7 Charts that Change the Education Conversation

ECONorthwest
ECONOMICS • FINANCE • PLANNING

Introduction

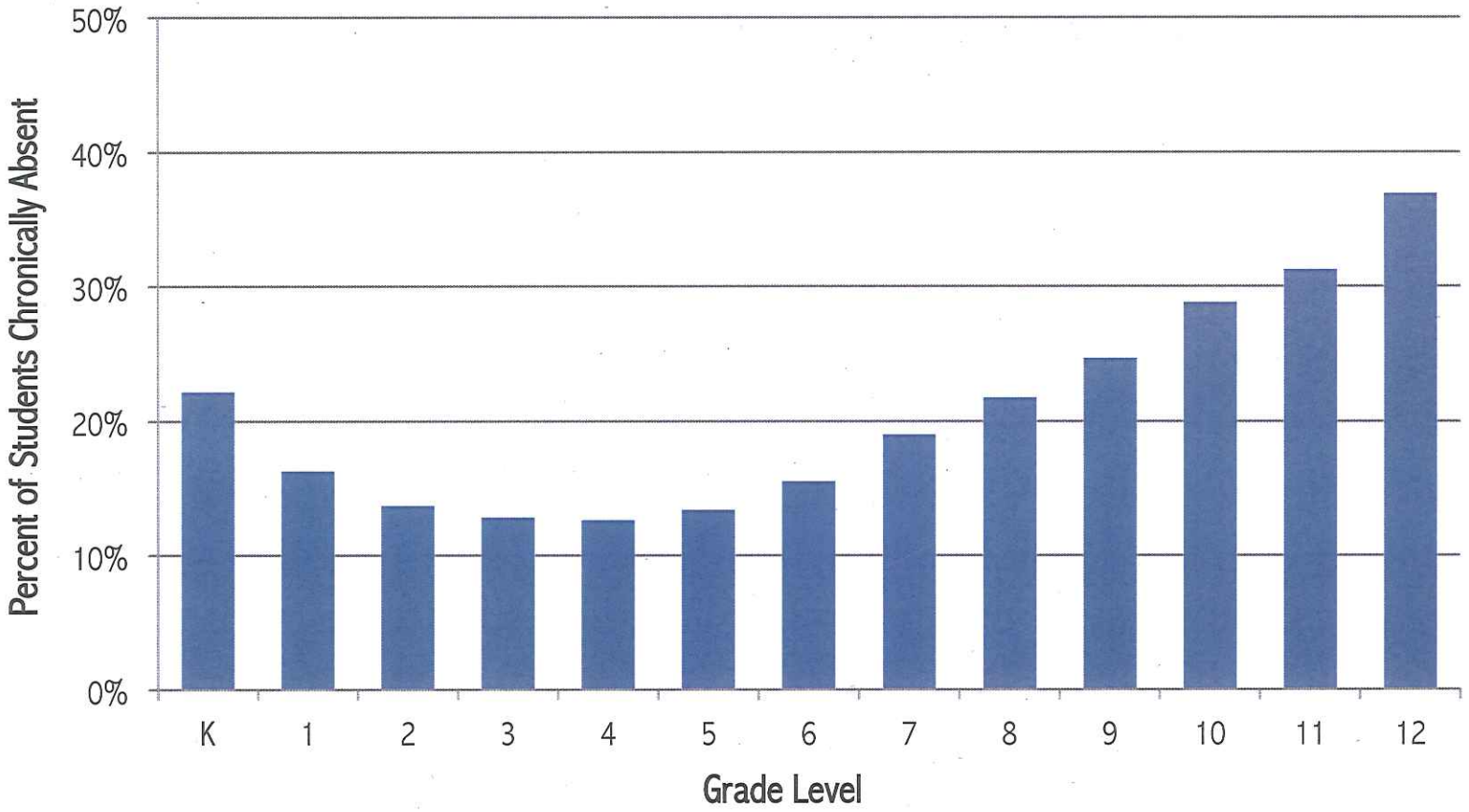
A picture is worth a thousand words, and sometimes that's the case for a good chart. ECONorthwest produces hundreds of charts and analyses every year. Here are seven that have caused policy makers and educators to pause and rethink our strategies and investments for educating the next generation of Oregonians.


concepts
balanced
VERMONT
refined
BUILDING
individual
leaders
REAUTHORIZATION
dashboards
LOCAL
interpret
responses
PIPELINE
outcomes
linkages
PROFILES
longitudinal
reports
READINESS
infrastructure
ANALYSIS
INSTRUCTION
structures
STUDENT
VARIOUS
leveraged
governance
differentiate
interactive
consensus
knowledge
INTEGRATES
PARTNERS
CONTINUOUS
COURAGE
QUALITY
use
staff
information
south
accounts
literacy
massachusetts
indicators
closely
reflect
PRINCIPALS
technology
compare
systematically
economy
records
promising
improve
stakeholders
culture
participate
schoolwide
progress
GREAT
propose
ACCESS
CLASSROOMS
sharing
evidence
success
outside
sustainability
programs
statewide
vision
WYOMING
America
EVALUATE
POSSIBLE
college
policy
education
TIME
test
PAGE
RAISE
priorities
ANALYSES
STATISTICS
legislation
superintendents
series
scores
contributions
support
tailored
ALIGNMENT
collaboration
DECISIONS
preparation
Action
data
strategic
Labor
LEARNING
impact
allocation
MEASURED
stable
accuracy
THANK
track
STUDIES
ENROLLMENT
achievement
transparent
dissemination
EMPOWER
parents
systems
strategies
available
EFFECTIVE
TEACHER
CHANGE
BELIEVES
ENTAILS
legislature
awareness
EFFICIENCY
AGENCY
postsecondary
RESULTS
DATAFORACTION
attendance
environment
communicate
criteria
organizations
initiatives
PROFESSIONAL
prioritization
definition
MANAGEMENT

1 Almost a quarter of Oregon students are chronically absent. The highest absentee rates are in K-1 and high school.

Attendance Works, a national non-profit, has shed light on students who miss too many days of school—in this case, more than 17 days a year. Oregon was the first state in the country capable of producing a statewide analysis of the problem. The finding drew broad media attention and the quick action of the Governor's Office. A few weeks after ECO released the report, the state included the indicator in its newly developed achievement compacts with school districts.

Percentage of Oregon students who were absent more than 10 percent of school days

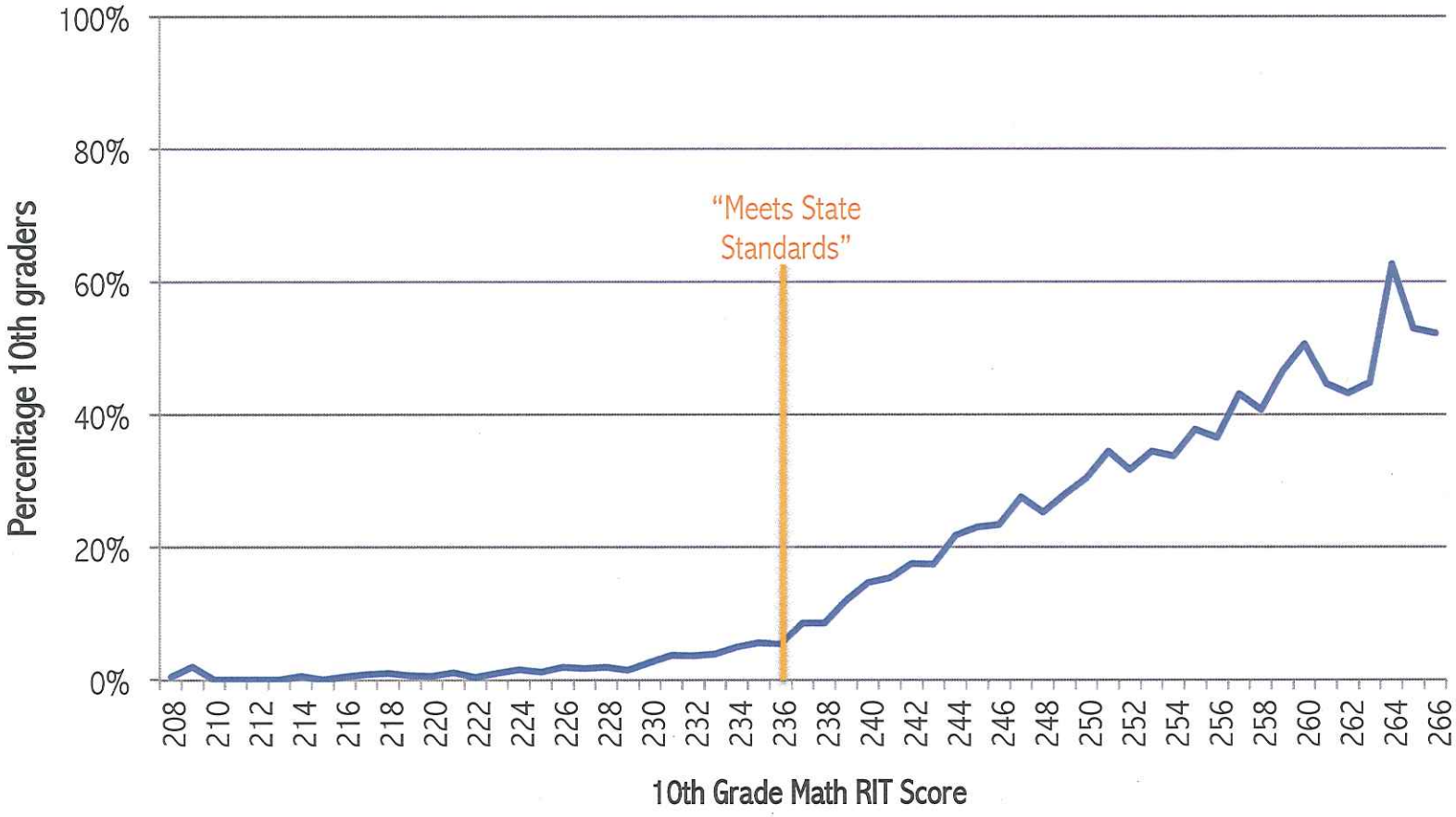


Based on ECONorthwest analysis of ODE data for 2010-11.

2 Oregon's 10th grade math tests predict the timing of college completion.

In Oregon and elsewhere, debates rage about the reliability and purpose of standardized testing. So, do they capture useful information? In Oregon's case, the answer is unequivocally "yes." A student's 10th grade math score is highly correlated with the odds of graduating from a 4-year college within five years. With time to college completion a growing focus, these data illustrate the kinds of gains required to move students to the graduation stage sooner.

Percentage of 10th graders who completed a Bachelor's degree within 5 years of high school graduation, by RIT score

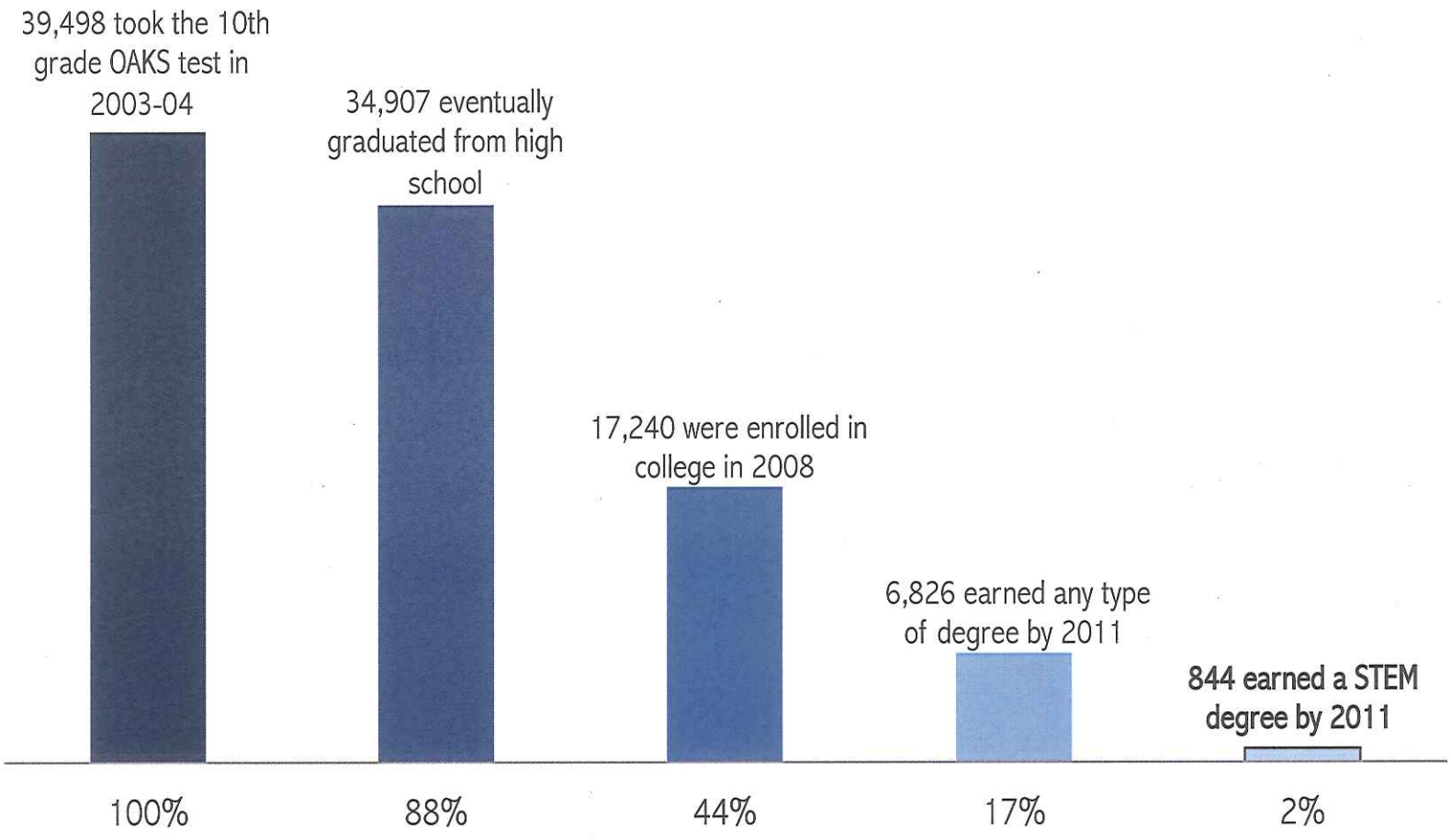


Based on ECONorthwest analysis of ODE data for 2004-05.

3 Only 2% of Oregon's Class of 2006 earned STEM degrees. A skill shortage looms.

Oregon's business executives, lead by tech-giant Intel, have called for a doubling of Oregon graduates with college degrees in Science, Technology, Engineering, and Math (STEM). To underscore the need, they point to an ECONorthwest analysis of the Class of 2006 that shows only 923 students had earned STEM degrees five years after high school. At that rate, Oregon employers will struggle to fill an estimated 40,000 STEM-related job openings during 2010-2020.

Only two percent of the Class of 2006 earned a STEM degree within 5 years of graduation

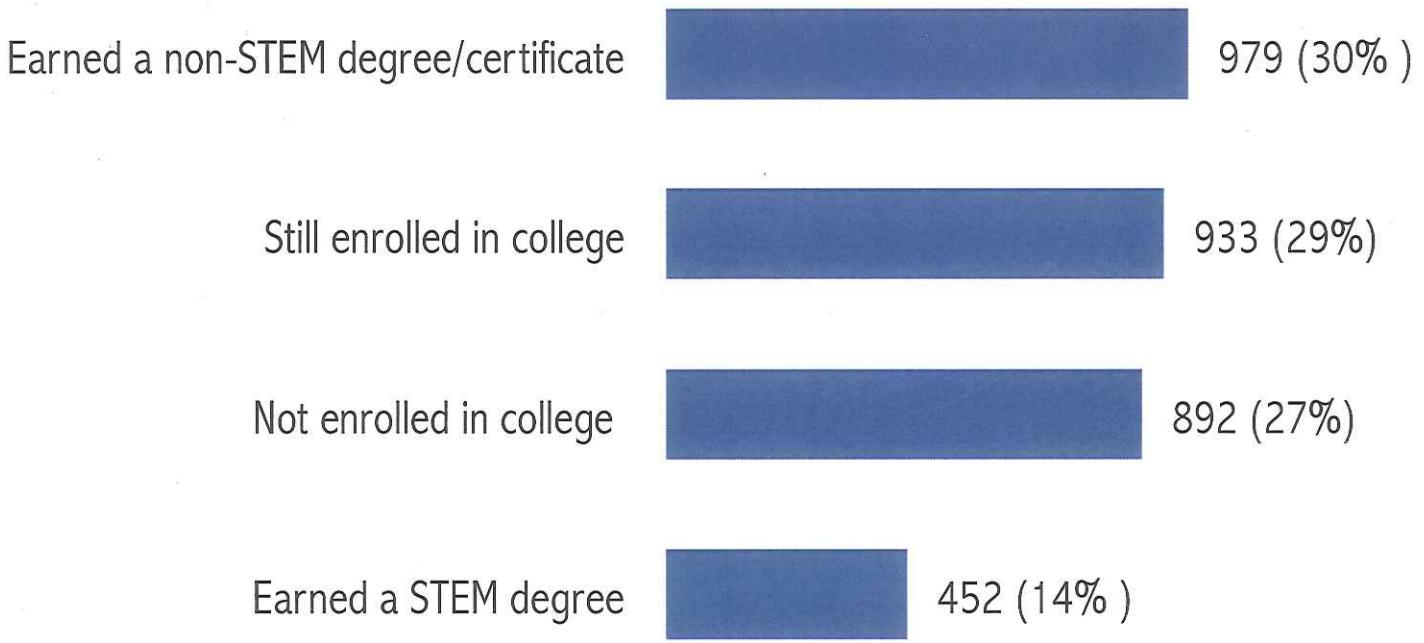


Based on ECONorthwest analysis of ODE data.

4 Too few of Oregon's top math and science students end up with STEM degrees.

Oregon's goal of doubling the number of STEM graduates needs a strategy. And getting more STEM degrees out of the state's top performing math and science students is a place to start. Of the 3,256 benchmark "exceeders" from the Class of 2006, only 14 percent had earned STEM degrees by 2011. Most troubling were the almost 900 "exceeders" who had earned no degree at all and were not enrolled in college. College professors who viewed the chart wondered aloud how many college dropouts were caused by aggressive entry-level math courses with too little support.

Out of 3,256 students in the Class of 2006 scoring a combined 504 or higher on 10th grade math and science tests, 14 percent had earned a STEM degree five years after graduation.

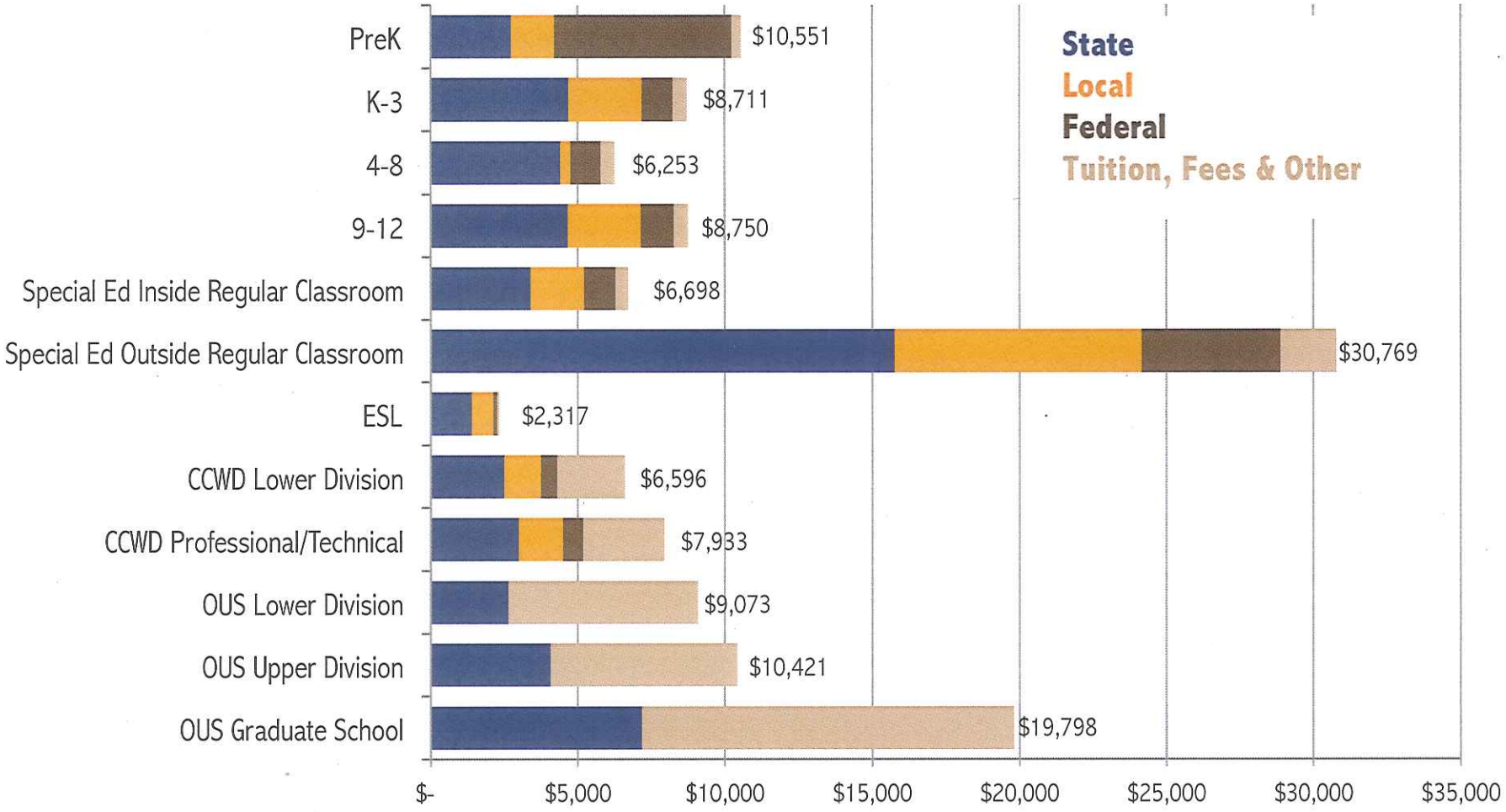


Based on ECONorthwest analysis of ODE data.

5 When it comes to school spending, an average student does not exist.

Policymakers and the press like simplicity, and education debates focus on broad averages measured across students with a diverse set of needs. To support better budgeting, ECONorthwest unpacked per student spending—and its associated revenue sources—across the prekindergarten to college continuum. The analysis provided the Oregon Education Investment Board with a deeper understanding of its level of investment in different students, as well as how much the state is relying on partners—the federal government, local governments, students, and families—to share in the cost of education.

Oregon's spending per student, Pre-K through graduate school

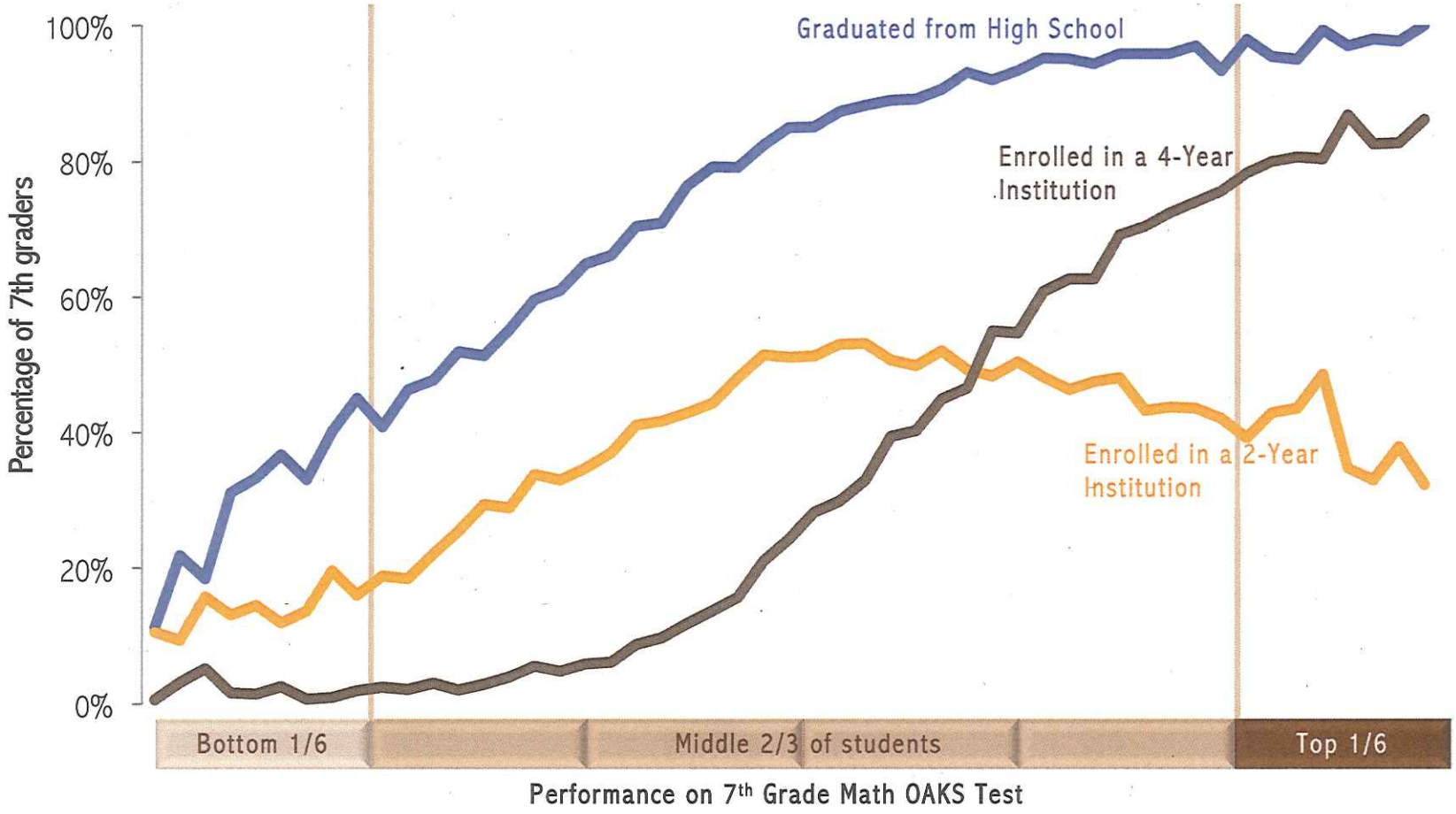


Based on ECONorthwest analysis of 2008-09 ODE, OUS, CCWD and Oregon Pre-Kindergarten data.

6 The educational categories "at risk" and "not at risk" are out-of-date and miss the point. Students at all levels of achievement face a risk that educational progress will stall.

ECONorthwest's analysis of 7th grade achievement, high school graduation, and college enrollment shows it's impossible to draw a clear boundary between "at risk" and "not at risk." The work helped leaders of alternative high schools and mentoring programs understand that each student arrives with a unique set of risk factors that calls for an individualized strategy for success.

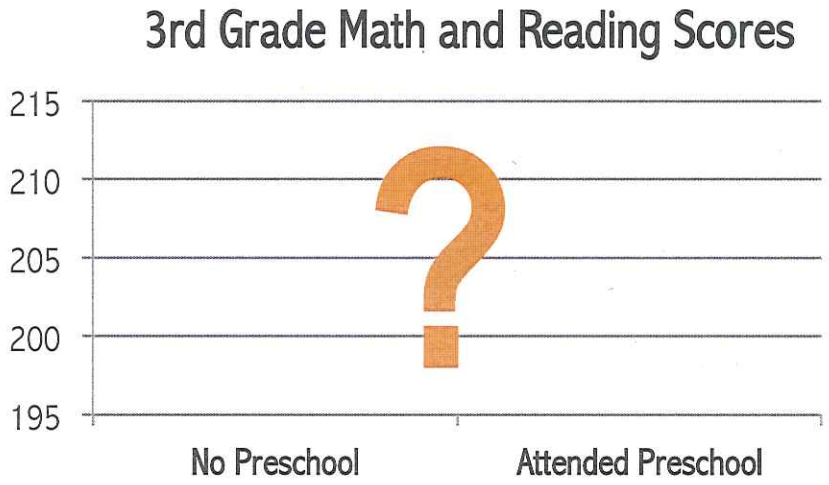
Graduation and postsecondary enrollment outcomes for 7th graders by academic performance



Based on ECONorthwest analysis of 2004-05 ODE data.

7 Despite the strongest evidence base nationwide, early childhood programs in Oregon lack local outcome data to prove their effectiveness.

Oregon has invested in longitudinal data systems to track participation in early childhood education and tie that to K12 student outcomes. As those data are developed, and programs can prove their impact, the case for even larger investments will grow stronger.



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"[With] the right people, the right data, and the right analysis, educational leaders can significantly improve decisions, thereby increasing student achievement."

The Strategic Data Project
Center for Education Policy Research
Harvard University

"Building data systems is easier than changing how people value and use education data. Creating a culture that supports data use for continuous improvement takes policymaker leadership."

Focus on People to Change Data Culture
Data for Action 2012
Data Quality Campaign