

Maine: Education and the Economy



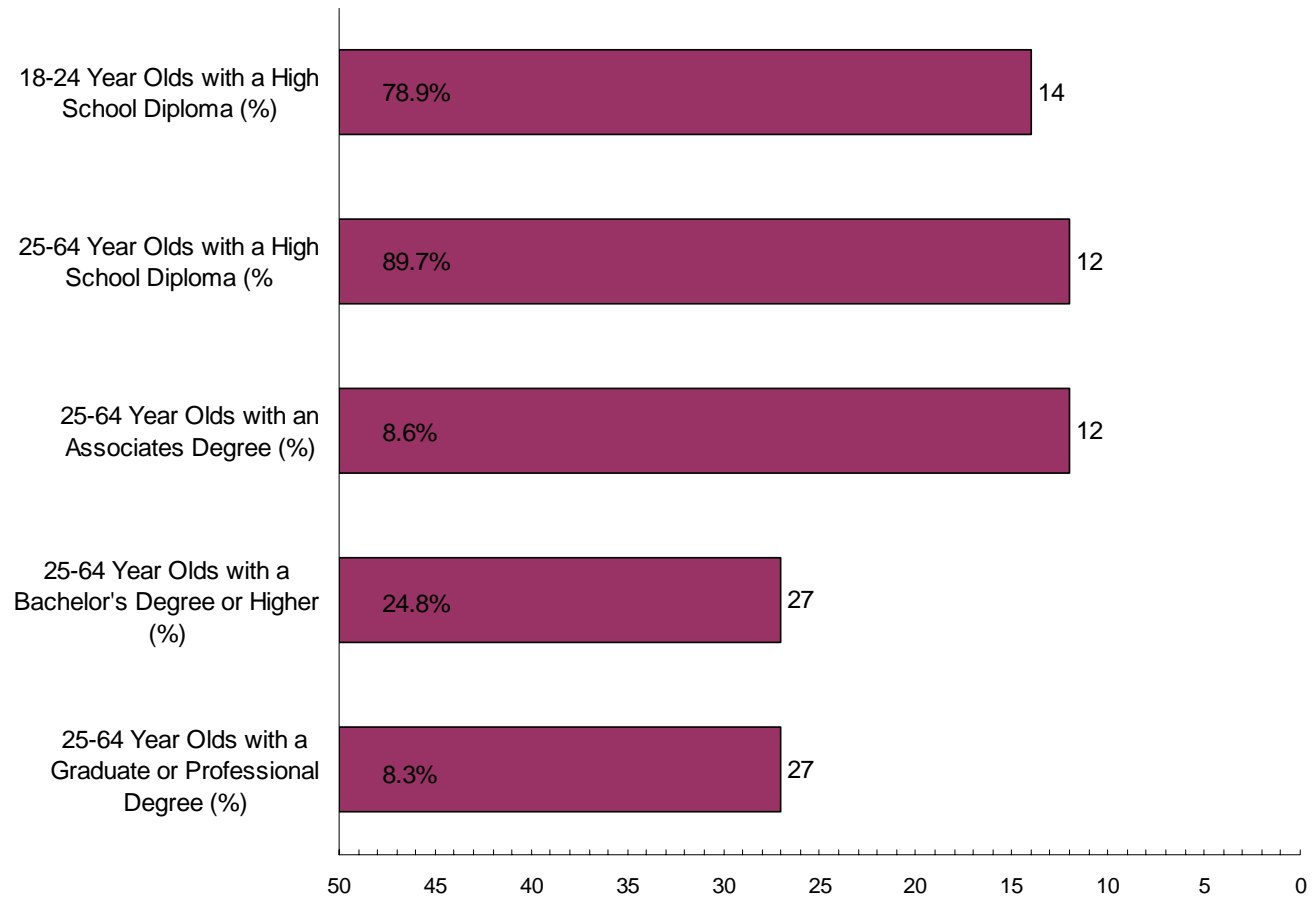
UNIVERSITY OF MAINE SYSTEM
Office of Planning and Policy Analysis

Summary

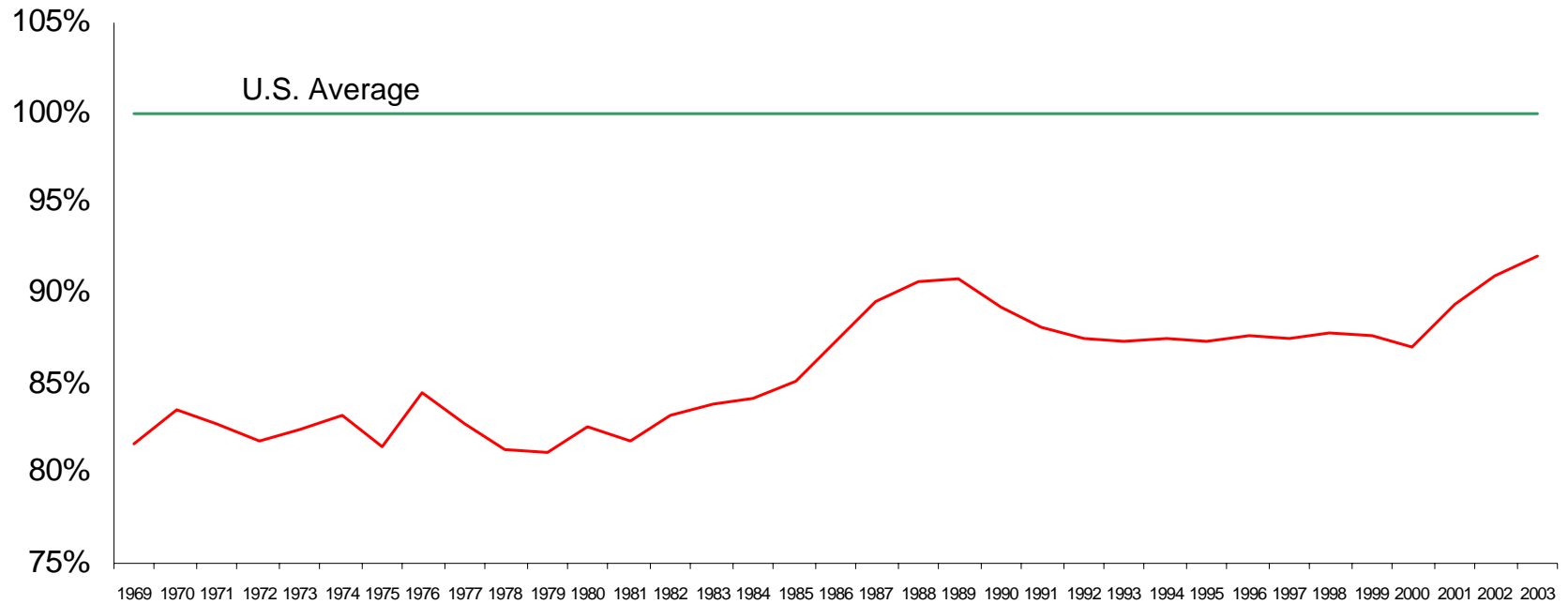
- Outline
 - Workforce
 - College Participation & Completion
 - Net Gain/Loss of Maine Residents
 - Developing State Economies
- Highlights
 - Maine exceeds the nation in educating its youth and in maintaining a high quality of life for its residents
 - Maine imports older (30-64) educated individuals, while exporting much of its educated youth (22-29)
 - Maine is exporting/losing manufacturing jobs, engineering/technology related jobs while importing/gaining jobs in the services, insurance, real estate, and health sectors
 - Maine ranks very low in per capita federal R&D expenditures, while maintaining strong state & local per capita R&D Expenditures

The Workforce

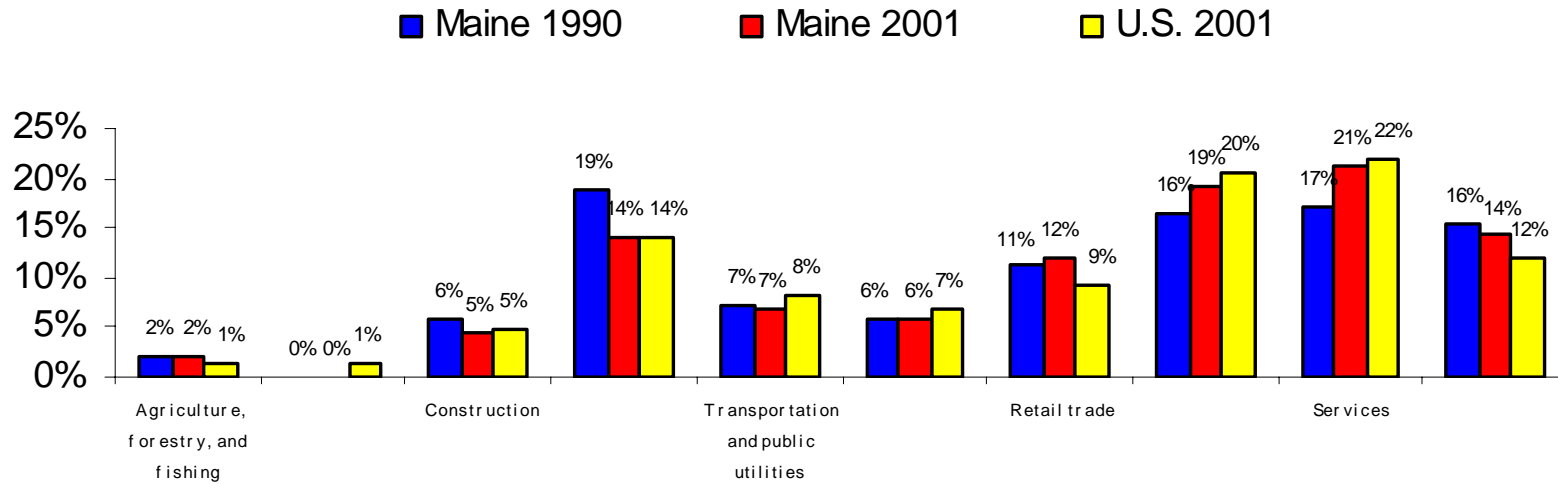
Educational Attainment—Maine Attainment and U.S. Rank, 2000



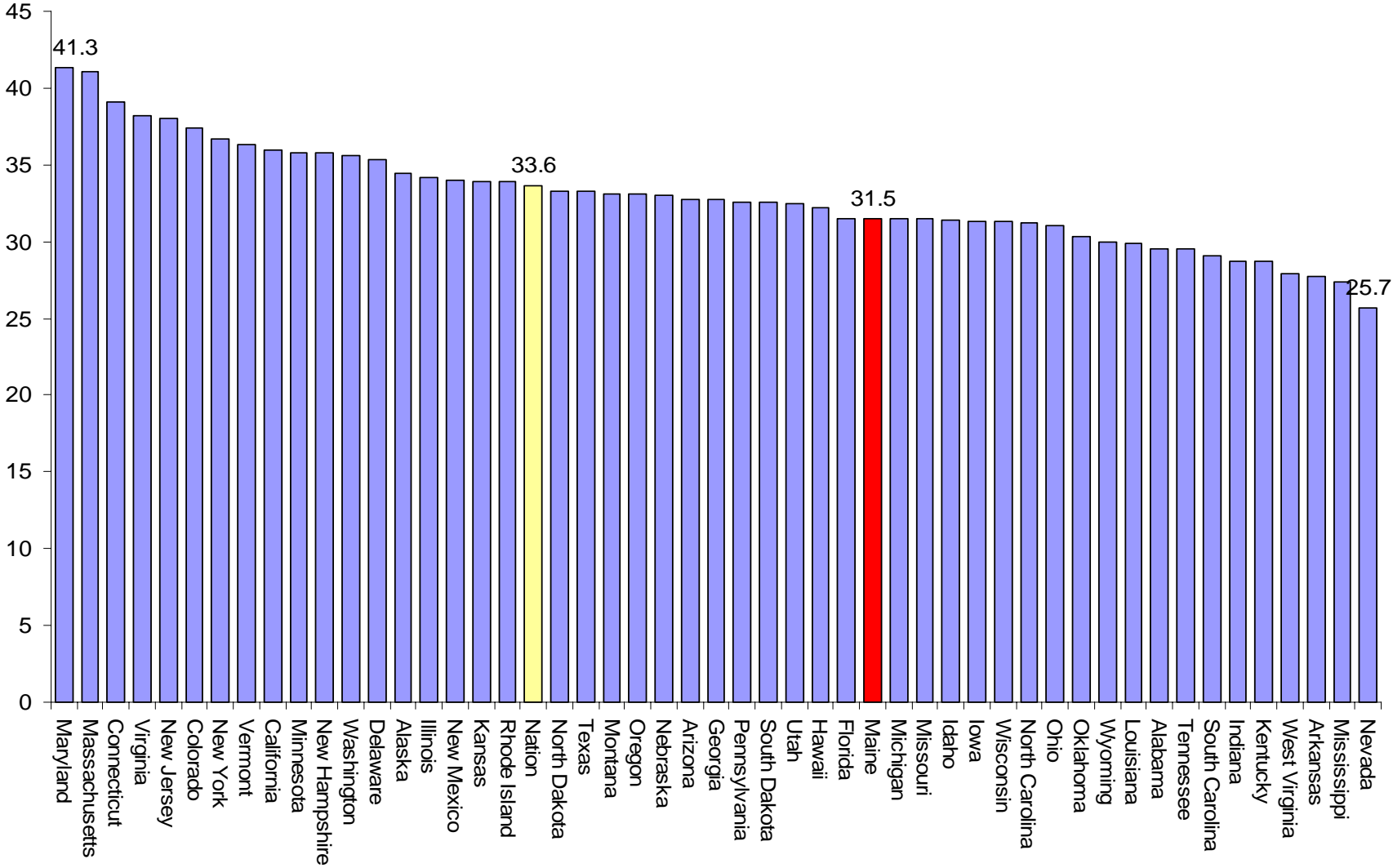
Maine Per Capita Personal Income as a Percentage of U.S. Average, 1969-2003



Share of Gross State Product by Sector

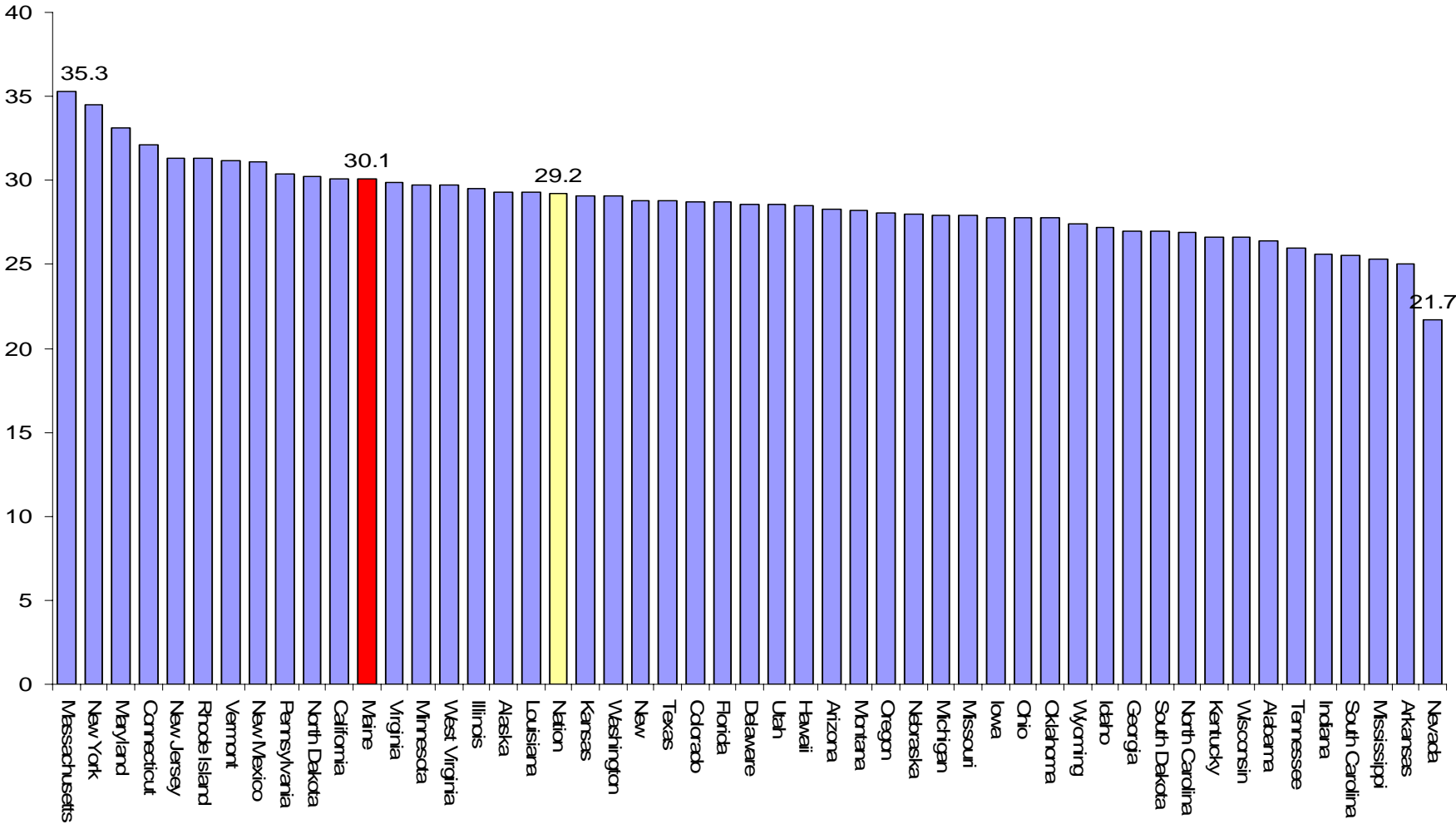


Percent Employment in Professional and Management Occupations, 2000



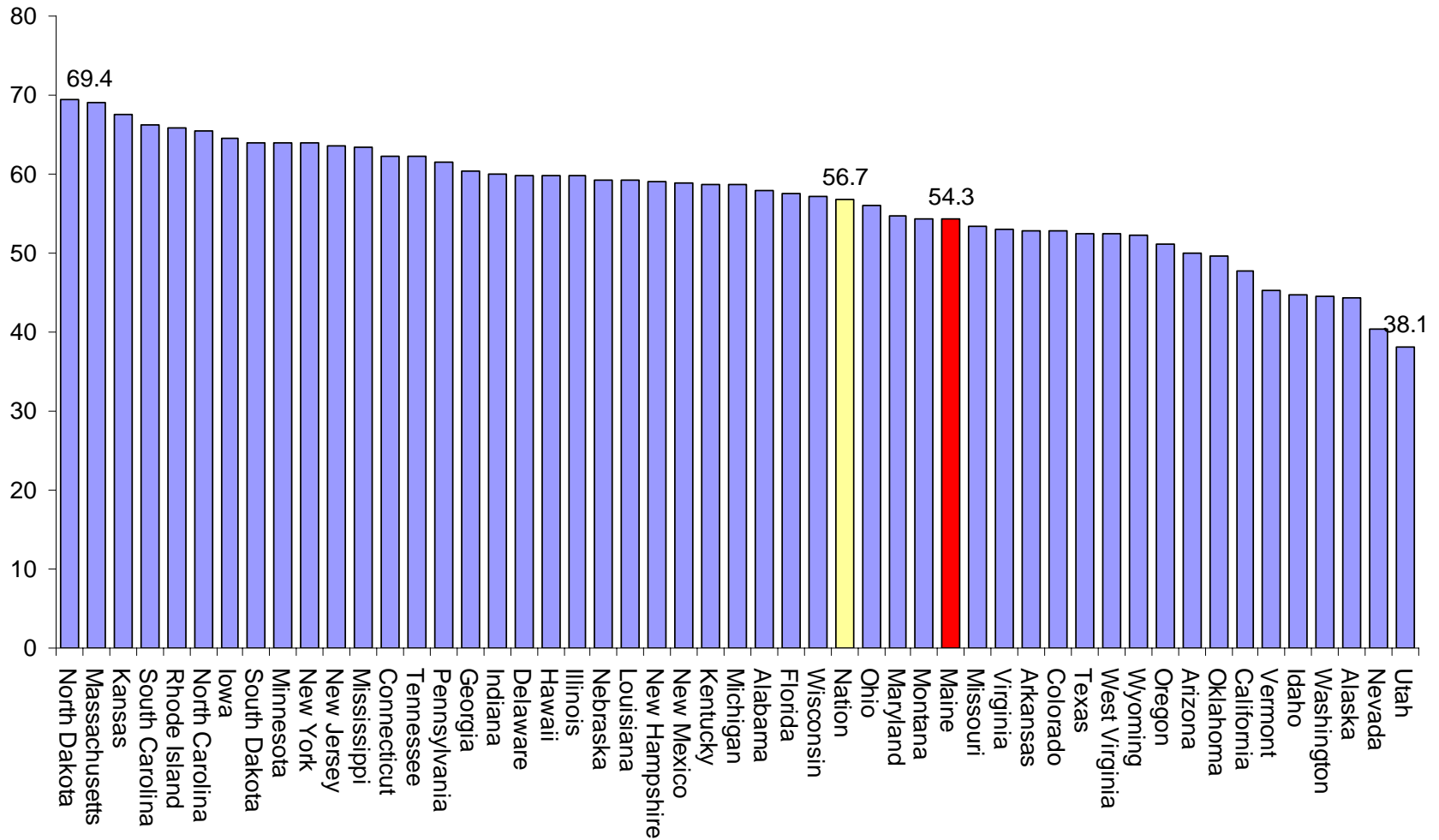
Source: U.S. Census Bureau

Percent Employment in Professional, Education, Health, and Social Service Industries, 2000

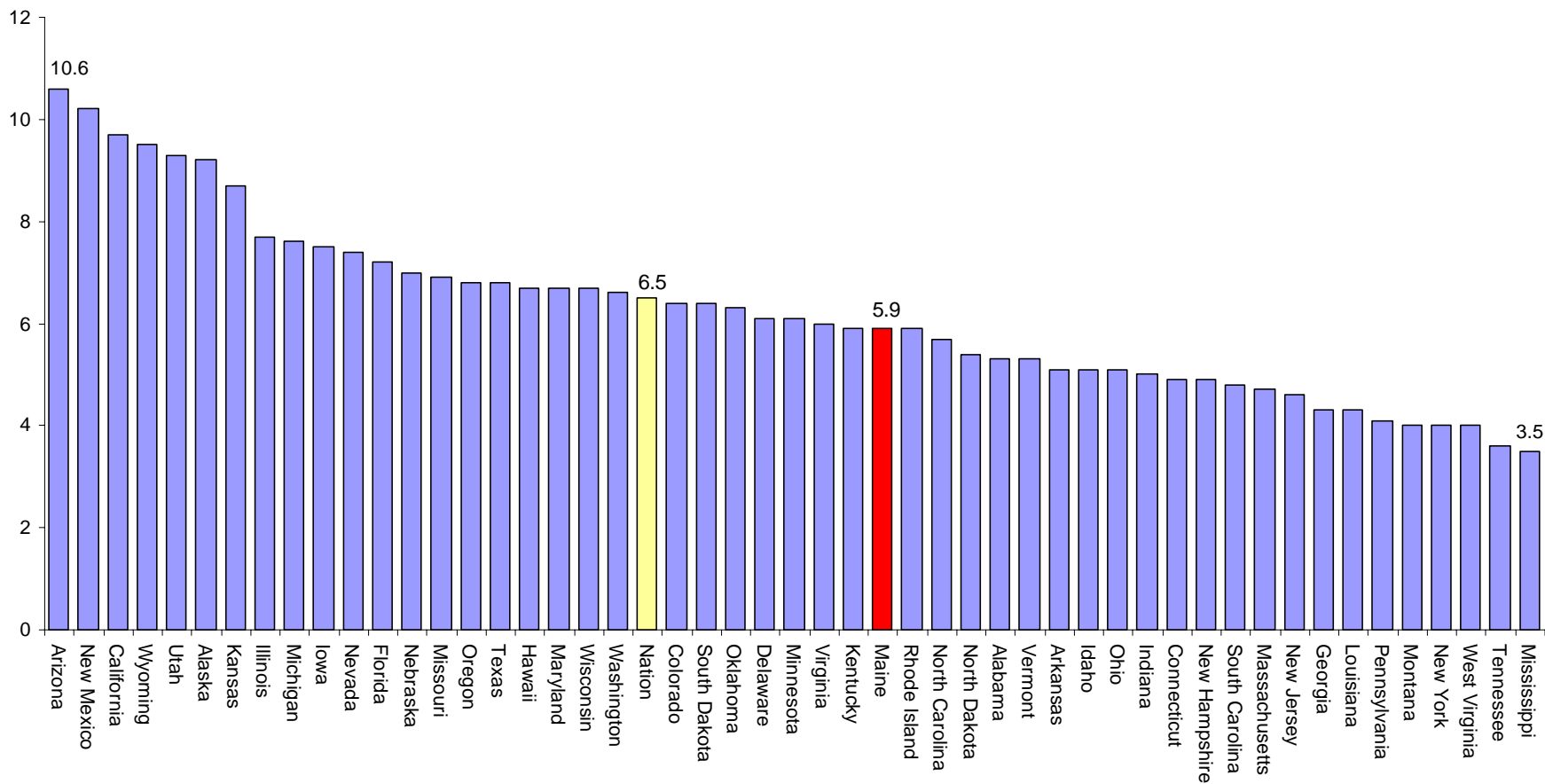


College Participation and Completion

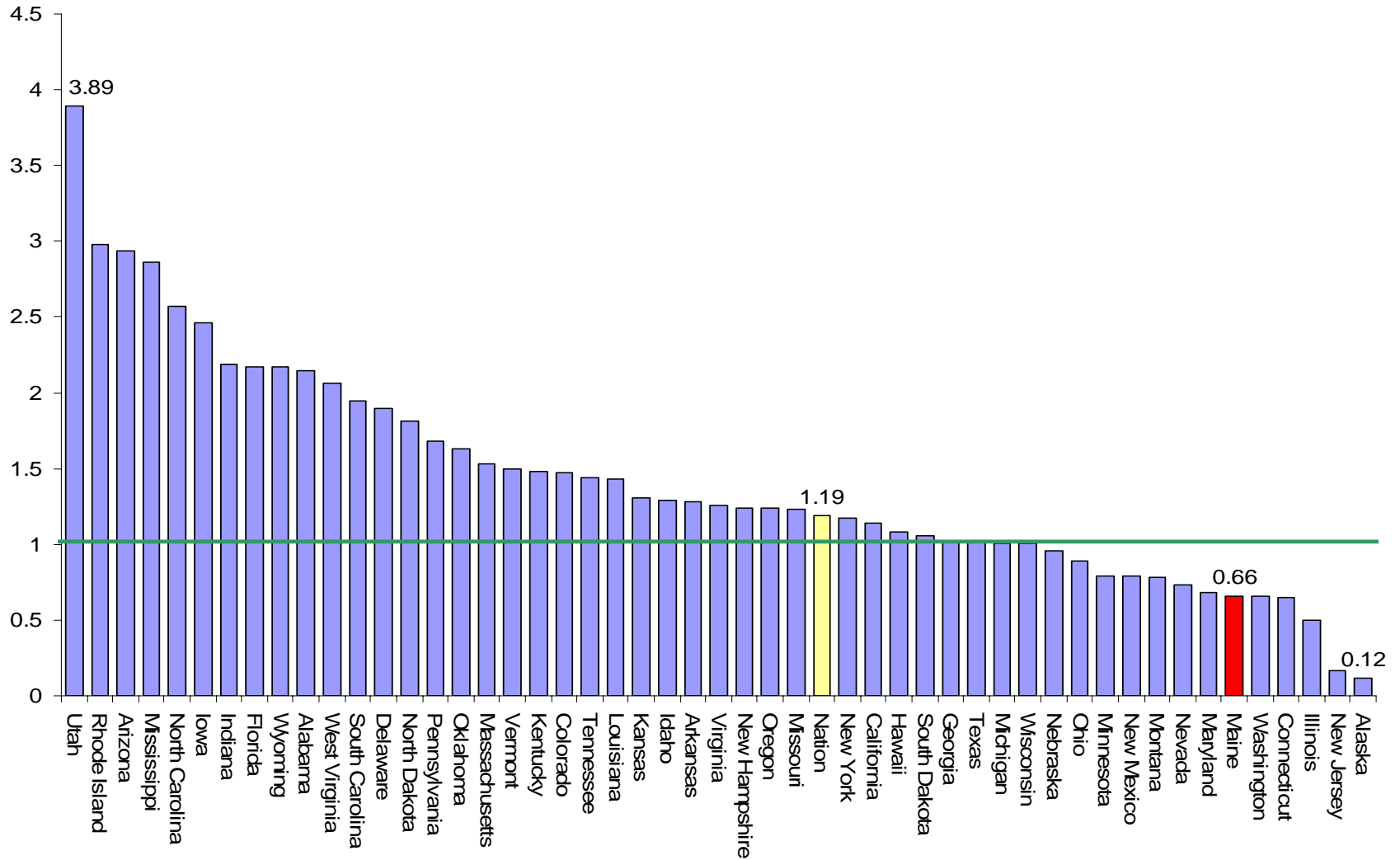
College Going Rates – First-Time Freshmen Directly Out of HS as a Percent of Recent HS Graduates (%) - 2000



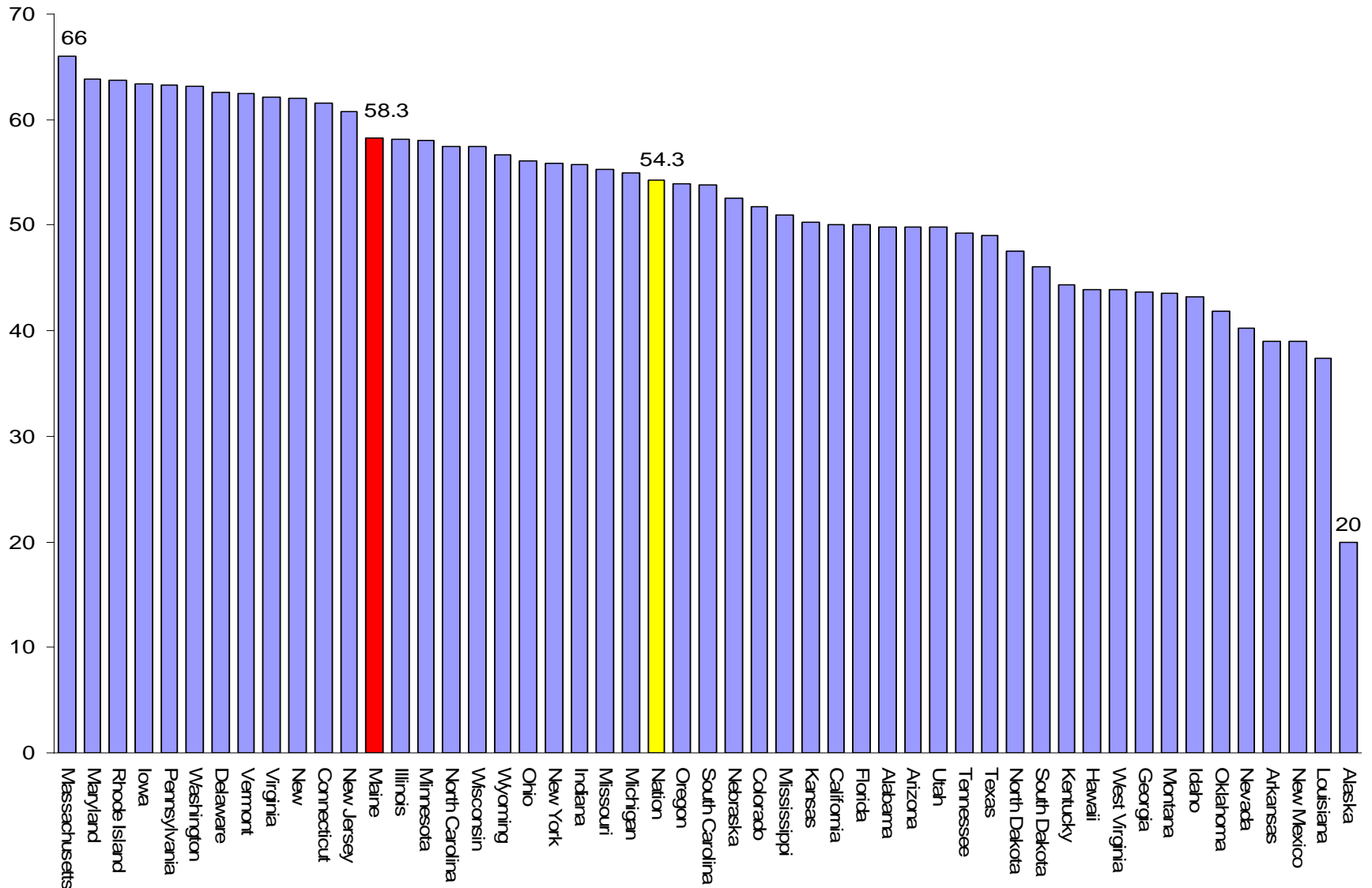
Part-Time Undergraduate Enrollment as a Percent of 25- to 44-Year-Olds, 2003



Import/Export Ratio of First-Time Freshmen, Fall 2002 ($>1=Importer$, $<1=Exporter$)



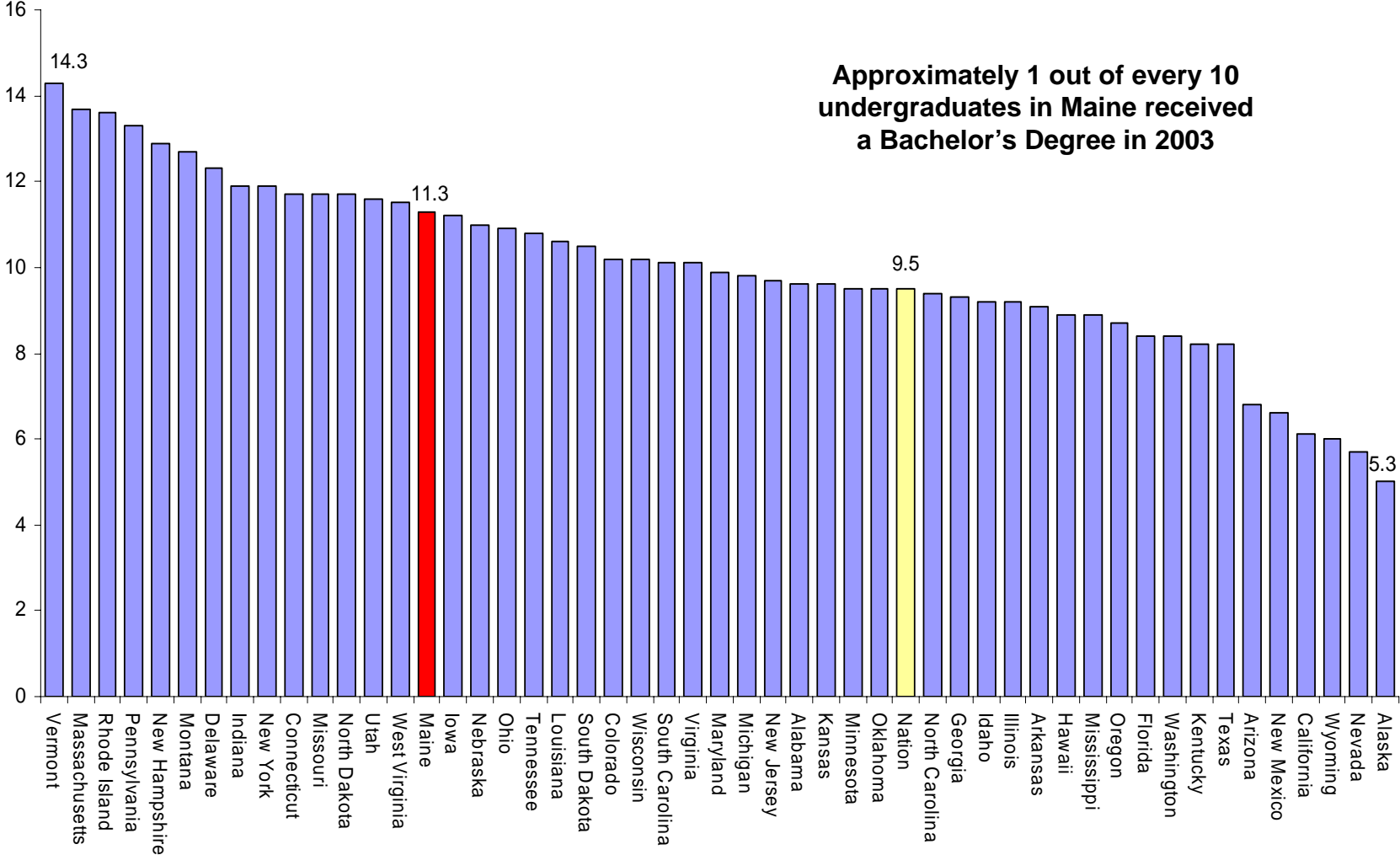
Graduation Rates—Percent of Bachelor's Students Graduating Within Six Years, 2003



Source: NCES-IPEDS, Graduation Rate Survey

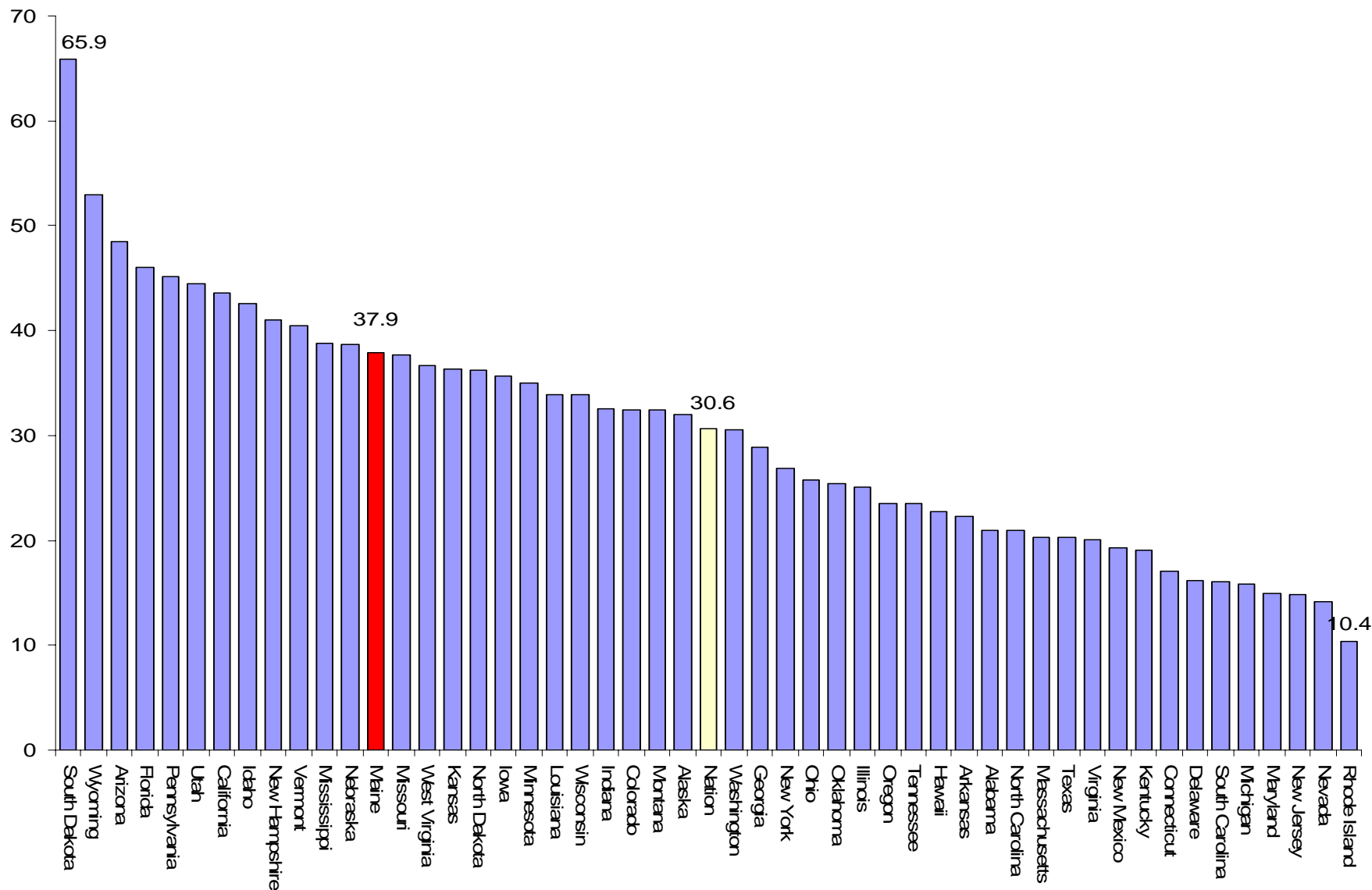
Bachelor's Degrees Awarded Per 100 Undergraduates (%) – 2003

Approximately 1 out of every 10 undergraduates in Maine received a Bachelor's Degree in 2003



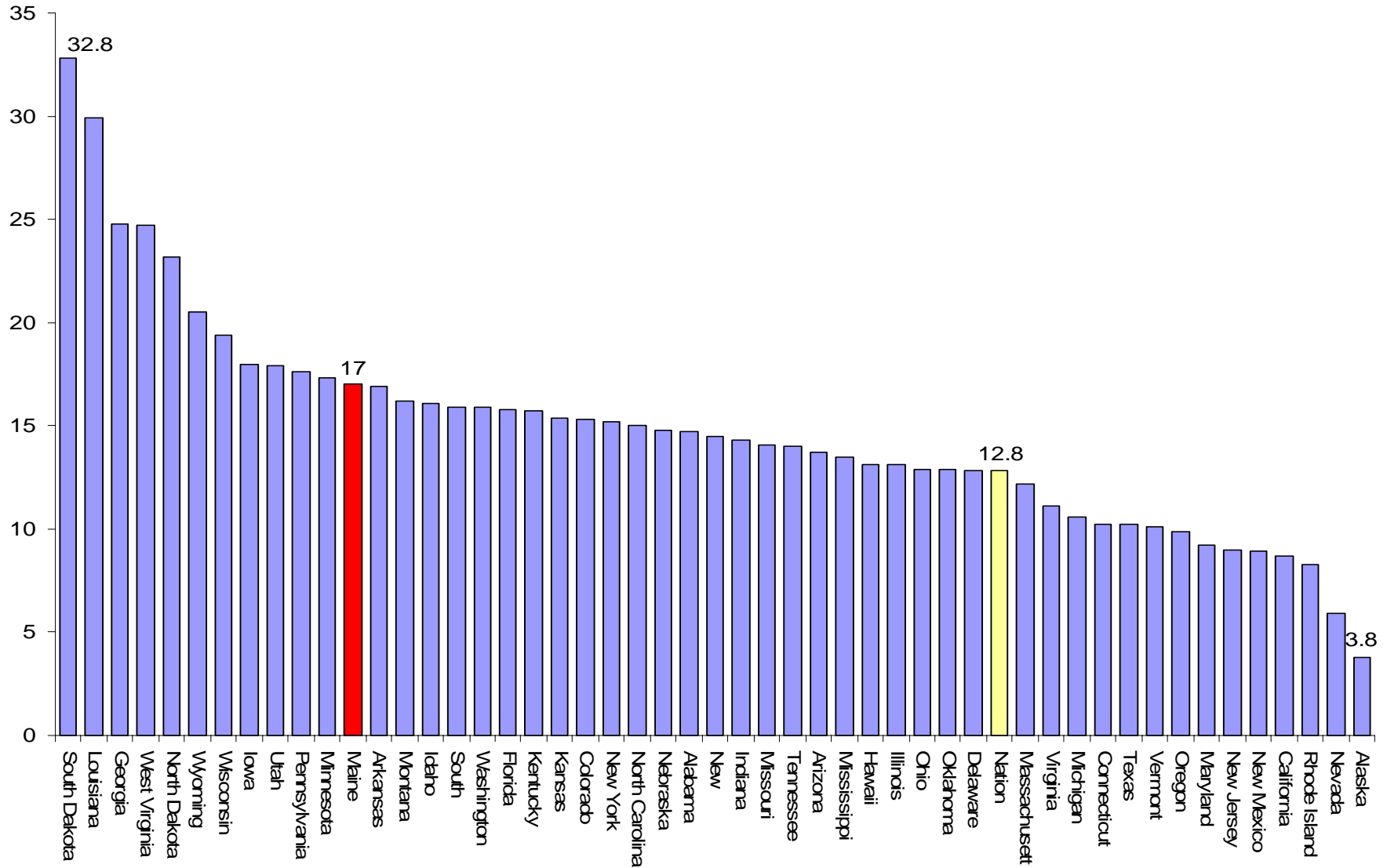
Source: NCES-IPEDS Completions Survey, Enrollment Survey

Graduation Rates—Percent of Associate Students at Two-Year Colleges Graduating Within Three Years, 2003



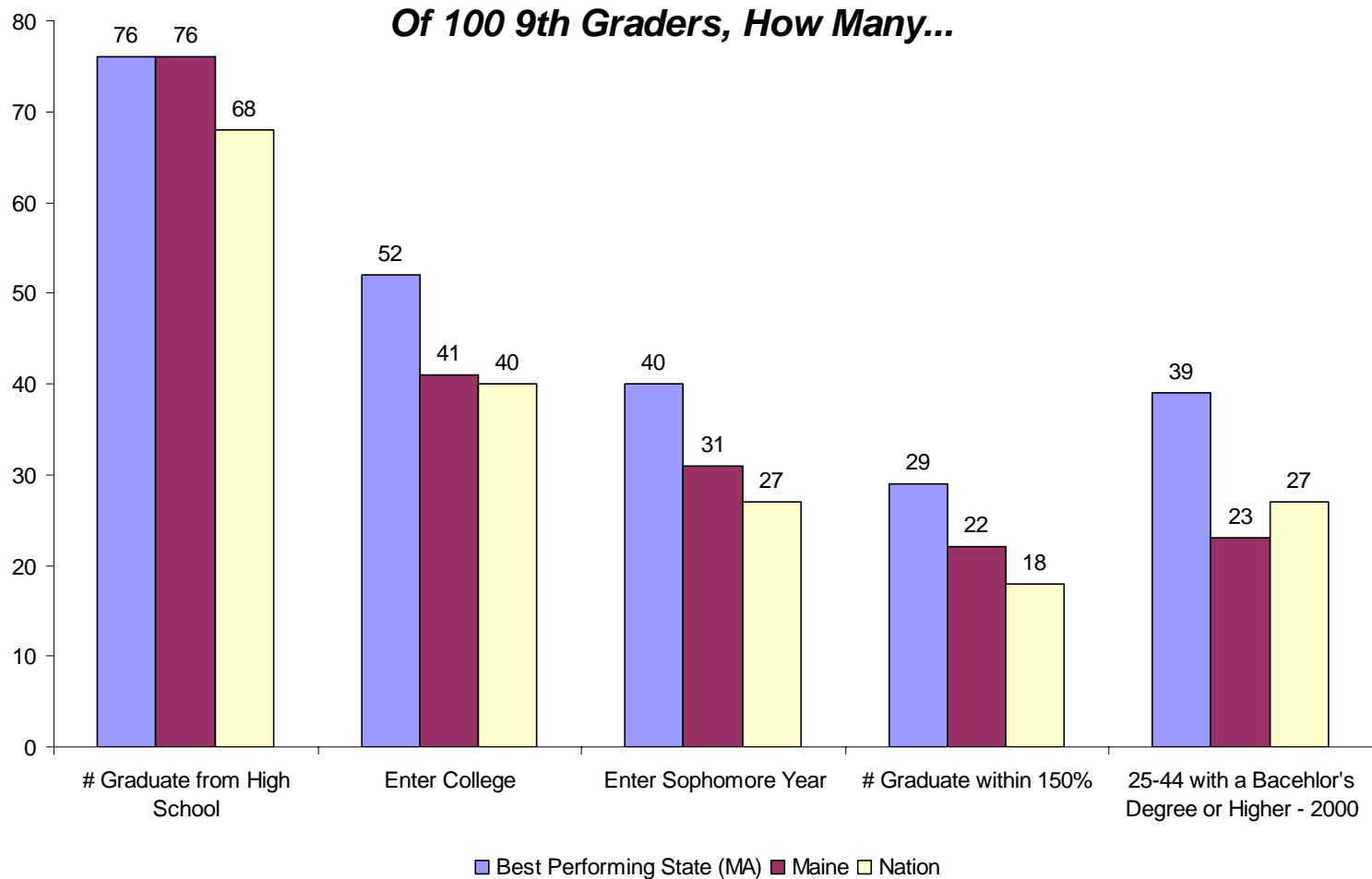
Source: NCES-IPEDS, Graduation Rate Survey

All Credentials Awarded (2-Year and Less) at Two Year Colleges as a Percent of Enrollment in Two Year Colleges (%) - 2003

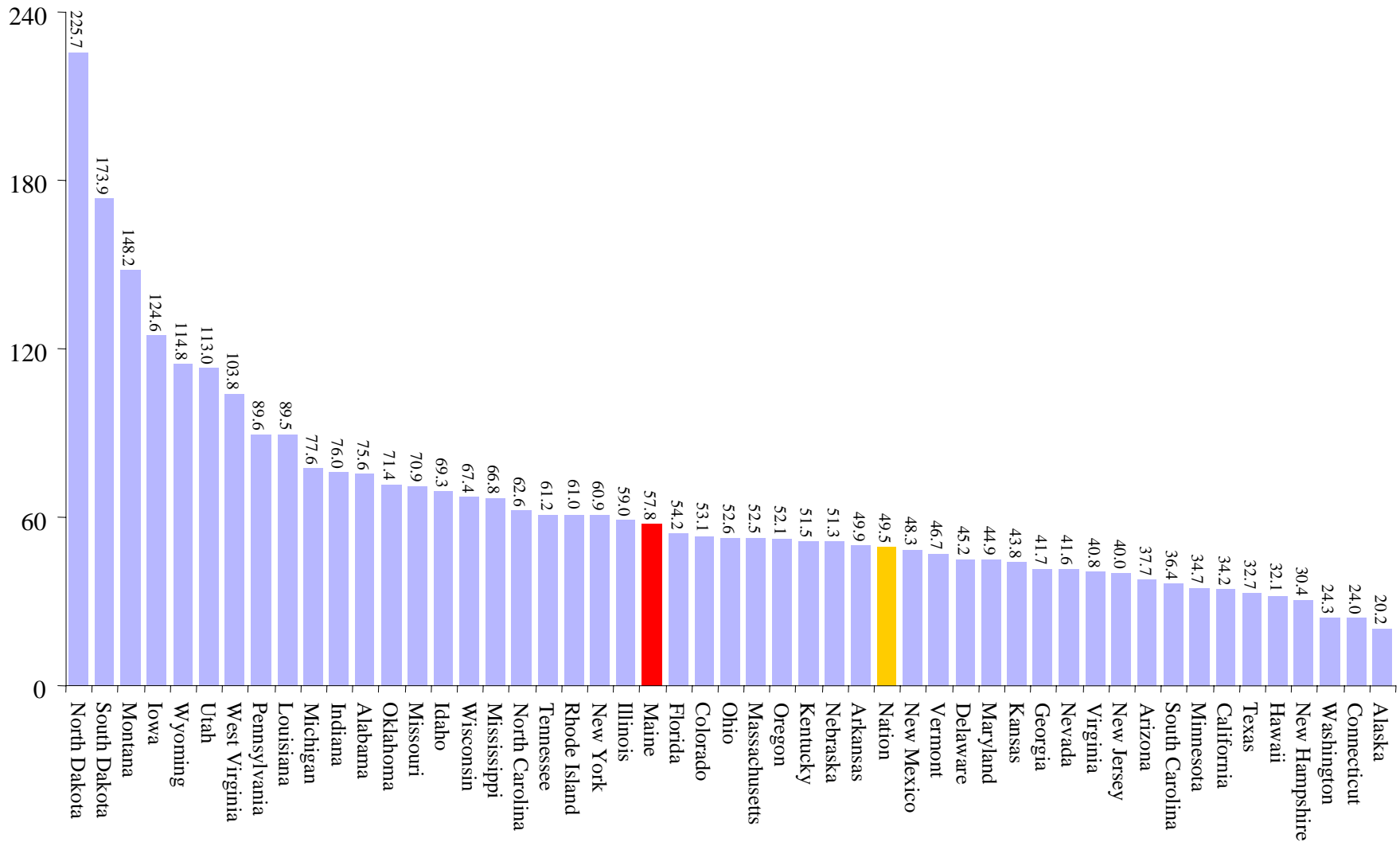


Source: NCES-IPEDS Completions Survey, Enrollment Survey

Student Pipeline

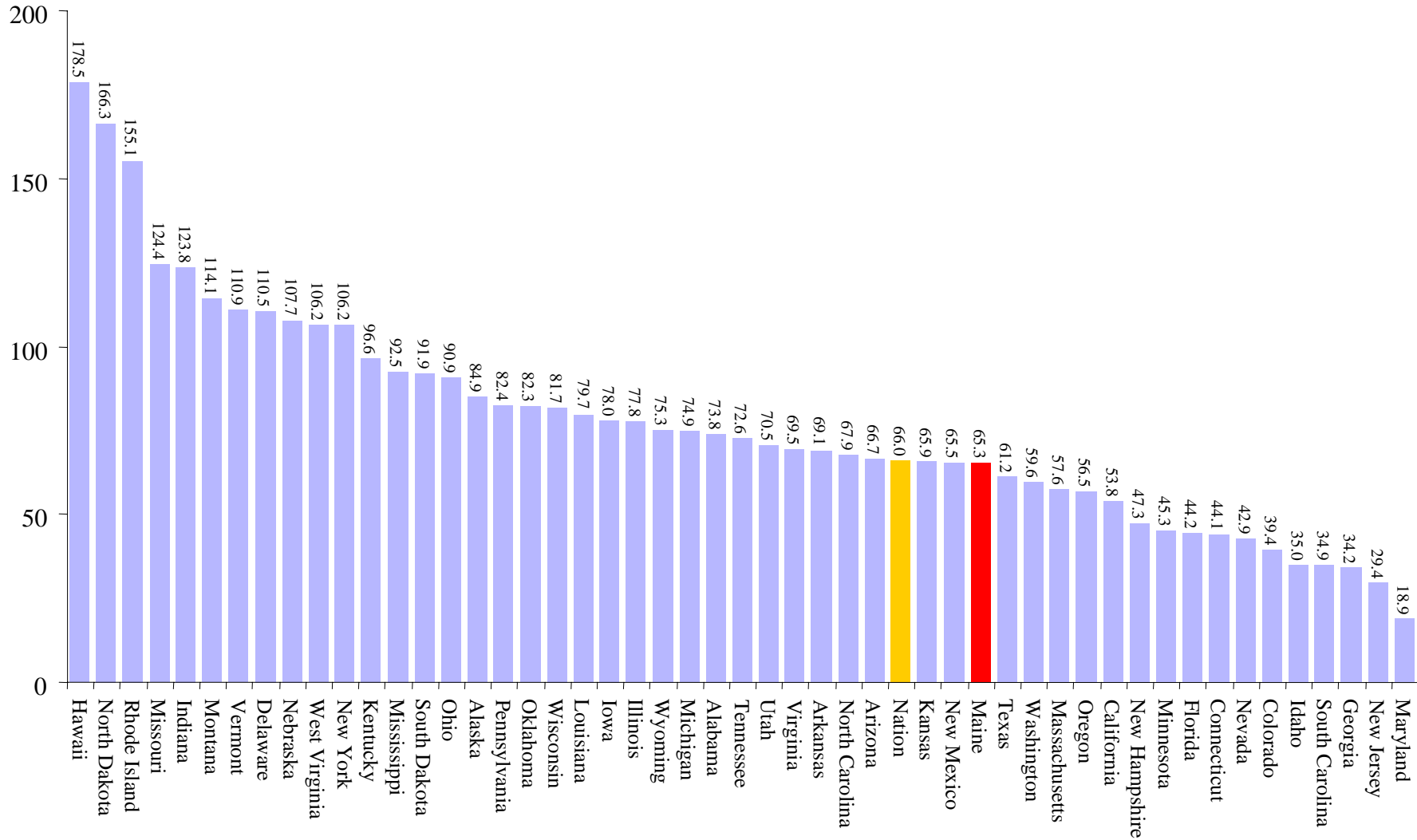


Bachelor's Degrees Awarded in Engineering Per 1,000 Engineering Occupations

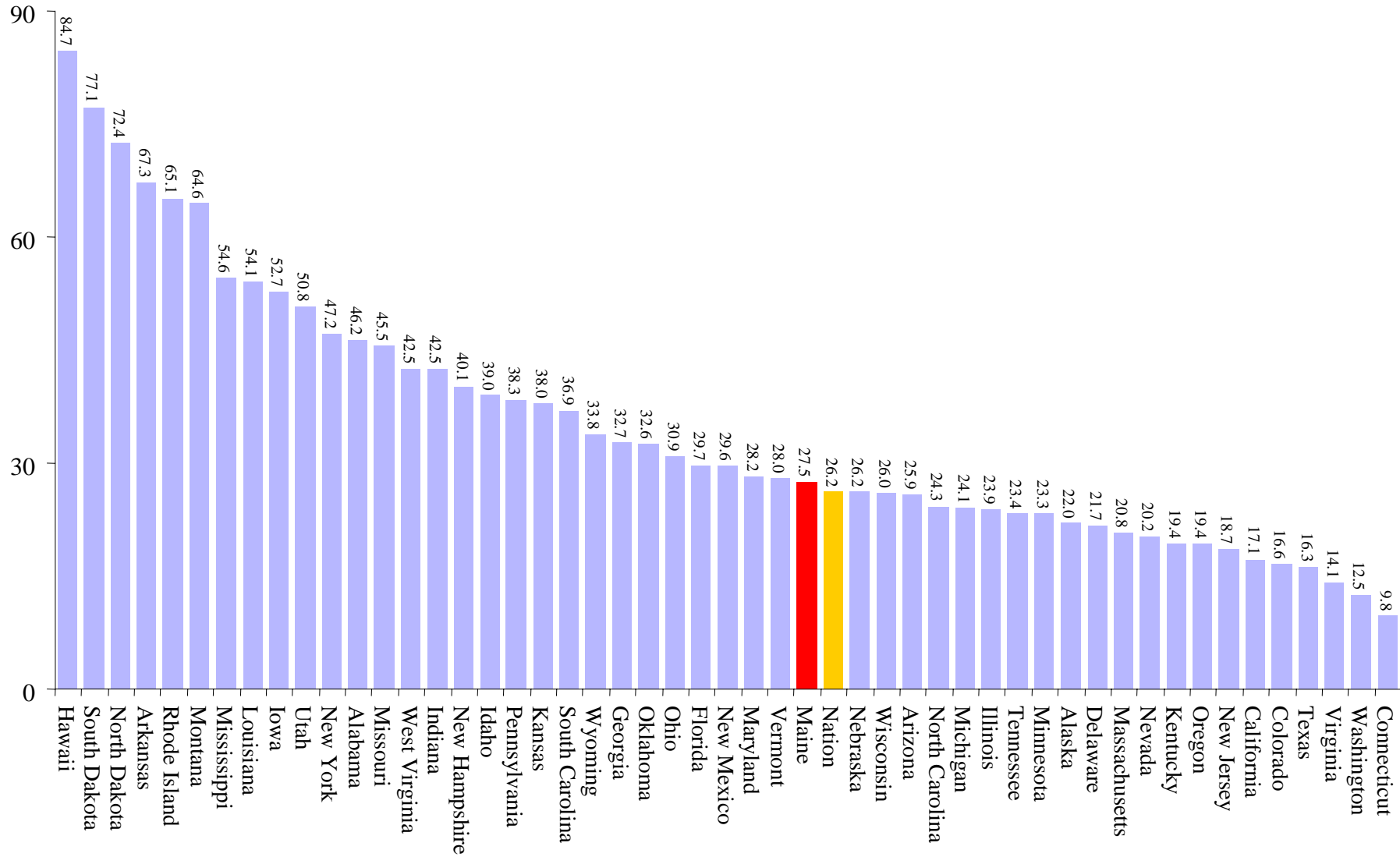


Source: US Census Bureau, Public Use Microdata Samples, 2000

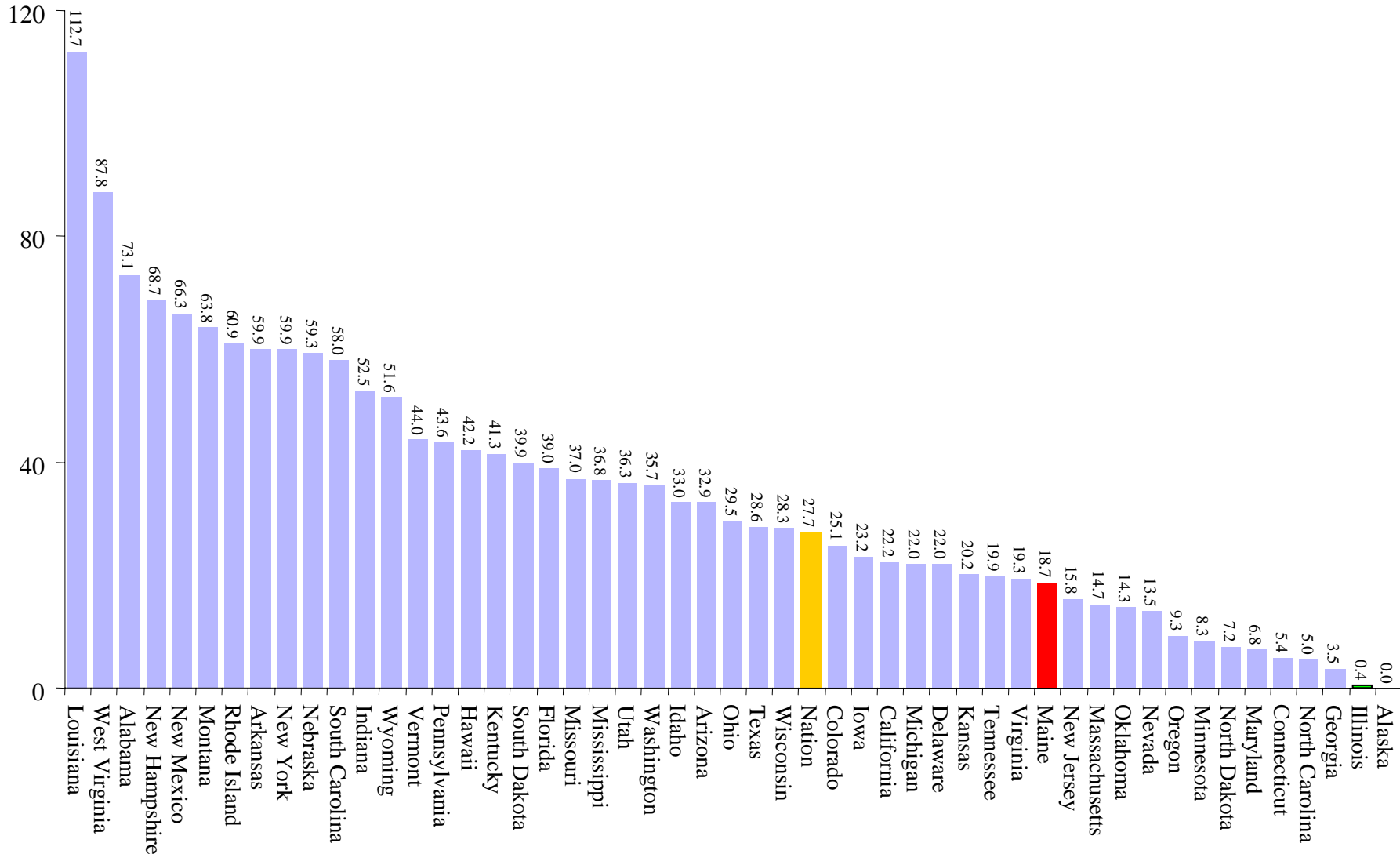
Degrees Awarded in Engineering Tech Per 1,000 Engineering Tech Occupations



Bachelor's Degrees Awarded in Computer Science Per 1,000 Computer Science Occupations (Usually Requiring a Bachelor's Degree)

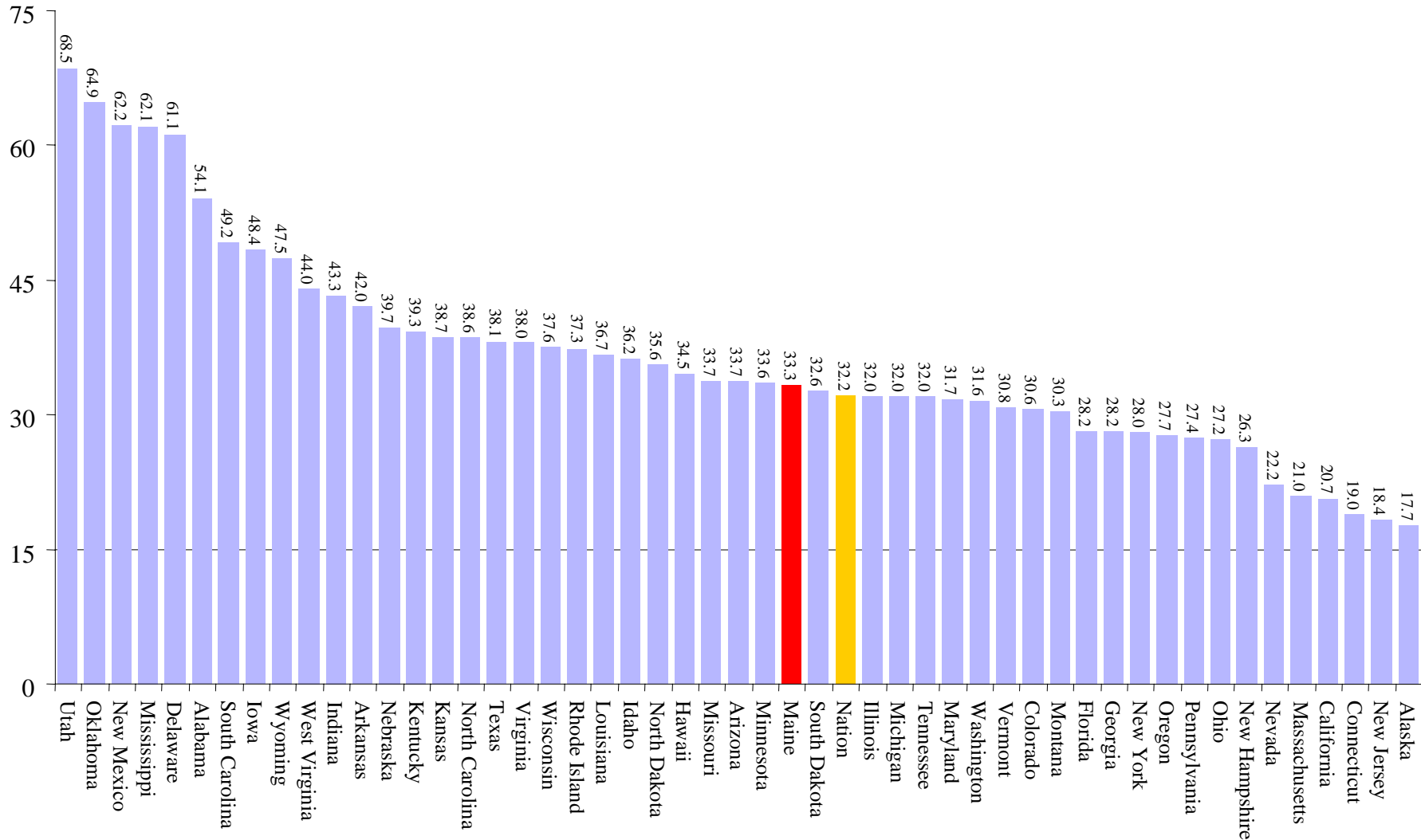


Associate Degrees Awarded in Computer Science Per 1,000 Computer Science Occupations (Usually Requiring an Associate Degree)

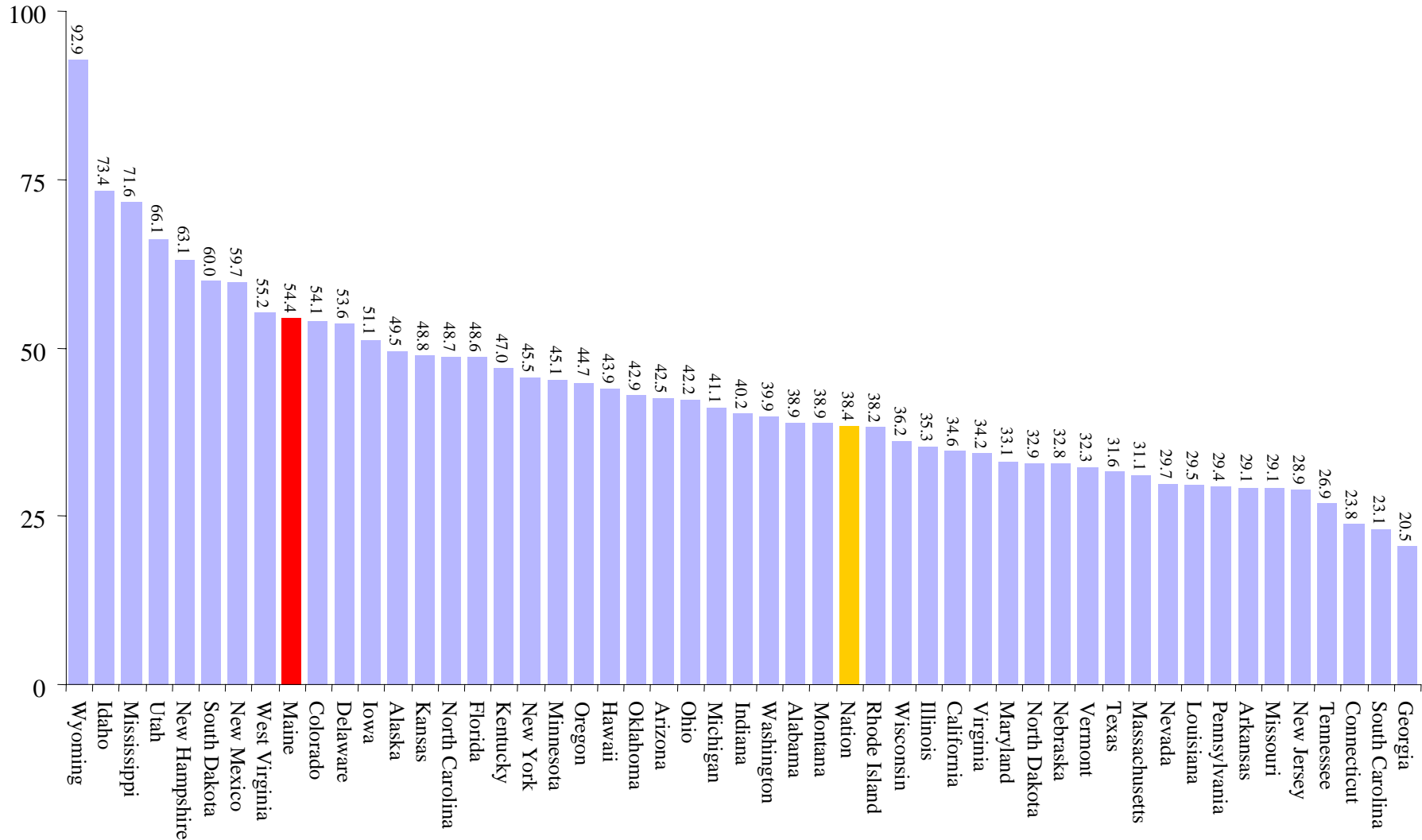


Source: US Census Bureau, Public Use Microdata Samples, 2000

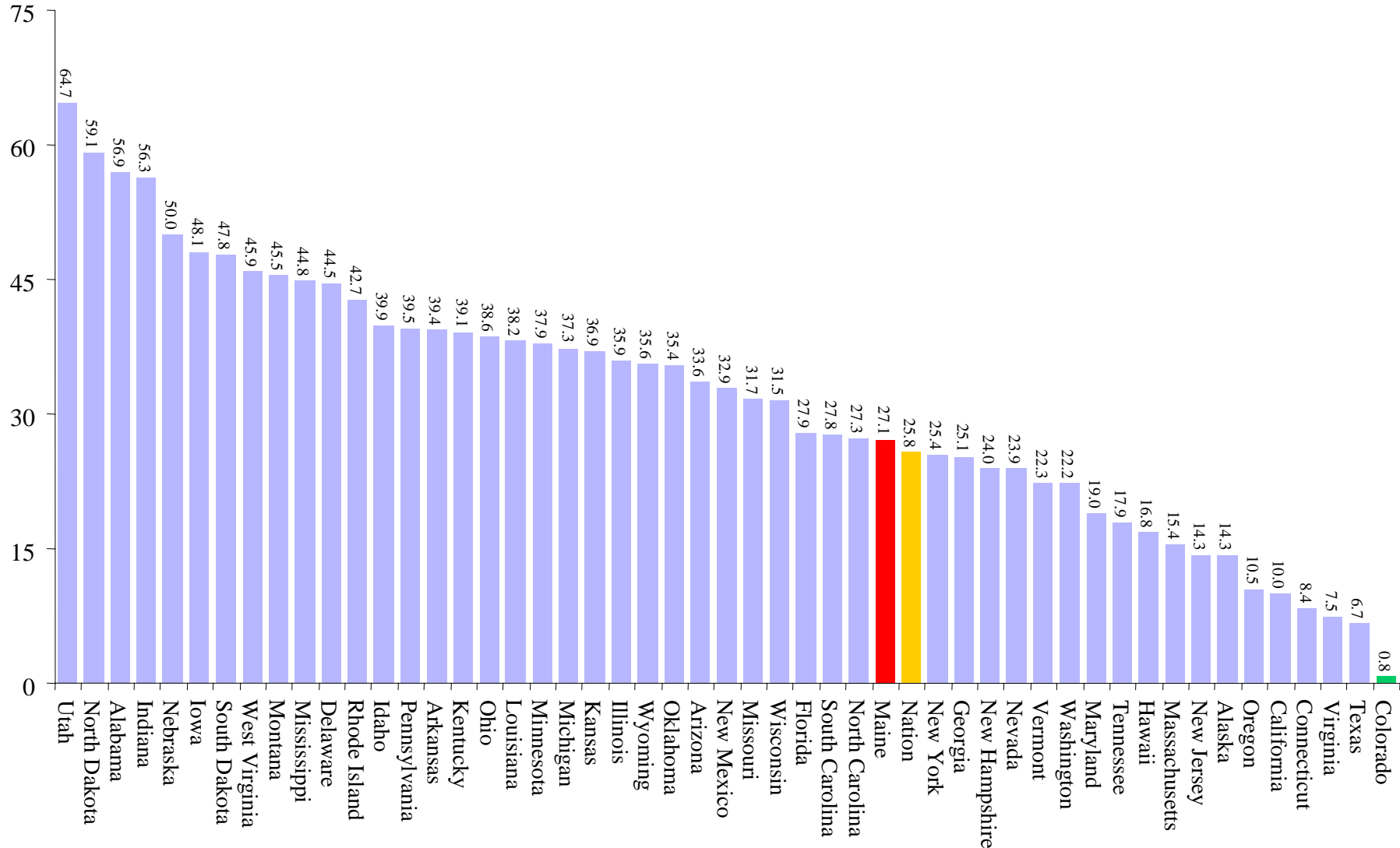
Degrees Awarded in Registered Nursing Per 1,000 Registered Nursing Occupations



Degrees Awarded in Health Tech Per 1,000 Health Tech Occupations



Bachelor's Degrees Awarded in Elem. And Secondary Education Per 1,000 Teaching Occupations



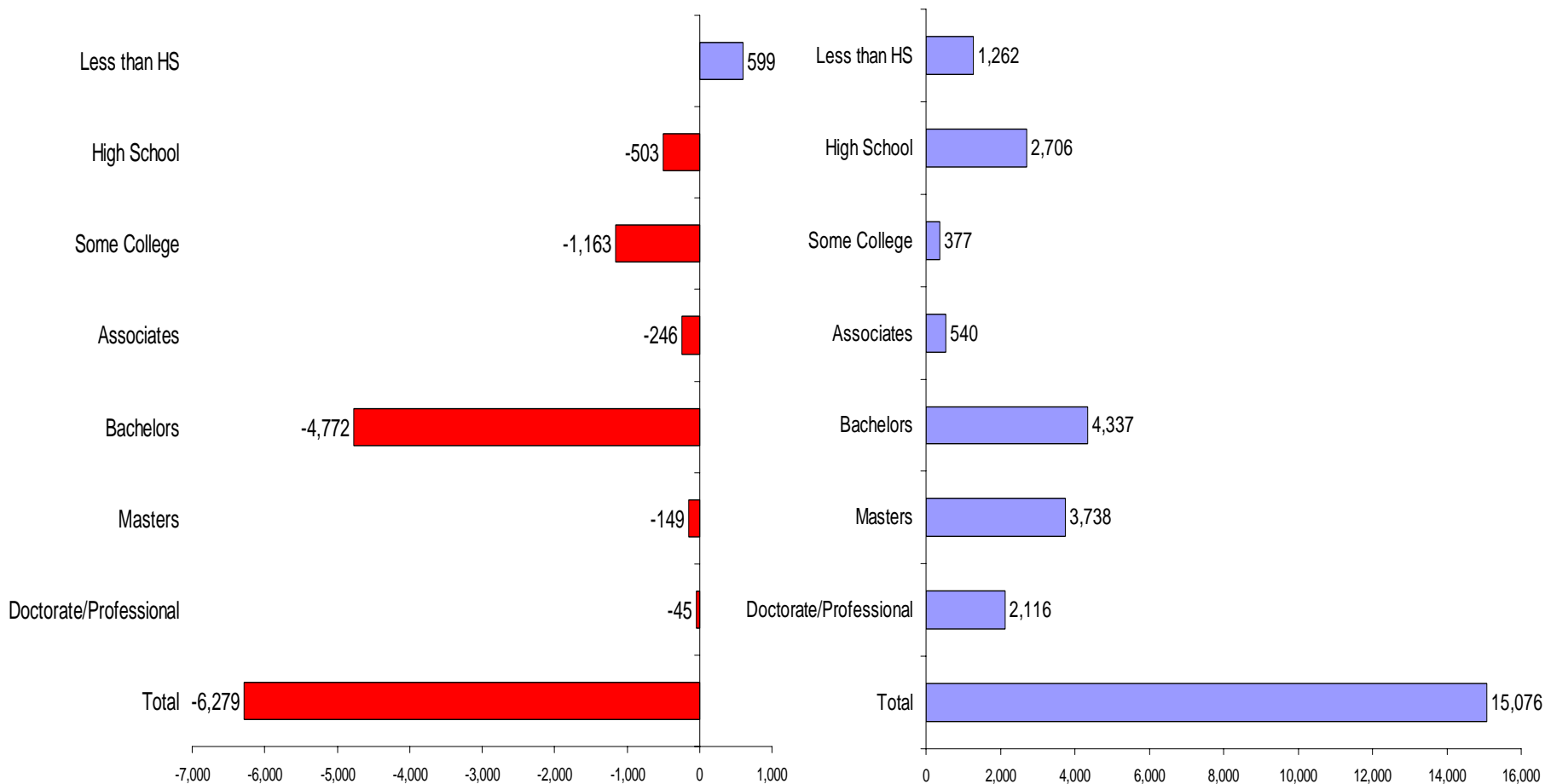
Source: US Census Bureau, Public Use Microdata Samples, 2000

Net Gain/Loss of Maine Residents

Maine Net In-Migration by Degree Level and Age Group, 1995-2000

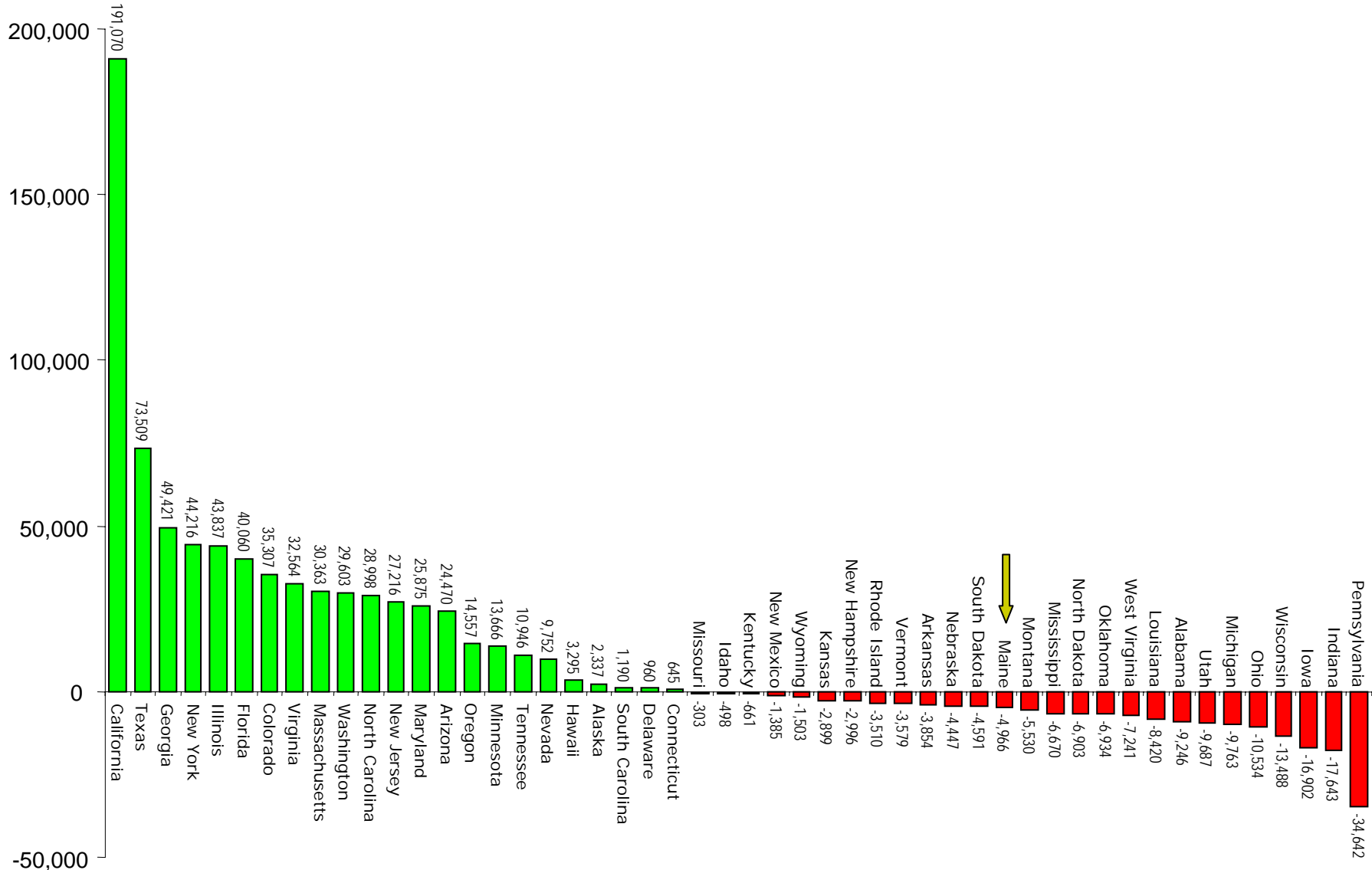
22- to 29-Year-Olds

30- to 64-Year-Olds



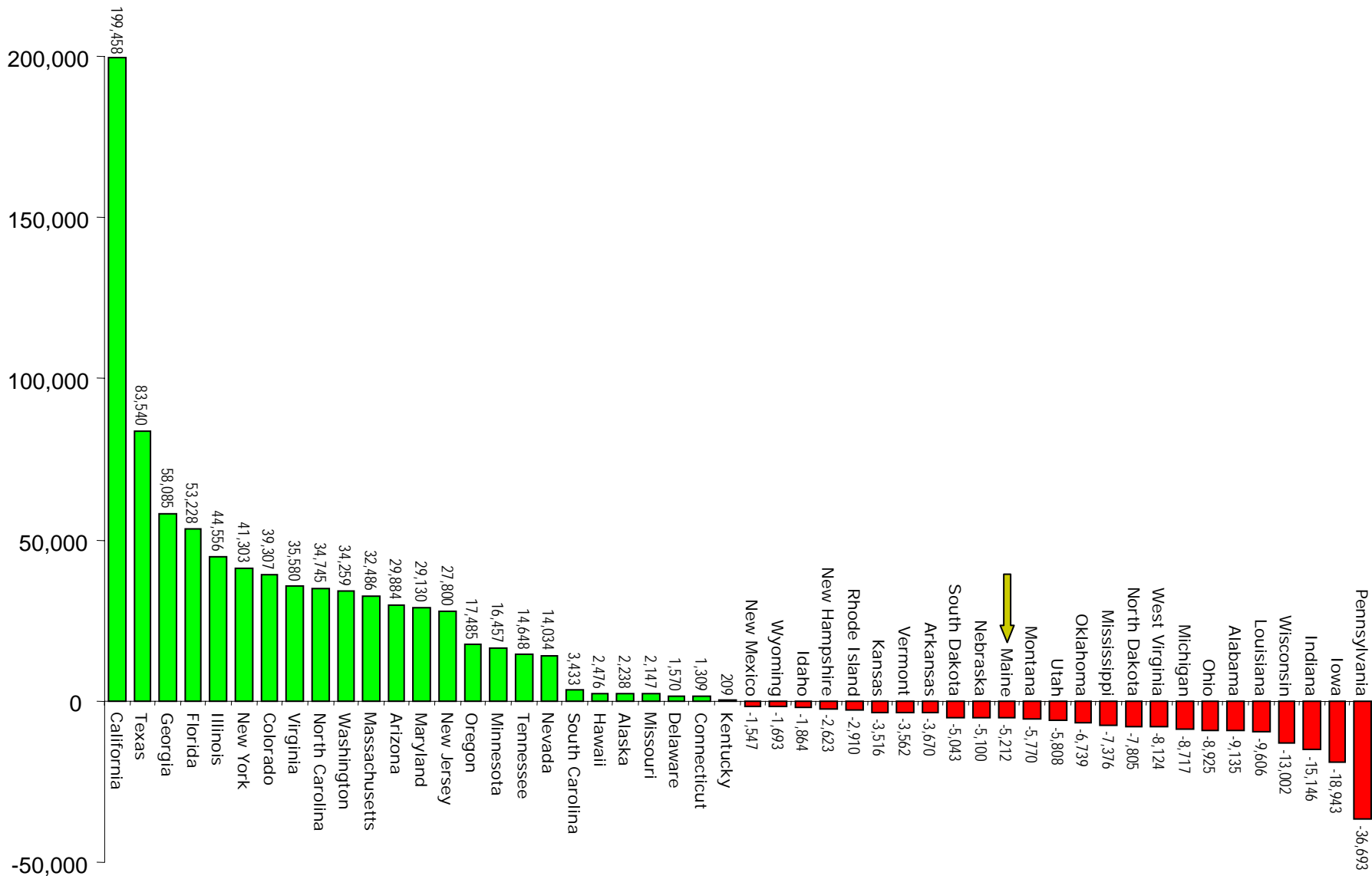
Source: U.S. Census, Public Use Microdata Samples, 2000

Net Migration of Residents 22-29 with Bachelor's Degree or Higher, 1995-2000



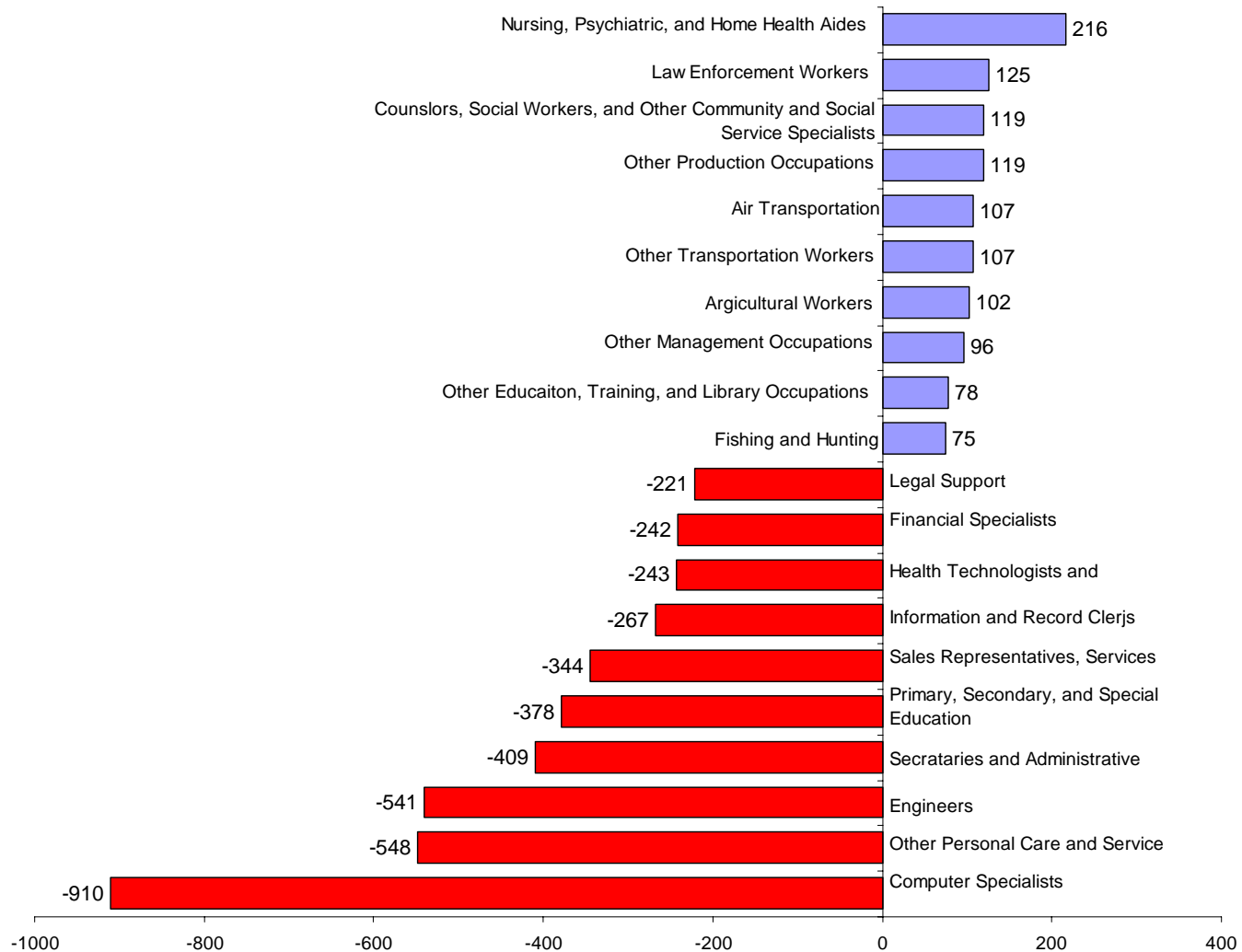
Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

Net Migration of Residents 22-29 with College Degree (Associate or Higher), 1995-2000



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

Occupations with High Net Imports and Exports— All 22- to 29-Year-Olds (1995 to 2000)



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

Occupations with High Net Imports and Exports— All 30- to 64-Year-Olds (1995 to 2000)



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

States to Which Maine Loses Most of Its College-Educated Residents (Net Loss from 1995 to 2000)

22- to 29- Years Old

	<u>Exported:</u>	<u>Imported:</u>	<u>Net Migration:</u>
Massachusetts	3,233	1,211	-2,022
California	992	187	-805
New Jersey	478	31	-447
North Carolina	463	108	-355
Virginia	550	241	-309
Florida	513	252	-261
Rhode Island	402	178	-224
Connecticut	541	332	-209
New Hampshire	1,376	1,175	-201
District of Columbia	200	0	-200
New York	828	637	-191
Maryland	332	153	-179
Wisconsin	161	0	-161
Michigan	258	109	-149
South Carolina	198	70	-128

30- to 64- Years Old

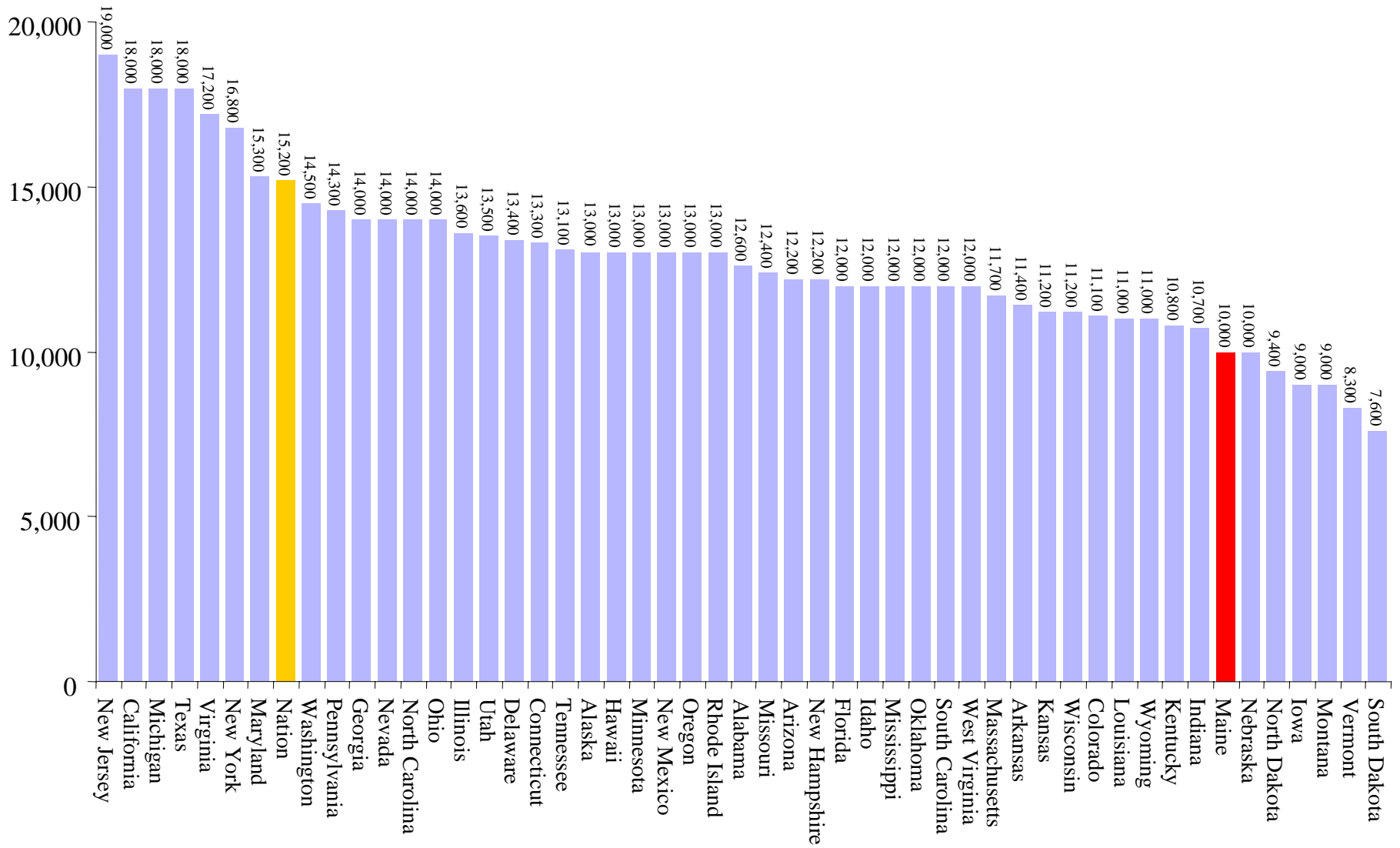
	<u>Exported:</u>	<u>Imported:</u>	<u>Net Migration</u>
Florida	1,901	1,234	-667
Ohio	559	435	-124
Louisiana	193	73	-120
Arizona	474	356	-118
Kentucky	118	0	-118
North Carolina	620	508	-112
Minnesota	260	153	-107
Nevada	115	21	-94
South Carolina	253	162	-91
Nebraska	142	61	-81
Mississippi	67	0	-67
District of Columbia	83	22	-61
Hawaii	93	55	-38
Indiana	209	178	-31
Oklahoma	39	8	-31

States from Which Maine Gains College-Educated Residents (Net Gain from 1995 to 2000)

	<u>22- to 29- Years Old</u>				<u>30- to 64- Years Old</u>		
	<u>Exported:</u>	<u>Imported:</u>	<u>Net Migration:</u>		<u>Exported:</u>	<u>Imported:</u>	<u>Net Migration:</u>
Vermont	225	473	248	Massachusetts	2,520	5,274	2,754
Ohio	199	313	114	New York	1,080	2,306	1,226
Indiana	5	112	107	Connecticut	624	1,561	937
Alabama	19	95	76	Colorado	27	626	599
West Virginia	0	61	61	Virginia	1,006	1,597	591
Georgia	100	159	59	Illinois	209	673	464
New Mexico	0	58	58	Maryland	252	665	413
Delaware	69	117	48	Michigan	277	677	400
Iowa	0	46	46	Pennsylvania	669	1,028	359
Hawaii	77	111	34	New Jersey	435	788	353
Wyoming	0	34	34	Wisconsin	227	496	269
Illinois	204	222	18	California	1,178	1,406	228
Alaska	37	52	15	New Mexico	82	282	200
Utah	68	74	6	Wyoming	46	197	151
Idaho	54	57	3	Montana	50	193	143

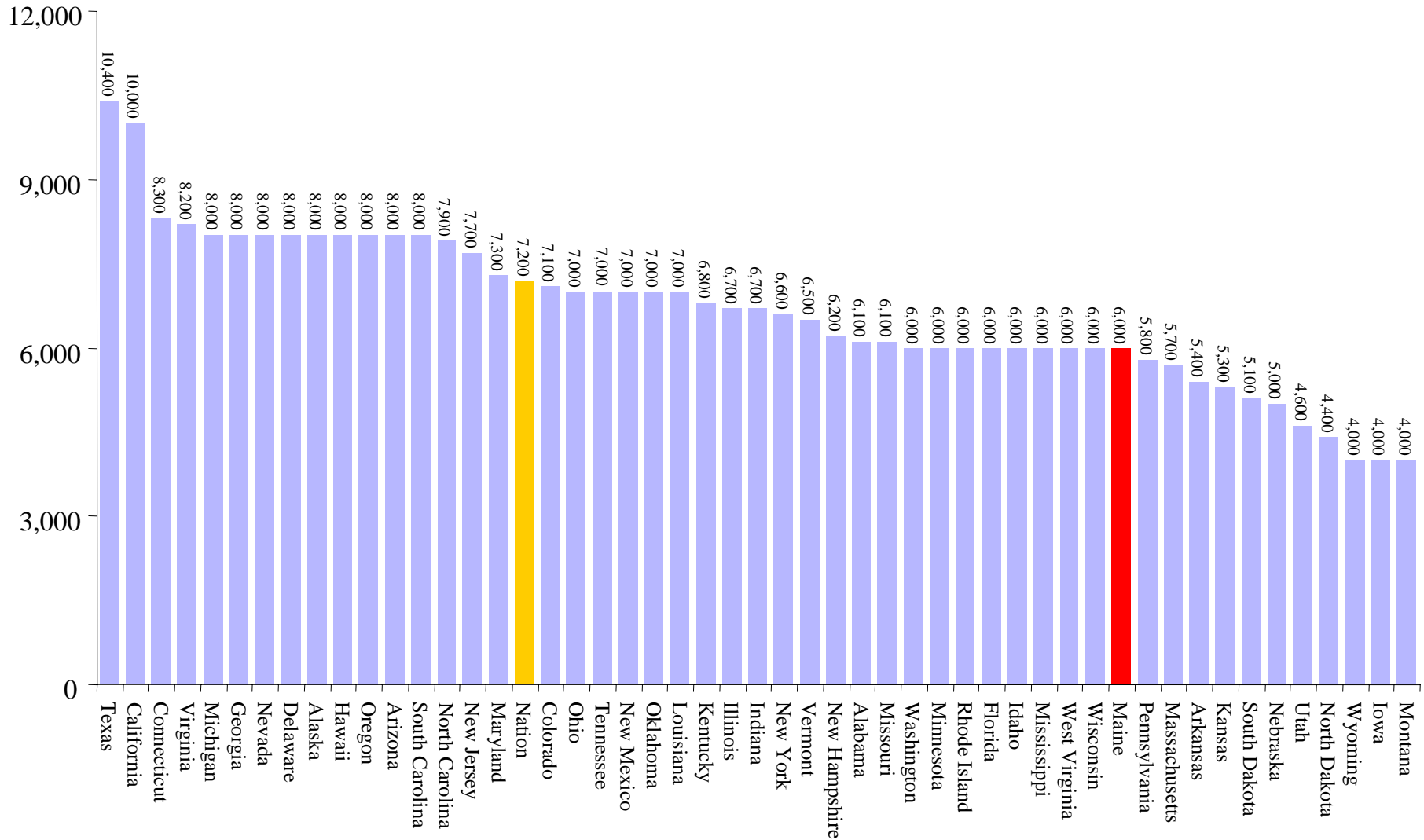
Developing State Economies

Difference in Median Earnings Between a High School Diploma and a Bachelor's Degree (2000)

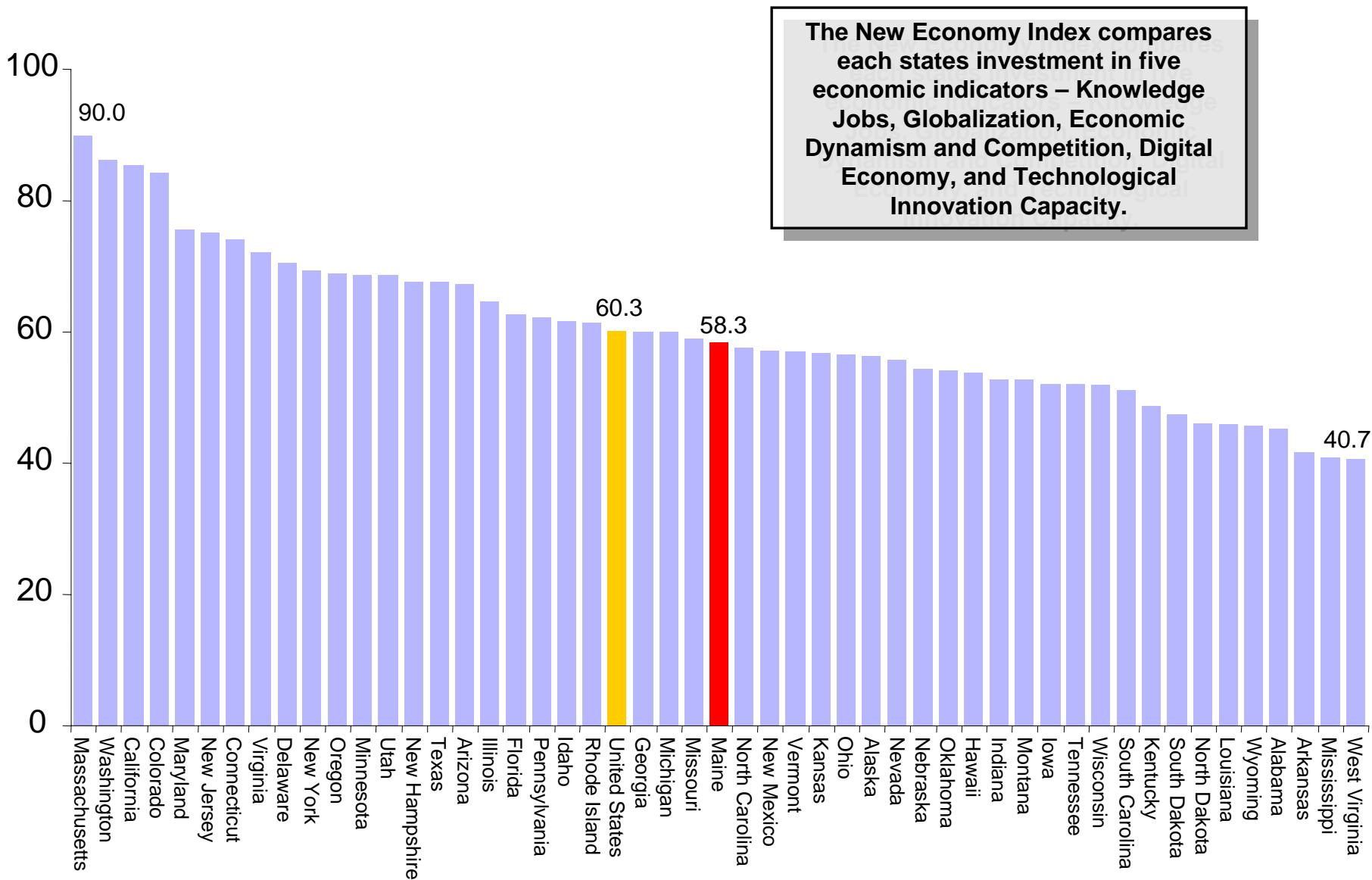


Source: US Census Bureau, Public Use Microdata Samples, 2000

Difference in Median Earnings Between a High School Diploma and an Associates Degree (2000)



Progressive Policy Institute—“State New Economy Index” (2002)



Development Report Card for the States, 2003

Strengths (Top 10 Rank)

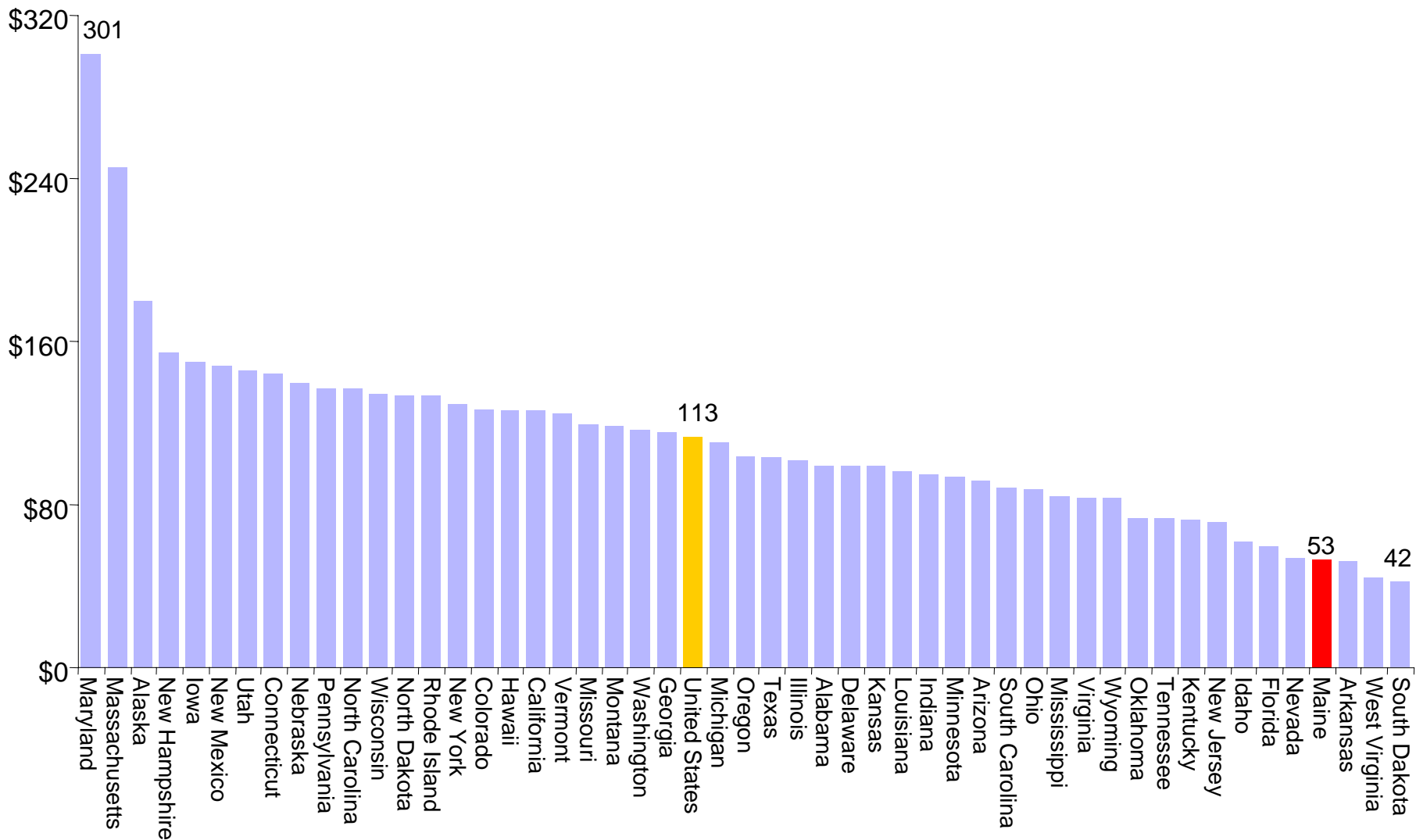
<u>Rank</u>	<u>Measure</u>
1	High School Completion
2	Infant Mortality
2	Voting Rate
3	Renewable Energy
4	Teen Pregnancy
4	Uninsured Low Income Children
5	Net Migration
5	Crime Rate
6	Recycling Rate
6	Manufacturing Investment
7	Basic Educational Skills Proficiency—Reading
8	Change in Average Annual Pay
10	Federal R&D
10	Households with Computers
10	University Spin-Outs

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

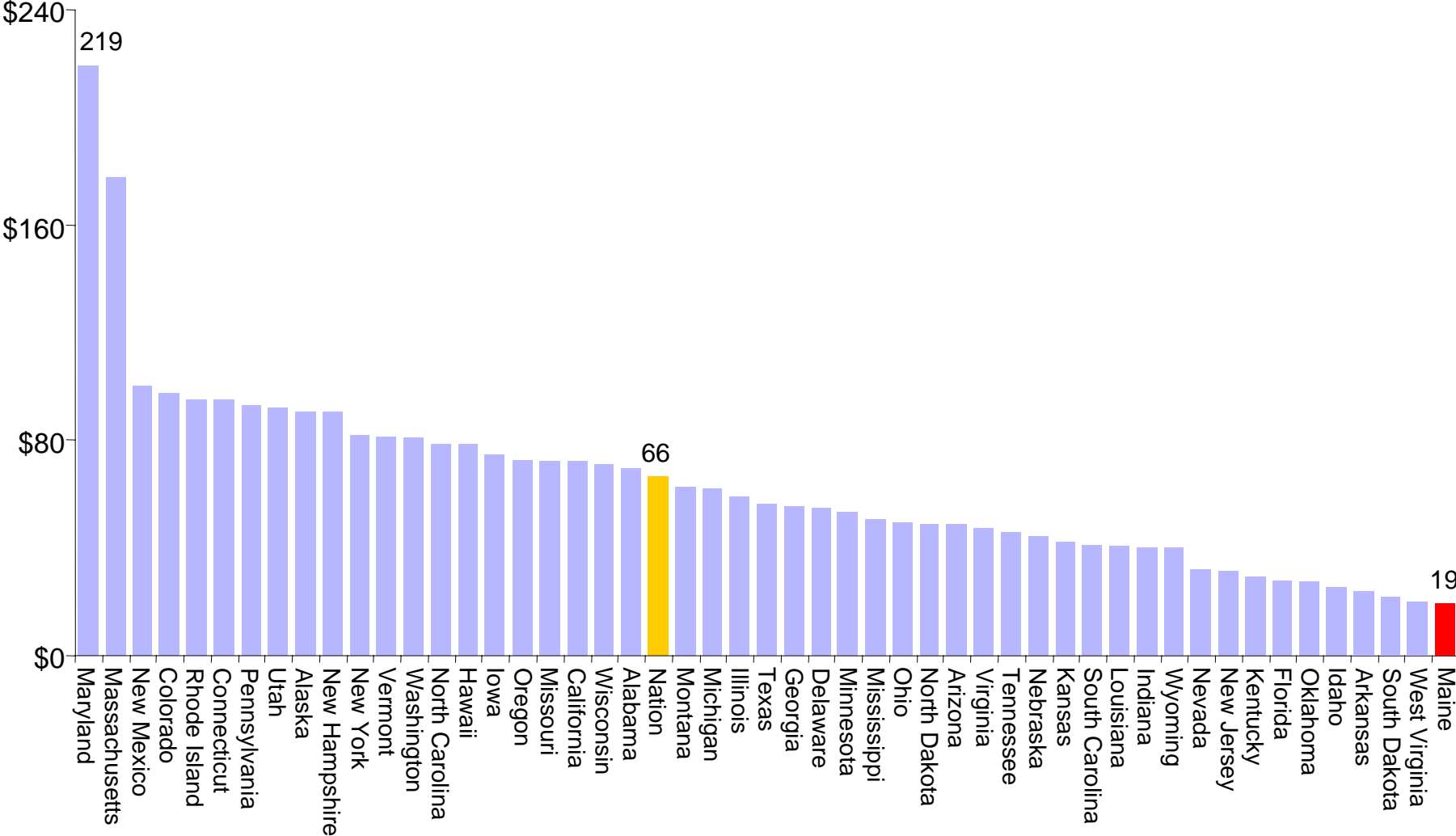
Weaknesses (Bottom 10 Rank)

<u>Rank</u>	<u>Measure</u>
41	Bridge Deficiency
41	Sewage Treatment Needs
41	Per Capita Energy Consumption
44	Highway Deficiency
44	Charitable Giving
44	SBIC Financing
44	Private Lending to Small Businesses
44	Employment Growth: Long Term
44	Urban Mass Transit
45	Strength of Traded Sector
46	Income Distribution Change
47	Average Teacher Salary
47	University R&D
48	Royalties and Licenses
50	Science and Engineering Grad Students

Total Research and Development Expenditures Per Capita, 2001

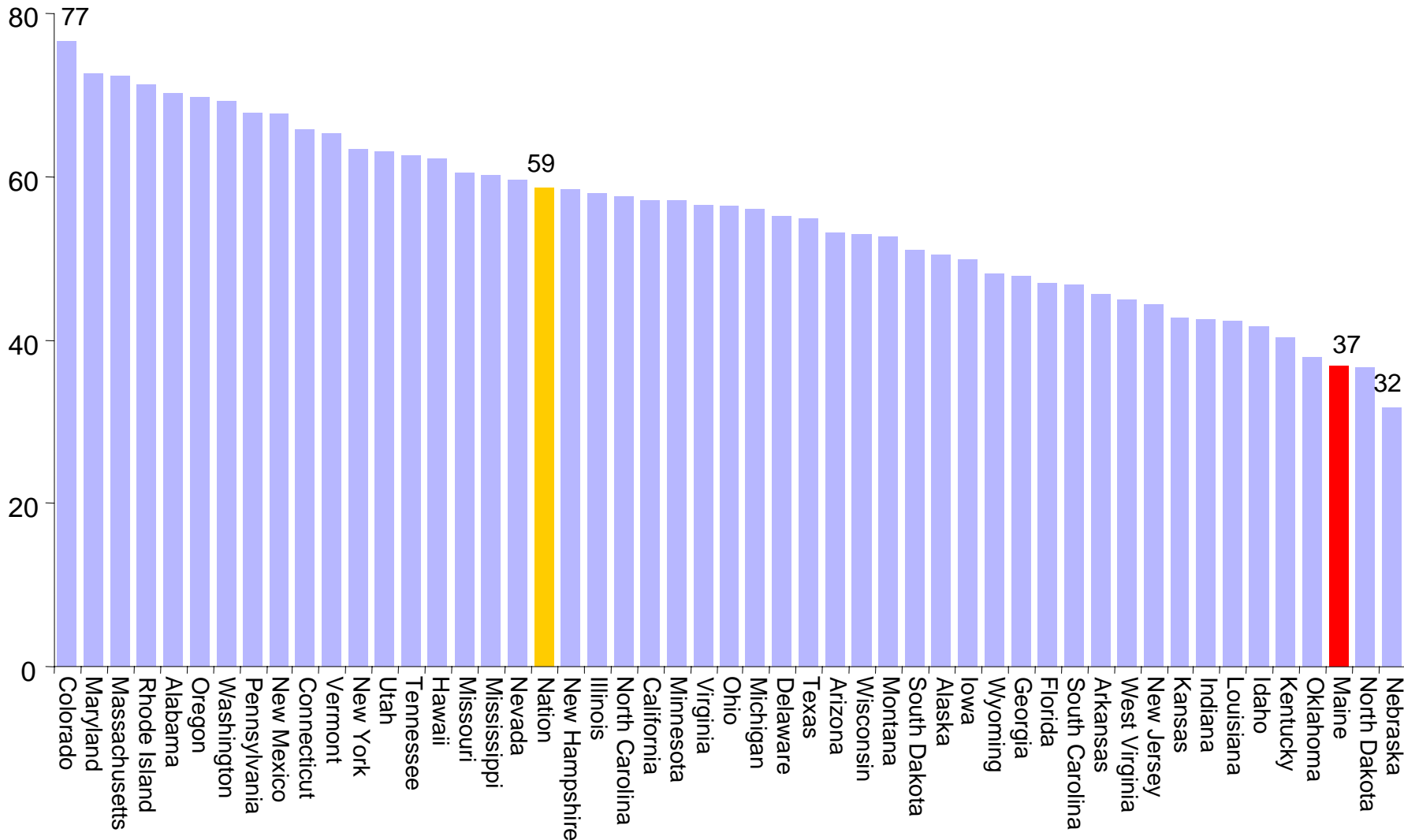


Federal Research and Development Expenditures Per Capita, 2001

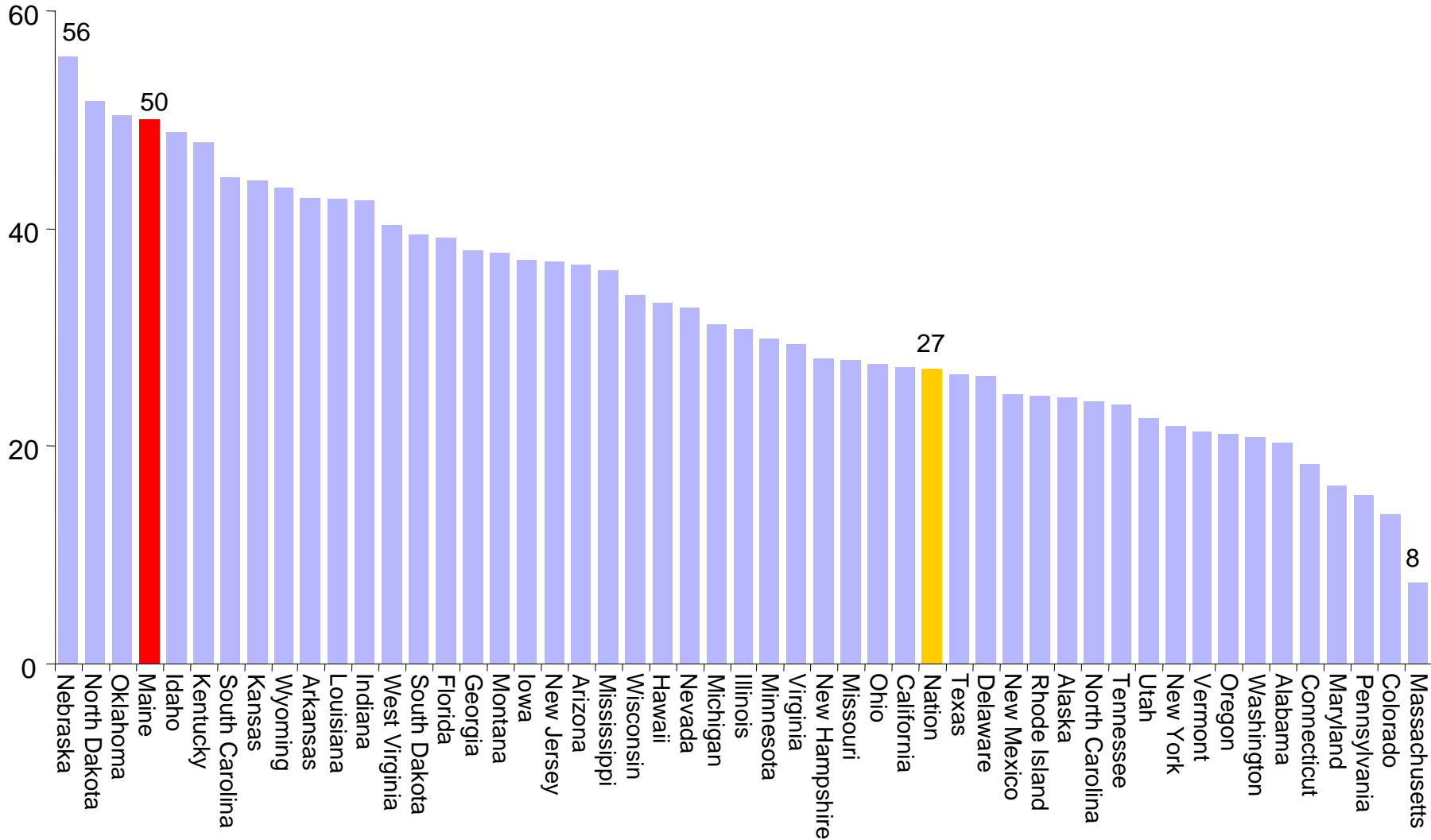


Source: National Science Foundation, U.S. Census Bureau

Federal R&D Expenditures as a Percent of Total R&D, 2001

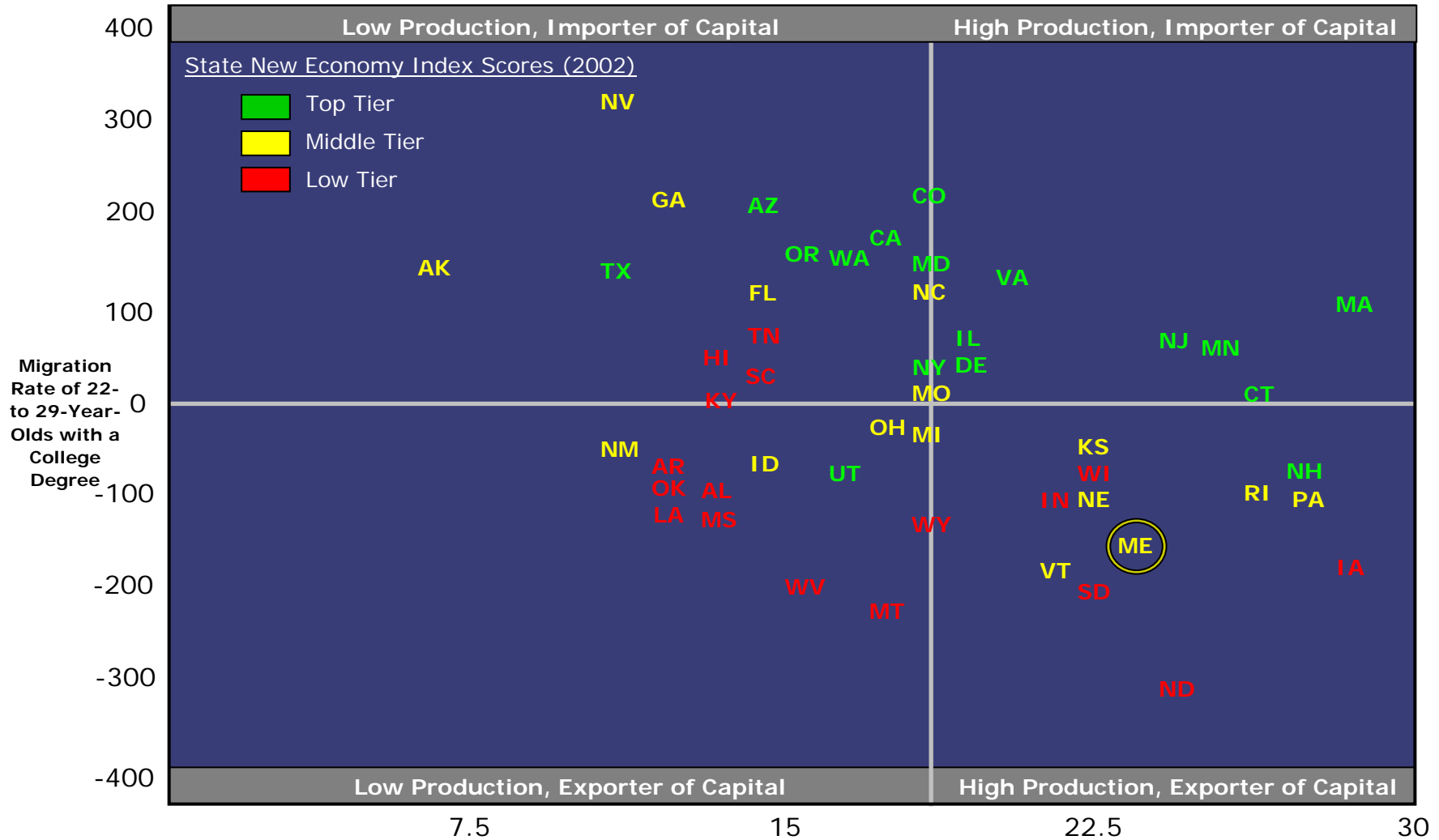


State and Local R&D Expenditures as a Percent of Total R&D, 2001



Source: National Science Foundation

State's Ability to Produce Graduates vs. Ability to Keep and Attract Graduates



Student Pipeline (Of 100 9th Graders—the Number Graduating from High School on time, Going Directly to College, Returning Their Second Year, and Completing College within 150 Percent of Degree Time)