An architectural rendering of a modern, multi-story university building. The building features a mix of materials, including light-colored brick, dark grey panels, and large glass windows. A prominent vertical tower on the left side has a yellow bird logo near the top. The foreground shows a paved walkway with people walking, a person on a bicycle, and a few cars. There are trees and landscaping around the building. The sky is a soft, hazy blue.

The Future of Education in Wyoming

Dr. Joe Schaffer, President, LCCC
Leadership Wyoming Challenge Institute
September 25, 2015

Value of Education

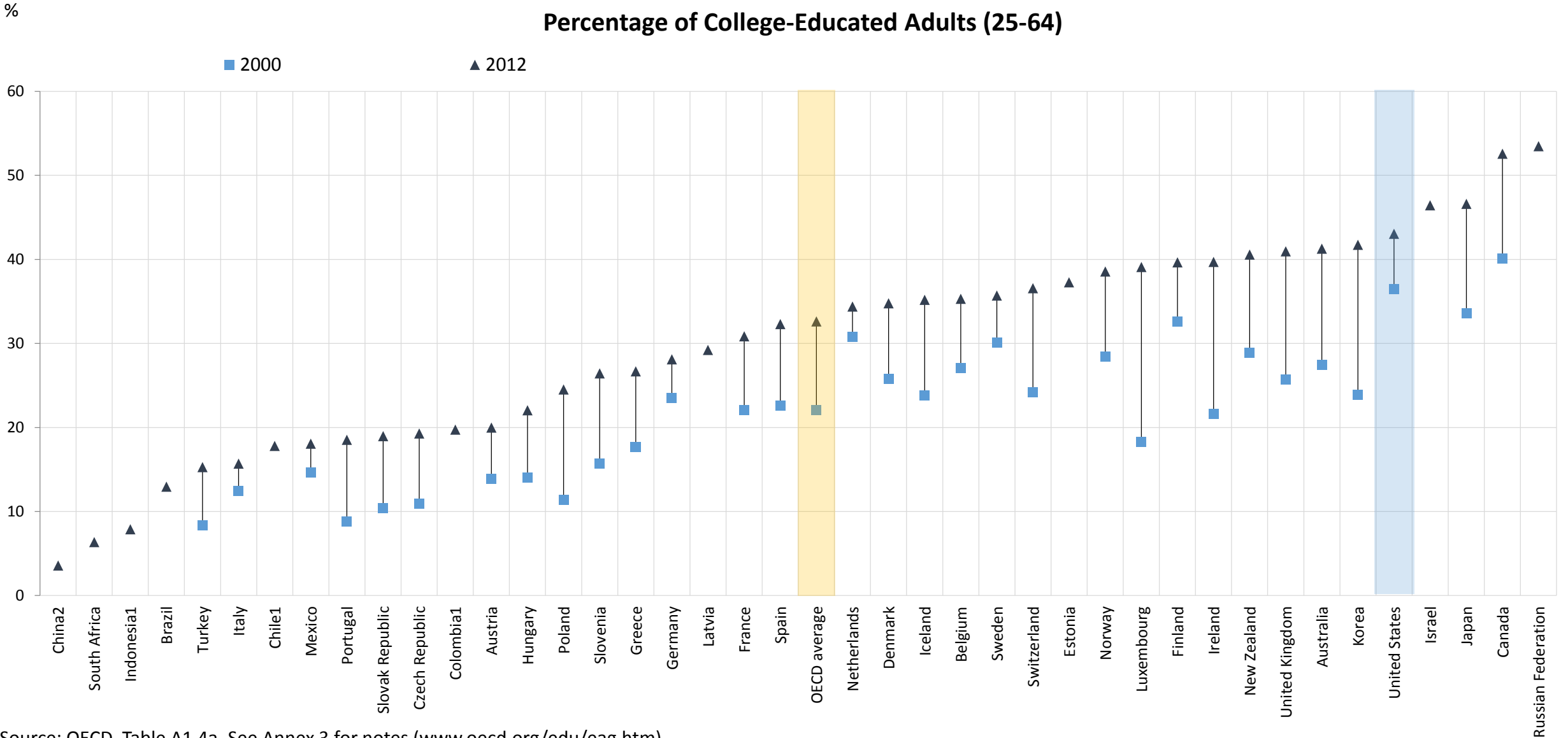
- Higher Earnings
- Lower Unemployment Rates
- Higher Civic Engagement
- Less Reliance on Social Support Programs
- Children's Education Level
- Less Criminal Activity

Question:

Are our expectations for and the realities of education in alignment?

US ranks 5th in the World for percent of our adults age 25-64 with a college education.

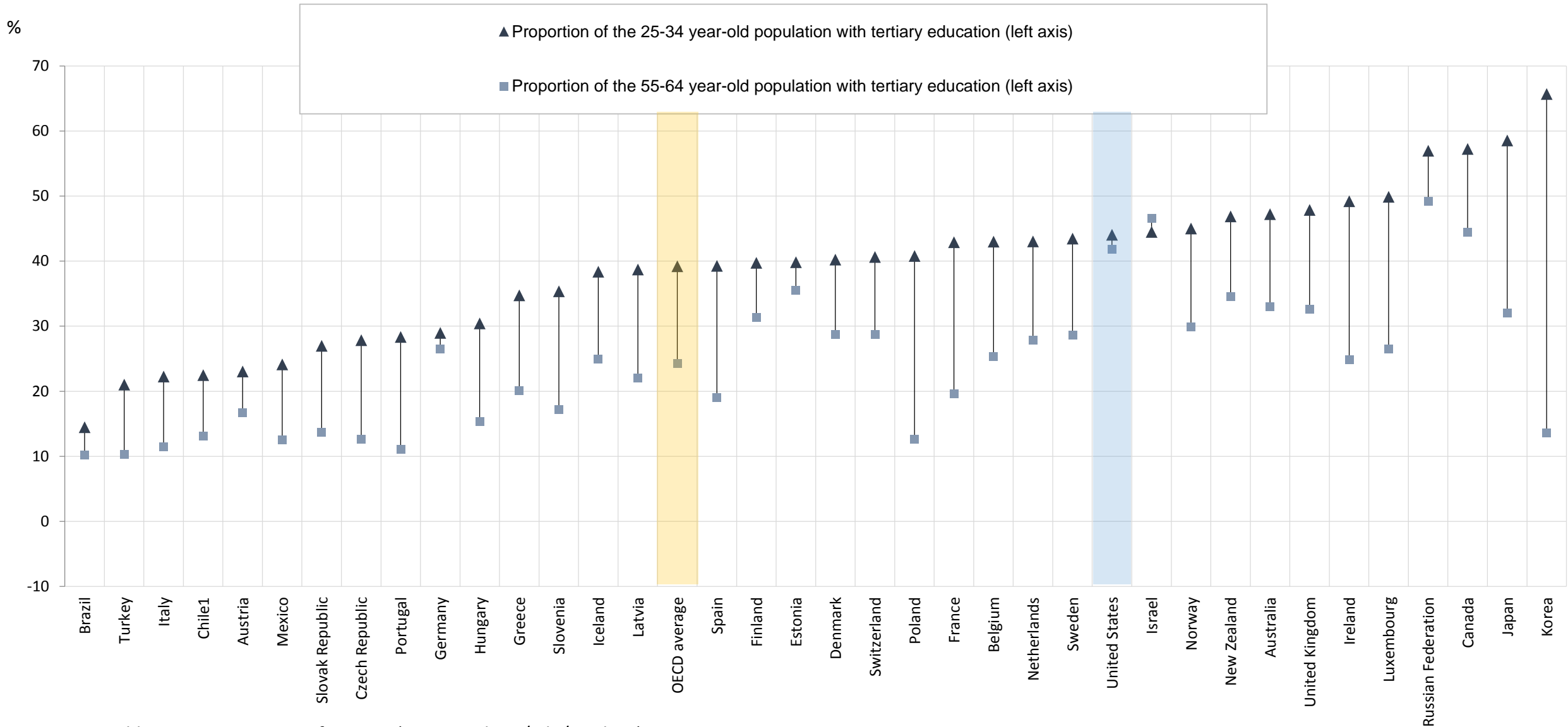
Percentage of College-Educated Adults (25-64)



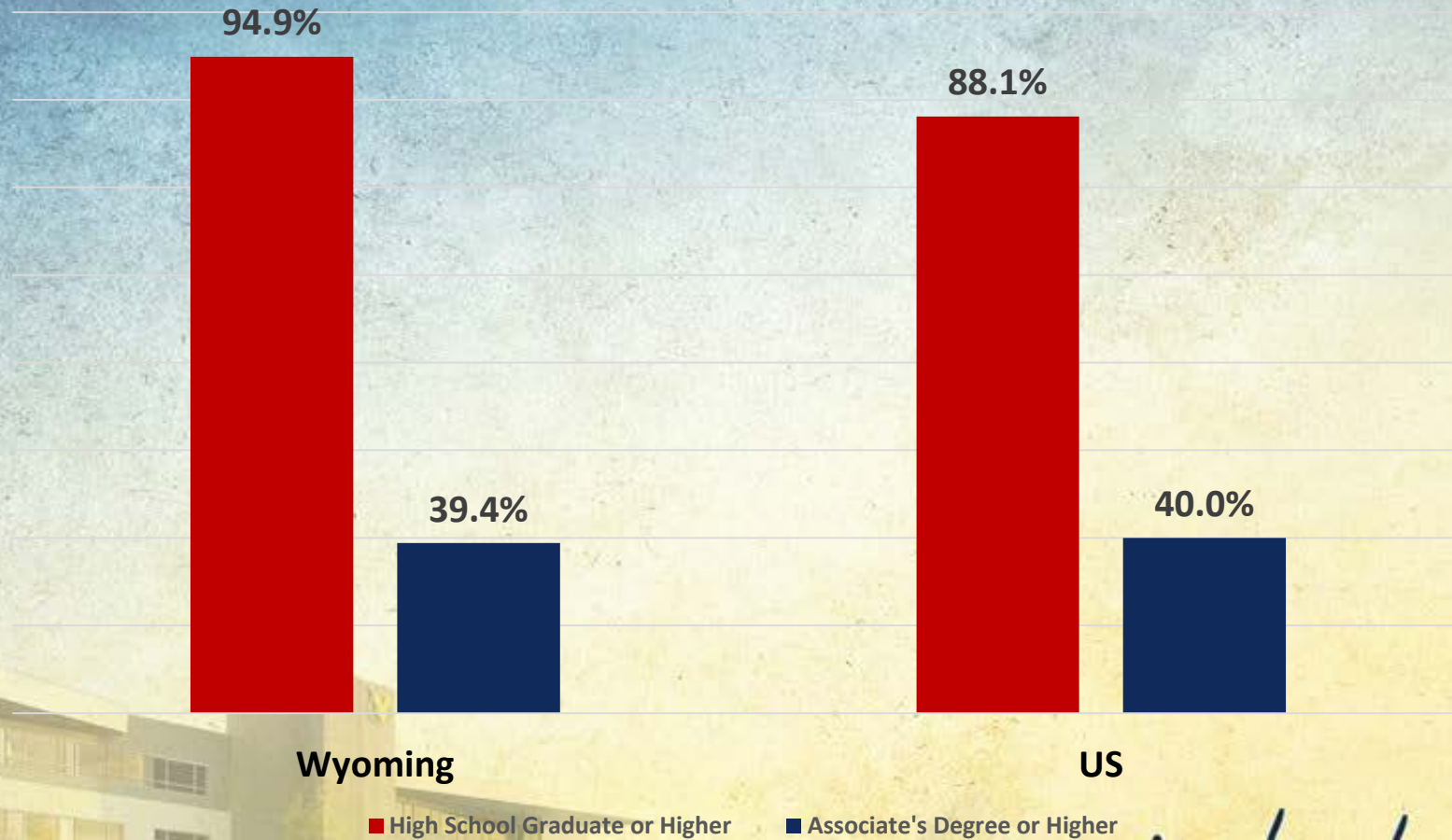
Source: OECD. Table A1.4a. See Annex 3 for notes (www.oecd.org/edu/eag.htm)

But we slip to 12th with our younger adults.

(25-34 and 55-64 year-olds, and percentage-point difference between these two groups)



Educational Attainment of Working Population (25-64 Years of Age)



Wyoming

US

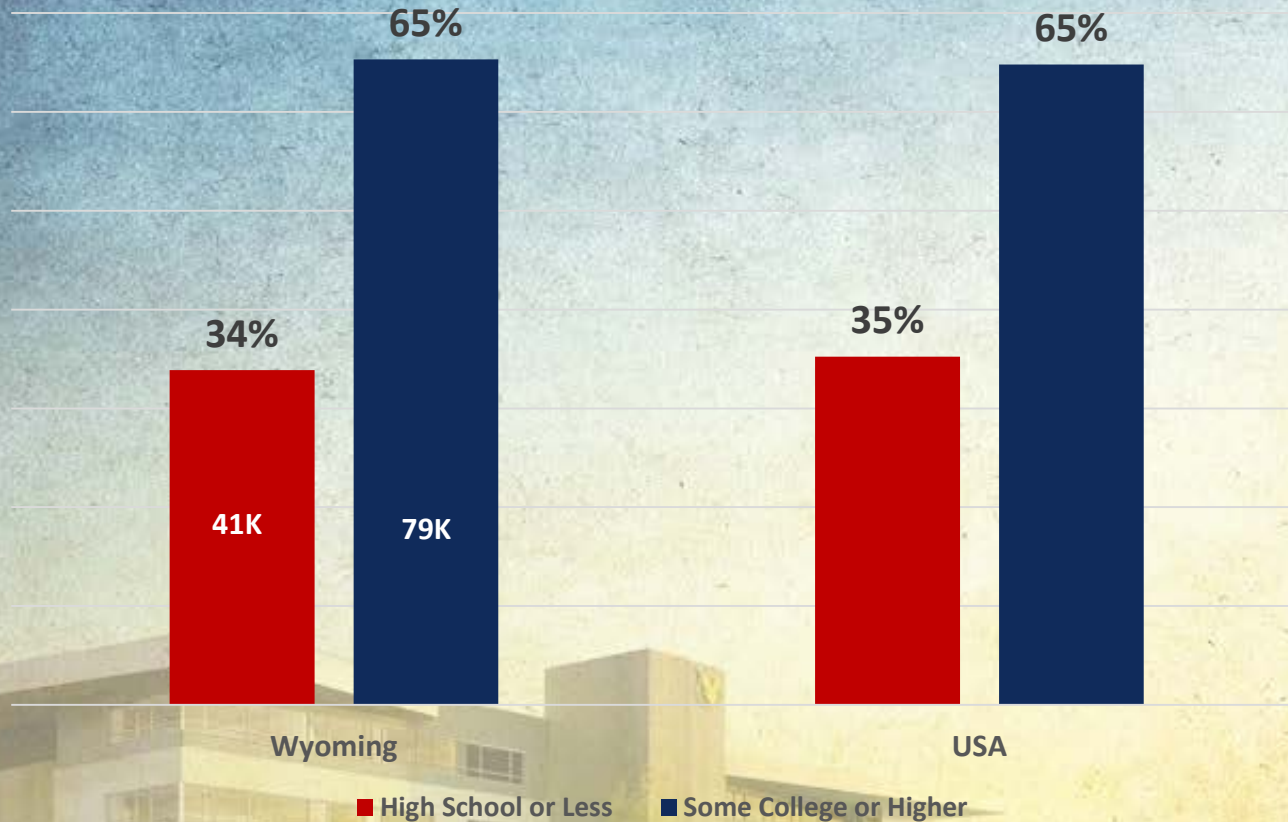
■ High School Graduate or Higher

■ Associate's Degree or Higher

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Projections of Job Openings 2010-2020 by Education Level (Wyoming)



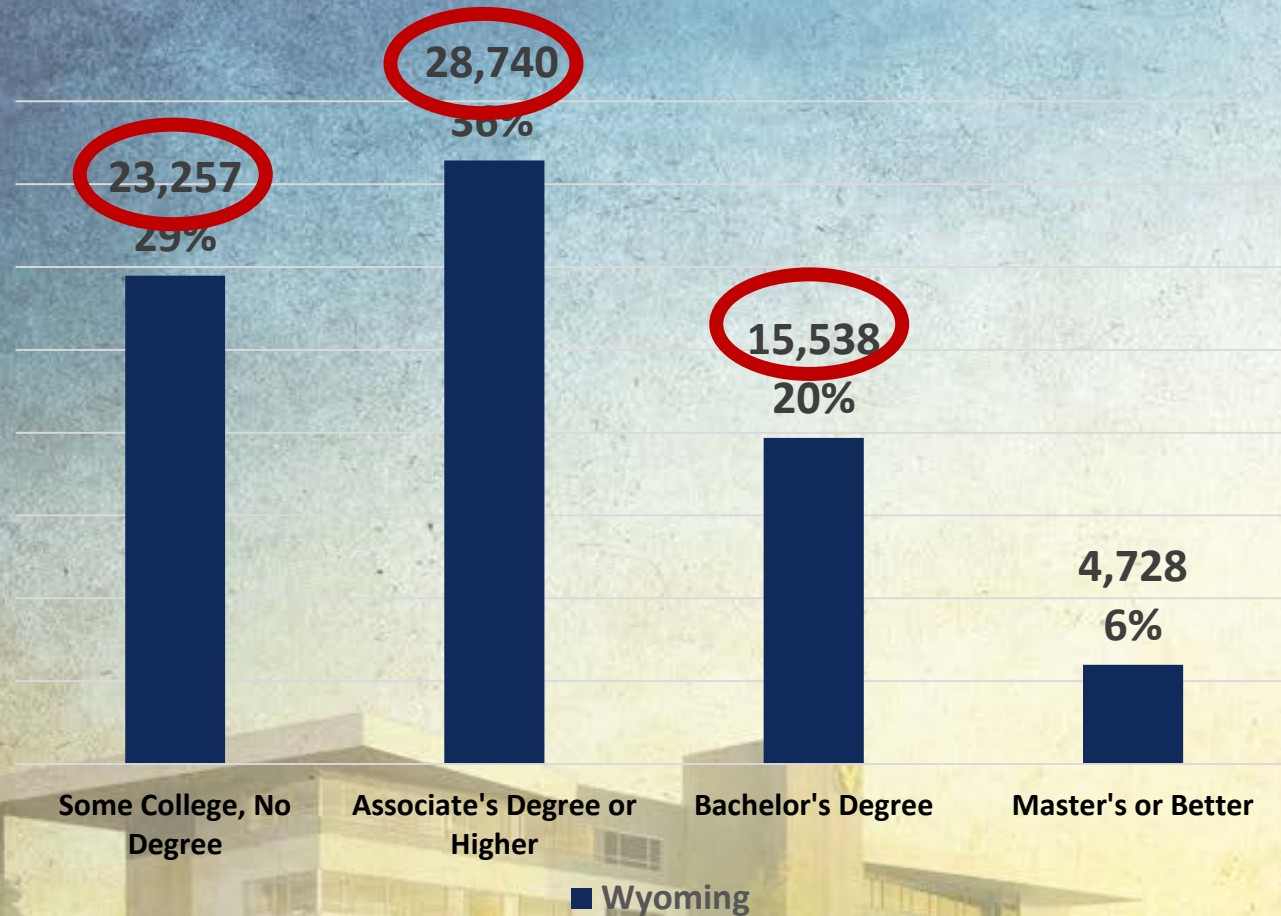
65%

Jobs will require some education beyond high school

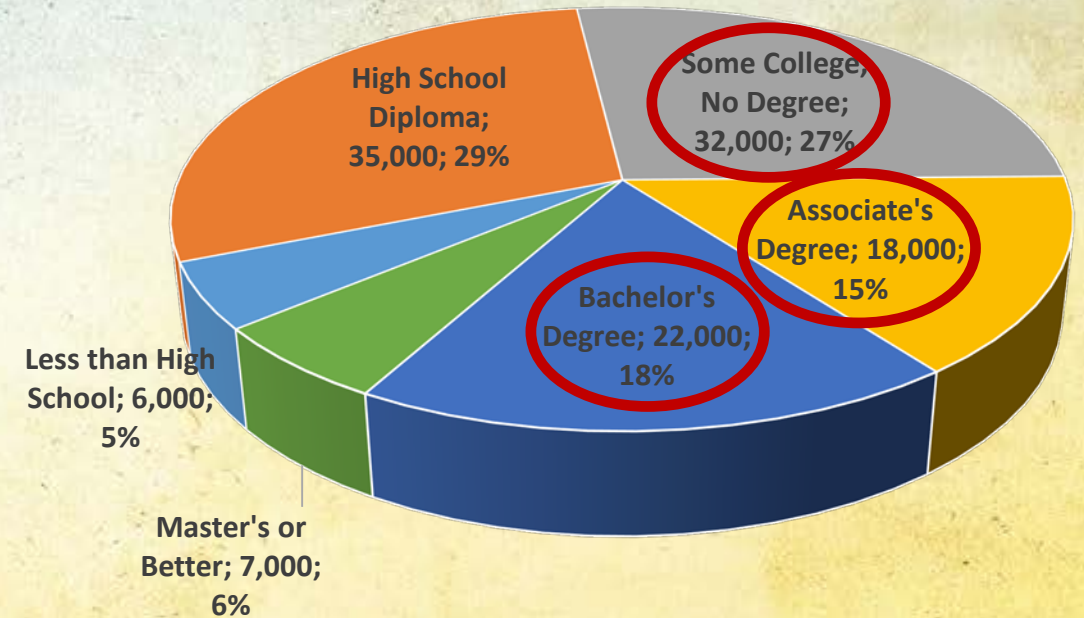
42%

Jobs will require education/training typically offered at the community college.

WY Educational Attainment of Young Adults (25-34 Years of Age)



Wyoming Job Projections by Education Level
(2020)

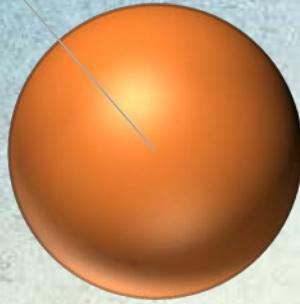


Consideration #1

While we have enough educated workers to fill high school or less, and even entry level semi-skilled jobs, we may not have enough young adults at advanced education levels to fill the jobs Wyoming will have added by 2020.

Population Estimates by Generation (US 2014)

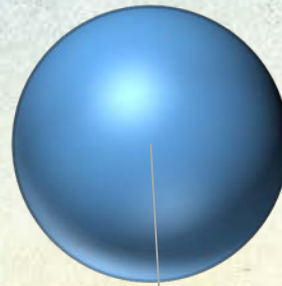
Age 18-34, Millennials,
75,000,000



Age 51-69, Baby
Boomers, 75,000,000



Age 35-50, Gen X,
66,000,000

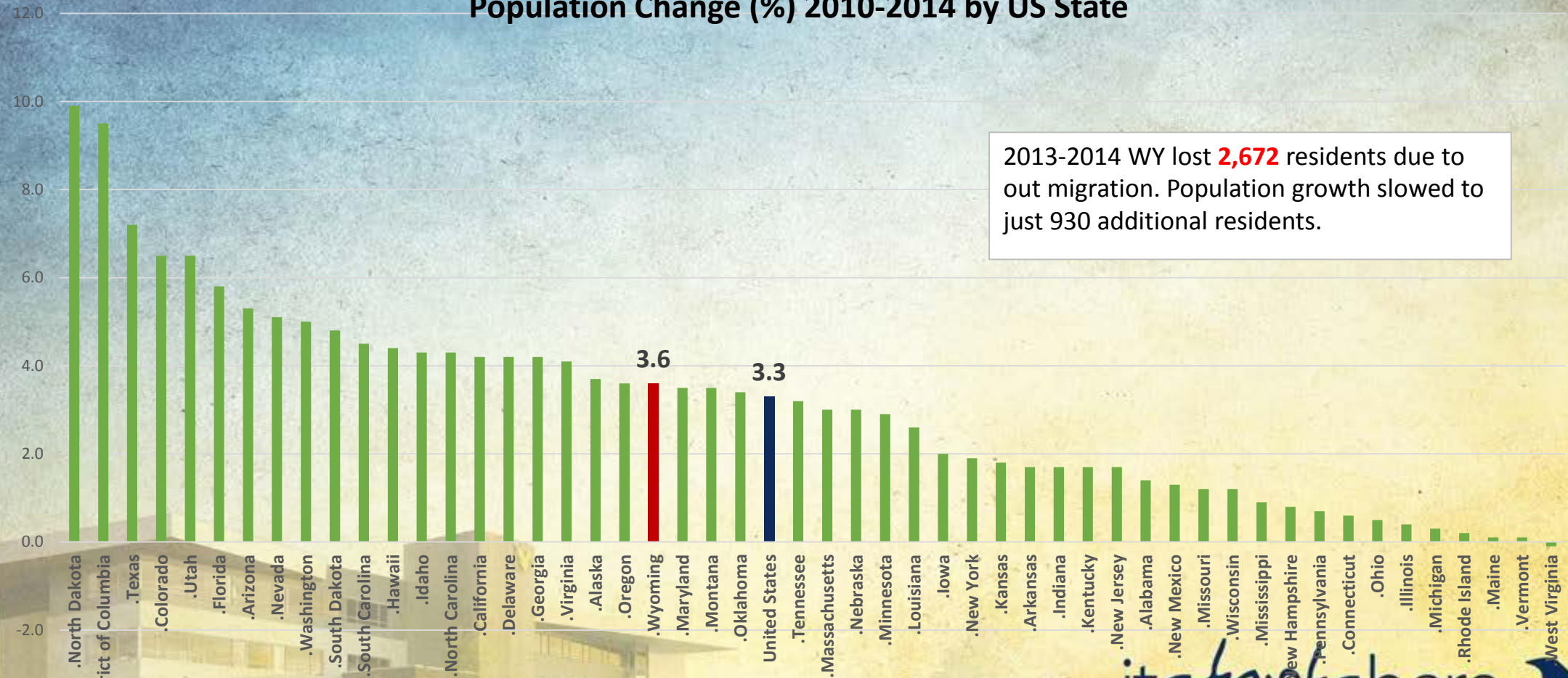


Age 70-87, Silent,
29,000,000



WY's population isn't growing much.

Population Change (%) 2010-2014 by US State



2013-2014 WY lost **2,672** residents due to out migration. Population growth slowed to just 930 additional residents.

Source: WY Economic Analysis Division, U.S. Census Bureau, Population Division

WY is losing more working-age people than we are adding.

WY Population Growth 2013-2014 by Age

65 years and over

2,888

45 to 64 years

-2,598

25 to 44 years

1,539

18 to 24 years

-1,361

Under 18 years

462

59%

of Wyoming's Population Growth comes from people of retirement age.

-1,059

Number of working age (25-64) people Wyoming lost from 2013-2014.

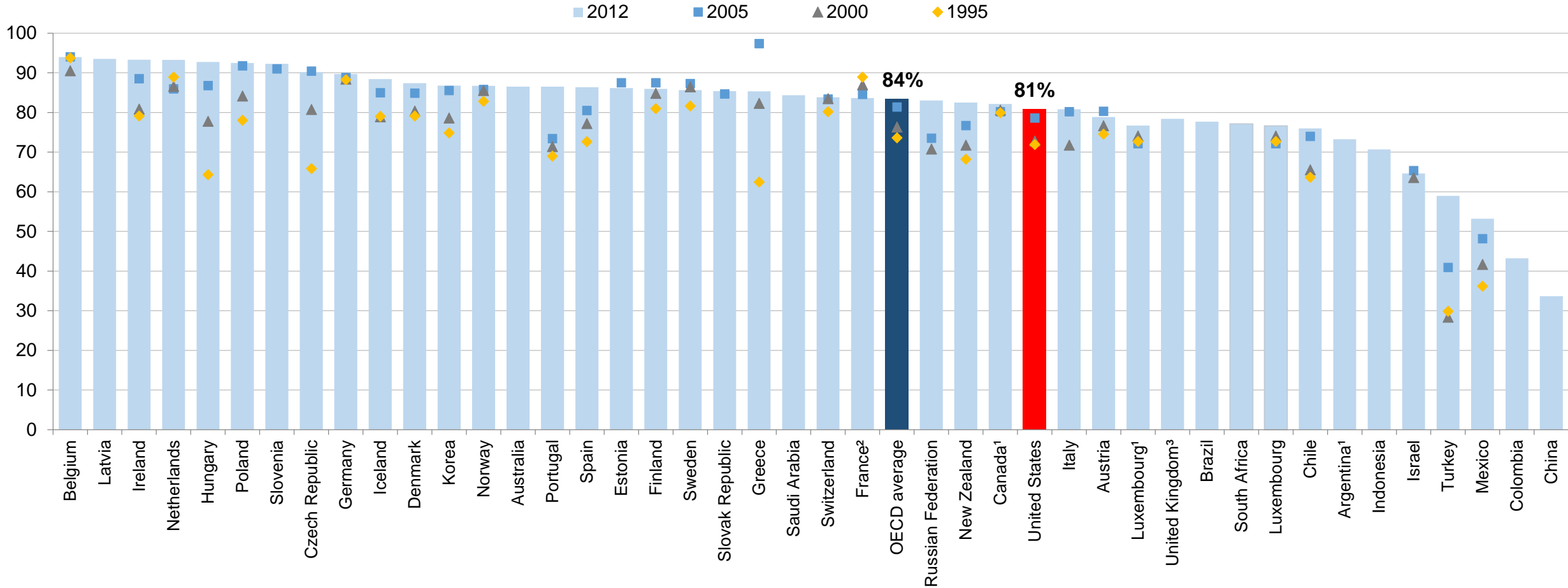


Consideration #2

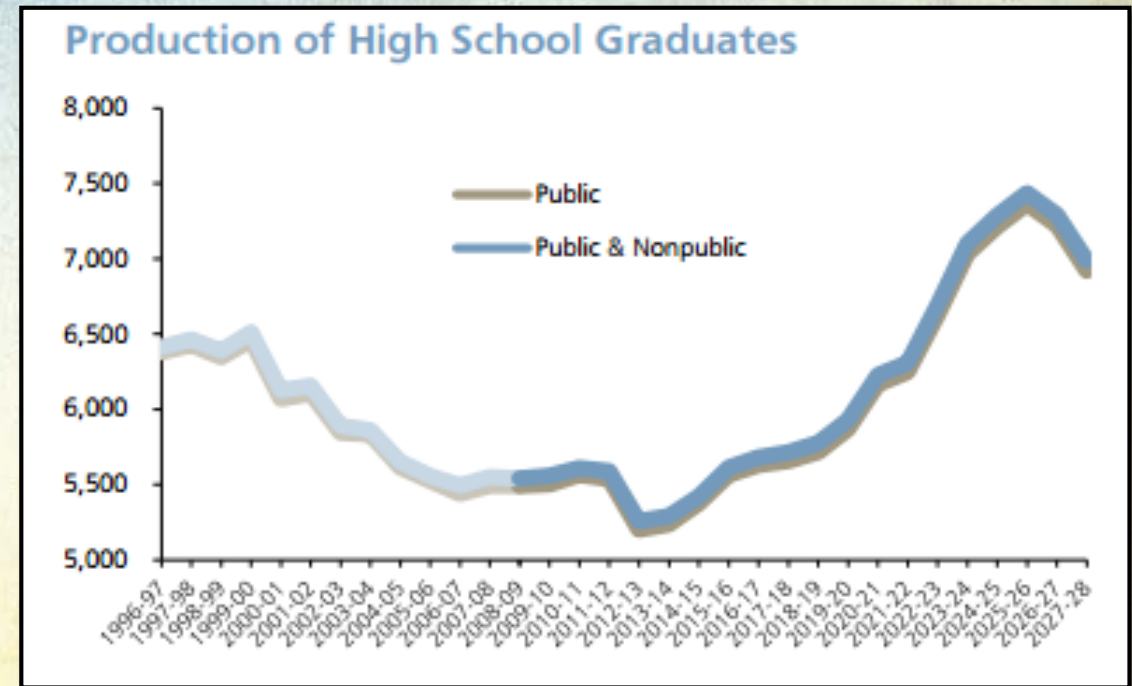
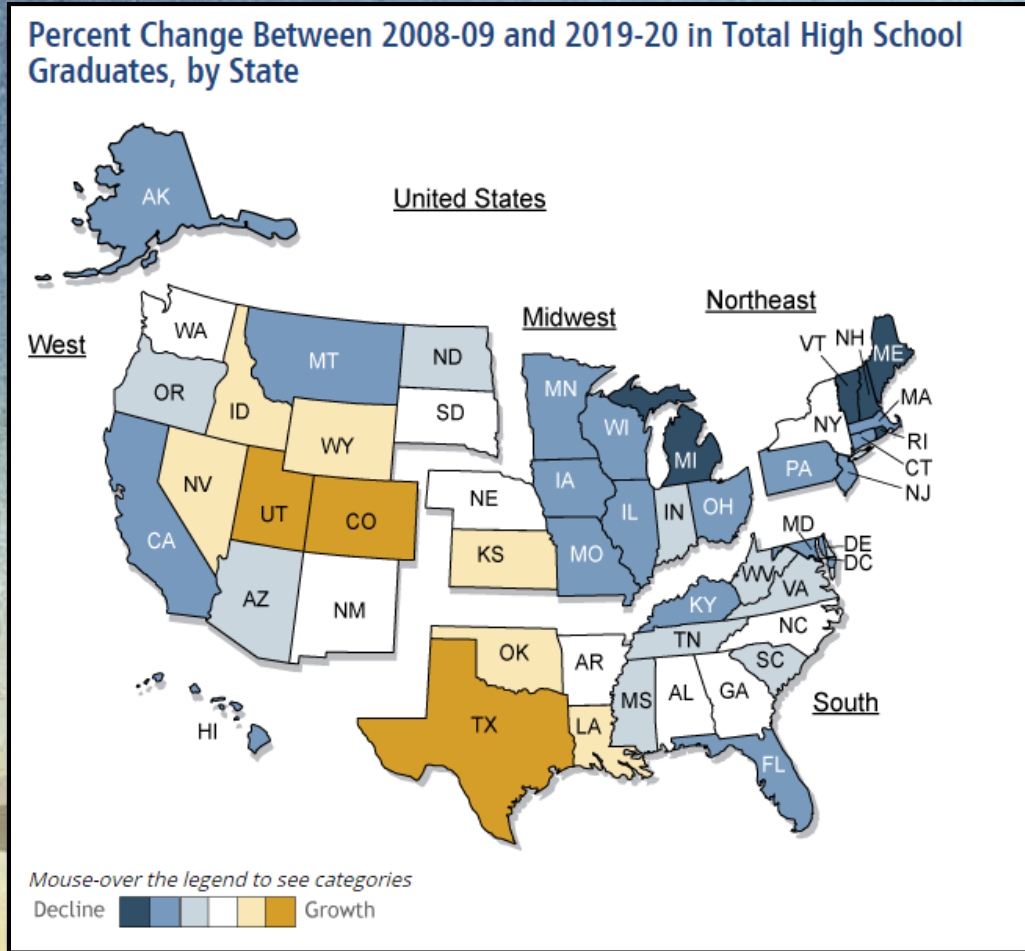
Our population isn't growing fast enough, nor with enough working-age individuals, to fill the growth in jobs we will see in Wyoming through 2020. We either need to recruit more, or look to keep and educate those we have already.

US High School enrollment rates are below average compared to other countries, but not by much.

Chart C1.2. Enrolment Rates of 15-19 Year-olds (1995, 2000, 2005 and 2012)



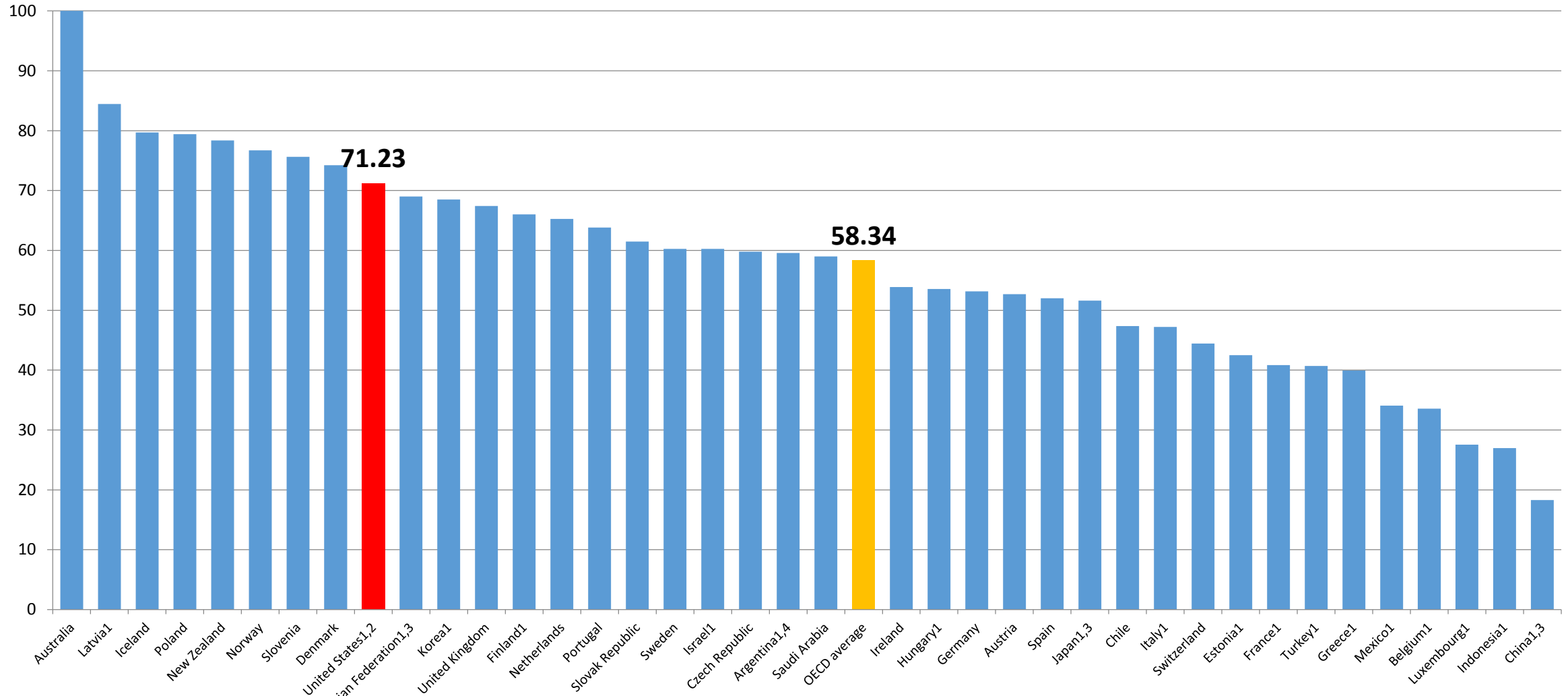
WY's High School graduates will increase substantially through 2026.



Source: Projections of high school graduates are from WICHE, *Knocking at the College Door: Projections of High School Graduates*, 2012.

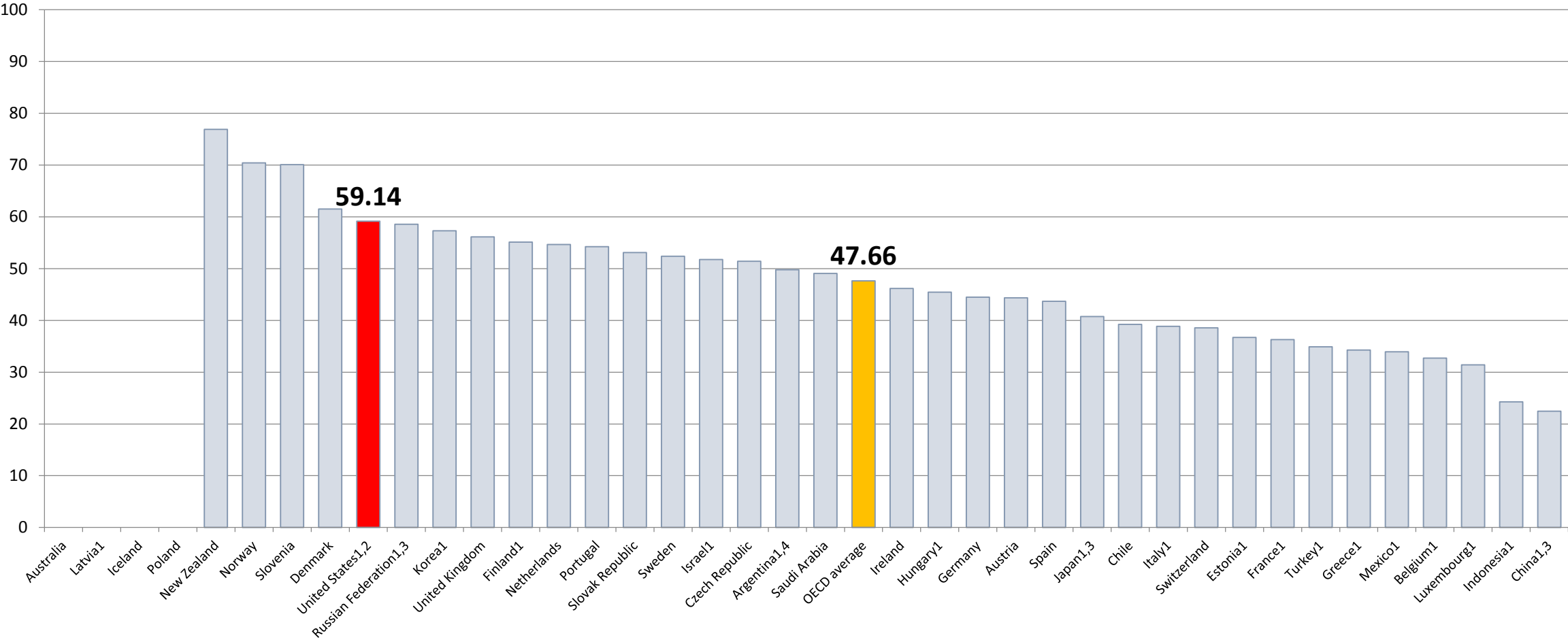
US College entry rates are higher than average.

Entry Rates into Higher Education (2012)



Entry of younger students is significantly lower.

Entry Rates into Higher Education (2012)
Students Below Age 25

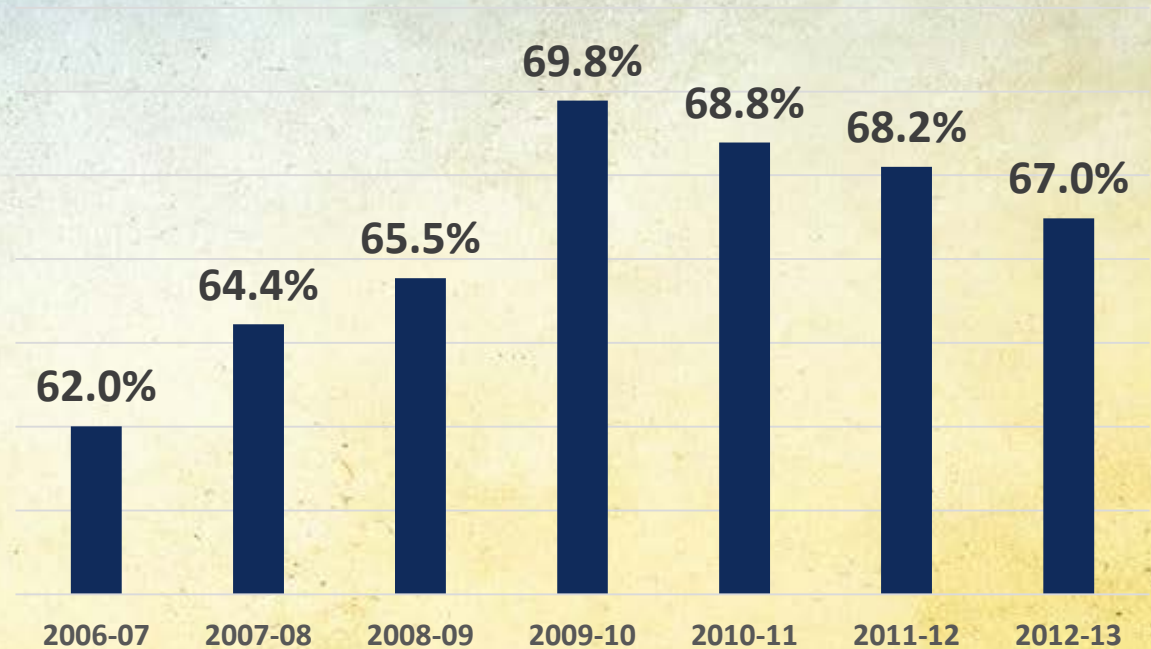


Source: OECD. Tables C3.1a and C3.1b. See Annex 3 for notes (www.oecd.org/edu/eqg.htm).

WY's high school graduates' college-going rates are slightly below the national average.

- US - 68.4% of 2014 high school graduates were enrolled in colleges or universities.
- WY is trending in the wrong direction.

% WY Students Enrolled in Higher Education within 16 months of High School Graduation



Consideration #3

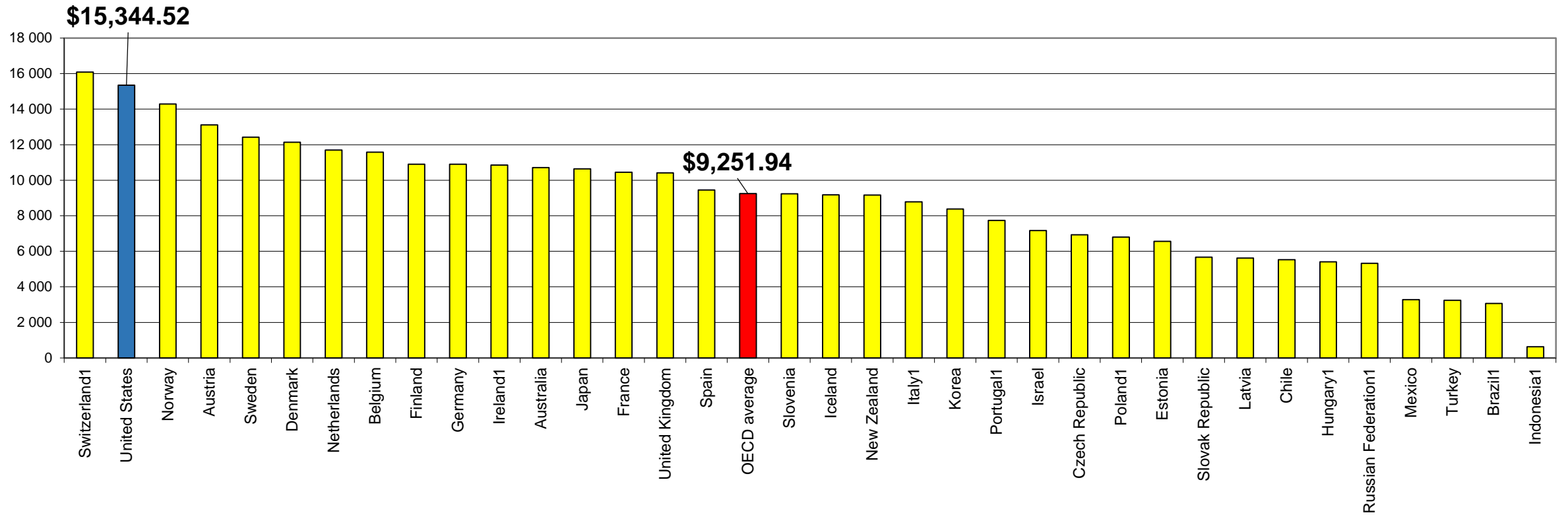
Wyoming should have more high school graduates in the future. And we are doing a fair job of getting them to go onto college, but we will likely need to do better to develop the educated workforce we'll need.

Question:

Is education funded appropriately, and are we spending enough on education at various education levels?

US is #2 in the World for spending per student at all levels of education.

In equivalent USD converted using PPPs



1. Public institutions only.

Countries are ranked in descending order of expenditure per student by educational institutions for core services.

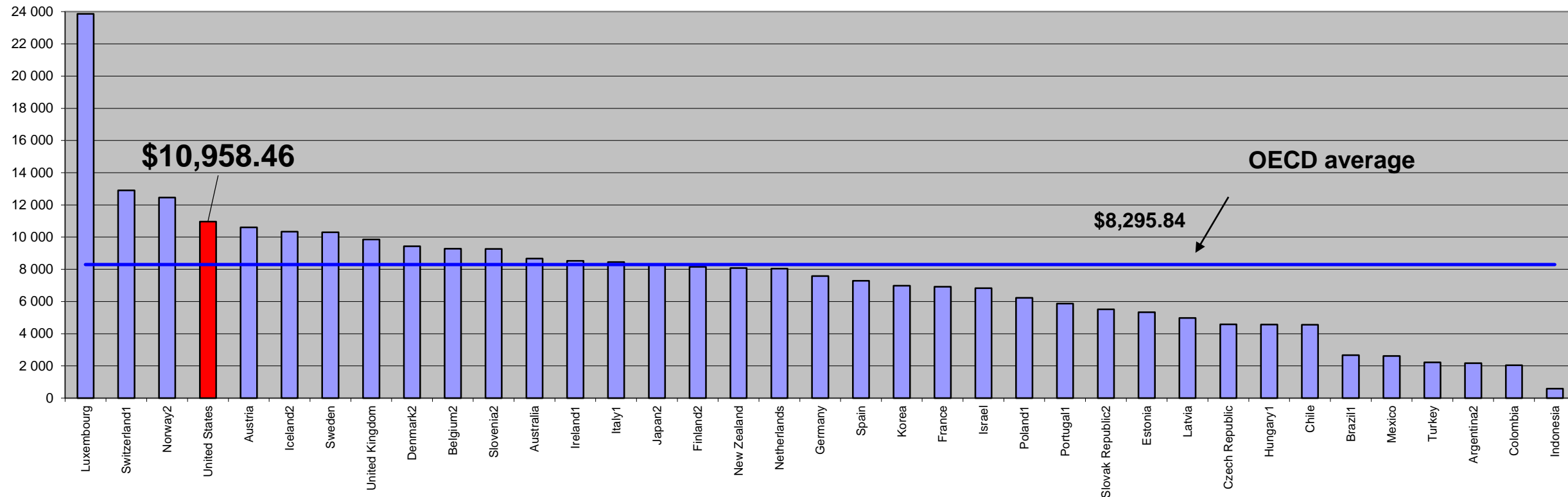
Source: OECD. Table B1.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

US is #4 for spending per student in primary education.

Chart B1.2a. Annual expenditure per student by educational institutions for all services, by level of education (2011)
In equivalent USD converted using PPPs, based on full-time equivalents

Primary Education

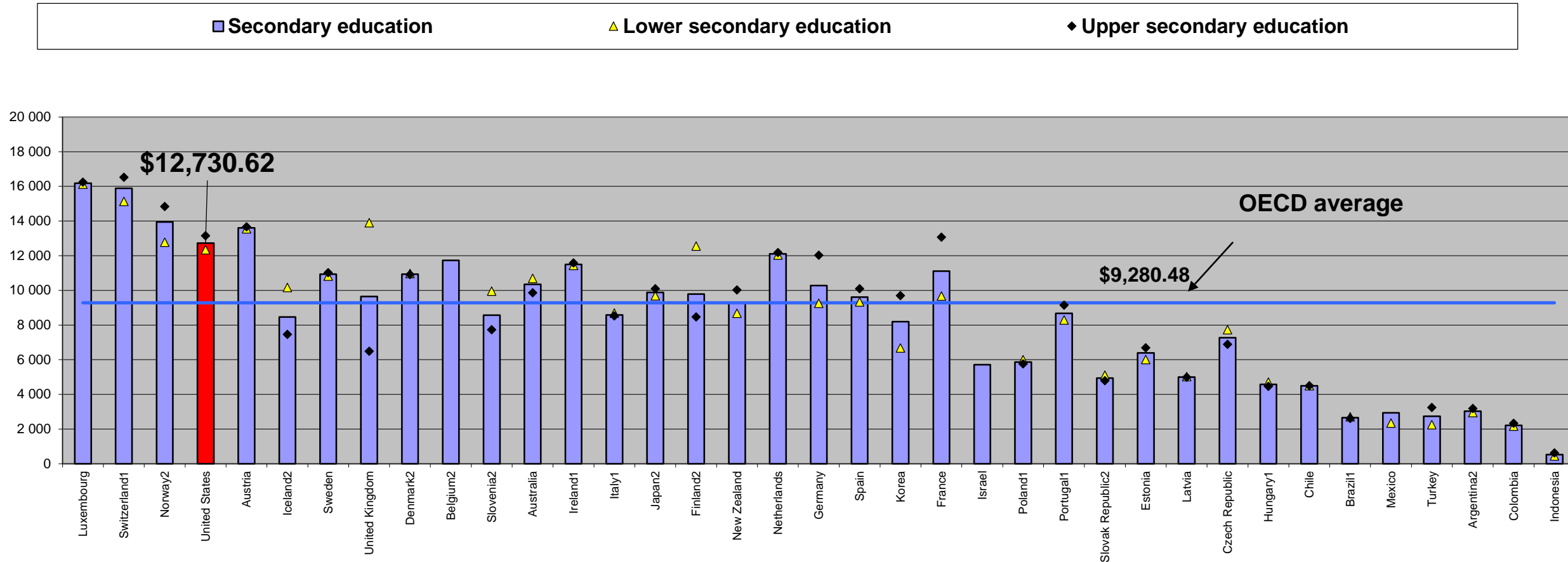
Expenditure per student (equivalent USD converted using PPPs)



Source: OECD. Table B1.1a. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

US is #4 in the World for spending per student in secondary education.

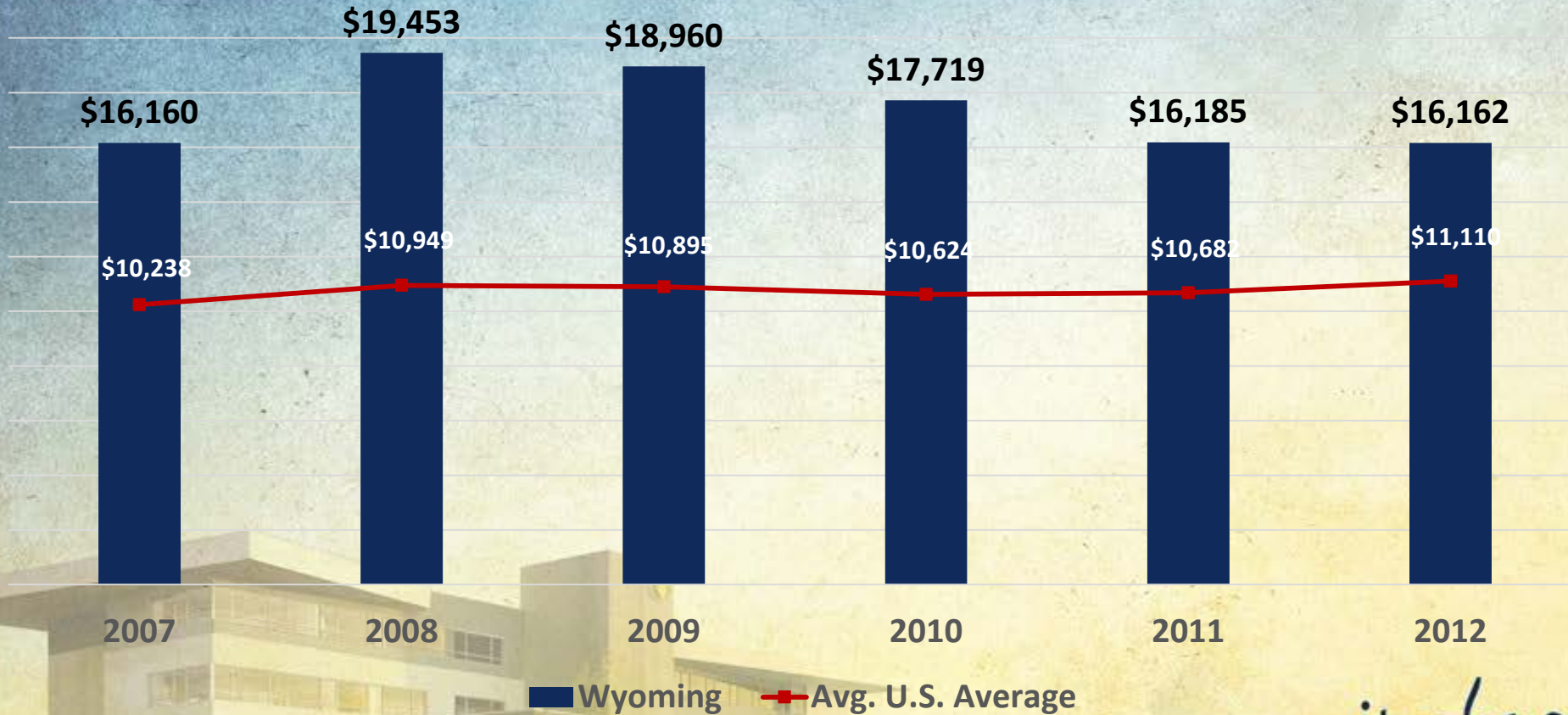
Secondary Education



Source: OECD. Table B1.1a. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

WY funds K12 education higher than the national average.

K12 State Funding Per Pupil Wyoming and US Average



#4

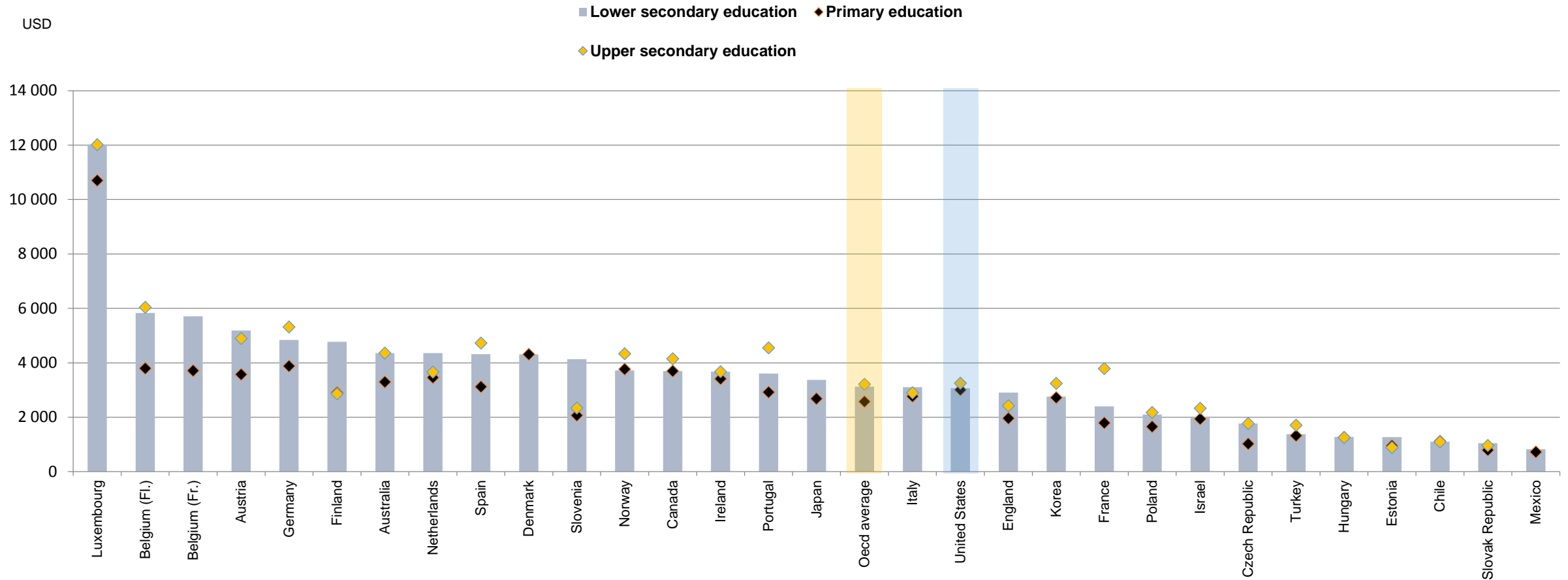
Wyoming's rank in the US for funding per K12 pupil in 2012.

Consideration #4

Wyoming is funding K12 Education very well comparatively, and we should continue to do so.

The US pays its K12 teachers slightly below average in comparison to the OECD countries.

Chart B7.1 Salary cost of teachers per student, by level of education (2012)
In USD

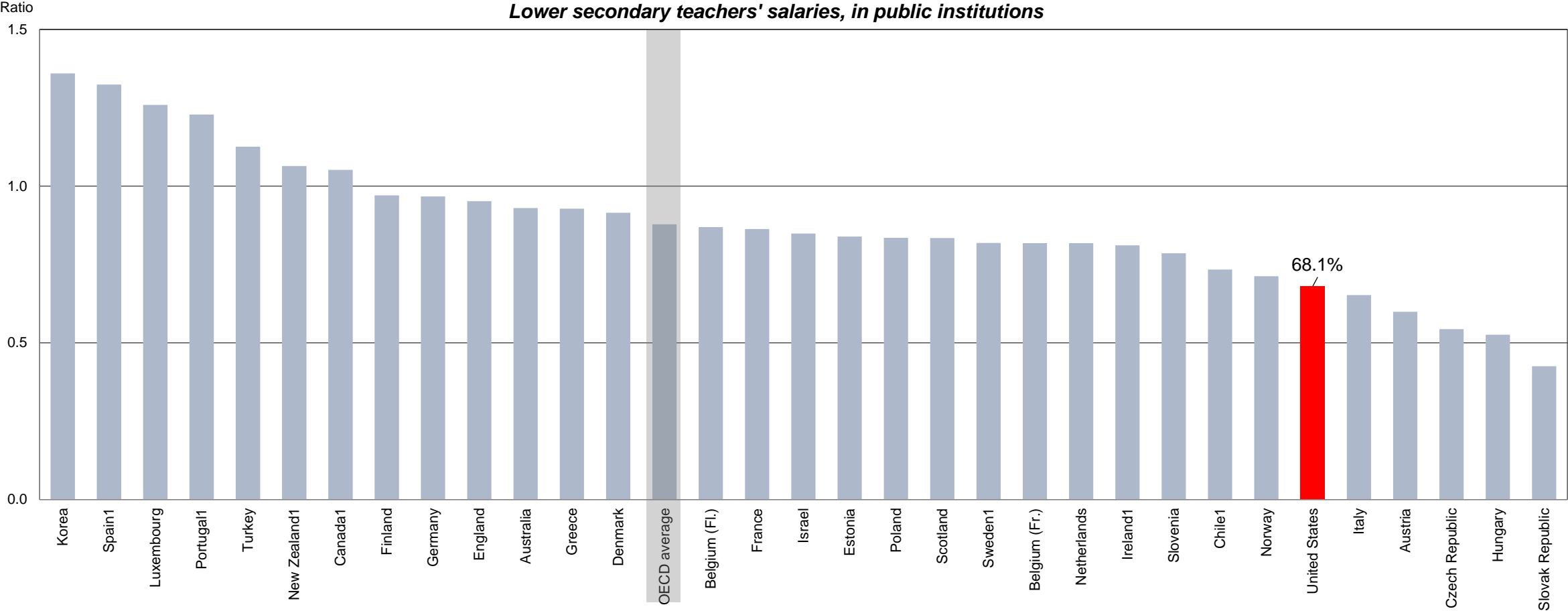


Countries are ranked in descending order of the salary cost of teachers per student in lower secondary education.

Source: OECD. Table B7.1. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

US K12 teachers make just 68% of the salary a similarly educated individual does.

Chart D3.1. Teachers' Salaries Relative to Earnings for Tertiary-educated Workers aged 25-64 (2012)
Lower secondary teachers' salaries, in public institutions



Notes: Teachers' salaries either refer to actual salary, including bonuses and allowances, for teachers aged 25-64 or to statutory salary after 15 years of experience and minimum training. Please refer to Table D3.2. for details on the methodology.

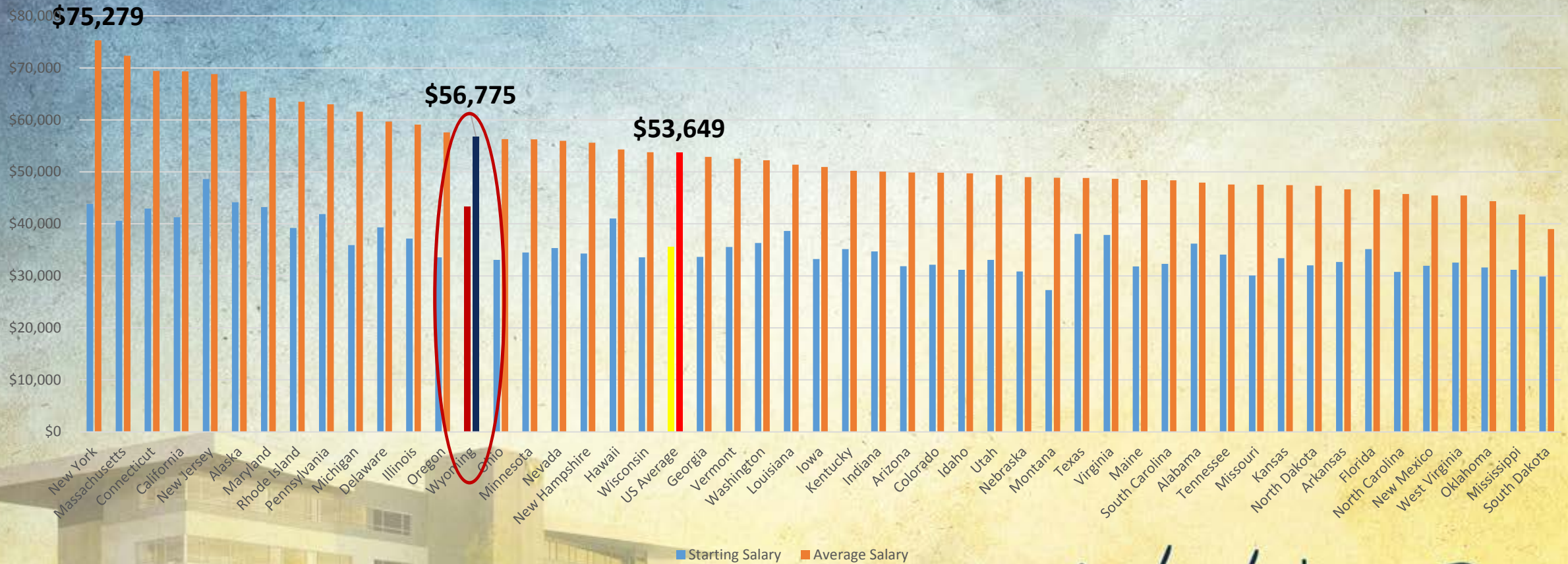
¹. Year of reference 2011.

Countries are ranked in descending order of the ratio of teachers' salaries to earnings for full-time, full-year workers with tertiary education aged 25-64.

Source: OECD. Table D3.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

WY pays above the national average.

K12 Teacher Salaries by State



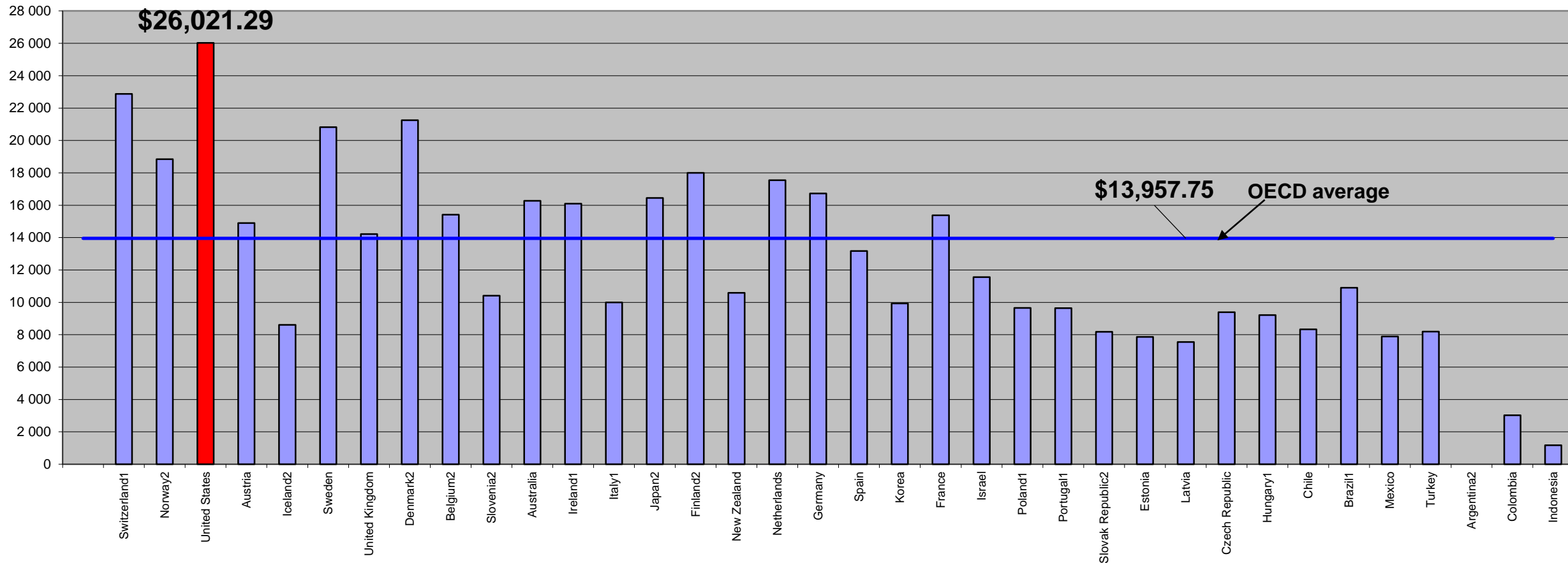
Source: National Education Association (nea.org)

Consideration #5

We do not incentivize teaching as a profession in the USA the way other countries do in regard to salaries. Fortunately, Wyoming is paying above the national average, but still well below the top states.

US is #1 in the World for spending per student in higher education.

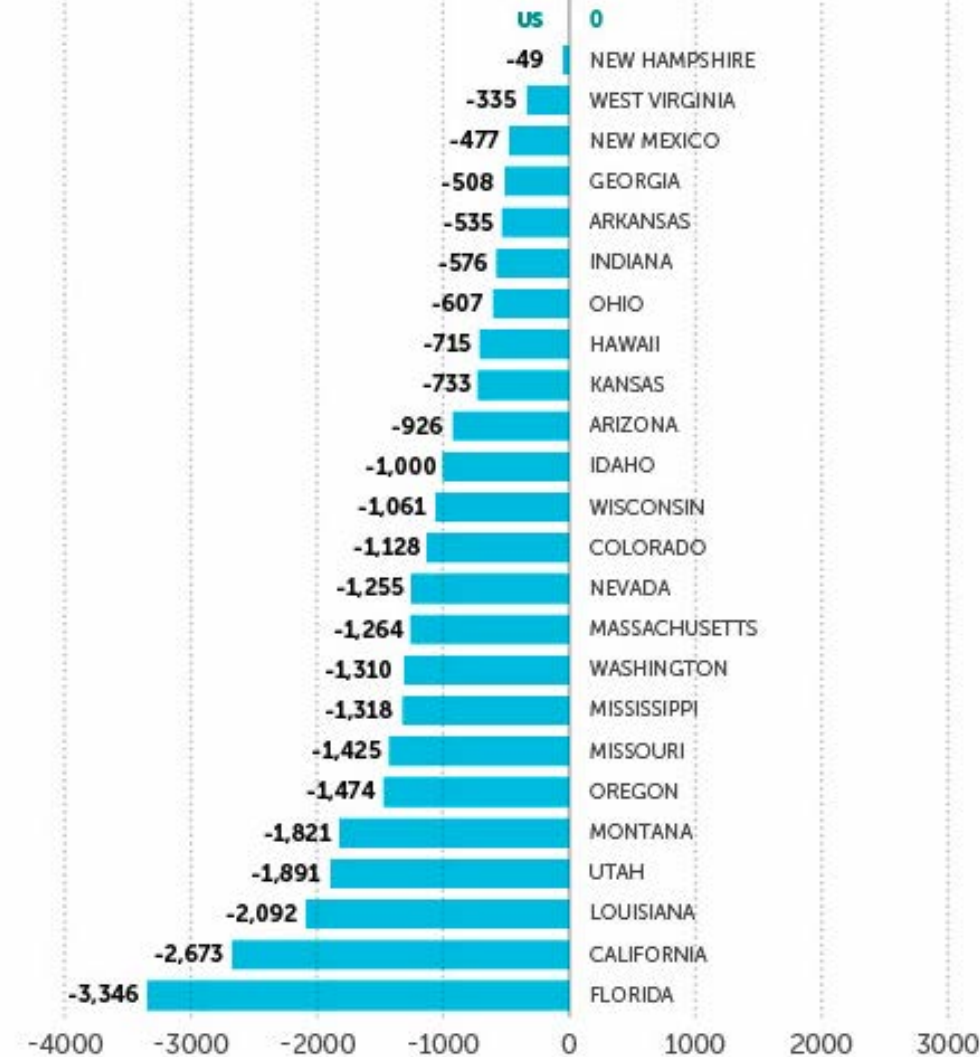
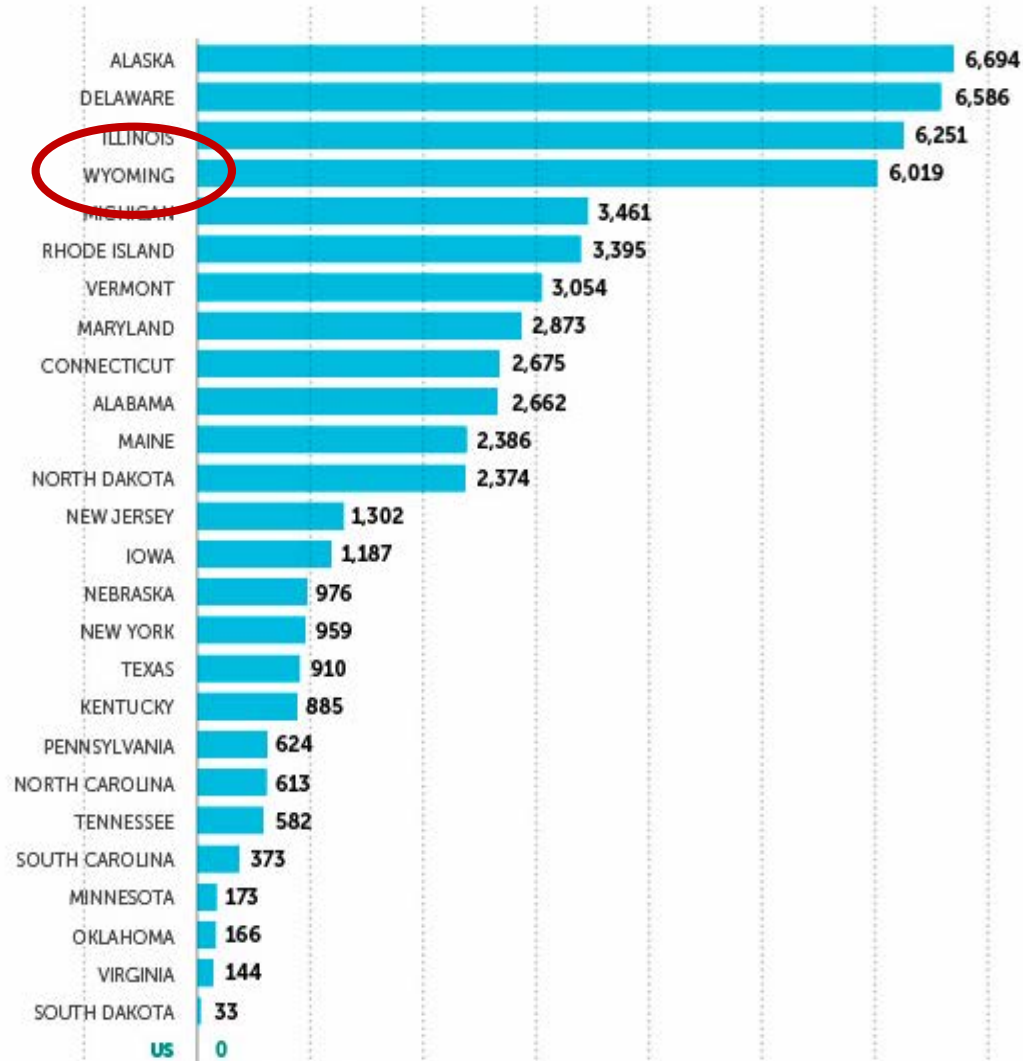
Higher (Tertiary) Education



Source: OECD. Table B1.1a. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

WY ranks #4 in the US for total revenue/expenditures per FTE.

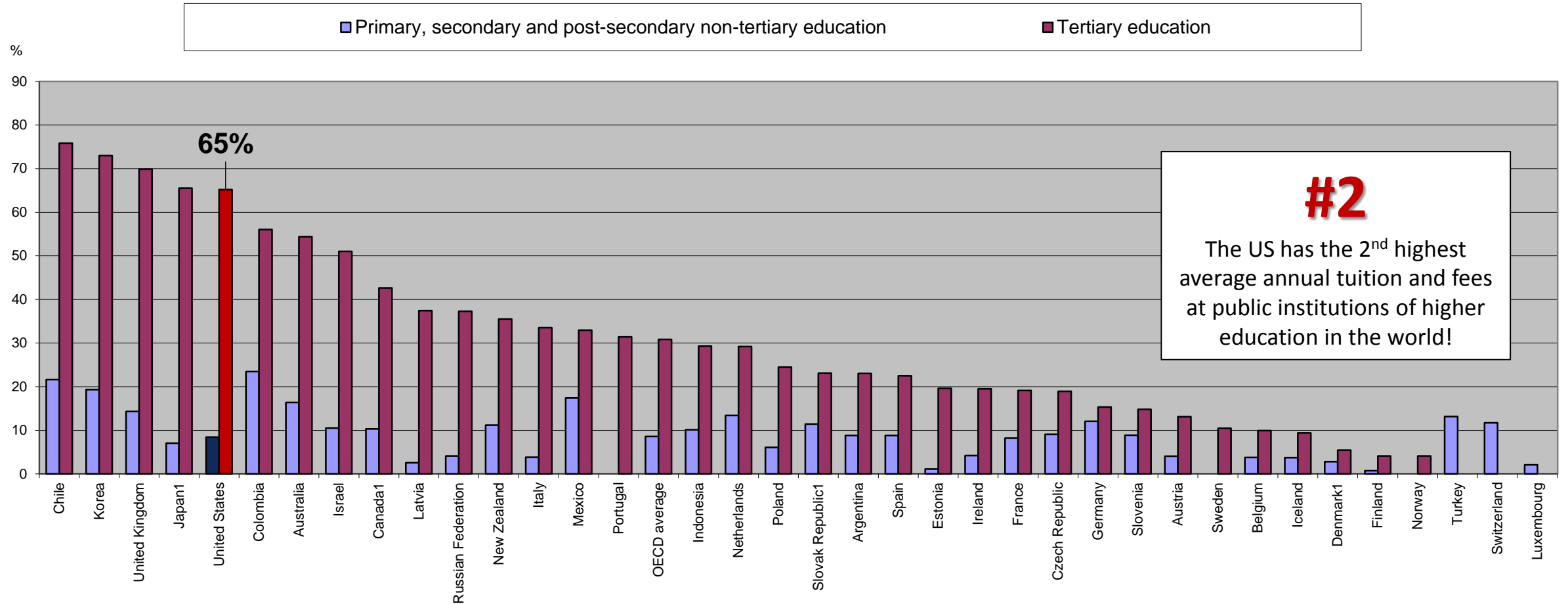
FIGURE 13
TOTAL EDUCATIONAL REVENUE PER FTE—STATE DIFFERENCES FROM U.S. AVERAGE, FISCAL 2014



NOTE: Dollars adjusted by Cost of Living Adjustment and Enrollment Index
SOURCE: State Higher Education Executive Officers

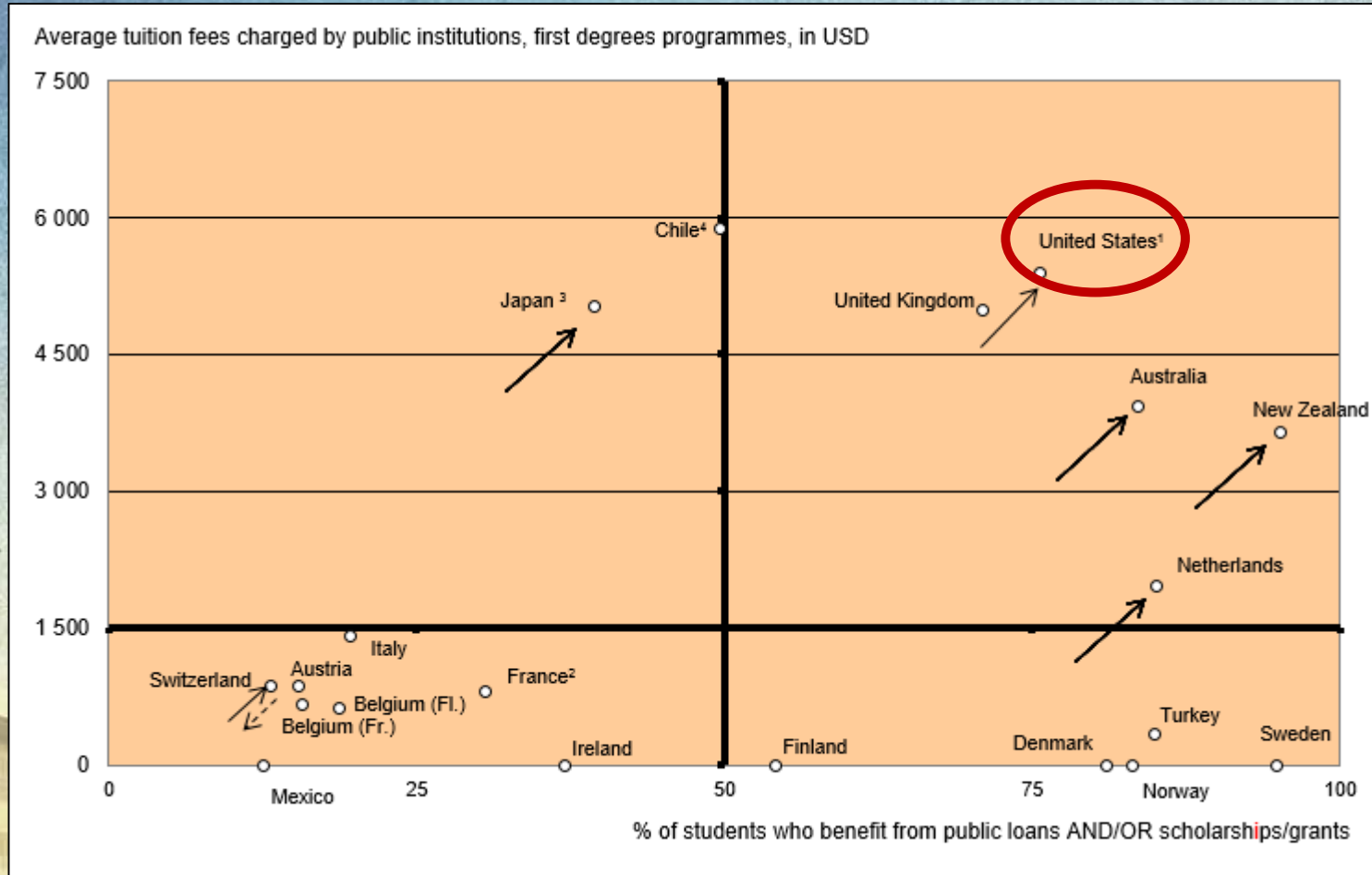
US is #5 in the World for the share of higher education expenditures that have to come from private sources.

Chart B3.1. Share of Private Expenditure on Educational Institutions (2011)



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
 Countries are ranked in descending order of the share of private expenditure on educational institutions for tertiary education.
 Source: OECD. Table B3.1. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

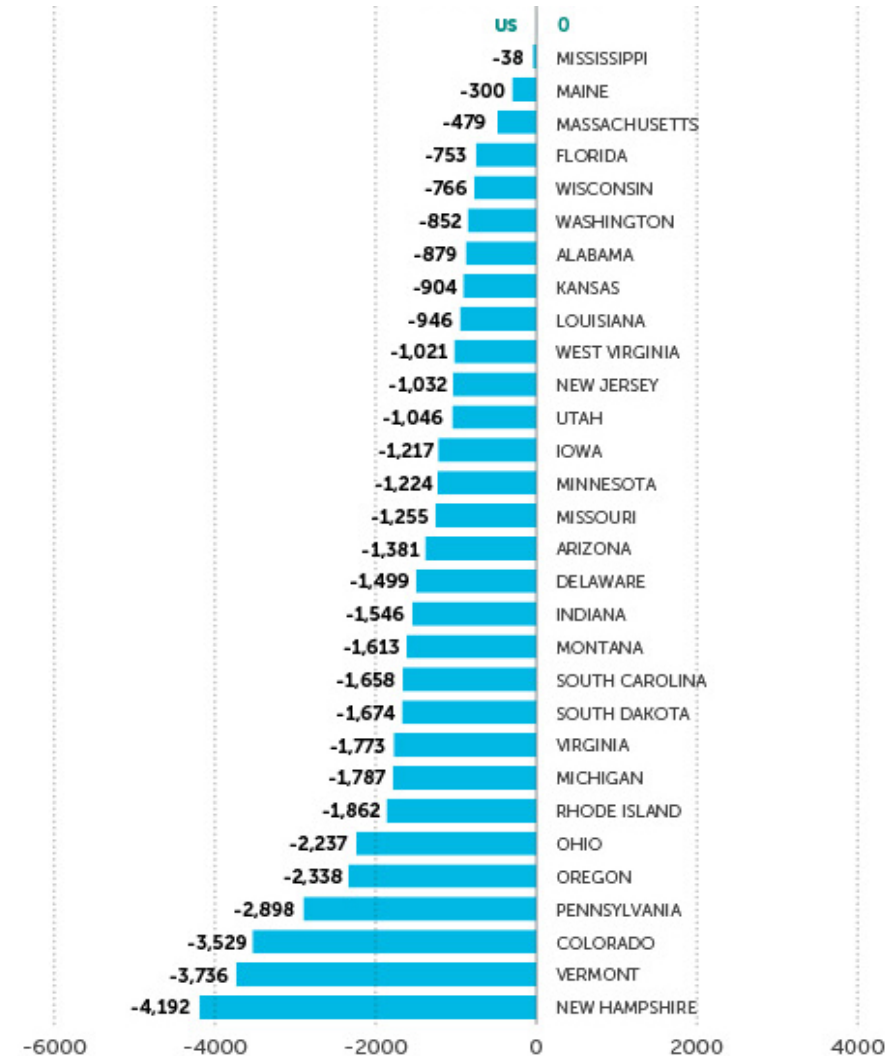
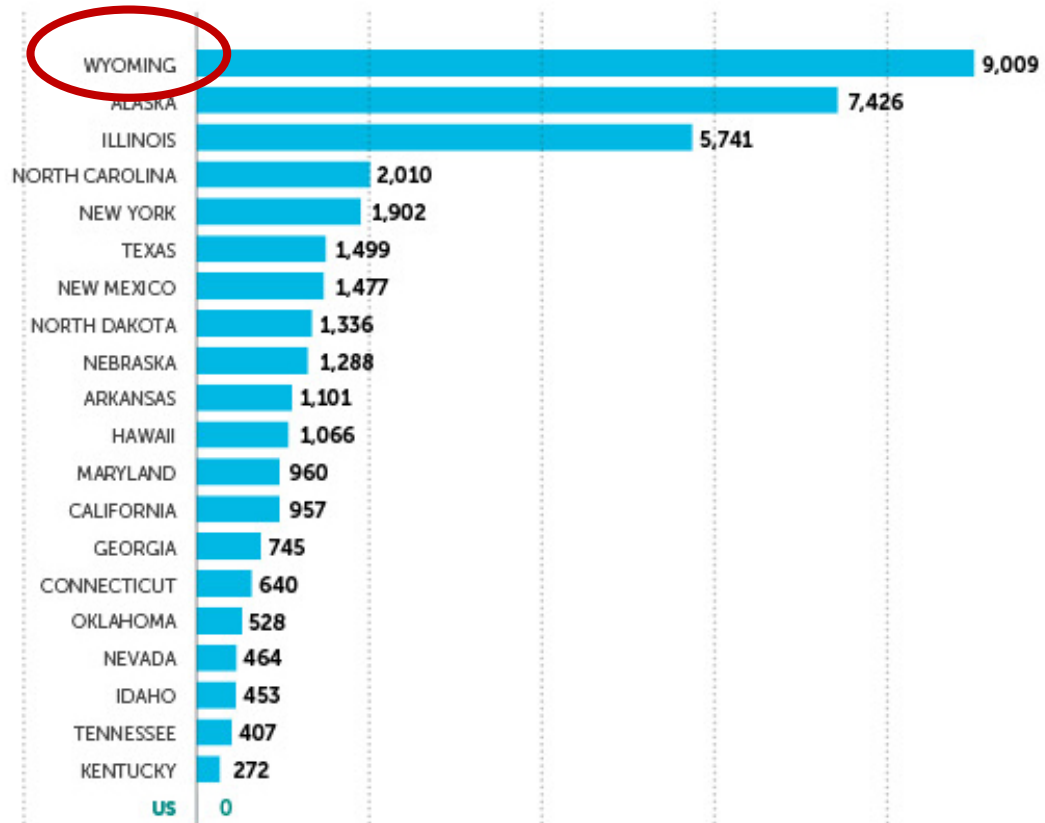
As a result, more than 75% of US college students receive public support through loans, grants or scholarships.



Source: OECD. Tables B5.1 and B5.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

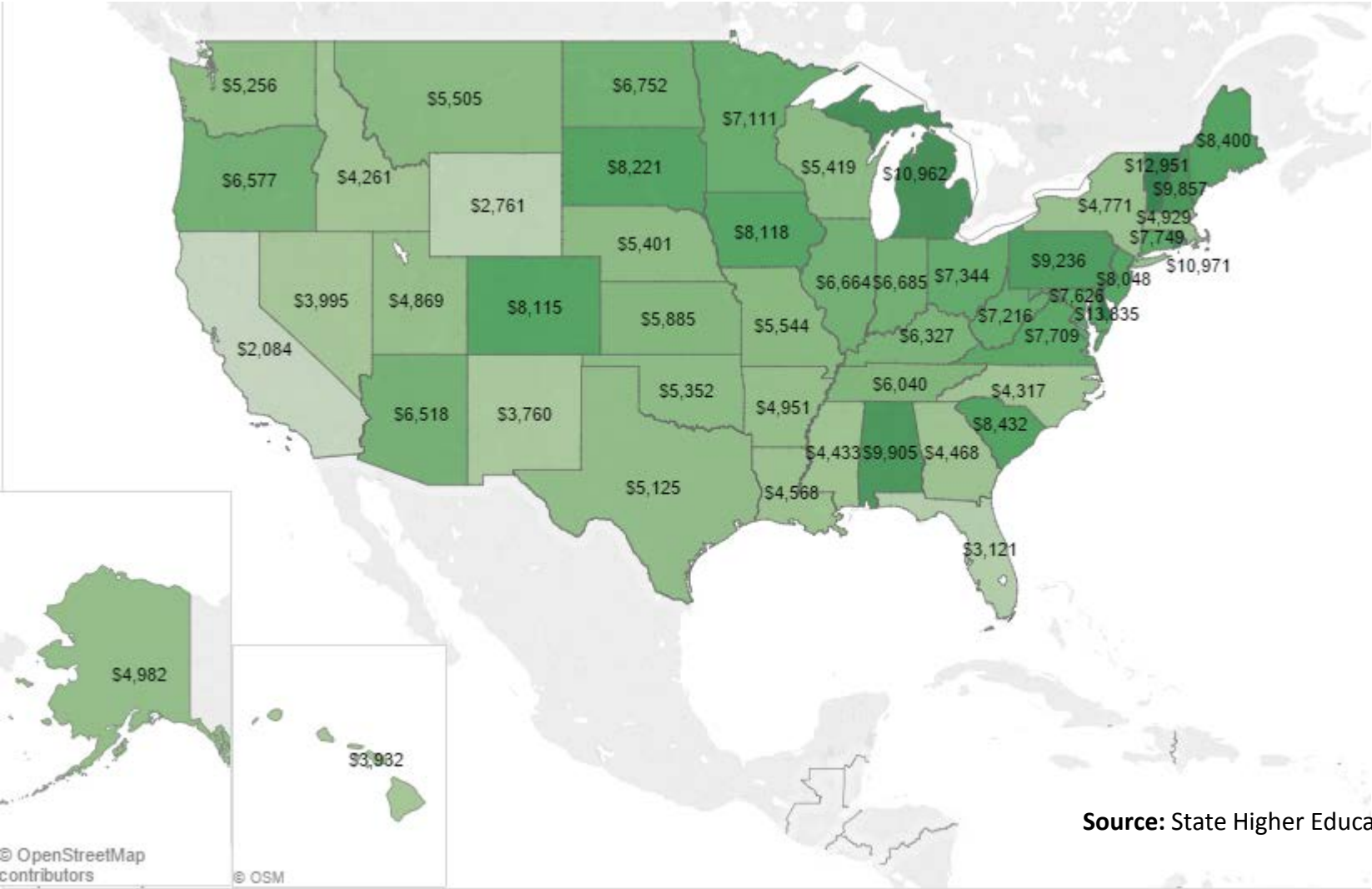
WY ranks #1 in the US public appropriations per FTE in higher education.

FIGURE 12
EDUCATIONAL APPROPRIATIONS PER FTE—STATE DIFFERENCES FROM U.S. AVERAGE,
FISCAL 2014



NOTE: Dollars adjusted by Cost of Living Adjustment and Enrollment Index
SOURCE: State Higher Education Executive Officers

This funding has allowed WY to keep the cost of attendance in college low!



49th

Wyoming ranks 49th out of 50 for net tuition per FTE. This makes Wyoming one of the most affordable states in the US for going to college.

Source: State Higher Education Executive Officers, FY14 State Higher Education Finance Report

Consideration #6

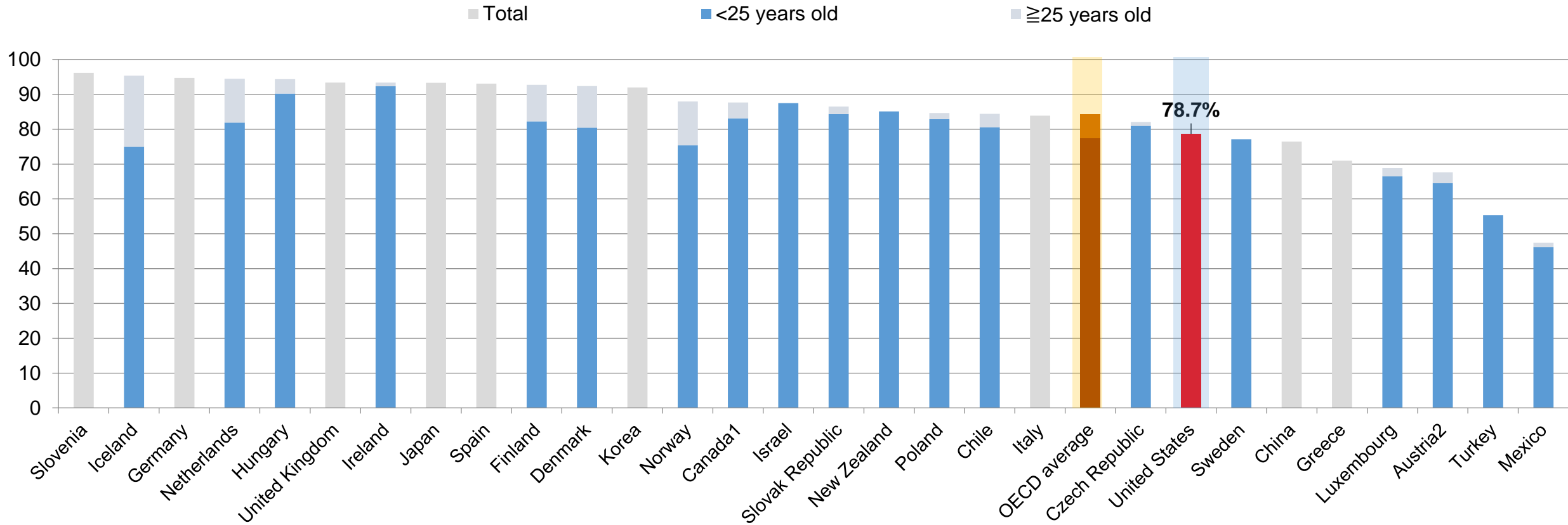
The US spends a lot on Higher education. Wyoming funds it extremely well, and this has kept a college education affordable and in reach for so many. There is also robust public financial assistance. This is likely why more students enroll in college in the US than most developed countries.

Question:

How is Wyoming's education system performing in regard to student outcomes?

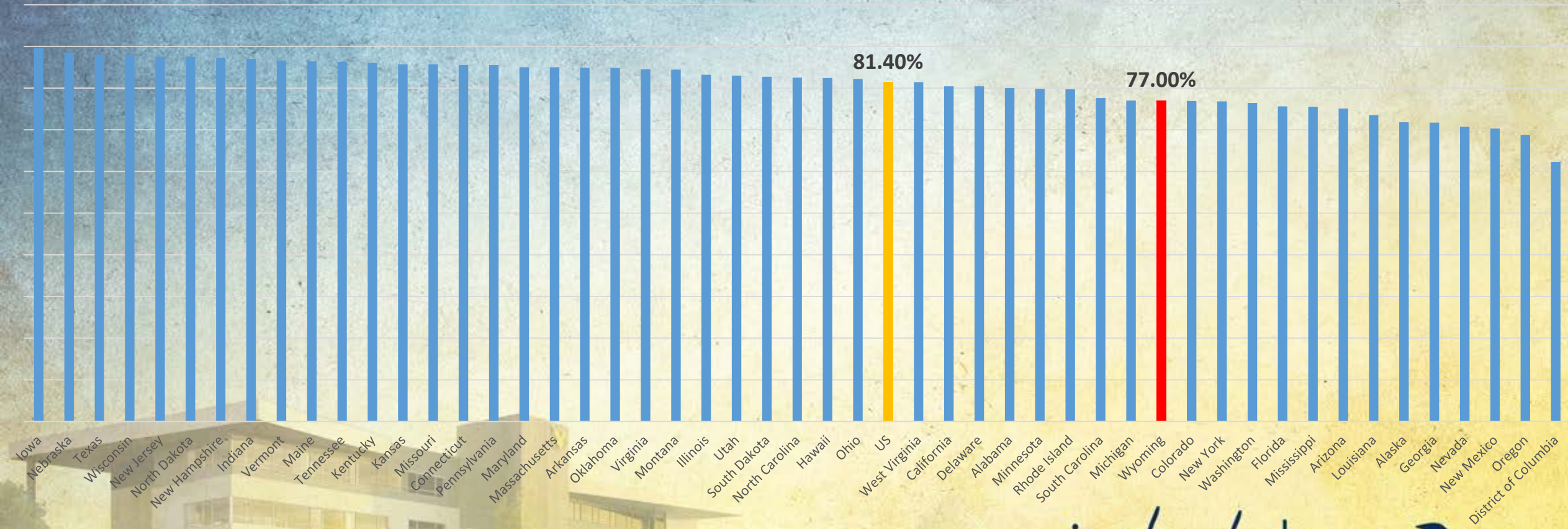
High School graduation rates in the US are below the average of other OECD countries.

Chart A2.1. Upper secondary graduation rates (2012)



WY's high school graduation rates are below the national average.

2012-13 High School Graduation Rate



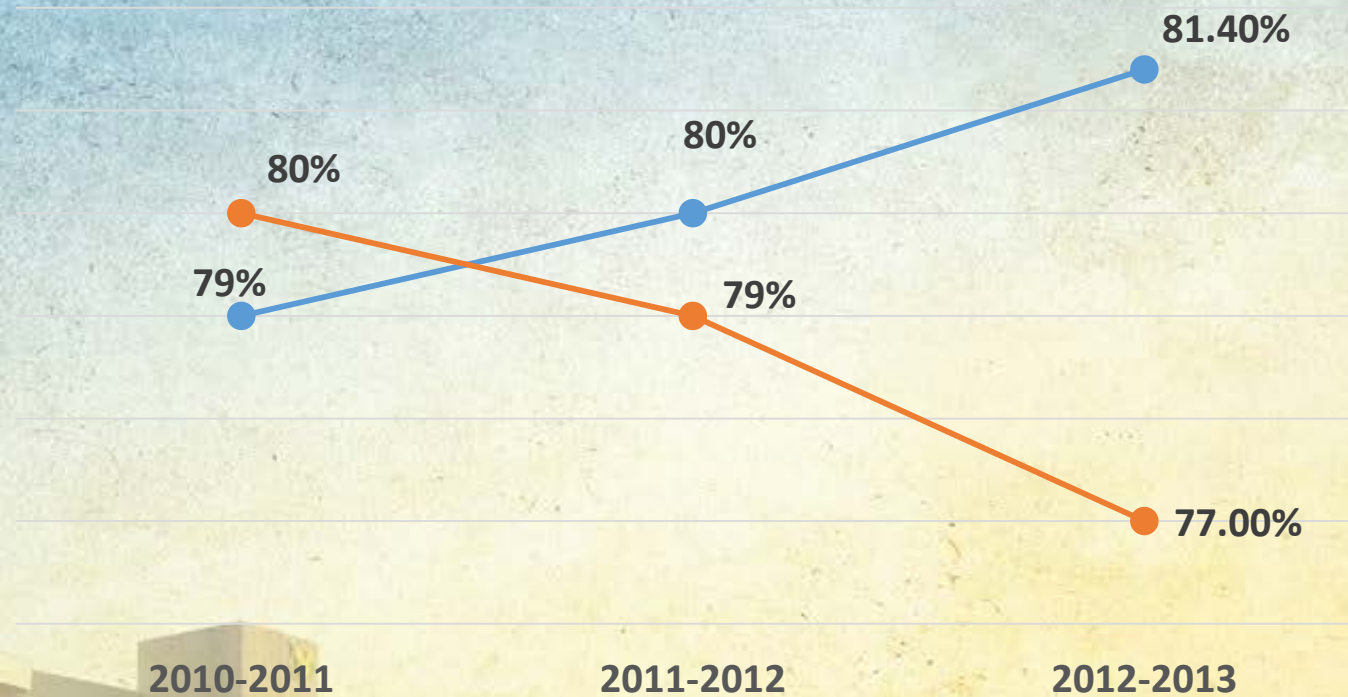
Source: U.S. Department of Education, ED Facts/Consolidated State Performance Reports

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And WY's trends are going the wrong way.

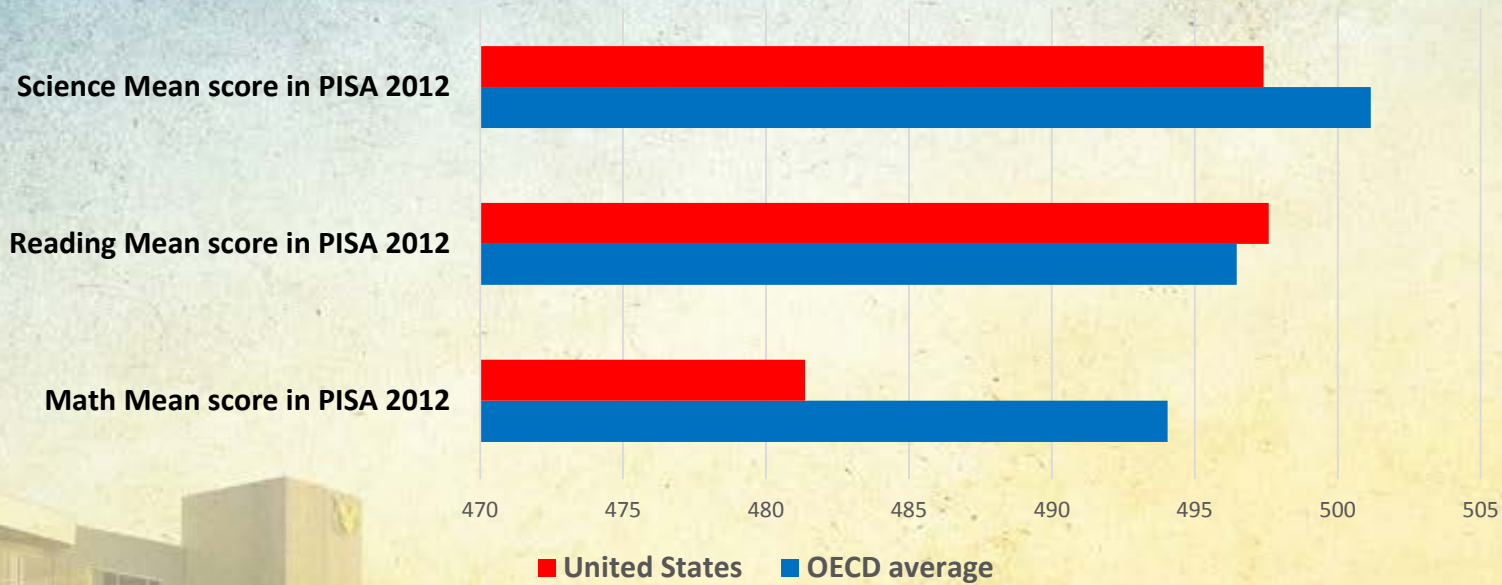
USA and WY High School Graduation Rates



Source: U.S. Department of Education, ED Facts/Consolidated State Performance Reports

USA's 15 year olds perform better than other countries on Reading, but below in Science, and far below in Math.

Program for International Student Assessment (PISA) of 15 Year Old Students 2012 Results



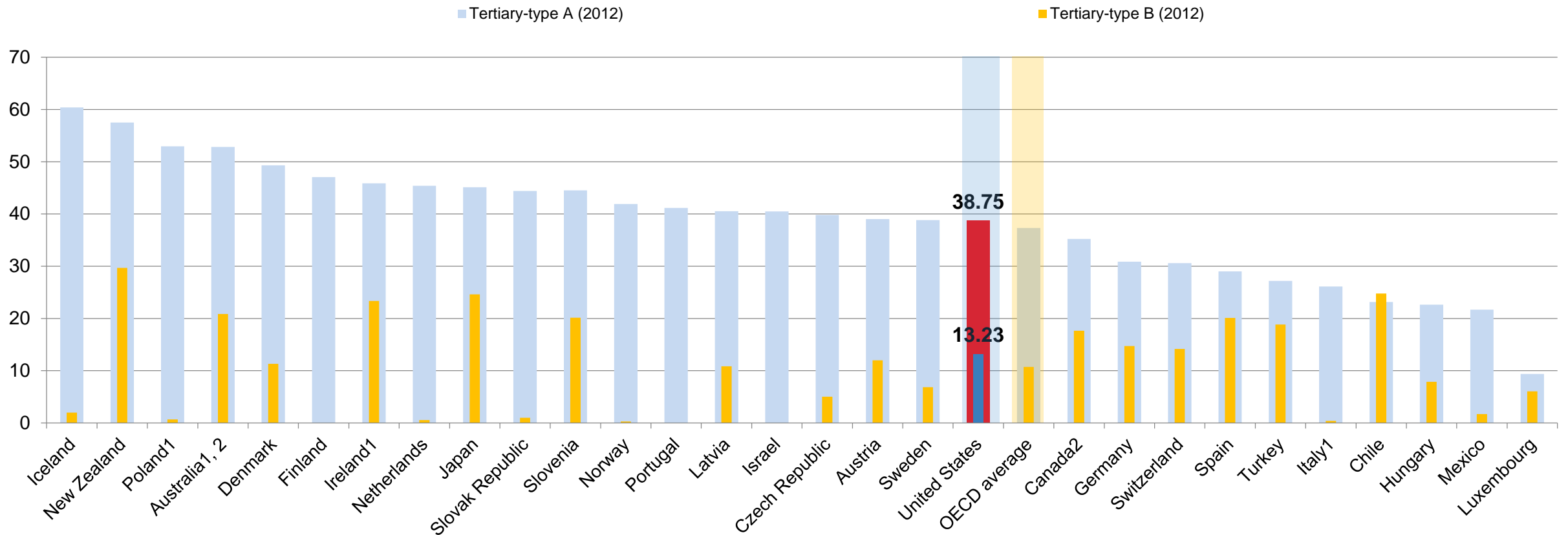
Source: OECD, PISA 2012 Database, Tables I.2.1a, I.2.1b, I.2.3a, I.2.3b, I.4.3a, I.4.3b, I.5.3a and I.5.3b.

Consideration #7

In the US, and in Wyoming, we have some work to do on K12 outcomes. Thus, the focus on accountability and student learning needs to continue. Fortunately Wyoming is tackling this head-on.

The USA's college graduation rates are just slightly over the average of other OECD countries.

Chart A3.2. First-time Graduation Rates in Tertiary-type A and B Education (1995 and 2012)



1. Year of reference 2000 instead of 1995

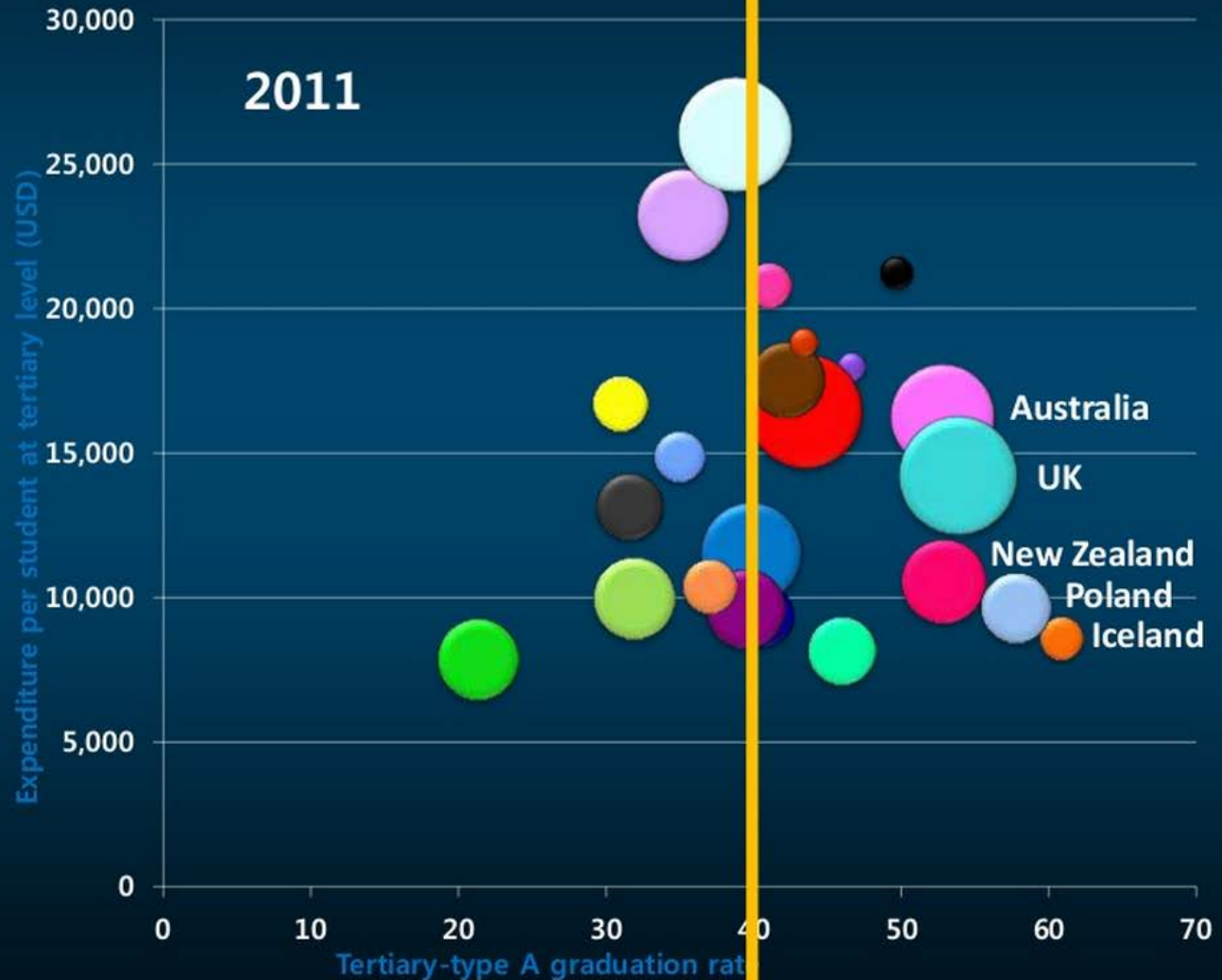
2. Year of reference 2011 instead of 2012.

Countries are ranked in descending order of first-time graduation rates for tertiary-type A education in 2012.

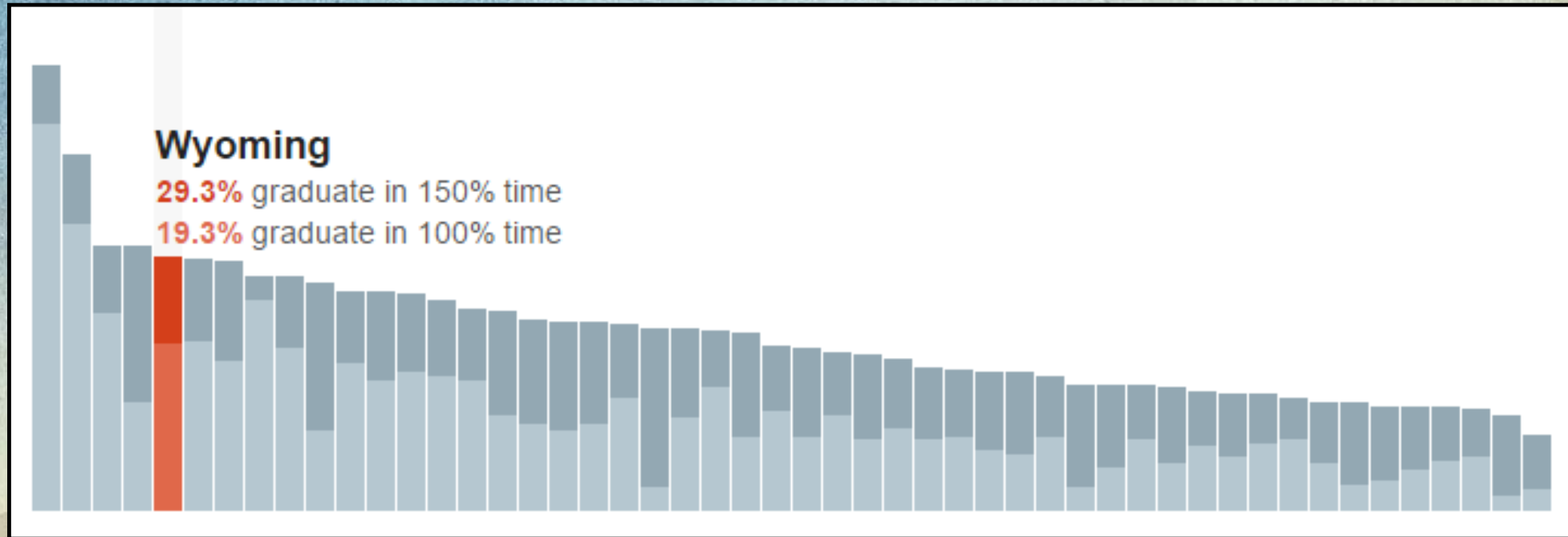
Source: OECD. Table A3.2a. See Annex 3 for notes (www.oecd.org/edu/eag.htm)

- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change – higher education



Graduation rates in WY's community colleges are above national average. Nothing to brag about though.

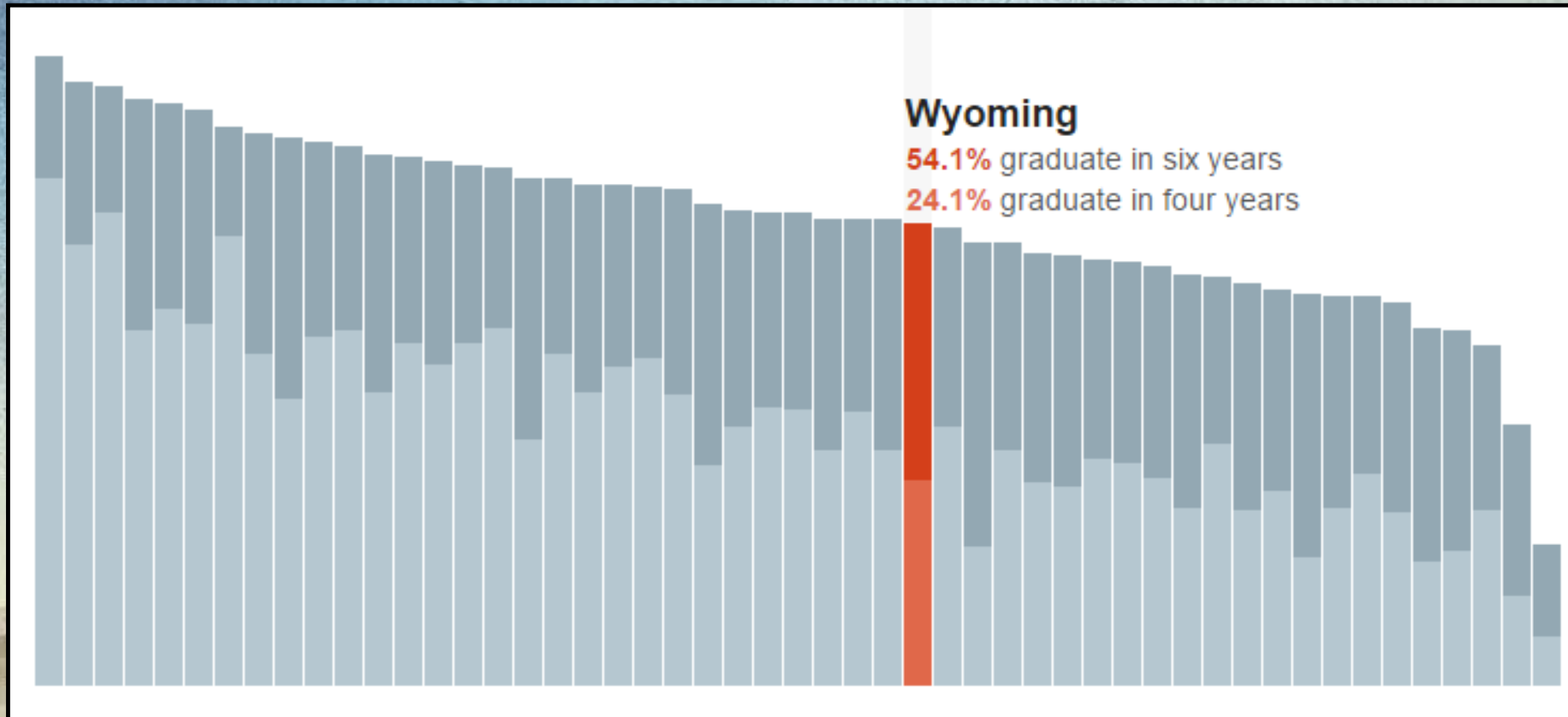


Source: National Center for Education Statistics' Integrated Postsecondary Education System, accessed at http://collegecompletion.chronicle.com/state/#state=wy§or=public_two

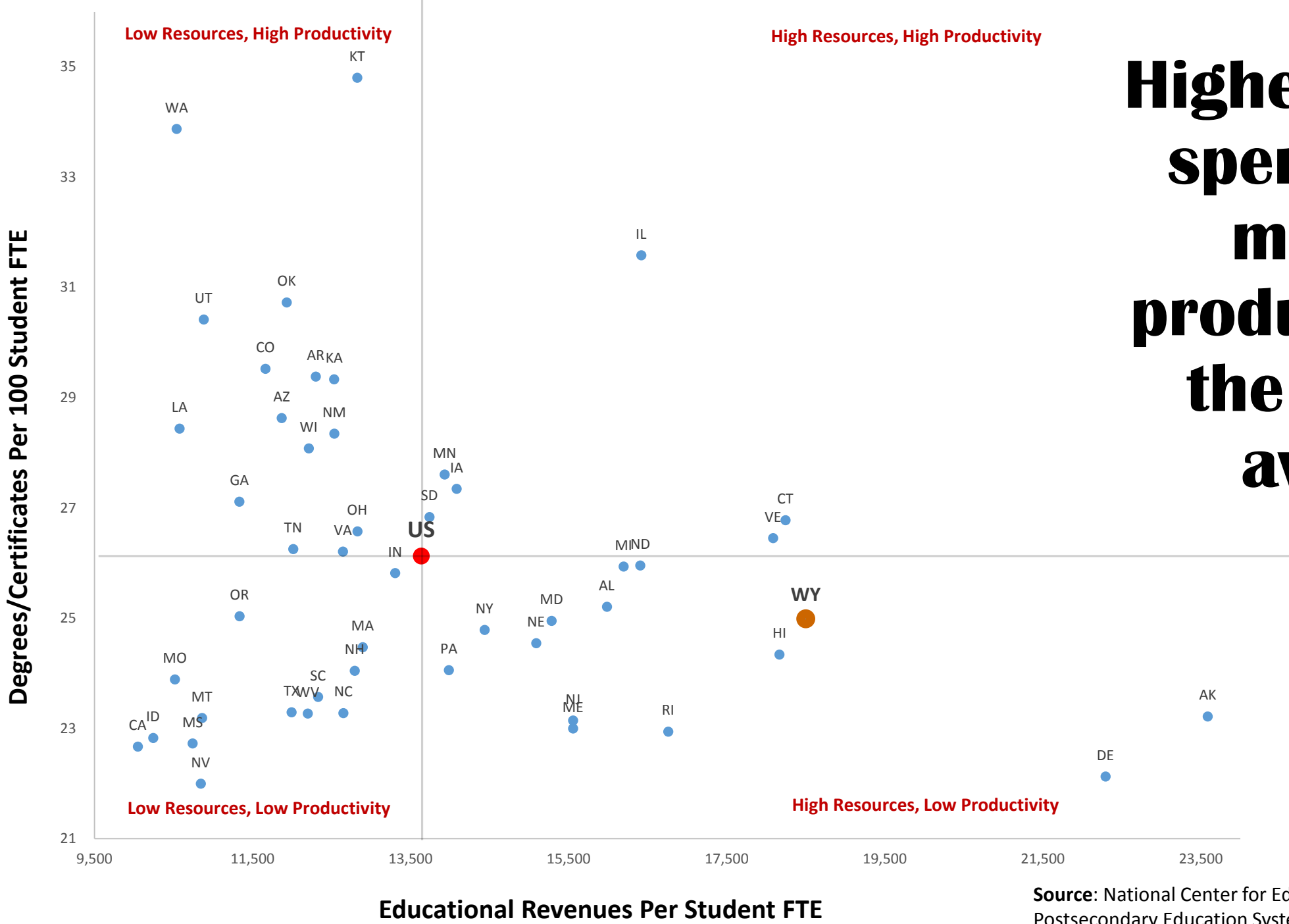
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Graduation rates at UW are slightly below the national average.



Source: National Center for Education Statistics' Integrated Postsecondary Education System, accessed at http://collegecompletion.chronicle.com/state/#state=wy§or=public_four



**Higher Ed in WY
spends much
more but
produces below
the national
average.**

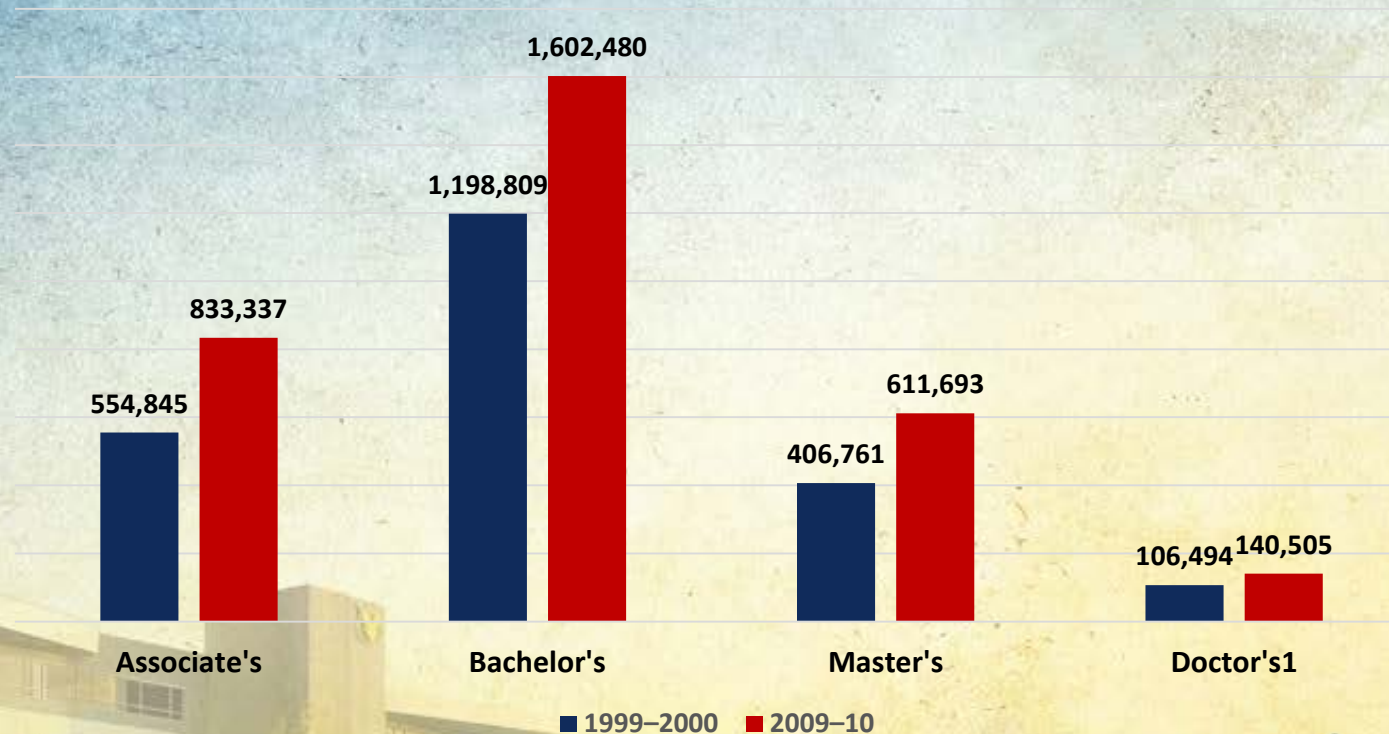
Source: National Center for Education Statistics' Integrated Postsecondary Education System; SHEEO FY14 Education Finance Report

Consideration #8

The US, and Wyoming have invested well in higher education, but the level of student success and completion are not reflective of this investment.

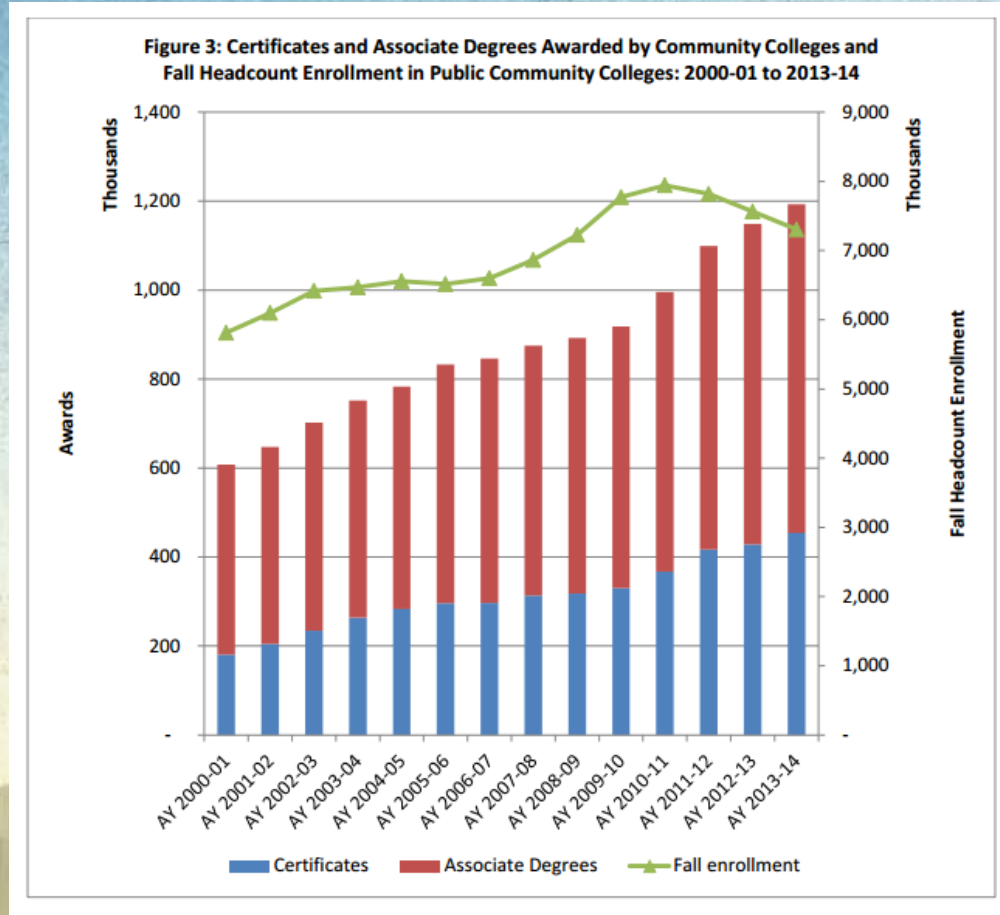
Nationally, we are awarding more college credentials.

Increase in College Credentials 2000-2010



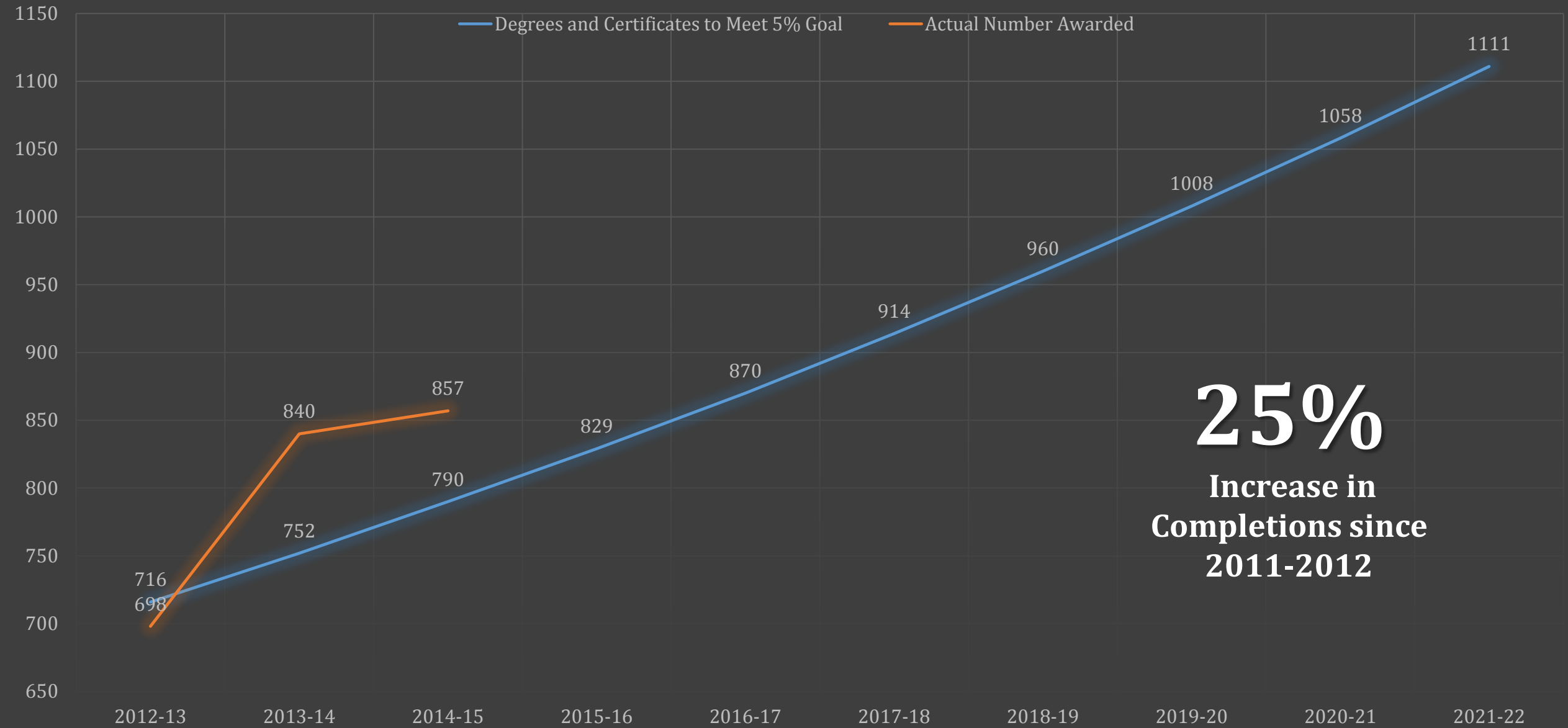
Source: U.S. Department of Education, National Center for Education Statistics. (2012). The Condition of Education 2012 (NCES 2012-045), Table A-47-2.

Community colleges are really stepping up, even while enrollment declines.



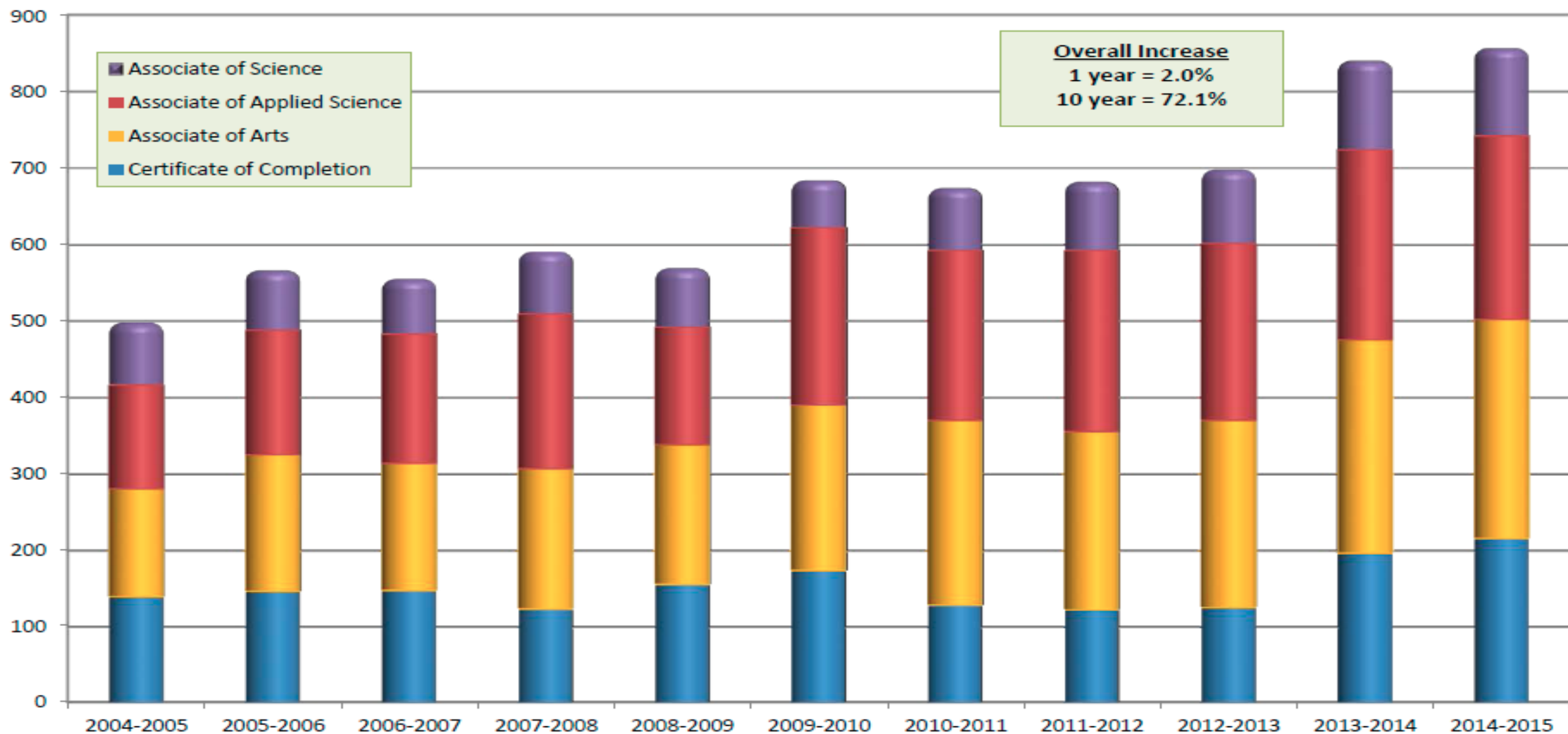
Source: American Association of Community Colleges, *Community College Completion Progress toward goal of 50% increase, 2015*.

LCCC Degree and Certificate Production Goal Progress Report



25%
Increase in
Completions since
2011-2012

Degrees and Certificates Awarded 2004-2005 to 2014-2015¹



¹ For reporting purposes, the academic year includes the summer, fall and spring semesters.

Conclusions:

- We need more people with higher levels of education in Wyoming.
- Population growth from in-migration may not be the solution (but we should still try).
- We need to do better with the young people we have.
- Wyoming should be applauded for its investment in education at all levels.
- However, we need to produce better outcomes.
- Wyoming's educators are working on it and starting to see some positive results.

Questions?



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