Presentation to

North Dakota Legislative Council Interim Higher Education Committee

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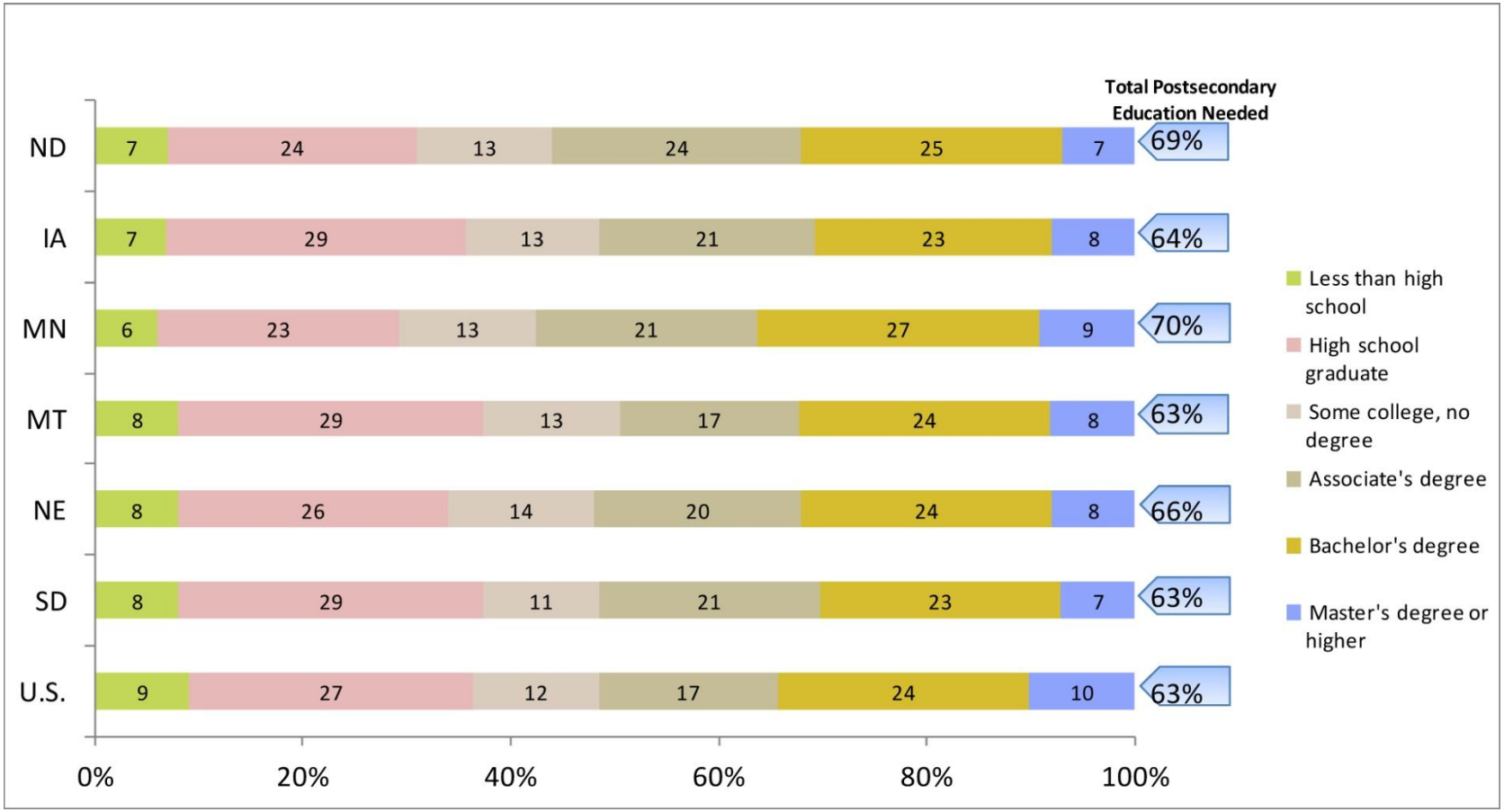
Figure 1a.

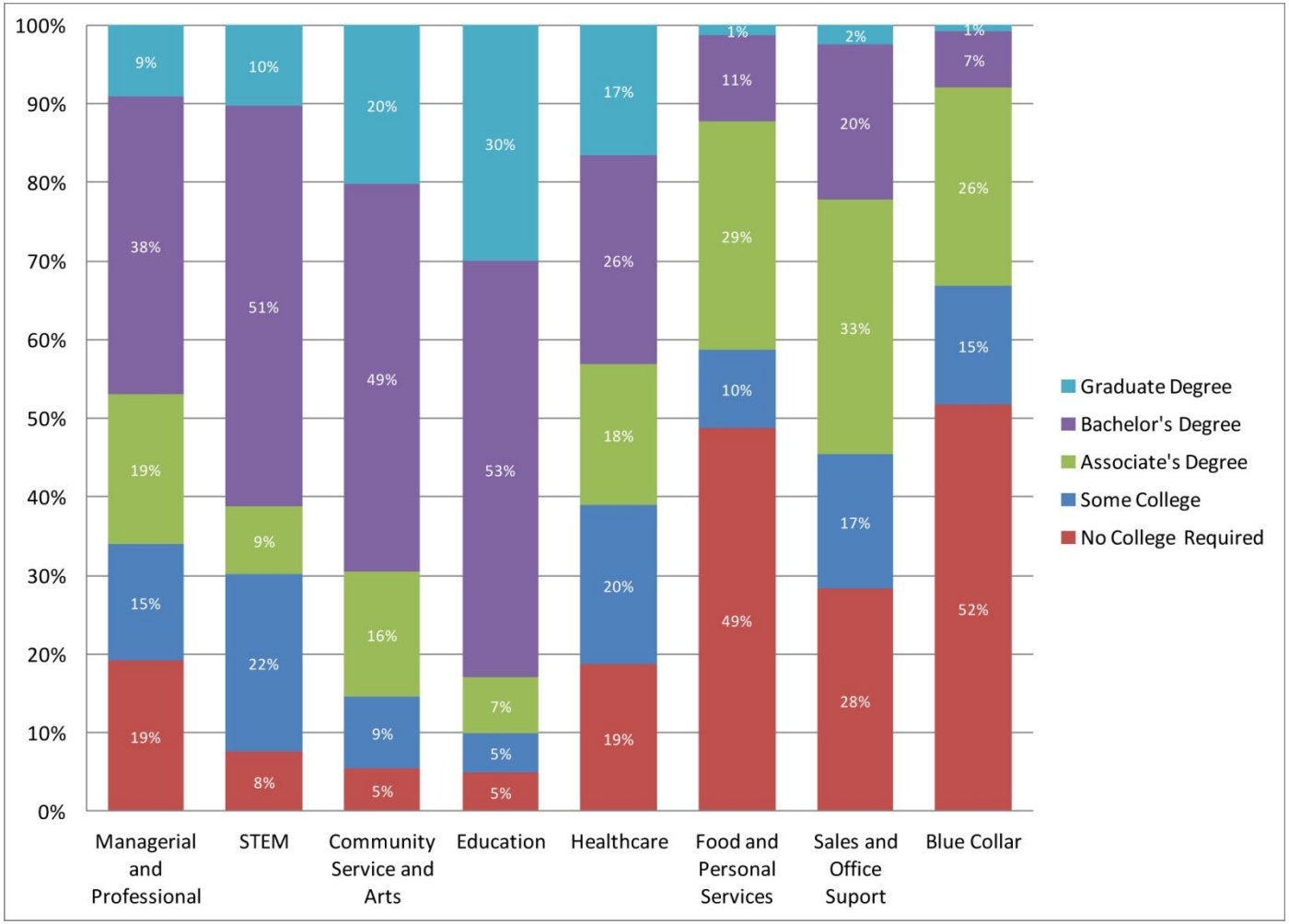
Educational Requirements for All Job Openings by 2018



Source: The Georgetown University Center on Education and the Workforce. (2010). *Help wanted: Projections of jobs and education requirements through 2018*.

Figure 1b.

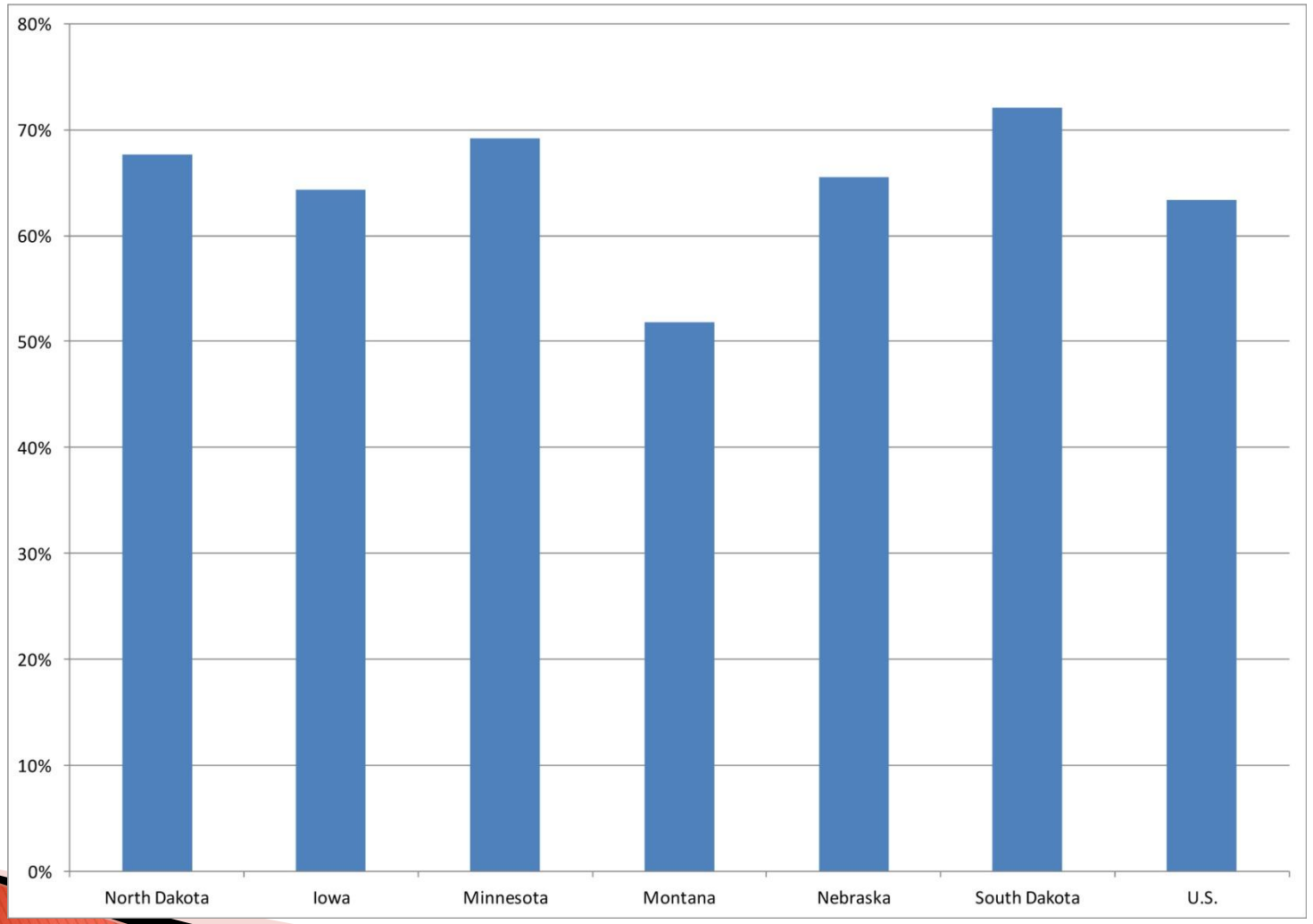
Projections of Educational Demands by Sector in North Dakota in 2018



Source: The Georgetown University Center on Education and the Workforce. (2010). *Help wanted: Projections of jobs and education requirements through 2018*.

Figure 2.

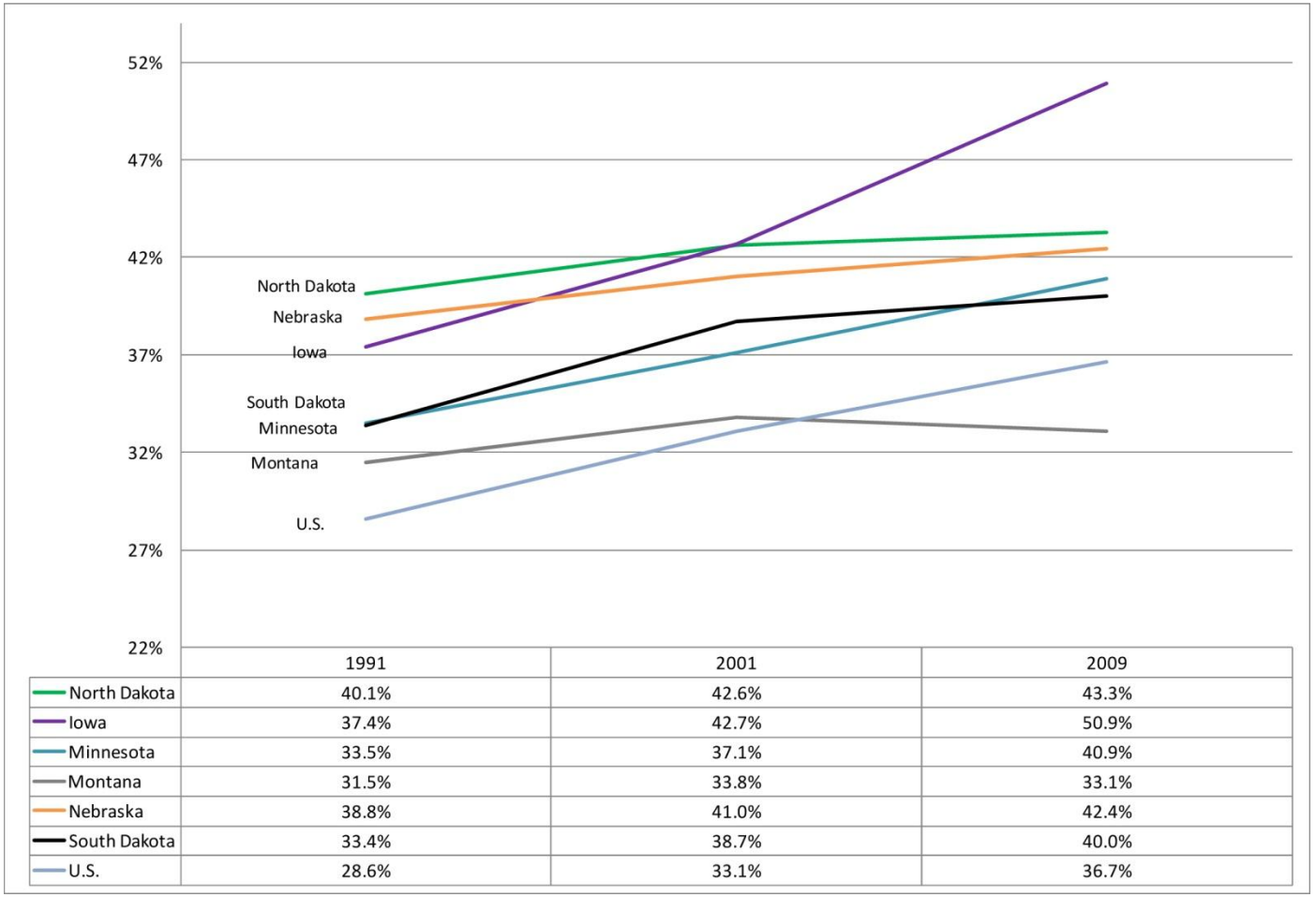
Percentage of High School Graduates Going Directly to College



Source: NCHEMS. (2011). *College-going rates of high school graduates enrolling directly from high school: 2008.*

Figure 3a.

Percentage of Population Enrolled in College: Persons Aged 18-24

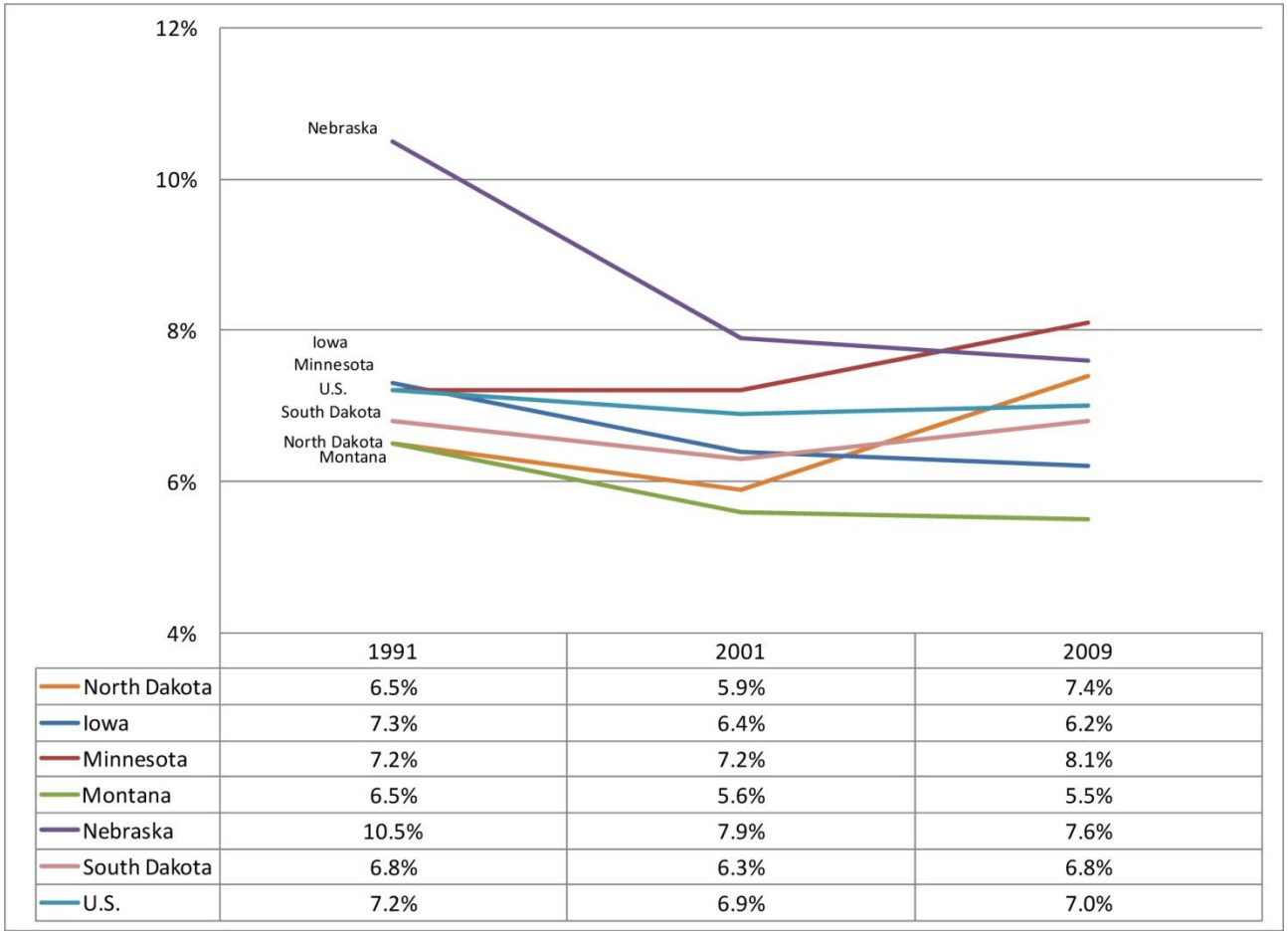


	1991	2001	2009
North Dakota	40.1%	42.6%	43.3%
Iowa	37.4%	42.7%	50.9%
Minnesota	33.5%	37.1%	40.9%
Montana	31.5%	33.8%	33.1%
Nebraska	38.8%	41.0%	42.4%
South Dakota	33.4%	38.7%	40.0%
U.S.	28.6%	33.1%	36.7%

Source: NCHEMS. (2011). *Percent of 18-24 year olds enrolled in college: 1991, 2001*; U.S. Census Bureau. (2011). *2010 American Community Survey 3-year estimates*; NCES IPEDS. (2011). *Student enrollment: 2009.*

Figure 3b.

Percentage of Population Enrolled in College: Persons Aged 25-49 without a Bachelor's Degree

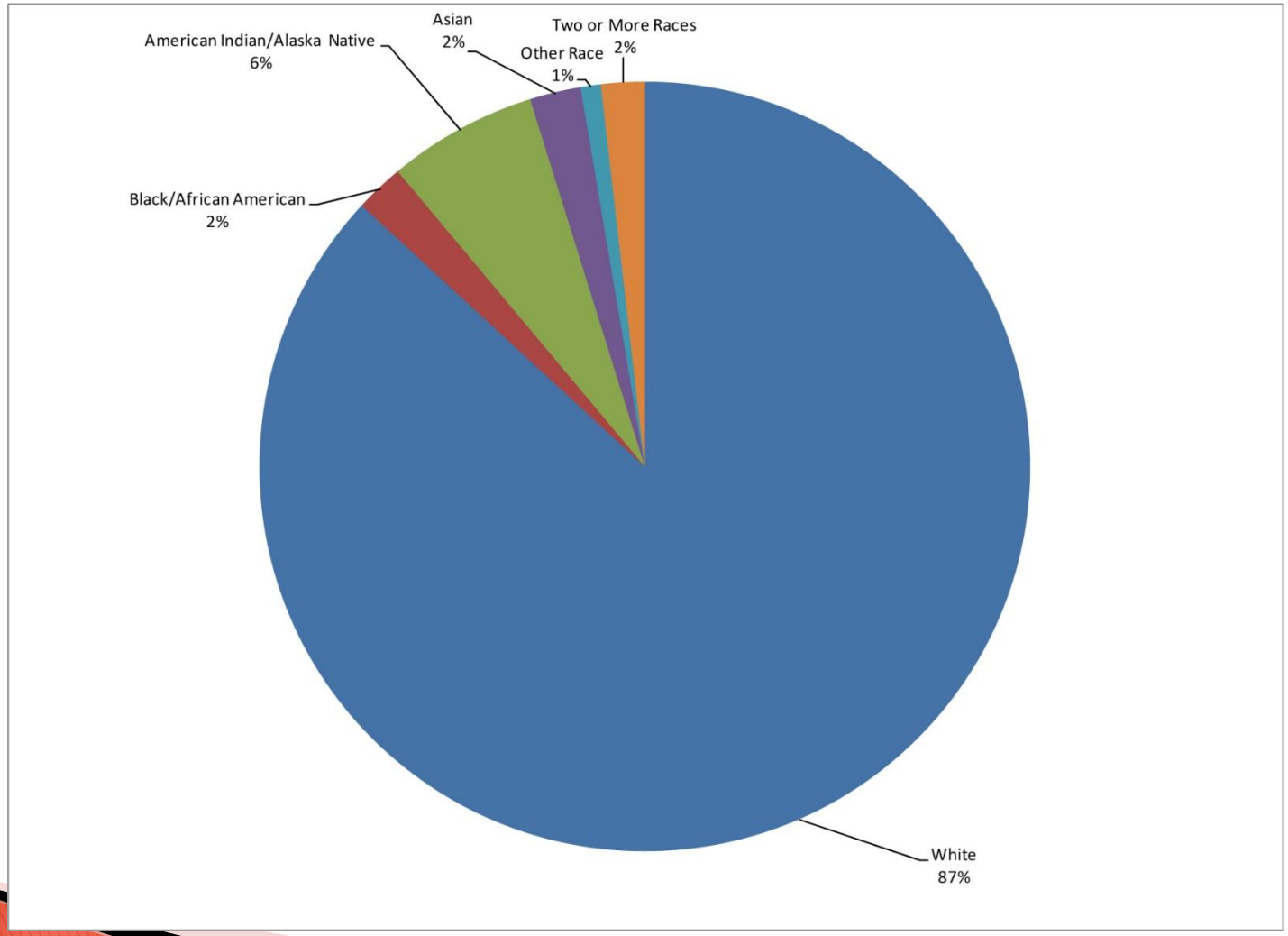


	1991	2001	2009
North Dakota	6.5%	5.9%	7.4%
Iowa	7.3%	6.4%	6.2%
Minnesota	7.2%	7.2%	8.1%
Montana	6.5%	5.6%	5.5%
Nebraska	10.5%	7.9%	7.6%
South Dakota	6.8%	6.3%	6.8%
U.S.	7.2%	6.9%	7.0%

Source: NCHEMS. (2011). *Enrollment of 25-49 year olds as a percent of 25-49 year olds with no bachelor's degree or higher.*

Figure 4a.

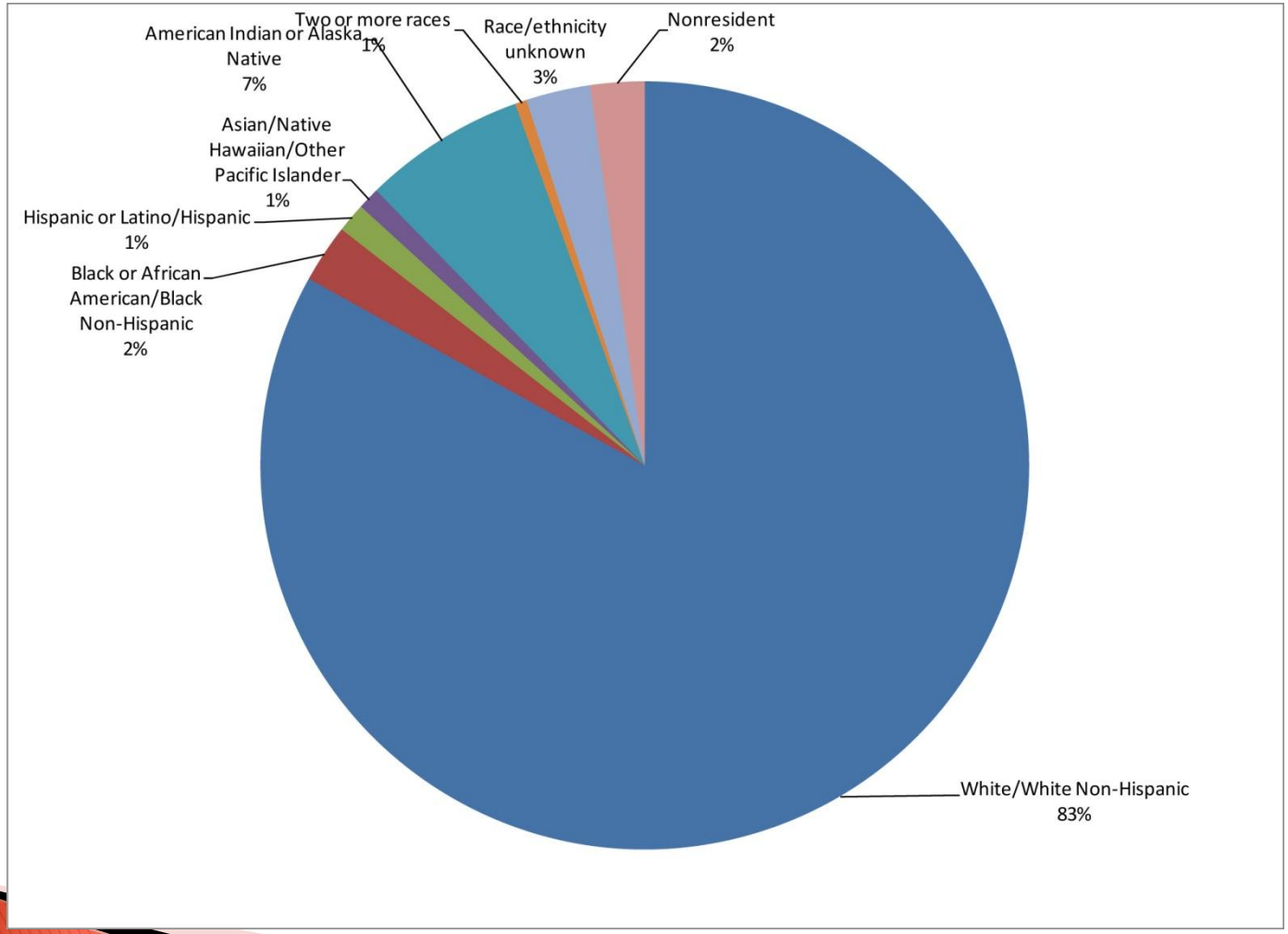
North Dakota State Racial Composition: Persons Aged 18-24



Source: U.S. Census Bureau. (2011). *2010 American Community Survey 3-year estimates.*

Figure 4b.

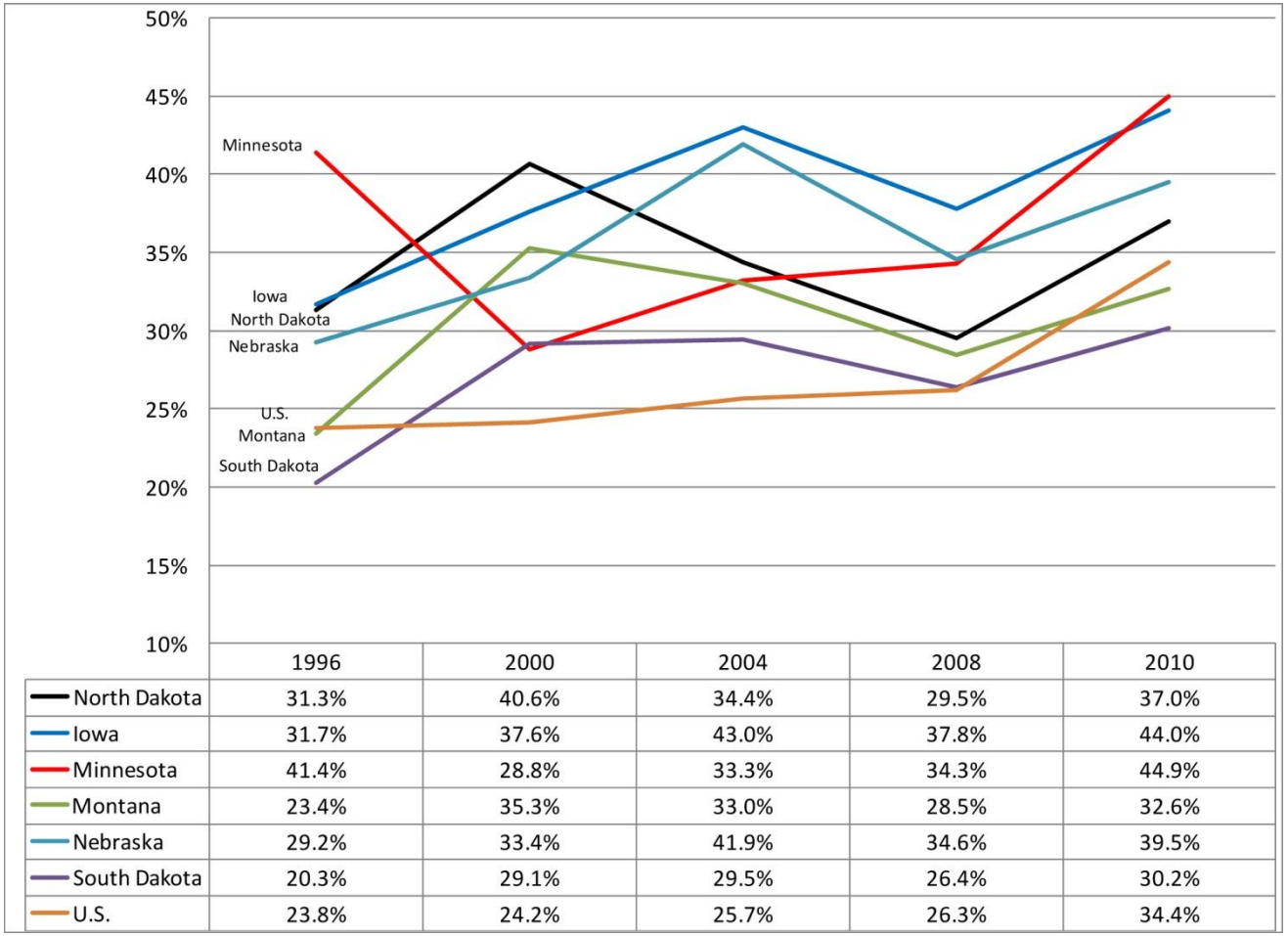
First-Time, Full-Time, Degree-Seeking Student Enrollment in North Dakota



Source: NCES IPEDS. (2011). *Student enrollment: 2009.*

Figure 5.

Undergraduate Enrollment Rate of Low-Income Students over Time



	1996	2000	2004	2008	2010
North Dakota	31.3%	40.6%	34.4%	29.5%	37.0%
Iowa	31.7%	37.6%	43.0%	37.8%	44.0%
Minnesota	41.4%	28.8%	33.3%	34.3%	44.9%
Montana	23.4%	35.3%	33.0%	28.5%	32.6%
Nebraska	29.2%	33.4%	41.9%	34.6%	39.5%
South Dakota	20.3%	29.1%	29.5%	26.4%	30.2%
U.S.	23.8%	24.2%	25.7%	26.3%	34.4%

Source: Postsecondary Education Opportunity. (2011). *College participation rates for students from low income families by state.*

Figure 6.

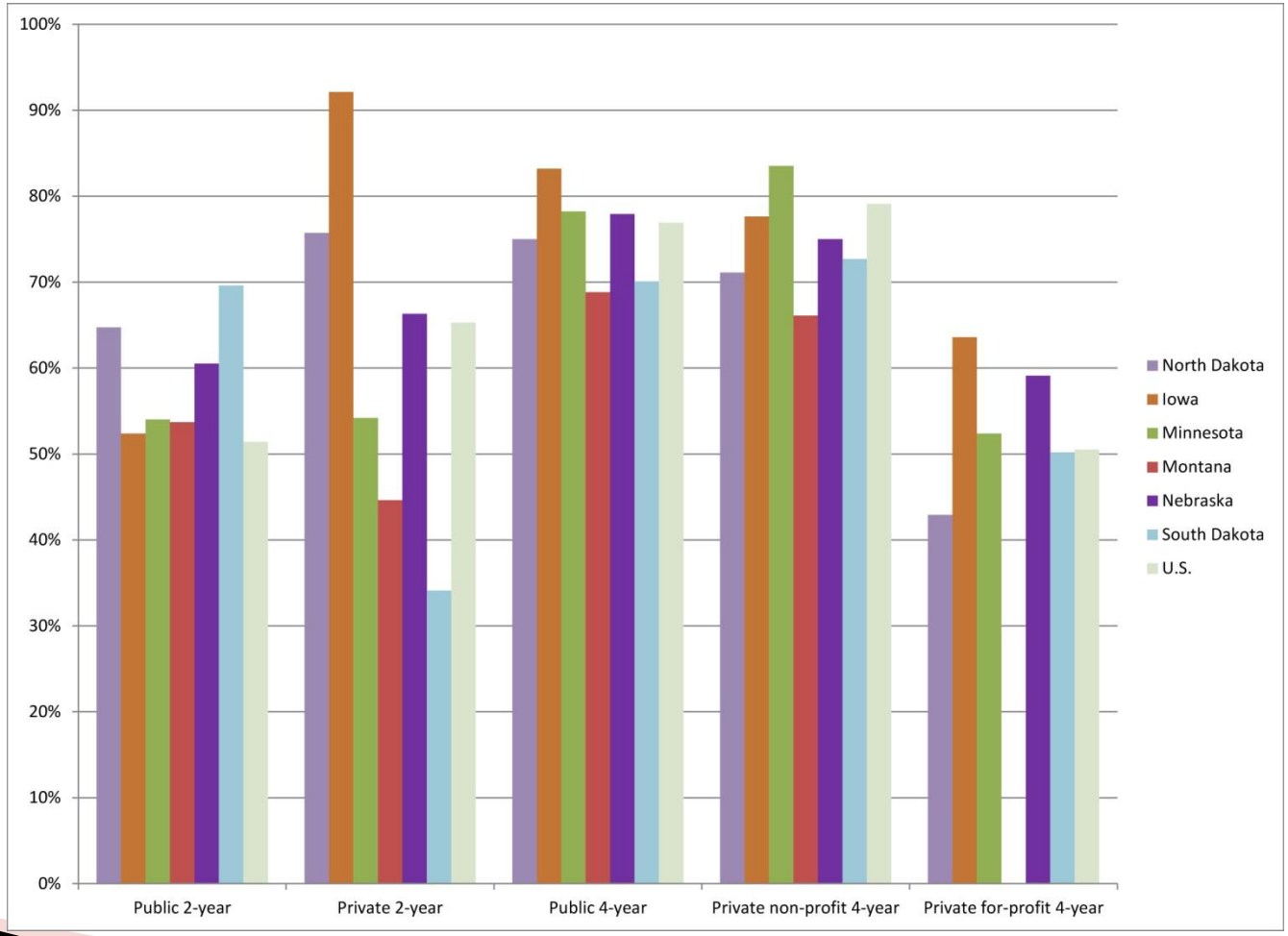
Percentage of 18–24 Year Old Cohort Enrolled in Postsecondary Education

U.S. State		OECD Country
	58%	Korea
Rhode Island	53%	
Vermont	43%	Slovenia
Iowa, Massachusetts	42%	
West Virginia, California	41%	
Pennsylvania	40%	
North Dakota, Delaware, **Nebraska**, **Kansas**, **Minnesota**, **Michigan**	39%	**United States**
Indiana, New York	38%	
Wisconsin, **Ohio**, **South Dakota**, Alabama	37%	
Missouri, Virginia	36%	Poland, Belgium
New Hampshire, Utah, **Illinois**, Maryland, Maine, New Mexico, Arizona, Kentucky, Oregon	35%	
Florida, Colorado, South Carolina, New Jersey, Arkansas, Hawaii, Mississippi	34%	
Connecticut, North Carolina, Oklahoma, Wyoming, Tennessee	33%	
Texas	32%	New Zealand
Louisiana, Georgia	31%	Netherlands, Australia, Chile
Montana, Washington, Idaho	30%	Canada, France, Finland, Spain
	29%	Ireland, Estonia, Hungary
	28%	Italy
	27%	Czech Republic
Nevada	26%	Portugal, Slovak Republic
	24%	Turkey, Norway
	23%	United Kingdom
	22%	Austria
	21%	Denmark, Sweden
	20%	Germany
Alaska	19%	
	18%	Israel, Switzerland, Iceland
	16%	Mexico
	13%	Brazil

Source: OECD. (2009). *Education at a glance: 2009*; U.S. Census Bureau. (2009). *American college survey.* Adapted from NCHEMS.

Figure 7.

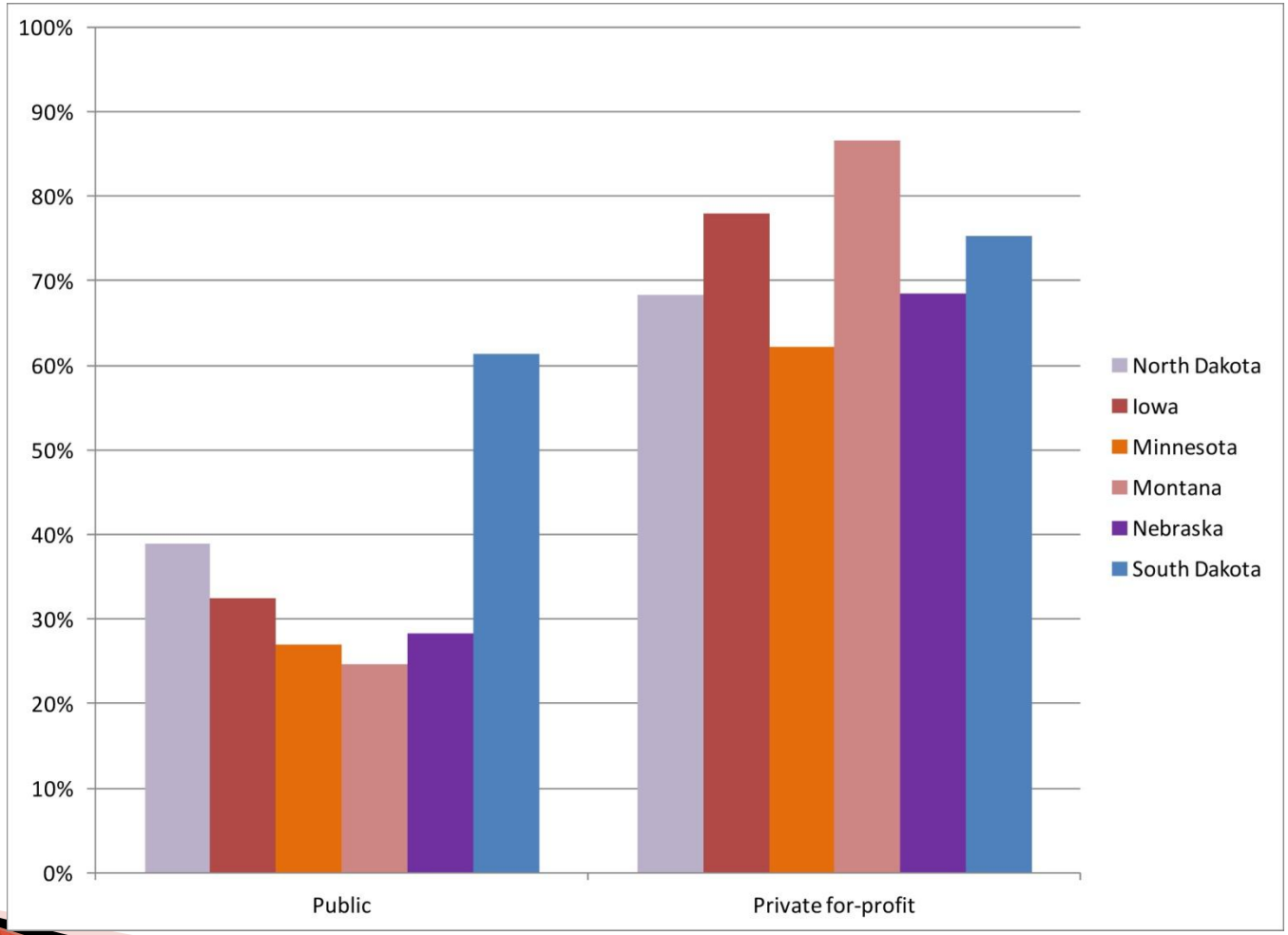
Retention Rates: First-Time Freshman Enrolling During Second Year



Source: NCHEMS. (2011). *Retention rates: First-time college freshmen returning their second year, Fall 2009 cohort.*

Figure 8.

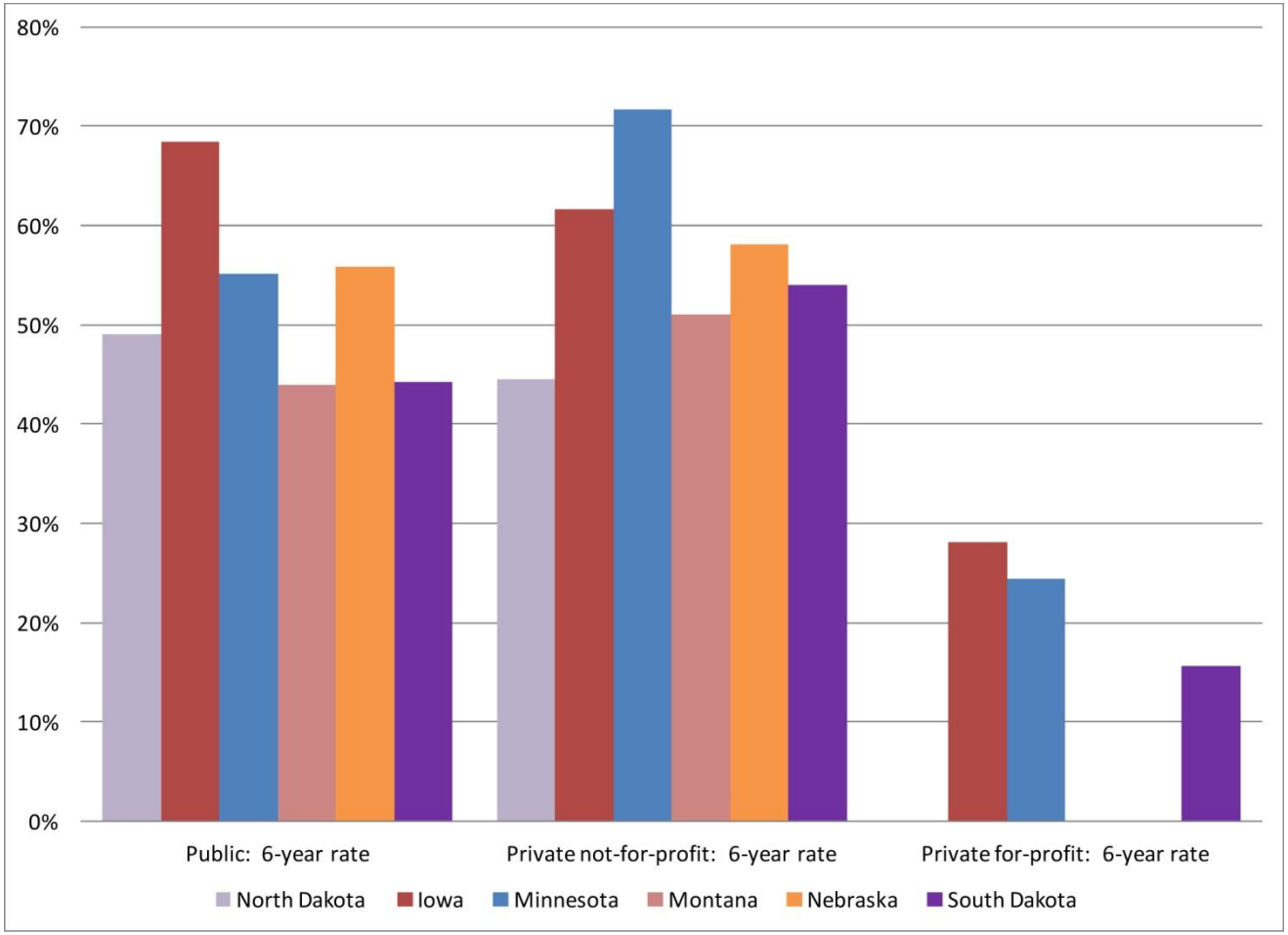
Three-Year Graduation Rates at 2-Year Colleges



Source: NCES IPEDS. (2011). *Graduation rates: 2006 cohort.*

Figure 9.

Graduation Rates for Bachelor's Degree Cohorts



Source: NCES IPEDS. (2011). *Graduation rates: 2003 bachelor's cohort.*

Figure 11.

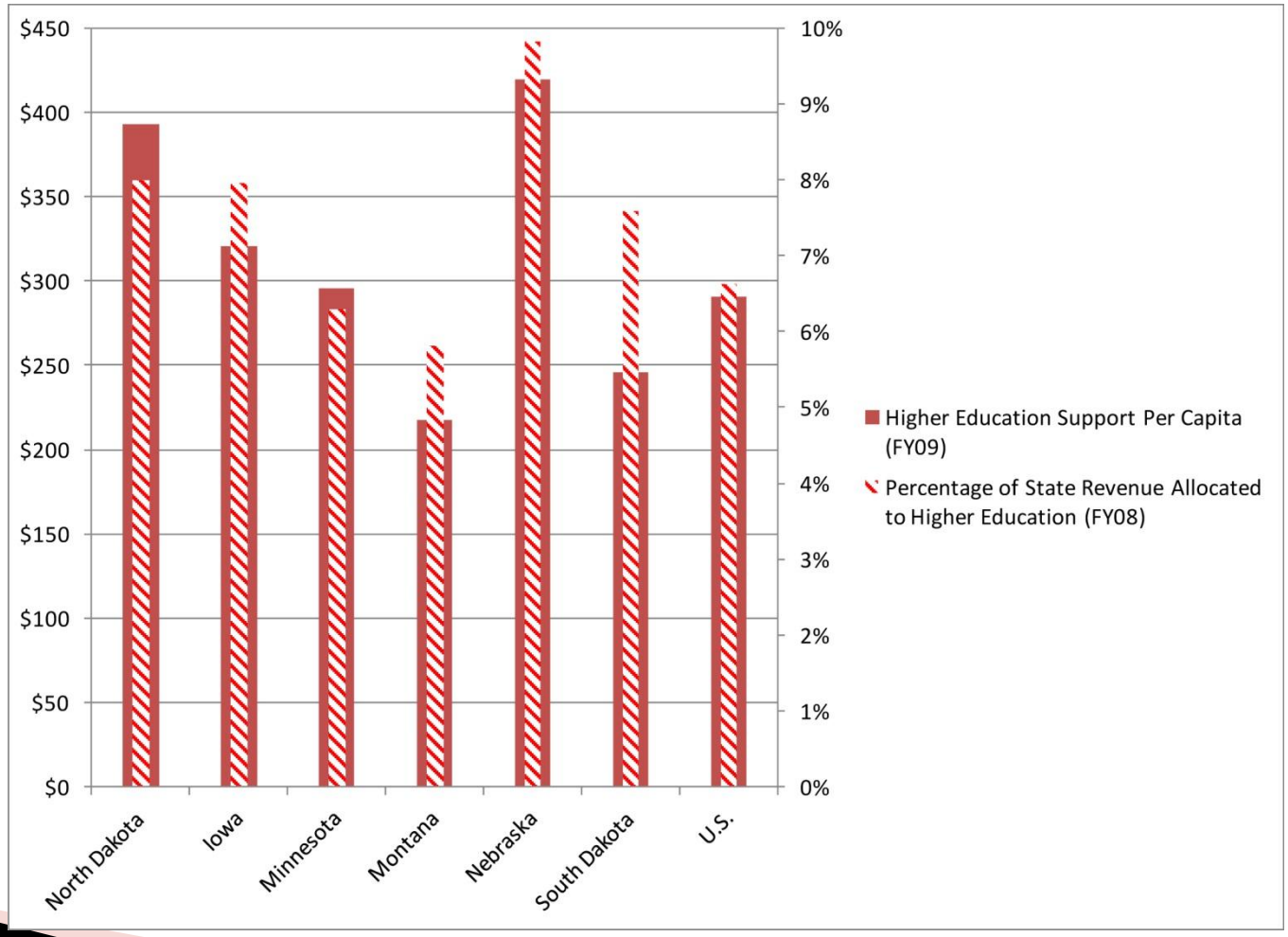
Percentage of Adults Aged 25 to 34 Holding an Associate's Degree or Higher

U.S. State		OECD Country
	55%	Canada
	54%	Japan
	53%	Korea
Massachusetts	51%	
North Dakota	50%	
Minnesota	49%	
New York	48%	
Connecticut, Maryland, New Jersey	46%	
Iowa, New Hampshire	45%	
	44%	New Zealand
Delaware, **Nebraska**, Pennsylvania, Rhode Island, Vermont, Virginia	42%	Belgium, Ireland, Norway
Hawaii, **Illinois**, Montana, **South Dakota**, **Wisconsin**	41%	Denmark, France
Colorado, **Kansas**, Washington	40%	
	39%	Australia, Spain, Sweden **United States**
	38%	Finland
Michigan, Utah	37%	United Kingdom
Maine, **Missouri**, North Carolina	36%	Netherlands
California, Florida, **Indiana**, **Ohio**, Oregon	35%	
Georgia	34%	
South Carolina	33%	Luxembourg
Arizona, Idaho, Wyoming	32%	Iceland, Switzerland
Alaska, Mississippi, New Mexico	31%	
Alabama, Kentucky, Tennessee, Texas, West Virginia	30%	
Oklahoma	29%	
Louisiana	28%	Poland
Arkansas, Nevada	27%	Greece
	22%	Germany
	21%	Hungary
	20%	Portugal
	19%	Austria, Mexico
	17%	Italy, Slovak Republic
	14%	Czech Republic
	13%	Turkey

Source: NCHEMS. (2011). *International and state comparisons: 2006.*

Figure 12.

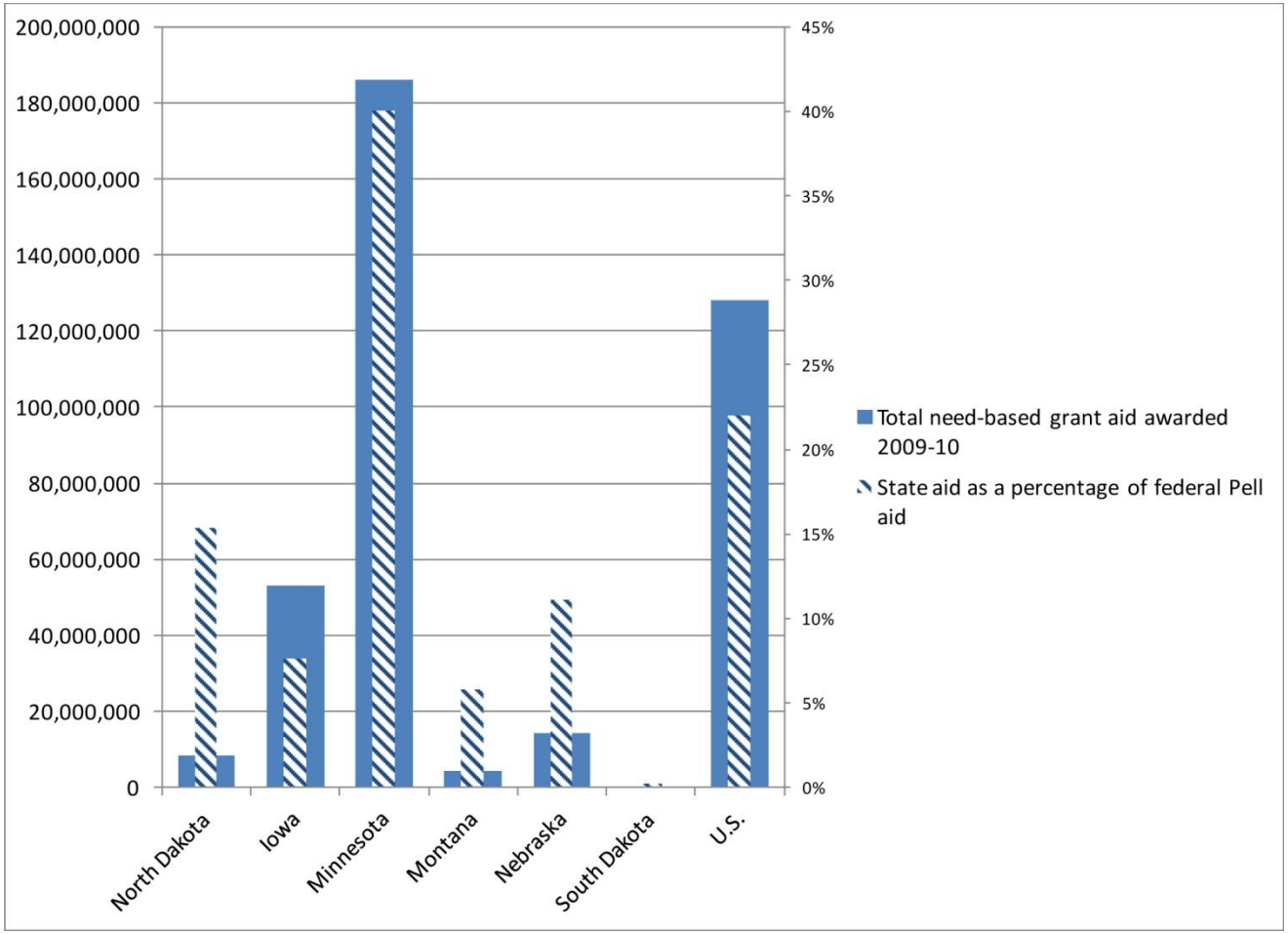
State Fiscal Support for Higher Education Per Capita and as a Percentage of Total State Revenue



Source: SHEEO. (2011). *State higher education finance: FY 2010.*

Figure 14.

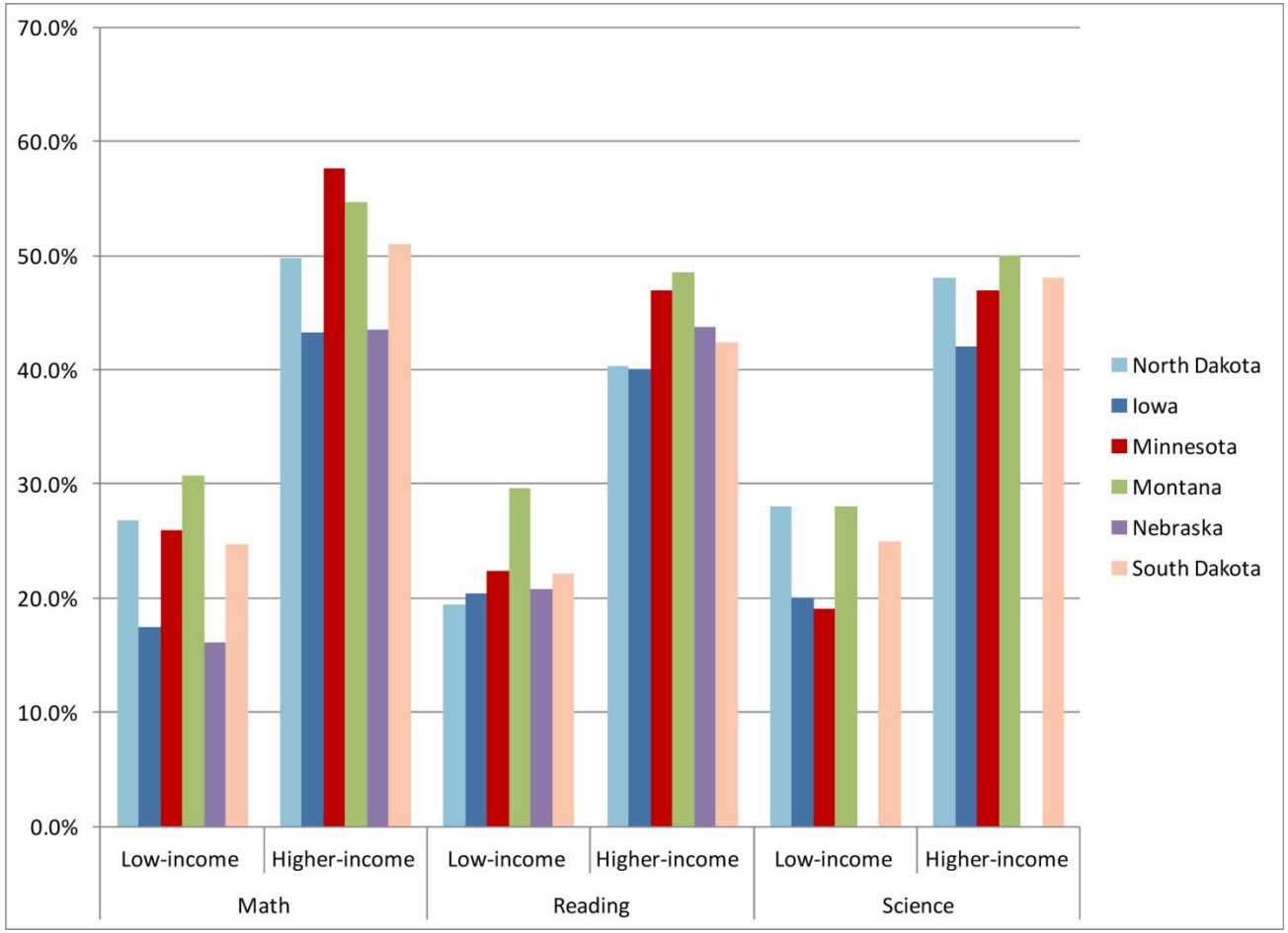
State Need-Based Grant Aid: Total State Aid in Dollars and as a Percentage of Federal Pell Grant Aid



Source: NASSGAP. (2011). *41st annual report on state-sponsored student financial aid: 2009-10.* Postsecondary Education Opportunity. (2011). *Pell grant recipient data by state.*

Figure 15.

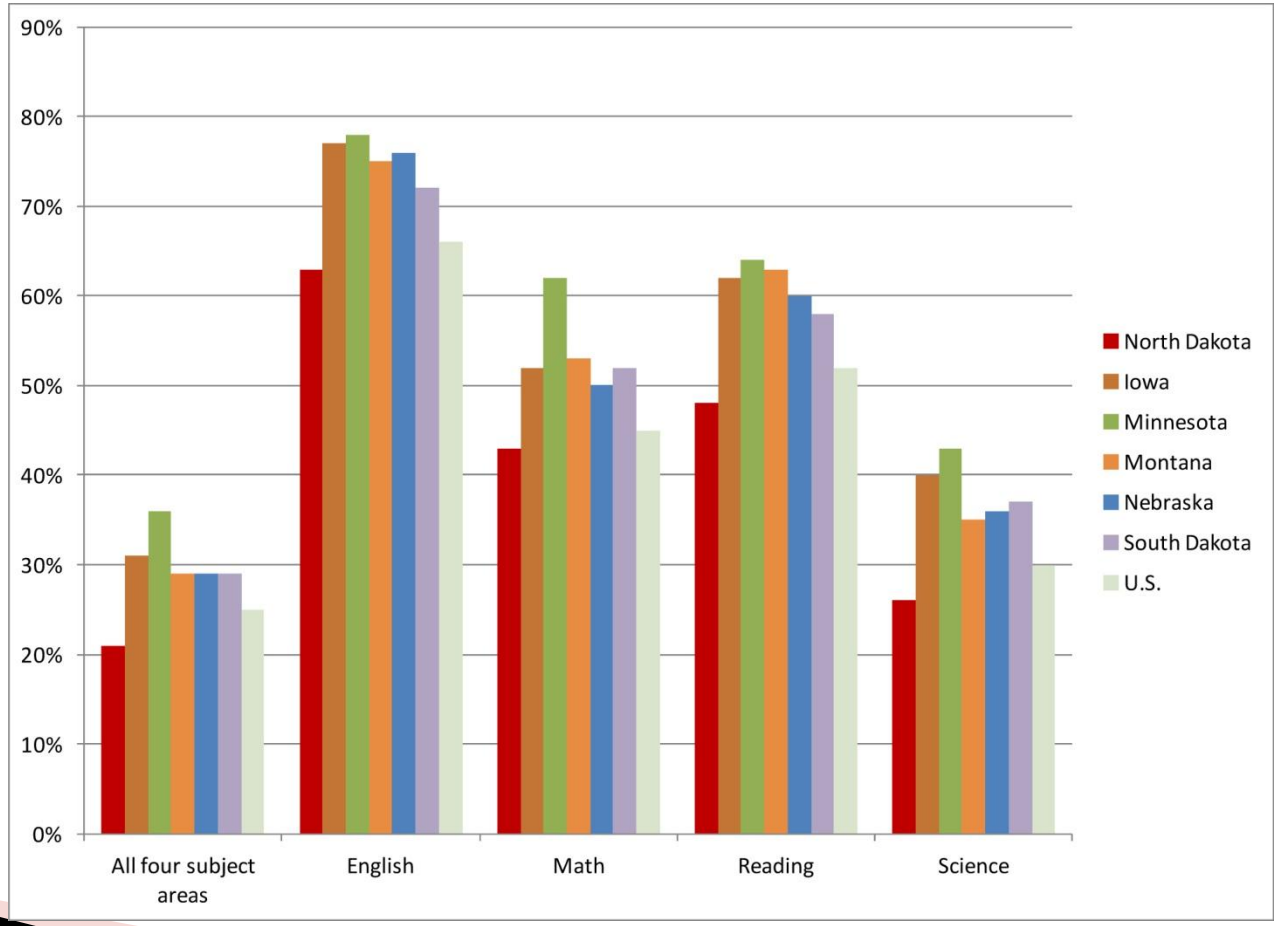
NAEP 8th Grade Math, Reading, and Science Scores: Low- and Higher-Income Students At or Above Proficient Level



Source: NCES. (2011). *National assessment of educational progress: 2011.*

Figure 17.

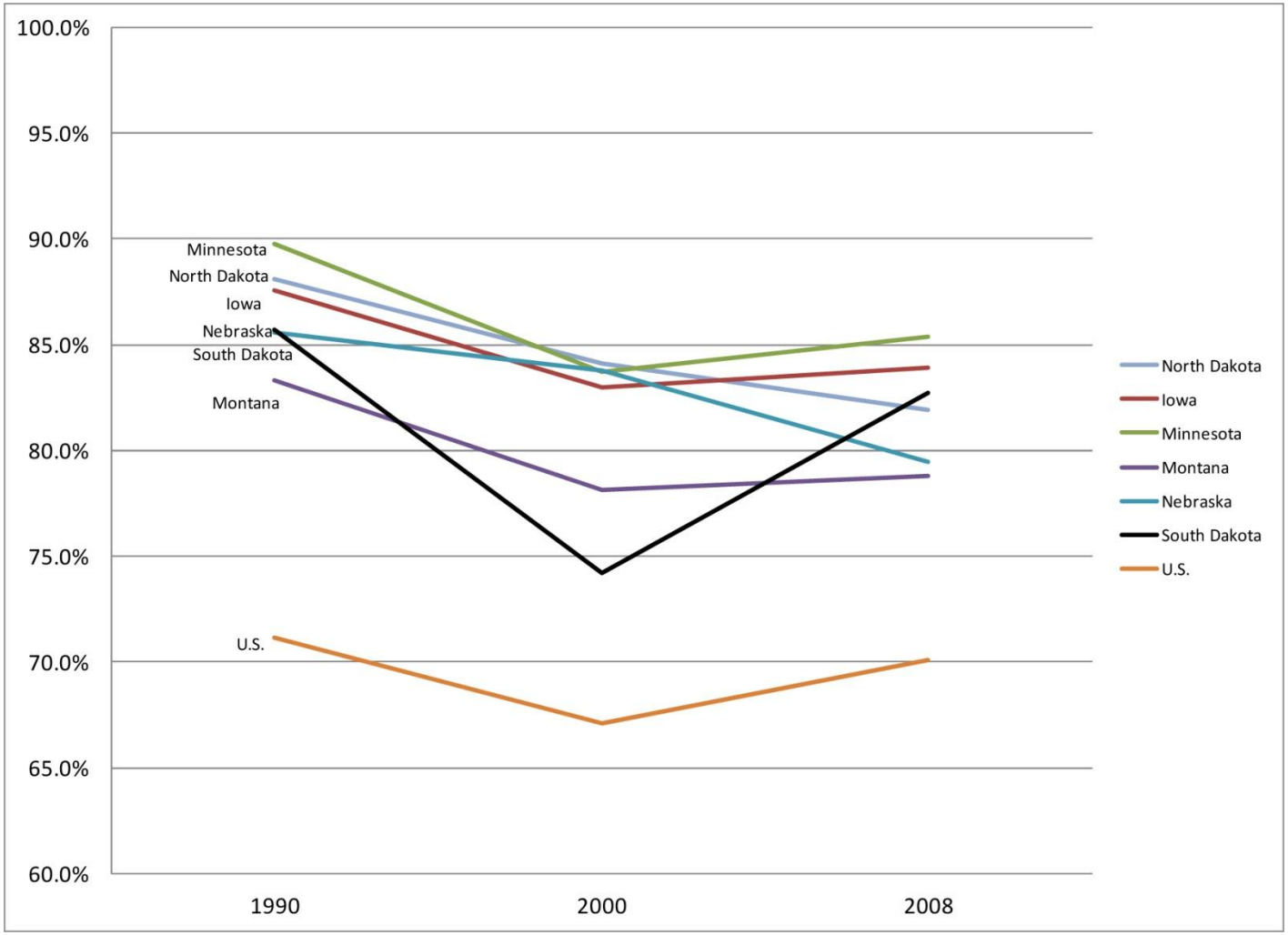
Percentage of ACT-Tested High School Graduates Who Met or Exceeded the College Readiness Benchmark Score



Source: ACT. (2011). College readiness benchmark attainment by state: 2011.

Figure 16.

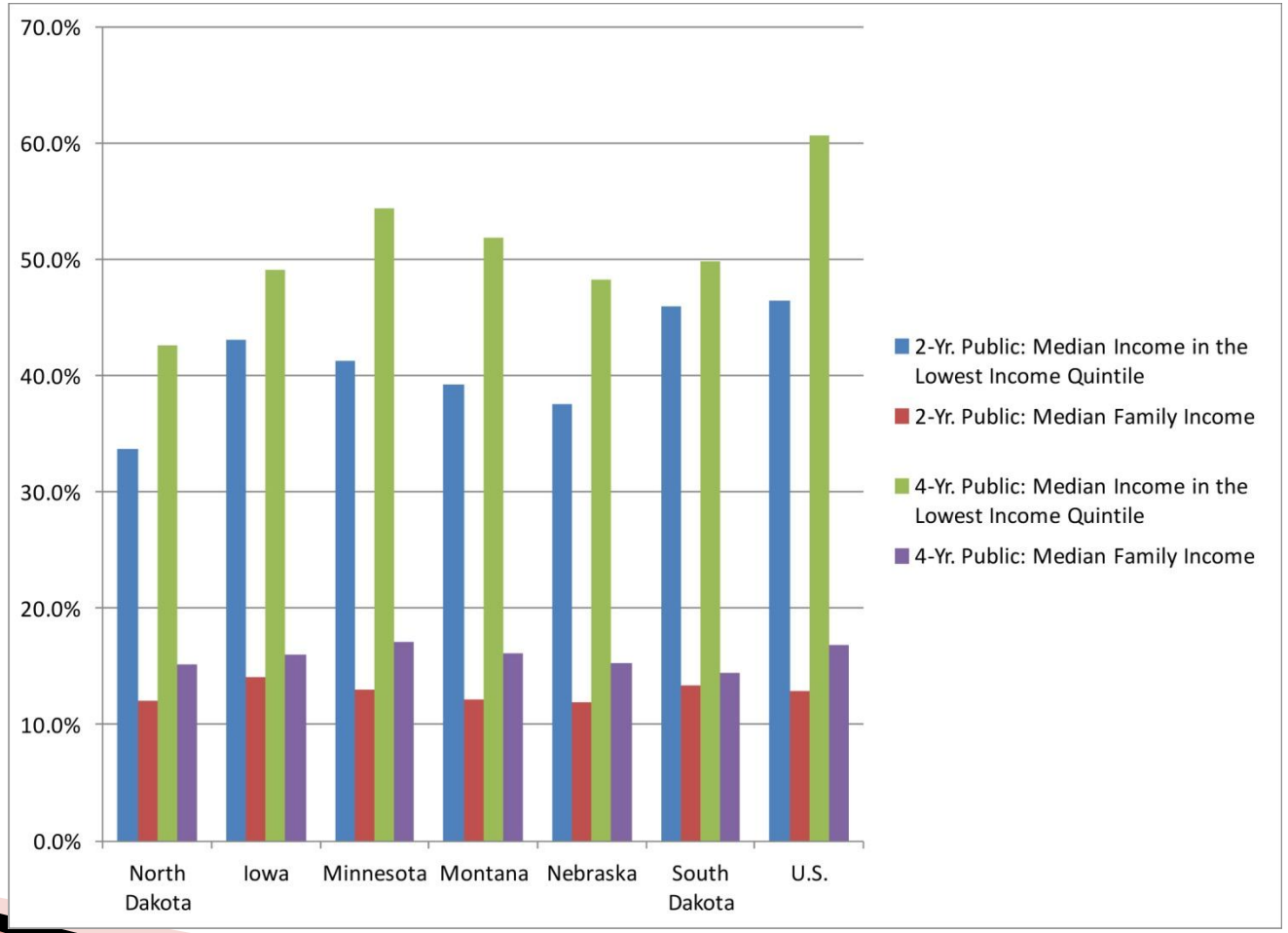
Public High School Graduation Rates Over Time



Source: NCHEMS. (2011). *Public high school graduation rates.*

Figure 18.

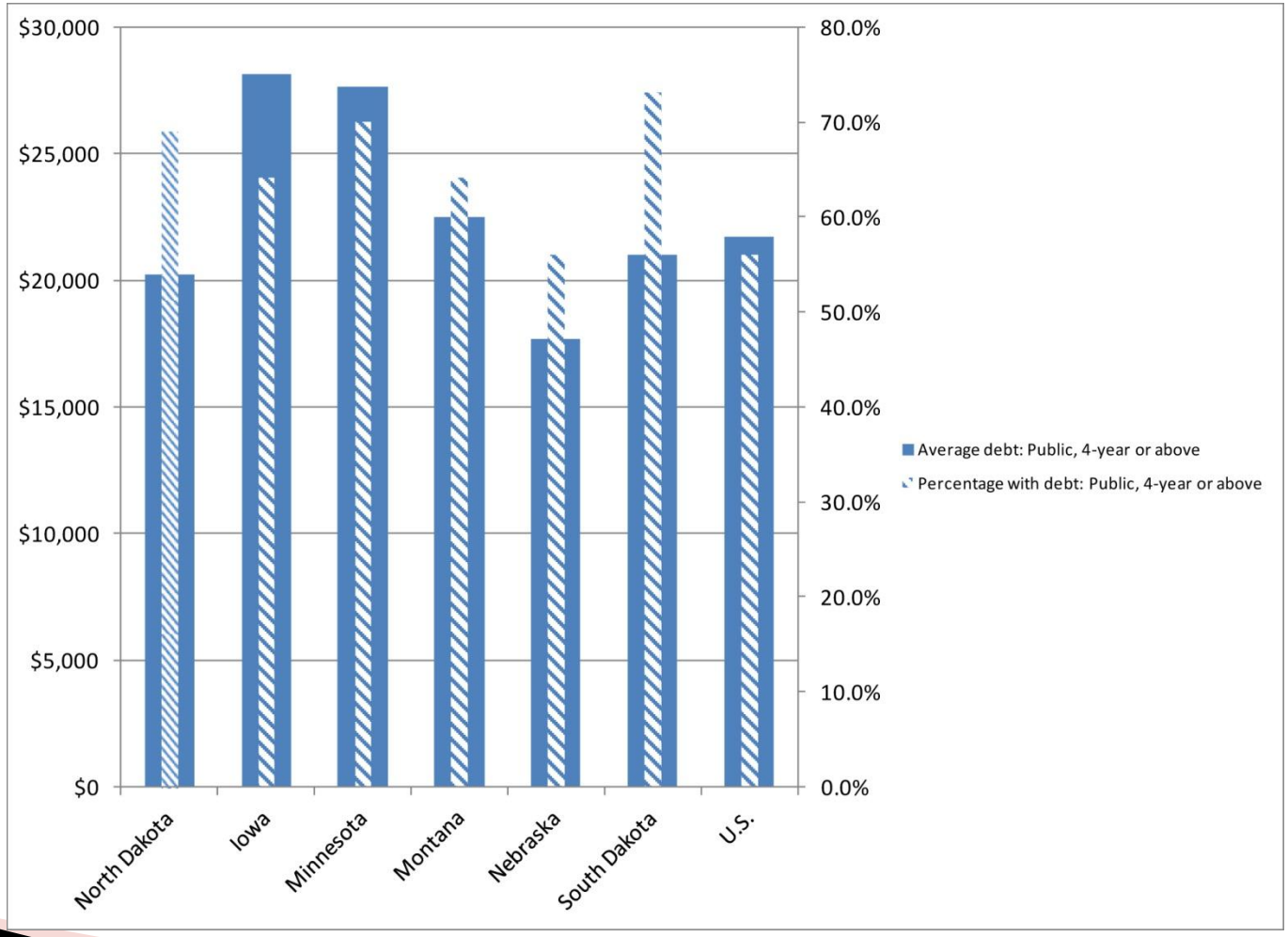
Percentage of Family Income Needed to Pay for College: Families in the Lowest Income Quintile and Families with Median Incomes



Source: NCHEMS. (2011). *Percent of family income needed to pay for college: 2009.*

Figure 19.

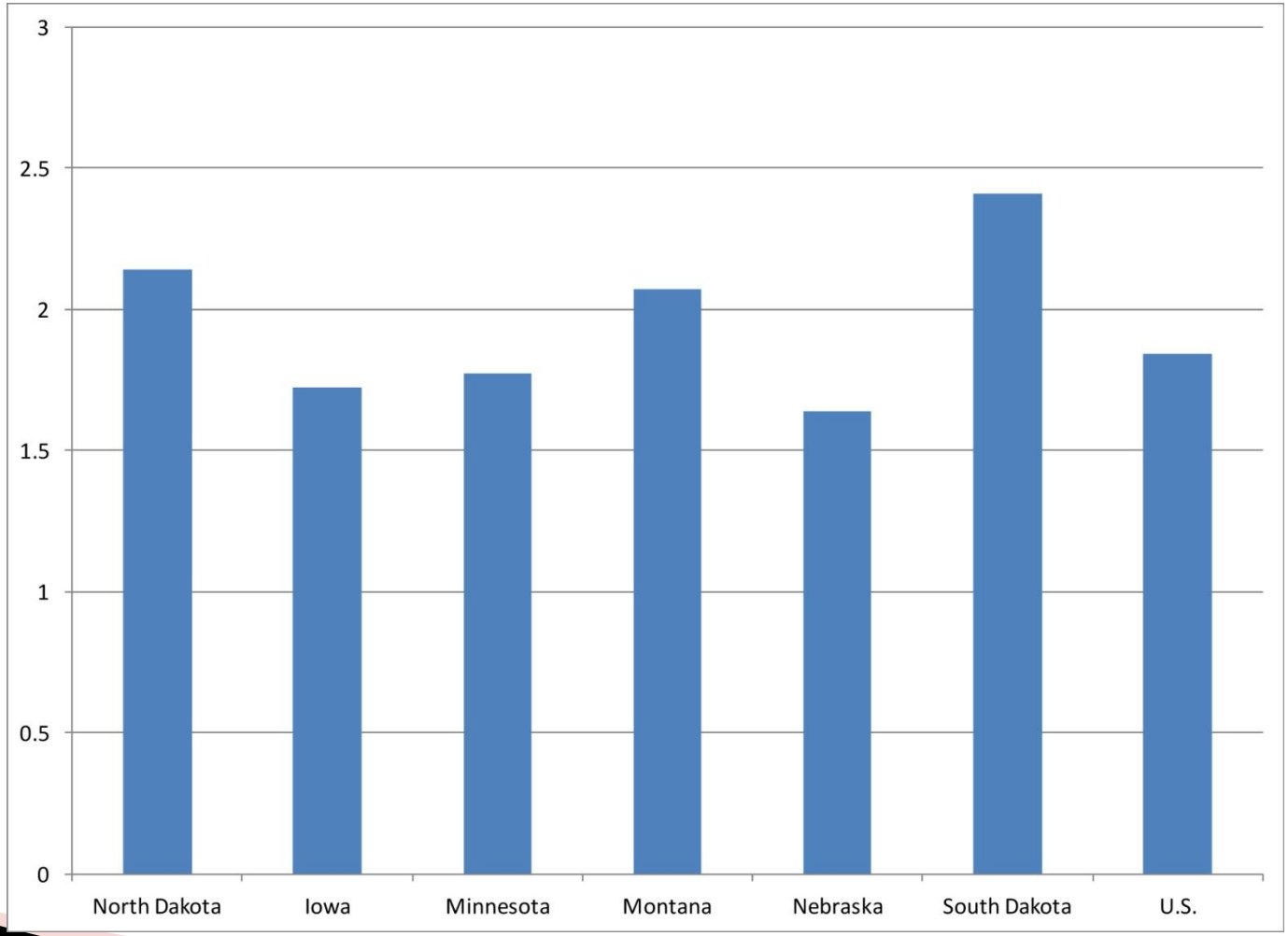
Educational Loan Debt Among Graduates of Public 4-Year Institutions



Source: Institute for College Access and Success. (2011). *College InSight database: 2009-10.*

Figure 20.

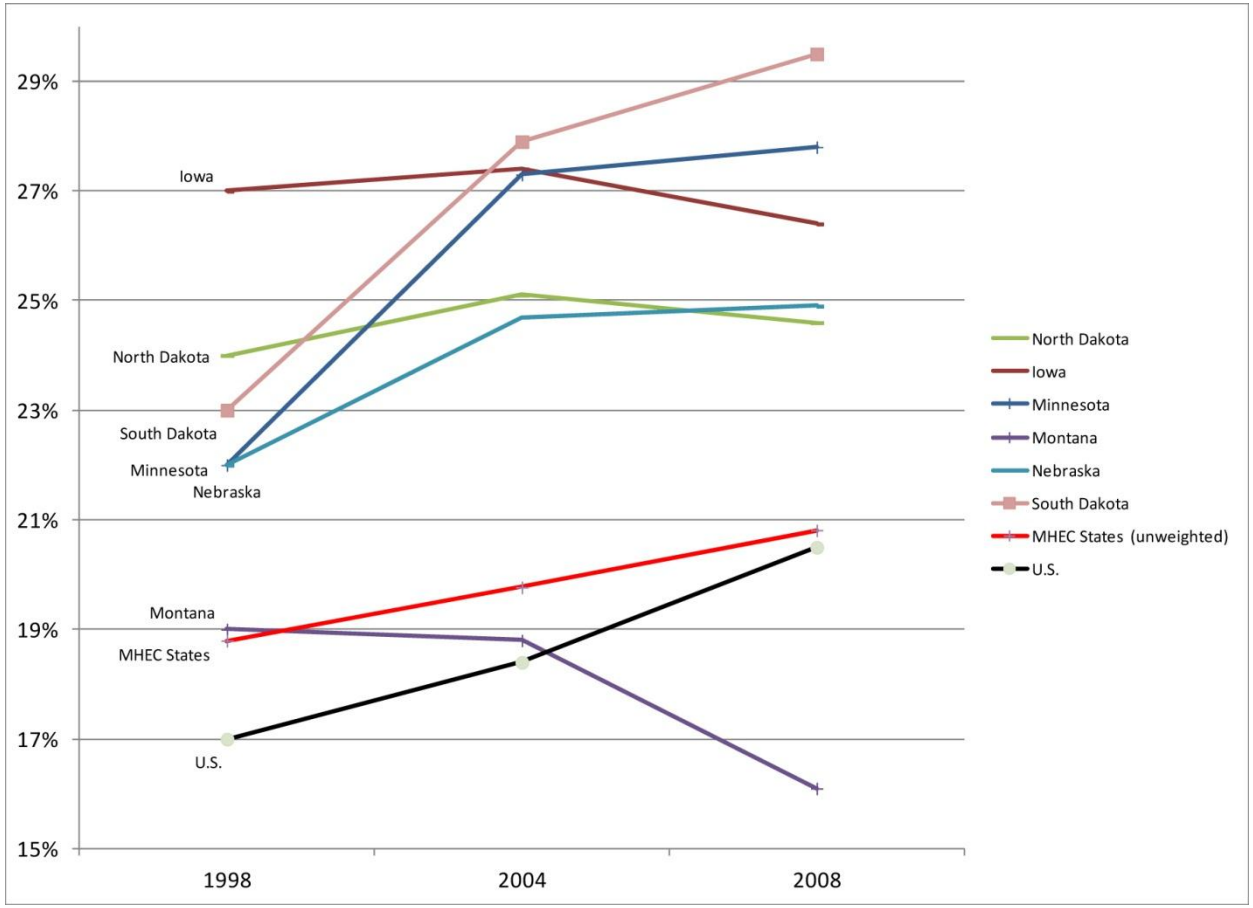
2008-09 Credentials Awarded Per $100,000 of State, Local, and Tuition and Fee Revenues



Source: NCHEMS. (2011). *Credentials and degrees awarded per revenue source.*

Figure 21.

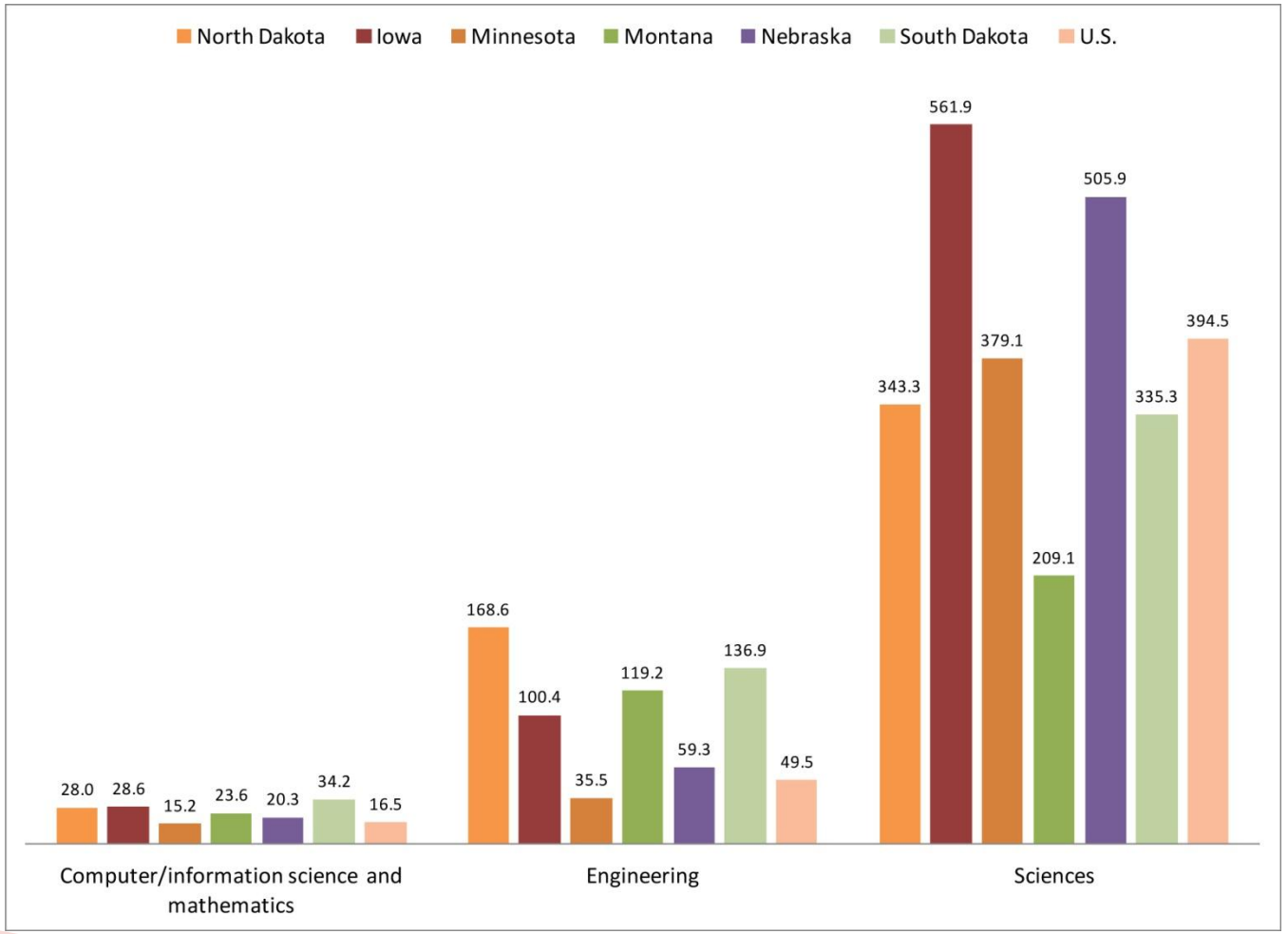
Percentage of 9th Graders Who Graduate from High School on Time, Go Directly to College, Return for Their Second Year, and Graduate within 150% of Program Time



Source: NCHEMS. (2011). *Student pipeline: Transition and completion rates from 9th grade to college.*

Figure 22.

Bachelor's Degrees Awarded Per 1,000 People Employed in STEM Fields



Source: NCES IPEDS. (2011). *Bachelor's degrees: 2008-09*; Bureau of Labor Statistics. (2011). *Occupational employment statistics: May 2010.*

Table 1.

Civic, Health, and Economic Benefits of Higher Education

Benefit Type	North Dakota	Top Comparison State	National Average
CIVIC			
Voting rate in the 2008 presidential election among individuals with a high school diploma vs. bachelor's degree[32]	–	–	55%/77%
Volunteerism rate among individuals with a high school diploma vs. bachelor's degree or higher[33]	–	–	17.9%/42.3%
HEALTH			
Percentage of mothers 20 years of age and older with low birthweight live births (less than 5.5 pounds): High school diploma vs. bachelor's degree or higher[34]	–	–	8.3%/6.8%
Breastfeeding among mothers 15-44 years of age: High school diploma vs. bachelor's degree[35]	–	–	43.2%/74.6%
Age-adjusted prevalence of smoking among persons 25 years of age and older: High school diploma vs. bachelor's degree[36]	–	–	28.7%/9.0%
ECONOMIC			
Average difference in earnings between associate's degree/some college and high school diploma in 2010 (25 years and older)[37]	$4,477	$6,229 (Minnesota)	$5,579
Average difference in earnings between bachelor's degree and high school diploma in 2010 (25 years and older)[38]	$13,586	$21,276 (Minnesota)	$21,073
Average unemployment rate in 2010: High school diploma vs. bachelor's degree[39]	4.5%/1.3%	6.8%/1.7% (South Dakota)	10.3%/5.4%
Difference in median state income tax revenue: High school diploma vs. bachelor's degree[40]	$898	$1,500 (Minnesota)	–

Summary of Performance Indicators

- High rate of postsecondary attainment relative to population yielding civic, health, and economic benefits:
  - Higher earnings, lower unemployment and higher state revenue.
    - i.e Bachelor's degree means $13,586 more in annual earnings than high school degree

Summary of Performance Indicators (continued)

- Need more persons with associate degrees by 2025.
  - Demand could reach 60 percent, but currently only 57 percent is the estimate.
  - Nationally one of nine jobs will be in a medically related area.

Summary of Performance Indicators (continued)

- Postsecondary enrollment has expanded:
  - Proportion of residents 18-24 enrolled increased from 40% in 1990 to 50% in 2010.
  - 10th in nation in high school graduates directly enrolling in college (68%).

Summary of Performance Indicators (continued)

- College retention and graduation rates requires attention:
  - 39 percent at 2-year colleges graduate within three years.
  - 49 percent at 4 year colleges graduate within six years.

Summary of Performance Indicators (continued)

- Academic preparation is the most important indicator of success at the college level.
- Academic preparation for college needs serious attention.
  - National Assessment of Education Progress (NAEP) results:
    - 50 Percent of students fail to attain proficiency in math reading or science (Only 28 percent from low-income families)
  - ACT results (From 2011 report):
    - 79 Percent of students do not meet the college readiness benchmark in at least one subject area. (English, Math, Reading, Science)
    - Lowest of comparison states in all subject areas.

Summary of Performance Indicators (continued)

- North Dakota ranks average in efficiency based on productivity.
  - 1.9 degrees per $100,000 of state, local and tuition revenue in 2010 down from 2.2 in 2005.
  - Effective degree production in computer science, mathematics and engineering is above average, but is lower in the sciences.

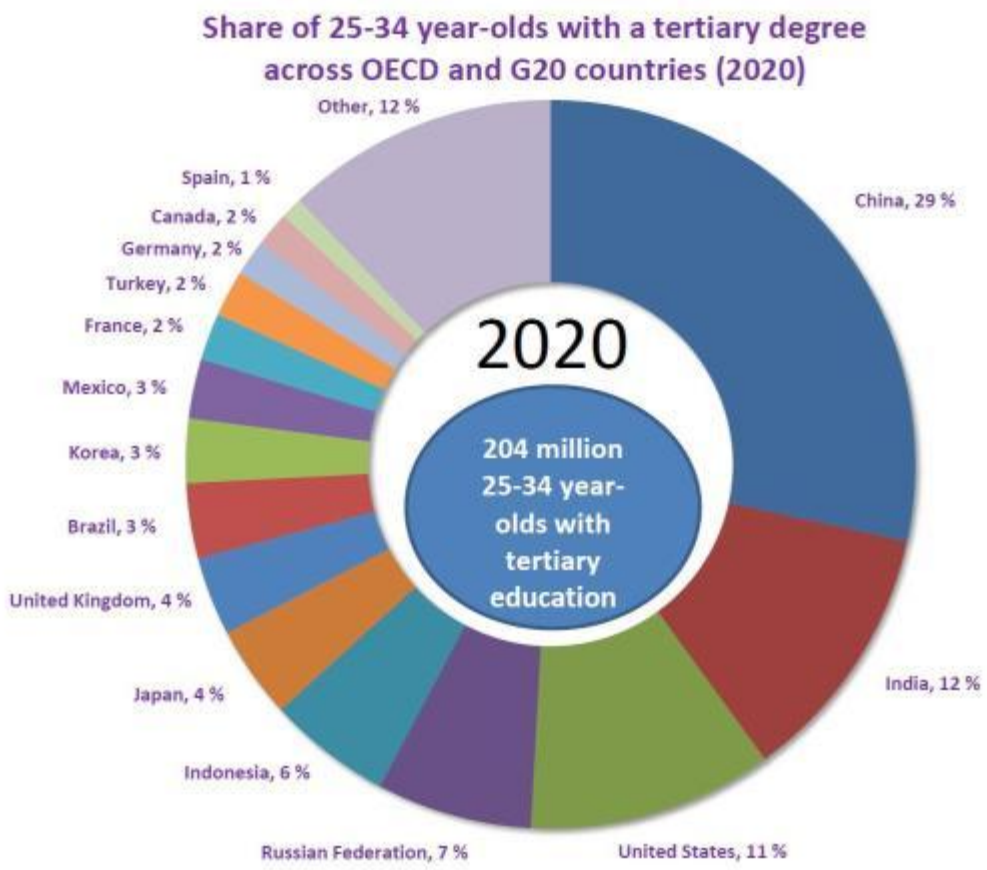
Aligning State Goals and Funding Strategies

- Why do this?

Why is completing college important?

- Economy requires an educated workforce
- 75 million baby boomers moving on
- Projected 15 million more postsecondary educated citizens needed in next 15 years in addition to current production
  - Competition for college education persons will intensify in U.S. and other countries

What will the global talent pool look like in 2020?



- A decade ago, one in six 25-34 year-olds with a higher education degree was from the United States, and a similar proportion was from China. Twelve percent came from the Russian Federation, and about 10% each were from Japan and India. But by 2010, China was at the head of the pack, according to OECD estimates, accounting for 18% of 25-34 year-olds with a tertiary education. The United States followed with 14%, the Russian Federation and India each had 11%, and Japan had 7%.

by Pedro Garcia de León, Corinne Heckmann, and Gara Rojas González
Innovation and Measuring Progress Division, Directorate for Education

What is your state's motivation for improving college completion through performance funding?

- Improve economy?
- Control "higher education"?
- Manage institutions?
- Change governance?
- Reallocate funds among institutions?
- Reduce funding for higher education?
- Increase funding for higher education?
  - *Better to answer this question before you embark on finance reform.*

Key Questions Related to Performance Funding

- What is your state's motivation?
- What is practical?
- Who needs to be involved?
- What won't work?
- Who needs to lead?
- What investments will drive your economy to success?

Final Suggestion

- The litmus test for every policy consideration, operational action or motivation should be if and how it will improve student access and success. If it doesn't result in improvement then ask the question "Is it worth it?"
  - AND FINALLY

Old Chinese Proverb

- “If you don’t change your direction you may end up where you are headed.”

Questions?

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