

*Setting the Stage: A Look at North Dakota's
Demographic and Educational Context*

Presented to the
North Dakota Higher Education Study Committee
Bismarck, North Dakota

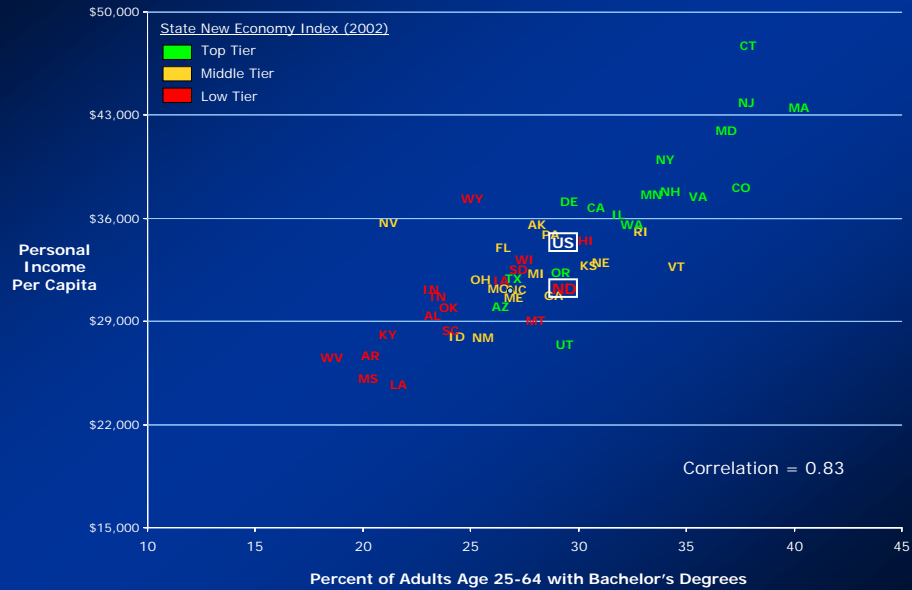
September 26, 2007



National Center for Higher Education Management Systems
3035 Center Green Drive, Suite 150 Boulder, Colorado 80301-2251

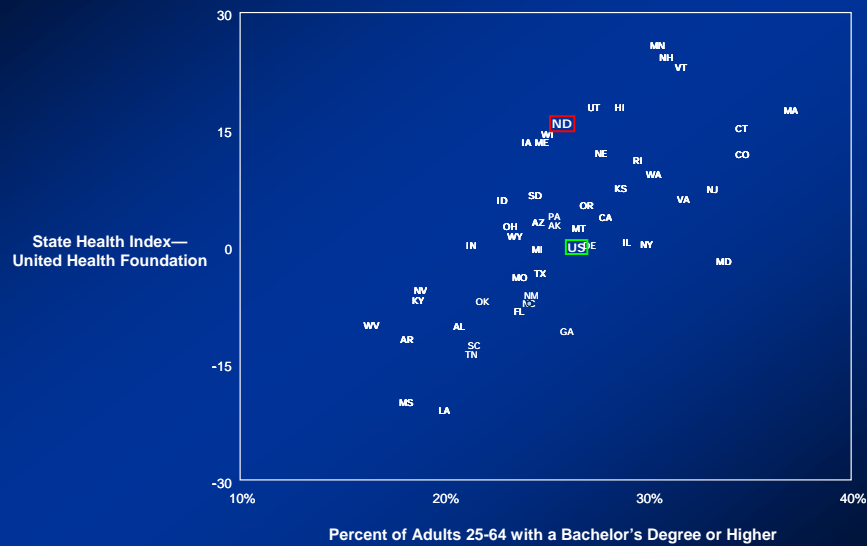
Why Higher Education Matters

Relationship Between Educational Attainment, Personal Income, and Economic Strength, 2005



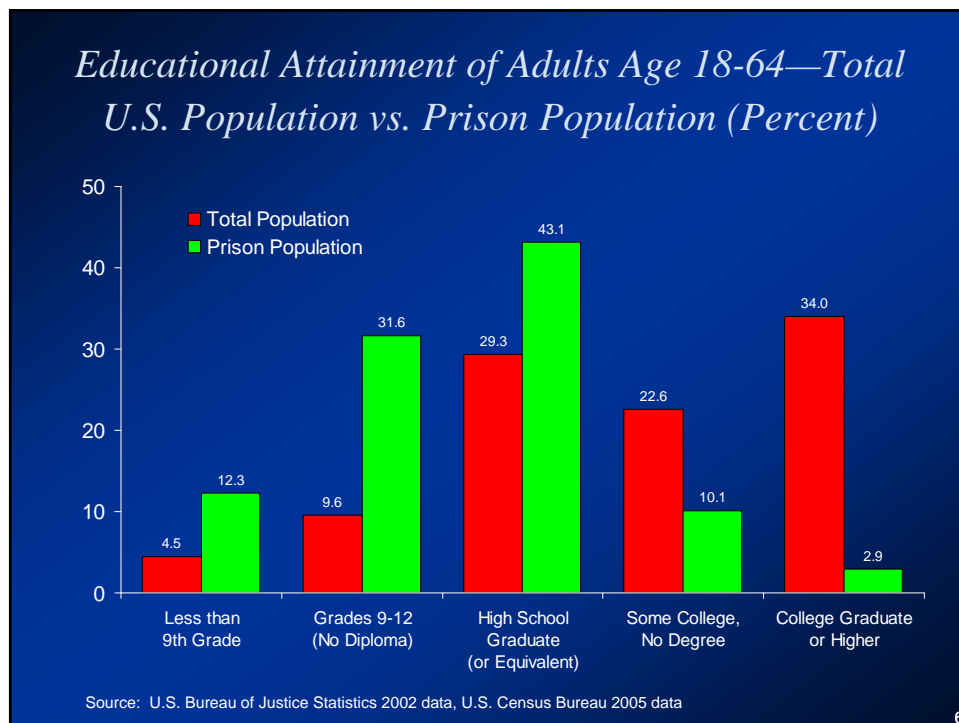
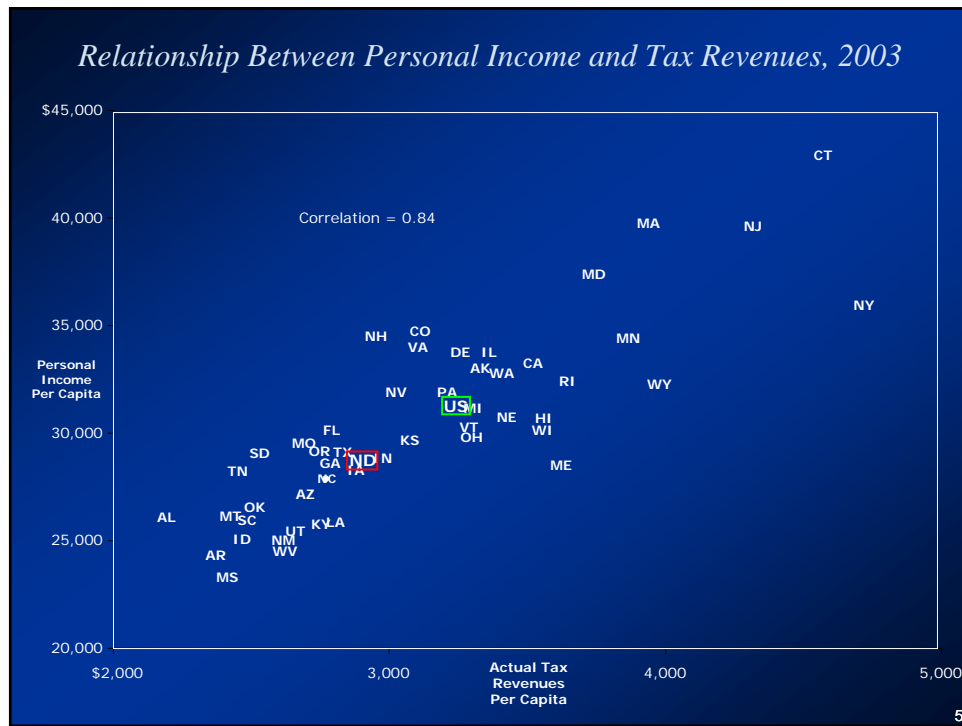
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Relationship Between Educational Attainment and Health, 2000

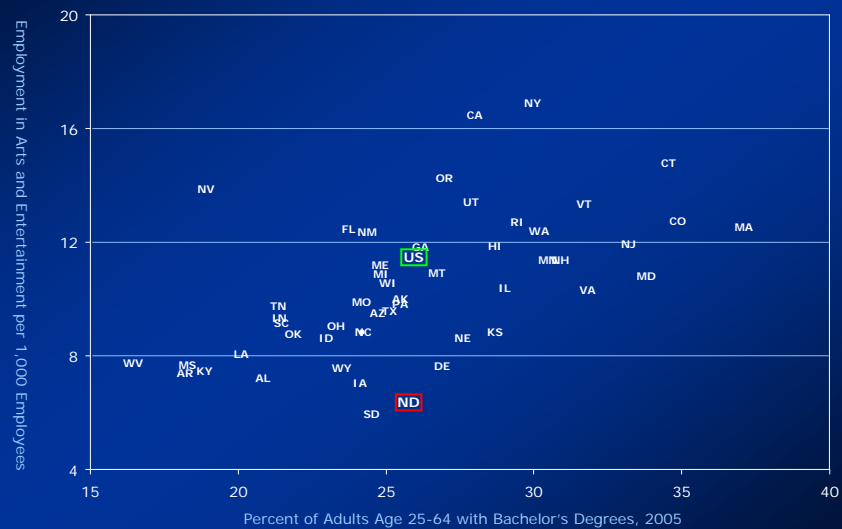


Source: U.S. Census Bureau, 2000 Census; United Health Foundation

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The Relationship Between Educational Attainment and Employment in the Arts, 2005



Source: U.S. Census Bureau, 2005 American Community Survey

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Percent of Civilians Age 25-64 Participating in the Workforce by Education Attainment, 2005

	<u>United States</u>	<u>North Dakota</u>
Less than High School	63.0	78.7
High School	75.3	81.3
Some College	79.0	85.5
Associate Degree	82.6	87.0
Bachelor's Degree	83.5	89.2
Graduate/Prof. Degree	86.1	89.2

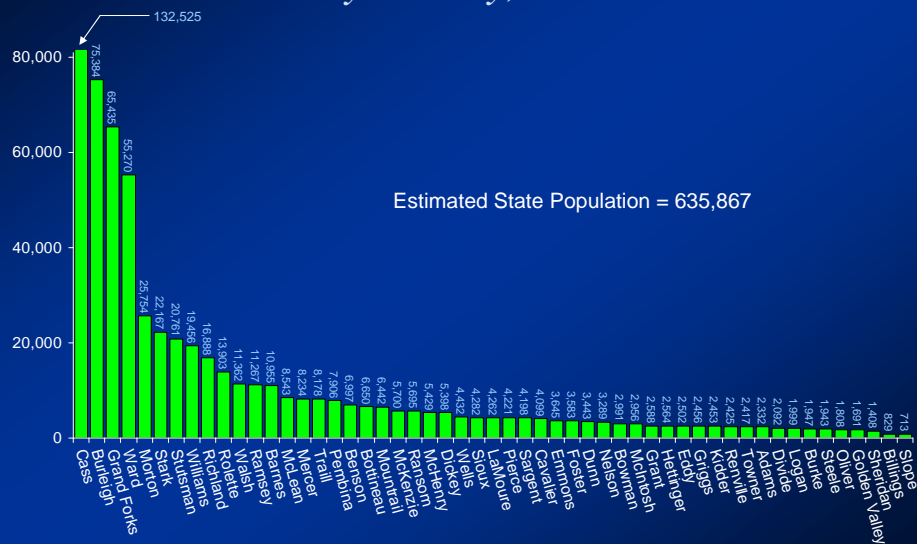
Source: U.S. Census Bureau, 2005 American Community Survey PUMS File

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Demographic Information

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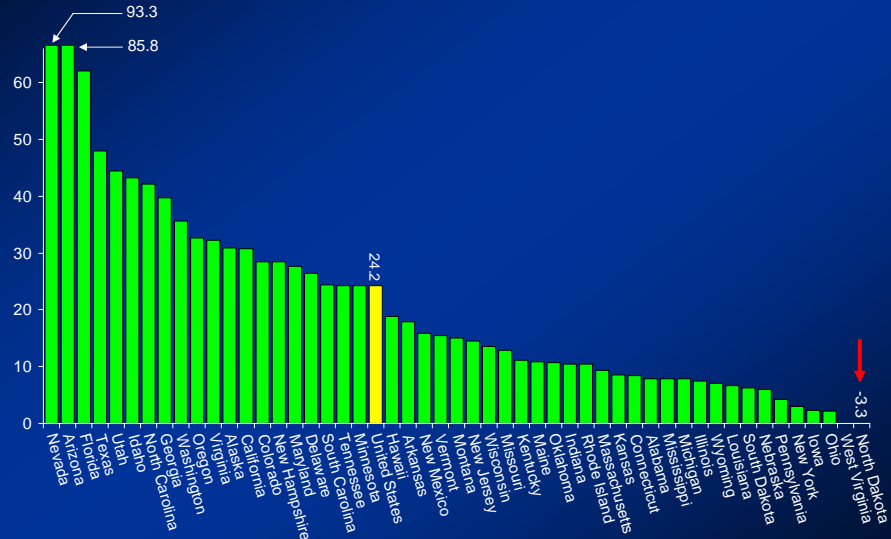
North Dakota Total Population Estimates By County, 2005



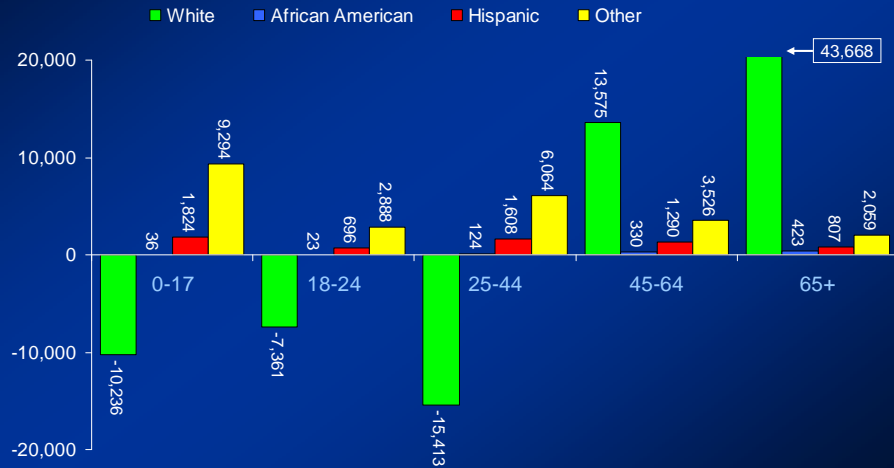
Source: U.S. Census Bureau Population Estimates

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Population Projections—Percent Change, 2000-25



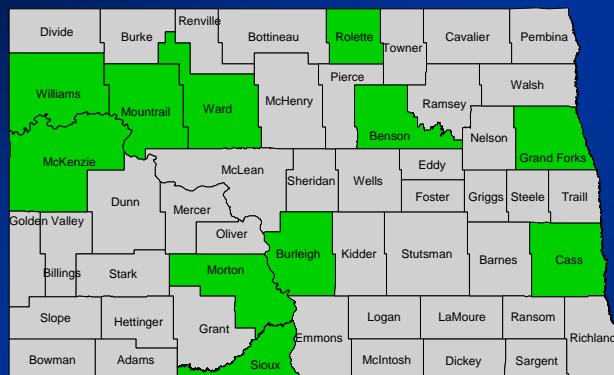
Projected Change in North Dakota Population by Age and Race/Ethnicity, 2000-20



Source: U.S. Census Bureau

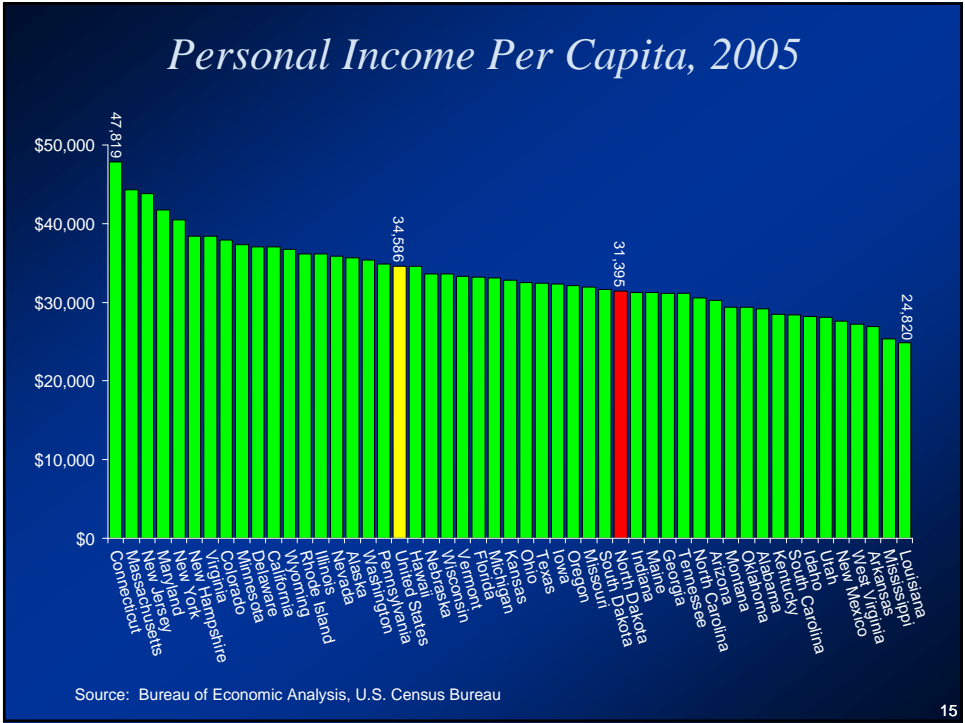
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Counties in Which 80% of North Dakota's Minority Populations Reside, 2006

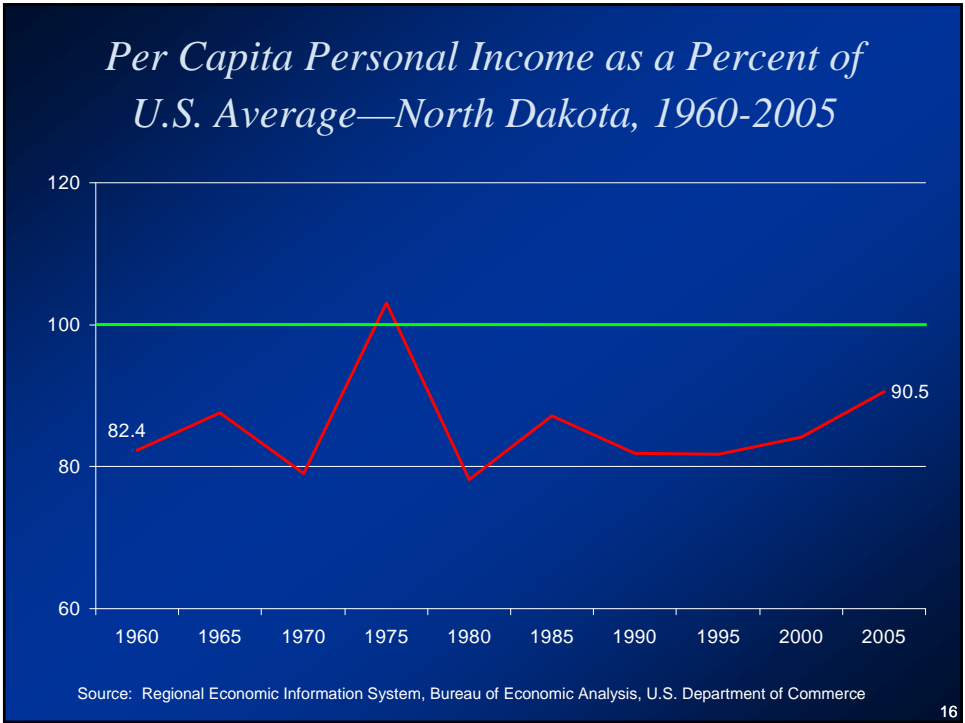


Source: U.S. Census Bureau Population Estimates

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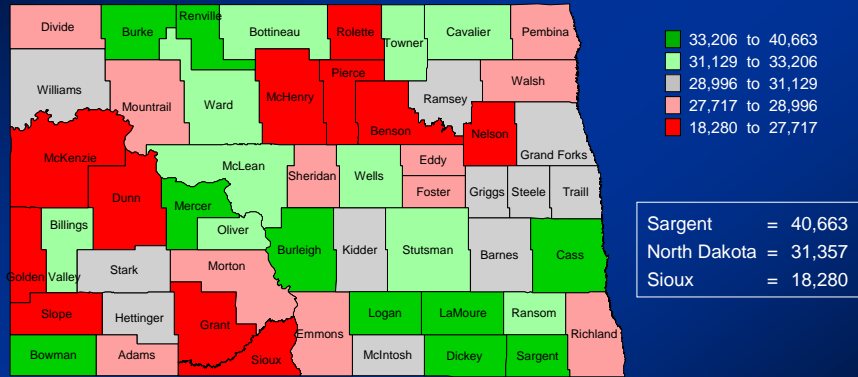


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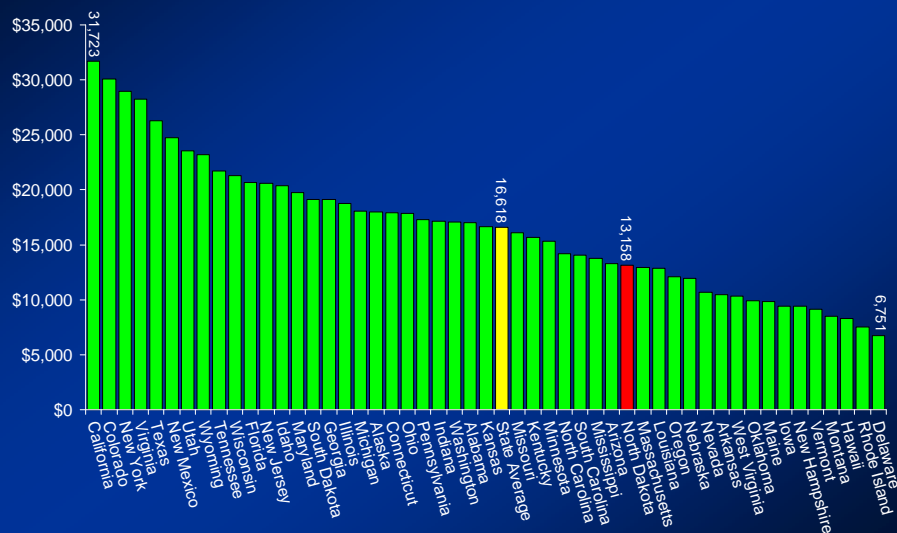
Per Capita Personal Income, 2005



Source: Bureau of Economic Analysis

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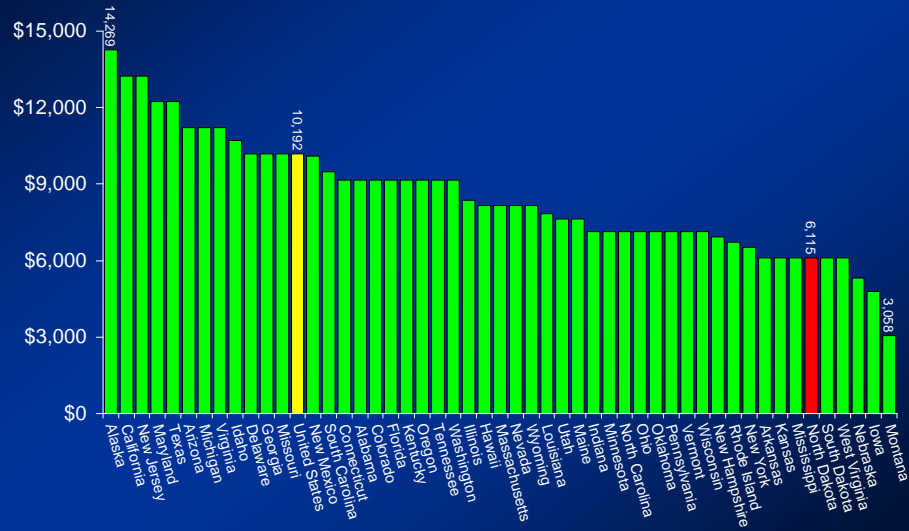
Gaps in Personal Annual Income Between Wealthiest and Poorest Counties, 2000



Source: U.S. Census Bureau, 2000 Census

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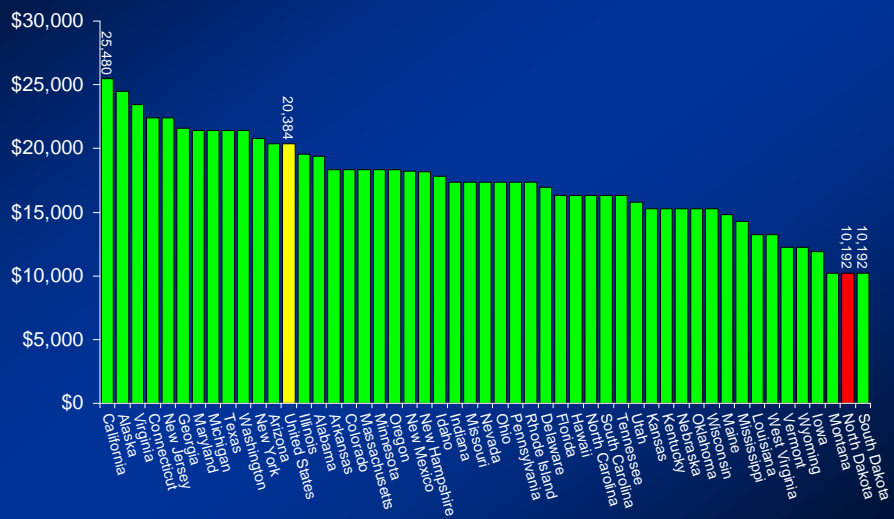
Difference in Median Earnings Between a High School Diploma and an Associate Degree, 2005



Source: U.S. Census Bureau, 2005 ACS PUMS File

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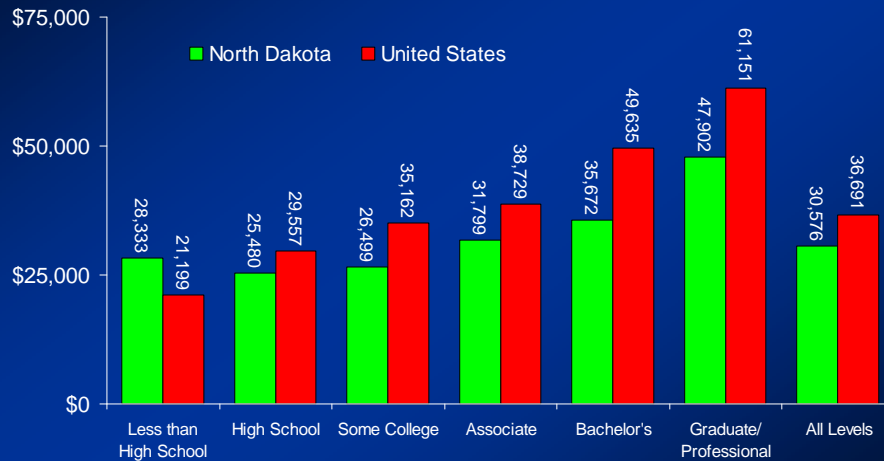
Difference in Median Earnings Between a High School Diploma and a Bachelor's Degree, 2005



Source: U.S. Census Bureau, 2005 ACS PUMS File

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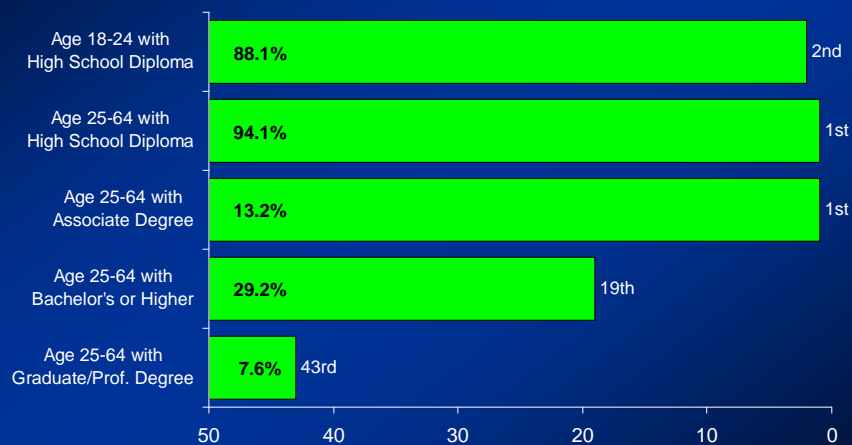
Median Earnings by Degree Level, 2005



Note: Data represent persons age 25-64 with positive earnings working 35+ hours per week.
Source: U.S. Census Bureau, 2005 PUMS

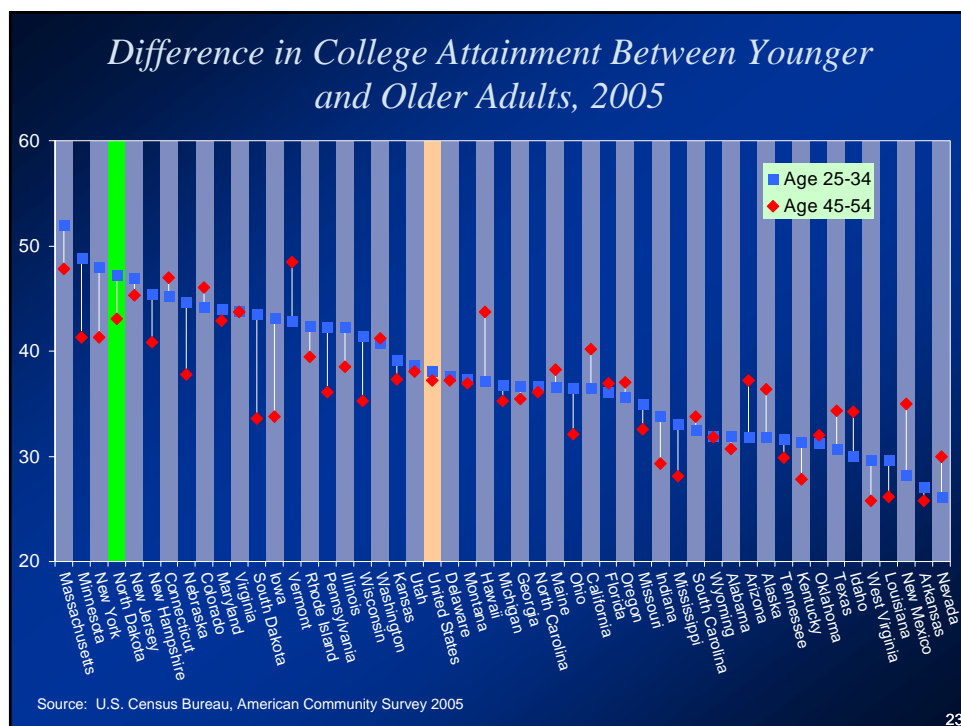
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Educational Attainment and Rank Among States— North Dakota, 2005

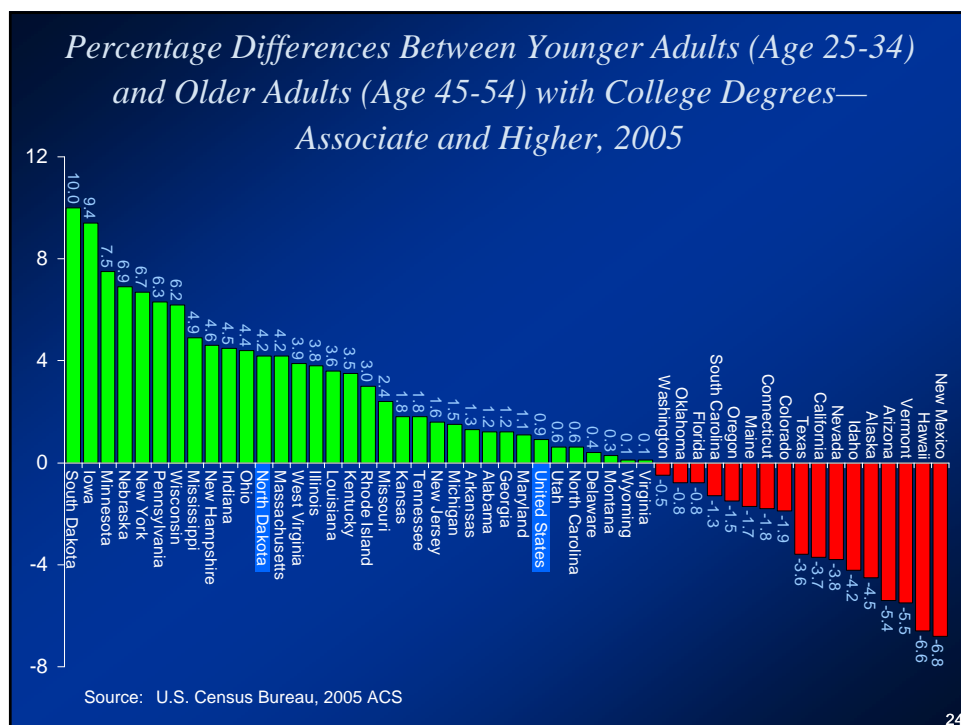


Source: U.S. Census Bureau, 2005 ACS

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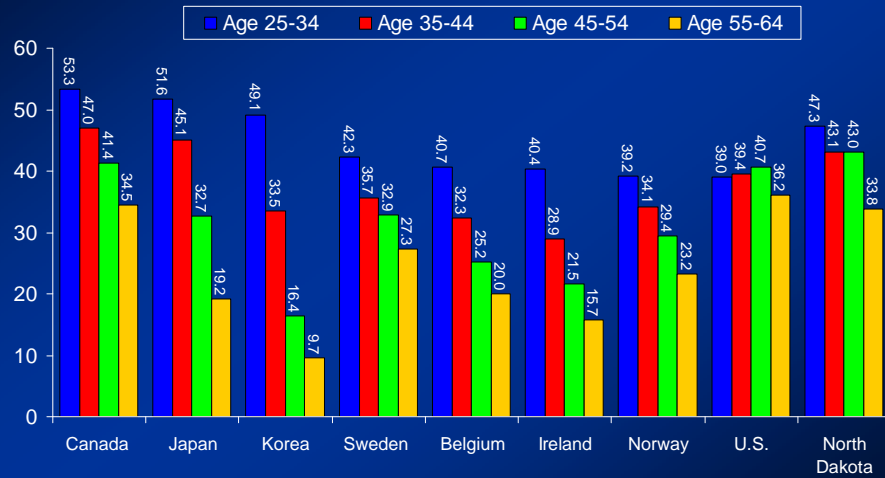


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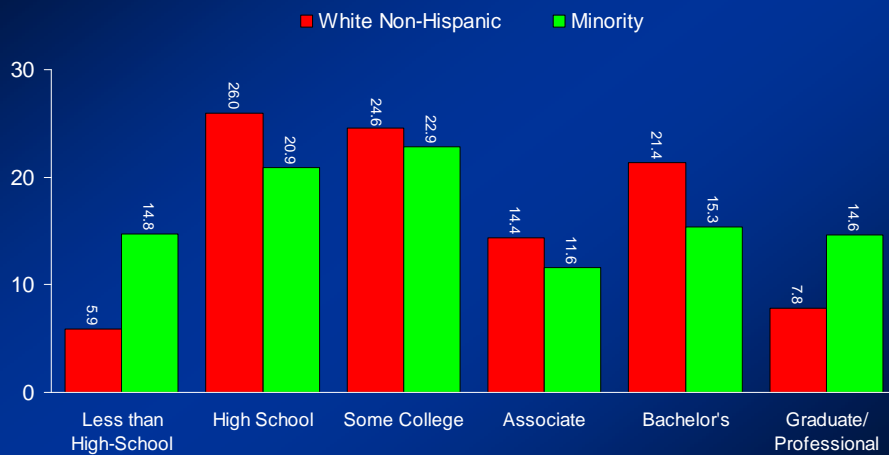
*Percent of Adults with an Associate Degree or Higher by Age Group—
North Dakota, the U.S. and Leading OECD Countries, 2004*



Source: *Education at a Glance 2005*, OECD

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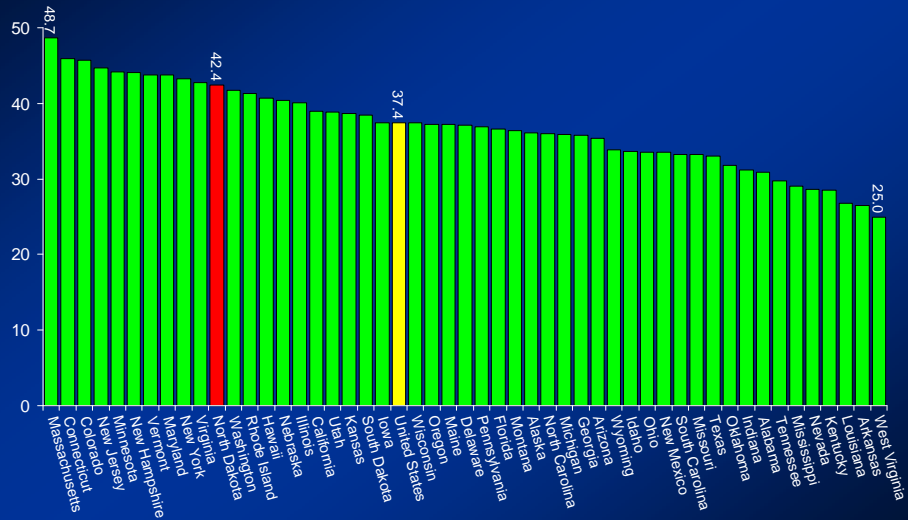
*Percent Educational Attainment of Population Age 25-64
By Race/Ethnicity—North Dakota, 2005*



Source: U.S. Census Bureau, 2005 ACS PUMS File

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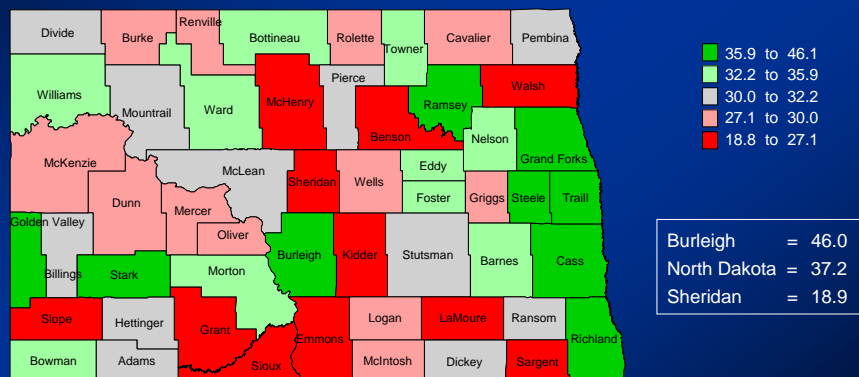
Percent of Population Age 25-64 with an Associate Degree or Higher, 2005



Source: U.S. Census Bureau, 2005 American Community Survey (ACS)

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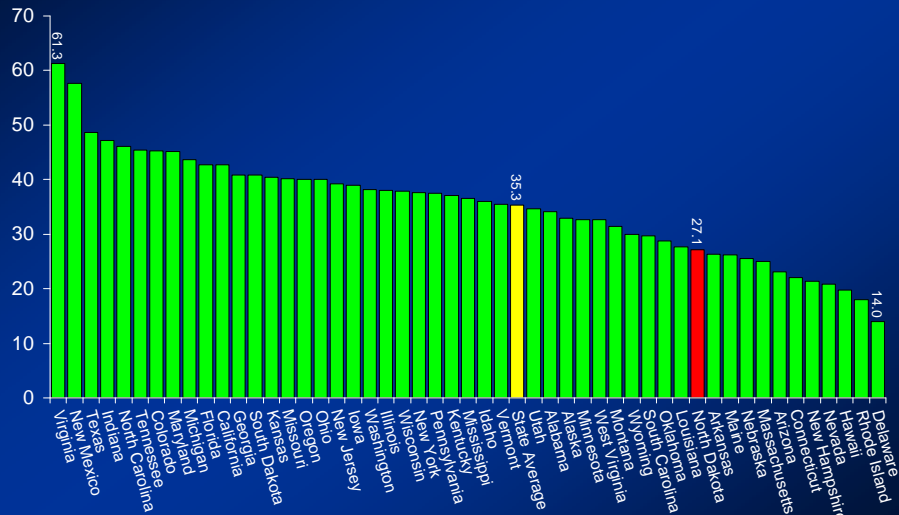
Percent of Residents Age 25-64 with at Least an Associate Degree, 2000



Source: U.S. Census Bureau

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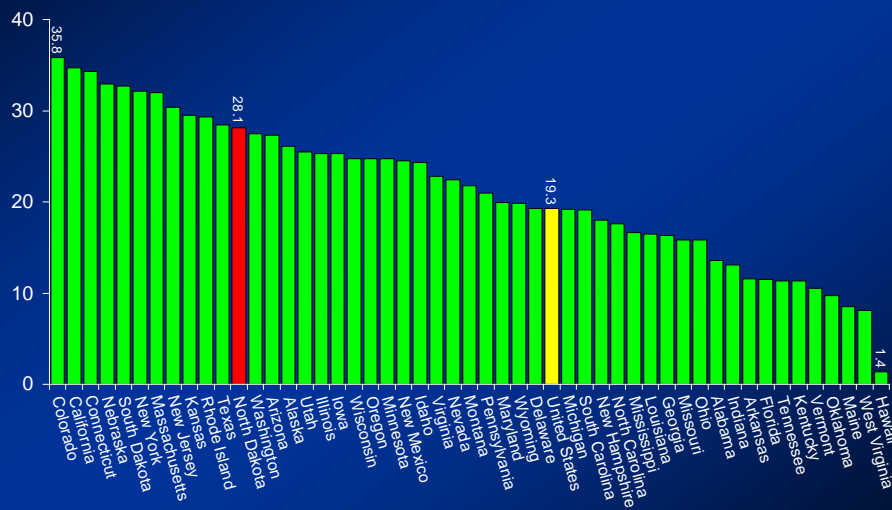
*Gaps in Percentage of Residents Age 25-64 with a College Degree
Between the Most and Least Educated Counties, 2000*



Source: U.S. Census Bureau, 2000 Census

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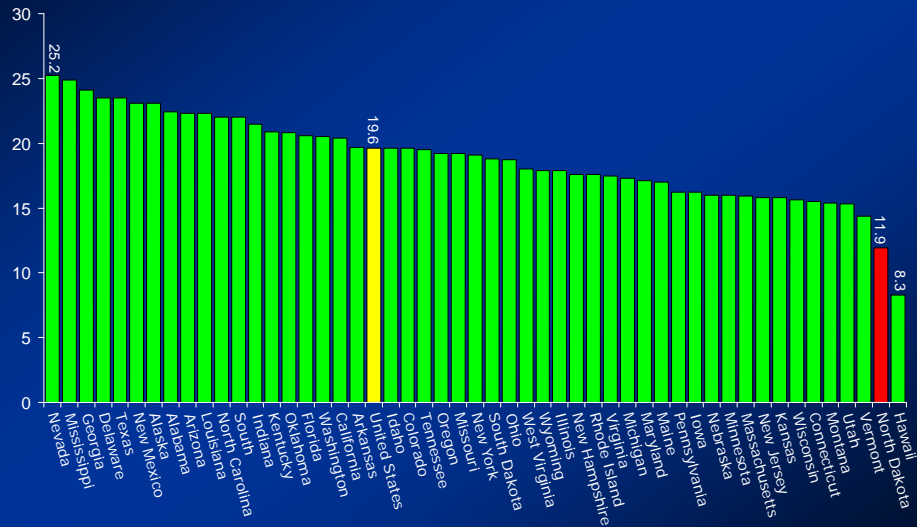
*Difference Between Whites and Next Largest Race/Ethnic Group
in Percentage of Adults Age 25-34 with an Associate Degree
or Higher, 2000*



Source: U.S. Census Bureau, PUMS (based on 2000 Census)

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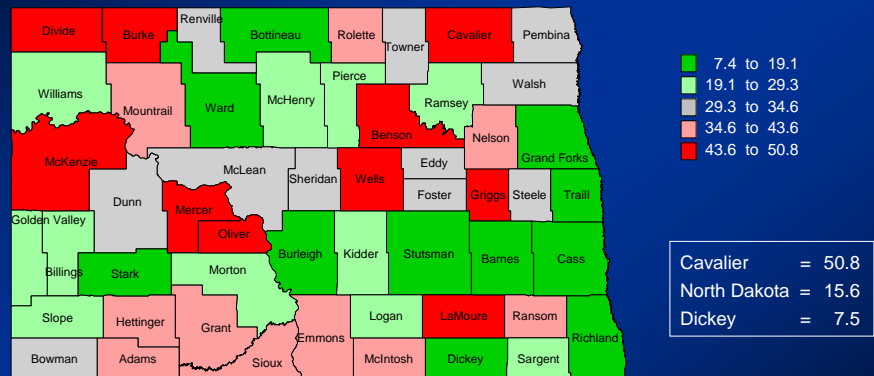
Percent of Population Age 18-24 with No High School Diploma, 2005



Source: U.S. Census Bureau, 2005 ACS

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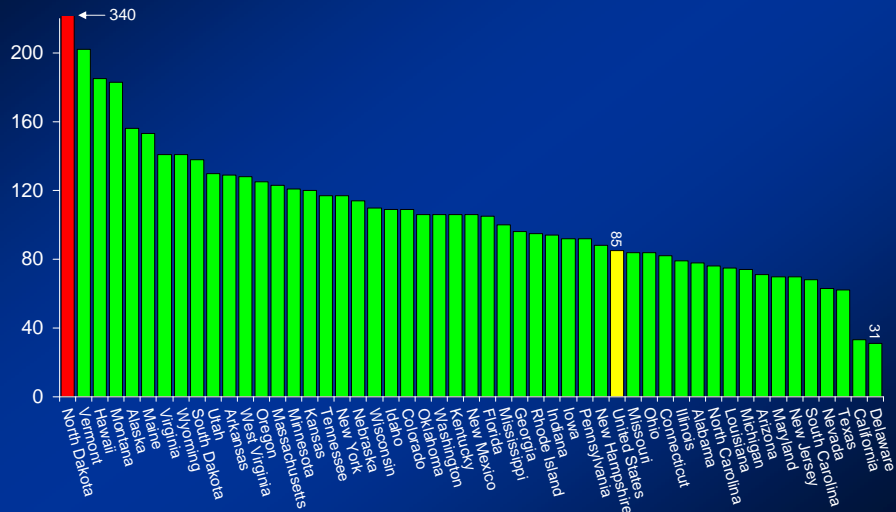
Percent of Population Age 18-24 Who Have Not Completed High School, 2000



Source: U.S. Census Bureau, 2000 Census

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*GEDs Awarded to Adults Age 16-24 per 1,000 Adults
Age 16-24* with Less than a High School Diploma, 2005*



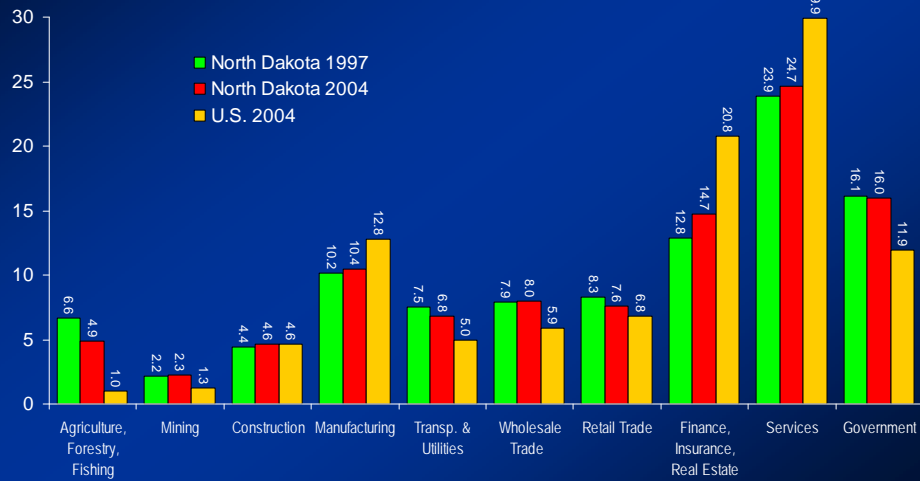
* Age 16-24 with no high school diploma or equivalent, not enrolled
Source: GED Testing Service, U.S. Census Bureau 2005 ACS data

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*The Economy, Workforce Needs, and
Innovation Capacity*

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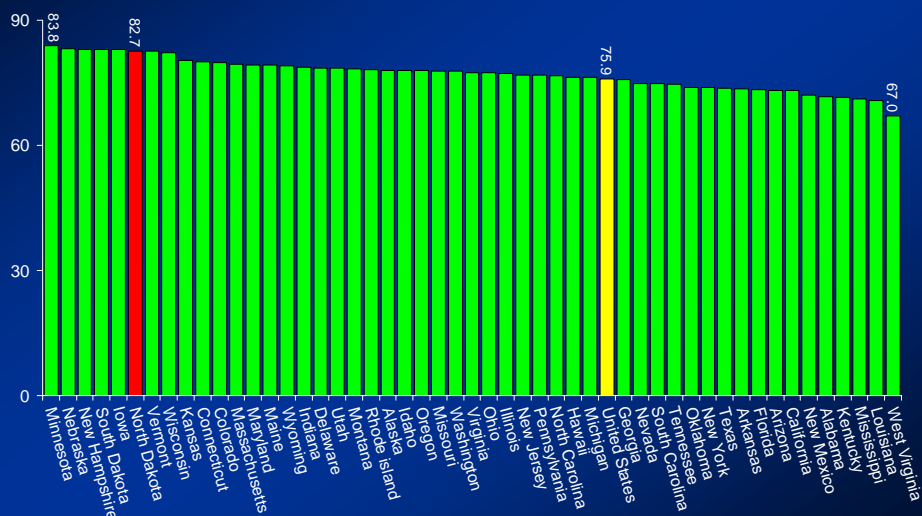
Percent of Total Gross State Product by Industry and Comparison to U.S.



Source: Bureau of Labor Statistics

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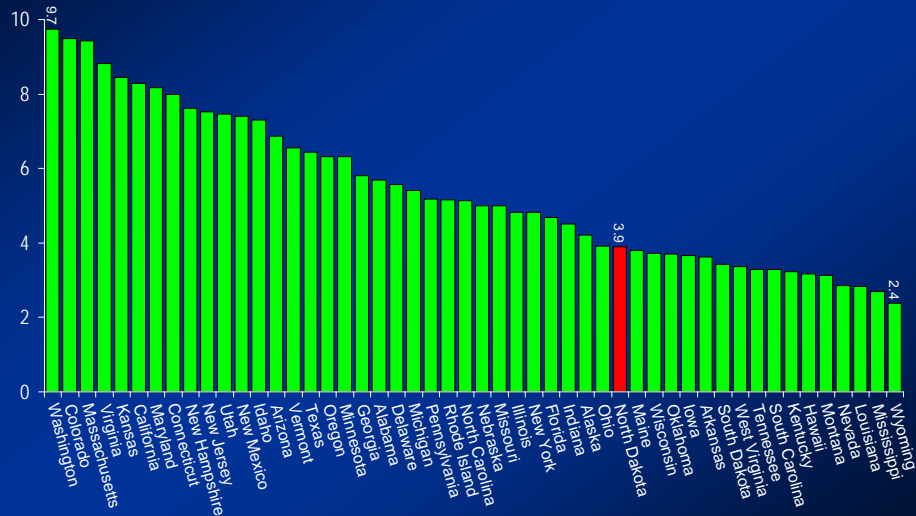
Percent of Civilian Population Age 25-64 Participating in the Workforce, 2000



Source: U.S. Census Bureau

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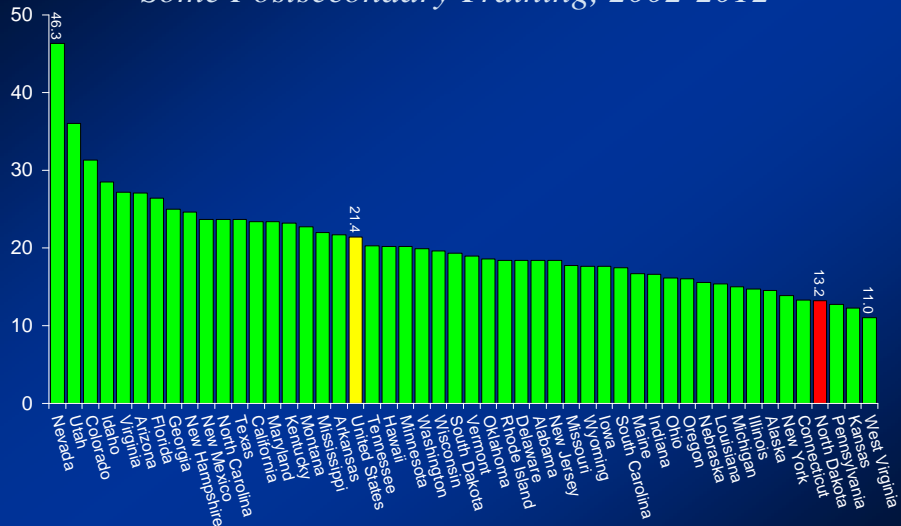
Employment in High-Technology Establishments as Share of Total Employment by State, 2004



Source: U.S. Bureau of Labor Statistics, Corporation for Enterprise Development (CFED)

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Projected Percent Change in Occupations Requiring Some Postsecondary Training, 2002-2012



Note: Some college, Associate, Bachelor's and higher.

Source: ACINET, Career InfoNet

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Development Report Card for the States, 2007—North Dakota

STRENGTHS (Top 10 Rank)	
Rank	Measure
1	High School Completion
1	Affordable Urban Housing
1	Involuntary Part-Time Employment
1	Highway Performance
1	Air Pollution
1	Crime Rate
2	Unemployment Rate
2	Graduate Students in Science and Engineering
2	Change in Average Annual Pay
3	Academic Research and Development
3	Change in High School Attainment
4	Change in Poverty Rate
4	Voting Rate
4	Income Distribution
4	PhD Scientists and Engineers
5	Loans to Small Businesses
5	Five Year Change in New Companies
5	Change in Private Research and Development
7	Income Distribution Change
7	Average Annual Pay Growth
8	Teen Pregnancy
8	Conversion of Cropland to Other Uses
8	Energy Costs

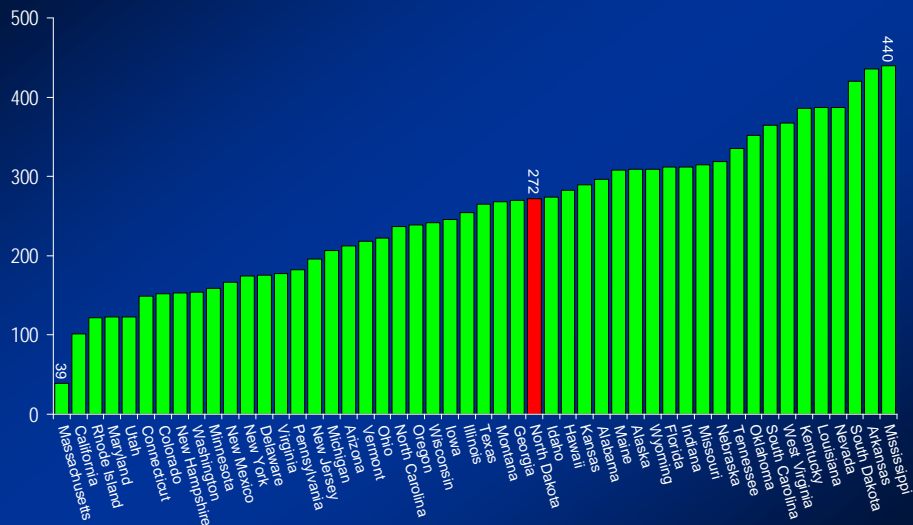
C	Performance	Employment	C
		Earnings and Job Quality	B
		Equity	B
		Quality of Life	B
		Resource Efficiency	F
D	Business Vitality	Competitiveness/Existing Businesses	D
		Entrepreneurial Energy	D
A	Development Capacity	Human Resources	B
		Financial Resources	D
		Infrastructure Resources	A
		Amenity Resources and Natural Capital	A
		Innovation Assets	C

WEAKNESSES (Bottom 10 Rank)	
Rank	Measure
42	Change in Health Professional Shortage Areas
43	Employment Growth: Long Term
43	Job Creation by Start-Up Businesses
43	Net Migration
43	Health Professional Shortage Areas
44	Business Created Via University R&D
44	Change in Business Closings
45	Disparity between Rural and Urban Areas
45	Strength of Traded Sector
46	SBIC Financing
47	Broadband Access
47	Change in Toxic Release Inventory
47	Average Annual Pay
47	Per Capita Energy Consumption
47	Venture Capital Investments
47	Change in Homeownership Rate
49	Charitable Giving
49	Greenhouse Gas Emissions

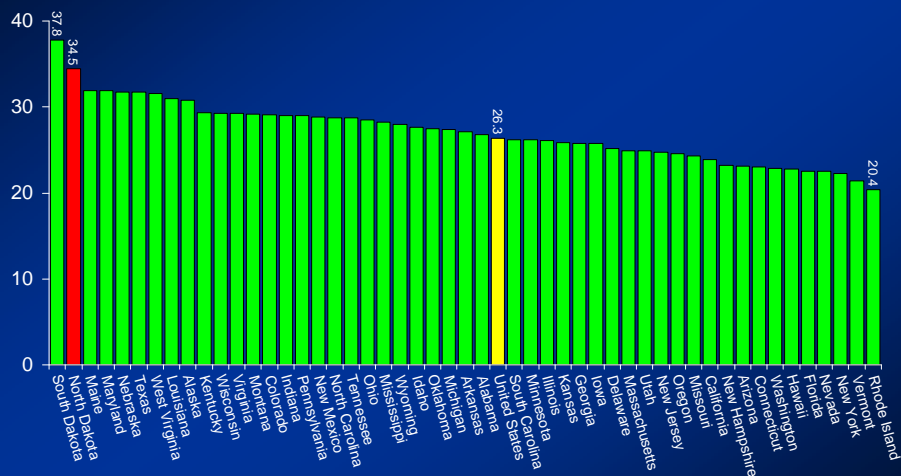
Source: Development Report Card for the States, CFED

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Overall State Scores on Measures of Innovation Assets



Science and Engineering Degrees as a Share of Higher Education Degrees Conferred by State, 2004-05

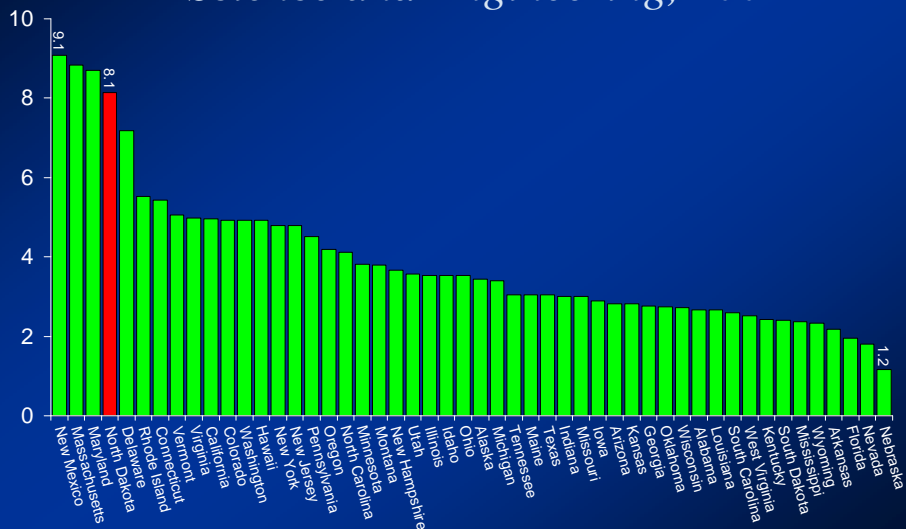


Note: Science and Engineering include Agricultural Sciences, Biological and Biomedical Sciences, Physical Sciences, Science Tech, Health Sciences, Computer Science, Mathematics and Statistics, Engineering, and Engineering Tech. Degrees include Associate, Bachelor's, Masters and Doctorate Degrees.

Source: NCES, IPEDS 2005 Completions File; c2005_a Final Release Data File

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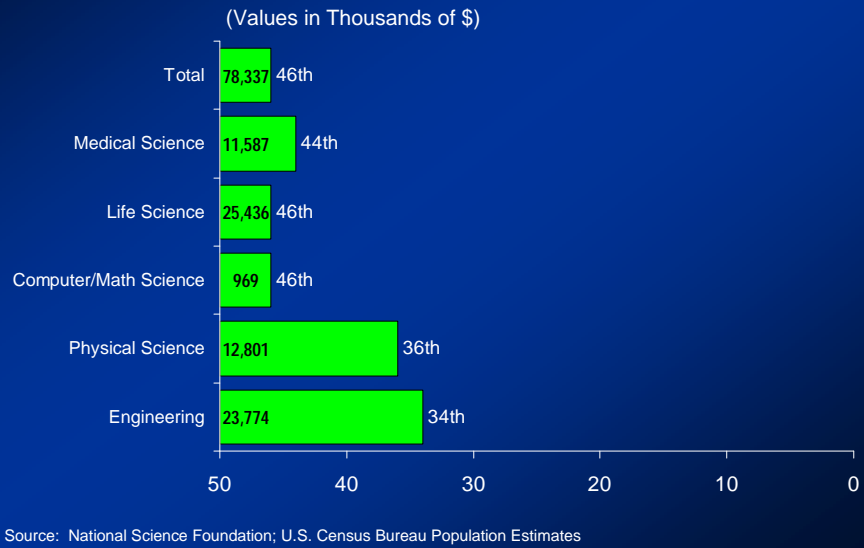
Number of Doctorates per 1,000 Workers— Science and Engineering, 2004



Source: Development Report Card for the States, CFED

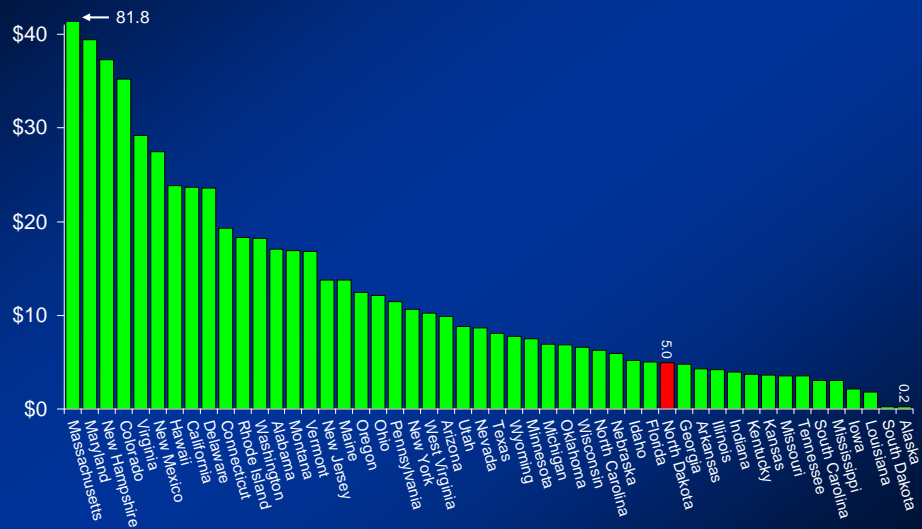
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North Dakota Rank—Federal Research and Expenditures, 2005



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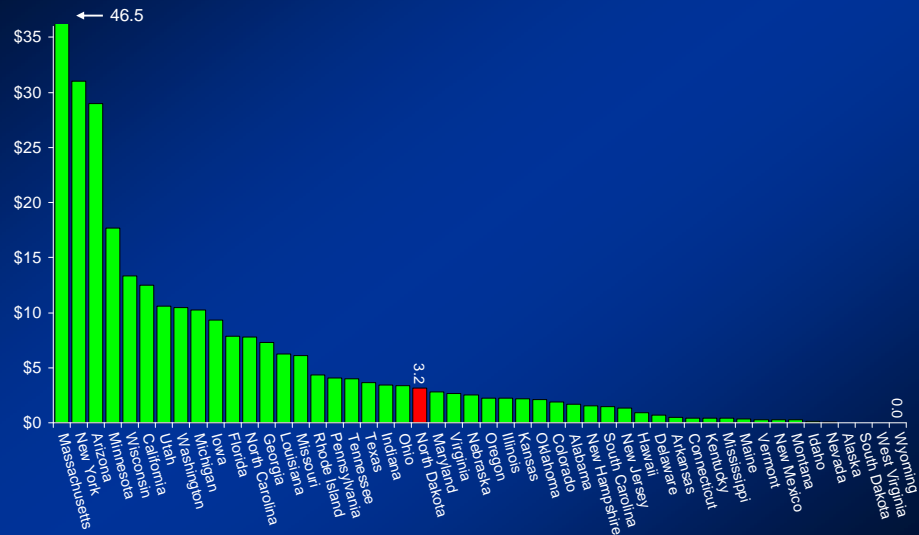
Dollar Value of SBIR Grants Per Worker, 2004



Source: Development Report Card for the States, CFED

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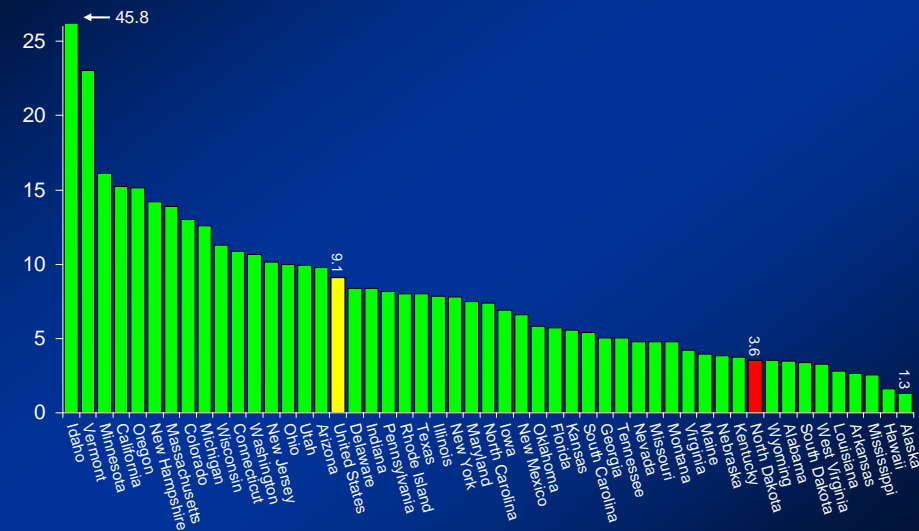
Gross License Income Per Worker, 2004



Source: Development Report Card for the States, CFED

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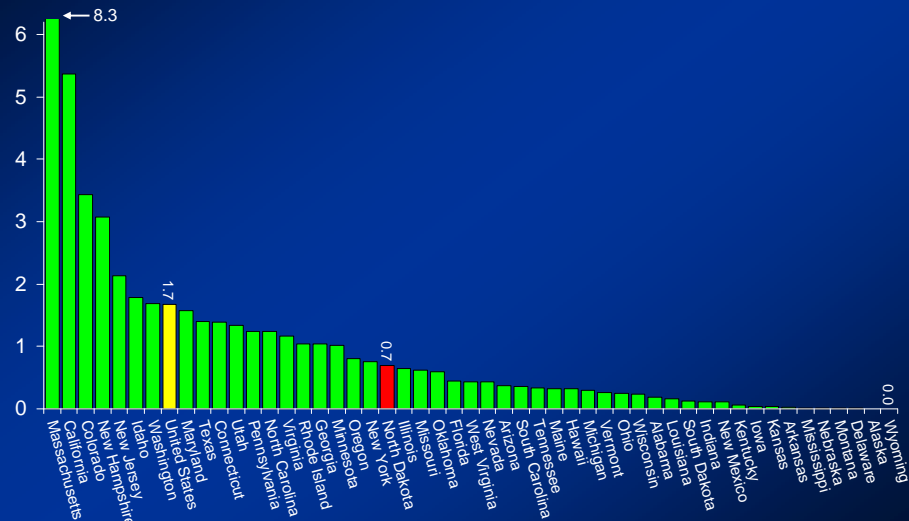
Number of Patents Issued Per \$1,000 Gross State Product



Source: 2004/2005 Economic Vision 2010 Report Card, Indiana Chamber

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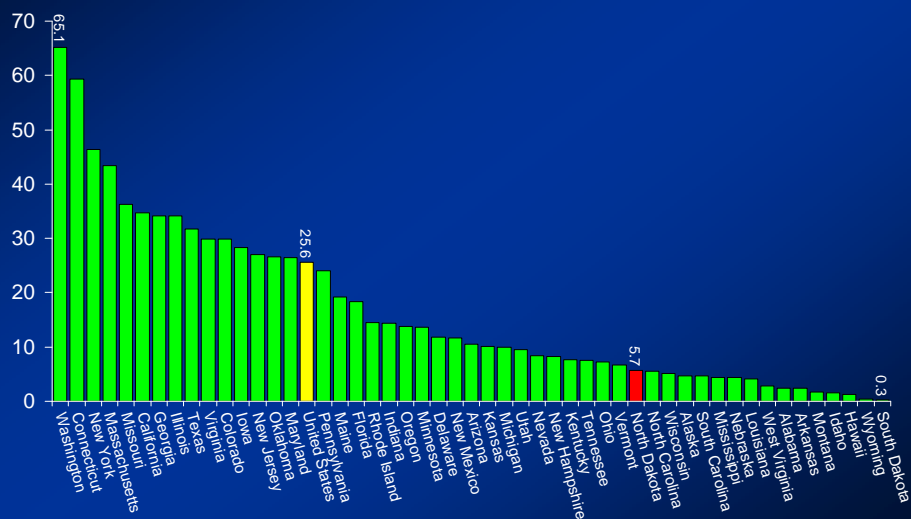
Venture Capital—Financing Per \$1,000 Gross State Product, 2003



Source: 2004/2005 Economic Vision 2010 Report Card, Indiana Chamber

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Number of Initial Public Offerings—Financing Per \$1,000 Gross State Product, 2002



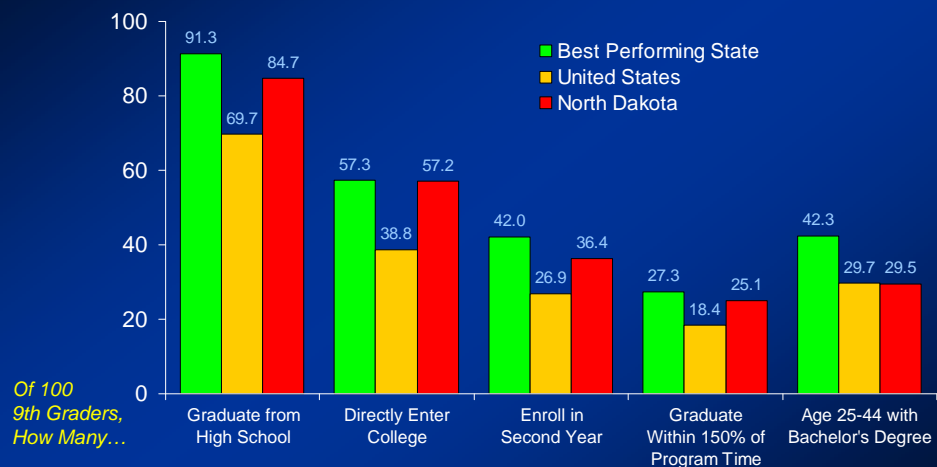
Source: 2004/2005 Economic Vision 2010 Report Card, Indiana Chamber

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The Education Pipeline: Where North Dakota Gets Its Talent

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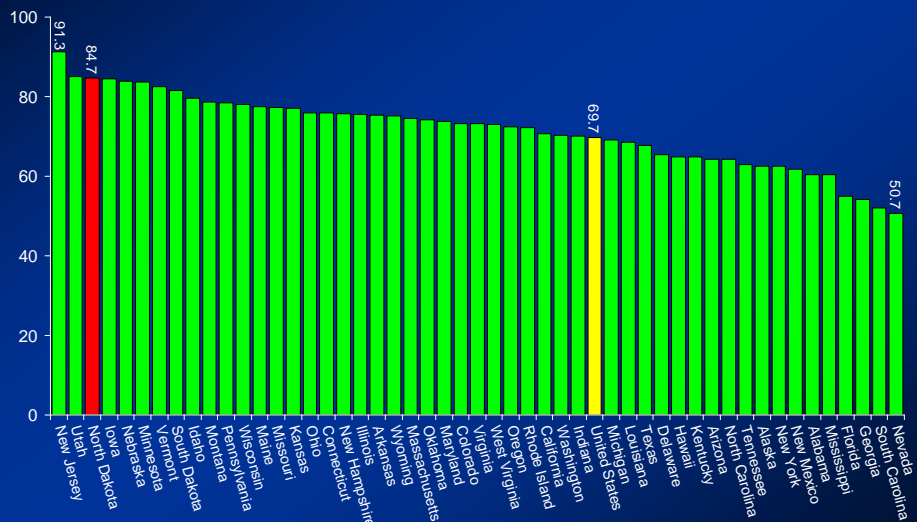
Student Pipeline, 2004



Source: NCES Common Core Data 2004; Tom Mortenson, *Postsecondary Education Opportunity*; NCES, IPEDS Fall 2004 Retention Rate File and Fall 2003 Enrollments, 2004 Graduation Rates; U.S. Census Bureau, 2005 ACS

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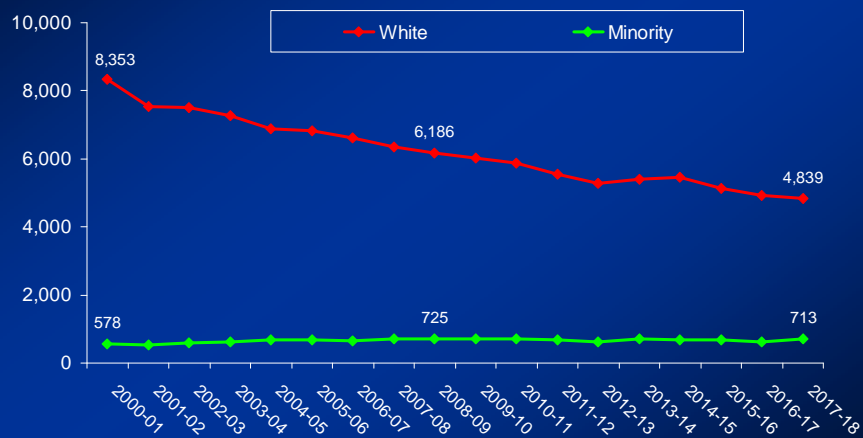
High School Graduation Rates—Public High School Graduates as a Percent of 9th Graders Four Years Earlier, 2004



Source: Tom Mortenson, Postsecondary Opportunity (rev. 071106)

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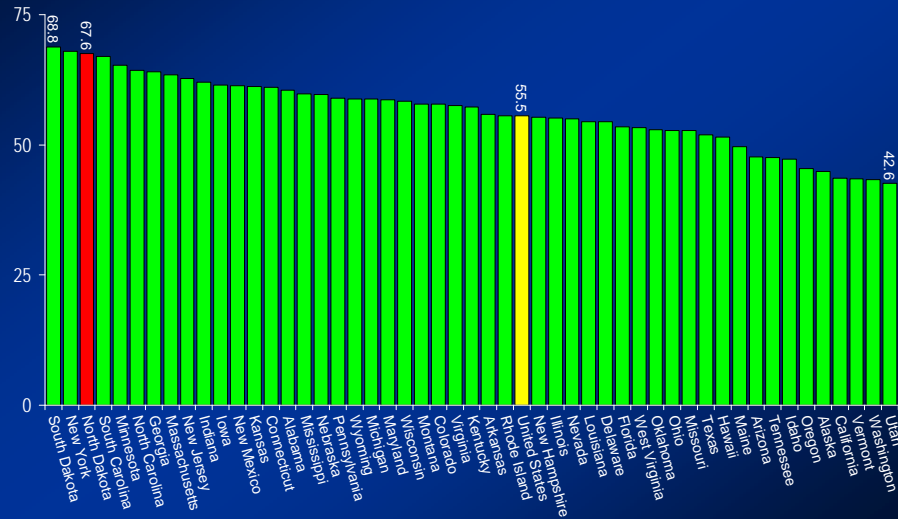
North Dakota Projected High School Graduates By Race/Ethnicity from 2000-01 to 2017-18



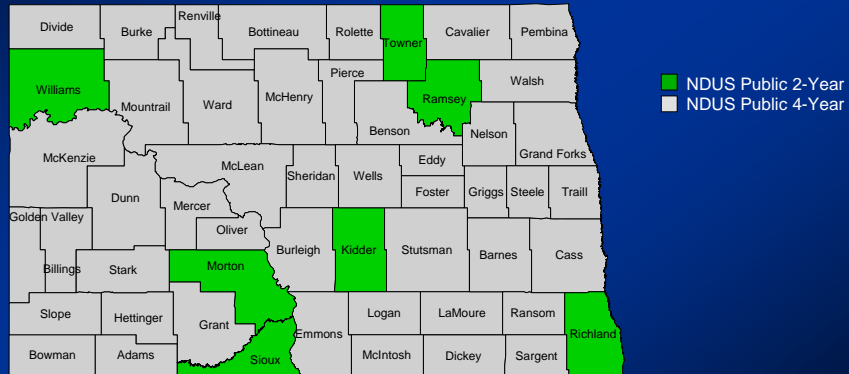
Source: Western Interstate Higher Education Commission (WICHE)

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College-Going Rates—First-Time Freshmen Directly Out of High School as a Percent of Recent High School Graduates, 2004



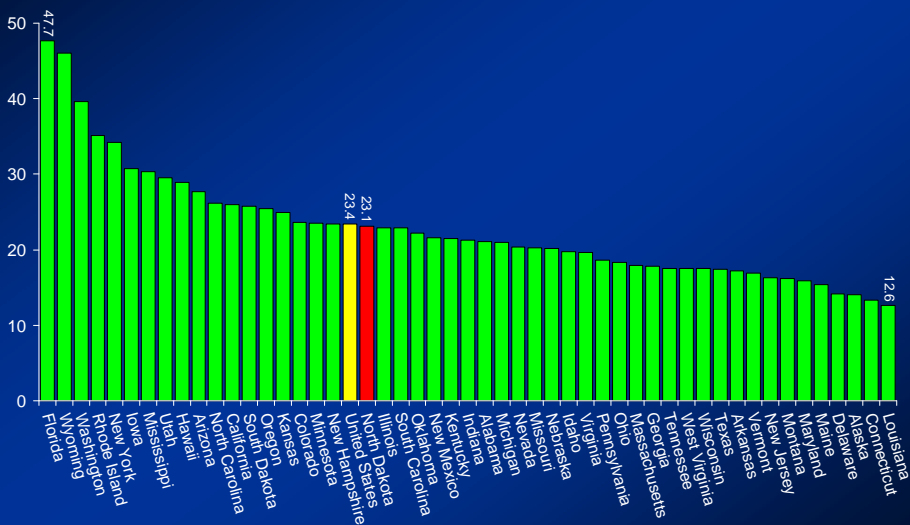
North Dakota Counties for Which 2-Year Institutions (NDUS) Are the Primary Institutions, Fall 2006



Source: NDUS

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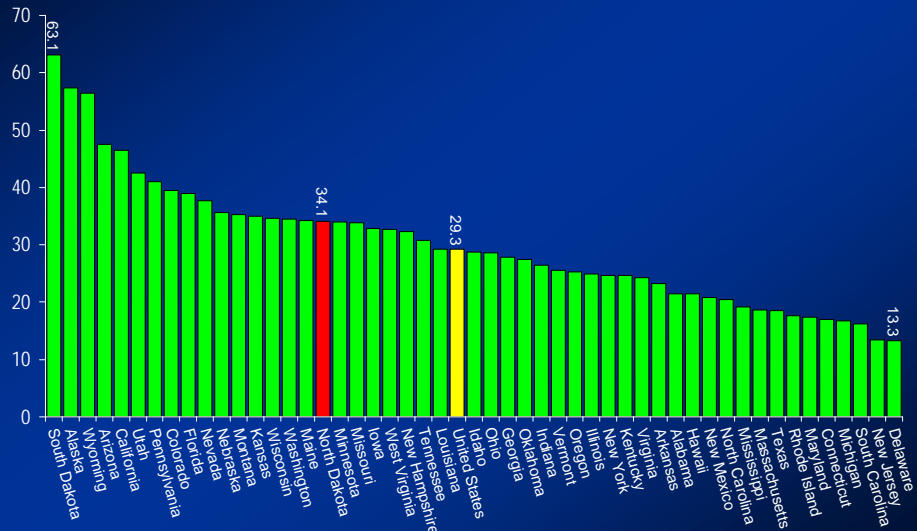
Associate Degrees Awarded per 100 High School Graduates Three Years Earlier, 2004



Source: NCES-IPEDS Completions Survey, WICHE

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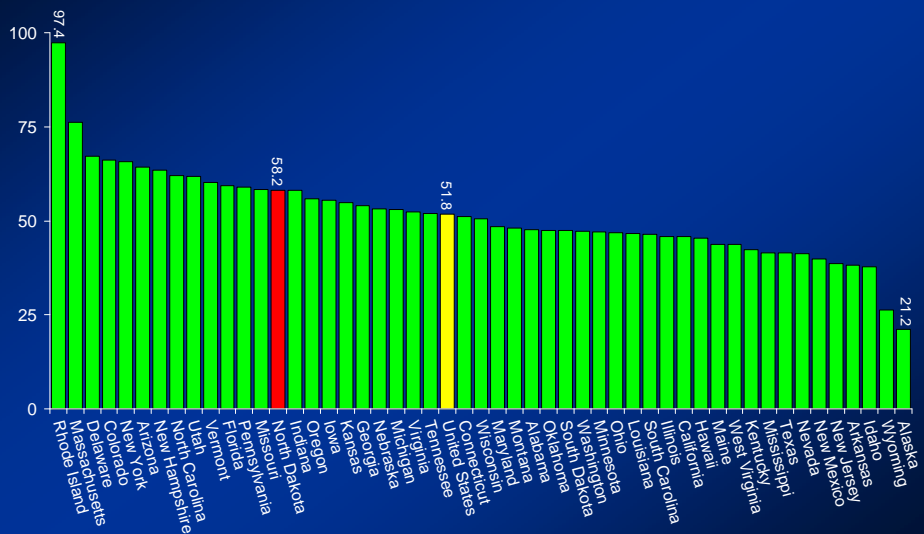
Three-Year Graduation Rates at Two-Year Colleges, 2005 (Percent)



Source: NCES, IPEDS Graduation Rate Survey

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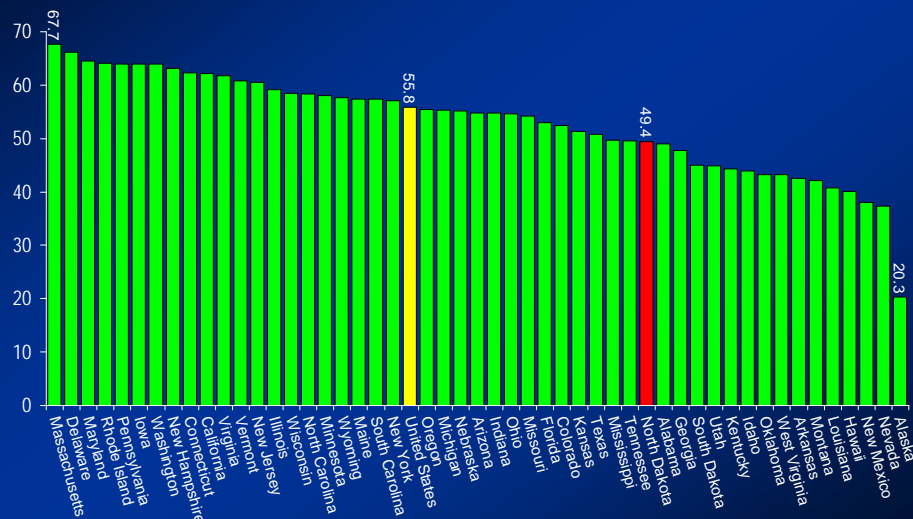
Bachelor's Degrees Awarded per 100 High School Graduates Six Years Earlier, 2004



Source: NCES-IPEDS Completions Survey, WICHE

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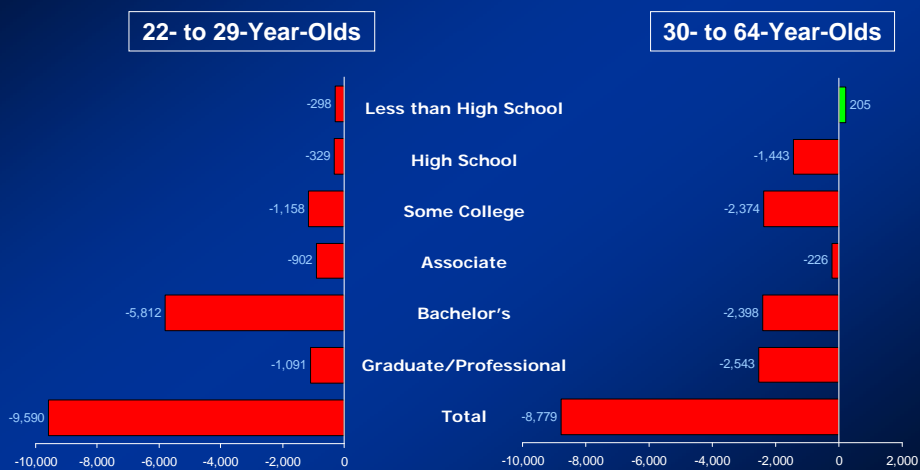
Six-Year Graduation Rates at Four-Year Colleges, 2005 (Percent)



Source: NCES, IPEDS Graduation Rate Survey

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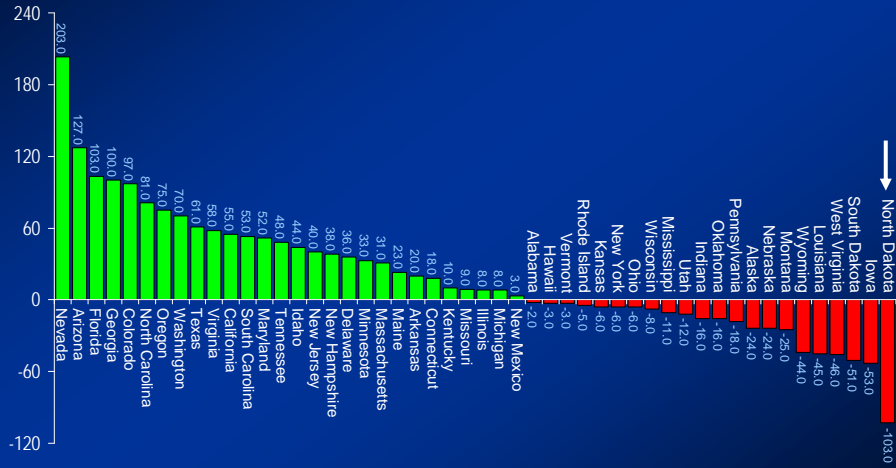
Net Migration by Degree Level and Age Group—North Dakota



Source: U.S. Census Bureau, 2000 Census; 5% PUMS Files

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Migration Rate of College-Educated Residents
Age 22-64—Associate and Higher, 1995-2000*

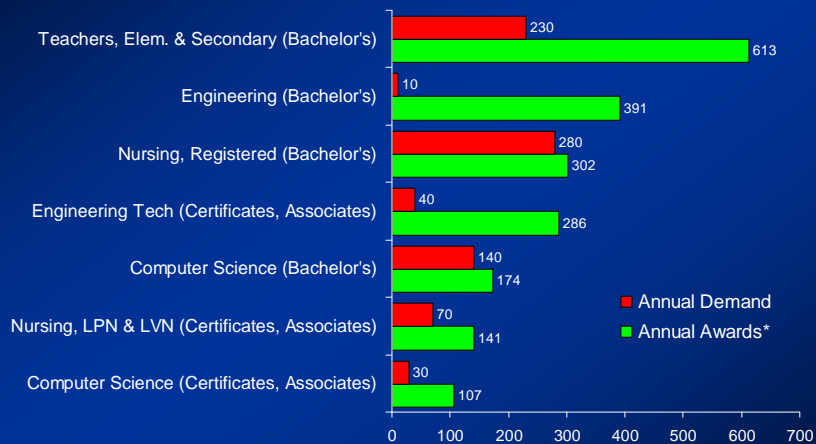


* Per 1,000 residents age 22-64 with college degrees.

Source: U.S. Census Bureau, PUMS (based on 2000 Census)

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Annual Demand and Awards Produced in Key Occupational Fields

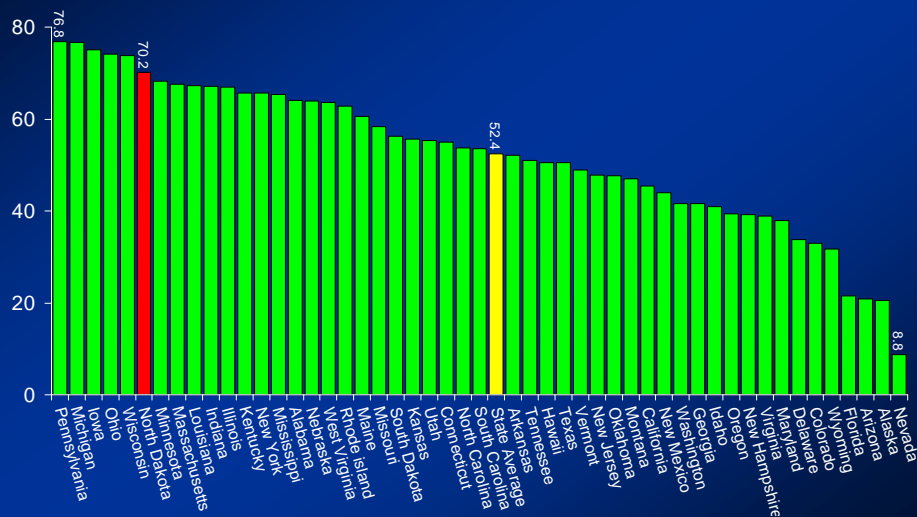


* Annual average 2003-05

Source: State Employment Projections 2004-14; NCES, IPEDS 2003-05 Completions File

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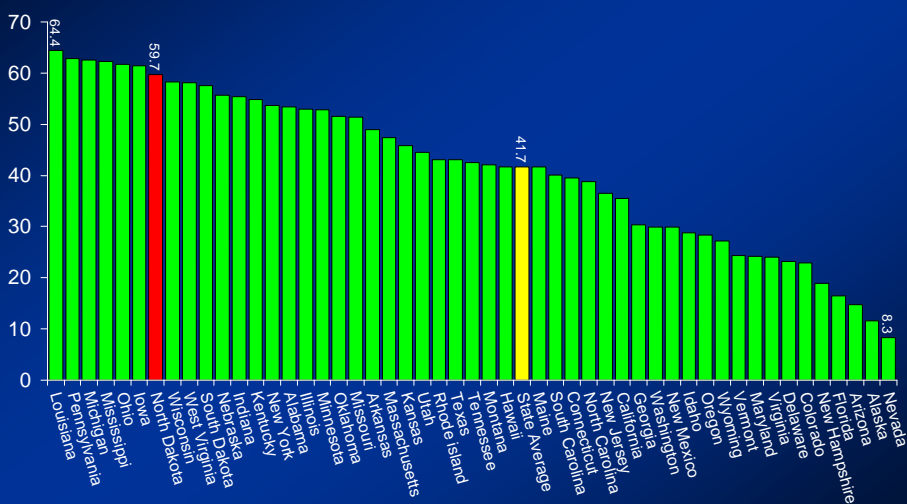
Percent of Residents Age 25-64 with an Associate Degree Born In-State, 2005



Source: 2005 ACS

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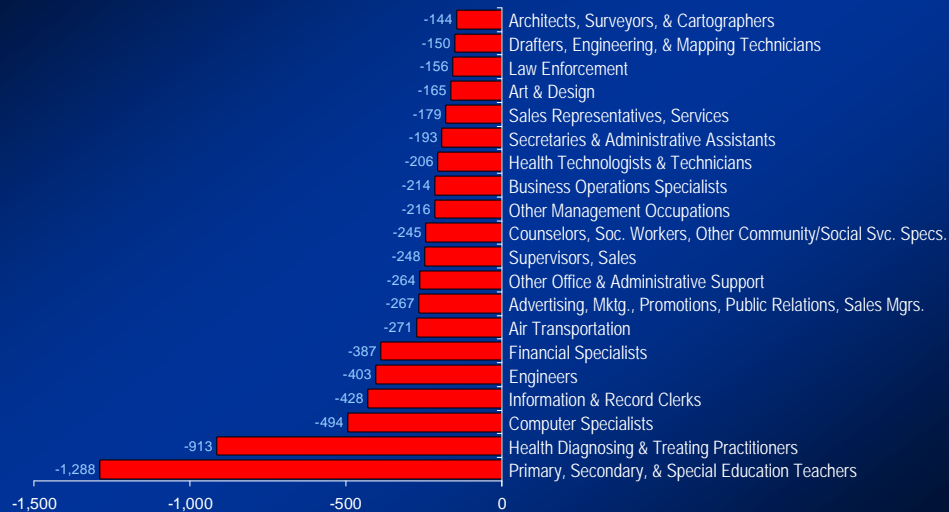
Percent of Residents Age 25-64 with a Bachelor's Degree or Higher Born In-State, 2005



Source: 2005 ACS

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North Dakota Net Migration of College Degree Holders Age 22-29 by Occupation, 1995 to 2000



Source: U.S. Census Bureau, 2000 Census 5% PUMS File

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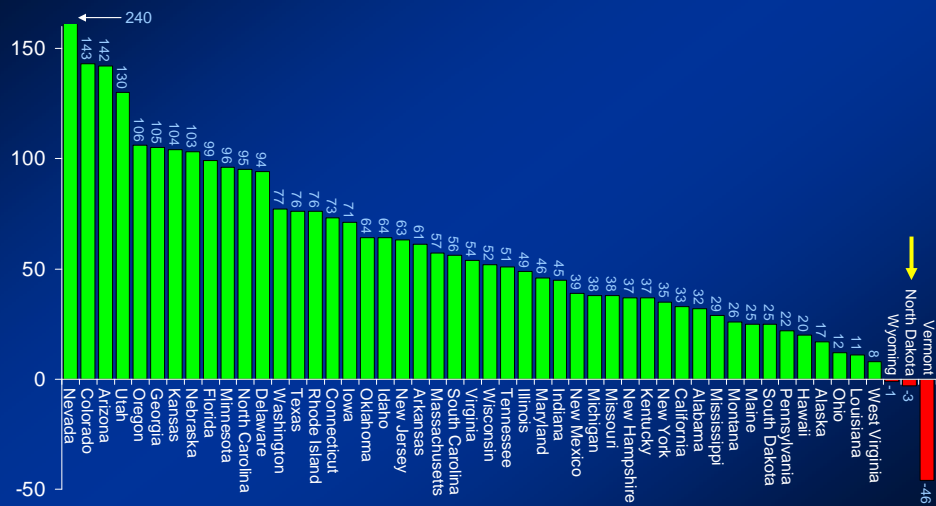
North Dakota Net Migration of College Degree Holders Age 30-64 by Occupation, 1995 to 2000



Source: U.S. Census Bureau, 2000 Census 5% PUMS File

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Migration Rate* of Residents Age 22-64 with Less than a High School Diploma, 1995-2000

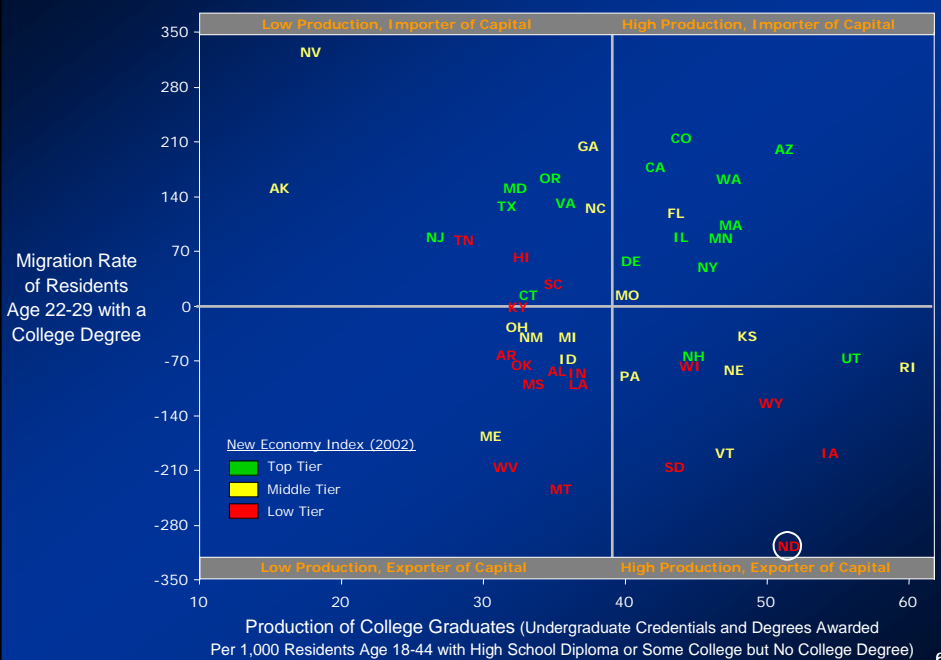


* Per 1,000 residents age 22-64 with less than a high school diploma.

Source: State Higher Education Officers (SHEEO)

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States' Ability to Produce Graduates vs. Ability to Keep and Attract Graduates



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Financial Context

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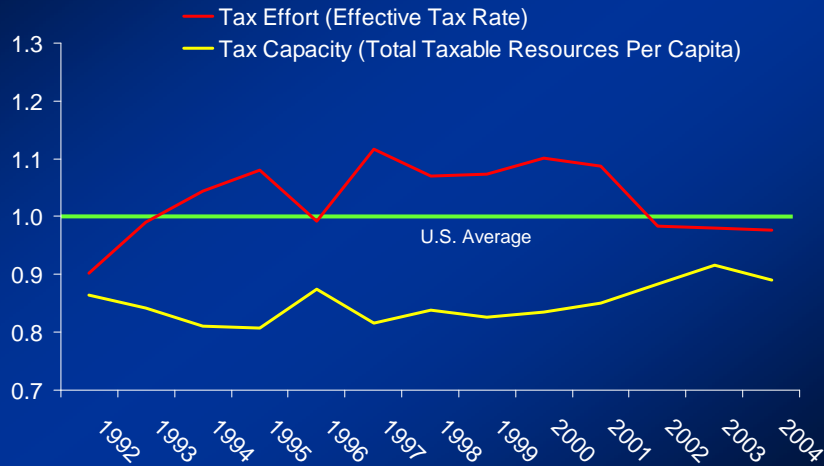
State Tax Capacity and Effort—North Dakota Indexed to U.S. Average



Source: State Higher Education Executive Officers (SHEEO)

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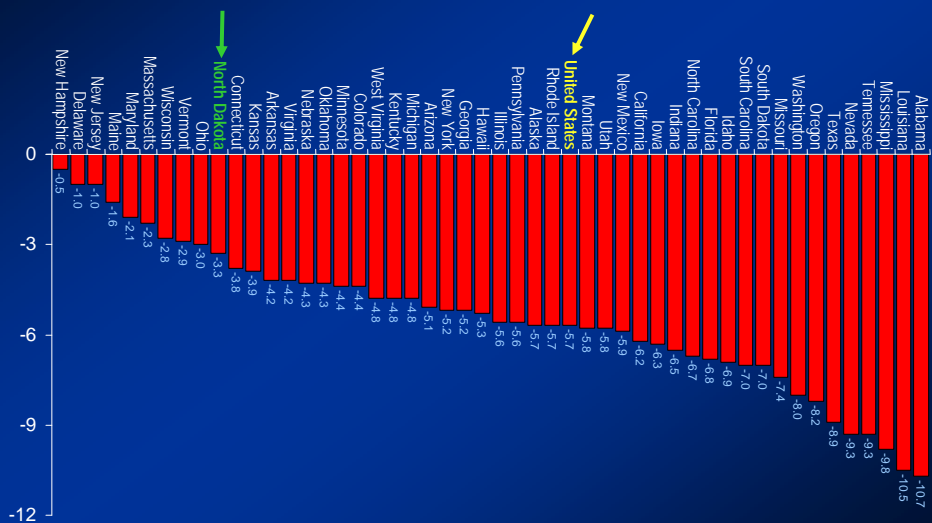
State Tax Capacity and Effort—North Dakota Indexed to U.S. Average



Source: State Higher Education Executive Officers (SHEEO)

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Projected State and Local Budget Surplus (Gap) as a Percent of Revenues, 2013



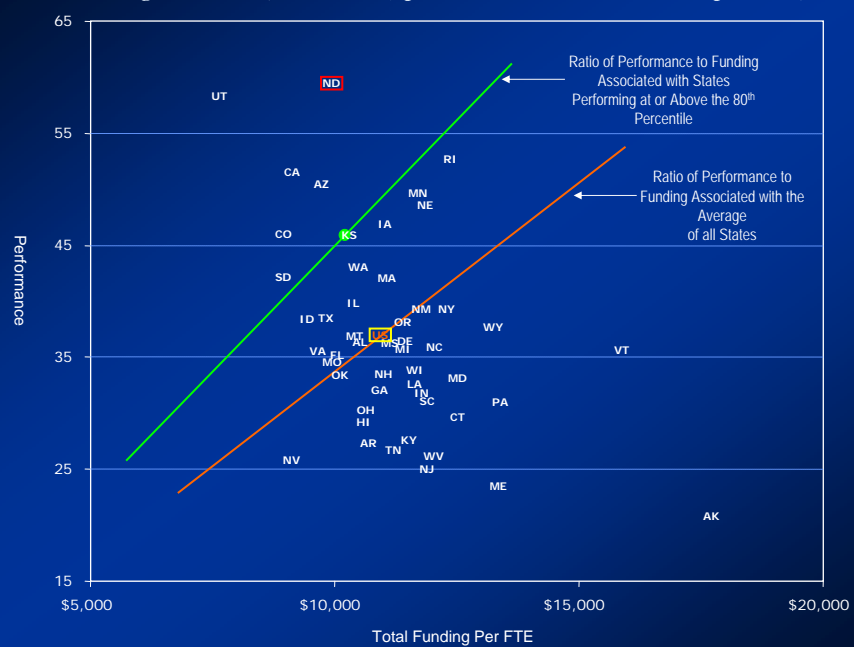
Source: NCHEMS; Don Boyd (Rockefeller Institute of Government), 2005

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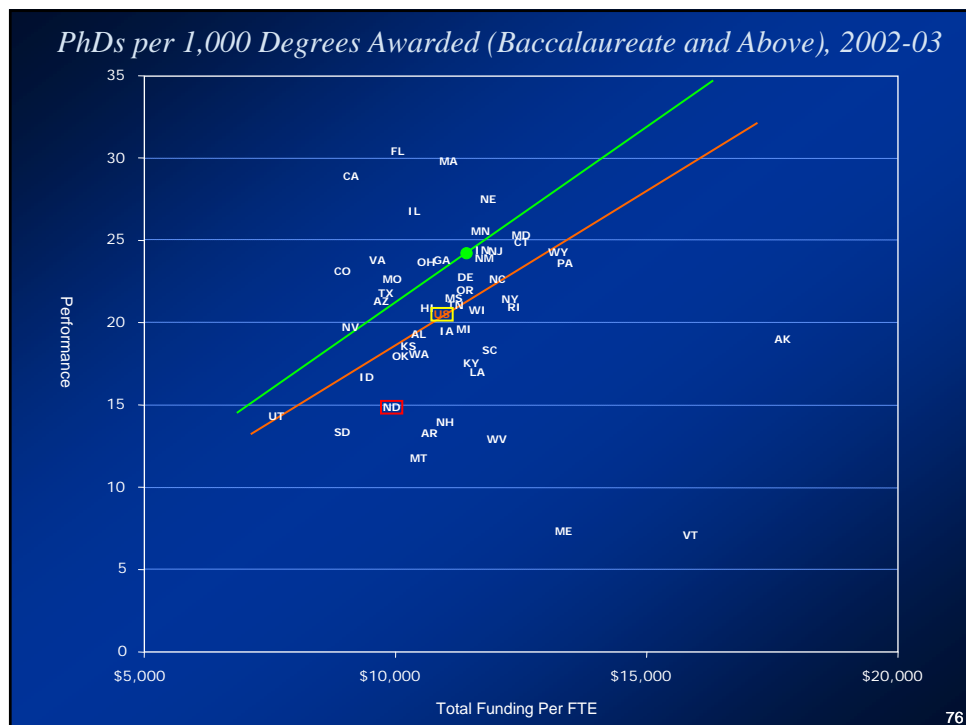
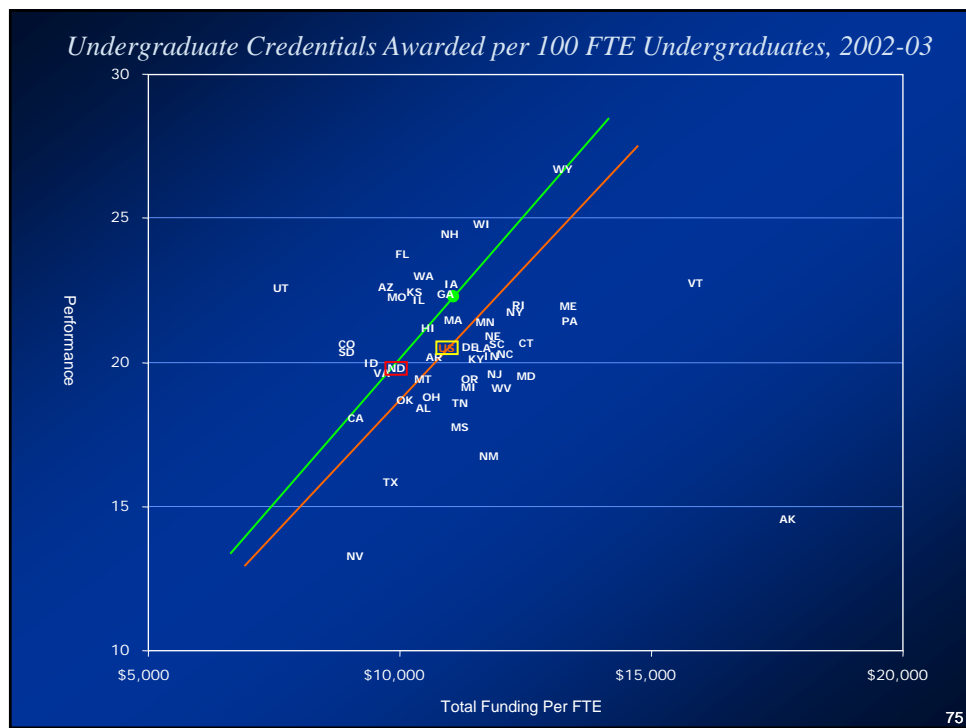
State Systems of Higher Education

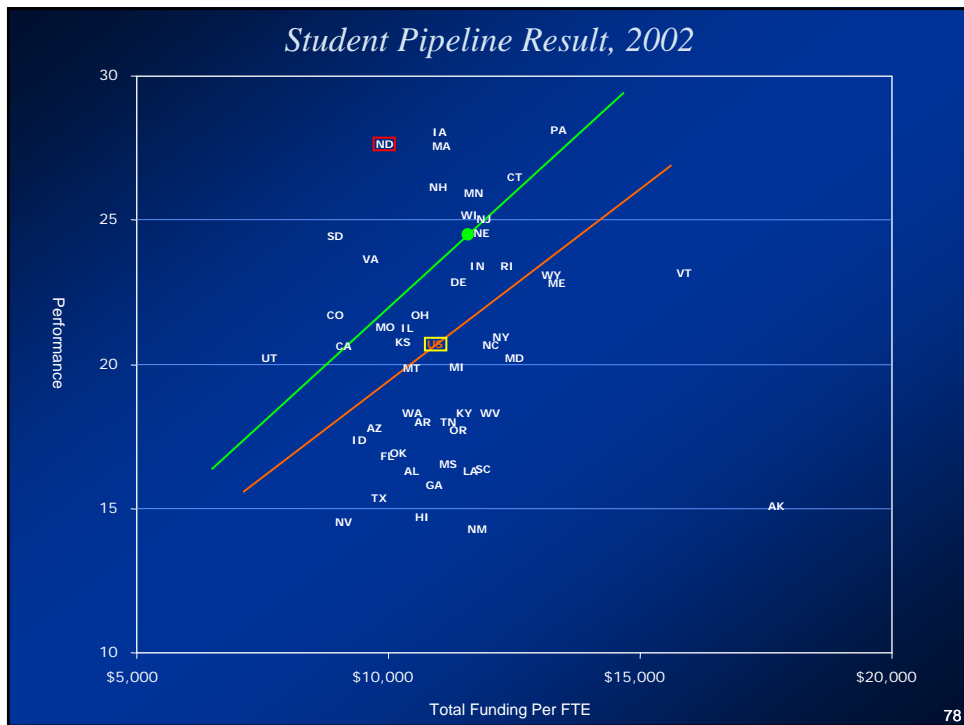
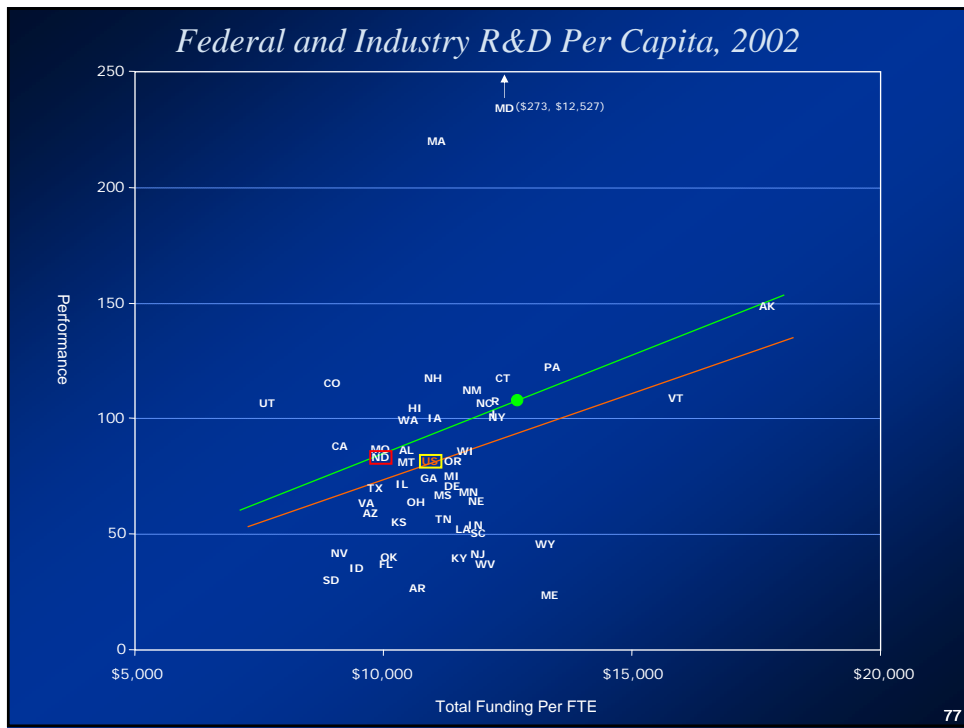
73

FTE Undergraduates (Fall 2003) per 100 18-44 With HS Diploma (2000)

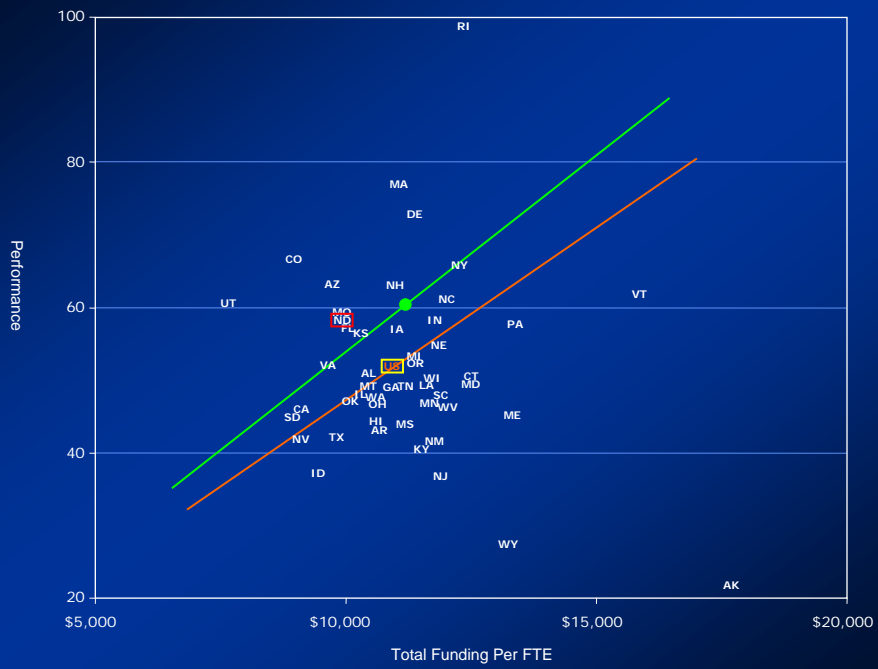


74





Bachelor's Degrees as a Percent of High School Graduates Six Years Earlier, 2003



*State Systems of Higher Education Overall Index Score—
Average Performance Relative to Funding Per FTE*

