

Setting Goals for Colorado Higher Education



Colorado Commission on Higher Education
Durango, Colorado
August 4, 2011



NCHEMS

National Center for Higher Education Management Systems
3035 Center Green Drive, Suite 150
Boulder, Colorado 80301

Provisions of SB 11-052

- The Commission shall
 - Craft a statewide master plan for the state system of higher education
 - Establish appropriate and achievable goals for the statewide system of higher education and for individual institutions
- The Commission and Government Boards shall negotiate performance contracts... that articulate the expectations and goals of each institution in helping to achieve the overall goals for the state system of higher education

As a Starting Point Goals and Priorities Stated or Suggested in

- Senate Bill 11-052
- The Degree Dividend – Colorado's Strategic Plan for Higher Education

SB 11-052

- Increase the overall number of baccalaureate degrees, associate degrees, and career and technical education certificates issued by public institutions
 - Maintain accessibility
 - Provide support for economic development
 - Provide a well-educated workforce
- Strengthen the continuity of public education from elementary and secondary through postsecondary
 - Traditional students
 - Nontraditional students
- Ensure long-term fiscal stability and affordability
- Reducing the educational attainment gap between majority and underrepresented populations
- Reducing the geographic disparities in access to and opportunity to complete a broad array of programs
- Addressing opportunities for students with disabilities
- Strengthen the link between higher education and economic development and innovation
- Ensure success of “at-risk” students

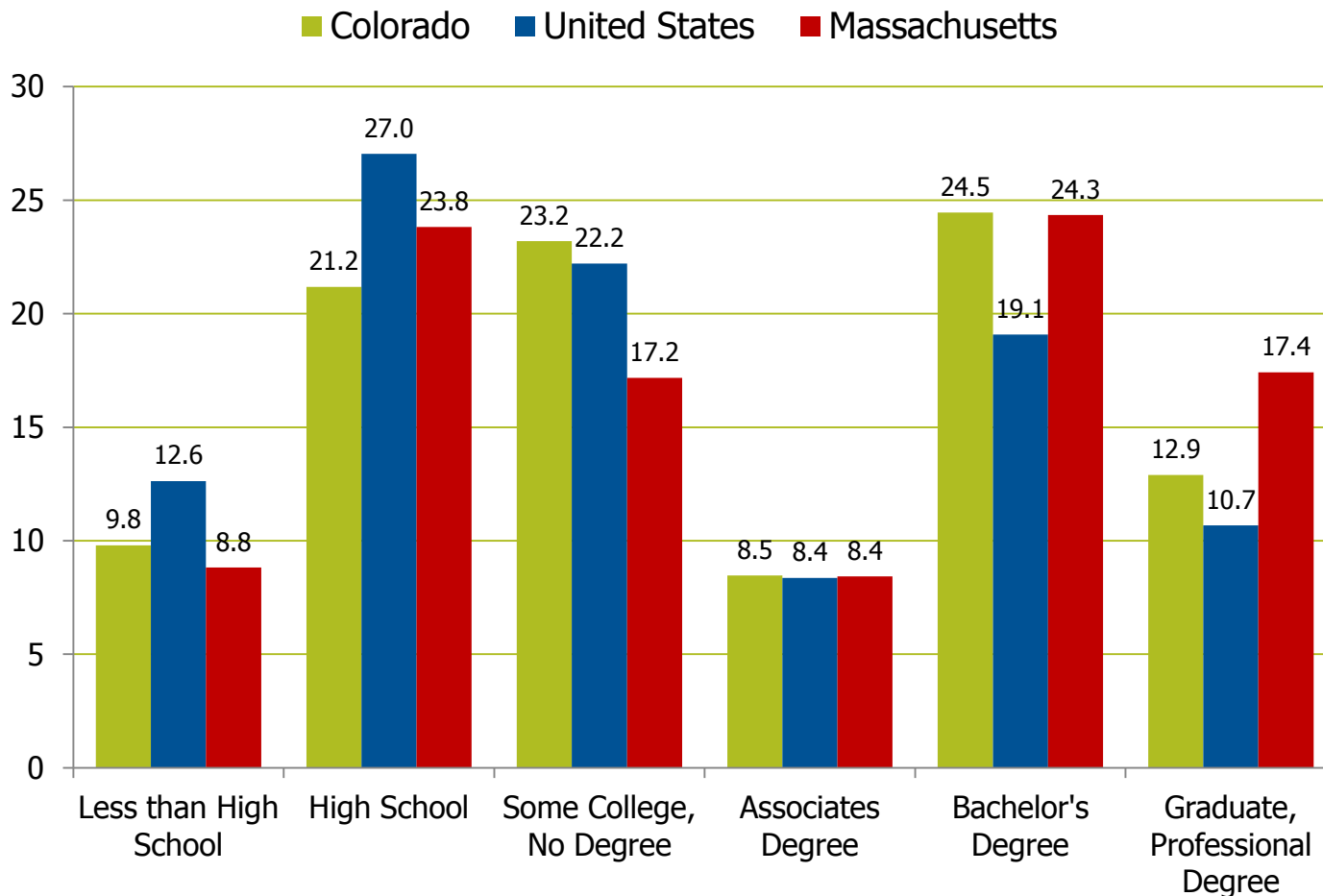
- Increase production of degrees and certificates
 - State goal – double the number of degrees and certificates produced by 2020
 - National goal – increase college education attainment of 25-34 year olds to 60% by 2020
- Maintain affordability
- Reduce regional, income, and ethnic gaps in college admission, retention, and completion

Synthesizing Goals Cover the Following Topics

- Education levels of the adult population/workforce
- Removal of Education attainment gaps
 - Whites versus minorities
 - Geographic origin/region of the state
 - At-risk versus not at risk
- Alignment of P-12 with postsecondary education
- Workforce development
- Economic development/innovation
- Long-term fiscal stability
- Affordability

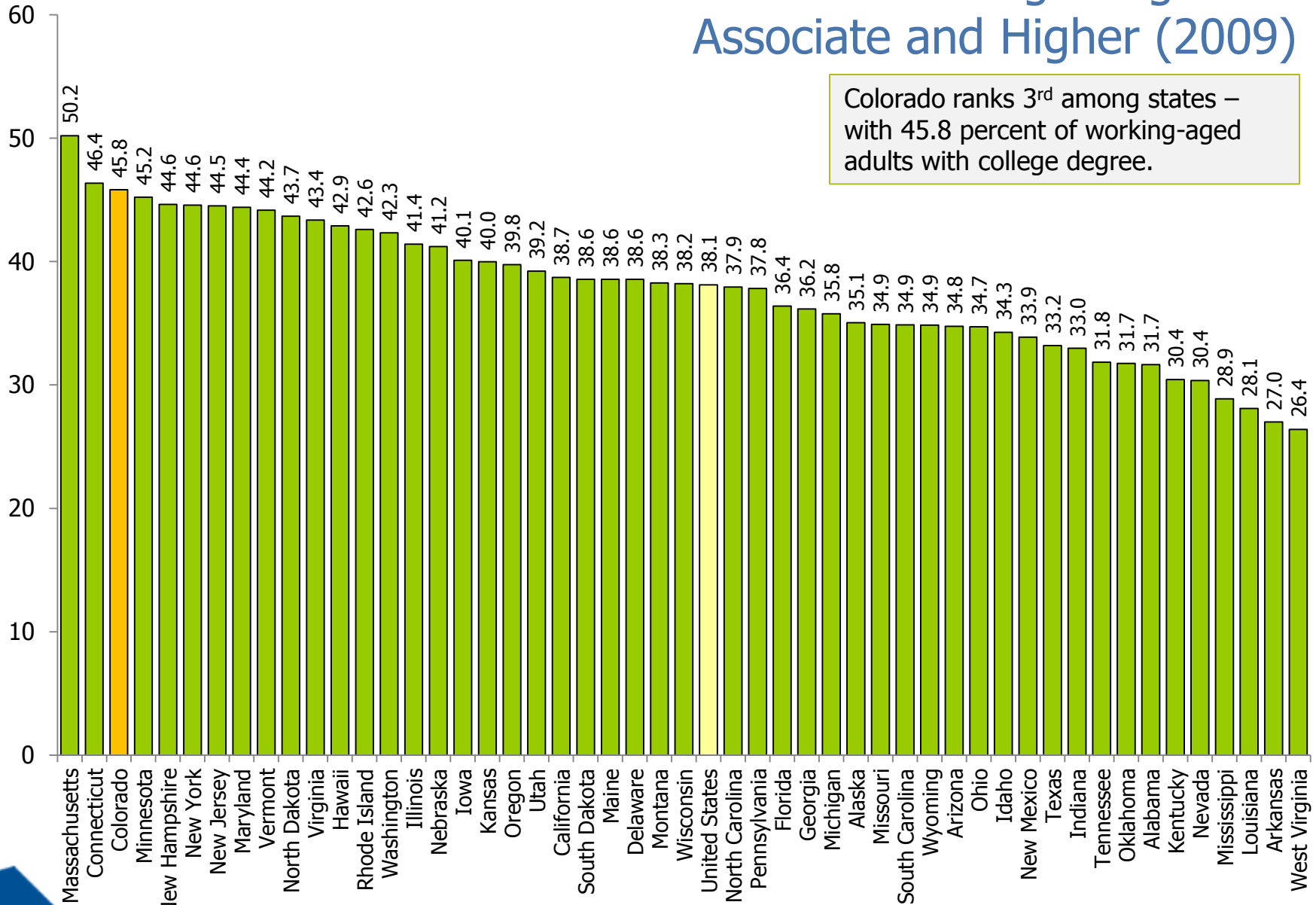
Education Attainment of the Adult Population/Workforce

Educational Attainment of Working Aged Adults Aged 25 to 64 – Colorado, the U.S., and Most Educated State (2009)



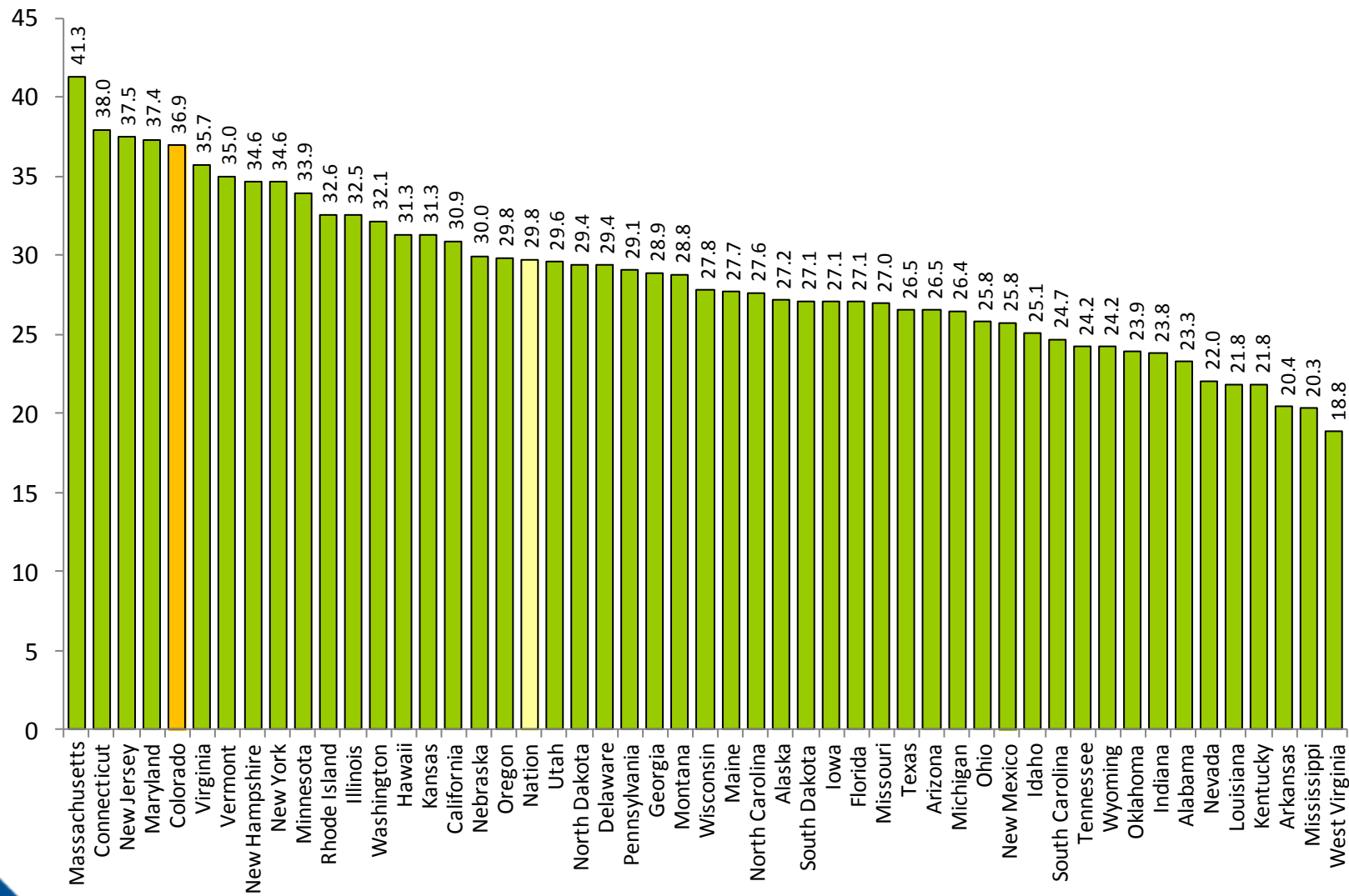
Colorado has more working-aged residents with some college but no degree and Bachelor's degrees than the U.S. and overall top state. More residents have college degrees than the U.S. at all levels.

Percent of 26 to 64 Year Olds with College Degrees - Associate and Higher (2009)

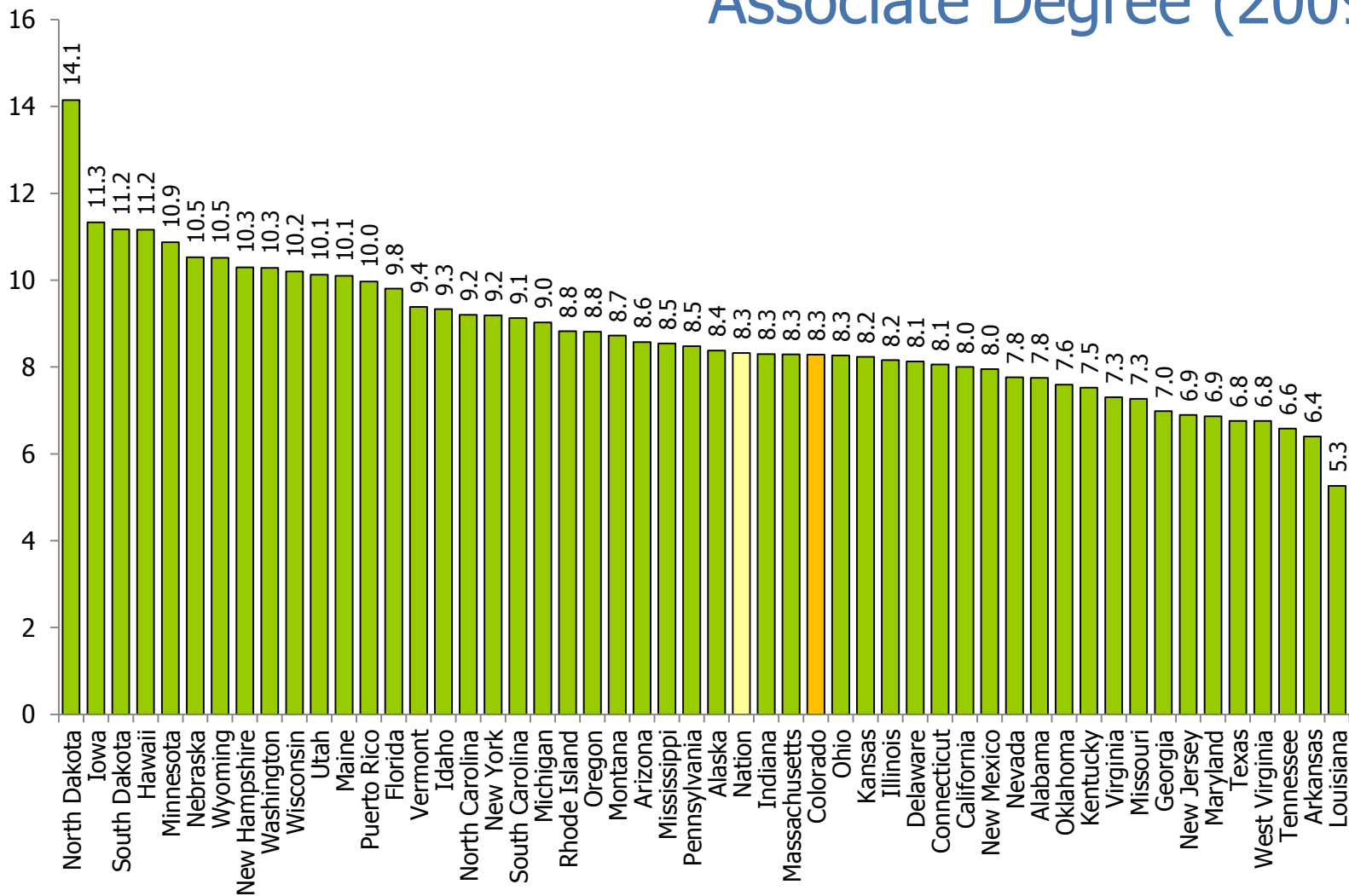


Colorado ranks 3rd among states – with 45.8 percent of working-aged adults with college degree.

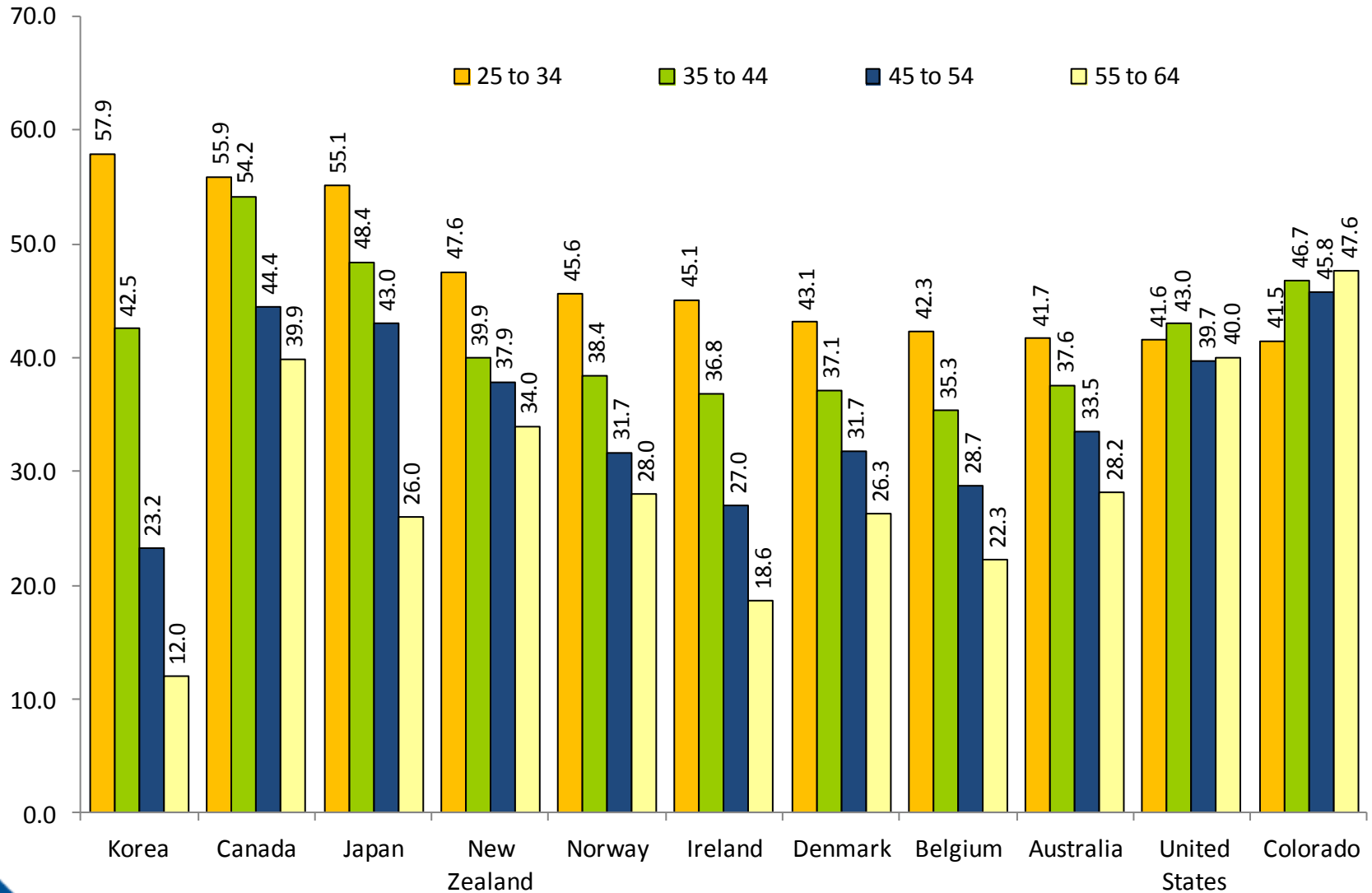
Percent of Population Ages 25-64 with a Bachelors Degree or Higher, 2009



Percent of 26 to 64 Year Olds with Just an Associate Degree (2009)

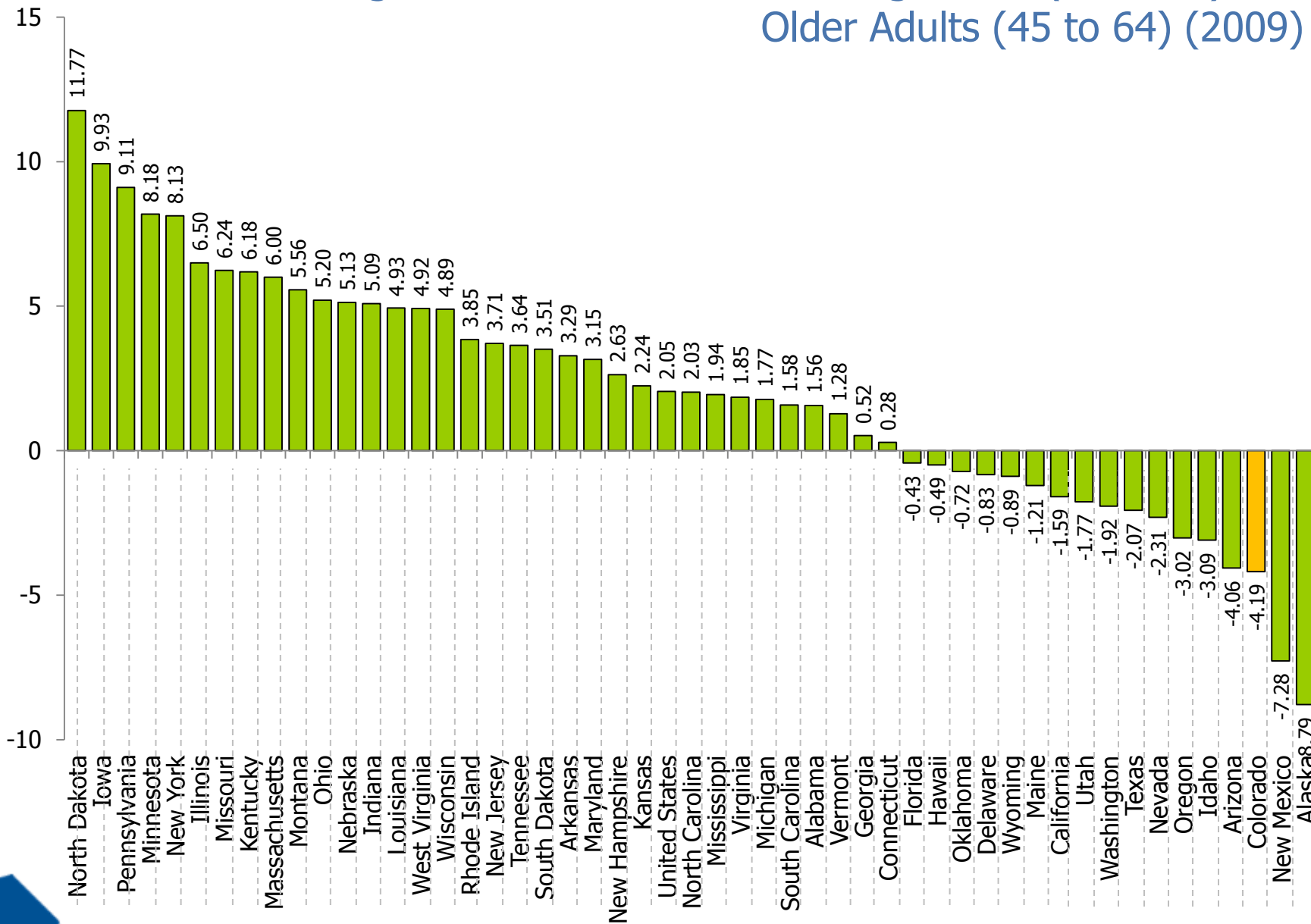


Percent of Adults with an Associate Degree or Higher by Age Group – Colorado, U.S. & Leading OECD Countries



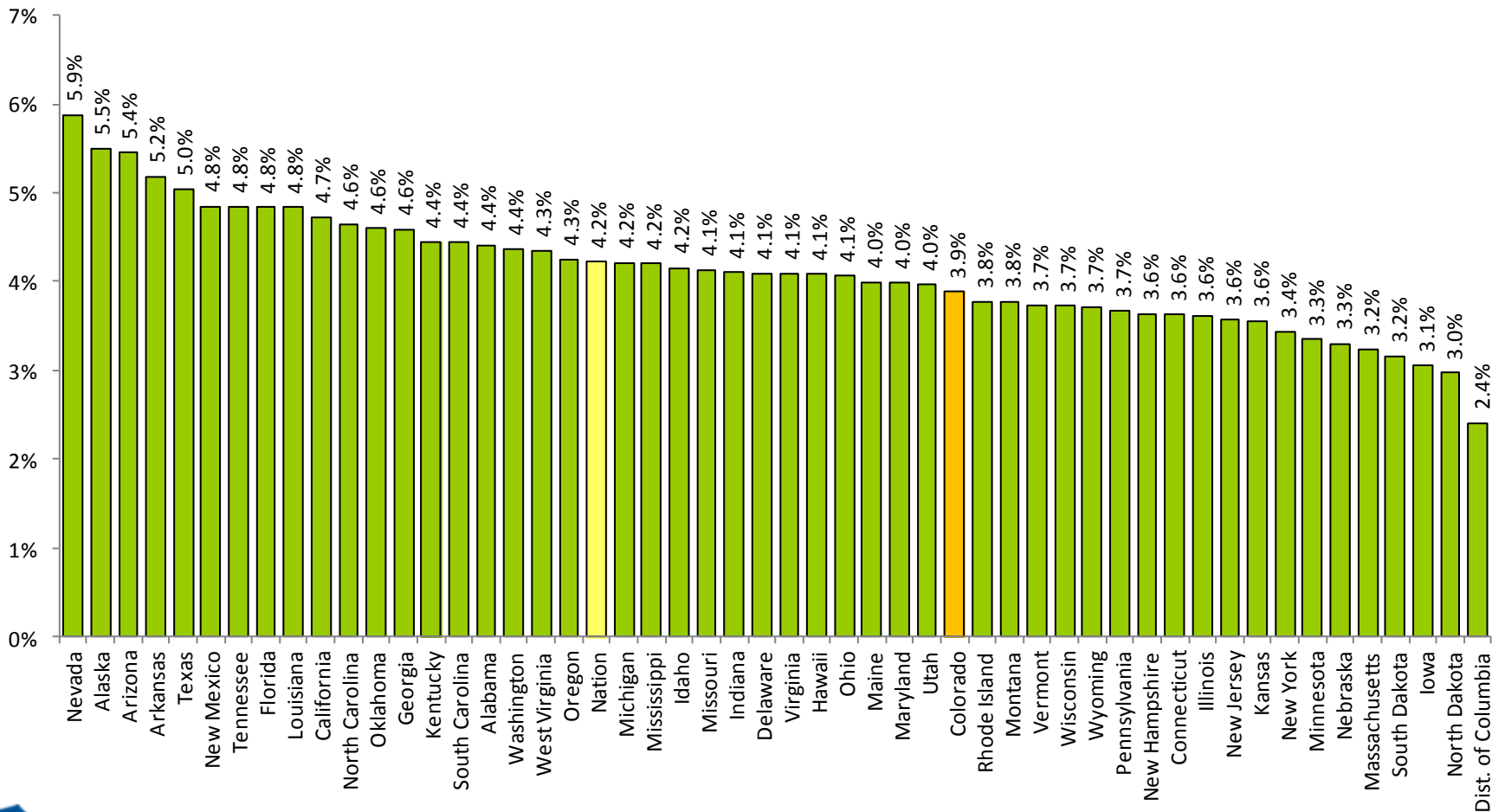
Source: OECD, Education at a Glance 2010

Difference in College Attainment between Young Adults (25 to 34) and Older Adults (45 to 64) (2009)



State Contributions to Closing the U.S. Gap of 8.2 Million Undergraduate Credentials by 2020

Average Annual Increase In Credential Production Needed (%)



Scenarios for Closing Colorado's College Degree Gap by 2025

Reset

Model to Current Values

Overall 2025 Budget Gap to Maintain
Current Spending per FTE Student

155,280,444

10%

Closing the Degree Gap

Strategies for Reducing Budget Gap

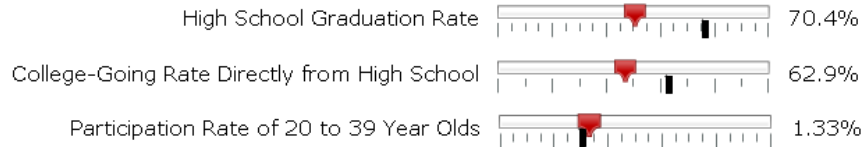
Improvements in Performance Needed to Close Degree Gap

College Attainment Goal in 2025 **60%**

(Current College Attainment of 25 to 64 Year Olds is 45.3%)

College Participation

Avg. Performance of Top 3 States



College Completion



Undergraduate
Credentials Awarded per
100 FTE Students

Future Enrollment Distribution of First-Time Students

	Directly Out of High School	20 to 39 Year Olds
Public Research	42% ▲ ▼	4% ▲ ▼
Public Bachelors and Masters	25% ▲ ▼	8% ▲ ▼
Public Two-Year	22% ▲ ▼	61% ▲ ▼
Private	11% ▲ ▼	27% ▲ ▼
Must Equal 100%	100%	100%

Closing the Attainment Gap by 2025

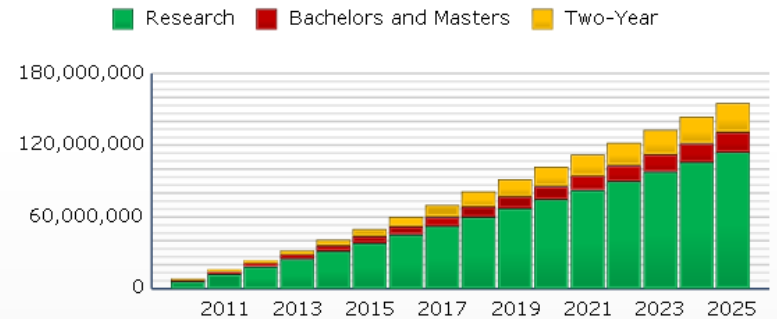
Gap: Additional Degrees Needed to Meet Goal **230,442**

Additional Credentials Awarded by 2025 as a Result of Improved Performance	Value
Associates	6,754
Bachelors	34,486

Additional Degrees Produced **41,240**

Undergraduate Certificates	6,321
Total Additional Undergraduate Credentials Produced	47,561

Annual Budget Gap at Current \$ per FTE Student



Scenarios for Closing Colorado's College Degree Gap by 2025 (If Colorado Matches Levels of the Top 3 States)

Reset

Model to Current Values

Overall 2025 Budget Gap to Maintain
Current Spending per FTE Student

167,373,208

11%

Closing the Degree Gap

Strategies for Reducing Budget Gap

Improvements in Performance Needed to Close Degree Gap

College Attainment Goal in 2025

60%

(Current College Attainment of 25 to 64 Year Olds is 45.3%)

College Participation

Avg. Performance of Top 3 States

High School Graduation Rate 86.0%

College-Going Rate Directly from High School 74.0%

Participation Rate of 20 to 39 Year Olds 1.20%

College Completion

Public Research 25.9

Public Bachelors and Masters 24.5

Public Two-Year 37.4

Private Sector 27.1

Undergraduate
Credentials Awarded per
100 FTE Students

Closing the Attainment Gap by 2025

Gap: Additional Degrees Needed to Meet Goal 230,442

Additional Credentials Awarded
by 2025 as a Result of
Improved Performance

Associates 42,221

Bachelors 163,656

Additional Degrees Produced 205,878

Undergraduate Certificates 45,852

Total Additional Undergraduate Credentials
Produced 251,730

Future Enrollment Distribution of First-Time Students

Directly Out of High School

20 to 39 Year Olds

Public Research 42%

4%

Public Bachelors and Masters 25%

8%

Public Two-Year 22%

61%

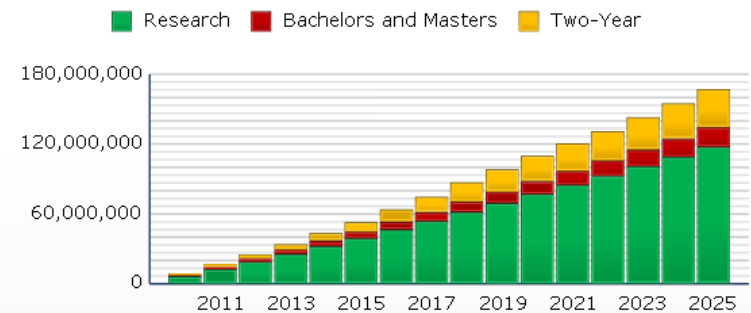
Private 11%


27%

Must Equal 100% 100%

100%

Annual Budget Gap at Current \$ per FTE Student

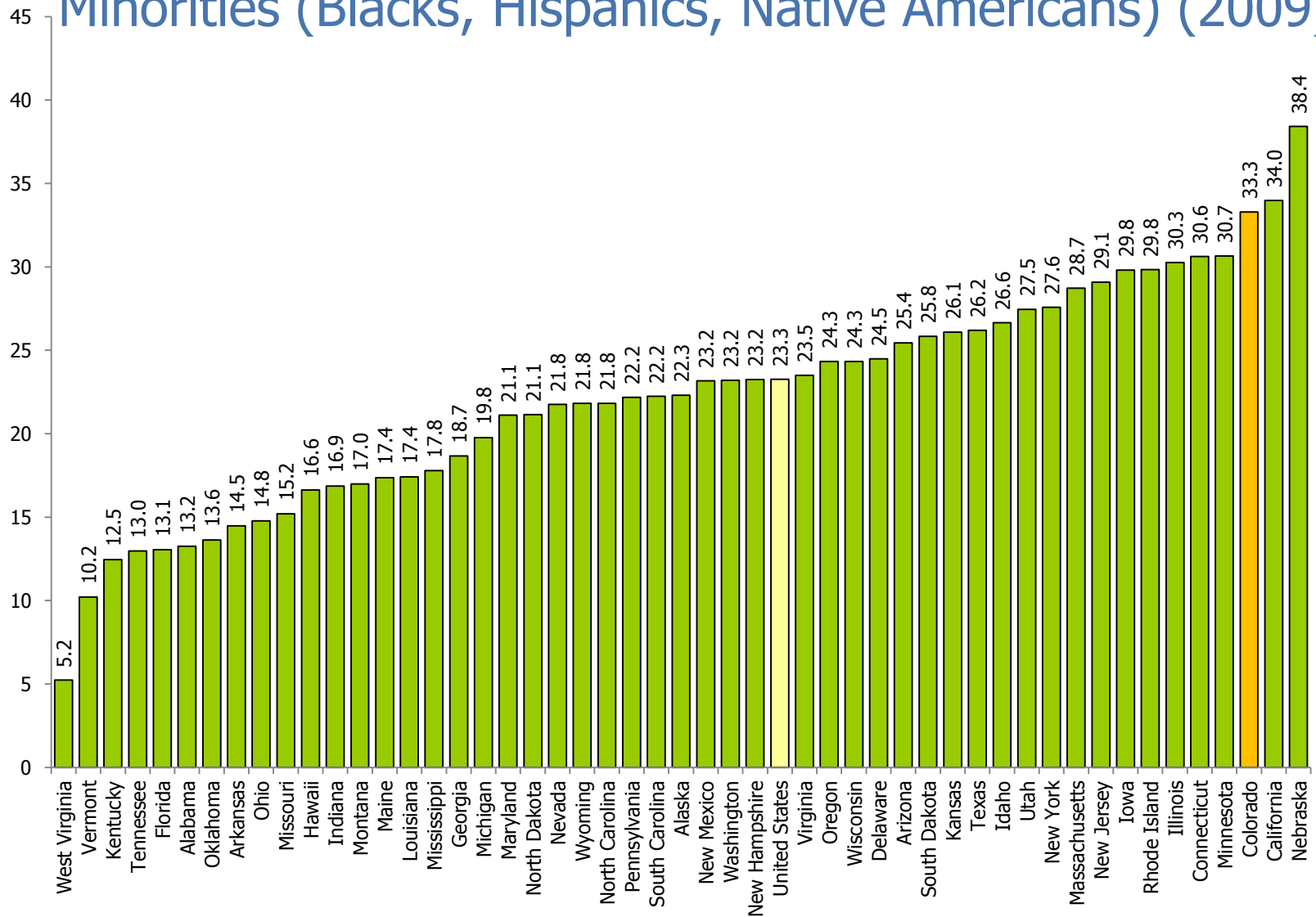




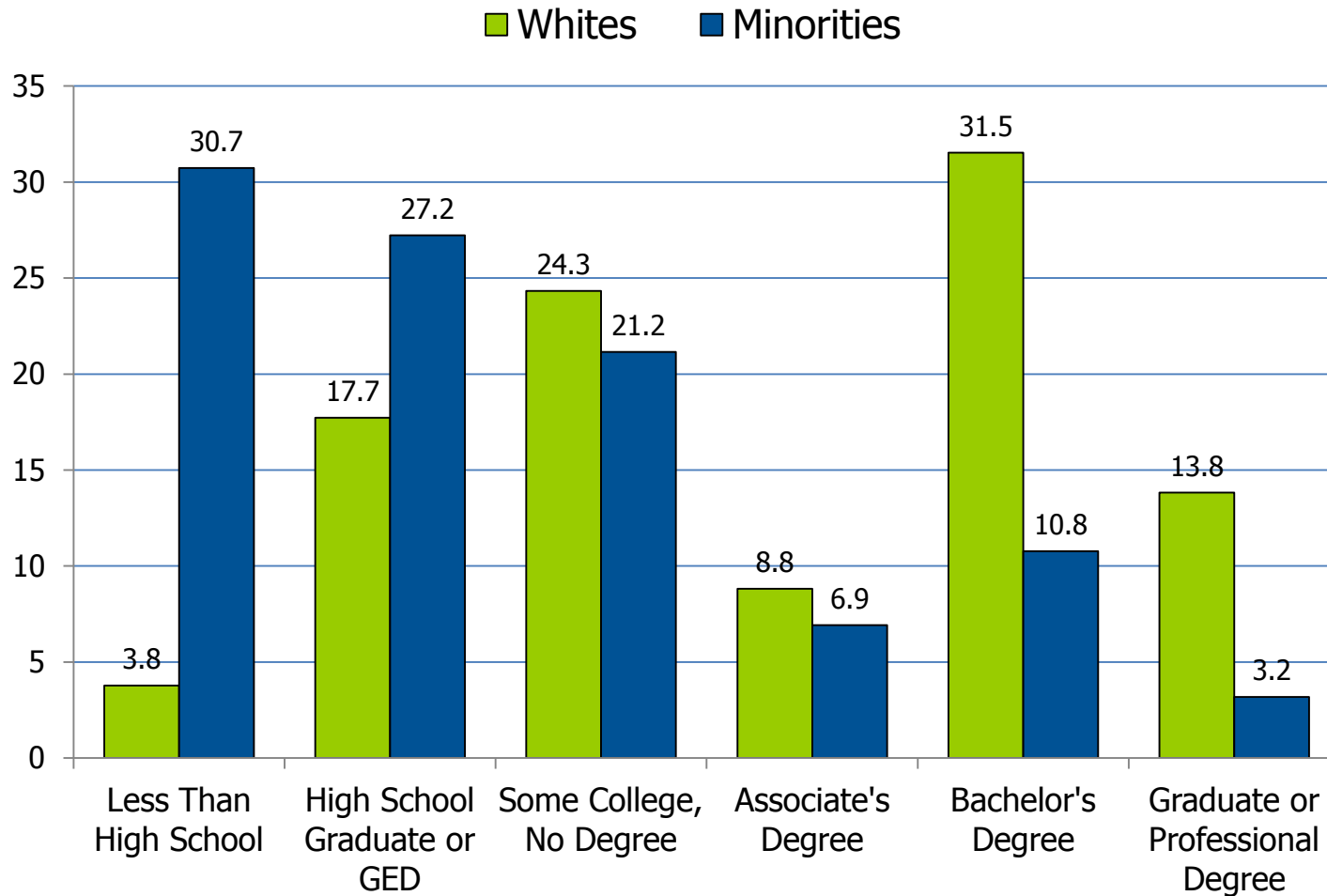
Removal of Education Attainment Gaps

Whites versus Minorities

Difference in College Attainment between Whites and Minorities (Blacks, Hispanics, Native Americans) (2009)

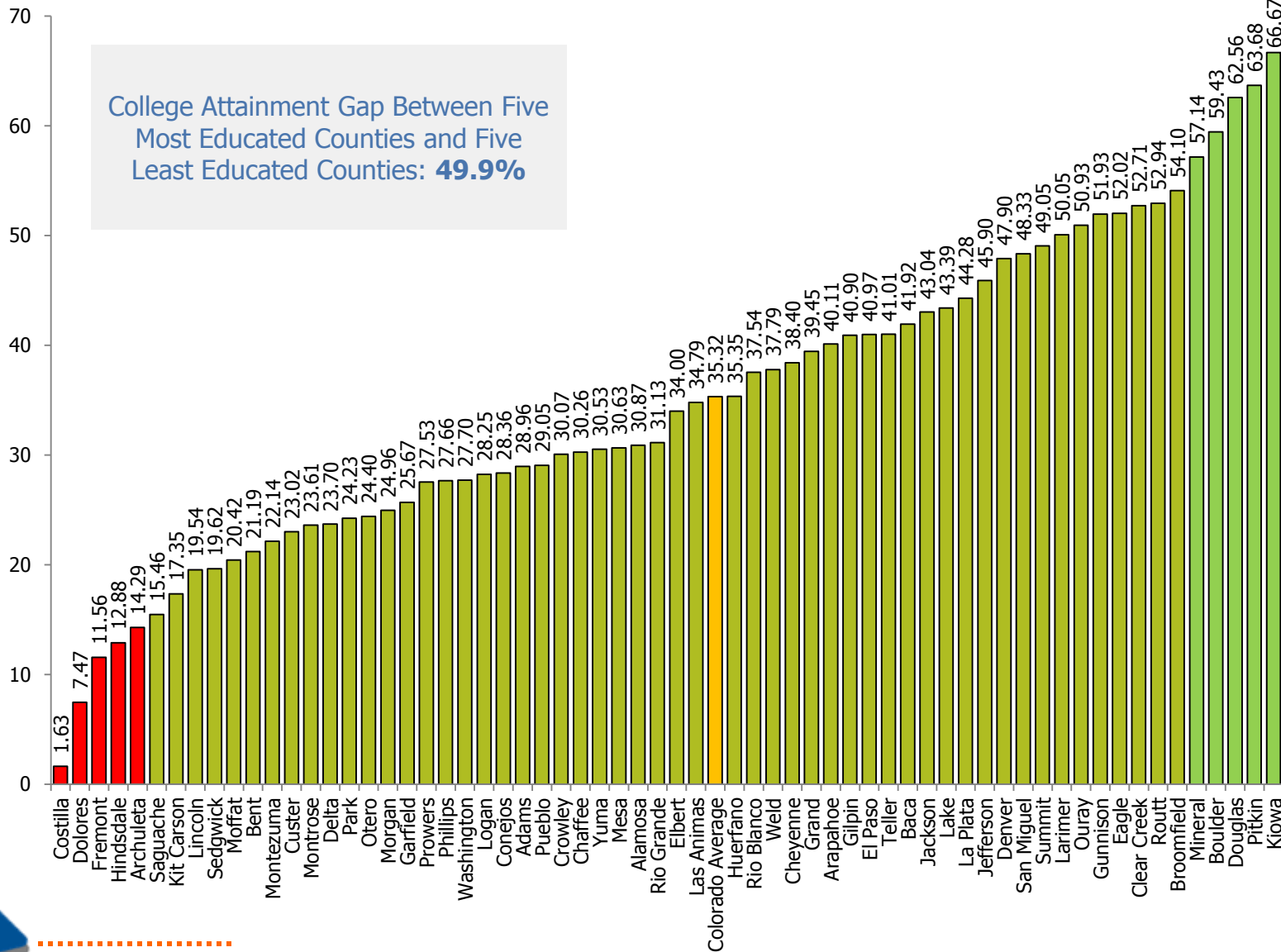


Educational Attainment of Whites and Minorities (Blacks, Hispanics, Native Americans) Aged 25 to 44 (2009)

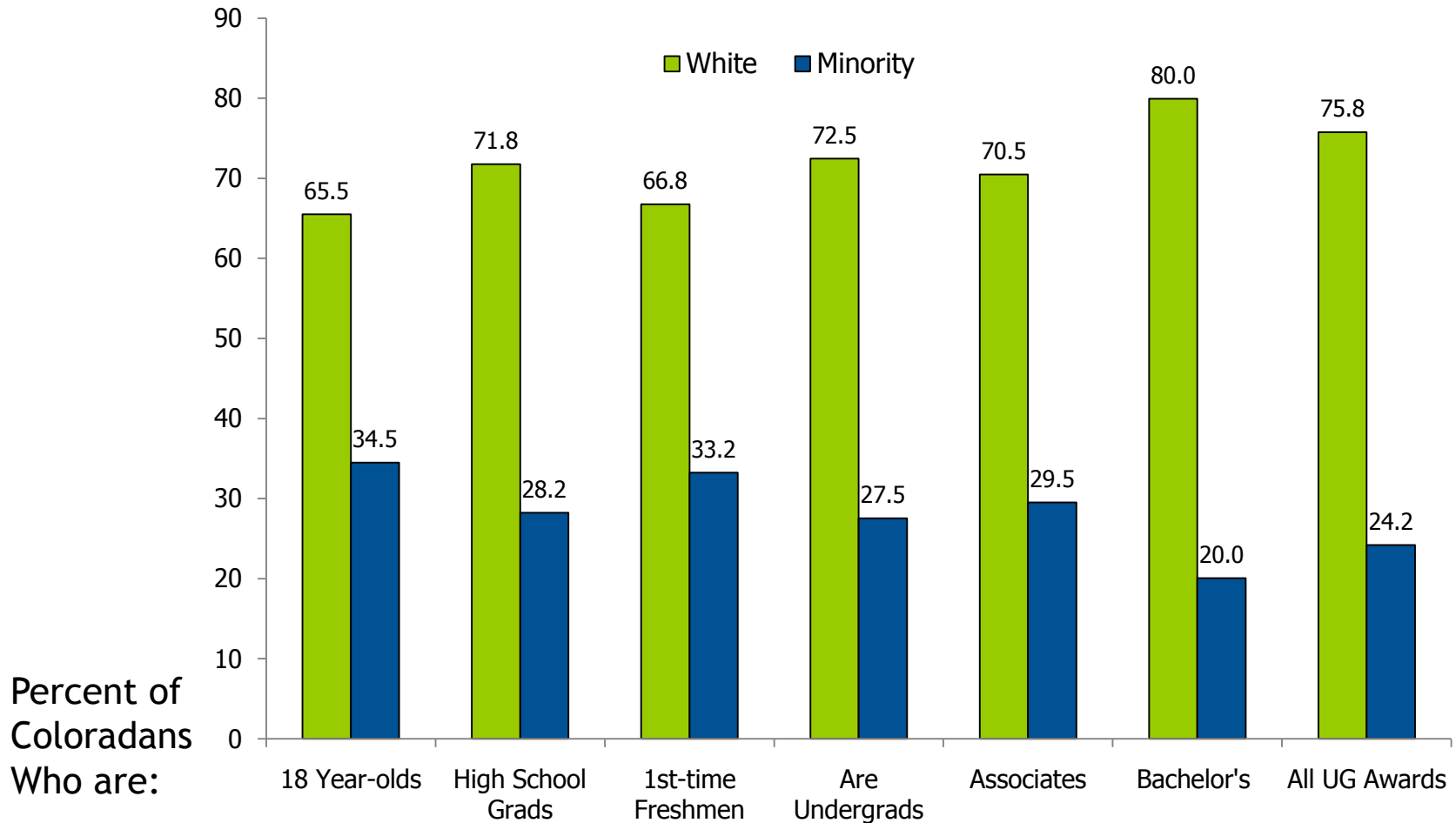


Difference in College Attainment by County for Ages 25-34

Whites vs. Minorities



Colorado's Student Pipeline: White vs. Minority



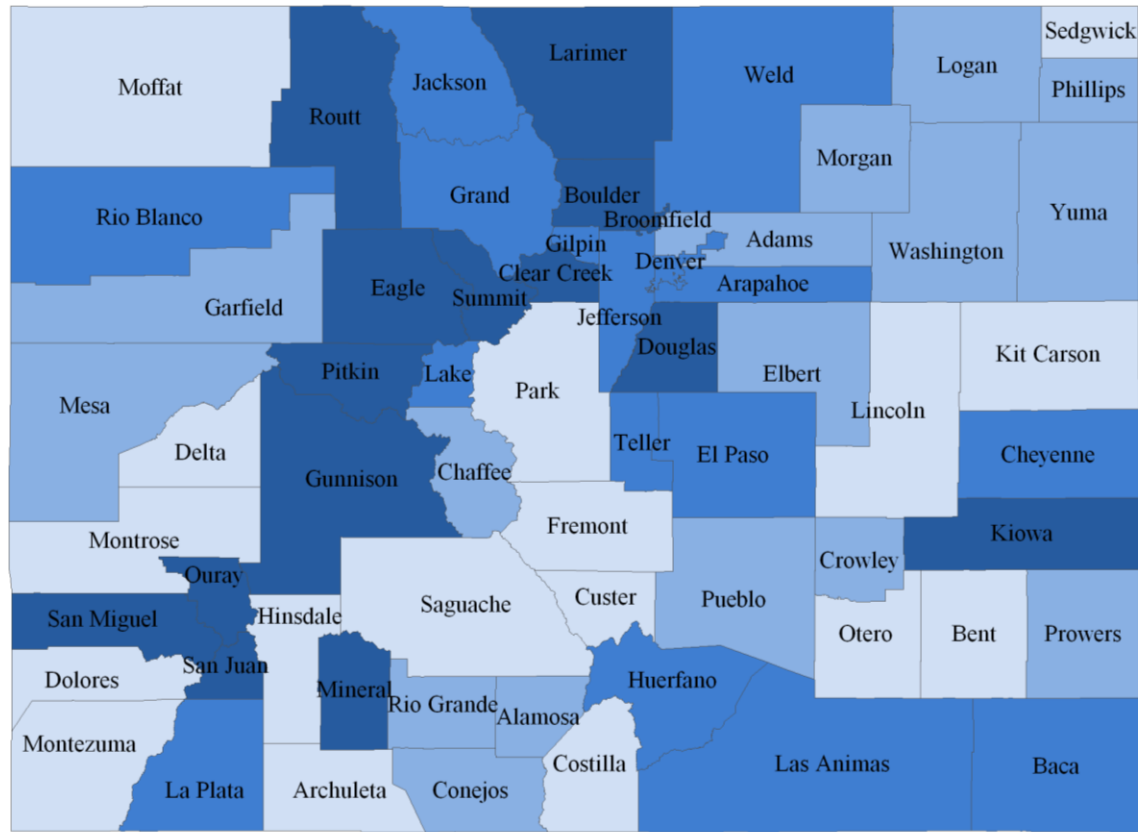
Percent of Coloradans Who are:



Removal of Education Attainment Gaps

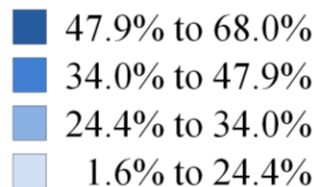
Geographic Origin/Region of the State

Percent of Adults Aged 25-34 with College Degrees – Associate and Higher – By County (2009)

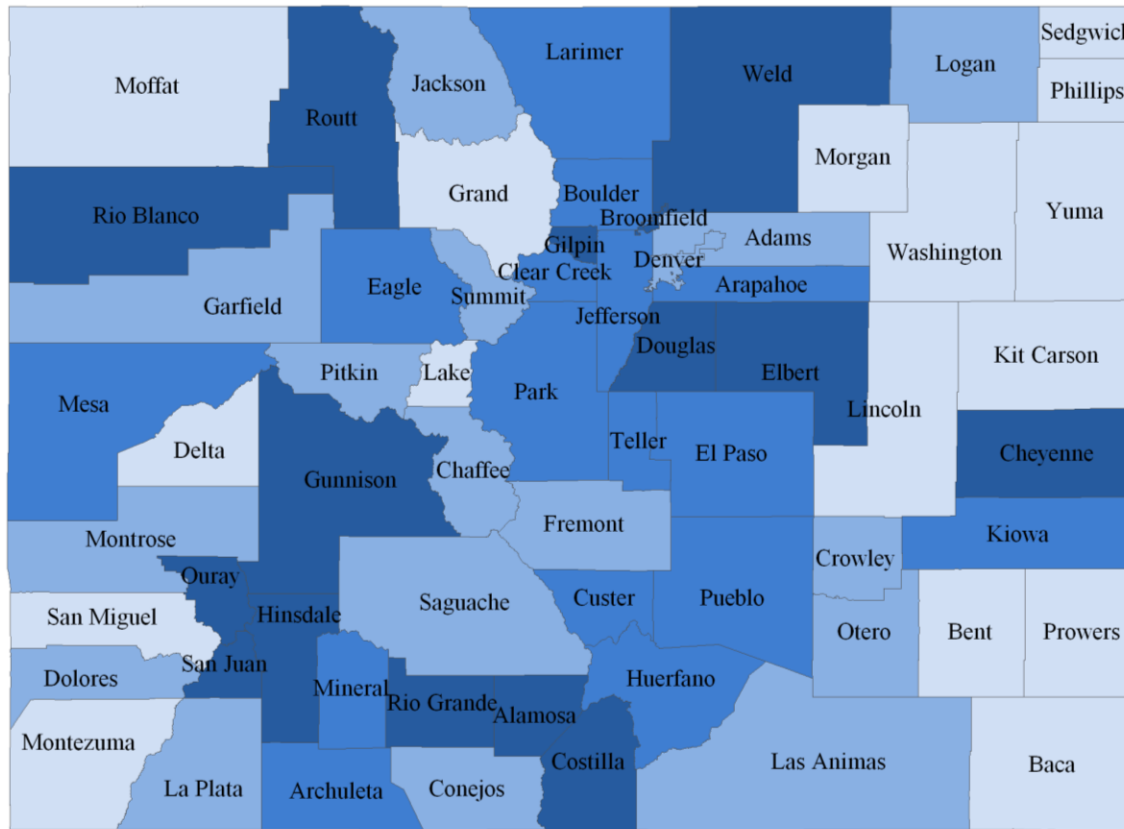


68.0% - San Juan
1.6% - Costilla

Percent Age 25-34 with College Degree



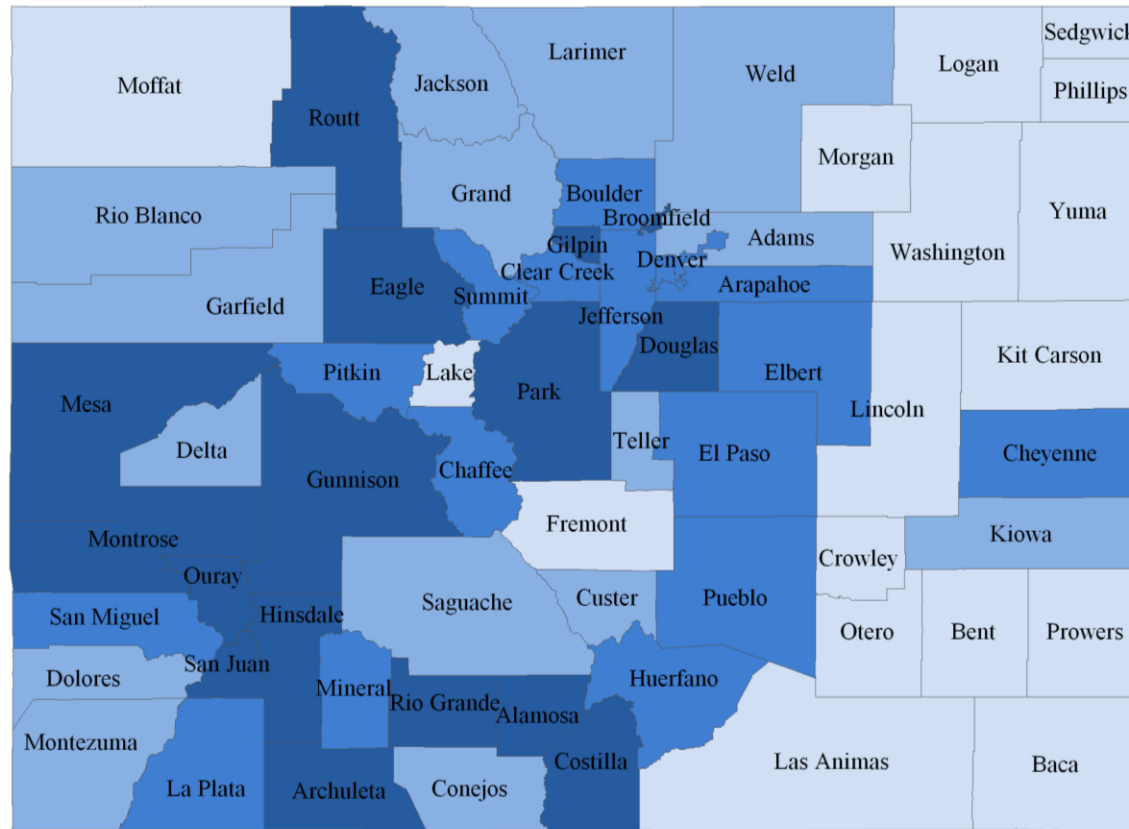
Public First-Time Undergraduates Directly Out of High School as a Percent of Public High School Graduates, 2006-08 Annual Average



Public Participation Rates

- 41.2% to 100.0%
- 38.3% to 41.2%
- 32.6% to 38.3%
- 9.7% to 32.6%

Public 4-Year First-Time Undergraduates Directly Out of High School as a Percent of Public High School Graduates, 2006-08 Annual Average



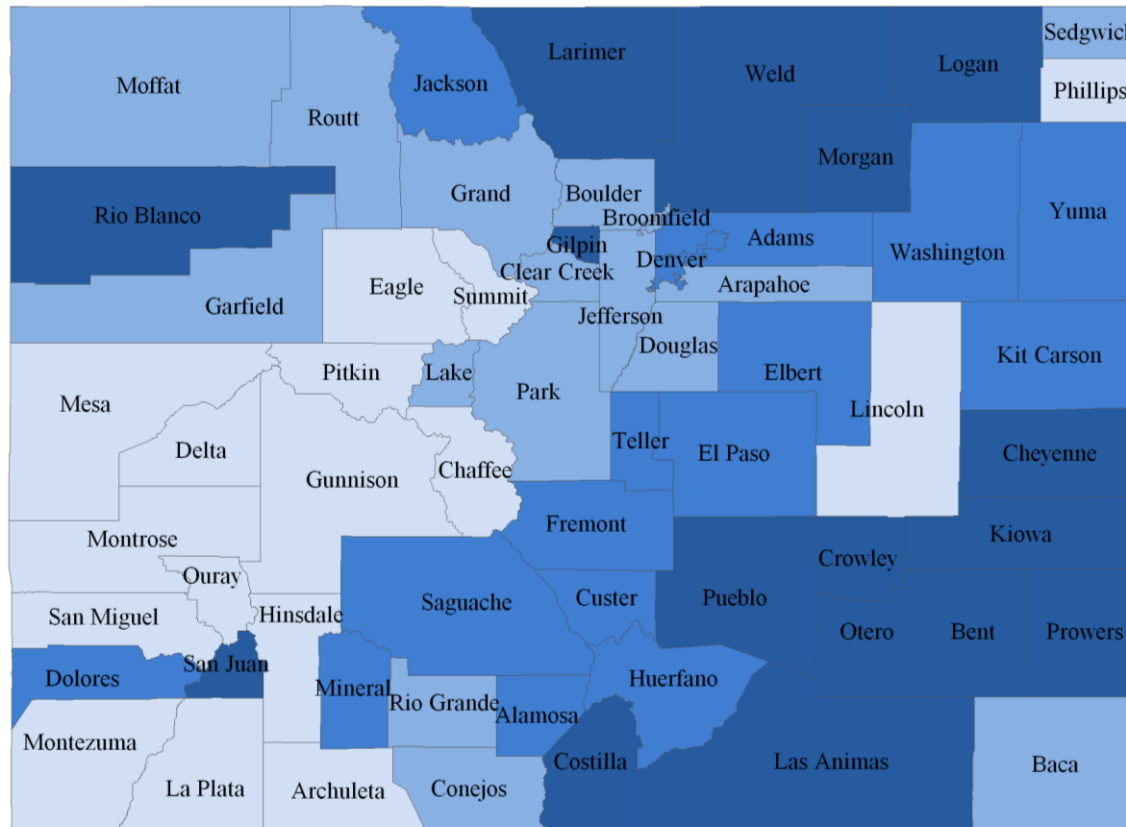
Public 4-Year Participation Rates

- 34.3% to 100.0%
- 29.5% to 34.3%
- 22.7% to 29.5%
- 4.6% to 22.7%

Colorado = 32.0%

Source: Colorado Department of Higher Education. Colorado Department of Education.

Public 2-Year First-Time Undergraduates Directly Out of High School as a Percent of Public High School Graduates, 2006-08 Annual Average



Public 2-Year Participation Rates

- 10.8% to 71.5%
- 7.8% to 10.8%
- 5.1% to 7.8%
- 0.0% to 5.1%

Colorado = 8.0%

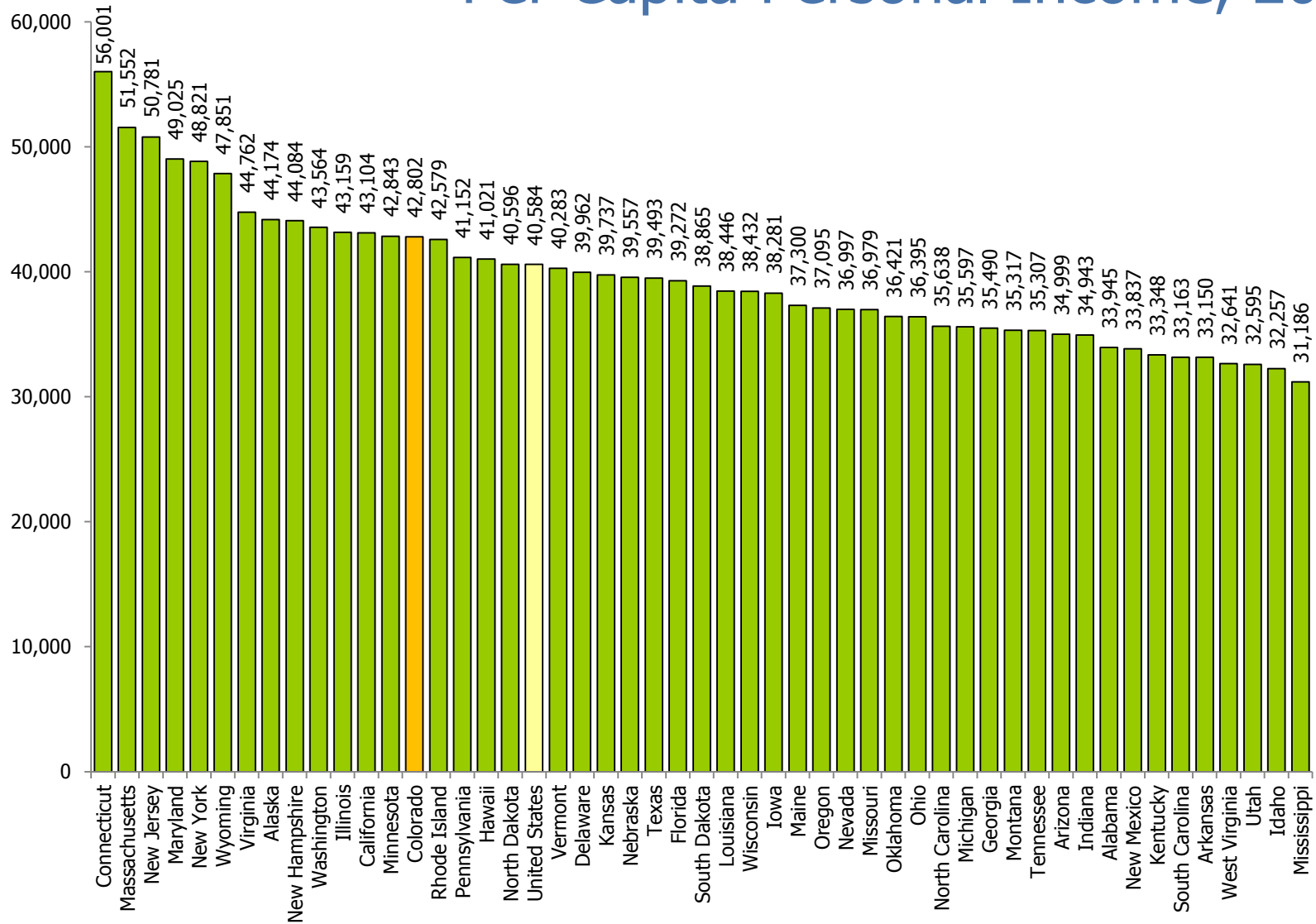
Source: Colorado Department of Higher Education. Colorado Department of Education.



Removal of Education Attainment Gaps

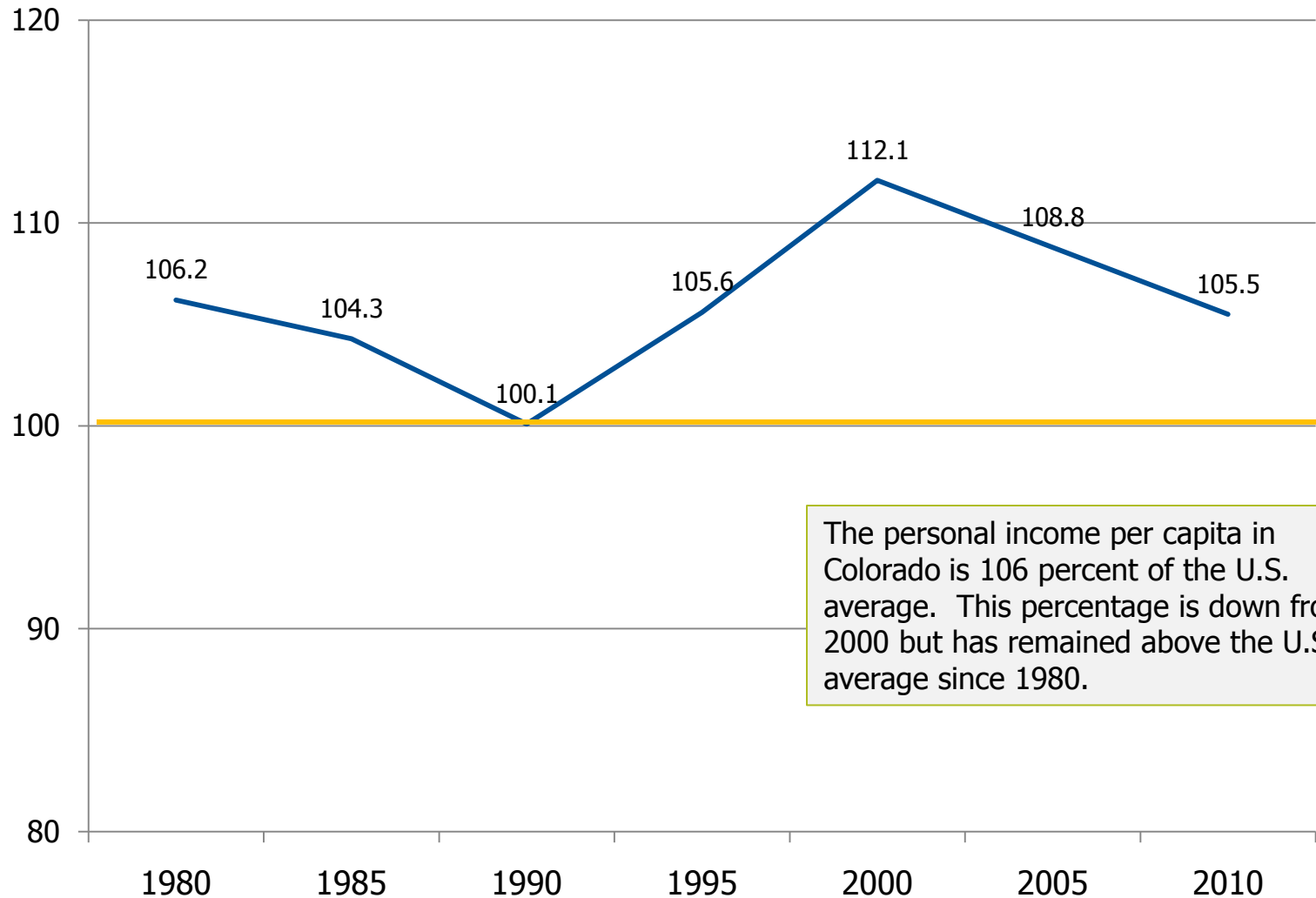
Socioeconomic Status

Per Capita Personal Income, 2010



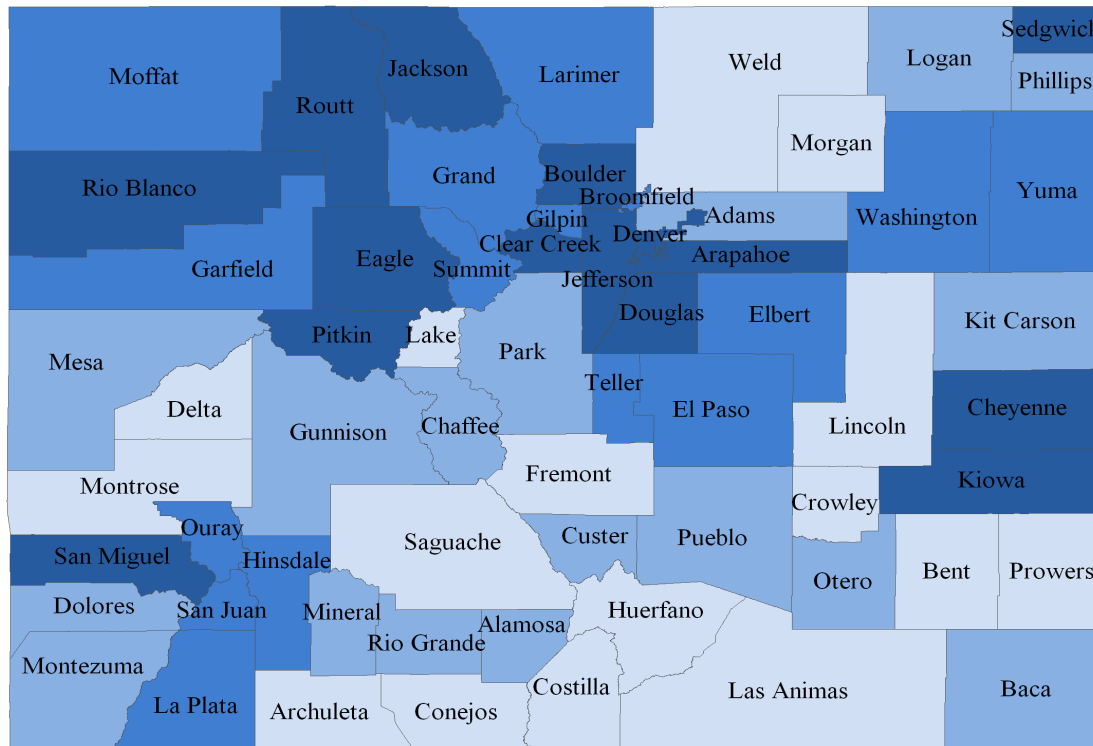
Source: U.S. Bureau of Economic Analysis

Colorado Personal Income per Capita as a Percent of the U.S. Average (1980 to 2010)



The personal income per capita in Colorado is 106 percent of the U.S. average. This percentage is down from 2000 but has remained above the U.S. average since 1980.

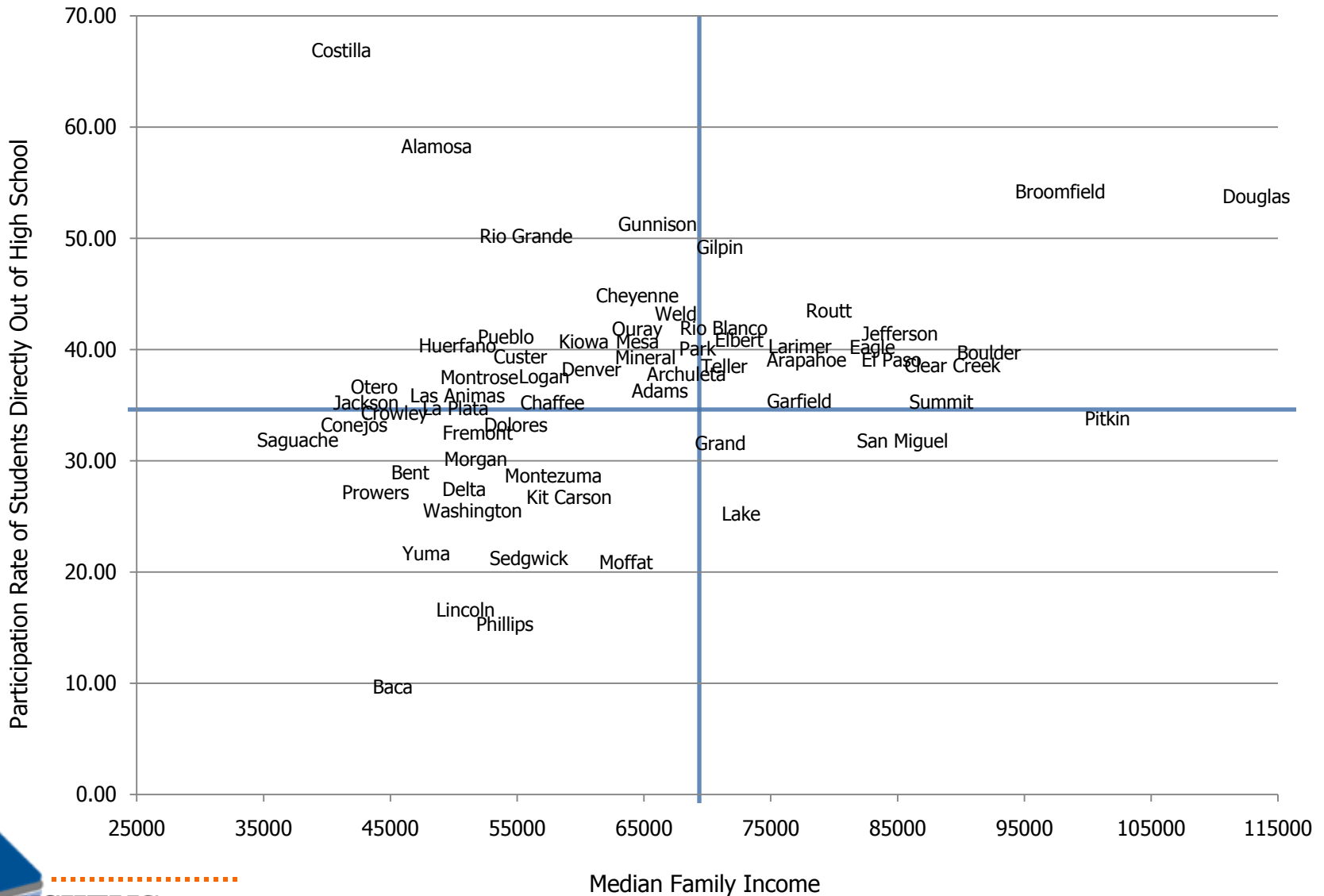
Colorado Personal Income per Capita by County (2008)



Personal Income per Capita by County

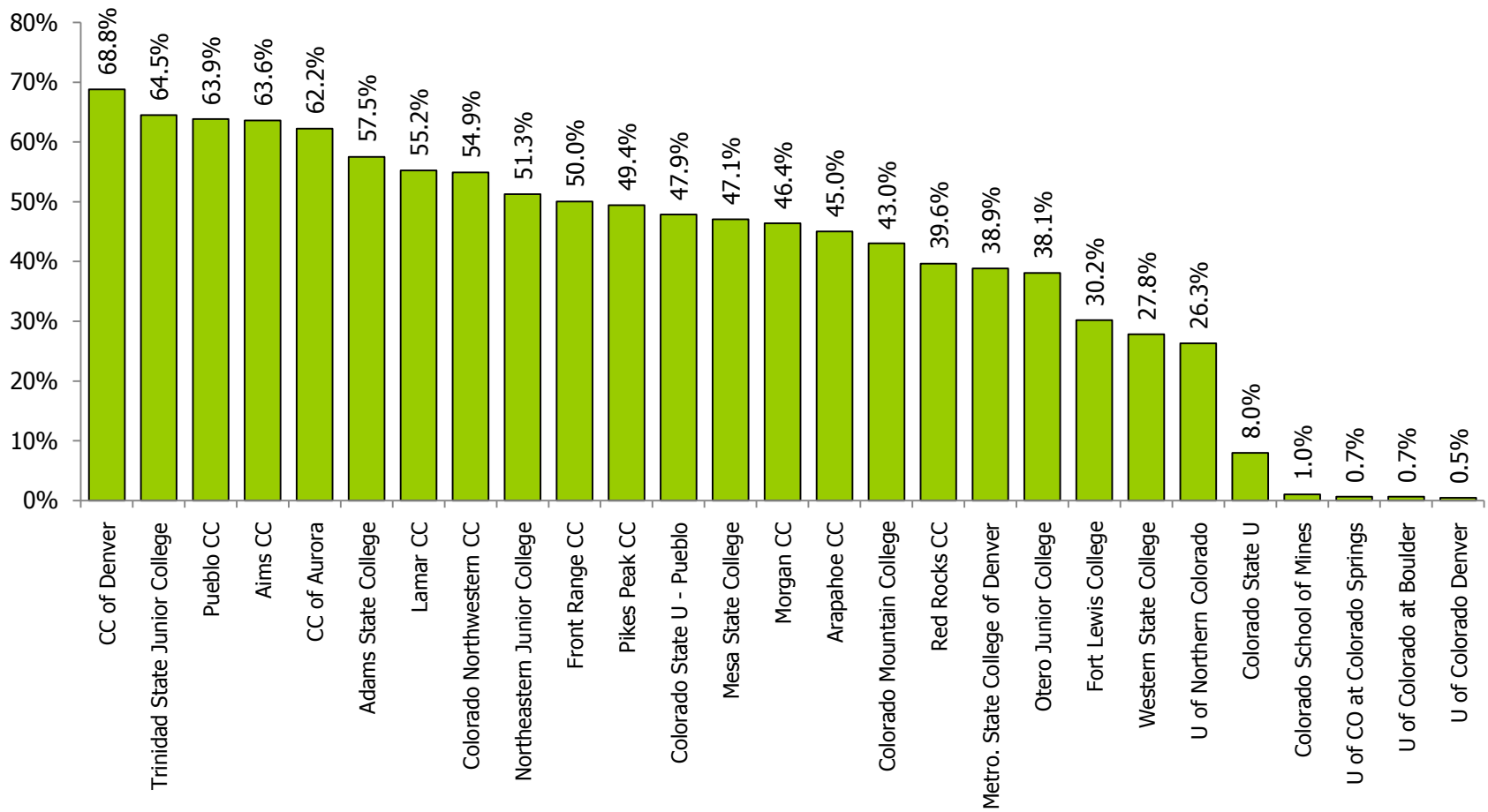
- \$42,400 to \$84,300
- \$35,000 to \$42,400
- \$31,300 to \$35,000
- \$15,000 to \$31,300

Colorado Participation Rate vs. Median Income



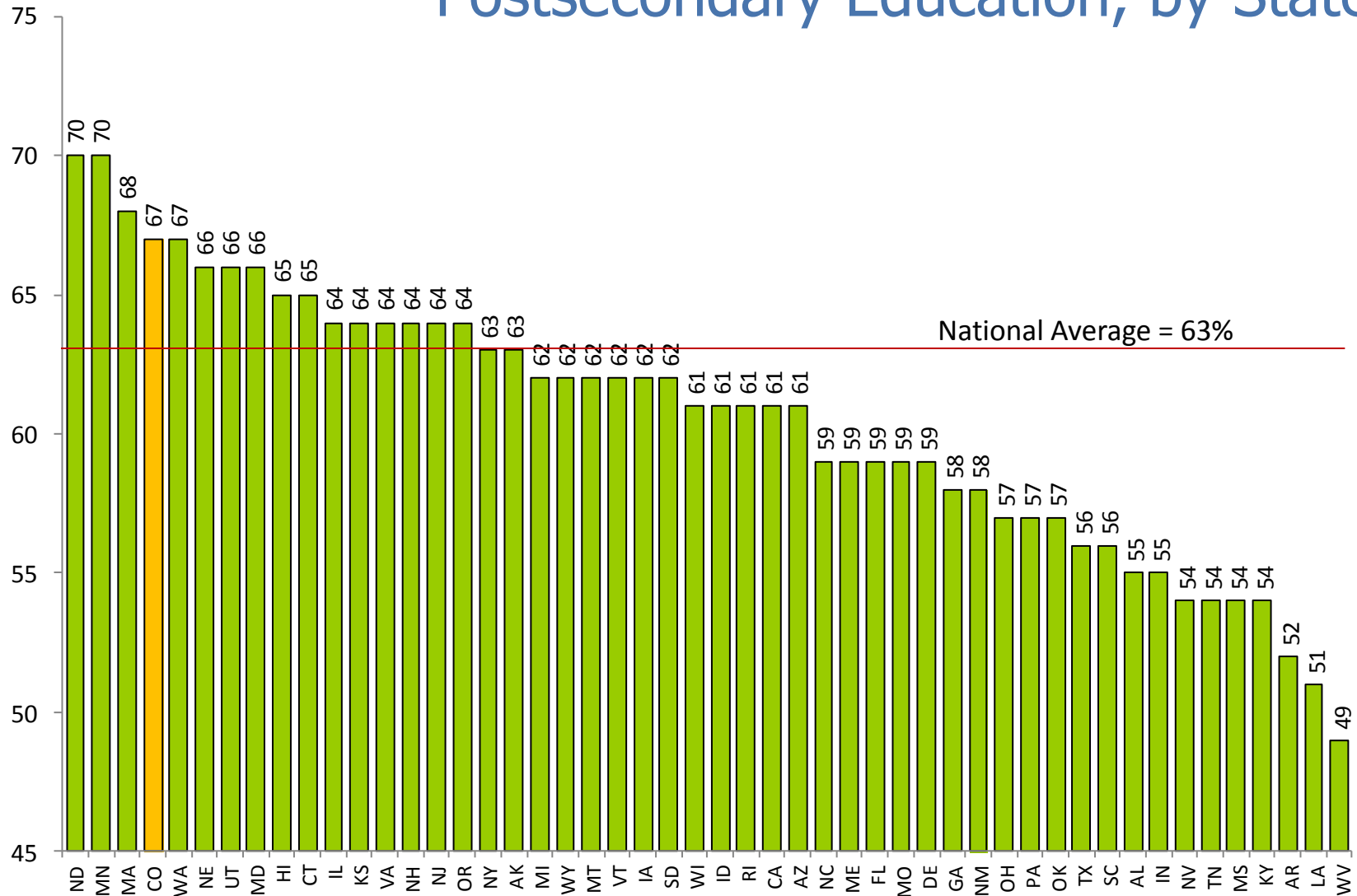
Alignment of P-12 with Postsecondary

Proportion of First-time Students Placed in Developmental Education



Alignment of Education and the Workforce

Percentage of Jobs in 2018 that Will Require a Postsecondary Education, by State



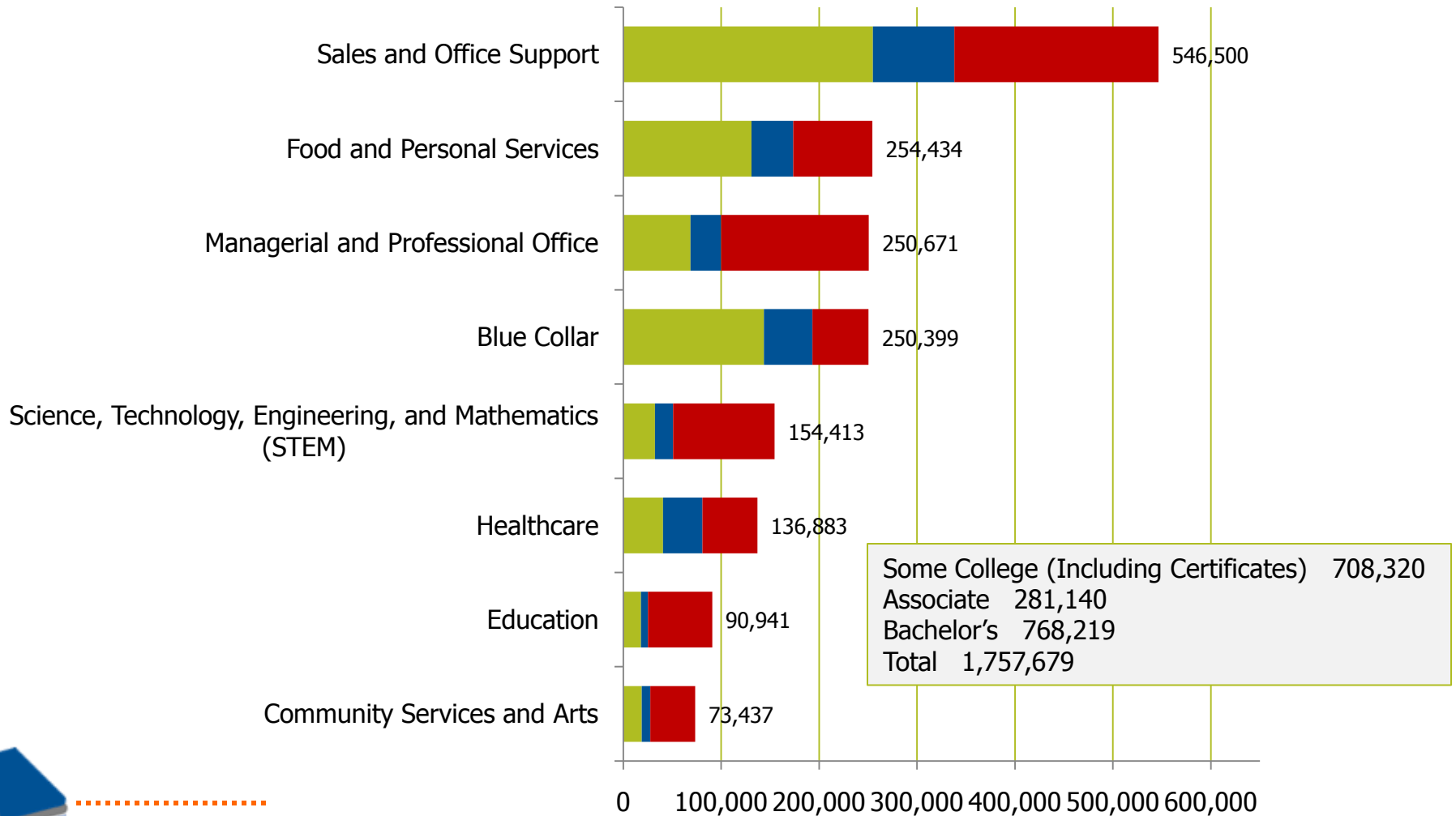
National Average = 63%

Change in Jobs by Education Level: 2008 & 2018, Colorado

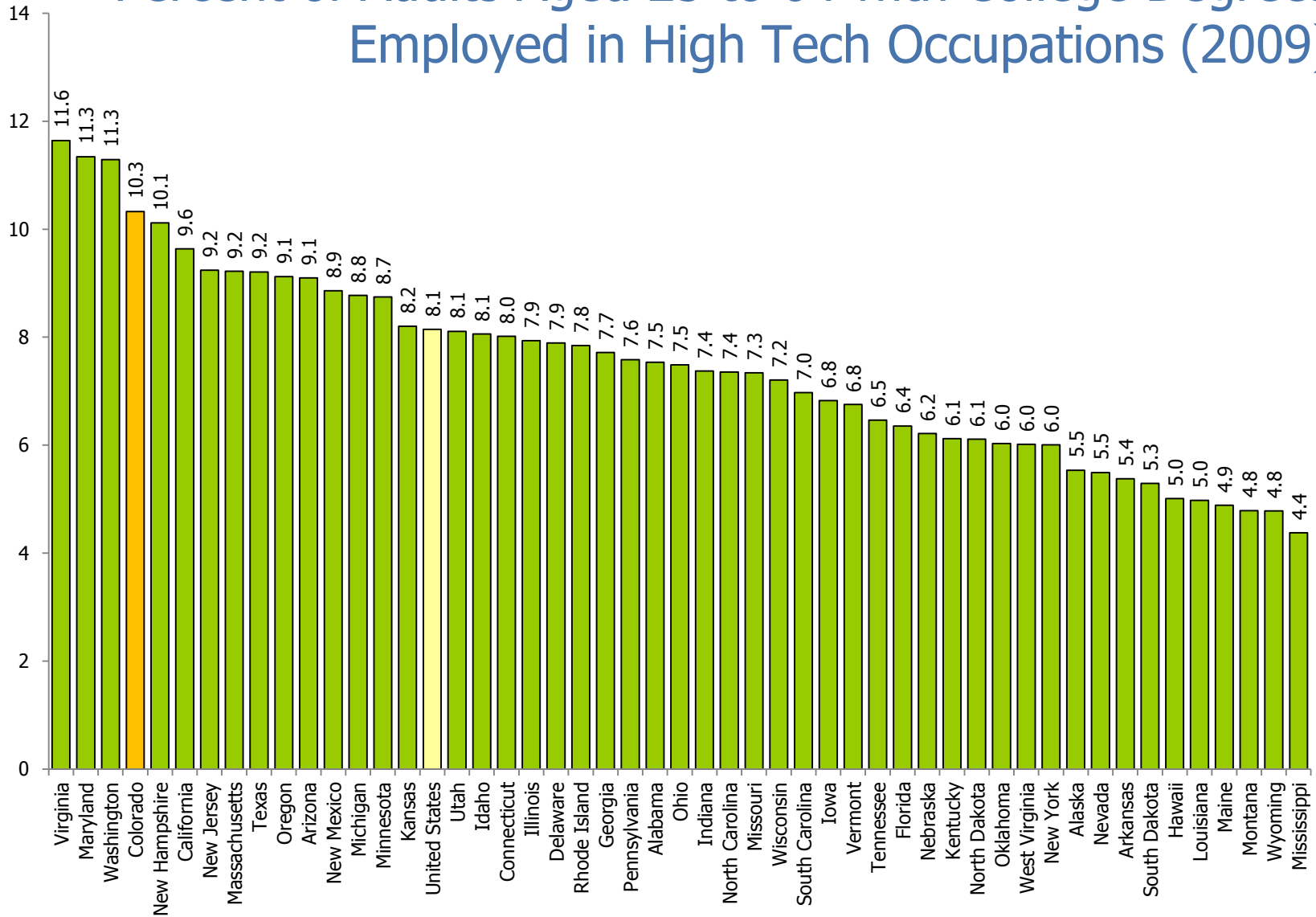
Education Level	2008 Jobs	2018 Jobs	Difference
High School Dropouts	257,000	324,000	68,000
High School Graduates	612,000	761,000	149,000
Postsecondary	1,693,000	2,104,000	411,000

Workforce Demand: Estimated Increases in Undergraduate Credentials Needed in Colorado by 2018 – by Type of Occupation (Even without more successful intervention in economic development)

■ Some College ■ Associates ■ Bachelor's

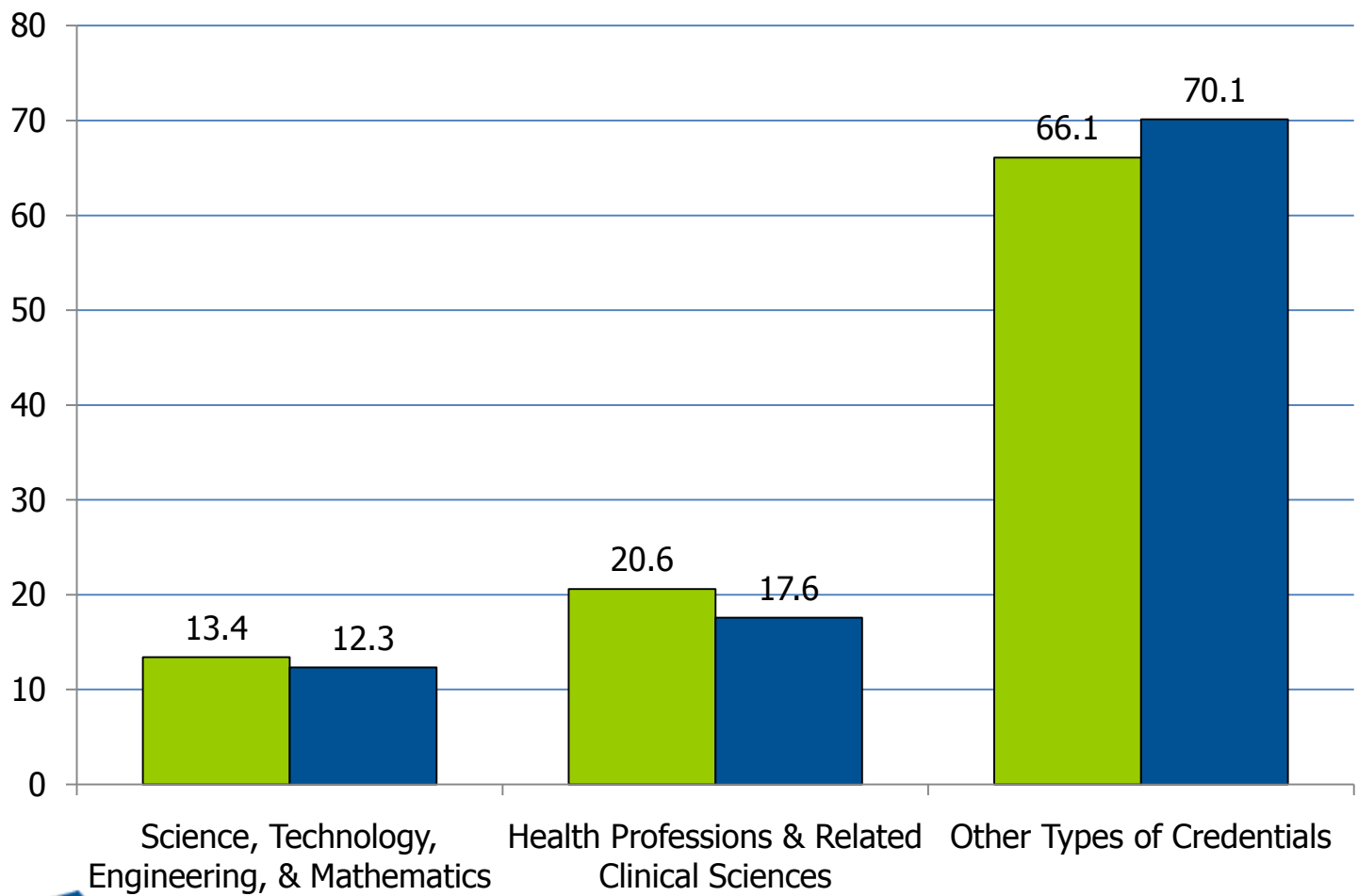


Percent of Adults Aged 25 to 64 with College Degrees Employed in High Tech Occupations (2009)



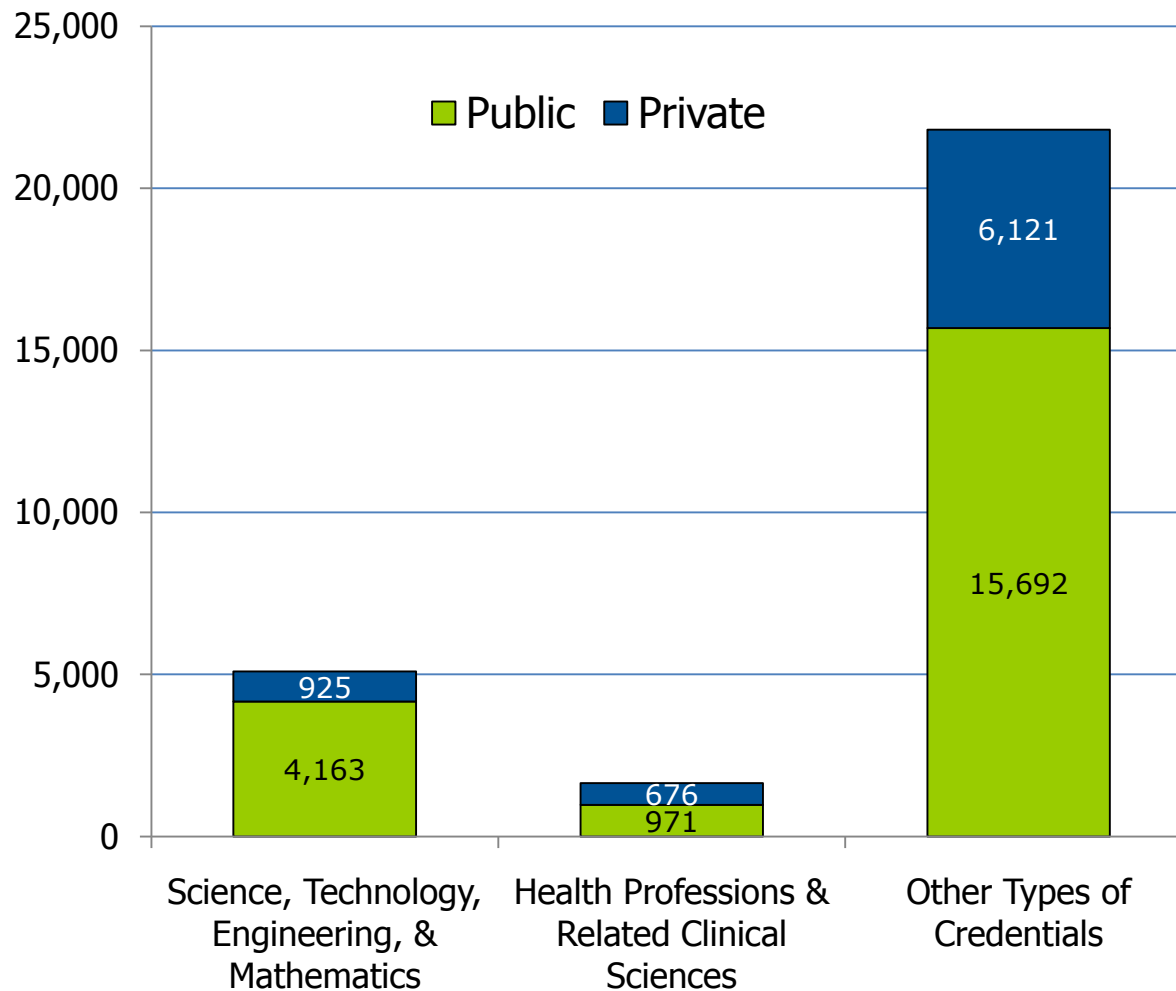
Proportion (%) of Undergraduate Credentials Awarded by Type - STEM, Health, and Other (2008-09)

■ Colorado ■ United States



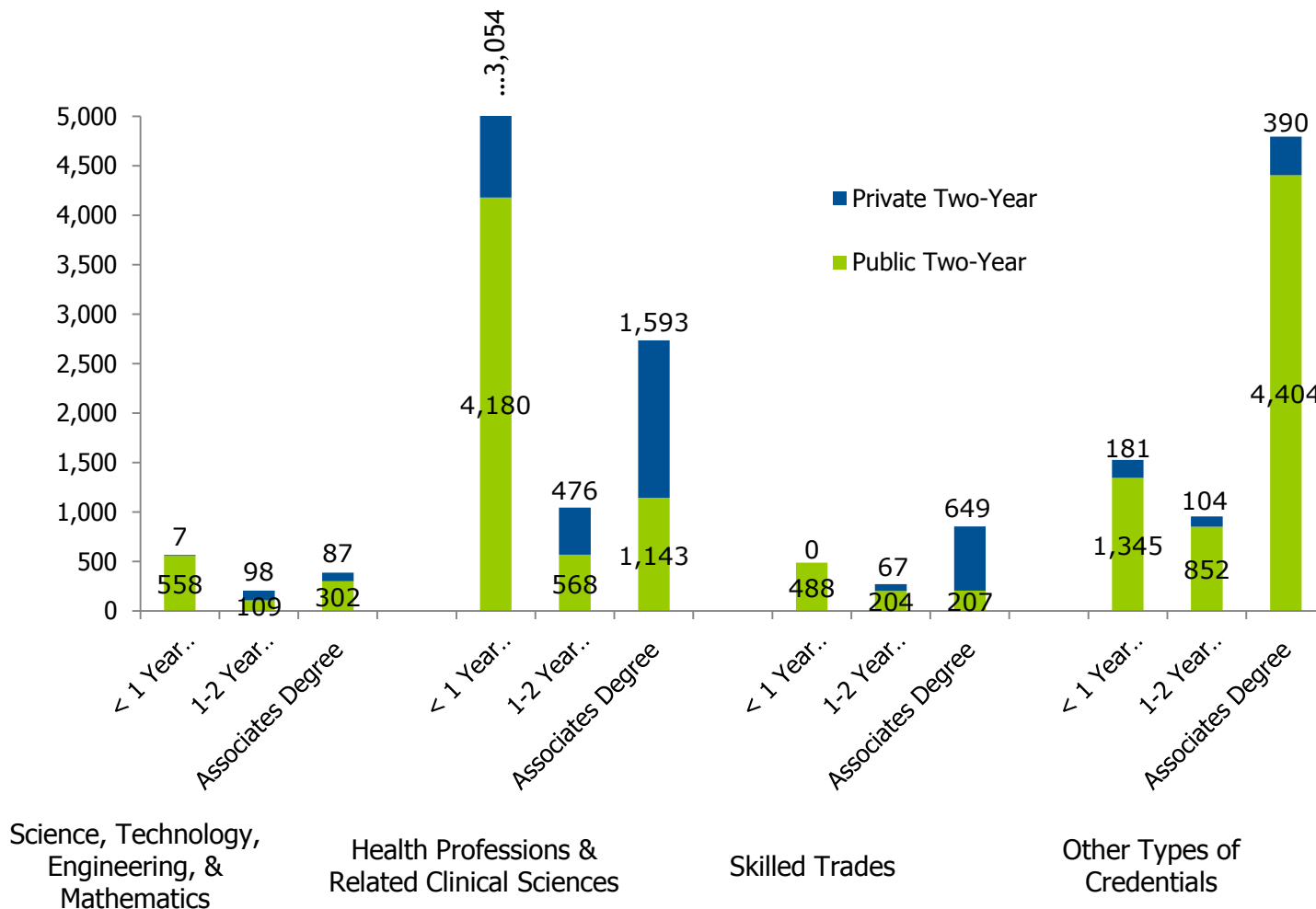
The proportions of degrees awarded in STEM and health fields are slightly higher than the U.S. average.

Number of Bachelor's Degrees Awarded by Type at Four-Year Institutions - STEM, Health, and Other (2009-10)



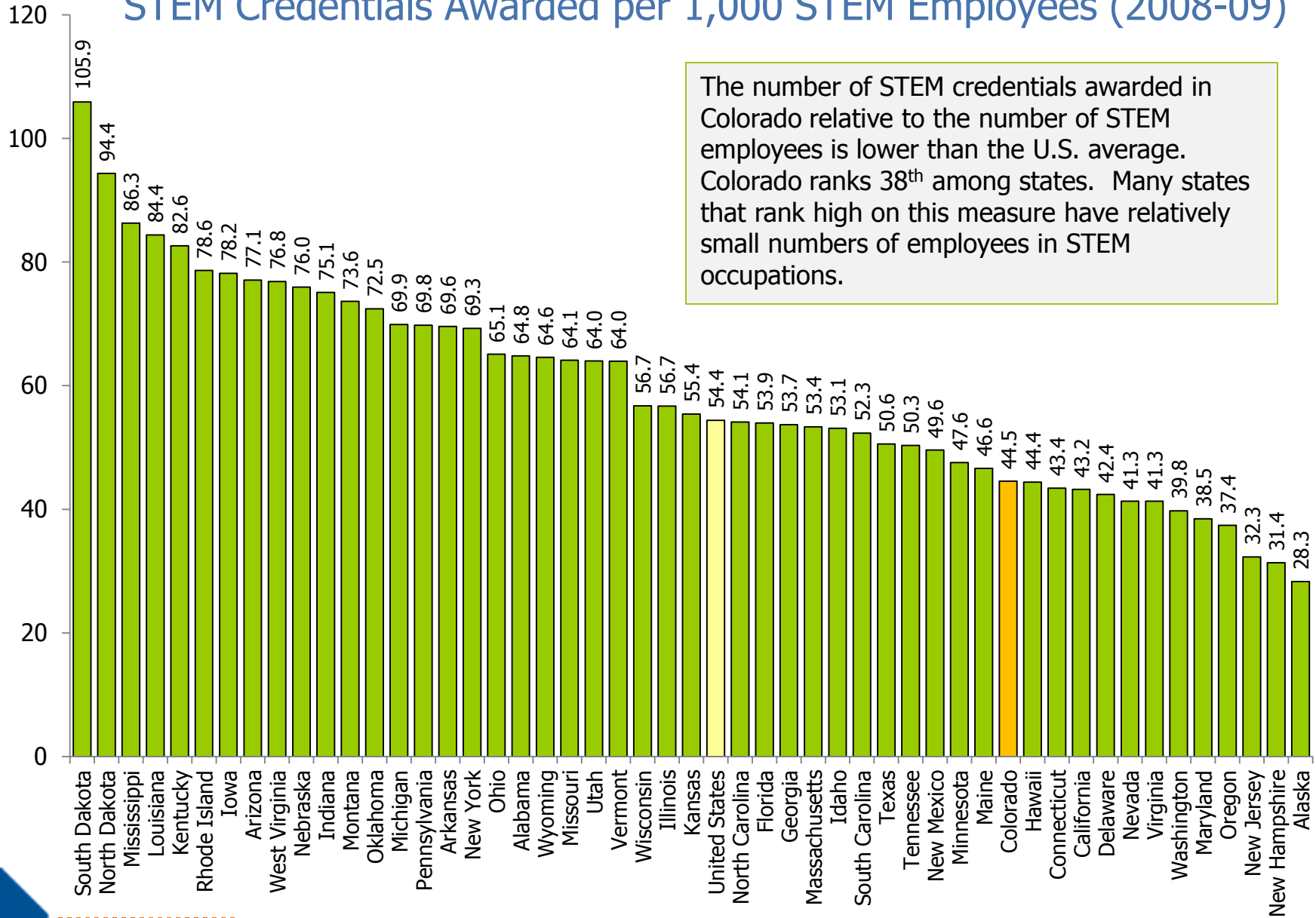
Source: NCES, IPEDS 2009-10 Completions File; c2010_a Early Release Data File.

Number of Certificates & Associate Degrees Awarded by Sector (2009-10)

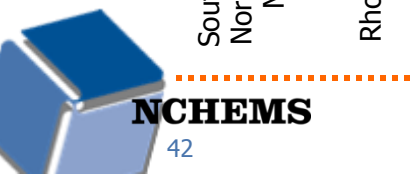


Source: NCES, IPEDS 2009-10 Completions File; c2010_a Early Release Data File.

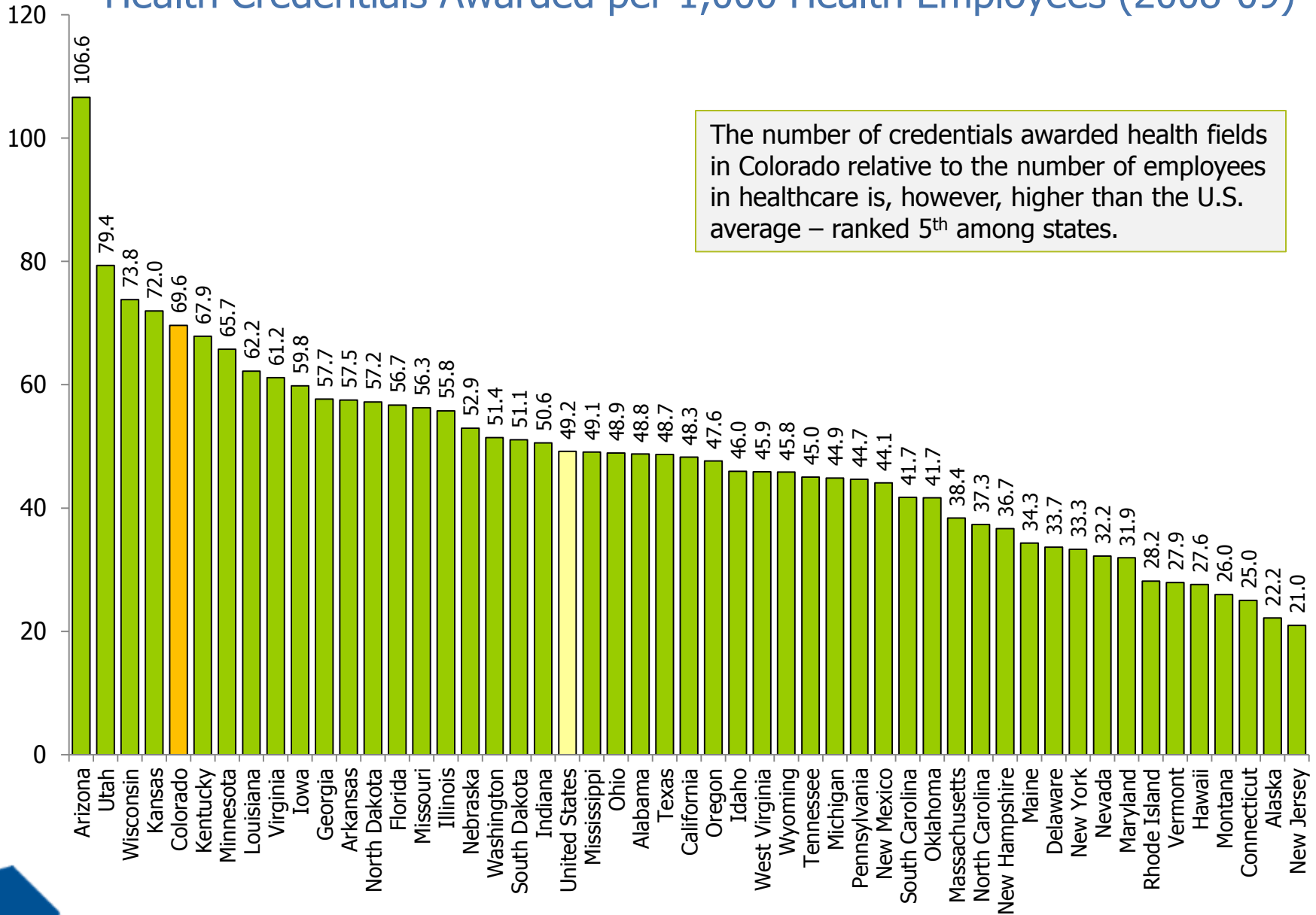
STEM Credentials Awarded per 1,000 STEM Employees (2008-09)



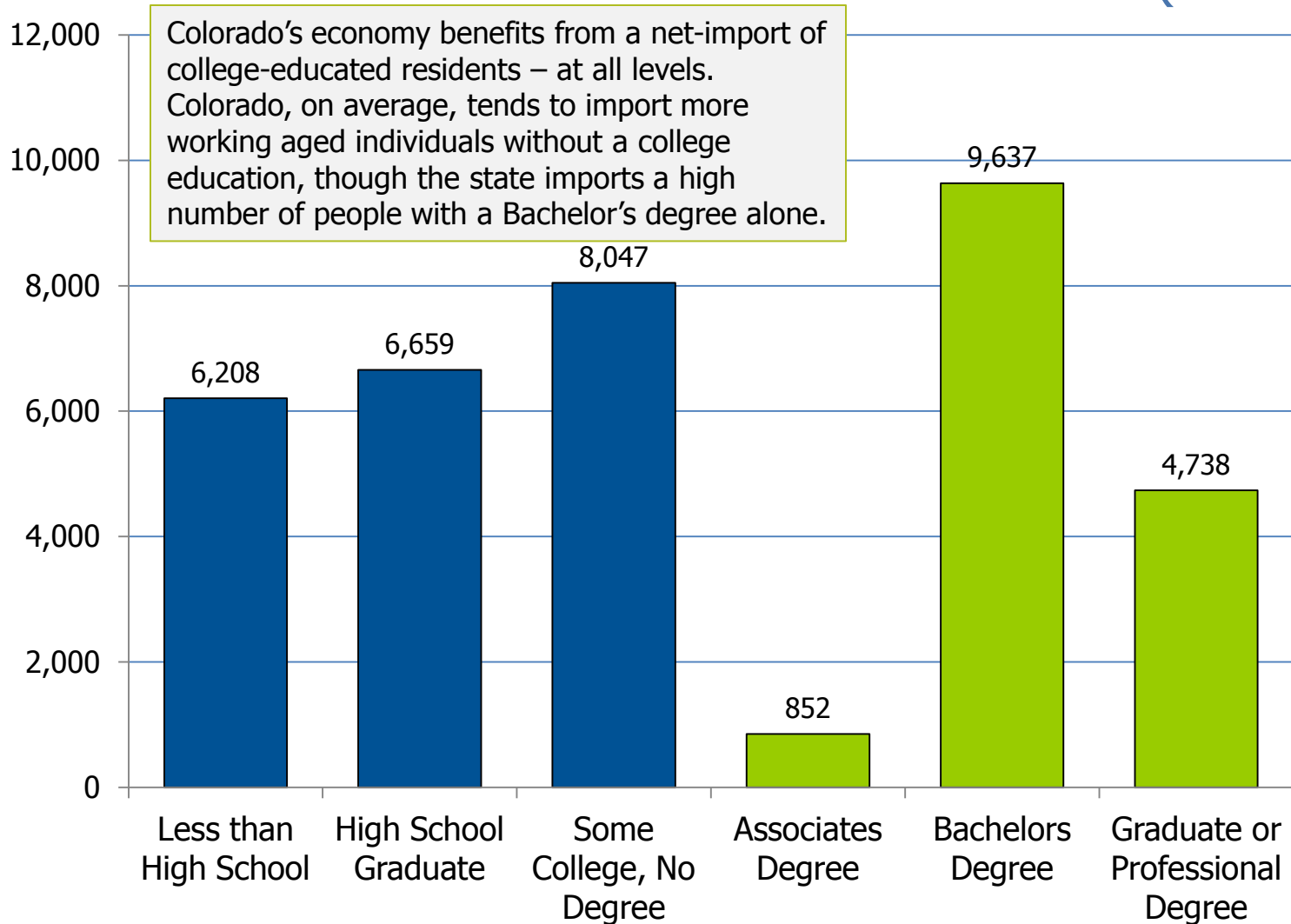
The number of STEM credentials awarded in Colorado relative to the number of STEM employees is lower than the U.S. average. Colorado ranks 38th among states. Many states that rank high on this measure have relatively small numbers of employees in STEM occupations.



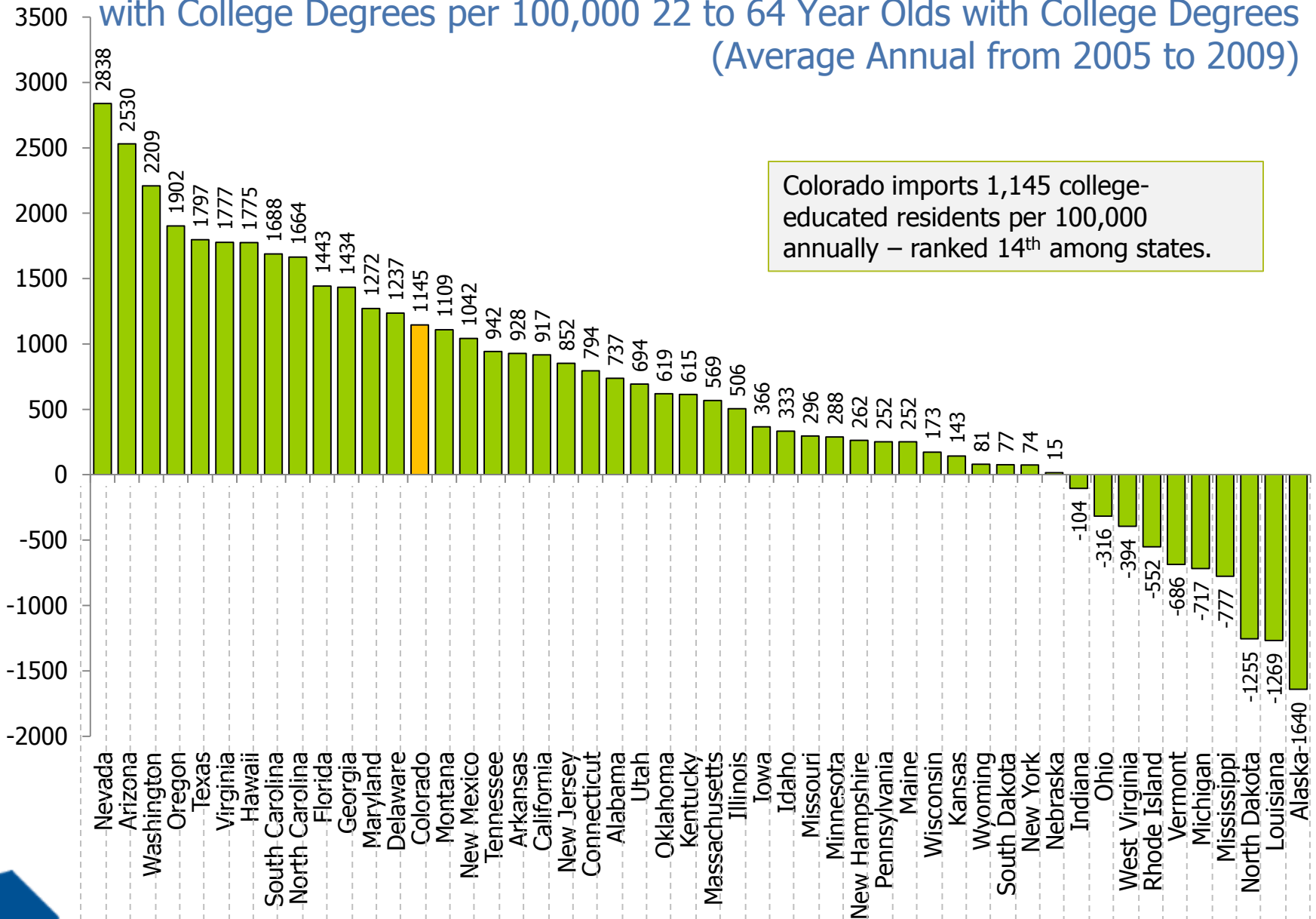
Health Credentials Awarded per 1,000 Health Employees (2008-09)



Average Annual Net Migration of 22 to 64 Year Olds by Education Level (2005-09)



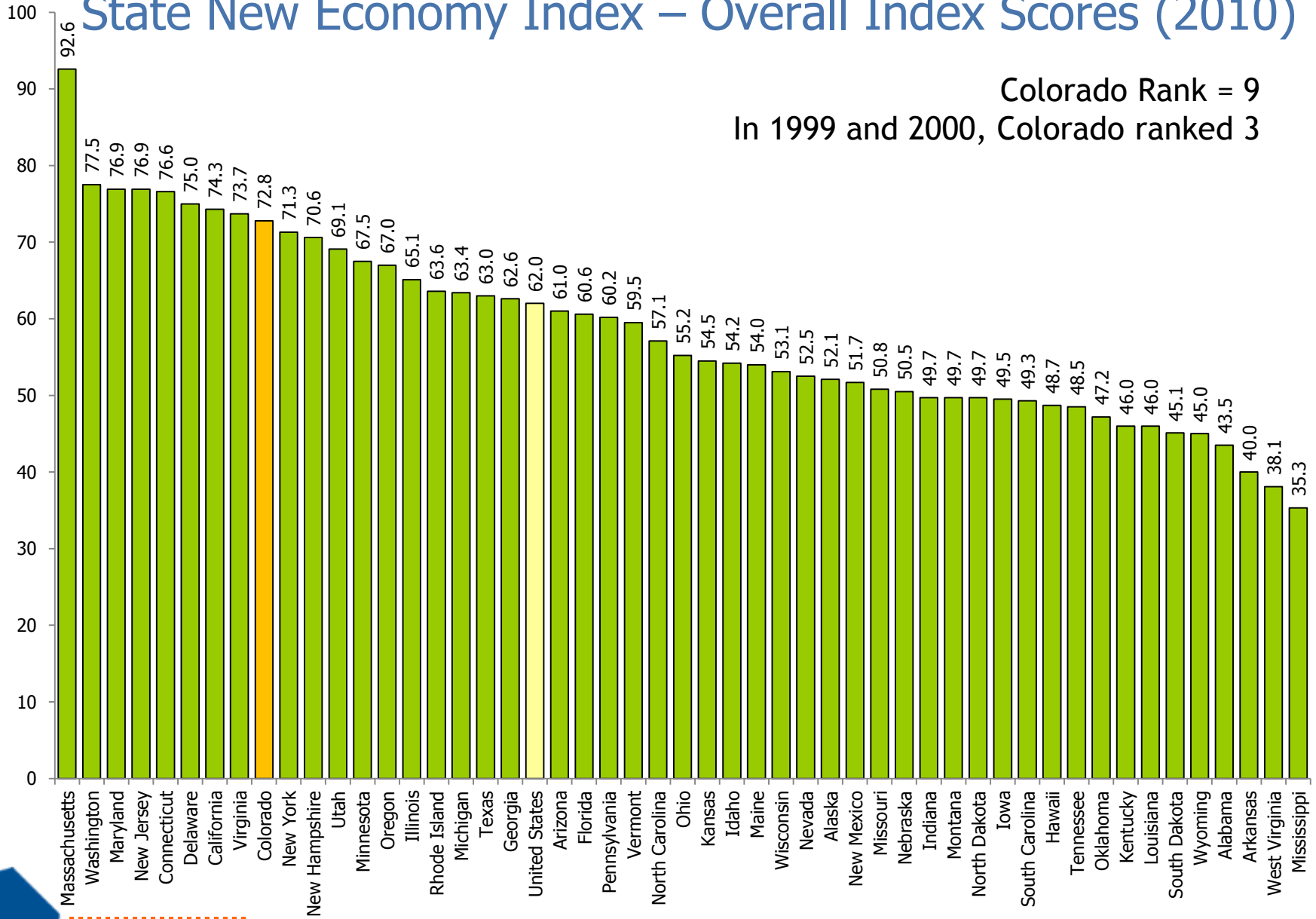
Migration Rates of College Graduates: Net Migration of 22 to 64 Year Olds with College Degrees per 100,000 22 to 64 Year Olds with College Degrees (Average Annual from 2005 to 2009)



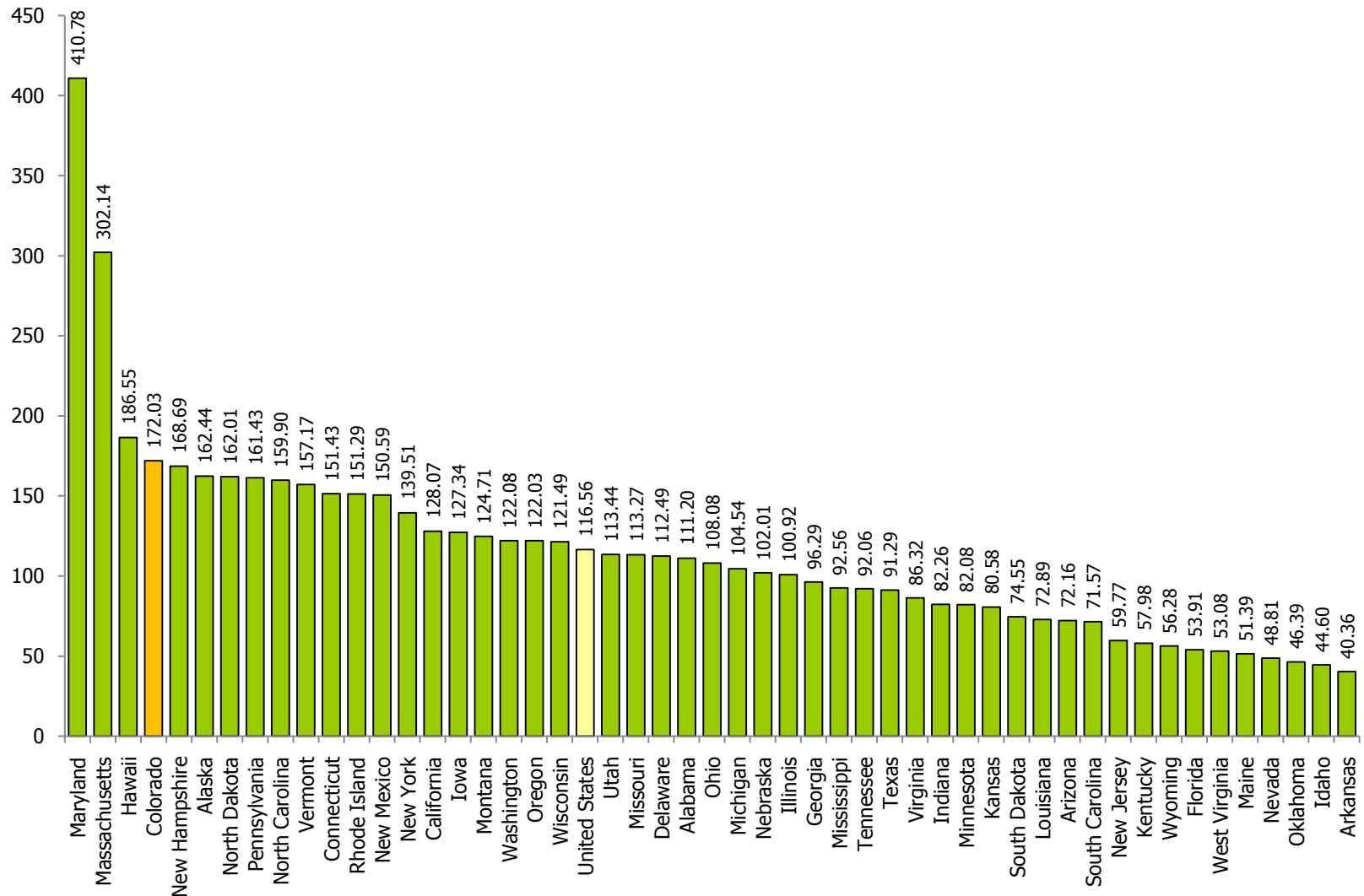
Higher Education's Link to Economic Development and Innovation

State New Economy Index – Overall Index Scores (2010)

Colorado Rank = 9
 In 1999 and 2000, Colorado ranked 3

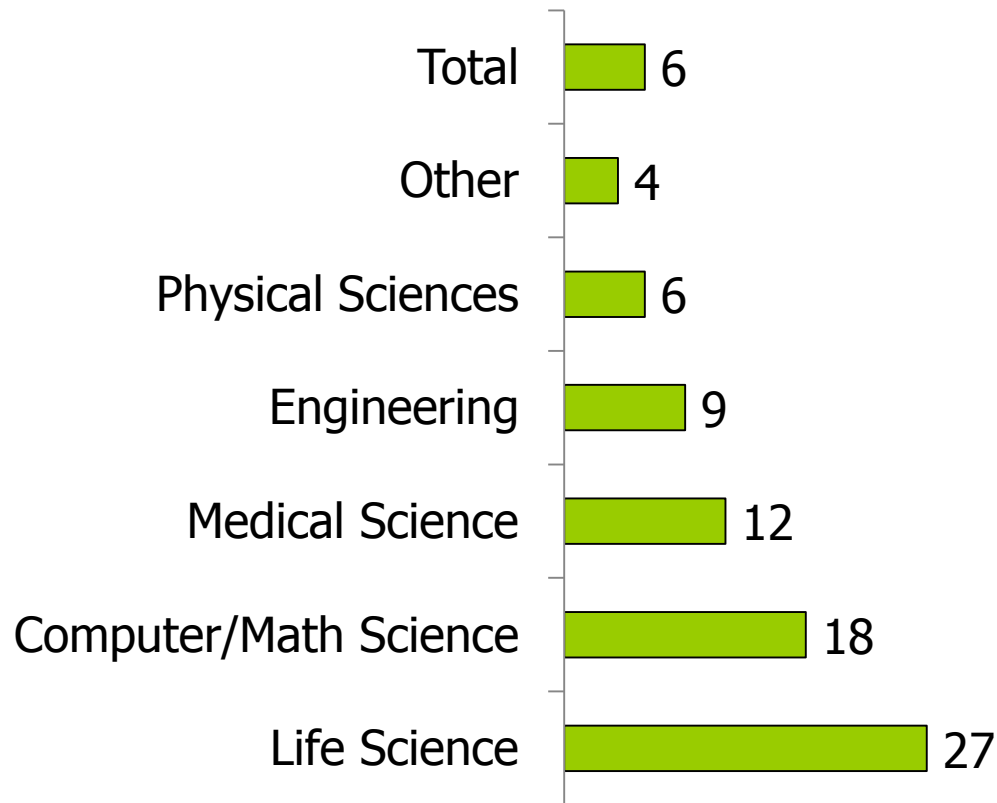


Total Federal & Industry R&D Expenditures Per Capita (2009)



Colorado's Rank in Federal Research & Development Expenditures by Field (2009)

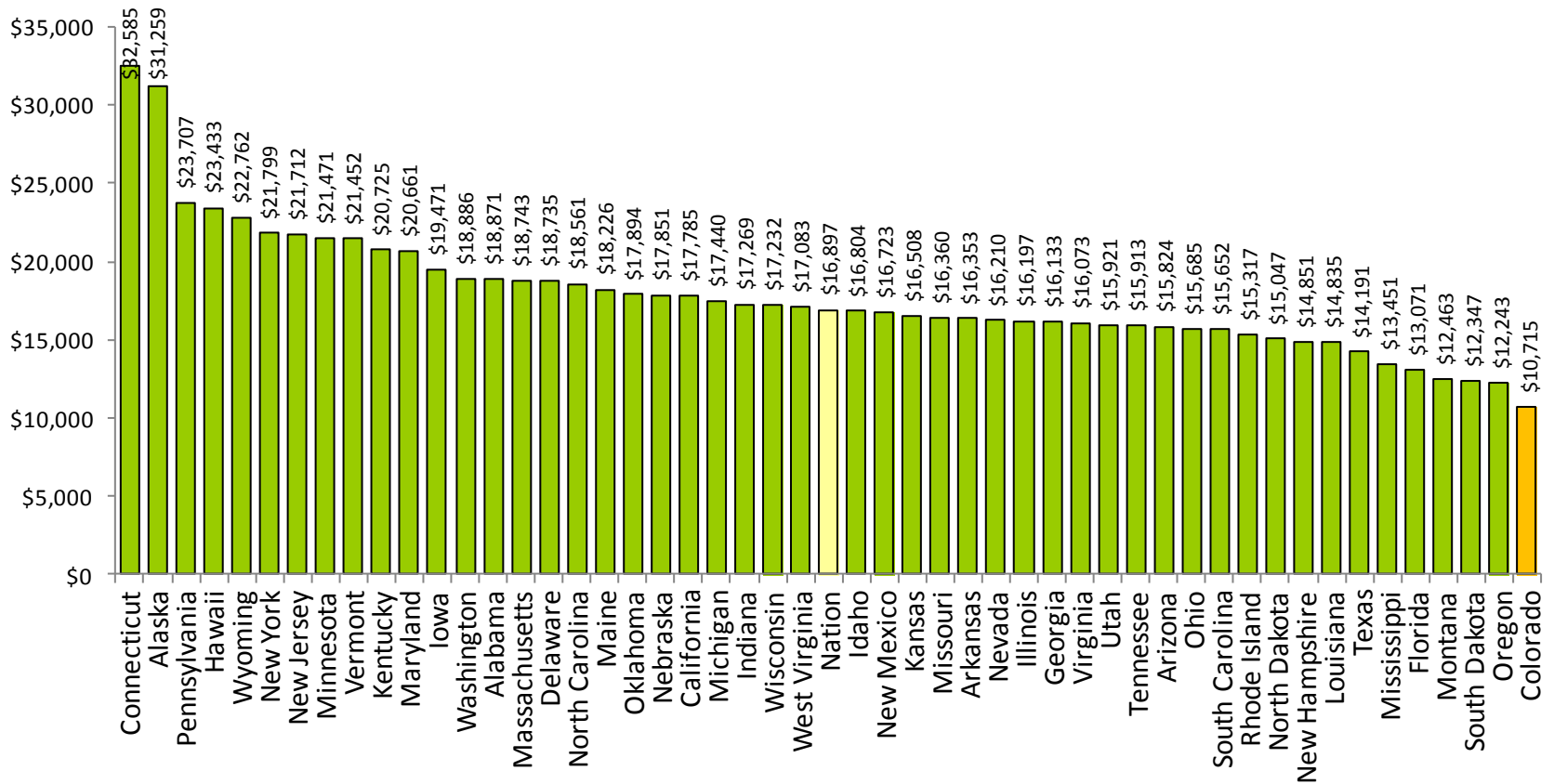
Colorado Rank by Population = 22



Long-term Fiscal Stability

Revenues Per Student from Net Tuition, State, & Local Appropriations

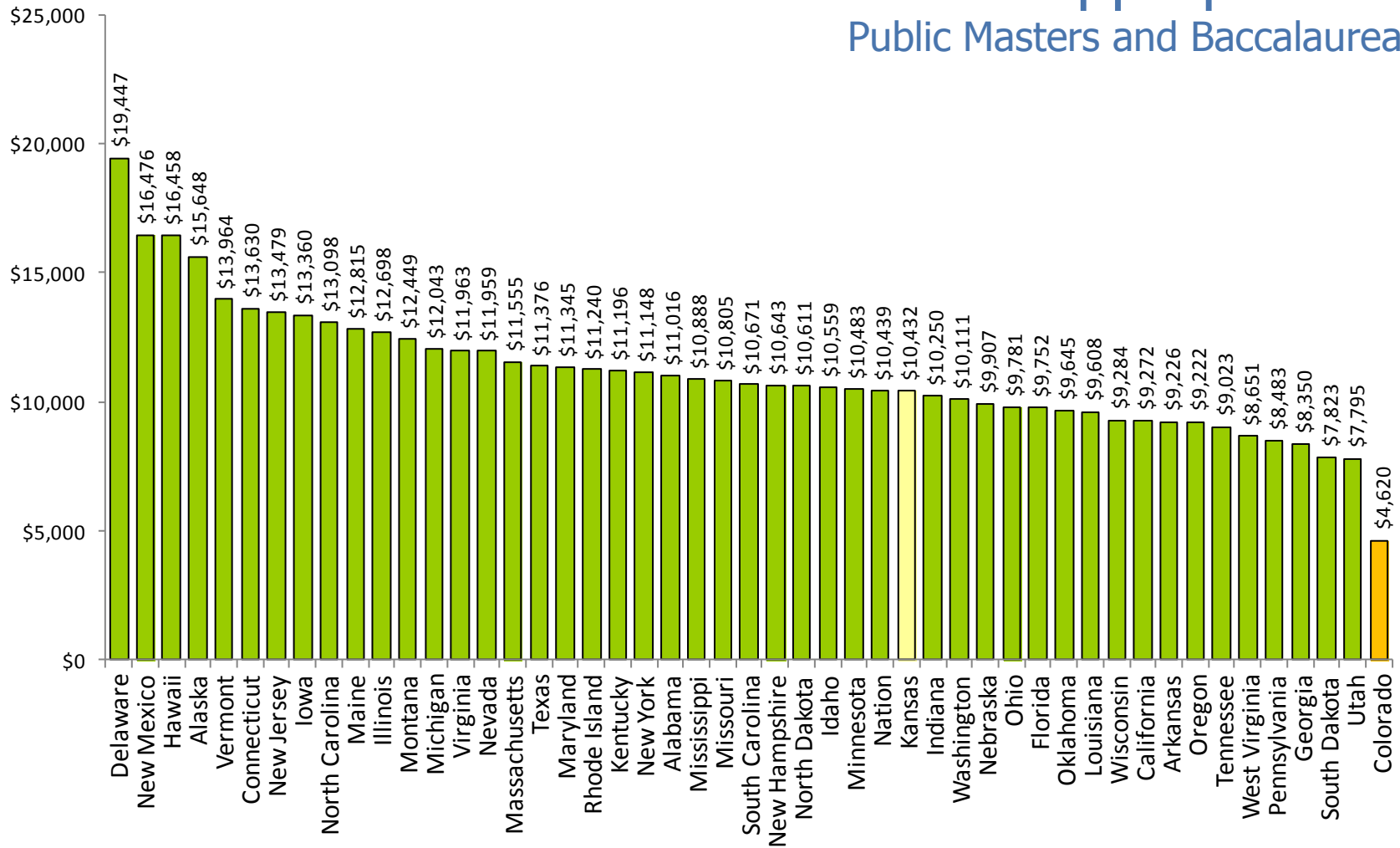
Public Research



Sources: NCES, IPEDS 2008-09 Finance Files; f0809_f1a & f0809_f2 Early Release Finance Files Downloaded 10-11-10. NCES, IPEDS 2008-09 Instructional Activity File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS 2008-09 Unduplicated Headcount Enrollment File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS Fall 2008 Enrollment File; efi2008a Final Release Data File.

Revenues Per Student from Net Tuition, State, & Local Appropriations

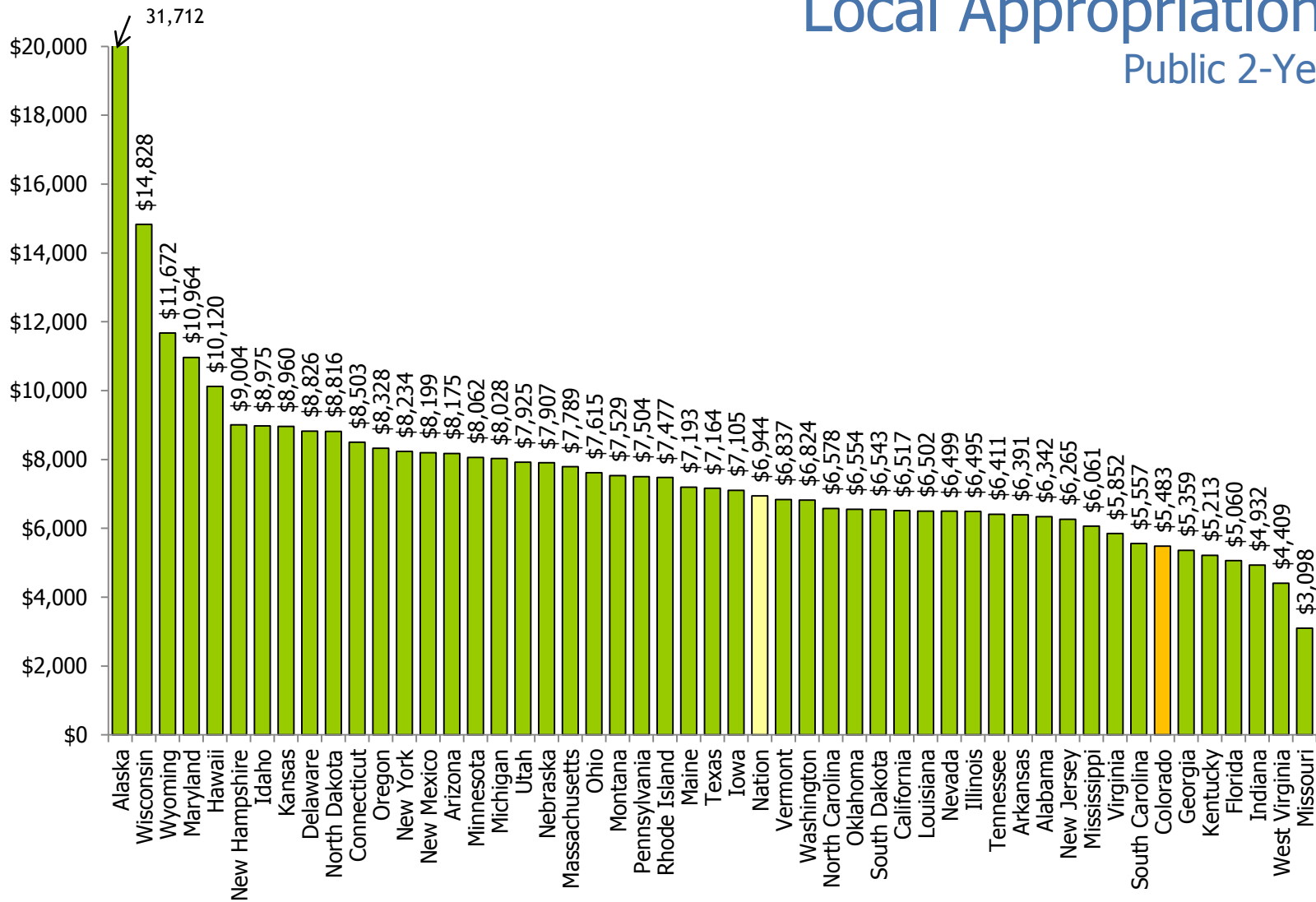
Public Masters and Baccalaureate



Sources: NCES, IPEDS 2008-09 Finance Files; f0809_f1a & f0809_f2 Early Release Finance Files Downloaded 10-11-10. NCES, IPEDS 2008-09 Instructional Activity File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS 2008-09 Unduplicated Headcount Enrollment File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS Fall 2008 Enrollment File; efi2008a Final Release Data File.

Revenues Per Student from Net Tuition, State, & Local Appropriations

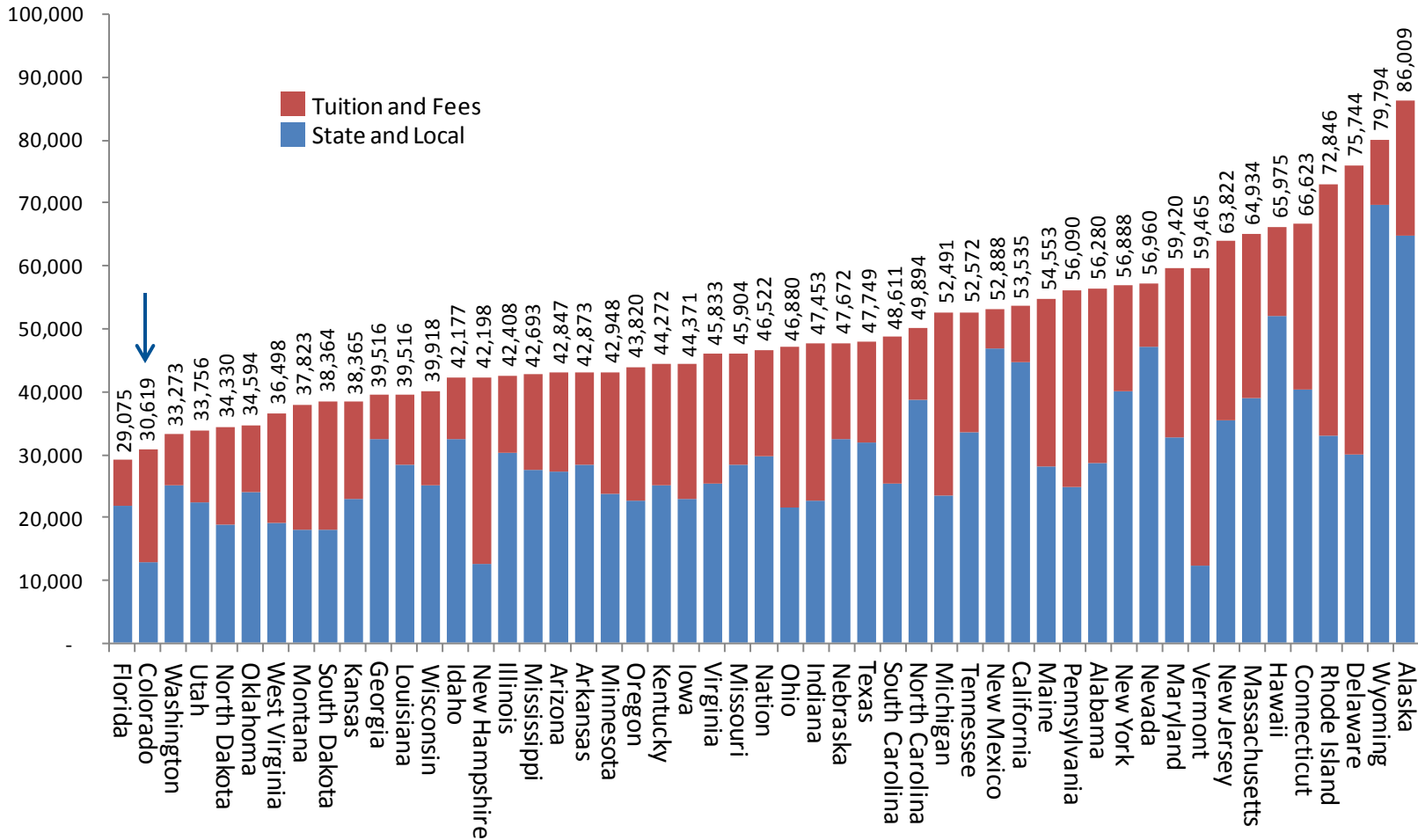
Public 2-Year



Sources: NCES, IPEDS 2008-09 Finance Files; f0809_f1a & f0809_f2 Early Release Finance Files Downloaded 10-11-10. NCES, IPEDS 2008-09 Instructional Activity File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS 2008-09 Unduplicated Headcount Enrollment File; efi2009 Early Release Data File Downloaded 12-28-10. NCES, IPEDS Fall 2008 Enrollment File; efi2008a Final Release Data File.

Productivity: Total Funding per Degree/Certificate

(Weighted*, 2006-2007)

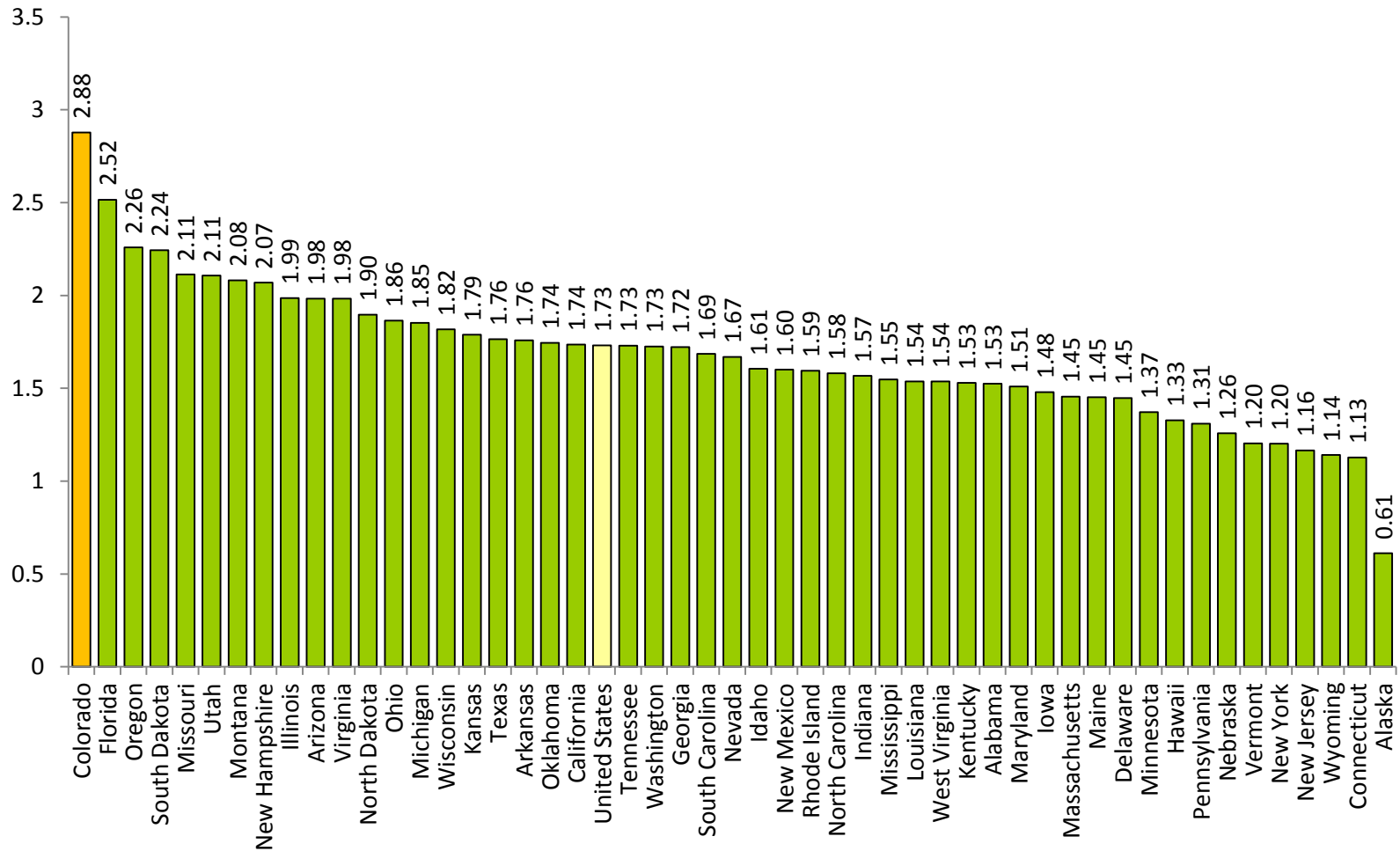


Sources: SHEEO State Higher Education Finance Survey 2008; NCES, IPEDS Completions Survey; U.S. Census Bureau, American Community Survey (Public Use Microdata Samples)

*Adjusted for value of degrees in the state employment market (median earnings by degree type and level)

Undergraduate Awards (One Year and More) per \$100,000 of State & Local Appropriations and Tuition & Fees Revenues - Public Research & Medical, 2008-09

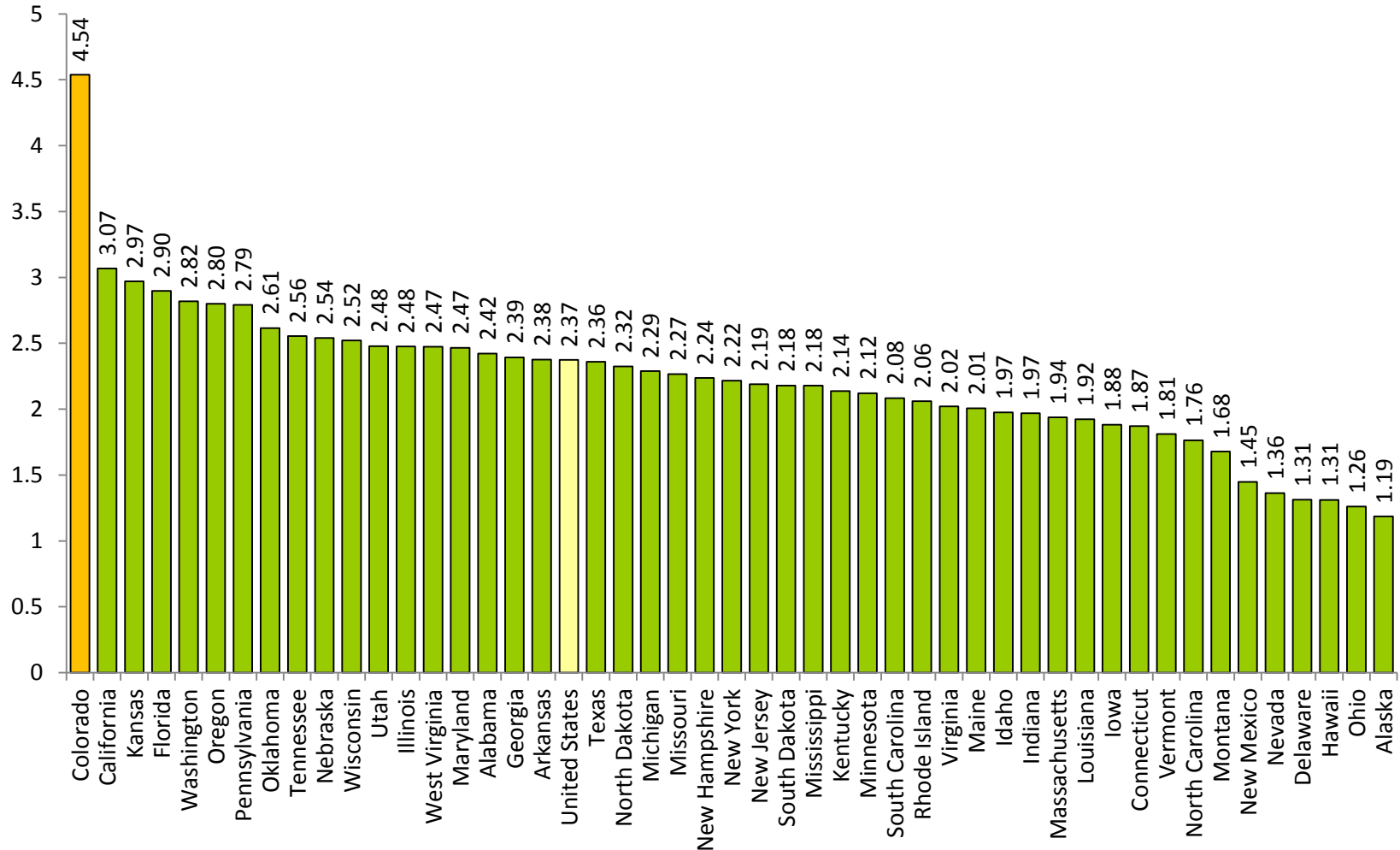
(Weighted by Median Earnings of Graduates - by Degree-Level and STEM and Health)



Sources: NCES, IPEDS Completions Survey; U.S. Census Bureau, American Community Survey (Public Use Microdata Samples)

Undergraduate Awards (One Year and More) per \$100,000 of State & Local Appropriations and Tuition & Fees Revenues - Public Masters, Bachelors, & Other 4-Year, 2008-09

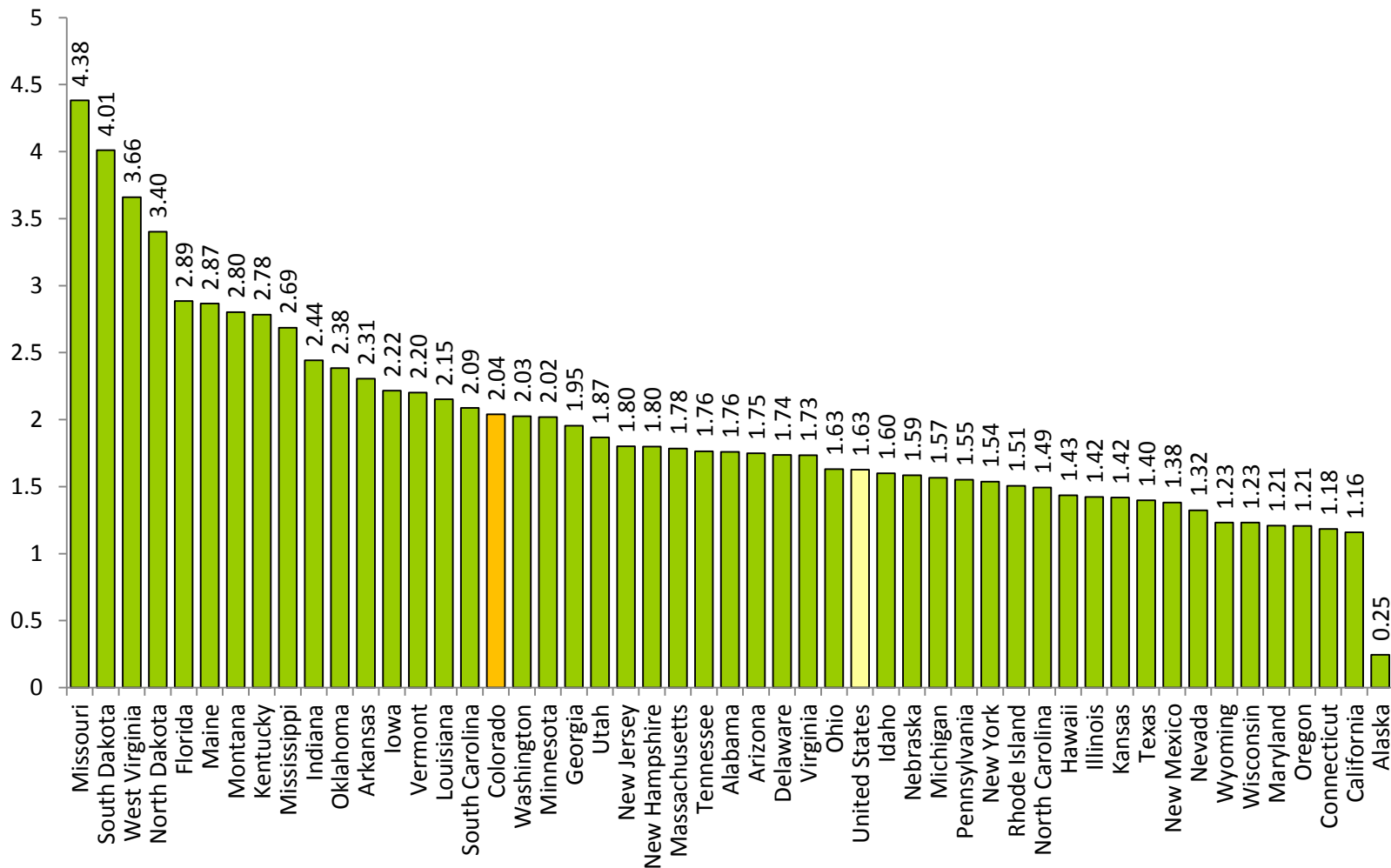
(Weighted by Median Earnings of Graduates - by Degree-Level and STEM and Health)



Sources: NCES, IPEDS Completions Survey; U.S. Census Bureau, American Community Survey (Public Use Microdata Samples)

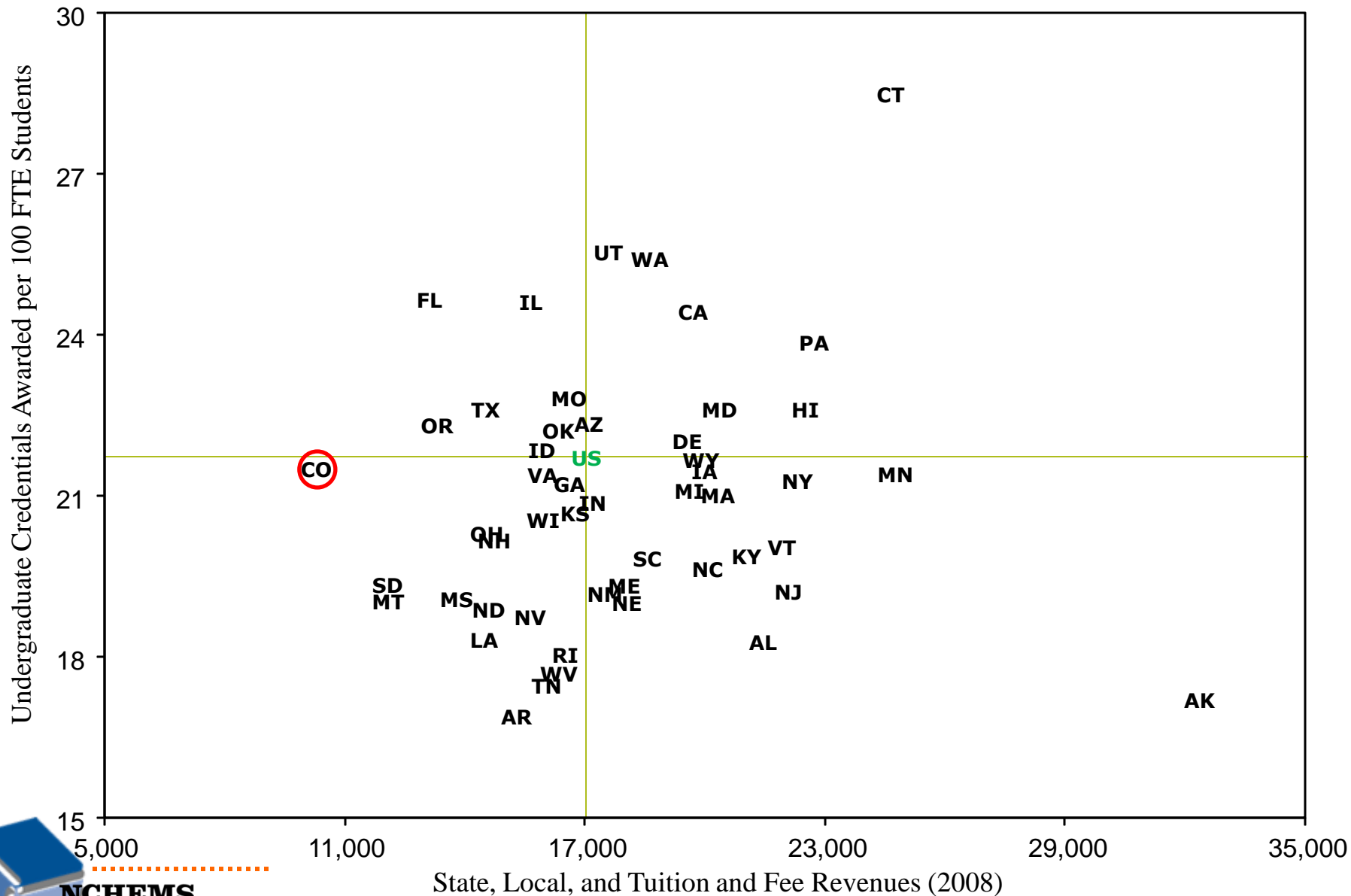
Undergraduate Awards (One Year and More) per \$100,000 of State & Local Appropriations and Tuition & Fees Revenues - Public Associates & Other 2-Year, 2008-09

(Weighted by Median Earnings of Graduates - by Degree-Level and STEM and Health)

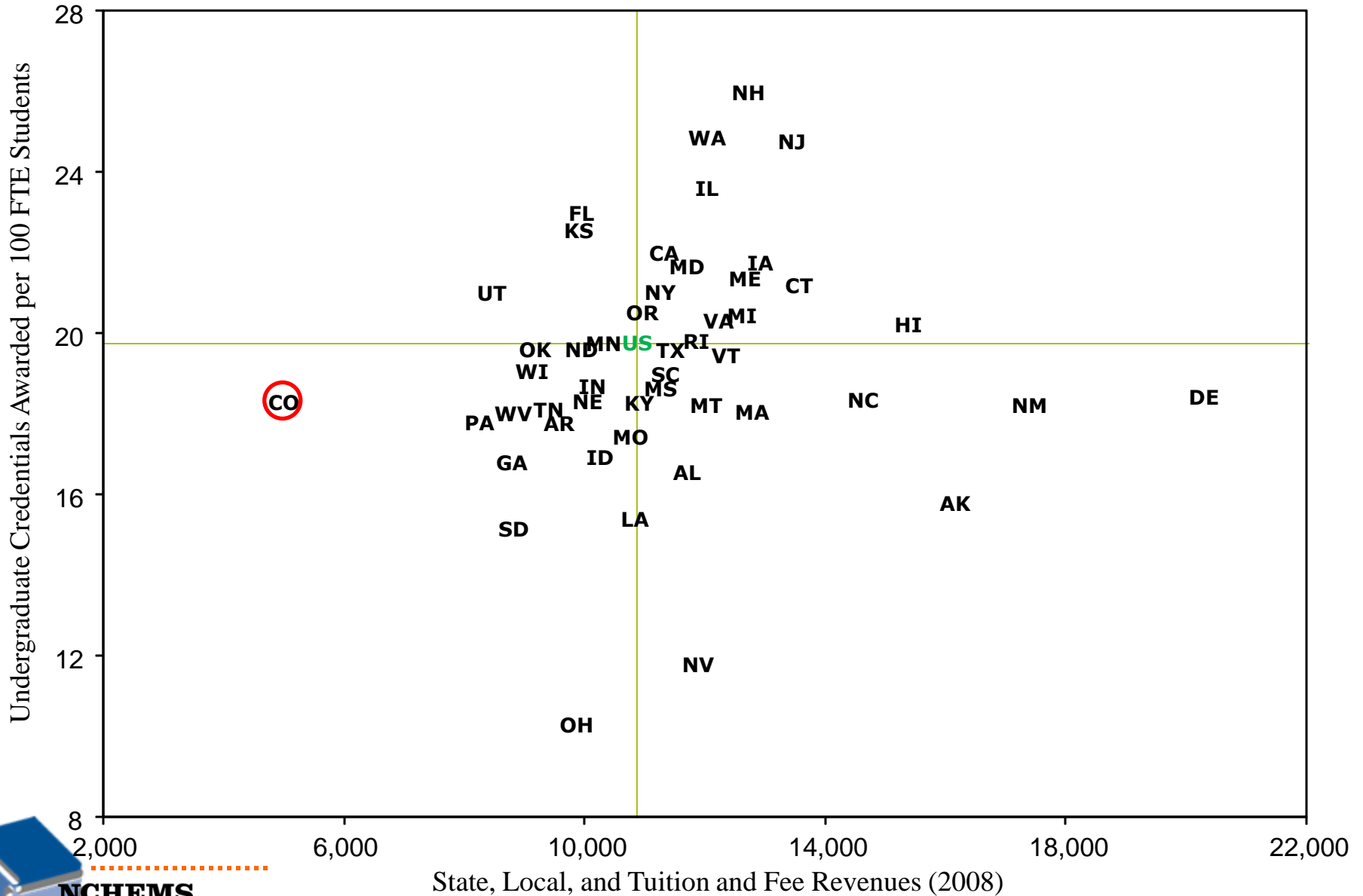


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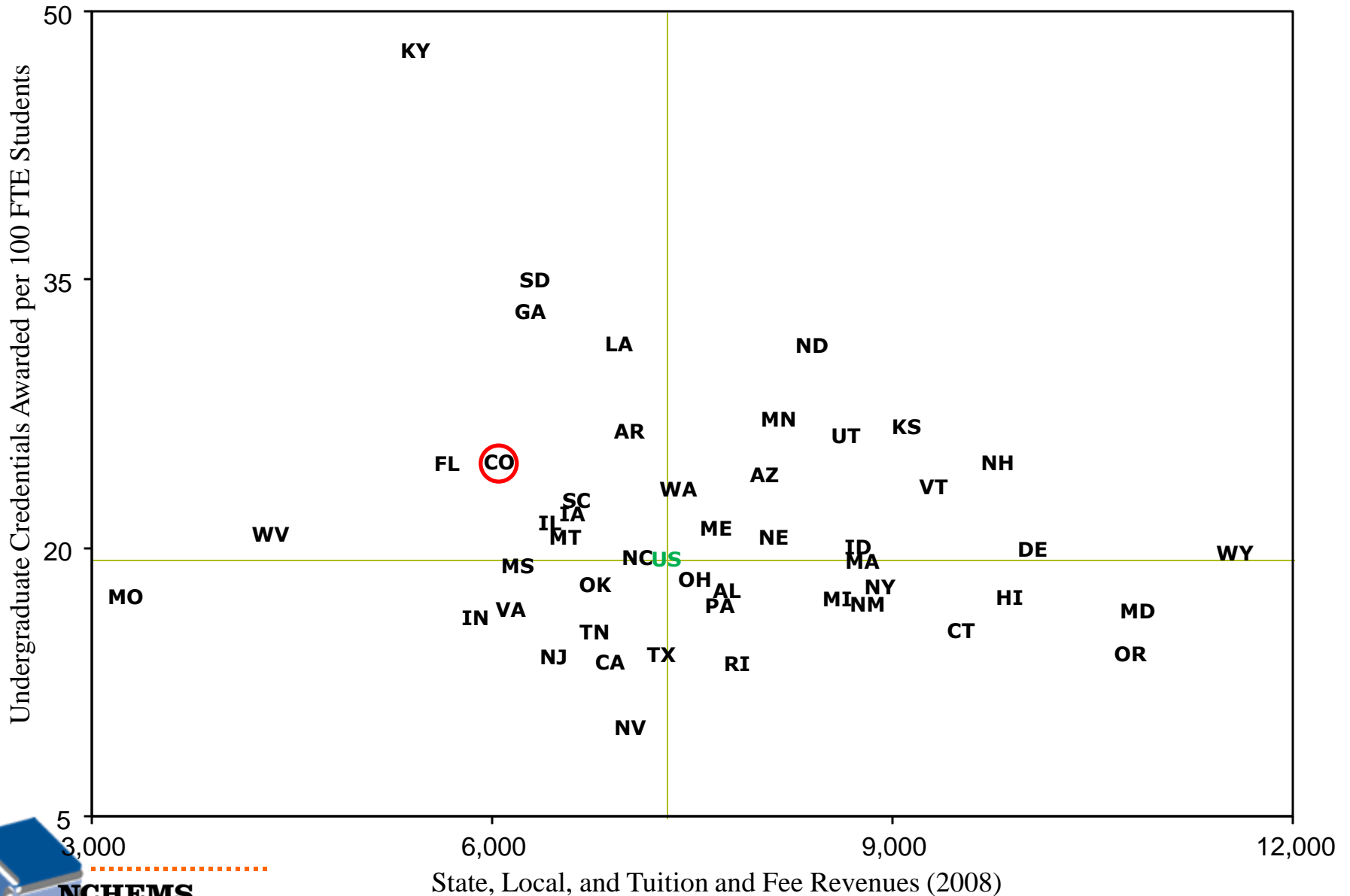
Public Research Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



Public Bachelors and Masters Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



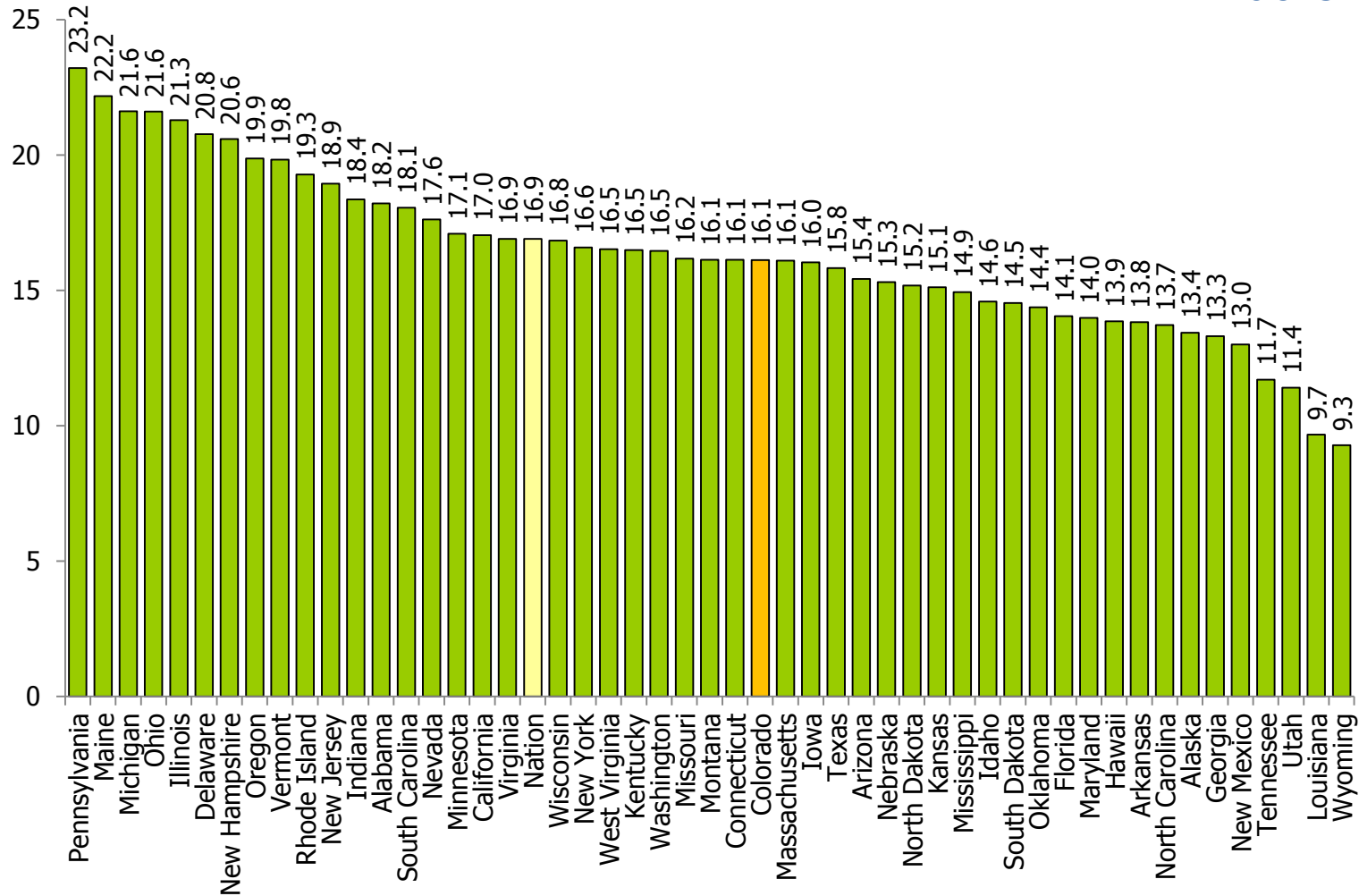
Public Two-Year Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



Affordability

Net Cost for First-Time Full-Time Undergraduates as a Percent of Median Family Income, 2008-09

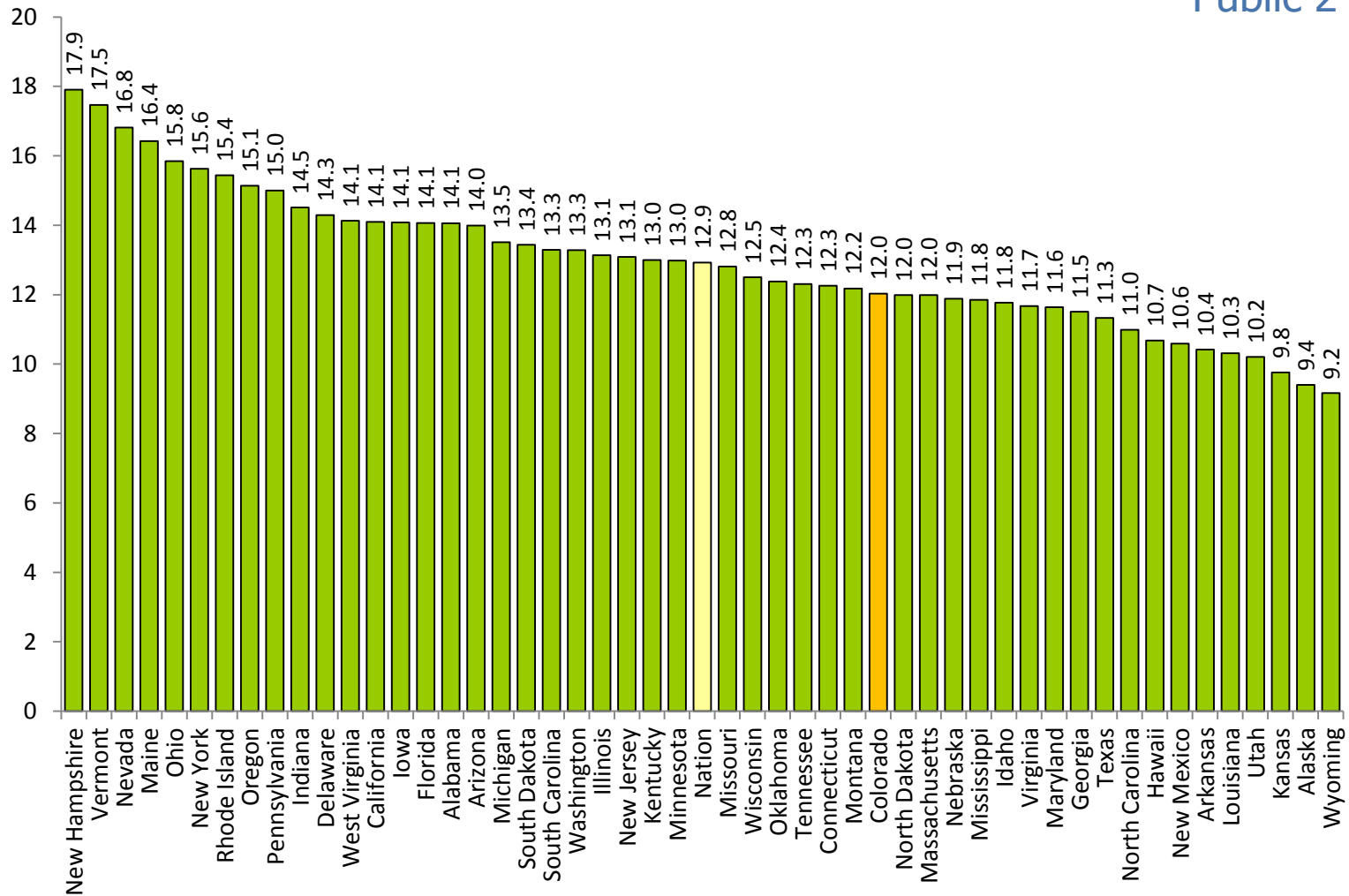
Public 4-Year



Sources: NCES, IPEDS Institutional Characteristics File; ic2008_ay Final Release Data File; NCES, IPEDS Fall 2008 Enrollment File; ef2008a Final Release Data File; NCES, IPEDS Academic Year 2008-09 Student Financial Aid File; sfa0809 Early Release Data File
 Downloaded 10-11-10; U.S. Census Bureau, 2009 American Community Survey (ACS) Public Use Microdata Sample (PUMS) File.

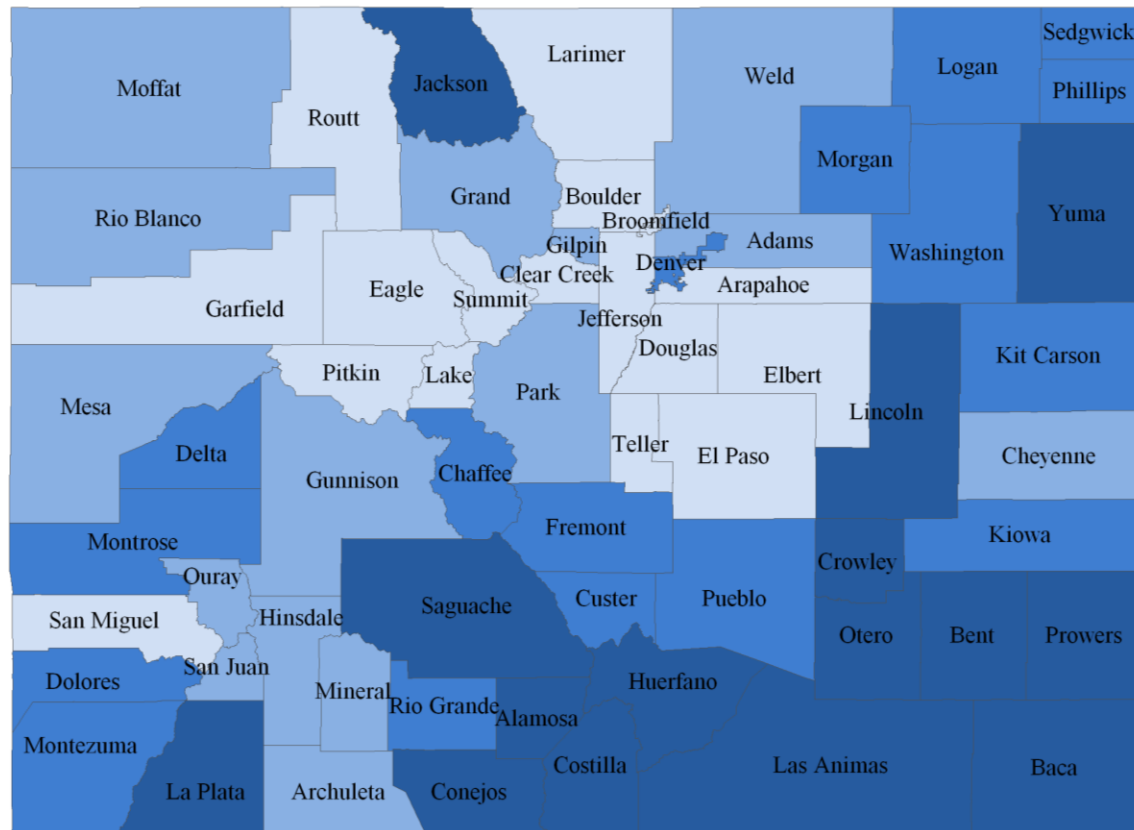
Net Cost for First-Time Full-Time Undergraduates as a Percent of Median Family Income, 2008-09

Public 2-Year

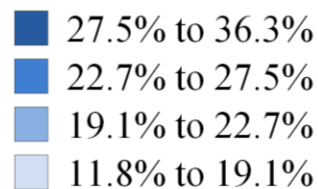


Sources: NCES, IPEDS Institutional Characteristics File; ic2008_ay Final Release Data File; NCES, IPEDS Fall 2008 Enrollment File; ef2008a Final Release Data File; NCES, IPEDS Academic Year 2008-09 Student Financial Aid File; sfa0809 Early Release Data File
 Downloaded 10-11-10; U.S. Census Bureau, 2009 American Community Survey (ACS) Public Use Microdata Sample (PUMS) File.

Public Research Institutions Net Price as a Percent of Median Family Income, 2009

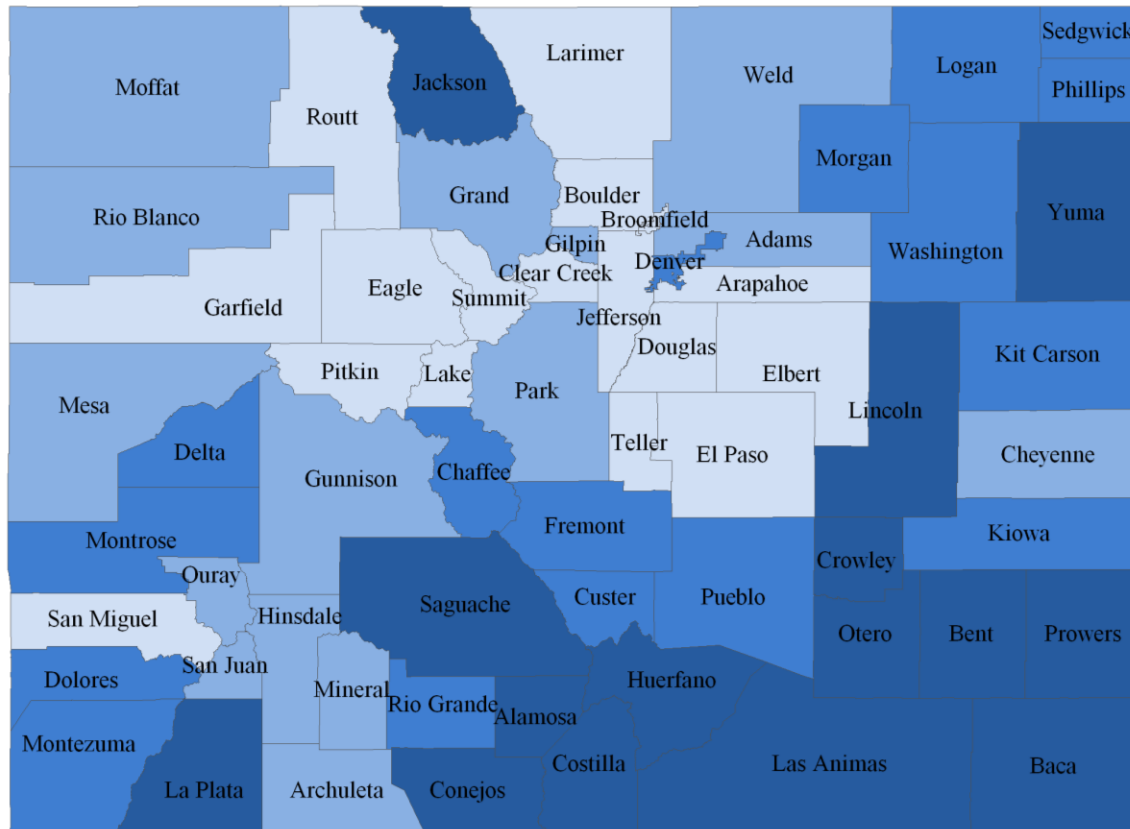


Public Research - Net Price as % of MFI



Source: U.S. Census Bureau, 2005-09 American Community Survey.
NCES, IPEDS 2009-10 Institutional Characteristics.

Public 4-Year Colleges – Net Price as a Percent of Median Family Income, 2009

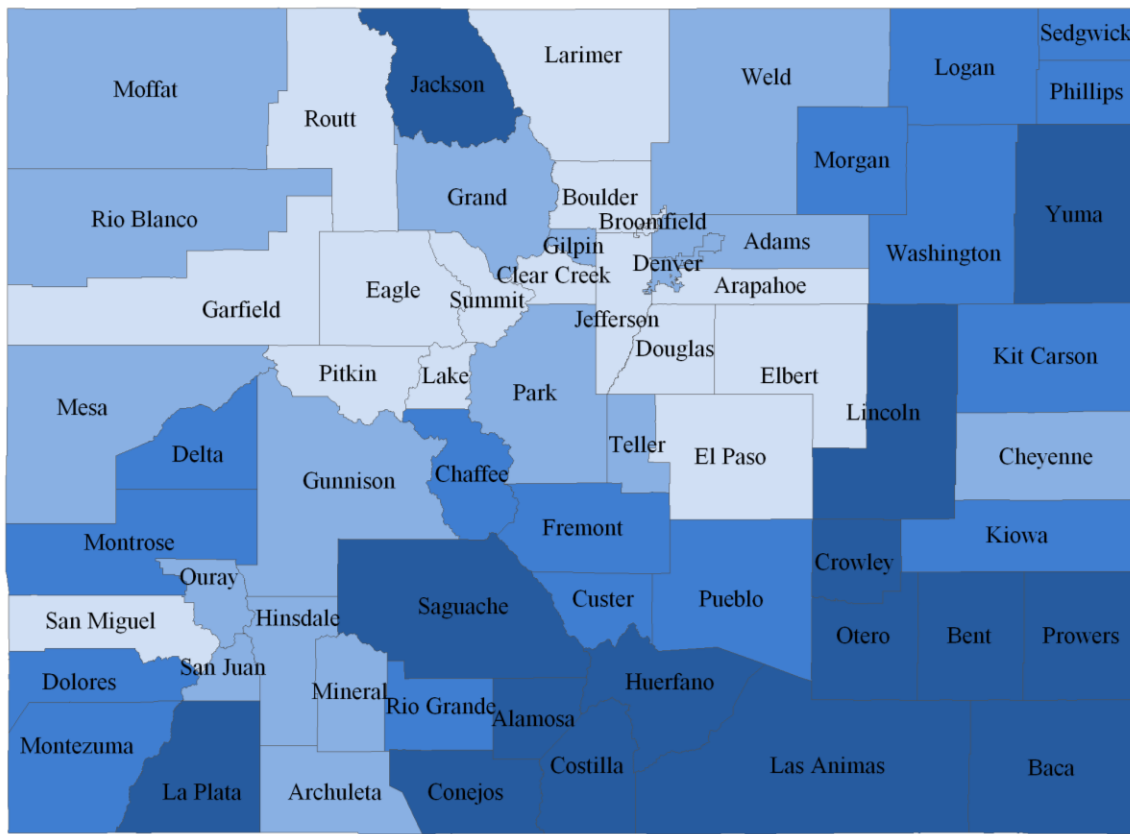


Public 4Yr Colleges - Net Price as % of MFI

- 18.7% to 24.9%
- 15.6% to 18.7%
- 13.1% to 15.6%
- 8.1% to 13.1%

Source: U.S. Census Bureau, 2005-09 American Community Survey.
NCES, IPEDS 2009-10 Institutional Characteristics.

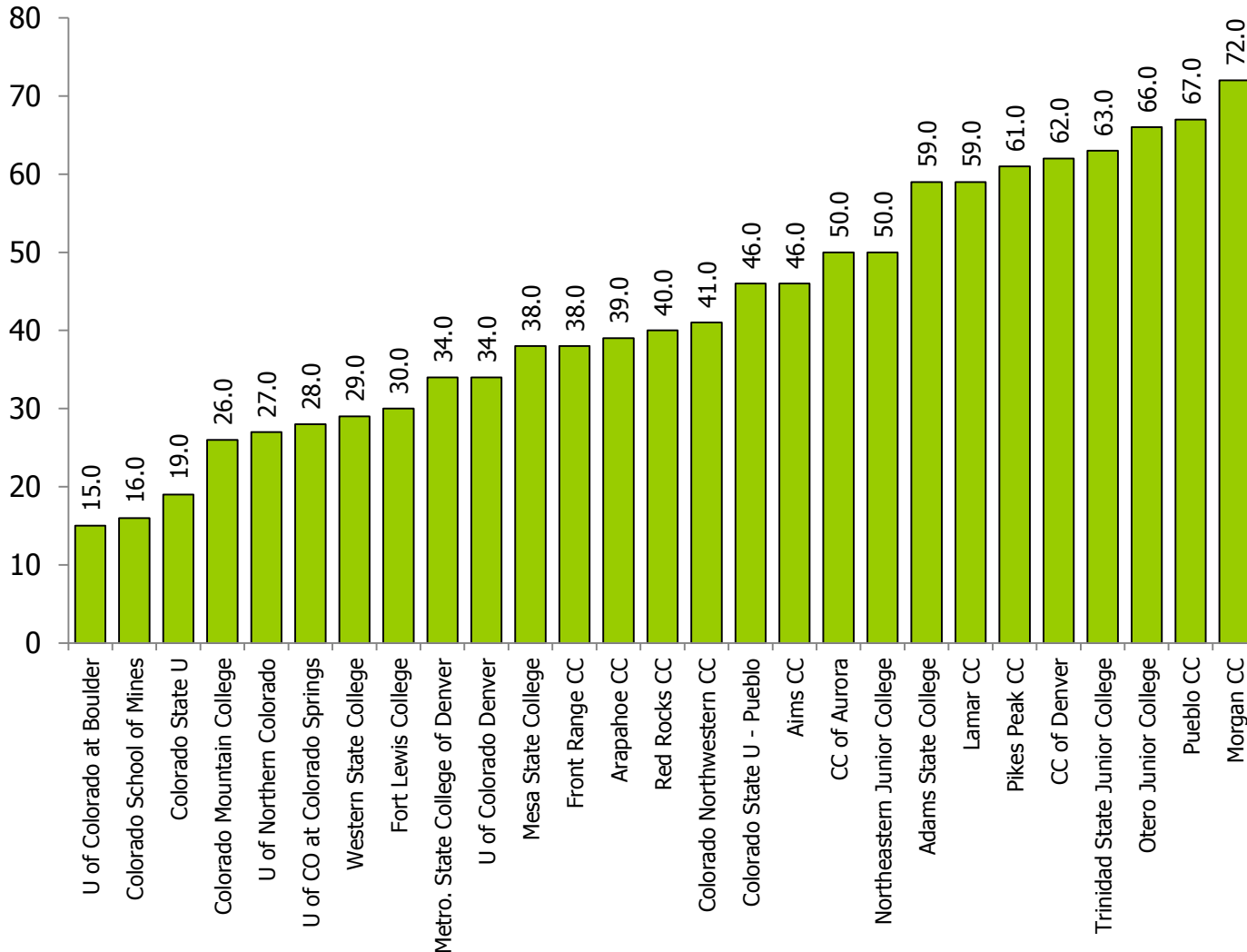
Public 2-Year Colleges – Net Price as a Percent of Median Family Income, 2009



Public 2Yr Colleges - Net Price as % of MFI

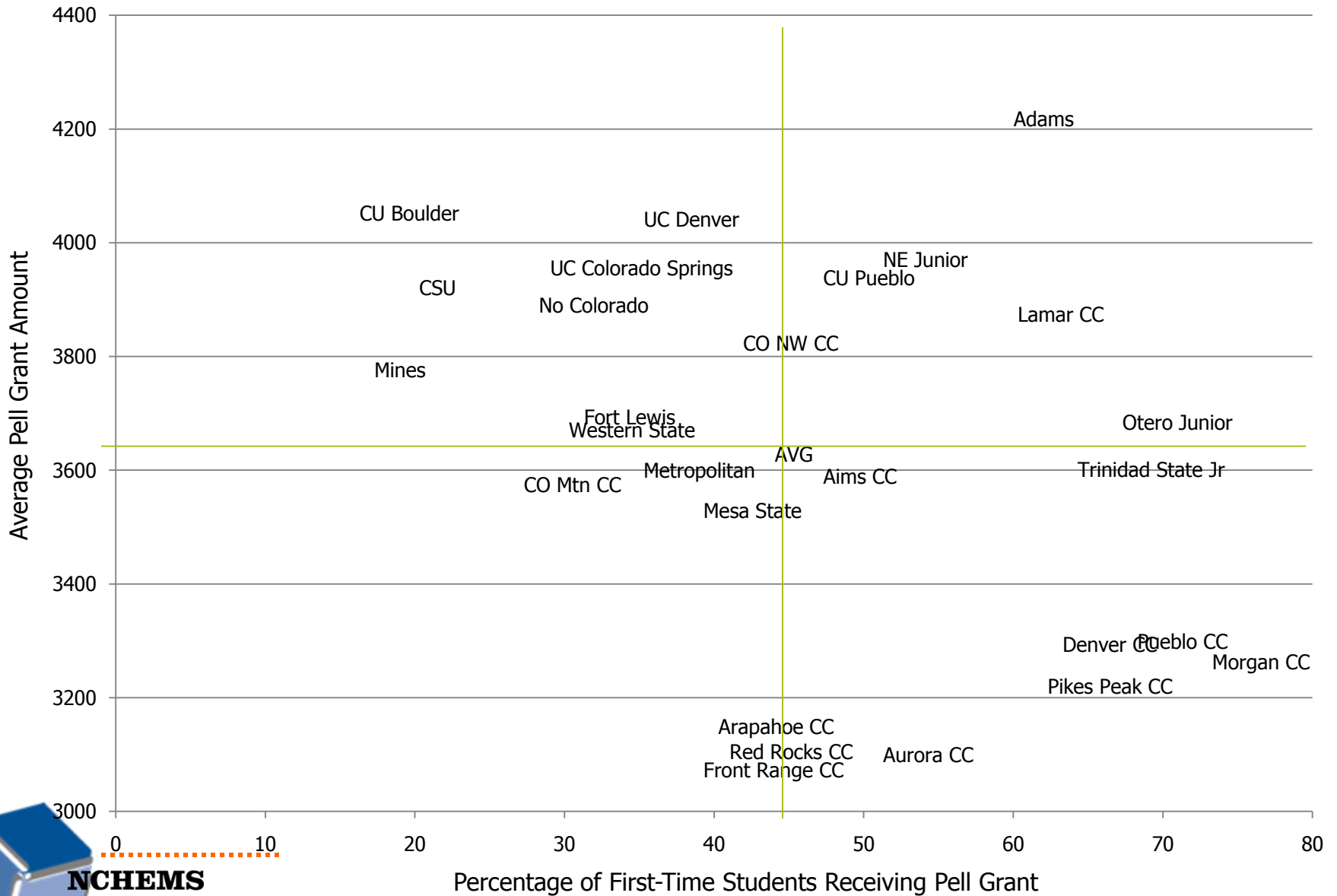
- 15.3% to 20.4%
- 12.8% to 15.3%
- 10.7% to 12.8%
- 6.6% to 10.7%

Percent of Undergraduate Students Receiving Pell Grants



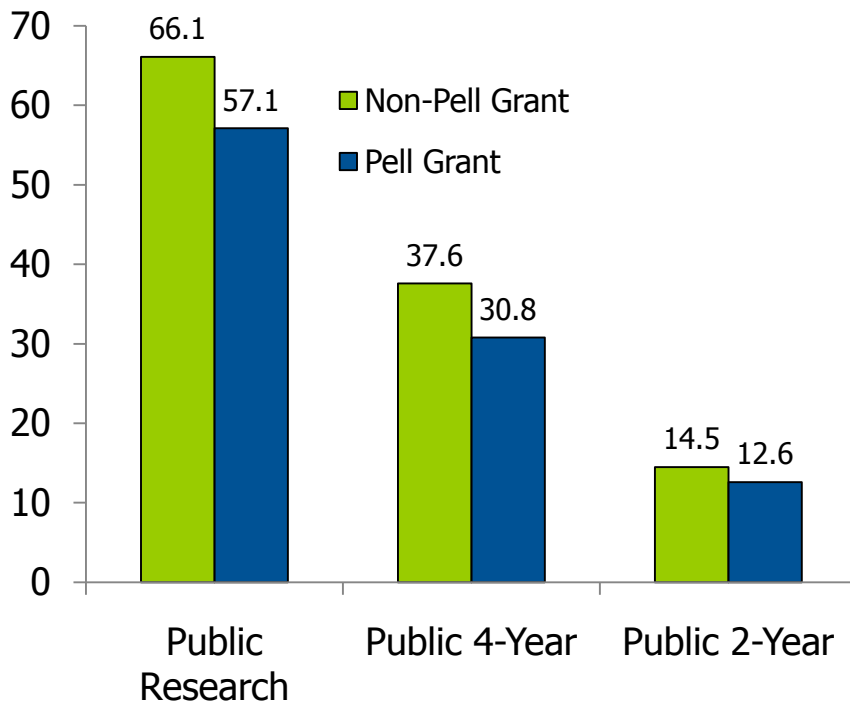
Source: SURDS Enrollment, Academic Year (Summer/Fall/Spring), Excludes exclusive extended studies students (ESP), Limited to Undergraduates (Student Level <21)
 SURDS Financial Aid for matching academic year

Institutional Distribution of Pell Recipients



Pell vs. Non-Pell Students Who Graduate within 150% of Program Time (Percent)

Full-Time Students



Part-Time Students

