CREATING GREAT SCHOOLS FOR WASHINGTON STUDENTS



A REPORT FROM:





education first



INTRODUCTION

In the first <u>Washington Kids for Washington Jobs report, Pathways to Great Jobs in Washington State</u>, the Washington Roundtable partnered with The Boston Consulting Group (BCG) to examine Washington's five-year jobs outlook, shining a spotlight on the jobs that will be available in our state and the pathways our students can take to pursue rewarding careers. That research points to nearly limitless opportunities for students who grow up here and attain the necessary 21st century skills.

According to BCG, there will be 740,000 job openings in our state in the next five years, with job growth that exceeds the state's historic average and is nearly three times that of the nation. Increasingly, Washington students will need a postsecondary credential—such as a technical or industry certification or license, apprenticeship, associate degree, or bachelor's degree—to access the best job opportunities in our state.

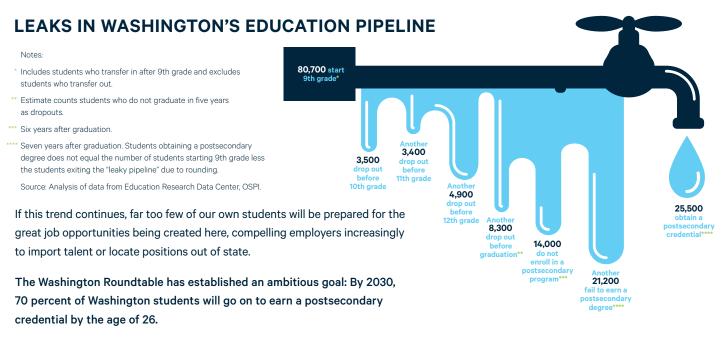
POSTSECONDARY CREDENTIALS DEFINED:

- Technical or Industry Certification or License
- Apprenticeship
- Associate Degree
- Bachelor's Degree

- Nearly three-quarters (73 percent) of "career jobs"—those jobs that have salaries of \$60,000 to \$100,000+ and offer the most opportunities for advancement—will be filled by workers who have a postsecondary credential. Another 18 percent will be filled by workers who have at least some college experience.
- Nearly two-thirds (64 percent) of workers in "pathway jobs"—jobs that have annual salaries near the state median (\$41,000) and offer a route to a career job—will have a credential or some college.
- Nearly half (44 percent) of "entry-level jobs"—with annual salaries ranging from \$20,000 to \$30,000 and limited opportunities for advancement—will be filled by individuals with a credential or some college.

A survey of Washington Roundtable member companies demonstrates a universal preference to hire Washington kids for Washington jobs. We have no doubt other employers across our state feel similarly. To achieve this, far more of the young people growing up in our state will need to graduate from high school and go on to earn a postsecondary credential. Currently, only 31 percent do so. The percentage is smaller for low-income students, some diverse populations, and students with disabilities.

By following a cohort of 9th graders through their high school and postsecondary experiences, we can identify leaks in Washington's skills pipeline. Of the roughly 81,000 students in a typical cohort of public high school students, just over 20,000 drop out before graduation. Another 14,000 fail to enroll in a postsecondary program and 21,200 who do enroll in a postsecondary program fail to complete it. Less than a third (25,500 of the original 81,000) go on to earn a credential within seven years of anticipated high school graduation.







TODAY'S REALITY

of Washington High School Students Go on to Earn a Postsecondary Credential

of Washington Students Earn a Postsecondary Credential By Age 26

OUR GOAL: BY 2030

To achieve this goal, policymakers, the business community, educators, social service agencies, advocates, students, and families must work together in a comprehensive, cradle-to-career approach to help Washington students prepare for rewarding futures. A key step toward reaching this goal is improving the performance of our K-12 system to ensure more students graduate high school career- and college-ready, with an emphasis on raising achievement at low-performing schools and achievement of struggling students attending schools not deemed low performing.

To help define these issues and better understand how to raise student performance, the Washington Roundtable partnered with Education First, a national education policy and strategy firm based in Seattle, and Public Impact, a national education and management firm based in North Carolina, to examine the challenges of low performance among Washington schools and students; identify best practices based on research and experiences in other states; and recommend distinct, actionable strategies for raising achievement for Washington students.

Click to view the research presentation from Education First & Public Impact

THE CHARACTERISTICS OF LOW-PERFORMING SCHOOLS

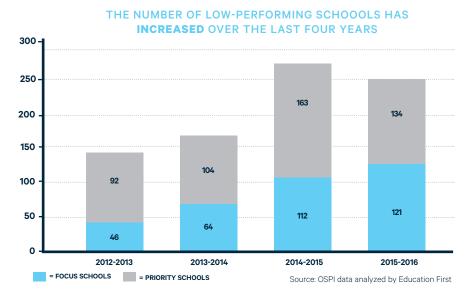
To properly direct resources and enact focused improvement measures for low-performing schools, we must first understand their characteristics. Washington state currently defines two levels of low-performing schools: Priority Schools and Focus Schools. Together, these two categories account for approximately 10 percent of all public elementary, middle, and high schools.

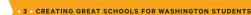
Regardless of which label is applied, Priority Schools and Focus Schools are truly struggling. A school becomes a Priority School if it meets any of the following criteria:

- Ranks in the lowest 5 percent in student performance on state assessments
- Has fewer than 40 percent of all students scoring proficient or better on state assessments
- Has a three-year average graduation rate for all students of less than 60 percent and has at least 20 students in each of nine designated subgroups

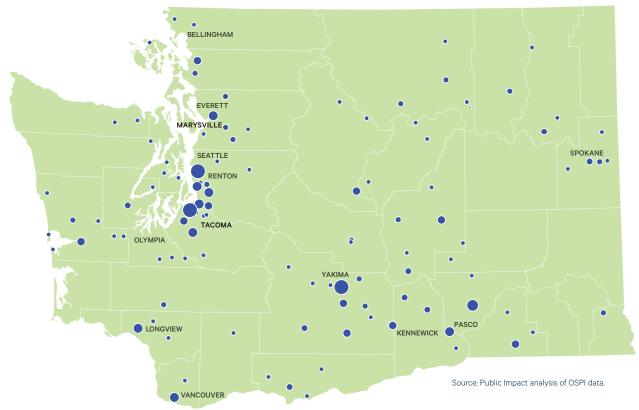
A school is designated as a Focus School if it meets one or more specific criteria, such as consistently graduating fewer than 60 percent of its students, ranking in the lowest 10 percent in overall student performance on state assessments, or having consistently low performance among some demographic groups.

Low performance is a statewide problem. The greatest numbers of low-performing schools are in the state's largest districts. However, more than a third of Washington school districts have at least one low-performing school, and the highest number of low-performing schools, as a percentage of all schools in the district, are in some of the state's small, rural districts.





MORE THAN 1/3 OF WASHINGTON DISTRICTS HAVE AT LEAST ONE LOW-PERFORMING SCHOOL



The size of the circles on the map corresponds with the number of schools designated as low performing in a particular school district. Districts with more low-performing schools have larger circles. In 2015-16, there were 2,323 public schools in Washington.

Student achievement in low-performing schools significantly trails that of students statewide. Only 40 percent of 3rd through 8th graders at low-performing schools scored proficient or better on the state reading assessment in 2015. A third (33 percent) scored proficient or better on the math assessment. By comparison, about half of all 3rd through 8th graders statewide scored proficient or better (56 percent on the reading assessment and 50 percent on the math assessment).

Students in low-performing schools also are less likely to graduate from high school as compared to their peers statewide, with a 51 percent five-year graduation rate at low-performing schools compared to 80 percent statewide. (We use a five-year graduation rate to compare outcomes for low-performing schools versus the state average because the state uses that criterion to identify and monitor Priority and Focus Schools. Generally, the five-year rate is about 2 percentage points higher than the four-year rate.)

IN 2014-15:

METRIC	STATE AVERAGE	LOW-PERFORMING SCHOOLS AVERAGE	LOW-PERFORMING SCHOOLS TRAILED BY:
READING SBAC, GRADES 3-8 MEETING STANDARD	56%	40%	16 POINTS
MATH SBAC, GRADES 3-8 MEETING STANDARD	50%	33%	17 POINTS
GRADUATION 5-YEAR COHORT	80%	51%	29 POINTS

SBAC: Smarter Balanced Assessment Consortium

Source: Public Impact analysis of publicly available data.



WASHINGTON'S POLICY OPTIONS TO IMPROVE LOW-PERFORMING SCHOOLS ARE LIMITED

Currently, Washington offers limited levels of intervention and support for low-performing schools.

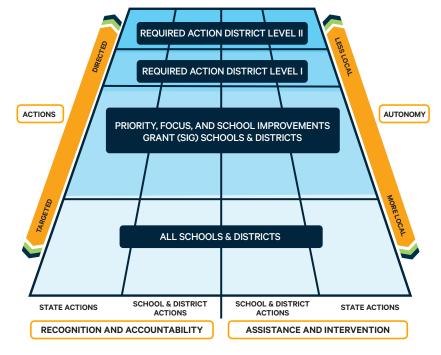
Priority and Focus Schools receive additional support, primarily in the form of professional development, data analysis, and coaching. In the past, the state, through its Office of Superintendent of Public Instruction (OSPI), has directed funding from federal School Improvement Grants (SIG) via a competitive process to help fund improvement strategies at the local level. The nature of a competitive grant process means that many low-performing schools—and the students who attend them—do not receive the benefits of additional resources. Further, struggling students who do not attend low-performing schools do not benefit from these supports.

Under the federal Every Student Succeeds Act (ESSA), adopted in 2015, the SIG program has ended. Now states must identify the lowest 5 percent of schools and direct federal dollars to provide comprehensive support for those schools. Accordingly, with the Fiscal Year 2017 federal appropriation, Washington will be required to set aside 7 percent of its Title I dollars (up from 4 percent under the previous version of the law) and direct funds to schools that the state determines are in need of targeted and comprehensive support. It will be up to the state to determine how it defines such schools and if it will allocate federal dollars by formula or through a competitive grant process. Under ESSA, states and districts can deploy improvement strategies of their choosing, as long as there is evidence to support those strategies.

The state identifies Required Action Districts (RADs) that are home to at least one persistently lowest-performing school. The state defines persistently lowest-performing schools (a subset of Priority Schools) as those with the lowest levels of achievement and rates of improvement for all students on state assessments in reading and mathematics for the last three years.

Under the current system, upon being designated as a RAD, the school district must develop an improvement plan using approved turnaround models and present it for review and approval by OSPI. The district is then responsible for implementing the approved plan. If that approach fails to produce positive results in three years, the district may be designated as a RAD Level II, which moves authority and responsibility for designing and implementing the improvement plan from the district to OSPI.





The RAD program may hold potential, but its effect has been limited by its size. A district with only one persistently lowest-performing school may be designated a RAD. However, only four school districts were identified as RADs in the 2011-12 and 2014-15 cohorts. Many more districts had schools identified as persistently lowest performing and therefore could have been designated as a RAD.

The results of efforts to improve low-performing schools in Washington are decidedly mixed. Fifty-seven schools have improved enough to move out of Priority or Focus School status since the 2012-13 school year. However, the total number of schools in those categories has increased over that same period, and performance declined in 17 schools.

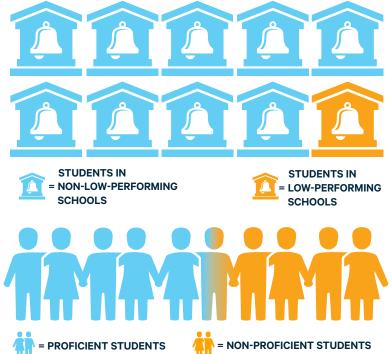


THE CHALLENGES OF LOW PERFORMANCE EXTEND BEYOND LOW-PERFORMING SCHOOLS

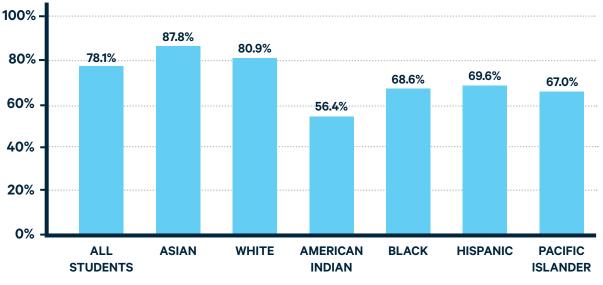
Of the approximately 1 million K-12 public school students in Washington, just under 100,000 students (or 10 percent of the total student population) attend schools designated as low performing. Not all of those students are struggling. Conversely, not all struggling students attend low-performing schools.

Statewide, nearly half of 3rd through 8th graders who took the Smarter Balanced assessment in 2015 scored below proficient (or below standard). Approximately 200,000 students did not meet standard in English language arts, and more than 225,000 were below proficient in math. Of those who were below proficient, approximately 98,000 students scored Level 1 (the lowest level) in English language arts, and about 107,000 scored Level 1 in math. Given these high numbers, it is clear that many struggling students attend schools that may be classified as high or moderately performing.

Another measure of the challenges facing Washington students can be found in the persistent achievement gap



between white and Asian students and their African-American, Hispanic, and Native American peers. While graduation rates for white and Asian students remain above 80 percent, graduation rates for other ethnicities don't reach 70 percent, and the graduation rate for Native American students is below 60 percent.



WASHINGTON'S 4-YEAR GRADUATION RATE BY STUDENT GROUP

Source: OSPI "Graduation and Dropout Statistics Annual Report," March 2016.

The adjusted 4-year cohort graduation rate is calculated using the group of students identified as entering 9th grade for the first time in 2011-12 and reported as graduates by the end of 2014-15.



FOUR STEPS TO MEANINGFUL IMPROVEMENTS IN STUDENT PERFORMANCE

Based on a review of available research about what is working in other states by Education First and Public Impact, the Washington Roundtable has identified four focus areas where our state must make progress in order to raise achievement at low-performing schools and of struggling students.





IMPROVE K-12 FINANCING

Perhaps the biggest issue facing Washington's policymakers is how to ensure that state dollars for public education will lead to improved student and school performance. Today, school funding in our state is focused on paying for inputs (teachers, materials, supplies, etc.) rather than the needs of the students at a school. By contrast, other states have had success employing strategies that target funding to students who have the greatest needs.

STRATEGY FOR WASHINGTON:

ALLOCATE STATE FUNDS BASED ON STUDENT NEED. Washington's "prototypical schools" funding model attempts to project the number of adults required in a building, and allocates money accordingly. Districts spend state-provided funds largely at their own discretion and as required by local collectively bargained contracts. The state provides dollars based on a formula that isn't grounded in the reality of district spending or student need.

In contrast, a truly student-based budgeting system would establish a per-pupil level of base funding, which would be adjusted upward for students who have greater needs, such as students from low-income households and students who are English language learners. These dollars would follow students to the schools they attend as they move through their academic careers.

By driving additional resources to students with greater needs, this easy-to-understand system can improve equity and outcomes. This model also provides sustained resources for schools with greater concentrations of struggling students, thus ensuring that high-need schools have the dollars to pay for recurring costs with recurring funds.

BENEFITS OF STUDENT-BASED BUDGETING

EQUITABLE	\swarrow Students with same needs generate same funding \checkmark Students with different needs generate different funding	
EFFICIENT	Funding targets student needs, minimizing waste	
FLEXIBLE	 School funding changes as needs of students enrolled change Funding not tied to school structures or program, creating space for innovation 	
TRANSPARENT	Formula makes clear how much funding each school and student should receive	

SNAPSHOTS OF STUDENT-BASED BUDGETING EFFORTS

- Baltimore, MD: Central office administration was reduced as a result of student-based budgeting, freeing up \$160 million to be used in classrooms.
- Hartford, CT: Principals reported that student-based budgeting helped them use resources more strategically.
- San Francisco, CA: Student-based budgeting cited as one element of a comprehensive school reform package that produced six years of improvements in student performance.





ENHANCE SUPPORTS & ACCOUNTABILITY

Low-performing schools and the challenges they face vary greatly. Too often the same schools languish among the state's bottom performers year after year. Options for support and interventions in our state are limited, and it can be difficult to assess whether turnaround efforts are working. Policymakers must be able to identify low-performing schools, know where struggling students are, and utilize a robust accountability system to target resources and encourage development of new engagement strategies to improve outcomes.

STRATEGIES FOR WASHINGTON:

IDENTIFY AND ILLUMINATE LOW PERFORMANCE. Washington has a strong assessment system. It also has criteria to identify the lowest-performing schools (i.e., Priority and Focus Schools). However, these ratings do not consistently result in significant action in the schools judged to be at the low end of performance. Washington needs a system that not only identifies low-performing schools, but also uses data to drive demand for change.

STRENGTHEN SUPPORTS. School support and intervention strategies in Washington are limited relative to the strategies that are available to policymakers and education leaders in other areas. Our state should create a menu of options that can be tailored to the needs of local schools identified as low performing and develop a system for matching these options to the specific needs of individual schools and the students in them. This could include the creation of innovation zones inside low-performing districts to give districts more flexibility to intervene as they see fit, expansion of the RAD designation to include more districts that have concentrations of low-performing schools, placing low-performing schools under indirect or direct state management, or converting the lowest-performing schools into charter schools.

MONITOR PROGRESS. Progress must be consistently and accurately measured and reported, with appropriate adjustments in educational strategies made along the way. The state should set a clear, measurable, multi-year goal for decreasing the number of students in low-performing schools and the number of struggling students in other schools. The state should collect evidence of successful strategies as well as unsuccessful ones and use the data to inform development of future strategies.

CREATE REAL CONSEQUENCES. State education policies must strike a delicate balance, providing encouragement, resources, and other supports to help local educators serve struggling students and low-performing schools, while setting clear expectations for results. The state should set clear timelines with concrete consequences. If the performance trajectory of a low-performing school remains positive, schools should be granted increasing autonomy in accordance with an approved improvement plan. If performance remains persistently low, increasingly intensive interventions, up to and including a loss of local school autonomy, should be available.

DENVER'S SCHOOL PERFORMANCE FRAMEWORK

DENVER PUBLIC SCHOOLS RECOGNIZE THAT SOMETIMES A NEW START IS NEEDED TO HELP A PERSISTENTLY LOW-PERFORMING SCHOOL.

Denver adopted a school performance framework to help identify and prioritize high-need schools. Incorporating both academic and non-academic metrics, the findings are reviewed by the school district, whose ratings dictate the types and intensity of support to be provided. High-need schools can apply to become "innovation schools" by submitting a plan to the school board that identifies specific improvement goals and the waivers that will be necessary to meet those goals. Waivers have provided charter school-like autonomy to these schools, including human resource policies (staffing, evaluation, compensation, and licensure), adjustments to the school calendar, and curriculum changes.

If interventions fail to produce results, the district has shown a willingness to close, replace, and consolidate low-performing schools. There are clear guidelines for which of these major strategies should be pursued. Since 2005, 48 of the city's lower-performing schools have been phased out, consolidated, or replaced with public charter schools. Overall district performance has improved during this period, in part because of the willingness of the district to get those students into environments that have a greater chance of meeting their needs.







THE TENNESSEE ACHIEVEMENT SCHOOL DISTRICT

TENNESSEE DIRECTLY ASSUMES RESPONSIBILITY FOR IMPROVING PERFORMANCE IN STRUGGLING SCHOOLS

Tennessee operates an Achievement School District (ASD), which focuses on turning around the lowest-performing schools across the state. When a school is placed in the ASD, the school building and funding are transferred to the ASD. The state can either directly run the school or find a qualified charter operator through a competitive process to take over the school and operate it under state supervision.

Between 2012 and 2015, ASD schools overall improved in math and science proficiency, and several earned top honors statewide for growth in student achievement. Teachers, parents, and students are reportedly pleased with the results and the ASD model. Seventy-five percent of ASD teachers surveyed say they plan to stay at their schools (versus 55 percent statewide); 83 percent of ASD parents report being satisfied; and 83 percent of students report experiencing a positive culture in school.

CLICK TO LEARN MORE





DOING WHAT IT TAKES IN MASSACHUSETTS

MASSACHUSETTS REFUSES TO ACCEPT PERSISTENT LOW PERFORMANCE IN ITS SCHOOLS.

In Massachusetts, districts with chronically under-performing schools that haven't improved over many years can be placed under state supervision and become "receivership" districts. The state also has authority to assume supervision of low-performing schools.

The responsibility to run the district is vested in a receiver appointed by the state. The receiver develops a three-year turnaround plan with specific improvement goals and has autonomy over budgets, staffing, and operations to implement the turnaround plan. The receiver reports progress against the plan's goals every quarter, and the state's education commissioner reviews progress and reassesses the goals of the plan annually.

In 2011, the Lawrence school district became the first receivership district in Massachusetts. While it remains in receivership, the district has made enough improvement in graduation rates and in students' reading and math scores that it is no longer in the bottom 10 percent of districts statewide. Two other districts—Holyoke and Southbridge are also in receivership. Holyoke was put into this category in April 2015 and Southbridge in January 2016.

CLICK TO LEARN MORE





INCREASE ACCESS TO EDUCATOR TALENT

Studies consistently find that, when taught by excellent teachers, students who begin behind their peers can fully close that gap, and students who begin at grade level can leap ahead and compete with their most advantaged peers. However, many existing teacher assignment policies in Washington's K-12 system have the unfortunate consequence of virtually ensuring that students in the lowest-performing schools, and among historically underserved student populations, have the least-experienced teachers and leaders. The state also hasn't ensured that there are enough excellent school leaders trained to drive successful turnaround efforts in Washington's lowest-performing schools.

STRATEGIES FOR WASHINGTON:

GROW THE PIPELINE OF GREAT TEACHERS AND LEADERS FOR LOW-PERFORMING SCHOOLS. The state should

work to increase the supply of excellent teachers and broaden their impact by attracting and retaining more high-caliber candidates, providing incentives for excellent teachers to serve in leadership roles and help their peers improve, and expanding their reach to serve more students.

Further, the state should establish a means by which to identify and develop school turnaround leaders; remove policy barriers to designing leader certification, compensation, and career paths to attract and keep great leaders; and, through student-based budgeting, provide high-need schools with the resources needed to compete for leadership talent.

INCREASE STRUGGLING STUDENTS' ACCESS TO EXCELLENT TEACHERS. The state should collaborate with districts, universities, alternative providers, and stakeholders to better recruit, train, and provide teachers for struggling students. This includes removing barriers in state policy to using compensation, career pathways, and school designs to attract and keep the best teachers. The state should invest in talent programs focused on these strategies. Further, it should track and report the percentage of students (overall, in each district and school, and within subgroups) who have access to excellent teachers.

SYRACUSE OPPORTUNITY CULTURE

The Syracuse, (New York), school district faces many challenges, including a high degree of poverty among the students it serves— 75 percent of Syracuse students qualify for free or reduced lunch—and student proficiency in reading and math that is barely in the double digits. Like many struggling districts, Syracuse faces myriad challenges in ensuring that more of its struggling students are taught by excellent teachers.

The district worked cooperatively with the Syracuse Teachers Association and with teachers and principals in the district's lowest-achieving schools to develop the Syracuse Opportunity Culture program. Launched in 2014, the program represents a "whatever it takes" commitment to creative staffing, scheduling, and budgeting to maximize the number of students benefitting from the best teachers Syracuse has to offer.

The district has created highly attractive "teacher leader" positions in participating schools and designed strategies to maximize the impact of those teacher leaders on student performance. Teachers and principals decide which creative strategies will work best at their school. Possible strategies could include multi-classroom leadership (where teacher leaders work collaboratively with a team of teachers to guide the team to achieve excellent outcomes for students), elementary subject-matter specialization, and increased use of technology in basic skills development.

Four schools out of the 30 in the Syracuse model were included in the first cohort of Opportunity Culture participants. An additional four were added a year later, and now half of the district's 30 schools are planning or implementing Opportunity Culture.

The results are extremely encouraging. The teacher leader positions are highly sought-after, with approximately 10 applicants for each job opening. In addition to the increased professional development opportunities for talented teachers, 75 percent of the educators in the first cohort of participating schools believe that the Opportunity Culture has improved student achievement in their buildings. Syracuse's Opportunity Culture program is part of a nationwide initiative launched by Public Impact, with local implementation supported by Public Impact and Education First.





Achievement gaps can take root long before students enter kindergarten. Data from other states, and here in Washington, demonstrate that high-quality early learning programs can shrink achievement gaps and help students start their K-12 careers on equal footing.

STRATEGY FOR WASHINGTON:

IMPROVE SCHOOL READINESS, WITH AN EMPHASIS ON LOW-INCOME CHILDREN AND TRADITIONALLY

UNDERSERVED STUDENT GROUPS. Washington has a well-earned reputation as a leader in early childhood education. The state should continue to make targeted investments to expand early learning options for low-income children. Focusing on kindergarten readiness is a cost-effective way to ensure students begin their academic careers on an equal playing field, increasing their potential for consistent individual growth, a successful K-12 experience and completion of postsecondary programs.

BENEFITS OF EARLY CHILDHOOD EDUCATION

- NEW JERSEY: Gains from two years of pre-kindergarten closed the achievement gap between minority and white students up to 40 percent.
- OKLAHOMA: 52 percent gain in early literacy and 21 percent gain on pre-math skills assessments.

CONCLUSION

The future is potentially bright for local students, with a record number of job openings in Washington over the next five years. To be competitive for most of those openings, our students must graduate from high school career- and college-ready and go on to earn postsecondary credentials that demonstrate a higher skill level than previous generations may have needed to succeed. Ensuring our young people are prepared to earn those credentials should be a top priority for educators, public officials, and business and community leaders.

The strategies outlined in this report—improving education finance, enhancing accountability, increasing access to excellent teachers and principals, and closing achievement gaps early—are essential to improving the performance of our state's K-12 system. They are critical components in a cradle-to-career approach to raising student achievement and preparing Washington kids for emerging job opportunities in their home state.

Achieving the Roundtable's 2030 goal of having 70 percent of high school students go on to attain a postsecondary credential by age 26 will have substantial benefits. In a class of 81,000 students, 70 percent postsecondary attainment means 31,000 more students will acquire a credential. Each will earn nearly \$1 million more over his or her lifetime. Their success will reduce unemployment by a third and cut poverty by nearly half, saving our state billions of dollars a year in social spending.

Reaching this goal will take an extensive, coordinated, multi-year effort. It starts with plugging existing leaks in the skills pipeline, turning around low-performing schools, and improving outcomes for struggling students no matter what school they attend. And it must start now.

CRADLE-TO-CAREER APPROACH

- Improve school readiness, with an emphasis on low-income students and traditionally underserved student groups.
- Improve the performance of our K-12 system to ensure more high school students graduate career- and college-ready, with an emphasis on raising achievement at low-performing schools and among struggling students.
- Increase participation of Washington students in postsecondary education, with a focus on delivering degrees, certificates, and other credentials in fields that will be in the highest demand, not just in the next five years, but for the next two decades and beyond.
- Help students, beginning in elementary school, develop better awareness of the careers that will be available, inspiring them to think about their futures, the skills necessary for the jobs that interest them, and the pathways to attaining those skills.



METHODOLOGY

The major analytical focus of this study included an examination of the characteristics of Washington's low-performing schools, the criteria the state uses to identify them, and the characteristics of students who struggle to reach proficiency in our K-12 system. As part of this analysis, Education First and Public Impact examined publicly available data, including state and national research, as well as case studies of successful school and student support and intervention efforts across the nation. A slide presentation containing research findings that serve as the foundation of this report is available at <u>waroundtable.com</u>.

MAJOR SOURCES USED IN DEVELOPMENT OF THIS REPORT:

- Ableidinger, J. & Kowal, J. (2010). "Shooting for the stars: Cross-sector lessons for retaining high-performing educators." Public Impact.
- Barnett, W.S. et al. (2013). Abbott Preschool Program Longitudinal Effects Study: Fifth Grade Follow-Up.
- Chambers, J. et al. (2009). "A Tale of Two Districts: A Comparative Study of Student-Based Funding and Student-Based Decision Making in San Francisco and Oakland Unified School Districts." *American Institutes for Research*.
- Chetty, R., Friedman, J., & Rockoff, J. (2014). "Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood." American Economic Review.
- Dee, T. & Wyckoff, J. (2013). "Incentives, selection, and teacher performance: Evidence from IMPACT." National Bureau of Economic Research.
- Denver Preschool Program. (2014). Second Longitudinal Analysis.
- Furtick, K. & Snell, L. (2013). "Weighted Student Formula Yearbook: Best Practices." Reason.org.
- Goldhaber, D. (2016). "In schools, teacher quality matters most." Education Next.
- Gormley, Jr., W. (2013). "Oklahoma's Universal Preschool Program: Better than OK." Georgetown Public Policy Review.
- Hanushek, E. & Rivkin, S. (2010). "Generalizations about using value-added measures of teacher quality." American Economic Review: Papers & Proceedings.
- Heckman, J. (n.d.). "Invest in Early Childhood Education: Reduce Deficits, Strengthen the Economy."
- Karoly, L.A., Kilburn, M. and Cannon, J. (2005). "Proven Benefits of Early Childhood Interventions." RAND Corporation.
- Levin, J. et al. (2013). "Evaluation of Hawaii's Weighted Student Formula." American Institutes for Research.
- McKinsey & Company. (2010). "Closing the gap: Attracting and retaining top third graduates to a career in teaching."
- National Governor's Association. (2007). "Improving teaching through pay for contribution."
- Public Impact. (2010). "School Restructuring: What Works When." American Institutes for Research.
- Public Impact. (2011). "Student-Based Budgeting: Revamping school funding in Washington to improve performance." Partnership for Learning.
- Public Impact. Opportunity Culture Dashboard.
- The New Teacher Project. (2012). "The Irreplaceables: Understanding the real retention crisis in America's urban schools."
- Vigdor, J. (2008). "Scrap the sacrosanct salary schedule." Education Next.
- Yoshikawa, H. et al. (2013). "Investing in Our Future: The Evidence Base on Preschool Education." Society for Research in Child Development and Foundation for Child Development.



ABOUT THE WASHINGTON ROUNDTABLE

The Washington Roundtable is a nonprofit organization composed of senior executives of major private sector employers in Washington state. Our members work together to effect positive change on public policy issues that they believe are most important to supporting state economic vitality and fostering opportunity for all Washingtonians. For more information, visit <u>waroundtable.com</u>.

ABOUT PARTNERSHIP FOR LEARNING

Partnership for Learning, the education foundation of the Washington Roundtable, is a statewide nonprofit organization that communicates the need for all Washington's students to graduate from high school ready for career and college. As a trusted source of information, Partnership for Learning makes complex education issues accessible. For more information, visit <u>partnership4learning.org</u>.

ABOUT EDUCATION FIRST

Founded in 2006, Education First is a national, mission-driven education strategy, policy, and implementation support organization. Education First works closely with education leaders, policymakers, funders, advocates, and practitioners in states and school districts to design and accelerate policies and plans that support strong systems, outstanding educators, engaged students, and effective investments to help ensure that every student educated in the United States, regardless of race or income, will be prepared for success in college, career and life. For more information, visit <u>education-first.com</u>.

ABOUT PUBLIC IMPACT

Public Impact's mission is to dramatically improve learning outcomes for all children in the United States, with a special focus on students who are not served well. Public Impact's work is designed to contribute to powerful improvements in the quality of education and related policy supports in the United States. We are a team of professionals from many backgrounds, including former teachers. We are researchers, thought leaders, policy experts, tool-builders, and on-the-ground consultants who work with leading education reformers. For more information, visit publicimpact.com.

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