VITAL SIGNS

IDAHO

Business leaders in Idaho cannot find the science, technology, engineering and mathematics (STEM) talent they need to stay competitive. Students' lagging performance in K-12 is a critical reason why. The good news is that the nation's most effective STEM education programs can help turn the tide.

Idaho students have made some progress in math over the past decade. Yet not enough students--least of all minorities--get the chance to learn challenging content that prepares them for college and careers. Science does not yet seem to be a priority in Idaho: elementary students spend little time on the subject, and most science teachers say they don't have the resources they need.

IDAHO NEEDS MORE STEM TALENT

STEM fields are growing in Idaho

Between 2017 and 2027:

STEM jobs will grow

20%

Non-STEM jobs will grow

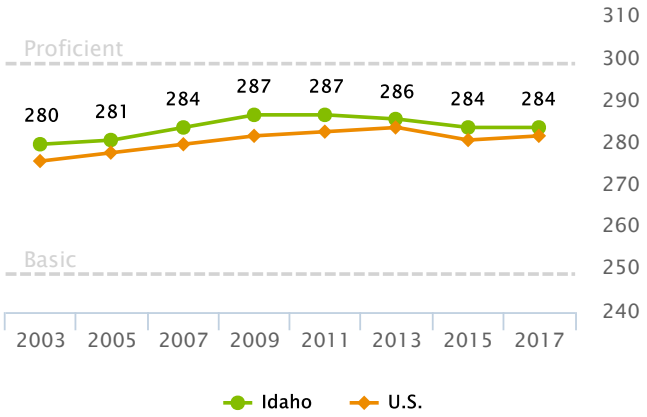
16%

THE IDAHO STEM SKILLS SHORTAGE STARTS EARLY

Progress in math has faltered

Idaho eighth-graders' math scores have fallen since 2009.

Trends in 8th grade math scores, 2003-2017

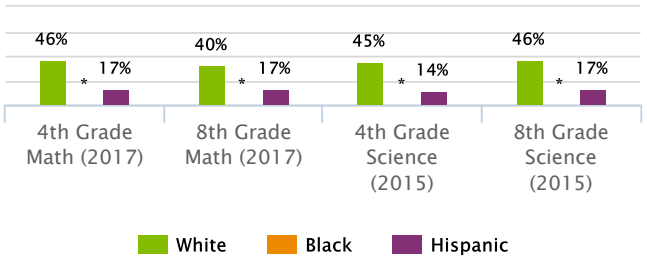


SOURCE: U.S. Department of Education, 2003–2017

Students of color lag farthest behind

Closing achievement gaps must remain a priority.

Percentage of Idaho students at or above proficient, by race/ethnicity



SOURCE: U.S. Department of Education, 2015–2017

*Data not available or reporting requirements not met.

EDUCATION COMMISSION OF THE STATES

For the complete state report, methodology, and sources, see vitalsigns.ecs.org (vitalsigns.ecs.org)

IDAHO

VITAL SIGNS

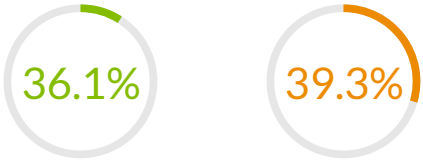
The state must plug the gaps in the STEM pipeline

The Idaho STEM pipeline loses young people at every level of the education system. Low graduation rates from high school and college narrow the pipeline of students who can gain advanced STEM skills. Of those students who do graduate, few get a post-secondary degree in STEM.

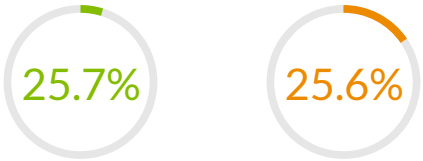
What percentage of high school students graduate? (2014-2015)

Of high school graduates who enter a 4-year degree program, what percentage graduate? (2012-2013)

Of high school graduates who enter a 2-year associate's degrees program, what percentage graduate? (2012-2013)



What percentage of certificates and degrees is in STEM fields? (2014-2015)



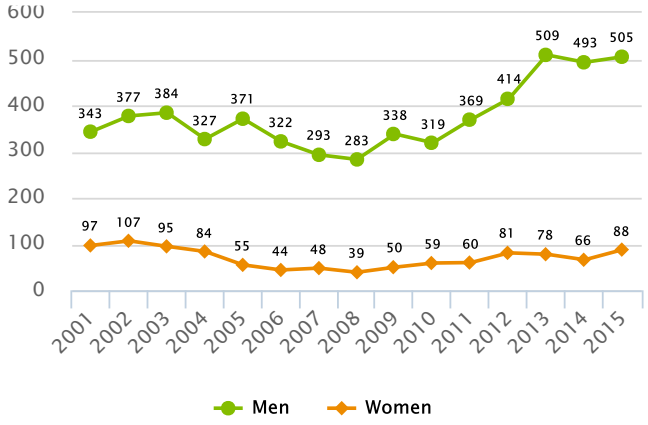
TAP IDAHO'S FEMALE AND MINORITY TALENT

Together, females and minorities make up more than half of Idaho's population, yet they are much less likely to earn STEM degrees or become STEM professionals. Closing these gaps can pay big dividends in the state.

Women have lost ground in computing

The available talent in computer science would rise dramatically if the state simply closed the gender gap in these subjects.

Number of computing degrees/certificates in Idaho

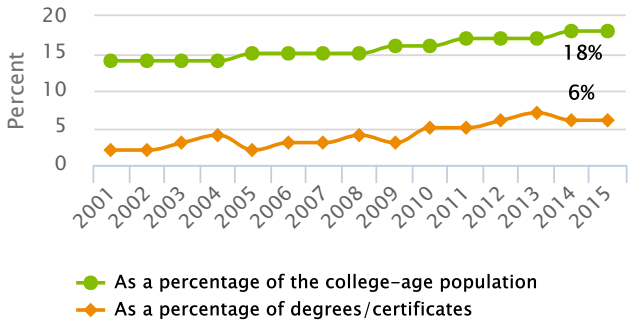


SOURCE: U.S. Department of Education, 2001–2015

People of color are not gaining much ground in engineering

It is critical to prepare and inspire many more students of color to pursue STEM subjects such as computer science and engineering.

Underrepresented minorities in Idaho earning engineering degrees/certificates



SOURCE: U.S. Department of Education, 2001–2015

*Data not available or reporting requirements not met.

EDUCATION COMMISSION OF THE STATES

For the complete state report, methodology, and sources, see vitalsigns.ecs.org (vitalsigns.ecs.org)

IDAHO

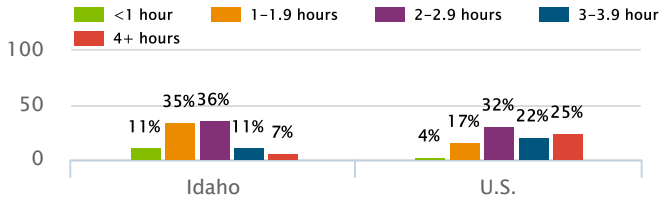
VITAL SIGNS

GIVE IDAHO STUDENTS ACCESS TO BETTER STEM LEARNING OPPORTUNITIES

Lack of access to such opportunities severely limits young people's college and career prospects.

The state should make time for elementary science

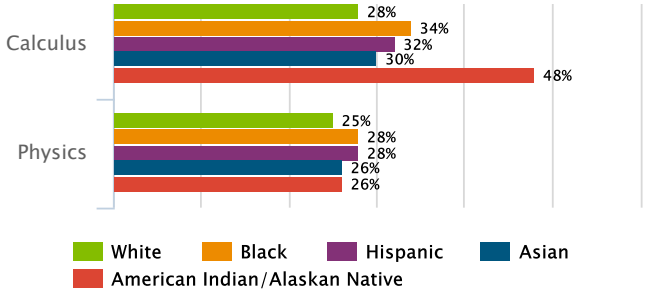
Hours per week spent on science, grades 1-4, 2015



The state should improve access to advanced courses

Many students lack access to such courses.

Students in Idaho high schools that do not offer challenging math and science courses, 2013/14



Success in Advanced Placement courses can put more students on a path to STEM careers.

Of the high school graduating class of 2015 in Idaho:

	Took AP Math Exam	Scored 3+ on AP Math Exam
All Students	7%	4%
White	7%	4%
Black	4%	2%
Hispanic	3%	1%
Asian	21%	15%
American Indian/Alaskan Native	1%	1%

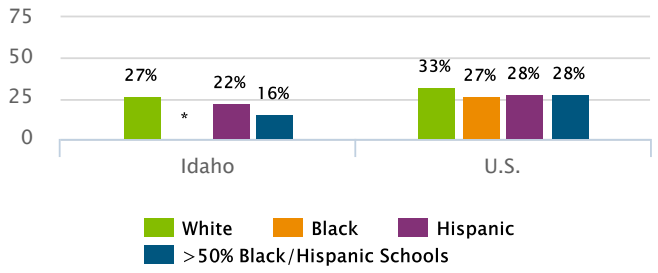
EDUCATION COMMISSION OF THE STATES

DEVELOP AND RETAIN TALENTED STEM TEACHERS IN IDAHO

Research shows that teachers' content knowledge and teaching experience can affect student performance

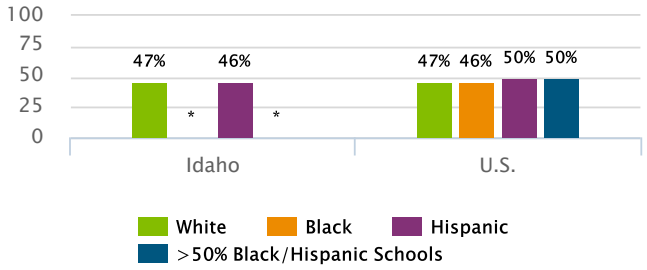
Boost teachers' content knowledge

Eighth-graders whose math teachers have an undergraduate major in math, 2017



SOURCE: U.S. Department of Education 2017

Eighth-graders whose science teachers have an undergraduate major in science, 2015

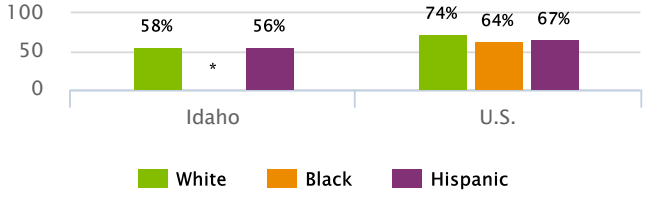


SOURCE: U.S. Department of Education 2015

Retain excellent teachers

Research shows that new teachers are less effective than teachers with three to five years of experience.

Eighth-graders whose math teachers have 6+ years of experience teaching their subject



SOURCE: U.S. Department of Education 2017

*Data not available or reporting requirements not met.

IDAHO

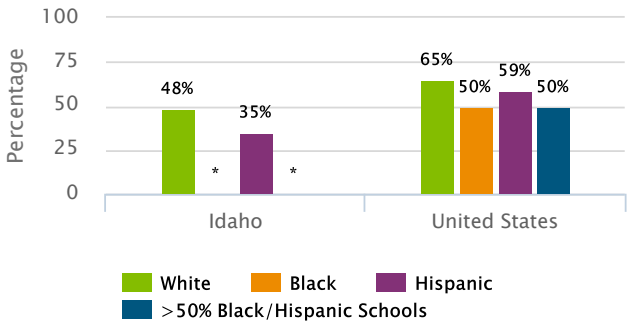
VITAL SIGNS

GIVE IDAHO SCHOOLS AND TEACHERS THE RESOURCES THEY NEED

Teachers in Idaho need better resources, facilities, and teaching materials to succeed.

Too many teachers lack the tools of their trade

Eighth-graders whose science teachers say they have all or most of the resources they need, 2015

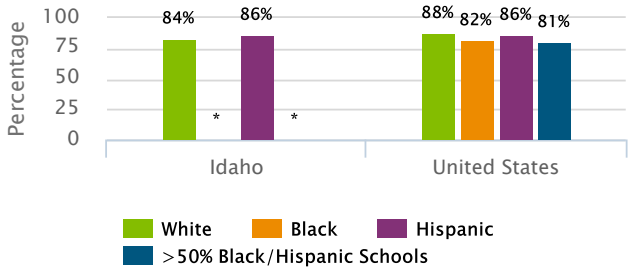


SOURCE: U.S. Department of Education, 2015

*Data not available or reporting requirements not met.

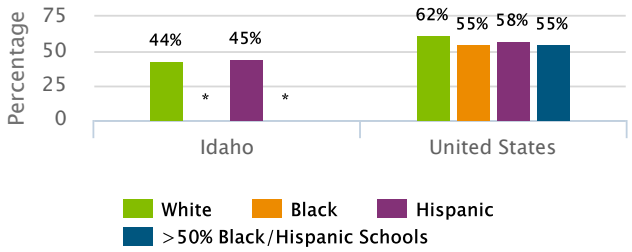
The state should improve access to science facilities and supplies

Eighth-graders whose schools have science labs, 2015



SOURCE: U.S. Department of Education, 2015

Eighth-graders whose schools report that supplies or materials for science labs are available "to a large extent," 2015



SOURCE: U.S. Department of Education, 2015

For the complete state report, methodology, and sources, see vitalsigns.ecs.org (vitalsigns.ecs.org)

Education Commission of the States serves as a partner to state policymakers by providing personalized support and helping education leaders come together and learn from one another. Through our programs and services, policymakers gain the insight and experience needed to create effective education policy.

EDUCATION COMMISSION OF THE STATES

Education Commission of the States, 700 Broadway, Suite 810, Denver, CO 80203, 303.299.3600