How did the Graduate Kentucky:

 A Community Approach come about?A: Very early in the administration we began discussing ways in which we could ensure that our children entered the workforce job-ready. This included a multi-pronged approach of early childhood initiatives, interventions, vocational training and education. We wanted input from educators, students, administrators and community leaders as how best to improve educational outcomes for our children, and we wanted to hear from students as to what would motivate them and what their barriers to success were. We wanted to know what constraints were holding back our schools from being innovative and responsive to the needs of the students. The Education and Workforce Development Cabinet was awarded a grant from America's Promise [Alliance] that allowed us to actively reach out to these stakeholders in the form of regional summits. We wanted to go directly into the communities and hear their stories, thus Graduate Kentucky was born.
Q: What were the greatest challenges in bringing together diverse stakeholders and into agreement?
A: Geography and schedules were by far our biggest hurdles in trying to bring everyone to the table. But we found that our educators, students, parents and community leaders really wanted to be part of the
discussion and the solution. While everyone had their own opinions about what the biggest hurdle was for their students/children, we could all agree that there were consistent factors that lead children to abandon school or just completely give up hope for their future. So many of the students had very personal issues that prevented them from succeeding and unfortunately, often their families were more hindrance than help. Drugs, poverty, poor health, and lack of familial support proved to be barriers for many students. These children needed us to believe in them and they needed their schools and teachers to be flexible, to work with them to address their problems as a person and not just as a name on an attendance sheet. The entire group agreed that we needed to raise expectations of both students and parents by raising the dropout age and provide wrap-around services and tailored educational programming to best address the needs of each student.
Q: How was the political climate in Kentucky conducive to advancing improvements in education, and specifically legislation like raising the compulsory dropout age?
A: Well, it took us five legislative sessions to get the Graduation Bill passed so I don't believe the political climate was necessarily conducive to our efforts.
What we did have was a governor and an education commissioner making education a priority and garnering grassroots support. It took a lot of work by the administration, education advocacy groups and individuals to convince legislators that we needed to make substantial changes in policy if we were to help secure future economic success for our workforce and state.

## Data Systems and Tools

KERA established the initial state information system, KIRIS (Kentucky Instructional Results Information System). KIRIS collected data on cognitive (i.e., academic) and non-cognitive measures (attendance, retention, dropout, and transition rates) in grades 4, 8, and 12 and combined these measures into one accountability index for each school. With later assistance from federal funding for State Longitudinal Data Systems, Kentucky further developed and expanded its K-12 student longitudinal database, to include PreK-20 data points. In the most recent developments, Kentucky expanded the longitudinal database to include Kentucky Center for Education and Workforce Statistics that encompass workforce development as well as education, and bring together data from multiple state
departments. The user-friendly Open House data portal enables easy public access to a vast range of information, from statistics on early childhood education in Kentucky to rates of college-going, college-readiness, and beyond.

In addition, Kentucky's recently implemented Infinite Campus data dashboard includes a "Persistence to Graduation Tool" that identifies students who are most at-risk of not graduating in order to get them timely help.

Knowing what the data say is one thing, but doing something about it is another. Kentucky continues to pursue ways it can help educators better use the data they capture. In June 2016, the KDE will sponsor a summit to help schools rethink the use of resources and interventions, focused on the key questions, "So What? Now What?"

Going through a series of revisions and reorganizations of its student (and eventually college and career) databases, Kentucky was a latecomer to calculating the Adjusted Cohort Graduation Rate. The state first reported this measure in 2013-14, well behind most other states. In an interesting tweak, the state accountability system also counts five-year graduation rates, giving schools and districts incentives to rescue struggling students using all the strategies first outlined in KERA, and refined over time.

## Data for Dropout Prevention

In 2000, Kentucky legislators and educators recognized the dropout challenge, and passed legislation directing the Kentucky Board of Education to establish criteria for the development, operation, funding and accountability of dropout prevention programs. This legislation also authorized KDE to contract with other agencies to secure additional funds for dropout prevention programs.
To tackle the dropout challenge, Kentucky legislators and educators recognized the importance of using data to identify patterns in student behavior, and determine which students needed support. Their methods went well beyond the demographic characteristics of "at risk" students in other states, and added several indicators now termed "social and emotional."

A Kentucky student was considered at high risk for dropping out and/or in need of support if he/she met one or more of the following criteria:

- Performing two or more grade levels below age group;
- Demonstrating poor academic skills, i.e., failed two or more subjects in two of the past four school years;
- Performing below grade level in reading or math skills;
- Being consistently absent or tardy and absent 25 or more unexcused days in the last two school years and with an overall grade point average below a C;
- Being suspended (in-school alternative to home suspension or home suspension) two or more times during the past school year and with an overall grade point average below a C;
- Becoming pregnant;
- Having a family with a history of dropping out or a family that does not support the student in the completion of school;
- Showing little or no participation in extracurricular activities; or
- Giving evidence of being socially isolated.

The 2000 legislation and associated regulations required districts that received dropout prevention funds to use a comprehensive, research-based improvement model across all grades. It also enabled what are still, 16 years later, regarded as top-of-the-line elements of dropout prevention:

- Alternative education, programs or schools that provide students with a positive learning environment to develop and build student academic-behavioral successes;
- Counseling, advising and mentoring services that fulfill individual needs for building self-esteem and personal status through school activities;
- Parent involvement services that provide teachers and counselors with appropriate information to assess student needs. This service may be implemented through home visits, group and individual conferences, and opportunities for family and community involvement;
- Student-centered services focused on the individual with recognition of and respect for personal needs and differences, and establishment of goals developed and valued for cognitive and effective growth and development;
- Tutorial services providing additional time, attention, encouragement and support needed for students at risk. Tutoring may be provided by students (peer tutoring) or specialized staff to help students gain social maturity, academic and social skills;
- Work-related services, which offer opportunities for paid employment to students. Services may use several components including on-the-job experiences, classes, career awareness and exploration activities, or vocational courses designed to transition students into the world of work.
This focus on dropout prevention by providing high-quality alternatives for students brings us to the final theme unique aspects of Kentucky's educational system.


## Theme 4: Unique Aspects of the Kentucky Educational System

## Impact of Federal Grants

Kentucky has been ingenious in ensuring that federal funds are directed toward low-income students and that districts and schools are given flexibility to align funds to student needs, with a special emphasis on literacy and college and career readiness. Kentucky's ESEA flexibility waiver removed the restrictions on use of Title I, Part A funds, increasing the number of dollars that could flow directly to schools. The 104 districts eligible for Title VI are able to use those funds for non-Title I as well as Title I schools. The 21st Century Community Learning Centers fund supports out-of-school time and in-school efforts with keen direction. In middle and high schools, the centers support credit recovery, ACT prep and collegeand career- readiness activities. In elementary schools, the centers emphasize third-grade reading proficiency. The program requires that half of the hours during the school year must include remediation and acceleration, and must provide summer programming with 2.5 hours daily dedicated to remediation and acceleration in reading and math, with at least two certified teachers for 8 hours each in the program. As detailed later in this report, wise
leveraging of funds, especially in eastern Kentucky and by many institutions, has provided extensive opportunities for low-income students' advancement towards college.

## Lack of Charter Schools

Kentucky is one of seven states that has not authorized charter schools. Many leaders credit the lack of this option with strengthening public schools and districts because parents become invested in local district success without distraction.

## Local Control

While the state's minimum number of graduation credits is 22, site-based decision-making councils may raise them. These councils also make hiring decisions and determine the number of positions; unlike many other states, only two positions are absolutely required in a school by the funding formula - the principal and the Director of Pupil Personnel (DPP). While all districts have a local Kentucky Education Association affiliation, unions are not as strong as in other states.

## Accelerated Education Options

Kentucky also works to provide accelerated and rigorous coursework to students, and help them obtain college credits. Advance Kentucky, in which 101 schools in 74

districts participated last year, seeks to increase the number of students enrolled in Advanced Placement (AP) courses, particularly in STEM fields. This initiative also works to improve training for teachers by offering resources and classes to help them more effectively teach AP subjects. Advance Kentucky has an "open enrollment" system, a data-driven approach that identifies students who have potential to achieve in AP classes, and then encourages them to enroll.
Dual Credit, and Dual Enrollment, and Early College High Schools allow students to earn both high school and college credit simultaneously, with no tuition, a boon to low-income families stressed by the economic demands of college. As an example, Western Early College High School, a partnership between the Jefferson County Public Schools and Jefferson Community and Technical College (JCTC) offers every student the opportunity to gain 60 hours of tuition-free college credit. Credits are transferable to JCTC, any unit of the Kentucky Community and Technical College System, and transfer to all Kentucky public colleges and universities. A fifth accelerated option, Early Graduation, enables students in 89 schools in 58 districts to complete high school early.

## The Challenge of Poverty

The percentage of Kentuckians living in poverty (1980 to 2013) has consistently been higher than the nation's poverty rate, hovering, on average about three to five percentage points higher (KCEWS, 2015 Kentucky County Profile, Commonwealth of Kentucky).
In 2014, more Kentuckians (age 25 and older) had earned a high school diploma (33.7 percent) than the U.S. average (28.0 percent). Those diplomas, however, are not yet translating into postsecondary success, as fewer Kentucky residents hold a higher education degree. This is most marked at the bachelor's level (12.9 percent of Kentuckians compared with 18.3 percent of adults nationwide). When income is plotted against level of education, Kentucky falls among the lowest 10 percent of the 50 states (with 12.75-13 average years of education and slightly more than \$35,000 per capita median income, 1970 to 2013).

The percentage of adults with a bachelor's degree or higher differs greatly between non-Appalachian and Appalachian Kentucky: 24.7 percent in non-Appalachian Kentucky in 2013 (with 3.2 million residents) versus 13.3 percent in Appalachian Kentucky (with 1.18 million residents).

The demise of big coal augments these difficulties, as Kentucky must rethink how to prepare its students for their future careers. The Kentucky Chamber of Commerce released Four Pillars of Prosperity: Creating a Kentucky Culture of Competitiveness in late 2015, which set goals including increased employment and educational attainment, per capita income growth higher than the national average, improved health rankings and more. This shows a growth mindset in a region where the real growth in median household income was almost half the national average between 2004 and 2013. Over the last year, jobs have grown at lower rates than nationally (1.8 percent compared with 2.2 percent).
As a border state - influenced by the Midwest, the South, and Appalachia - Kentucky does not unfavorably compare with its neighboring states - but the needs are evident.

The Kentucky challenge is not only to attract investments - construction and financial services are at half the national growth rate, and all sectors other than manufacturing are below those of the nation - but also to expand opportunities within state boundaries, and most specifically in Appalachia.

- In six of the state's nine economic regions (representing central, western, and northern Kentucky) wage growth over the past nine years has been between 22.2 and 32.3 percent and employment growth between 2.7 and 10.1 percent.
- In the southern Cumberland area, employment growth has been minimal (. 9 percent) and wage growth 13.2 percent.
- By contrast, in the Ashland region (northeastern Kentucky) and the mountain area (southeastern Kentucky) employment growth has been -3.6 and -10.6 percent, respectively, and wage growth 12.8 and -9.9 percent.

Table 4. Comparison of Change in Median Household Income and Employment Growth, 2004-2013

|  | US | KY | TN | VA | IL | IN | MO | OH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Real change in median household income, 2004-2013 | -5.4 | -9.5 | -8.8 | +.7\% | -4.2 | -9.9 | -9.0 | -15.8 |
| Employment growth, 2004-2013 | 7.8\% | 5.0\% | 5.4\% | 6.7\% | 3.5\% | 2.6\% | 2.8\% | 0.0 |
| One year employment change, April 2014-15 | 2.2\% | 1.8\% | 1.7\% |  | 1.1\% | 2.0\% | .7\% | .8\% |

From "Four Pillars of Poverty: Creating a Kentucky Culture of Competitiveness," Kentucky Chamber of Commerce, 2015

## Important Takeaways

There is general agreement that the long arc of Kentucky's educational improvement efforts built state and district wide cultures of educational awareness and commitment to accountability as a practice rather than theory. These efforts also created a large body of educators, policymakers, and citizens who view constant striving for improvement as the Kentucky way of doing things.

## In Need of Improvement: <br> Alternative Education System

Kentucky's alternative education system germinated in the late 1990s. Fayette County Public Schools, the second largest district in the state, offered two non-disciplinary alternative schools as early as the 1997-98 school year. The Carter Woodson Academy accepted males only and is frequently credited with raising the graduation rate for Black males.

There are two types of Kentucky alternative schools: A5 schools are district-funded and district-operated; A6 schools are state-funded and district-operated in a non-district-operated institution or school and are programs for state agency children, including students in the juvenile justice system. Legislation passed in 2012 ensured that there was a clear definition of district-operated programs that reinforces broad eligibility. Recent judicial opinions will propel a majority of students in the juvenile justice system, typically served by the A6 schools, to be educated in the A5 schools, which is widely viewed as a positive step.

An admirable feature of Kentucky's alternative education schools is that within the state accountability system, students are credited back to the "home," or sending school, which helps reduce the incentive to "push" students out of comprehensive high schools. For federal graduation rate accountability, however, students are tied to the school of last enrollment and not tracked back to their "home" school, regardless of days enrolled. This could potentially allow schools to place struggling students into alternative high schools, and thus, remove them from their rosters to boost graduation rates.
According to a 2016 report on high school graduation rates, relying on federal data, alternative schools make up 100 percent of the state's low-graduation-rate schools (enrolling 100 or more students and reporting a four-year graduation rate of 67 percent or less) and account for 18 percent of Kentucky's non-graduates. Data on alternative schools from the Kentucky Department of Education paints a more troubling picture, as these schools enrolled a disproportionate percentage of males, Black students, and special education students.iv

Alternative schools in Kentucky may have positive elements, but it is clear, this is an area in need of improvement for many of the state's most vulnerable students.

## Next Steps

Looking ahead, Kentucky joins the national conversation around the academic standards students should meet to ensure they are "college and career ready."

Many within the state have questioned the perceived gap between Kentucky's college and career readiness benchmarks and the skills actually required to access and graduate from college. As assessed by the National Assessment of Educational Progress (NAEP), Kentucky's fourth- and eighth-graders perform well in comparison to other states. Yet Kentucky is also one of three states where these same students show one of the largest gaps between proficiency levels as determined by state assessments, and those measured by the NAEP - a clear indication that the new efforts focusing on improving standards, and balancing the value and content, are important. Kentucky uses its own benchmark system to determine student readiness (the ACT was the previous measure), though that may be changing again. On the ACT (through 2016, Kentucky is one of 13 states requiring that all students take the ACT), seven of the 13 states' students have higher composite scores. Only in English do Kentucky students do well, tied for fourth meeting ACT benchmarks. Given all of this, raising standards will be key looking forward.

Some leaders express concern that the pace of change has been rapid and urgent, and that after 25 years of progress, educators and administrators are "worn out." Some wonder about the way data is recorded and the different interpretations established by having two sets of reporting, federal and state. At the same time, greater sophistication and more training on coding and inputting data can enable greater accuracy. Cautions are expressed about "adding on" when time and energy might most effectively be spent on deepening understanding of what has already been put into place and the relevant success factors, curating what works.

In the next sections, we explore specific regions and take deeper dives into the educational progress and challenges of five different school districts.


## Case Studies

## Regional Case Studies: <br> Central Kentucky

Central Kentucky contains the state's two largest cities, Louisville in Jefferson County and Lexington in Fayette County, as well as the state capital, Frankfort. This is the most urban and populous region of the state, home to Kentucky's two largest universities - the University of Kentucky and the University of Louisville - and several large corporations, including UPS, Lockheed-Martin, Xerox, IBM, Lexmark International and Humana. Unlike in many of the state's small towns and rural areas, the populations of the metropolitan areas of central Kentucky grew significantly between the 2000 and 2010 Census, and continue to grow today.
Central Kentucky also contains the state's largest school districts. Jefferson County Public Schools (Louisville) serves more than 100,000 students, while Fayette

County Public Schools (Lexington) enrolls nearly 40,000. These districts also serve a greater proportion of Black and Hispanic/Latino students than the rest of the state. More than half of all districts with graduation rates below 80 percent for low-income students are in this region. The size and diversity of these central Kentucky school districts set them apart, and bring many challenges common to urban school systems, such as racial disparities, high rates of student mobility, and harnessing community will to raise educational opportunities and attainment for all.
Jefferson County Public Schools in Louisville is profiled in this section, with an analysis of the challenges it faces, as well as best practices that are building success within the district.

Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income Students Mapped over School Districts in Central Kentucky


## CASE STUDY

# Jefferson County Public Schools - Louisville 

## Jefferson County Fast Facts

Population (2014): 760,026 • Pop. under 18: 22.7\% • White: 69.3\%
African American: 21.5\% • Hispanic/Latino: 4.8\% •Living in Poverty: 16.7\%

## JCPS Fast Facts

Enrollment: 100,600 • Schools: 173 • Teachers: 6,400+
Student Demographics (2014):
White: 48\% • Black: 37\% • Hispanic: 8\% • Asian: 3\% • Low-Income: 59\%
Graduation Rate Data:
2013-14 ACGR: 79\% • 2012-13 ACGR: 77\% • One-Year Change: +2.0
Jefferson County Public Schools (JCPS), serving the Greater Louisville Metro area, is Kentucky's largest and most diverse school district. Enrolling roughly 100,000 students in $\mathrm{K}-12$, it is more than twice as big as Fayette County Public Schools, the next largest district, and serves nearly 15 percent of Kentucky's K-12 public school students.

The district's student population, like the county's, is majority White. In 2012-13, its four-year on-time graduation rate was 77 percent, and in 2013-14, it was up two percentage points to 79 percent. The Black-White four-year graduation gap remained at four percentage points. The five-year cohort graduation rate reported at the state and district levels was 80.7 percent in 2012-13 and 81.4 percent in 2013-14. Both the four- and five-year rates indicate that well below 70 percent of English Language Learners and students with disabilities graduate, reflecting nationwide trends. On the other hand, students receiving free or reduced-price lunch graduate at higher rates than low-income students nationally.

## Major Hurdles

The district is one of the few in the nation that has maintained desegregation efforts after Supreme Court rulings forbidding the use of race as the sole factor in assigning students to schools, and despite repeated challenges to the district's integration plans. The district is divided into geographic "clusters" - areas of diverse neighborhoods around the county - each anchored by "resides," that is, elementary, middle, and high schools where students in each cluster are assigned. Students and parents must list their school preferences within the cluster. Students are assigned based on a combination of race, socioeconomic status, and adult educational attainment to achieve district diversity goals. They also have the option to apply to magnet schools or other specialty programs throughout the district.

Louisville has been lauded for its commitment to integration, and compared to similar districts across the country that stopped desegregation efforts, JCPS students have much higher academic achievement levels, especially for Black children. The district's attempt to maintain diversity throughout its schools, however, hasn't been easy and has led to other challenges.
Clusters of disadvantage. Over the years, district officials have altered their student assignment plan. The most recent changes - the way diversity is defined and an expansion of the number of neighborhood clusters - were approved in 2012, but didn't fully go into effect until the 2013-14 school year. These changes brought unintended consequences, most notably an increase in the number of schools no longer meeting the district's diversity guidelines. And while socioeconomic factors are considered in student assignments and the numbers of students receiving free or reduced-price lunch has increased, the greatest concentrations of low-income students are in west Louisville schools. The four high schools with more than 80 percent of their students receiving free and reduced-price lunch also serve the greatest numbers of Black students - meaning the most segregated high schools are also the most disadvantaged. This reflects data reported by the district in 2013 that showed Black students were more likely to attend extreme poverty schools than White students.



High student mobility. ${ }^{4}$ Another significant challenge JCPS must contend with is high levels of students mobility in many of its most disadvantaged schools. While student mobility is not uncommon in large urban districts, it has been linked to lower academic achievement and increased likelihood of dropping out. ${ }^{v}$ Of particular concern is that high student mobility rates appear to track alongside lower graduation rates and low-income rates in almost all cases.
The reverse is also true, as the high schools with the lowest mobility rates have the highest graduation rates in the district, and with the exception of Central High School, tend to serve much lower numbers of low-income students. All of these schools are selective district-wide magnet high schools or house district-wide magnet programs, requiring students to apply and be accepted prior to enrollment.

Inequitable access. In many of the district's most disadvantaged schools, students don't have the same access to experienced teachers or advanced courses, and there are clear discrepancies in disciplinary rates for students of color. At one of JCPS' low-performing high schools, for example, only five teachers had more than six years of experience at the start of the 2014-15 school year, and one-third were in their first year of teaching. District data reported also shows that teacher retention rates are lowest at the most disadvantaged high schools. Similar trends can be seen in the number of students enrolled in at least one Advanced Placement course and AP exam pass rates. One West Louisville high school offers only four AP

[^4]Table 6. JCPS High Schools with the Lowest Mobility Rates 2014-15

| Rates 2014-15 High |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Brown | 1.0 | 29.0 | 26.0 | 63.0 | 98.3 |
| duPont Manual | 1.1 | 19.7 | 15.8 | 66.4 | 98.6 |
| Butler Traditional | 1.2 | 55.7 | 36.0 | 55.8 | 97.8 |
| Male Traditional | 2.1 | 34.4 | 32.3 | 62.3 | 99.3 |
| Central | 2.2 | 82.6 | 81.4 | 8.3 | 94.7 |
| Atherton | 4.4 | 42.3 | 20.9 | 66.9 | 93.8 |

courses, while duPont Manual, the district's highly rated magnet high school, offers more than 30 . More troubling, Black high school students are nearly 2.5 times more likely to be suspended than their White peers. School and district officials are working to remedy these issues, but ensuring equitable access to high-quality resources remains a major challenge at many JCPS schools. ${ }^{\text {ii }}$

## Best Practices for Bulloing Success

## 1. Community Commitment

## Dedicated and consistent leadership

JCPS has had a history of superintendents with long tenures. Between 1981 and 2007, district leadership changed just once, and since then, only one superintendent has served for less than five years. The current superintendent, Dr. Donna Hargens, has been in the role since 2011 and recently signed a contract extension through June 2019. The continuity in leadership has provided the district a sense of stability that is rare among large urban school districts and allowed it to stay the course and develop key relationships with the Greater Louisville community. The limited turnover in district leadership has been bolstered by a similar continuity in local government leadership. "Mayor for Life" Jerry Abramson, who was strongly committed to improving education in Louisville, served for two decades, and his successor, Greg Fischer, has continued that commitment through his administration's goal to increase educational attainment in Greater Louisville. The benefits of having stable leadership at the helm of the local government and school system cannot be underestimated, and it has paved the way for greater cooperation across the city.

## Understanding the connection between school and community health

One of Louisville's greatest strengths is the recognition by many of its key leaders that the city cannot succeed without a strong education system, and that can only be achieved if everyone is on board. But building genuine collaboration has not been simple, or quick. Part of bringing individuals and organizations together was reaching agreement on a framework that everyone can see themselves within, and in Louisville, that framework is a cradle-to-career model that has near-universal buy-in. Initiated in 2010 by the Greater Louisville Education Commitment, the framework that guides educational improvements and investments in the city was created by community leaders - from government, business, nonprofits, higher education, religion, and K-12. After years of coordination efforts, many working in education say the level of community interest is the highest it's ever been.

One reason why creating alignment around this framework has been so successful is the built-in understanding that Louisville cannot grow and prosper without making educational attainment a priority for all its citizens. Though not everyone was willing to commit immediately, city and education leaders were able to cultivate an awareness that the health of the city and its economy were highly dependent on increasing the number of young people graduating from high school ready to earn postsecondary credentials. Now, nonprofit organizations, program operators, businesses, and foundations are coordinating efforts to strategically meet this goal. And the 55K Degrees partnership, borne out of the Greater Louisville Education Commitment, tracks progress toward this goal to hold everyone accountable.

Although there is still a steep hill to climb toward fully achieving the city's goal, the commitment by all sectors is promising. One area of interest to watch, however, will be how the business community works with the district to help achieve the goal. As a Ford Next Generation Learning grantee, the district has designated 15 of its 21 high schools as " 5 -Star Schools" - each with Professional Career Themes, including Engineering; Communication, Media, and Arts; and Business and Information Technology. Intended to engage students in career pathways aligned with local workforce development needs, these programs require the support of external partnerships, especially those with the business community. In at least one of the high schools visited, however, these partnerships were either nonexistent or ineffective given the school's needs, though the Next Gen work is still young. Similarly, the collaboration between K-12 and
higher education, particularly with four-year institutions, is somewhat lacking, especially with the citywide focus on increasing postsecondary degrees and credentials.

## 2. Concentrating on the present to get to the future

## Focusing on engagement, not outcomes

"You can't be too focused on the outcome, and not the path to get there." High School Principal, Jefferson County Public Schools

At the grass tops level, the focus is firmly on raising high school graduation rates and increasing the number of postsecondary degrees earned. On the ground, however, those outcomes are being pursued by using an engagement mindset. One high school principal exemplified this thinking, "You don't worry about graduation. You worry about getting kids to meet 9th-grade standards and become passionate about the career academies." Focusing on engaging students makes accountability at the school level less about a far-off goal and more about the day-to-day process it takes to meet that goal successfully. It also helps school administrators, teachers, and staff concentrate on building positive relationships with students, providing them opportunities to explore their interests, and keeping them in school and on track to graduate.
The engagement mindset is evident in the Louisville Education and Employment Partnership (LEEP), a nearly two-decade-old initiative started by the city and county government, JCPS, the school district, and the Metro United Way. Its purpose is to give students - many potential first-generation college students - exposure to higher education and career pathways through in-school programming and mentorships with local businesspeople. LEEP career planners work with high school students by providing academic support, monitoring progress toward graduation, counseling students in the college application process, and preparing students with the skills they need to enter the workforce. They also build relationships with students - most facing enormous challenges - in ways that classroom teachers aren't always able to, and make sure students know that they've got an advocate in their corner. The longevity of this initiative speaks to its longterm success, and shows how crucial building positive relationships and providing opportunities for engagement is to improving educational outcomes for all students.


## Staying away from overnight solutions

"If your goal is $X$, it can't be done in one day. But you look back over five years, and you'll see big changes." Administrator, Jefferson County Public Schools
In this era of education reform, there is a great impetus to jump on the latest trend - even if unproven - and immediately change course when results don't occur overnight. One of JCPS' greatest strengths is doing the opposite committing to a path, adapting as needed, and refusing to believe that anything worthwhile can be achieved instantaneously. Understanding that there is no such thing as a "magic bullet" to solve the district's problems has allowed the district to commit to initiatives and see them through in a way that other large urban districts have not. It has also allowed administrators and teachers to evaluate students' needs and implement what is needed to address them, rather than constantly adapting to new programs.

## 3. Data sharing for better service provision

 JCPS is a district that prides itself on collecting data and using it effectively. It is also a district that has committed to sharing data if it means helping their students and the programs that serve them. The district's data routinely collected on their students often stays within the district - and in many cases, rightfully so - but by sharing certain data points with the nonprofits and church groups that provide critical services to students, JCPS has helped to improve service provision across the city. And by sharing its data, JCPS has developed key partnerships with external organizations on how the students are faring in out-ofschool programs. The JCPS data team has also started trainings for their partners to ensure that the data being shared is understood and used effectively.The focus on effective data use has also spread to the community. The Metro United Way of Louisville has been an instrumental partner in getting student data to the out-of-school-time (OST) programs they support, getting them to collect and report data back, and in turn, hold themselves accountable. Though the buy-in for data use by OST providers took time, it has now become a universal part of how these programs evaluate their work and learn how to improve the services they provide. The Metro United Way has also led efforts to go beyond the numbers and collect the perspectives of students, parents, and program operators - even sending employees to walk neighborhoods and talk to parents they might not otherwise reach - to improve service. By sharing data outside the district's walls, JCPS has been able to more effectively work with community partners, and consequently, service providers are better able to help more students and families.

## Conclusion

JCPS stands very much in a category all its own in Kentucky, and the challenges it faces today are both historical and contemporary. It is evident that city and district officials and the majority of Jefferson County residents have made integration a priority, which is to be applauded, but there are still serious concerns to contend with - most notably, the pockets of disadvantage and inequitable resources affecting the lowest-performing high schools. With increasing levels of concentrated poverty in many of Louisville's neighborhoods and growing numbers of immigrants in the school system, district and community leaders will need to continue to address these issues if they are to achieve their ultimate goal of raising educational attainment in Jefferson County.

## Regional Case Studies: Appalachia and Eastern Kentucky

The challenges of Eastern Kentucky are generational and geographic. Participation in the labor force is low - nearly 20 percent less in Central Appalachia than nationally and 17 percentage points below the national average for people with bachelor's degrees or higher. vii Schools offer far fewer AP classes than in the rest of Kentucky or nationally, and it has been claimed that the CTE courses that are offered are, in many areas, not well matched with present or future job opportunities.
The formation of the Appalachian Regional Commission (ARC) 50 years ago brought massive federal investments to Kentucky. Established by the Federal Reserve Bank and governors of 13 states, the ARC aimed to infuse capital, build equity, foster entrepreneurship and create infrastructure for community development throughout a 205,000-square-mile region that follows the spine of the Appalachians and encompasses 410 counties in 13 states, 57 in Kentucky.vii,ix
Under the auspices of the ARC, the 3,000-mile Appalachia Development Highway System is re-engineering mountain highways, straightening curves, and with 405 miles of road in Kentucky alone, reducing eastern Kentucky's isolation, facilitating access to the markets, resources and interstates of central and western Kentucky as well
as other states. Kentucky has done its part, too. In 2013 then-Governor Steve Beshear joined in a bipartisan effort with 5th District Congressman Hal Rogers to further shape a 53-county Kentucky Appalachian effort, SOAR (Shaping Our Appalachian Region).
These economic development initiatives have paired well with the award of recent competitive federal education grants, both statewide and regional, all with an emphasis on getting students better prepared for the future after high school. Statewide federal grants benefitting eastern Kentucky include the $\$ 44$ million Race to the Top award (2013) to the Kentucky Department of Education for the Early Learning challenge, supplemented by Race to the Top funding to two regional consortium, the Green River Educational Cooperative of 23 districts to the west ( $\$ 40$ million, 2012, for college and career guidance and readiness) and to the Kentucky Valley Educational Cooperative (KVEC, \$30 million, 2013) for 17 eastern Kentucky districts. Through this grant to KVEC, the Appalachian Renaissance Initiative (ARI) brings sweeping amounts of technology to schools in KVEC's eastern Kentucky districts, equipping them with distance learning and video-conferencing facilities, an additional strategy to overcome geographic isolation. Federal grants to eight eastern Kentucky colleges (Berea College, Eastern Kentucky University, Lindsey Wilson College, Morehead State University, Somerset Community College, Southeast

Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income Students Mapped over School Districts in Eastern Kentucky

Quartiles of Poverty (ages 5-17)
Percentage Ranges
5-19 Percent
20-27 Percent
28-36 Percent
37-60 Percent

[^5]

Kentucky Community and Technical College, and the University of Pikesville) for TRIO programs (Upward Bound, Upward Bound Math-Science, and Talent Search) enable outreach that provides services to youth from disadvantaged backgrounds (low-income, first-generation, and with disabilities) helping motivate and support them towards and into college.
Berea College stands out among its postsecondary peers. It is a private college in the center of the Appalachian region with a long tradition of community and K-12 outreach. Fostering local resilience and funded by philanthropists, Berea offers students a free high-quality education in return for work on campus and access to a curriculum that showcases regional strengths. Through Partners for Education, Berea College brilliantly leverages more than $\$ 24$ million annually in federal K-12 education funds to assist in varying ways and with different programs
targeted to different needs in 33 Appalachian Kentucky school districts. Federal grants to Partners for Education since 2011 include:

- Accelerating Achievement in Appalachian Kentucky, 2011, \$3 million;
- Promise Neighborhood, 2011, $\$ 30$ million;
- GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) Appalachia, 2011, \$35 million;
- GEAR UP Promise Zone, 2011, $\$ 38$ million;
- GEAR UP Promise Neighborhood, 2014, $\$ 40$ million;
- Full Service Community Schools, 2014, $\$ 2.5$ million; and
- AmeriCorps School Turnaround Grant, 2013, \$2.2 million and AmeriCorps STEM, 2014, \$800,000.


## CASE STUDY

## Floyd County Schools

## Floyd County Census Fast Facts

Population (2014): 38,108 • Pop. under 18: 22.0\% • White: 97.9\% Black: 1.0\% • Hispanic/Latino: 0.7\% • Living in Poverty: 31.1\%

FCPS Fast Facts
Enrollment: 5.902
Student Demographics (2014):
White: $98.5 \%$ • Black: 0.4\% • Other: 1.1\% •Low-Income: 60.0\%

## Graduation Rate Data:

2013-14 ACGR: 91\% • 2012-13 ACGR: 90\% • One-Year Change: +1.0
Floyd County is a high-achieving district with about 6,300 pre-K-to-12 students, dispersed over nearly 400 square miles of mountainous eastern Kentucky, with the small city of Prestonburg in its center. Sixty-eight school buses travel nearly 6,000 miles per day to get students to school on time. The predominance of snow and ice during winter months means schools are closed an average of 25 days each year. While these are immense challenges, Floyd has found ways to thrive.
Several years ago, Floyd County Schools (FCS) ranked 145th out of 173 districts on accountability. Now it is a Kentucky District of Distinction, one of only eight such districts and one of the few to repeat two years in a row, and ranks 12th statewide in the state accountability system. It serves as a Kentucky Department of Education (KDE) designated "hub" district, hosting visitors from many other districts and sharing its approach to teaching, learning, and building a culture of education in a region
where the primary resource is now its people, not coal. Two of its eight elementary schools are Title I National Schools of Distinction.

The front hall of the Board of Education office sports a collection of banners celebrating schools' honors for growth and excellence. Underlying this work is a region's recognition and buy-in to the idea that, as Floyd County superintendent Henry Webb puts it, "The way to break generational poverty is education. Hope is not a strategy. Hope with action is a strategy." His principals echo this sentiment. They estimate that it takes five to six years to turn a district around, and three years for one school. For Floyd County, this turnaround was accomplished through:

- An insistence on "Kids Come First."
- An insistence on equity. All students receive free meals. Students with disabilities (19 percent of the student population, substantially more than the state average of 15 percent) are not isolated from the mainstream, nor are their teachers. Instead, special education teachers work side by side with lead teachers in classrooms in a collaborative manner.
- Making accountability real. District teams of up to 20 people monitor each school in the fall. Team members are carefully selected for what each can give or learn from the opportunity to analyze and understand a school other than their own. At the end, the team debriefs with the principal, and sends written feedback. Many team members report that this is the best professional development they have ever had.

All teachers participate in professional learning commu-
nities (PLCs) through carefully scheduled planning time. This occurs once a week, sometimes divided by grades, and sometimes by subjects. Schools that have not met standards, or are trending that way, hold PLC meetings three times a week. Almost one-third of the schools hold them every day, by choice.


The PLC meetings are intentional and structured by feedback. Administrators are expected to conduct nine to 12 classroom walkthroughs per week using a common "walkthrough" document, and observations are shared within the PLCs every nine weeks.

Data is pervasive. The school board meeting room is papered with charts showing each school's standing. Principals' offices post progress charts. Classrooms display student data showing which standards which students need to meet. Schools keep assessment notebooks. ThinkLink (an assessment tool that measures a combination of reading, writing, phonics, and word study) is administered three times a year and feedback is prompt.

- Leadership development at all levels, with the spirit of "grow our own." In a cycle that overcomes the isolation of a rural county and difficulty in hiring teachers, good teachers are promoted to lead teachers, lead teachers to school leaders, and school leaders to the central office, where as lead administrators - directors, executive directors and assistant superintendents - they
spend more of their time coaching others than sitting behind desks.

Further, teachers can apply to join the Curriculum, Instruction and Assessment team and become part of a three-year professional development process and a long-term professional cohort. There have been roughly 85 team members in the last three years and nine members of the first cohort have become administrators. In 2015-16, 23 teachers are participating. Teachers who join are observed and coached by other instructional leaders in the district; most are working on National Board Certification. When teachers complete this they are eligible for principal certification. Now, the group is working on formulating an induction program for mentoring new teachers; the expectation is that eventually the new teachers will themselves become mentors. Floyd County has an aging teacher population, so developing new teachers and inspiring them with the district's education culture are critical to continuing success.

- An estimated 300 to 400 district teachers participate in unpaid professional development in the summers. When visiting superintendents ask how Floyd County Public Schools gets such high attendance at these trainings, the response is that it is part of the local culture of education and collegiality. Additionally many educators take part in regional networks so they can share ideas and learn from each other: the ISLN - Instructional Support Leadership Network - the Kentucky Leadership Academy, and the KEDC, or Kentucky Educational Development Cooperative.
- The district is, like the region, embracing technology. Two years into the Digital Conversion, every student in fifth, sixth, ninth, and tenth grades has a Dell laptop, with the intervening grades to be added shortly.
- A belief that relationships should be built on collegial conversations rather than roles.
- A belief that each student must have an adult advocate. Throughout the district, teachers "name and claim" students (i.e., they identify who they will support and make sure that no child is left behind).
- A focus on college and career readiness. Middle school students engage in Career Cruising and Career Days, discussing "what I want to be when I grow up" and through Reality Store Days, evaluating how they will pay for that lifestyle. College visits begin in some schools in the sixth grade, and the curriculum is structured so that every student has the opportunity to earn nine college credits before college. An early college high school has been started; 28 students have gained associates degrees so far, and 43 students are enrolled this year.
- There are celebrations with the community, including a large Opening Day kick-off, and a district-wide celebration every year - more than 2,000 community members participated in the 15 Floyd County schools last year.


## A View of Two Floyd County Schools

May Valley Elementary School (ranked second in the state among pre-K or K-5 schools) is a vibrantly humming school of about 500 students. Once a low-performing school, May Valley now boasts high expectations. As the principal said, "We stopped making excuses." It is evident that teachers use consistent strategies across grades, discussed within professional learning communities, to support all students' in developing thinking, analytical, and explanatory skills, both verbally and in writing, posted in all halls and lively classrooms.

No child is let off the hook when it comes to answering the frequent questions, "How do you explain this?" or

"What does it mean in the story when...?" or "How did you arrive at that solution?" Students are grouped carefully in many different ways in a day to encourage critical thinking. The upshot is a school of confident young learners who have internalized classroom rules for cooperation, rely on and support each other, are almost completely attentive to the instructor, and do not lose focus when a visitor stops by.

Beneath the attention to good instruction are other important efforts. In a region that lacks pre-schools, May Valley houses a day care class, and two Head Start classes, and is seeking to expand early childhood preparation, essentially doubling the numbers of very young children who are currently engaged. Almost \$300,000 per year in Title I funds are used for instructional aides, tutors, extended school services during the school day, and incentives and rewards for students.
In line with the instructional innovations promoted by KERA long ago, K-2 students are taught with instruction responsive to their needs, grouped at the level they entered school for reading and then regrouped frequently with their reading level rather than age-group peers.
All of May Valley's K-2 students have an 80-minute reading block first thing in the morning. Strong readers move up appropriately, and weaker readers get help through individual and small-group instruction from Title I-supported instructional aides. Read-to-Achieve instructors, funded through state grants, pull students out of class for one-on-one instruction, and instructional aides are assigned as well to the facilitated computer program, My Reading Coach. School-wide, students compete in Accelerated Reader, a program that encourages students to read from a list of books and provides guiding questions. The program tracks the number of books read, the number of questions students answer correctly, and awards points for progress.

Other subjects are not neglected. In kindergarten, students are assessed and grouped for math instruction. I-Excel Math, first introduced in the lower grades, is a supplementary computerized instruction program now used throughout the school because teachers and students found it so interesting. Science students delve into hands-on inquiry.
Daily phone calls and home visits bolster attendance above 96 percent. Other efforts to raise attendance include:

- The school resource center works closely with parents, grandparents, and other guardians to get students to school on time.
- Individuals and classrooms are recognized for monthly attendance; special field trips take students to the aquarium several hours away in Newport, and the parent-teacher organization purchased 29 bicycles for students with perfect attendance.
These seemingly small measures convey to the students that the adults around them value them, and notice when they do well, and when they need extra help.

Down the road at Allen Central High School, its six-year principal, and the new leadership team and staff he hired as part of state improvement efforts have worked to turn around their school. The nearly 400-student school (formed in 1972 from four small high schools) is now a Kentucky High School of Distinction, performing at the 96th percentile on the state accountability system, with a graduation rate of 95 percent.
A few simple rules govern the school: bell-to-bell instruction, best practices in instruction and intervention, and a deep faith in children, with recognition that "you can't love children out of poverty - you have to support, motivate and teach them." Adults model professional dress, and actively avoid turf wars. Data drives the school. Students who miss school receive calls from a real person, rather than a robo-call, and if students miss more than two days the principal or a counselor visits them. This personalized attention holds students accountable, and communicates the message that school leaders care, and that school is important.

Allen Central is committed to exposing students to the world beyond Prestonburg, to help motivate students to reach for careers or education that they hadn't previously considered, give them a leg up on college costs, and help to counteract some of the cultural barriers in eastern Kentucky that prevent many young people from leaving their community to continue their education.

The majority of Title I funds are used to expose students to the world beyond the mountain hollows where higher education is not a part of the fabric of most students' lives. The closest university is the private University of Pikesville, 30 miles away. Beginning in ninth grade, all students visit a college campus, and complete a total of six campus visits
before they graduate. While middle-income and urban students often have natural opportunities for exposure to higher education, students from rural and isolated parts of Kentucky frequently do not.

An early college high school has been established with students attending Allen Central for grades 9 and 10, then Big Sandy Technical and Community College for grades 11 and 12. The state's Robinson Scholars program (\$100,000 in tuition for four or five years, if needed) is available for students whose parents did not graduate from college and also provides support during high school and in the transition into college. Additionally, high school teachers teach an Algebra 1 credit in the middle school, giving those students a head start as they move into high school.

Allen Central will soon become part of a larger, new high school that is being built to make more curricular advantages, including AP classes, available. Meanwhile, the architects, engineers and construction specialists working on the school are acting as mentors for Allen Central students, exemplifying the way the community pulls together.

Still, there are challenges. Special education students constitute 24 percent of the enrollment, requiring significant levels of support. ACT scores are below the state average, which in turn is below national average, and more work is needed to support students on their way to college. Three years ago, 40 graduates enrolled in post-secondary; only seven of those students remain today.

## CASE STUDY

## Leslie County \& Owsley County Public Schools

## Leslie County Fast Facts

Population (2014): 10,918 • Pop. under 18: 21.6\% • White: 98.5\%
Black: 0.3\% • Hispanic/Latino: 0.4\% • Living in Poverty: 22.6\%
Student Demographics (2014):
Total School Enrollment: 1,690 • White: 98.6\% • Black: 0.7\%
Hispanic: 0.4\% • Asian: 0.1\% • Low-income: 71.4\%
Graduation Rate Data:
2013-14 ACGR: $99.1 \%$ • 2012-13 ACGR: 99.2\% • One-Year Change: +0.1
In Eastern Kentucky are a number of small and highly rural districts nestled in the mountains of Appalachia. These districts face their own challenges brought on by their
location, and social trends that have shaped the communities surrounding the schools over the past decades. Leslie and Owsley counties contend with a similar set of barriers to providing their students with an education that will prepare them for success in the future.

## Major Hurdles

- Dwindling population numbers: As the mining industry has declined, the population has fallen. This means that schools are losing both students and resources, making it more challenging to give their remaining students a high-quality education, or to bring those students the opportunities that will prepare them for college and career.

Change in Poverty Rate Over Time in Leslie and Owsley Counties


- High rates of poverty: Leslie and Owsley both have poverty rates well above Kentucky's state average. Furthermore, those high-poverty rates have been consistent since the 1980s, demonstrating an entrenched level of poverty that heavily influences the lives of adults and students in the community.
- Prevalence of drug use and addiction: Leslie and Owsley both struggle with an epidemic of drug use. This contributes to incapacitated or absent parents, and high levels of violence and poverty.
- Geographic Isolation and lack of opportunity: These school districts are highly rural and remote, meaning that it is difficult to bring students a wide array of resources and opportunities that are more readily available in an urban or suburban district.
- Weather: Given that both districts are remote, many students travel more than 60 miles round-trip to school. Snow or ice can effectively close schools for weeks at a time, as students are unable to travel on poorly plowed back roads, contributing to many missed days of school.


## Best Practices for Bullding Success

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1. Relationships Matter Take advantage of small cohort size <br> "A lot of our success in getting kids to graduate has been relationships" - Leslie County High School Principal Robert Roark
}

As families continue to leave the community in search of employment opportunities, Leslie and Owsley have seen their tax base steadily decrease alongside their student population. This puts great pressure on the districts to make ends meet while still providing rigorous courses and extracurricular experiences that will prepare students for college and career.
Both high schools noted that one advantage of fewer students is the opportunity to form strong relationships, which allows staff to quickly assess where students struggle, and provide timely support to keep them on track. This may mean additional time in math labs, extra

## Non-Traditional Instruction Pilot

Many districts in eastern Kentucky and across the state have sufficiently severe winter weather that schools are closed for 10 to 30 days a year. These schools contend with a combination of isolated communities, icy roads, and the great distances their students must travel to get to school. In inclement weather, these factors often mean that schools must close, and students miss out on valuable instruction time.
In 2014, House Bill 211 was passed into law and signed by Governor Steve Beshear. The law created, among other things, the "Non-Traditional Instruction Pilot," which came to be known as the "Snow Bound Pilot." Participating schools undertake a variety of strategies, ranging from teachers jointly developing curriculum packets to send home with students when bad weather is forecast, providing take-home laptops and on-line instruction with teachers, and options for teachers to coach and respond to students' questions via email. Some districts have experimented with sending materials - along with food - to community centers that may be more accessible to students, and many are capitalizing on initiatives that seek to expand access to technology and the internet.
Last year, 13 schools participated in the pilot, and 44 schools did so this year, with a goal of 60 next year. Both Owsley and Leslie counties, profiled in this report, participate in the pilot.
prep courses for the ACTs, or help thinking through the right technical courses so the student remains motivated to complete high school and graduate ready to go to work. A smaller class proves an advantage in this case, and the administrators, teachers, and support staff of Leslie and Owsley high schools work hard to leverage that advantage.

## Leverage external partnerships

"We have a bunch of kids in this high school who, if it weren't for PartnerCorps, would have dropped out."

- Leslie County High School Principal

Leslie County and PartnerCorps
Thanks to funding from the Community for National and Community Service, Partners for Education at Berea College provides Leslie County High School with support from the PartnerCorps AmeriCorps program. PartnerCorps recruits 20 individuals, the majority from within the local community, to commit to a year of service at Leslie County high schools. PartnerCorps members focus on improving student attendance and educational outcomes through mentoring and contributing to a college-going atmosphere within each high school.
Each PartnerCorps member has a designated group of about 30 students who they mentor and support throughout the school year. Principal Roark noted that PartnerCorps members are particularly effective as mentors because the students see them as near-peers, and are more likely to confide in them rather than a teacher or staff member.
Building trust between students and PartnerCorps members took time and effort. During the first months of the program, PartnerCorps members recalled having to chase their students down to conduct check-ins or offer extra help. But over time, students began to seek out PartnerCorps members when they needed help. And now, in the third year of the program, incoming freshmen report that their older siblings and friends suggested they seek out PartnerCorps members for help with everything from finding their classrooms to prepping for tests or handling college applications and financial aid.
In a further testament to the importance of relationships, administrators at Leslie noted that one of the reasons PartnerCorps was so successfully integrated into the school was because its project director, Robert Bowers, is a former school principal in Appalachian Kentucky. Bowers already knew many of the teachers and other administrators, understood how the school and community interacted, and thus was able to build trust and buy-in from the school far more quickly than an outsider may have been able to do.

## Strengthen community relationships

"Teachers here are a part of the community - we know our students well." - Teacher, Owsley County

Leslie and Owsley high schools are situated in small, tightknit communities with families who have been in place for generations. This also means that making changes to long-standing school structure or policies can be extraordinarily difficult, even if those changes are necessary for improvements. Strong relationships with respected community members were essential as Principal Roark sought to implement the changes required to improve student outcomes.
Leslie County's School-Based Decision-Making Council was responsible for hiring Roark in 2014. As he began working with the Kentucky Department of Education to implement required changes within the school, he found the support of the school-based council invaluable. For example, Roark implemented a policy of reviewing and re-hiring non-tenured teachers annually, and not re-hiring teachers who did not meet their benchmarks - a change that was unpopular among staff. He also looked to Teach For America to bring in new and talented teachers, which was also unpopular given the scarcity of jobs in the community, where the district is one of the largest employers. However, Roark was convinced that these were necessary changes that would raise standards for the teaching staff, and provide students the best possible educational opportunities. The school-based council was comprised of individuals who were well-respected within the community, and their support of Roark's new measures allowed the changes to go forward.

## 2. Smart data, not just more data

Data collection is only useful if the right people can see it, understand it, and know how to take action. Both Leslie and Owsley high schools are collecting data on their students, giving their teachers tools to quickly interpret that data, and a suite of supports to choose from for their students who are struggling.
For example, in partnership with the Partners for Education at Berea College GEAR UP program, Leslie provided math teachers with professional development and Texas Instruments TI-Nspire calculators to use in their classrooms. With these calculators, math teachers can ask a class to solve problems or take mini tests, and the calculators instantly transmit each student's work and results instantly to the teacher's computer. The teacher can see which students solved the problem correctly, the mistakes that other students made, and from there can quickly determine which concepts those students are missing.

This instantaneous feedback lets instructors provide timely interventions to a targeted group of students, preventing them from falling further behind.

In another instance, Leslie's staff notes that their students generally struggled with math - they weren't making benchmarks, could not keep up in class, and saw their grades consistently fall. In response, administrators doubled down on the amount of math, and specifically targeted those students who struggled most with a double dose of extra help and material. For example, the school identified 50 sophomores who, based on their grades and test scores, were struggling. These students were given a course that encompassed algebra 1.5 - geometry in advance of starting algebra II as juniors. This extra course reinforced core concepts, and ensured that those students started algebra II on a secure footing.
Owsley also recognized that math was one of the most challenging areas for their students. In fact, teachers observed that many students gave up halfway through the exam questions. To understand why this happened, school administrators interviewed students post-test and asked them why they hadn't been able to complete the questions. Students reported that they became overwhelmed by the questions, and summarily gave up. This told teachers and administrators that they would need to find ways to break the concepts down into smaller steps, and focus on helping students understand how to apply concepts to the larger problems they were asked to solve. The school increased the amount of time spent on math, and paired in-class instruction with labs and intervention courses for students who continued to struggle. Like Leslie, Owsley also partnered with Berea College's GEAR UP to provide teachers with Texas Instruments professional development and their students with calculators so teachers get instant results and can provide quick feedback on concepts being missed, and can decide where to focus their attention with each class.
Leslie and Owsley high schools also encourage their students to take the ACT as many times as possible - and use those scores not only to benchmark readiness for college/career, but also to determine what supports those students still need.

## 3. Leverage state and federal funding

"Originally, Owsley County wasn't eligible to apply for the Appalachia Renaissance Initiative because the state drew a line that put us too far east. We went down to the Statehouse to ask them to change the line. And they did." - Owsley County Superintendent

Because they are rural and remote districts, Owsley and Leslie both face barriers to connecting their students with opportunities and experiences that will prepare them for college and career. Reliable transportation to school, the opportunity to take community college courses and visit colleges or access rigorous AP level courses are more difficult to provide when a school is in a highly rural and isolated part of the state.
To tackle these barriers, Leslie and Owsley both employ federal and state grants to bring support programs to their schools, and provide funding for their students to explore beyond the borders of their counties.

## Berea Promise Neighborhood Initiative and GEAR UP.

In 2011, Partners for Education at Berea College was awarded one of just five national Promise Neighborhood grants, becoming the first such grantee to serve a rural area. The Berea Promise Neighborhood (BPN) seeks to leverage federal programs and strategies to provide deep community supports for youth, and bolster low-income schools.

BPN serves three school districts in Appalachian Kentucky, providing services to children, youth, and families from cradle to career. The initiative has a resultsbased focus that seeks to braid multiple federal programs and strategies to address the multiple risk factors that their students and families face, and provide helpful supports. BPN seeks to create a culture of success within the schools it serves, which includes expanding access to rigorous courses, increasing family engagement, and employing learning technology and internet connectivity.
BPN has increased access to Advanced Placement courses for middle and high school students, helping students prepare for college. BPN seeks to quickly intervene before students fall off track, and has implemented an academic early warning and response system that is consistent across all 16 schools in the three districts it serves. Through this early warning system, academic specialists are able to quickly identify students in need of increased attention whether it be around attendance, behavior, or course performance.

To help students launch successfully toward college, BPN has also placed academic specialists within the high school to assist students as they complete their first and second years of post-secondary education. These designated specialists help students overcome academic, fiscal, or social challenges, and help them navigate through the difficult first couple years of college.

The Partners for Education at Berea College GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) works to prepare low-income
students to enroll and succeed in post-secondary education. Berea College has a history of administering GEAR UP programs, starting with its first grant in 1999. GEAR UP uses a cohort model, working with a class of students beginning in sixth grade and continuing through freshman year of college. GEAR UP focuses on building college knowledge, a college-going culture, and increasing academic performance and college-going rates in the schools it serves. Through three GEAR UP grants, Partners for Education serves 26 southeastern Kentucky counties and 33 school districts.

In Owsley County High School, Berea Promise Neighborhood funded two academic specialists. One specialist focuses on academic achievement and success through in-class interventions and one-on-one sessions with students. The focus of the second specialist is on preparation for post-secondary success. This entails visits to colleges, (both local and in neighboring states), ACT study sessions, and preparation for the college application process. In addition, students who go to college are also welcome to return to their high school for tutoring and group study sessions with their former classmates. This continued support and sense of community are extremely valuable to students as they navigate their first year of college and the change of living farther from home. GEAR UP funded an academic specialist who focuses on helping Owsley students prepare for college. This includes facilitating virtual mentoring relationships between current high school students and college freshmen, working with students to help them meet their ACT benchmarks, and planning and facilitating college visits.

The Berea Promise Neighborhood grant also supported a family engagement specialist, whose role is to meet with parents around their child's academic performance, and to help them understand the value of their child's education. This includes immediate check-ins with parents when a student has repeated absences, family trips to colleges, arts and cultural events, and even courses on financial literacy and budgeting.
In both districts, federal funds are used for dual-credit programs, which bring college-level courses to students who might otherwise have no access or opportunity. State grants also fund ACT testing, and grants through Berea Promise Neighborhood have provided students with additional AP and vocational courses in STEM and computer-based fields to help them land the jobs of the future. In Owsley, funding through the Appalachian Renaissance Initiative brought SmartBoards and laptops to the classrooms, and paid for elementary teachers to return to school to get their masters degrees. In parts of
the state that might otherwise remain disconnected from these kinds of opportunities, school leaders are leveraging the public funds available to build out the opportunities and supports that their students will need to be successful after they leave high school, whether that means further schooling or starting their career.

## Conclusion

Leslie and Owsley counties face similar barriers as they seek to offer their students a world-class education. Both high schools have chosen to leverage every possible resource to help their students succeed in spite of these challenges. These high schools take full advantage of their location within a tight-knit community to get to know their students, and give them personalized support. Both schools have invested a considerable amount of time and effort in collecting data that allows them to pinpoint exactly where their students struggle, and have established academic offerings to address those issues so that teachers have many options to choose from to provide their students with the help they need. And through Partners for Education at Berea College, both districts have aggressively pursued federal and state grants that allow them to give their students opportunities that otherwise would not be possible within the limits of the district budget. These strategies have helped both districts significantly improve student performance, and build a more positive culture that holds students and staff to high standards.


## Regional Case Studies: Northern Kentucky

The districts of Northern Kentucky have high school graduation rates ranging from 98 percent in Fort Thomas and Walton-Verona to 82 percent in Covington. Covington is the only district that serves a significant proportion of Black and Hispanic/Latino students (42.4 percent), as well as a significant proportion of low-income students.

The districts of northern Kentucky consist of three county and nine independent school systems. High school graduation rates range from a high of 98 percent in the districts of Fort Thomas and Walton-Verona to 82 percent in Covington. It should be noted, however, that Covington has the greatest population of low-income students in northern Kentucky, and is the only district in
the region serving a significant percentage of Black and Hispanic/Latino students (42.4 percent). Only one other district - Newport Independent - enrolls more than 20 percent Black and Hispanic/Latino students and has a similarly high low-income population. The districts with the highest graduation rates, on the other hand, are primarily White and affluent. Covington and Newport schools are far more similar to their public school counterpart across the Ohio River in Cincinnati, but both Kentucky districts have much higher graduation rates overall and for their low-income students.

This section looks at Covington Independent School District, with a focus on the challenges of serving a student body with high rates of poverty, homelessness, and special education needs.


## CASE STUDY

## Covington Independent School District

## Covington Census Fast Facts

Population (2014): 40,944 • Pop. under 18 (2010): 23.3\% • White: 82.0\%
African American: 11.9\% • Living in Poverty (2013): 18\%

## Covington ISD

Enrollment: 4,218•Teachers: 282 • Schools: 9
Student Demographics (2015):
White: 48.9\% • Black: 31.6\% • Hispanic/Latino: 10.6\%
Two or More Races: 8.5\% • Low-Income: 91\%
Grad Rate Data
2013-14 ACGR: 82\% • 2013-13 ACGR: 81\% • One-Year Change: +1.0
Covington Independent School District (CISD) is an urban district in northern Kentucky, directly across the Ohio River from Cincinnati. In the city of Covington, 18 percent of its residents lived below the poverty level in 2013, and the child poverty rate was 45 percent, compared to 25 percent at the state level.
Serving more than 4,200 students, CISD faces a unique set of challenges due to the high levels of poverty and homelessness within its student population, as well as many students in need of special services (see sidebar "Rising numbers of homeless students in U.S. public schools").

- 90 percent of the student population is eligible for free or reduced-price lunch;
- 17 percent of the student population is homeless;
- 12 percent live in public housing;
- 20 percent are in special education programs.

As Covington superintendent Alvin Garrison points out, the school district is not only in the business of educating its students to be successful in school and life, it also has the enormous responsibility of ensuring students are having their most basic needs met. CISD provides many of its students with breakfast, lunch, and dinner each day. With these students on campus for nearly 12 hours a day, the district is trying to make more after-school programming available to students who stay at school well into the evening.
Covington ISD also faces heavy competition from the numerous private schools in the area that draw a large number of more affluent students out of the public school system. These schools, including four preschools, seven elementary schools, and four high schools, serve at least 3,000 students, but their demographics reflect a different reality, with just a seven percent minority population.

CISD consists of an early childhood center, five elementary schools, one middle school, and one high school. To better serve its student population, the high school is affiliated with a number of programs geared toward the most difficult to serve student populations. Many of these programs have been recognized by the state as exemplary.

- Dual enrollment opportunities in partnership with Gateway Community and Technical College.
- Covington Alternative School (Transformational Learning Center) provides alternatives to suspension and expulsion through small classes and strict rules for students.
- Holmes180 Initiative, a reconfiguration of Holmes High School, takes the career academy approach. Students and teachers focus on early college, career clusters, and the goal of every student exiting high school with 15 college credit hours from Gateway Community and Technical College.
In addition, the district maintains a strong partnership with the Children's Home of Northern Kentucky, a nonprofit serving the district's large homeless population.
Overall, the high school has a four-year, on time graduation rate of 82 percent, and a college-going rate for its graduates of 39 percent.


## The Strive Partnership

Strive Partnership brings together a wide cross-sector of stakeholders including district superintendents, nonprofit organizations, business leaders, community and corporate funders, city officials, and private philanthropy. Together, these stakeholders have set common goals for student success in their urban schools, and agreed on common measures to track outcomes, including kindergarten readiness, fourth-grade reading and math scores, graduation rates, and college completion.
The Strive Partnership works with its stakeholders to use data for improvement, align resources among partners to support what is working, and pursue local and institutional policy change when needed.

## Conclusion

Covington ISD stands out in Kentucky due to its diverse student population, high levels of student mobility due to homelessness and poverty, and the heavy competition it faces from private schools. Despite its challenges, CISD has made gains in graduation rates and continues, with the help of community organizations and stakeholders, to strive for improvement.

## On the Horizon

|n spring 2016, the Kentucky Senate considered important revisions to the 2009 SB1 legislation that advanced KERA-based education reform in the new century. The 2016 efforts came under the aegis of a new Republican governor elected in late 2015; a new state commissioner of education; and state and national political ferment around the national adoption of the Every Student Succeeds Act (ESSA). SB1 (2016) was never heard in the House and while a few provisions were eventually attached to another bill and successfully passed, overall the conversation that began provides food for thought for future years.
Some of the ideas that were broached in a charged political environment included significant transfer of power away from the Commissioner of Education, the Kentucky Department of Education and the Kentucky State Board of Education to the General Assembly and local boards of education; a shift away from requirements that student performance and growth play a role in teacher performance evaluations; an emphasis on specifics of standards, and a formalized review process; a move away from accountability for non-core subjects such as the arts and social studies (a hallmark of KERA reforms) and other general assessments and accountability systems, including ranking schools based on the relative performance of schools with similar demographics.
One SB1 provision that was adopted, albeit attached to a different bill, includes a shift away from specifying the ACT as the assessment used to measure college readiness in students' junior year to an unspecified college readiness assessment chosen by the education department with a
requirement that a version be given in both 9th and 11th grades. Under current and proposed law, the state would cover the costs of these tests. Hence, the concept of uniform benchmarks was retained, and accountability has not only been expanded but results will be known earlier in the critical early high school trajectory enabling quicker response by educators to student needs. And there is a renewed focus on the question of which indicators best measure students' college and career readiness, and for which schools should then be held accountable.

Playing into short- and long-term decisions about these considerations is the fact that under Kentucky law and the timing of State Board of Education terms, the governor has the right to appoint half the members this year, and half the members three years from now, somewhat complicated by the fact that some members were appointed in mid-term.

Hence, a key challenge to Kentucky in 2016 is to collaboratively decide how to sustain its deep-seated, consensus-based and nation-leading vision enabling equal opportunity for all children of all socioeconomic levels that has to date achieved outstanding results.

## Reflections

With the passage of ESSA, replacing No Child Left Behind, educational dominance will shift from the U.S. Department of Education back to the states. Changes may be looming within Kentucky, too.
Kentucky in 2016 is in a state of educational ferment. Some leaders express concern that the pace of change
|n March 2016, Republican lawmakers in the Senate introduced legislation to allow charter schools in Kentucky, starting with pilot programs in Jefferson and Fayette counties. Charter school legislation has previously been introduced in the General Assembly but failed to move forward, just as it did this year.
State leaders and lawmakers in favor of public charter schools believe that they will be an effective tool for eliminating achievement gaps and spurring innovation. As this report shows, Kentucky is already near the top among states with narrow graduation rate gaps between low-income and non-low-income students, and in terms of innovation, it has already adopted
significant measures, including the Districts of Innovation initiative, to give schools and districts the opportunity to waive certain regulations in order to "re-think" student learning.
There are charter schools across the country that have experienced success and states that have established strong charter school policy, but there are also examples of considerable failure. We, therefore, urge Kentucky lawmakers to move forward cautiously, learn from the models of success, and keep in mind that simply introducing charter schools is not a silver bullet for raising graduation rates for students, regardless of socioeconomic status.
has been rapid and urgent, and that after 25 years of progress educators are "worn out" or there may be fatigue among local leaders. This may require time for re-synchronizing efforts carefully, as well as enhancing local leadership development with a next generation of principals and superintendents. Cautions are expressed about "adding on" when time and energy might most effectively be spent on deepening an understanding of what has already been put into place and the relevant success factors and curating what works. Some wonder about the way data is recorded and the different interpretations established by having two sets of reporting, federal and state. At the same time, greater sophistication and more training on coding and inputting data can enable greater accuracy. Changing the age students can leave school has also brought a new set of challenges in some cases. This may lead to students turning to unregulated home-schooling as an easy out, which will need to be monitored. Mandating students to remain in school until age 18 may also hold implications for schools educating older students who are chomping at the bit to become adults, yet bored with or unmotivated to acquire the necessary skills. At the same time it is recognized that areas such as early childhood and the transition to college and workforce need strengthening, and that enhanced career technical education may be a valuable bridge along with focused business involvement and infrastructure building, akin to the early days of KERA.

## Conclusion

The Commonwealth of Kentucky has undergone significant reform efforts that have happened steadily over several decades. These efforts have been driven by a diverse group of stakeholders across the state - governors, state legislators, corporate business leaders, mayors, community leaders, school and district administrators, parents, and communities. The effects of these efforts can be seen across the state, in large urban school districts, small rural districts, and schools and districts in between. The work continues to evolve today to ensure students are not just on track to earning their high school diplomas, but prepared to succeed in higher education, careers, and life beyond.

Kentucky's success demonstrates that positive change does not happen instantaneously - there is no silver bullet in education reform. Through consistent support for efforts demonstrating steady progress, legislative reforms, strong accountability, smart use of data, holistic support for schools and students, and a multi-sector commitment to every child, Kentucky has built a public education system geared toward benefitting not just the most affluent or the easiest to serve, but all students.
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xi Ibid, Glancy et al.

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## Appendices

Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data


Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data


Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data


Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data


Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data


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## Summary Kentucky School Districts sorted by Locale and 2013-14 Adjusted Cohort Graduation Rate (ACGR) Data



Notes. Weighted ACGR by Locale Type (\%) = the total number of graduates (i.e., the graduation rate multiplied by the cohort size) divided by the total cohort size per each locale type. NCES assigns locale codes to districts when 50 percent or more of the students attend schools with the same locale type. For example, if 50 percent of the students in a district were in schools with the locale code of "town" the district would be assigned a locale code of "town." Please see the following reference for more information: Glander, M. (2015). Documentation to the NCES Common Core of Data Local Education Agency Universe Survey: School Year 2013-14 Provisional Version 1a (NCES 2015-147). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubsearch.
Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR). U.S. Department of Education, National Center for Education Statistics (NCES, 2013-14). Public Local Education Agency Universe Survey.

Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort

|  | conorsine | Adjusted Cohort Graduation Rates (ACGR, 2013-14) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\angle O W$ |  |  |  |  |
| Covington Independent | 200 | 82\% | 82\% | 82\% | 0 | 88\% | Highest Quintile |
| Owsley County | 55 | 85\% | 85\% | 85\% | 0 | 87\% | Highest Quintile |
| Bellevue Ind | 42 | 95\% | 95\% | 95\% | -0 | 83\% | Highest Quintile |
| Newport Independent | 106 | 87\% | 87\% | 87\% | 0 | 83\% | Highest Quintile |
| Caverna Independent | 46 | 85\% | 75\% | 100\% | 26 | 83\% | Highest Quintile |
| Mccreary County | 212 | 92\% | 92\% | 92\% | 0 | 83\% | Highest Quintile |
| Jackson County | 146 | 77\% | 77\% | 77\% | 0 | 82\% | Highest Quintile |
| Knox County | 256 | 91\% | 92\% | 86\% | -6 | 82\% | Highest Quintile |
| Fulton County | 47 | 95\% | 95\% | 95\% | -0 | 81\% | Highest Quintile |
| Magoffin County | 135 | 87\% | 87\% | 87\% | -0 | 81\% | Highest Quintile |
| Dayton Independent | 41 | 85\% | 85\% | 85\% | 0 | 80\% | Highest Quintile |
| Kentucky School For The Deaf | 10 | 75\% | 75\% | 75\% | 0 | 80\% | Highest Quintile |
| Breathitt Co | 151 | 77\% | 72\% | 95\% | 23 | 78\% | Highest Quintile |
| Martin County | 137 | 92\% | 87\% | 100\% | 13 | 78\% | Highest Quintile |
| Knott County | 198 | 92\% | 92\% | 92\% | -0 | 78\% | Highest Quintile |
| Bell Co | 197 | 92\% | 92\% | 92\% | 0 | 77\% | Highest Quintile |
| Wolfe County | 101 | 92\% | 92\% | 92\% | 0 | 75\% | Highest Quintile |

Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort


Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort


Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort


Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort


Kentucky School Districts sorted by Quintiles of the Percent of Low-Income (i.e., free / reduced price lunch) Students in the 2013-14 ACGR Cohort

|  |
| :--- | :--- | :--- |

Note. $\dagger=$ Data were not reported. Percent of Low-Income Students in the 2013-14 Cohort $(\%)=$ the number of low-income students divided by the total cohort size within each district. Estimated Non-Low-Income ACGR (\%) = the estimated graduates from all students minus low-income graduates divided by the estimated total cohort of all students minus low-income within the district's cohort. Estimated Low-Income Non-Low-Income Gap (Percentage Points) = the gap between the estimated non-low-income and low-income ACGRs in 2013-14.
Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).

## Kentucky Low-Income Quint Summary

Summary of Kentucky School Districts sorted by Quintiles of the Percent of Low-Income Students in the 2013-14 ACGR Cohort

|  |  | Weighted ACGR by Quintile Group (\%) |  |  | Percentage Ranges of Low-Income Students (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quintile Group | Cohort Size by Quintile Group ( N ) | All Students | Low-Income Students | Estimated Non-LowIncome Students | Minimum | Maximum |
| Lowest Quintile | 18,535 | 90.6\% | 84.7\% | 94.1\% | 10.0\% | 46.5\% |
| Second Lowest Quintile | 14,977 | 85.9\% | 83.4\% | 88.6\% | 46.8\% | 55.1\% |
| Middle Quintile | 5,679 | 91.3\% | 88.6\% | 95.4\% | 55.1\% | 66.1\% |
| Second Highest Quintile | 5,388 | 88.4\% | 86.7\% | 92.3\% | 66.1\% | 73.4\% |
| Highest Quintile | 2,776 | 89.2\% | 88.3\% | 92.5\% | 73.5\% | 88.0\% |
| Totals | 47,355 | 87.5\% | 84.0\% | 91.2\% | 10.0\% | 88.0\% |

Summary of Minnesota School Districts sorted by Quintiles of the Percent of Low-Income Students in the 2013-14 ACGR Cohort

| Quintile Group | Cohort Size by Quintile Group ( N ) | Weighted ACGR by Quintile Group (\%) |  |  | Percentage Ranges of Low-Income Students (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | All Students | Low-Income Students | Estimated Non-LowIncome Students | Minimum | Maximum |
| Lowest Quintile | 32,487 | 90.0\% | 75.9\% | 92.6\% | 4.4\% | 31.4\% |
| Second Lowest Quintile | 13,362 | 84.6\% | 73.7\% | 90.4\% | 31.8\% | 40.0\% |
| Middle Quintile | 9,310 | 72.9\% | 61.9\% | 82.3\% | 40.1\% | 51.6\% |
| Second Highest Quintile | 5,467 | 57.1\% | 49.9\% | 68.8\% | 51.7\% | 69.6\% |
| Highest Quintile | 4,404 | 65.2\% | 61.2\% | 81.2\% | 69.9\% | 100.0\% |
| Totals | 65,030 | 81.2\% | 65.9\% | 89.5\% | 4.4\% | 100.0\% |

Summary of New Mexico School Districts sorted by Quintiles of the Percent of Low-Income Students in the 2013-14 ACGR Cohort

| Quintile Group | Cohort Size by Quintile Group ( N ) | Weighted ACGR by Quintile Group (\%) |  |  | Percentage Ranges of Low-Income Students (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | All Students | Low-Income Students | Estimated Non-LowIncome Students | Minimum | Maximum |
| Lowest Quintile | 14,955 | 68.9\% | 57.8\% | 74.4\% | 0.4\% | 53.8\% |
| Second Lowest Quintile | 4,347 | 69.1\% | 64.6\% | 75.4\% | 54.0\% | 68.3\% |
| Middle Quintile | 2,441 | 63.0\% | 62.5\% | 65.2\% | 70.4\% | 93.2\% |
| Second Highest Quintile | 1,315 | 71.3\% | 72.5\% | 51.9\% | 94.1\% | 97.8\% |
| Highest Quintile | 1,173 | 77.6\% | 78.8\% | 17.5\% | 97.9\% | 100.0\% |
| Totals | 24,231 | 68.5\% | 62.3\% | 76.6\% | 0.4\% | 100.0\% |

[^7]Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR,
Gap between Low-Income and Non-Low-Income, and Gap Change, by State from 2012-13 to 2013-14

Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR,
Gap between Low-Income and Non-Low-Income, and Gap Change, by State from 2012-13 to 2013-14


[^8]Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR, Gap between Low-Income and Non-LowIncome, and Gap Change, for Kentucky and Surrounding States from 2012-13 to 2013-14


Note. $\dagger=$ Not applicable: Data are not expected to be reported by the SEA for SY2012-13. Estimated Non-Low-Income ACGR (\%) = the estimated graduates from all students minus low-income graduates divided by the estimated total cohort of all students minus low-income within the cohort (i.e., using state level ACGRs). Gap Change Between Non-Low-Income and Low-Income ACGR (Percentage Points), 2013-14 = the gap between the estimated non-low-income and low-income ACGRs from 2012-13 to 2013-14. Therefore, positive values indicate gap closure and negative values indicate gap widening.
Sources: U.S. Department of Education through provisional data file of SY2012-13 District and State Level SY2013-14 Four-Year Regulatory Adjusted Cohort Graduation Rates.

Estimated Non-Low-Income Adjusted Cohort Graduation Rate (ACGR), Low-Income ACGR, Gap between Low-Income and Non-LowIncome, and Gap Change, for Primarily Rural States (i.e., 50 Percent rural or more) from 2012-13 to 2013-14


[^9]Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (ie., 2012-13 \& 2013-14)







分 $\begin{array}{cc}\text { Estim tot car co } \\ 94 \% & 7.2\end{array}$ $197-90 \%$ ACGR for the 2012-13 School Year






Anderson County Ashland Independent Augusta Independent Ballard County Barbourville Bardstown 는 $\begin{array}{ll}2 \\ & \\ 0\end{array}$ Beechwood Independent arden Berea Independent Boone County Bourbon County Independent 글
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0 Calloway County
Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (i.e., 2012-13 \& 2013-14)

Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (i.e., 2012-13 \& 2013-14)
 continued

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Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (i.e., 2012-13 \& 2013-14)


 continued

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| ---: | :--- |
| $75 \%$ |  |
| $92 \%$ |  |
| $92 \%$ |  |
| $98 \%$ |  |
| $74 \%$ |  |
| $92 \%$ |  |
| $92 \%$ |  |
| $98 \%$ |  |
| $92 \%$ |  |
| $98 \%$ |  |
| $92 \%$ |  |
| $95 \%$ |  |
| $92 \%$ |  |
| $85 \%$ |  |
| $90 \%$ |  |
| $90 \%$ |  |
| $87 \%$ |  |
| $87 \%$ |  |
| $87 \%$ |  |
| $87 \%$ |  |
| $82 \%$ |  |
| $98 \%$ |  |
| $87 \%$ |  |
| $92 \%$ |  |
| $85 \%$ |  |
| $92 \%$ |  |
| $95 \%$ |  |
| $87 \%$ |  |
| $87 \%$ |  |






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 Kentucky School for
the Deaf Knott County Knox County

 Lawrence County Lee County Leslie County etcher County Lewis County Lincoln County Livingston County Logan County Ludlow Independent Lyon County Madison County Magoffin County
Marion County Marshall County Martin County
Mason County
Mayfield Independent McCracken County McCreary County McLean County
 ? Menifee County

Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (ie., 2012-13 \& 2013-14) continued
ACGR for the 2013-14 School Year
ACGR for the 2013-14 School Year ACGR for the 2012-13 School Year
89\%

Kentucky Adjusted Cohort Graduation Rate (ACGR) for All, Low-Income, and Estimated Non-Low-Income Students by District and School Year (i.e., 2012-13 \& 2013-14)


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Adjusted Cohort Graduation Rates (ACGR, 2013-14) for All Students Mapped Over School Districts in Kentucky


Note. The numbers displayed inside of the district boundaries represent the 2013-14 ACGR for all students in each school district. The numbers displayed in red are independent school districts.

Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR)

Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income Students Mapped over School Districts in Kentucky


Note. The numbers displayed inside of the district boundaries represent the 2013-14 ACGR for low-income students in each school district. Quartiles indicate that there is an equal number of districts within each quartile range within the state of Kentucky.

Sources: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR). U.S. Census Bureau (2015). American Community Survey,

Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income Students Mapped over School Districts in Kentucky and Surrounding States


Quartiles of Poverty (ages 5-17)
Percentage Ranges


28-36 Percent
37 Percent or More

Note. The numbers displayed inside of the district boundaries represent the 2013-14 ACGR for low-income students in each school district. Quartiles indicate that there is an equal number of districts within each quartile range within the state of Kentucky. The quartile range of poverty (i.e., ages 5-17) was used for the surrounding states. Because other states have varying ranges of poverty compared to Kentucky the first and last range in the key changed slightly (e.g., 0-19 Percent as opposed to 5-19 Percent) from the previous maps.
Sources: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR). U.S. Census Bureau (2015). American Community Survey.

Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income
Students Mapped over School Districts in Western Kentucky


Quartiles of Poverty Percentages from ages 5-17 and Adjusted Cohort Graduation Rate (ACGR, 2013-14) for Low-Income Students Mapped over School Districts within the Bluegrass Region of Kentucky


## THE C.E. \& S. FOUNDATION

The Carol Ann and Ralph V. Haile, Jr. USbank

F O UND ATION
An independent family foundation


JAMES GRAHAM BROWN FOUNDATION

LIVE UNITED
United Way

United Way of Greater Cincinnati

## StrivePartnership


[^0]:    Notes. ACGR Gap between Low-income and Non-Low-Income Students (2013-14) = the estimated non-low-income ACGR minus the ACGR for low-income students; therefore, positive values indicate that the estimated non-low-income ACGR is higher than that of the low-income ACGR per school district. This also means that negative values (e.g., more green colors) indicate that low-income students have a higher ACGR graduation rate than that of the non-low-income students.
    Source: Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).

[^1]:    1 There is not, in many states, strict coincidence between ACGR and AFGR, although in all but 10 states they are close. The trends are the same direction in most states. See the Building a Grad Nation Annual Update 2016 at gradnation.org.

[^2]:    Sources: U.S. Department of Education through provisional data file of SY2012-13 District and State Level SY2013-14 Four-Year Regulatory Adjusted Cohort Graduation Rates, with added Everyone Graduates Center calculation of Estimated Non-Low-Income rates

[^3]:    3 U.S. Department of Education defines "cohort" as: From the beginning of 9th grade, students who are entering that grade for the first time form a "cohort" that is subsequently adjusted as students transfer in and out over the next three years, emigrate to another country, or die.

[^4]:    4 JCPS defines "mobility" as: A comparison of re-entries divided by the 6th day of enrollment (2014-15)...The percentage of students who during the school year have withdrawn from another JCPS schools and enrolled in the JCPS school listed.

[^5]:    Note. The numbers displayed inside of the district boundaries represent the 2013-14 ACGR for low-income students in each school district. Quartiles indicate that there is an equal number of districts within each quartile range within the state of Kentucky.
    Sources: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR). U.S. Census Bureau (2015). American Community Survey.

[^6]:    Note. $\dagger=$ Data were not reported. Percentage of Student Subgroups in the 2013-14 Cohort (\%) = the number of students within that group's cohort size divided by the total cohort size within each district. Estimated Non-Low-Income ACGR $(\%)=$ the estimated graduates from all students minus low-income graduates divided by the estimated total cohort of all students minus low-income within the district's cohort. Estimated Low-Income Non-Low-Income Gap (Percentage Points) = the gap between the estimated non-low-income and low-income ACGRs in 2013-14

    Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).

[^7]:    Notes. Weighted ACGR by Quintile Group (\%) = the total number of graduates (i.e., the graduation rate multiplied by the cohort size) divided by the total cohort size per each quintile group.

    Source: U.S. Department of Education (2015). Provisional data file: SY2013-14 District Level Four-Year Regulatory Adjusted Cohort Graduation Rates (ACGR).

[^8]:    Note. $\dagger=$ Not applicable: Data are not expected to be reported by the SEA for SY2012-13. Estimated Non-Low-Income ACGR (\%) = the estimated graduates from all students minus low-income graduates divided by the Sources: U.S. Department of Education through provisional data file of SY2012-13 District and State Level SY2013-14 Four-Year Regulatory Adjusted Cohort Graduation Rates

[^9]:    Note. $\dagger=$ Not applicable: Data are not expected to be reported by the SEA for SY2012-13. Estimated Non-Low-Income ACGR (\%) = the estimated graduates from all students minus low-income graduates divided by the estimated total cohort of all students minus low-income within the cohort (i.e., using state level ACGRs). Gap Change Between Non-Low-Income and Low-Income ACGR (Percentage Points), 2013-14 = the gap between the estimated non-low-income and low-income ACGRs from 2012-13 to 2013-14. Therefore, positive values indicate gap closure and negative values indicate gap widening.
    Sources: U.S. Department of Education through provisional data file of SY2012-13 District and State Level SY2013-14 Four-Year Regulatory Adjusted Cohort

