



The Dynamics of Technology-based Economic Development

**State
Science and Technology
Indicators**

Second Edition

October 2001



Table of Contents

Introduction

1.1 Background	Page 1-1
1.2 Methodology	Page 1-2
1.3 Major Metric Groups	Page 1-7

Metric Descriptions

2.1 Contents	Page 2-1
Total Performed R&D Expenditures	2-2
Industry-performed R&D Expenditures	2-4
Federally Performed R&D Expenditures	2-6
University-performed R&D Expenditures	2-8
Federal R&D Obligations	2-10
SBIR Awards	2-12
SBIR Award Dollars	2-14
STTR Awards	2-16
STTR Award Dollars	2-18
Science Test Scores	2-20
High School Completion	2-22
Associate's Degrees Granted	2-24
Bachelor's Degrees Granted	2-26
Percent of Bachelor's Degrees in S&E	2-28
S&E Graduate Students	2-30
Recent S&E Bachelor's in the Work Force	2-32
Recent S&E Master's in the Work Force	2-34
Recent S&E PhD's in the Work Force	2-36
Venture Capital	2-38
SBIC Funds	2-40
IPO Funds	2-42
Business Incubators	2-44
High-technology Establishments	2-46
High-technology Employment	2-48
High-technology Payroll	2-50
High-technology Establishment Births	2-52

Net High-technology Business Formations	2-54
U.S. Patents	2-56
Technology Fast 500 Companies	2-58
Inc. 500 Companies	2-60
Average Annual Pay per Worker	2-62
Population Above Poverty	2-64
Per Capita Income	2-66
Labor Force Participation	2-68
Work Force Employment	2-70
Households with Computers	2-72
Households with Internet Access	2-74

State Profiles

3.1 Contents	Page 3-1
Alabama	3-2
Alaska	3-3
Arizona	3-4
Arkansas	3-5
California	3-6
Colorado	3-7
Connecticut	3-8
Delaware	3-9
Florida	3-10
Georgia	3-11
Hawaii	3-12
Idaho	3-13
Illinois	3-14
Indiana	3-15
Iowa	3-16
Kansas	3-17
Kentucky	3-18
Louisiana	3-19
Maine	3-20
Maryland	3-21
Massachusetts	3-22

Michigan	3-23
Minnesota	3-24
Mississippi	3-25
Missouri	3-26
Montana	3-27
Nebraska	3-28
Nevada	3-29
New Hampshire	3-30
New Jersey	3-31
New Mexico	3-32
New York	3-33
North Carolina	3-34
North Dakota	3-35
Ohio	3-36
Oklahoma	3-37
Oregon	3-38
Pennsylvania	3-39
Rhode Island	3-40
South Carolina	3-41
South Dakota	3-42
Tennessee	3-43
Texas	3-44
Utah	3-45
Vermont	3-46
Virginia	3-47
Washington	3-48
West Virginia	3-49
Wisconsin	3-50
Wyoming	3-51
District of Columbia	3-52
Puerto Rico	3-53

Appendix

List of Data Sources	A-1
----------------------	-----

Foreword

Over the past century, technology has assumed an ever-increasing importance in our society. Information technologies have driven economic growth, reduced inflation, and fueled productivity gains powering our economy. Biotechnologies have helped farmers grow more crops using fewer chemicals and helped citizens live longer, happier and healthier lives. Materials technologies have made products safer, improved vehicle fuel efficiency, and enhanced countless aspects of our lives.

One reason why so many observers have identified the 20th Century as “The American Century” is because the United States has led the world in cutting-edge scientific discoveries and research breakthroughs. From the Wright Brothers’ first airplane flight to putting a man on the moon, from developing vaccines for polio and other infectious diseases to creating the Internet, pioneering American scientists and inventors have led the way.

Looking forward, technology is poised to assume an even greater role in shaping our economy and our society. If innovation and new technologies profoundly shaped the 20th Century, they will define the 21st Century. And, if America hopes to continue as the world’s technological leader, we will need to redouble our efforts to support and extend our technological excellence—and not just at the federal level.

State business and government leaders can profoundly influence the success of America’s high tech base. State and regional public policies directly impact the pace of economic growth, high-wage job creation, and global investment—both locally and nationally. Decisions made at the local level play a critical role in establishing the environment needed to let innovators innovate and entrepreneurs create jobs, companies, and wealth.

Recognizing that development of high tech economies requires certain enabling conditions and infrastructure—such as a strong R&D base, ready access to capital, world-class technical talent, and mature entrepreneurial networks—state leaders around the country are paying careful attention to high-tech clusters that have already emerged, looking to high tech centers of excellence such as Silicon Valley, Seattle, Austin, and Pittsburgh for the “winning formula” to bring back to their own areas.

In response to state and regional requests for assistance in identifying and better understanding the factors most likely to support technology-led economic development, the Office of Technology Policy developed *The Dynamics of Technology Based Economic Development: State Science and Technology Indicators* and this second edition. We hope the metrics and data in this tool will help policy makers and regional leaders better understand the factors influencing economic outcomes at the state and local level, and we look forward to partnering with leaders around the nation on this critical issue.

Bruce P. Mehlman
Assistant Secretary for Technology Policy

Preface

The Technology Administration's Office of Technology Policy (OTP) is responsible for developing and promoting policies that will improve the nation's technological competitiveness by strengthening the capacities for technological innovation and for the adoption of new technologies. Increasingly, state and regional economies are recognized as critical contributors to this capacity building and as beneficiaries of related economic growth.

OTP, which has administered the Experimental Program to Stimulate Competitive Technology (EPSCoT), has undertaken a number of data development and dissemination efforts to enhance the understanding of factors that influence regional innovation and competitiveness. Those factors include human resource development, research and development funding, capital investment, and business assistance.

The following report represents the second edition of OTP's reference guide, *The Dynamics of Technology Based Economic Development: State Science and Technology Indicators*, that was published in June 2000. Like the first edition, the primary purpose of this report is to assemble a consistent set of state-level data that approximates the "technology infrastructure" of the states, or, at the very least, compiles information about those factors that clearly affect states' capacity to generate new enterprises and high quality jobs, and sustain economic growth.

OTP undertook the effort to produce a second edition of the state indicators after verifying that the state technology and economic development communities viewed the guide as a useful reference tool for analysts, policy makers, and practitioners. This new publication incorporates many of the suggestions and recommendations that were received following release of the first edition, and includes refinements in both the selection and display of the data. For example, the report uses a more concise definition of high technology industries.

This report retains the format of the first edition, and is organized into two parts. The first half provides data on a metric-by-metric basis for all states, while the second provides state profiles. The data are again normalized to a common reference point, such as population, number of establishments, or size of the state economy.

Like the previous edition, it is not the intent of this publication to provide a "report card" that rates individual states. The relevancy of these data and metrics vary between states, and there are likely other factors that have an impact on regional innovation and technological competitiveness.

For this reason, the report does not attempt to interpret the implications of the data sets for each state. The appropriate state-level interpretation and application of the data in this report remain the responsibility of those who are most familiar with the special circumstances affecting their states. In pursuit of their respective goals, states will identify different targets for any given metric and may attempt to reach their goals by different routes.

OTP hopes this publication continues to serve as a useful reference guide for those in the public and private sectors who are concerned with the dynamics of technology-based economic development. We welcome your comments to help us assess the value and quality of our reports, and to assist us in improving future products. If you wish to share your comments, please visit our website at <http://www.ta.doc.gov/> or e-mail us at otptech@ta.doc.gov.

Acknowledgments

The contributions of the many individuals who helped to shape this project deserve to be recognized and acknowledged.

First, this project would not have been possible without the support and guidance of Mr. Jon Paugh, Director of Technology Competitiveness, Office of Technology Policy, Technology Administration. From the beginning, Jon understood and appreciated the need for a set of tools to assist those involved in technology-based economic development at the state level. He constantly challenged us to provide the highest quality information in an easy-to-use format and to be flexible in terms of presenting the data more effectively.

The day-to-day operational issues associated with this project were managed by the Project Technical Officers, Ms. Anita Balachandra and Mr. Douglas Devereaux. Anita provided the initial guidance and vision for this work. After her departure from the Office of Technology Policy, Doug assumed project management responsibilities, coordinated the Steering Committee activities, and resolved issues associated with data acquisition. Doug has been designated as the contact point for any questions related to this report.

Mr. Douglas E. Devereaux
Acting Director, EPSCoT
Office of Technology Policy
Technology Administration
U.S. Department of Commerce
1401 Constitution Ave. NW
Room H-4418
Washington, DC 20230
(202) 482-3367 Phone
(202) 219-8667 Facsimile
douglas.devereaux@ta.doc.gov

The production of this report was facilitated by members of the Steering Committee who made many valuable contributions throughout the entire course of this project. Their suggestions, comments, and contacts greatly improved the quality and presentation of the final product. The individuals who participated in this capacity were:

Mr. Laurence S. Campbell
Senior Regulatory Policy Economist
Office of Policy Analysis
Economics and Statistics Administration

Mr. John E. Jankowski
Director, R&D Statistics Program
Division of Science Resources Statistics
National Science Foundation

Dr. Kelly Robinson
Economist
Research and National Technical Assistance Office
Economic Development Administration

Mr. Carl W. Shepherd
Technology Policy Analyst
Office of Technology Policy
Technology Administration

In addition to the contributions from the Steering Committee members, valuable suggestions were received from Dr. Lee Price, Deputy Under Secretary for Economic Affairs, Economics and Statistics Administration. Dr. Price reviewed many of the early drafts and helped to focus attention on the meaningful presentation of the data. We are grateful for his suggestions.

This report and its contents were developed by Taratec Corporation, 1251 Dublin Road, Columbus, OH 43215 under Contract Number 43NATK011994. Individual members of the contractor team who made significant contributions included: Dr. Paula Dunnigan, who served as the Project Manager; Mr. John Griffin, who provided strategic guidance and review; Mr. Greg Palovchik, who was responsible for data acquisition, computation, and presentation; and Ms. Jill Mullins, who designed and formatted the final report.



Introduction

1.1 Background

Science and technology (S&T) policies and programs have become an integral part of the economic development plans of most states. As businesses seek sustainable competitive advantages, S&T resources have proven to be powerful assets. All forms of economic development benefit from well-conceived and executed programs to strengthen and expand the S&T resources of a state. New business formation flows directly from research, development, and commercialization of new technologies. Business attraction of industrial clusters is advanced by creating unique competitive advantages rooted in the S&T institutions of a state. Business expansion will accelerate as companies adopt and adapt new technologies to improve the competitiveness of their products and processes. And finally, business retention is increased as companies are able to solve competitiveness problems through the application of technology and the expertise of their state's S&T community.

Perhaps more importantly, S&T can build sustainable competitive advantage, not artificial advantages associated with incentives and subsidies. Application of advanced technologies can provide a company with fundamental methods of improving its quality, its product and service functionality, and its cost competitiveness. S&T programs impact the very heart of a company—its products and production processes—not just adjust its bottom line through artificial cost savings.

S&T also build for the future. Investments made in strengthening the research base in a state will attract further research and development (R&D) investments by both the private and public sector. This growing research capability can result in new knowledge creation, intellectual property development, human resource development and retention, and expert advisors to assist companies and entrepreneurs. The importance of S&T has been recognized for several decades as a potent tool for public policy. Pennsylvania's Ben Franklin Program and Ohio's Thomas Edison Program are now approaching 20 years of operation and are still viewed as keystone programs in their respective states. Both of these programs helped bring their states out of the "rust belt" syndrome of the early 1970s. Most other states have followed suit with programs that support state economic development through creation of specialized centers of S&T excellence.

The successful impact on economic development and the sustainable power of S&T is evident in various places in the United States. In addition to the obvious locations such as Boston, Silicon Valley, Raleigh-Durham, and Austin we now find pockets of S&T-based economic development exploding in Minneapolis, Seattle, Boulder, and Salt Lake City. Interestingly, all these areas have strong concentrations of S&T resources including research universities and private sector research centers. Federal facilities, such as the National Institutes of Health in Bethesda, Maryland, have also served as catalysts for business growth. These communities demonstrate that S&T-based businesses exhibit the tendency to cluster in areas that have strong technology assets and infrastructure.

It is evident that not all states and communities have equally well-developed S&T infrastructures. There is wide disparity in research funding, facilities, and expertise among the states. The relationship between measures of economic prosperity and S&T capacity is intuitive. Such relationships have led to public policies to support economic development through S&T investments.

1.2 Methodology

1.2.1 Project Objectives

The goal of this project is to present a selection of indicators related to the technology-based economic development conditions in all 50 states. This publication represents the second edition resulting from this effort. It is built upon the feedback and suggestions that were received regarding the first edition that was published in June 2000.

The metrics in this benchmarking exercise were selected so as to be timely, credible, and capable of being updated through publicly available data sources. A number of metrics from the first edition have been dropped while new metrics have been added as additional data sources were identified. More specifically, the project objectives were:

- ◆ To select a series of metrics that describe the status of science and technology (S&T) assets in states
- ◆ To select a series of metrics that describe “high-technology” economic development outcomes
- ◆ To develop consistent data sets of publicly available data that quantify the metrics for each state
- ◆ To describe each metric, characterize its relevancy to S&T-based economic development, and report the data and rankings for all states
- ◆ To present the results for each state

This project is intended to present up-to-date information about the status of an individual state’s S&T infrastructure in an easy-to-use format. By providing each state with comparable data for other states, areas of weakness can be identified and appropriate responses formulated by individual states in a manner that seems most appropriate to them.

It is not the intent of this project to take a report card approach and to grade individual states by an arbitrary standard. Since states choose to pursue different economic development goals and attempt to reach those goals by different routes, it is not appropriate to apply weighting factors or devise a formula for calculating overall effectiveness. Certain data and metrics in this report may be more relevant to some states than to others. The state rankings for certain metrics may be impacted by special factors, unique to only a few states, that have nothing to do with S&T infrastructure. Appropriate interpretation and application of the data in this report must be the responsibility of the citizens, elected officials, and state employees who are familiar with the special circumstances affecting their states.

1.2.2 Project Organization

This project was carried out using a team approach. Members of the team included:

- ◆ The Project Manager, Mr. Douglas Devereaux, from Technology Administration
- ◆ A Steering Committee consisting of members from various sectors of the U.S. Department of Commerce and the National Science Foundation
- ◆ The contractor, Taratec Corporation, from Columbus, Ohio

1.2.3 Project Work Plan

The initial project task was to identify appropriate data and data sources that could be used to characterize the S&T infrastructure of individual states. Working collaboratively, the team generated lists of potential candidate measures for consideration. Each of the candidate measures was investigated by the contractor, who assessed the quality, consistency, and extent of coverage of the data. Based on these factors, the team selected a total of 37 measures—22 input measures and 15 output measures—for further refinement. There were some changes in the metrics used between the first and second editions of this publication.

The S&T-stimulating input measures fell into three main categories:

- ◆ Funding In-Flows
- ◆ Human Resources
- ◆ Capital Investment and Business Assistance

The outcome data categories were focused on:

- ◆ High-technology Intensity of the State's Business Base
- ◆ Other Outcome Measures (patents, fast-growing companies, earnings, and work force employment).

Each of the measures was converted to a metric by minimizing its scale sensitivity. The team recognized that scale differences in the data or measures between states could bias any ranking in favor of the larger states. For instance, the size of the civilian work force differs by more than 60-fold and the size of the total business establishment payroll by nearly 100-fold when the states are directly compared. To account for these differences in scale, the data from each of the measures was converted to a quotient that reflected the intensity of that measure on the state's business base or its impact on the state's economy. To the extent possible, scale sensitivity has been minimized in the final set of metrics and in the state rankings.

This attempt to reduce scale sensitivity meant that some compromises were necessary in selecting the year of the data used in the numerator and denominator. The most recent data available were always used in the numerator. Whenever possible, the year of data used in the denominator of each metric was selected to be as close as possible to the year of the data used in the numerator. In some cases, this meant using the middle year in the denominator when a 3-year average was used in the numerator. In other cases, it meant using the latest data available in the denominator, even though the year of that data was prior to the year of the data used in the numerator.

A second area of metric definition deserving special note involves the definition of high-technology industries. A search was conducted for a generally accepted, rigorous definition of "high technology" that was based on Standard Industrial Classification (SIC) codes. Several authors, including Amy Glasmeier, Christian Chabot, William Luker, and Donald Lyons proposed various approaches. In addition the team reviewed lists used by the Department of Commerce, the Bureau of Labor Statistics, and the Milken Institute. Other lists of SIC codes tended to be industry-specific. For instance, the Department of Commerce developed a list of high tech SIC codes pertaining to the information technology industry, and the list developed by the American Electronics Association focused on electronics, computers, and telecommunications.

The project team decided to use the list of high-technology SIC codes that was identified by the Bureau of Labor Statistics (BLS) in 1999¹ and is based on measures of industry employment in both R&D and technology-oriented occupations. BLS used Occupational Employment Statistics surveys from 1993, 1994, and 1995 in which employers were asked to explicitly designate workers who were actually engaged in R&D activity. The researchers identified 31 three-digit "R&D intensive" industries in which the number of R&D workers and technology-oriented occupations accounted for a proportion of employment that was at least twice the average for all industries surveyed. These industries had at least 6 R&D workers per thousand workers and 76 technology-oriented workers per thousand workers. The 31 three-digit SIC codes that comprise the high-technology industries consist of 27 manufacturing industries and 4 service industries. They are listed on Table 1.

¹Hecker, Daniel, "High-technology Employment: A Broader View," *Monthly Labor Review*, June 1999, p18

Table 1. BLS R&D Intensive High-Technology Industries

SIC Code	Industry
281	Industrial inorganic chemicals
282	Plastic materials and synthetics
283	Drugs
284	Soap, cleaners, and toilet goods
285	Paints and allied products
286	Industrial organic chemicals
287	Agricultural chemicals
289	Miscellaneous chemical products
291	Petroleum refining
348	Ordnance and accessories, n.e.c.
351	Engines and turbines
353	Construction and related machinery
355	Special-industry machinery
356	General industrial machinery
357	Computer and office equipment
361	Electric distribution equipment
362	Electrical industrial apparatus
365	Household audio and video equipment
366	Communications equipment
367	Electronic components and accessories
371	Motor vehicles and equipment
372	Aircraft and parts
376	Guided missiles, space vehicles, and parts
381	Search and navigation equipment
382	Measuring and controlling devices
384	Medical instruments and supplies
386	Photographic equipment and supplies
737	Computer and data processing services
871	Engineering and architectural services
873	Research and testing services
874	Management and public relations services

It should be noted that the list of high-technology industries used in this second edition is different from the list of SIC codes used to define technology-intensive industries in the first edition of this publication. For this reason, the reader is cautioned not to attempt to directly compare the values of the high-technology metrics from the two editions.

At the point in time that data were being gathered for this edition, most of the government databases were in the process of transitioning their data-gathering efforts from SIC codes to the North American Industry Classification System (NAICS) codes. Unfortunately, calculation of high-technology establishment births and deaths requires two years of data, which is not yet available in NAICS format. Therefore, high-technology industries are defined via SIC codes at this time, but this is likely to change in the future. When data is available based upon the NAICS codes, more detailed information will be available for the service industries.

Because the BLS list of high-technology industries is based upon SIC codes, it suffers from certain limitations. First, it is heavily focused on manufacturing, and manufacturing has declined as a percent of Gross Domestic Product in the

U.S. since the time the list was initially created. Second, the BLS list may not fully reflect the growing importance of some of the newer high-technology sectors such as biotechnology, communications services, and information technology. In spite of these shortcomings, the team felt that there was value in selecting a list that resulted from a documented selection process, was broadly known and used, and originated from a government source. Adhering to these criteria provided assurances that the list of high-technology SIC codes was not selected in a manner calculated to provide advantage to a particular state or region of the country, nor did it reflect the biases or the agenda of any particular group.

After the metric definition step was completed, the data were gathered electronically and transferred to appropriate spreadsheet software. Data gathering for this project was completed in June 2001, and the data given in this report represent the latest data available to the best of our knowledge. During the time required for review, approval, and publication of this report, more recent data sets will likely become available for certain metrics. The rankings on individual metrics and the state profiles should be considered as snapshots taken at a particular time, with the understanding that the state indicators are dynamic and will evolve over time.

The values of individual metrics were calculated, and the states were ranked relative to each metric. The rankings were defined so that those states with highest numerical value were given the lowest numerical ranking. For instance, the state receiving the largest number of Small Business Innovation Research (SBIR) grants per 10,000 businesses located in that state received a ranking of one. Conversely, the state with the smallest number of SBIR grants per 10,000 businesses received a ranking of fifty. Rankings were done for each of the 50 states or for each state for which data were available in instances in which the data set was not complete.

The data for the District of Columbia and Puerto Rico have been included at the bottom of each data chart in the individual Metric Descriptions in Section 2 for purposes of comparison. In many cases, specific pieces of data were not available for these areas. Occasionally, the data for these areas were not taken from the same source as the data for the 50 states, or they were not available for the same year. For these reasons, the District of Columbia and Puerto Rico were not included in the rankings, nor were they included in the calculation of the national average for each metric.

The national average for each metric was calculated by independently summing the state values for both the numerator and the denominator of each metric and then dividing the two. For instance, when calculating the national average for the number of SBIR awards received per 10,000 business establishments, the average number of SBIR awards received annually by companies in each state was totaled to obtain the national average number of SBIR awards. Next, the total number of business establishments in the 50 states was calculated by adding the number of business establishments in each state. Finally, the value for the national average for the average annual number of SBIR awards per 10,000 business establishments was calculated by dividing the first total by the second total.

For metrics where data was not available for all 50 states, the national averages reflect only the values for those states that do have data reported for that metric. For instance, if data were not available for the numerator value of a particular state, the denominator value of that state would not be used in the calculation of national average, and the national average would be reported as the average of 49 states instead of 50.

One area where the committee decided to make a significant change between the first and second editions lies in the map showing state performance. This map appears on each metric page and shows each state's performance as a function of color intensity. Instead of plotting state rank by quintile as was done in the first edition, the committee decided to plot percent of the national average. There are now four color ranges that indicate 0-50%, 51-100%, 101-150%, and greater than 150% of the national average, respectively. The rationale for this change was that this approach provided more information about the level of a state's performance and the extent of improvement that was needed than did a numerical rank.

The source citations from which the data used to calculate each metric were extracted are provided on the appropriate Metric Description pages in Section 2 and again in the Appendix where they have been collected to facilitate reproduction.

Data pertaining to individual states are presented in Section 3 as a series of State Profiles. The State Information Contacts were obtained from the U.S. Census Bureau, *Statistical Abstract of the United States, "Appendix 1, Guide to State Statistical Abstracts"*, <<http://www.census.gov/prod/2001pubs/statab/app1b.pdf>>. Appendix 1 identifies the state sources for the most recent state statistical abstracts as of the publication date of the 2000 Edition of the *Statistical Abstract of the United States*. These sources are usually designated as data repositories for the state. In a few cases, the source was a commercial entity, and the state census data center designated by the U.S. Bureau of the Census was selected instead. For questions pertaining to the raw data, inquiries should be directed first to the source of the data, provided in Section 2 as well as in the Appendix, and then to the State Statistical Information Contact.

The State Profiles in Section 3 also contain a brief sketch of each state describing its population, gross state product, number of business establishments, per capita income, and percent of the population living in poverty. The first three of these measures are scale sensitive, and their rankings are intended to give the reader a picture of the state's comparative economic position.

The third element of the State Profiles in Section 3, Science and Technology Organizations, identifies significant organizations in a state's S&T infrastructure. Included in this section are government agencies, public/private partnerships, and university partnerships. These organizations were identified through the National Governors' Association site and the National Association of State Information Resources site. Telephone contacts were made with the governor's office, the department of development, or other knowledgeable individuals to identify additional S&T organizations in a particular state. The organizations selected for inclusion are intended to represent a variety of entry portals into a state's S&T infrastructure. Some are general in scope and others are technology-specific. Each of the organizations is briefly described, and an Internet address has been provided to facilitate access to it. Questions related to the content of a state's S&T infrastructure should be directed to an appropriate organization where they will be answered or referred. Selection or omission of an organization does not imply that an assessment regarding its effectiveness, importance, or relative ranking has been done as part of this project.

The final section in each State Profile contains a bar chart depicting the state's performance on each of the 37 metrics. The chart has been divided into quartiles, and the length of the bars represent the state's performance in terms of the percent of national average for each metric. To the left of each bar the numerical rank for that metric is listed. Following the metric title for each bar, the state's value for the metric is given in parentheses. The definition of each metric can be found in Section 2, and the source of the data is given in both Section 2 and in the Appendix. Details related to the raw data and to the state's exact ranking on a particular metric can be found in the chart for that metric in Section 2.

1.3 Major Metric Groups

1.3.1 Funding In-flows

This first set of input metrics is designed to measure the amount of science, technology, and research resources flowing into the state from governmental and private sources. These financial resources measure the opportunities to generate knowledge, intellectual property, and specialized human resources. The specific metrics included in this category are:

1. Expenditures for Total Performed R&D per \$1,000 of GSP: 1999
2. Expenditures for Industry-Performed R&D per \$1,000 of GSP: 1999
3. Expenditures for Federally-Performed R&D per \$1,000 of GSP: 1999
4. Expenditures for University-Performed R&D per \$1,000 of GSP: 1999
5. Federal Obligations for R&D per \$1,000 of GSP: 1999
6. Average Annual Number of SBIR Awards per 10,000 Business Establishments: 1998-2000
7. Average Annual SBIR Award Dollars per \$1,000 of GSP: 1998-2000
8. Average Annual Number of STTR Awards per 10,000 Business Establishments: 1997-9
9. Average Annual STTR Award Dollars per \$1,000 of GSP: 1997-9

The raw data for the numerators of seven of these metrics are expressed in terms of dollars and two in terms of the number of awards. To eliminate scale sensitivity, a normalization or scaling factor was used for each measure. In the cases where the numerator was in terms of dollars, gross state product (GSP) was selected to reflect the impact of the dollar investment on the state's economy. In the case of the number of SBIR and STTR awards, the number of businesses in the state was used since these awards are made to businesses.

1.3.2 Human Resources

The second set of input metrics measures the ability of the labor market to support the science and engineering needs of technology-based businesses. It includes measures of the flow and stock of workers with advanced degrees, undergraduate degrees, and technical associates degrees. The specific metrics included in this category are:

10. National Assessment of Educational Progress (NAEP) in Science Average State Test Scores: 1996
11. Percent of the Population that has Completed High School: 2000
12. Associate's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8
13. Total Bachelor's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8
14. Percent of Bachelor's Degrees Granted in Science and Engineering: 1997-8
15. Science and Engineering Graduate Students as a Percent of the 18-24 Year Old Population: 1999
16. Percent of the Civilian Work Force with a Recent Bachelor's Degree in Science or Engineering: 1999
17. Percent of the Civilian Work Force with a Recent Master's Degree in Science or Engineering: 1999
18. Percent of the Civilian Work Force with a Recent Ph.D. Degree in Science or Engineering: 1999

The NAEP scores represent the average statewide test results in science at the eighth grade level. Other metrics were expressed in terms of percentages, so state size or population was not an issue. For the number of degrees awarded, however, it was necessary to normalize the data to account for population differences. The 18-24 year age range was selected since this is the age group that is most likely to be pursuing higher education. This segment of the population most closely approximates the target market for higher education. This is not to imply that all people receiving degrees are in this age sector, but state higher educational capacity and output should show a relationship to the size of this population segment.

1.3.3 Capital Investment and Business Assistance

The third set of input metrics measures the amount of financial and business support being provided to state businesses. Capital is one of the most critical needs for new business formation and growth. Capital is very fluid, yet there clearly are tendencies for companies in certain areas to receive disproportionate funding. In fact, the ability to attract capital often is the basis for entrepreneurs deciding where to establish their businesses. Capital takes many forms, including early stage seed and venture, loans and grants, and public offerings. In addition to capital, other forms of assistance can help to facilitate business growth and development. The metrics in this section indicate the capacity and support structure for encouraging new business formation. The specific metrics included in this category are:

19. Amount of Venture Capital Funds Invested per \$1,000 of GSP: 2000
20. Average Annual Amount of SBIC Funds Disbursed per \$1,000 of GSP: 1998-2000
21. Average Annual Amount of IPO Funds Raised per \$1,000 of GSP: 1998-2000
22. Number of Business Incubators per 10,000 Business Establishments: 2001

Again, it was necessary to normalize or scale the data to account for the large differences in size of the state economies. Data that were obtained in the form of dollars were normalized to the GSP of the state. Support services were normalized to the number of state businesses.

1.3.4 Technology Intensity of the Business Base

The first set of output metrics measures the extent to which a state is growing the types of businesses that are classified in high-technology industries. As noted earlier, the designation of high-technology industries is based on the definition from the Bureau of Labor Statistics. The companies in these industries are most likely to benefit from strong state S&T programs.

As might be expected, companies in these industries were found to be attractive on a national basis. Although only 5.7% of U.S. business establishments are classified in these 31 three-digit SIC codes, they employ 8.8% of the U.S. work force and account for 14% of the U.S. payroll. The following metrics were used to characterize the technology intensity of a state's business base:

23. Percent of Establishments in High-technology SIC Codes: 1998
24. Percent of Employment in High-technology SIC Codes: 1998
25. Percent of Payroll in High-technology SIC Codes: 1998
26. Percent of Establishment Births in High-technology SIC Codes: 1998
27. Net Formations of High-technology Establishments per 10,000 Business Establishments: 1998

The first four metrics in this set are reported as percentages, so no scaling factor is required. Each of these metrics indicates the extent to which the state's business base is concentrated in the 31 three-digit SIC codes that represent high-technology industries. The final metric, net formations of technology intensive establishments, was normalized to the total number of business establishments in the state to minimize the effect of state size factors.

1.3.5 Outcome Measures

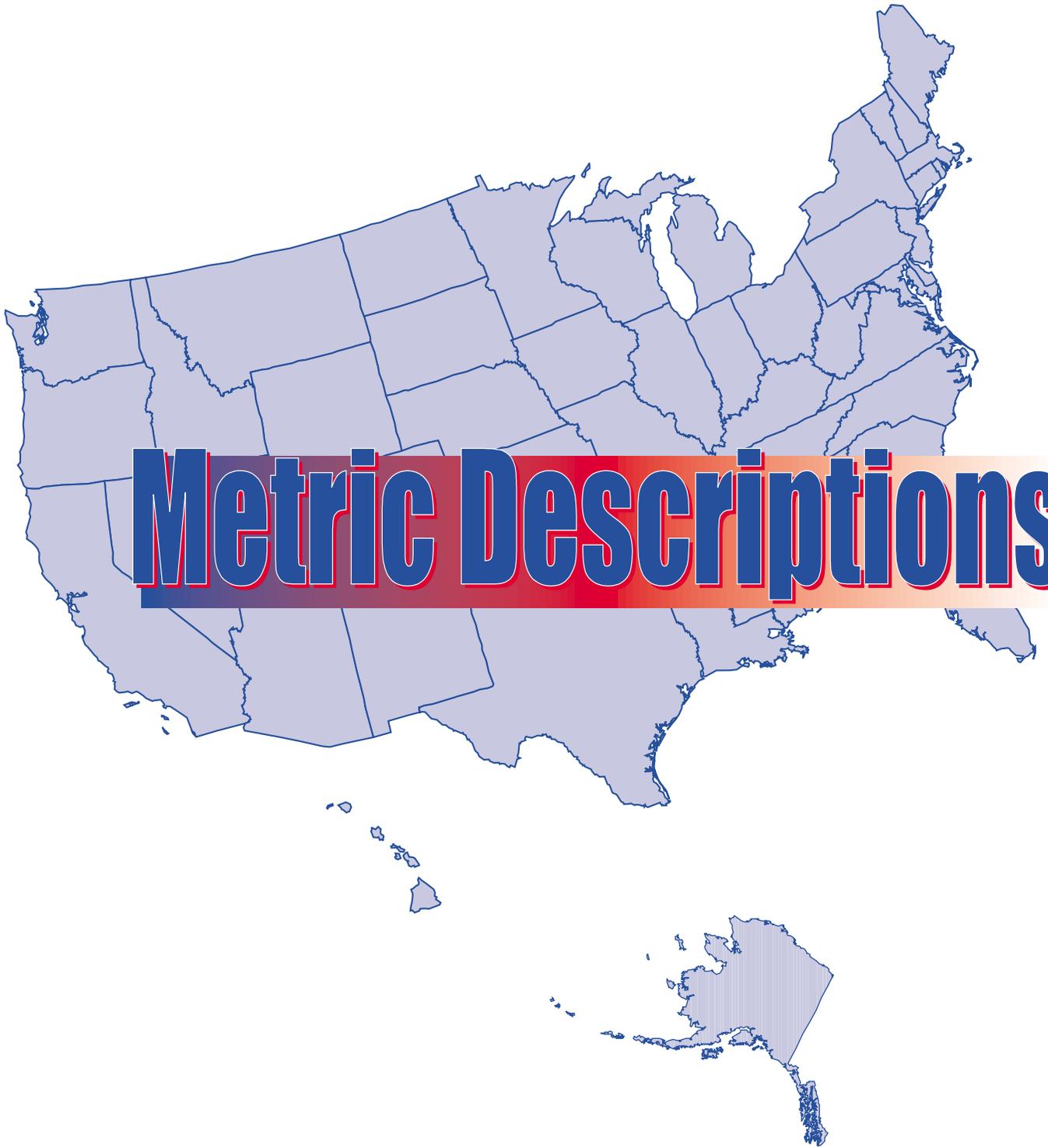
The second set of outcome metrics measures the economic development characteristics of the area. Essentially, these metrics are the variables that the S&T programs attempt to improve. The correlation between S&T assets, how effectively they are used by the states, and how much of an impact they exert on economic development is exceedingly complex and dependent upon many external factors.

The specific measures included in this category are:

28. Average Annual Number of U.S. Patents Issued per 10,000 Business Establishments: 1998-2000
29. Number of Technology Fast 500 Companies per 10,000 Business Establishments: 2000
30. Number of Inc. 500 Companies per 10,000 Business Establishments: 2000
31. Average Annual Pay per Worker: 1999
32. Percent of the Population Living Above the Federal Poverty Threshold: 1999
33. Per Capita Personal Income: 1999
34. Labor Force Participation Rate: 2000
35. Percent of the Civilian Work Force that was Employed: 2000
36. Percent of Households with Computers: 2000
37. Percent of Households with Internet Access: 2000

The first three metrics in this set are based on the number of patents issued and the number of fast-growing companies. Obviously, they can be expected to increase as the size of a state's business base increases, making it difficult to compare states of widely differing sizes. For this reason, these measures were normalized to the number of businesses in the state. The remaining metrics are expressed in terms that are independent of the size of the state, so no normalization was required.

It should be pointed out that the percent of the population living above the federal poverty threshold was used in place of the more common poverty rate or percent of the population living at or below the federal poverty threshold. This manner of expressing the metric was selected because it represents a positive outcome.



Metric Descriptions

2. Contents

This section contains a 2-page description of each of the thirty-seven metrics developed to describe the science and technology (S&T) infrastructure of individual states. Twenty-two of these metrics are measures of inputs, and fifteen are measures of outputs.

Each metric description contains a definition of the metric, a summary of its relevance including the national performance on that metric, data considerations and limitations, and the data source references.

The actual data used to calculate the metric value for each state and for the District of Columbia and Puerto Rico are shown in chart format. Numerical rankings for each state are provided on the same chart, with one designating the highest performance and fifty designating the lowest performance on that particular metric. The percent of the U.S. value that each state's performance represents is shown in the last column of the chart. A value of 100% indicates that a state's performance on that metric is identical with the average performance of the 50 states.

The latter data also are presented graphically on an accompanying U.S. map in which the color intensity of each state represents that state's performance as a percent of the metric value for the U.S.



Total Performed R&D Expenditures

Definition

Total performed research & development (R&D) expenditures per \$1,000 of gross state product (GSP) is calculated by dividing the total amount spent on R&D performance in each state by that state's GSP. R&D expenditures are the total of the basic research, applied research, and development performed by private industry, federal government, academic, and non-profit organizations located in the state. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

This metric describes the importance of R&D activities to a state's economy. It is directly related to the number of workers and capital employed in the conduct of research and development. The total performed R&D expenditures for the 50 states were \$229.3 billion or \$24.78 per \$1,000 of U.S. gross domestic product. The median total performed R&D expenditure for the 50 states was \$18.04 per \$1,000 of GSP.

In 1999, R&D funding by industry accounted for \$162.4 billion or 67% of total R&D funding. The federal government provided \$67.7 billion or nearly 28% of the total R&D funding. The remaining R&D funding came from sources such as non-federal governments, colleges and universities, and nonprofits.

Long-run economic growth is universally deemed to be highly dependent on the R&D activities of scientists and engineers. However, the precise relationship between R&D and improvements in quality and productivity is difficult to measure. Further, that relationship is thought to vary greatly by the types of prod-

ucts and services being developed. In the short-run, expenditures on R&D tell little about the ultimate value of what is received for the money being spent. Significant scientific breakthroughs can result from small expenditures, or large expenditures can yield few commercial opportunities. R&D expenditures also provide insight into the perceived importance of research and, hence, how supportive the business climate is to research.

Data Considerations and Limitations

R&D expenditure estimates are based on surveys of R&D performers who are asked to indicate how much they spend, the character of the research, and where the funds originated. The use of performer reporting reduces the possibility of double-counting. The surveys are conducted by the Division of Science Resources Studies of the National Science Foundation.

The federal R&D performance expenditure data reported by universities and industry will differ from the Federal agency reported R&D funding totals because expenditures may occur in a different year than when the funds were originally authorized, obligated, or outlayed. During the last several years the differential between federal R&D expenditures and funding has increased considerably. Performers and funders of R&D may differ in what they report as R&D. Another difficulty in tracking R&D expenditures is that funds are further passed through to other performers.

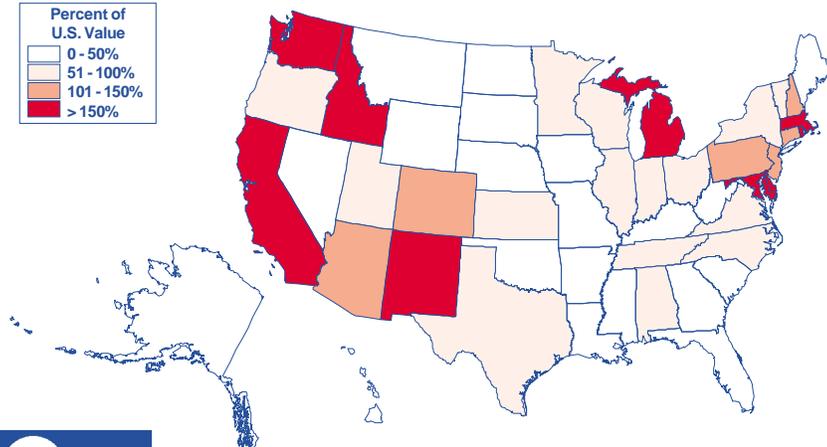
Source of Data

Expenditures for Total R&D Performed:

Total R&D 1999 was compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>. The data will be available online in the report, *National Patterns of R&D Resources 2001*, later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).



Expenditures for Total R&D Performed per \$1,000 of GSP: 1999

STATE	Total R&D, millions	GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$1,761	\$115,071	\$15.31	28	62%
Alaska	\$152	\$26,353	\$5.77	47	23%
Arizona	\$5,091	\$143,683	\$35.43	10	143%
Arkansas	\$378	\$64,77	\$5.84	46	24%
California	\$47,965	\$1,229,098	\$39.02	7	157%
Colorado	\$4,209	\$153,728	\$27.38	15	110%
Connecticut	\$4,436	\$151,779	\$29.23	12	118%
Delaware	\$1,343	\$34,669	\$38.74	8	156%
Florida	\$4,265	\$442,895	\$9.63	36	39%
Georgia	\$2,960	\$275,719	\$10.73	34	43%
Hawaii	\$270	\$40,914	\$6.61	43	27%
Idaho	\$1,309	\$34,025	\$38.48	9	155%
Illinois	\$9,719	\$445,666	\$21.81	20	88%
Indiana	\$2,763	\$182,202	\$15.17	29	61%
Iowa	\$1,003	\$85,243	\$11.76	32	47%
Kansas	\$1,556	\$80,843	\$19.24	23	78%
Kentucky	\$968	\$113,539	\$8.52	38	34%
Louisiana	\$626	\$128,959	\$4.86	48	20%
Maine	\$225	\$34,064	\$6.59	44	27%
Maryland	\$8,087	\$174,710	\$46.29	5	187%
Massachusetts	\$12,190	\$262,564	\$46.43	4	187%
Michigan	\$18,799	\$308,310	\$60.97	2	246%
Minnesota	\$3,905	\$172,982	\$22.57	18	91%
Mississippi	\$476	\$64,286	\$7.41	42	30%
Missouri	\$2,009	\$170,470	\$11.79	31	48%
Montana	\$169	\$20,63	\$8.17	39	33%
Nebraska	\$417	\$53,744	\$7.77	40	31%
Nevada	\$458	\$69,864	\$6.55	45	26%
New Hampshire	\$1,256	\$44,229	\$28.40	13	115%
New Jersey	\$10,536	\$331,544	\$31.78	11	128%
New Mexico	\$3,279	\$51,026	\$64.26	1	259%
New York	\$14,110	\$754,590	\$18.70	24	75%
North Carolina	\$5,268	\$258,592	\$20.37	22	82%
North Dakota	\$168	\$16,991	\$9.90	35	40%
Ohio	\$8,082	\$361,981	\$22.33	19	90%
Oklahoma	\$664	\$86,382	\$7.69	41	31%
Oregon	\$1,974	\$109,694	\$18.00	26	73%
Pennsylvania	\$10,695	\$382,980	\$27.93	14	113%
Rhode Island	\$1,651	\$32,546	\$50.73	3	205%
South Carolina	\$979	\$106,917	\$9.16	37	37%
South Dakota	\$60	\$21,631	\$2.76	50	11%
Tennessee	\$2,290	\$170,085	\$13.47	30	54%
Texas	\$12,429	\$687,272	\$18.08	25	73%
Utah	\$1,474	\$62,641	\$23.53	16	95%
Vermont	\$389	\$17,164	\$22.64	17	91%
Virginia	\$5,100	\$242,221	\$21.06	21	85%
Washington	\$8,336	\$209,258	\$39.84	6	161%
West Virginia	\$439	\$40,685	\$10.78	33	43%
Wisconsin	\$2,566	\$166,481	\$15.41	27	62%
Wyoming	\$66	\$17,448	\$3.78	49	15%
United States (50 States)	\$229,322	\$9,253,147	\$24.78	—	100%
Dist of Columbia	\$2,510	\$55,832	\$44.95	—	181%
Puerto Rico	N/A	—	—	—	—



Industry-performed R&D Expenditures

Definition

This metric measures the amount of research & development (R&D) expenditures that are actually performed by all non-farm industries in a state divided by the gross state product (GSP) of that state. R&D expenditures are the total of basic research, applied research, and development performed by the industrial sector, including industry-administered, federally funded research and development centers. The sources for that funding can be from government, academia, non-profits, or industry. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

This metric describes the importance of R&D activities to the industry sector of a state's economy. The total industry-performed R&D expenditures for the 50 states was \$177.0 billion or \$19.13 per \$1,000 of U.S. gross domestic product (GDP). The median expenditure for industry-performed R&D for the 50 states was \$12.02 per \$1,000 of GSP.

Industry funds and performs more R&D than all other sectors of the economy combined. In 1999, industrial sources provided 67% of all R&D funding and performed 75% of all R&D. Eighty-eight percent of all industrial R&D was funded by industry. The federal share of industrial R&D funding declined from its all-time high of 32% in 1987 to 12% in 1999.

The value of industry performed R&D is often hidden in the ultimate value of the innovation and product improvements of industrial goods and services. Further, value from the R&D may become evident years after the R&D actually takes place. However, without the continuous flow of industrial R&D, companies will lose competitiveness. The level and intensity of industrial R&D in the states indicate where industry decides

to locate its scientists. These location decisions are influenced by availability of a talented workforce, outstanding supporting research services, and overall quality of life in the states.

Data Considerations and Limitations

R&D performance estimates are based on surveys of R&D performers conducted by the Division of Science Resources Studies of the National Science Foundation. Performers are asked to report how much they spend on R&D, the nature of the R&D, and where the funds originated. A survey questionnaire is sent to all companies that spend more than \$5 million annually on R&D in the U.S. and to a sample of all other firms. The level of R&D performance is determined by using information from previous surveys or other sources. Remaining firms are subjected to probability sampling and may not receive a questionnaire for a given survey year. Therefore, in states dominated by small companies, the R&D performance estimates could be subject to significantly higher sampling variability. Data for the following states have imputation of more than 50%: Connecticut, Delaware, Florida, Indiana, Kansas, Missouri, New Mexico, Rhode Island, Washington, and West Virginia. The data includes performance at industry Federally Funded Research and Development Centers (FFRDC).

For the states of Alaska and Wyoming the Industry-Performed R&D value represents a lower limit. In the case of Alaska, the value represents only R&D funded and performed by industry. Data on the federally funded, industry-performed R&D done in Alaska has been suppressed. In the case of Wyoming, no federally funded, industry-performed R&D was reported, and the data on R&D funded and performed by industry was suppressed.

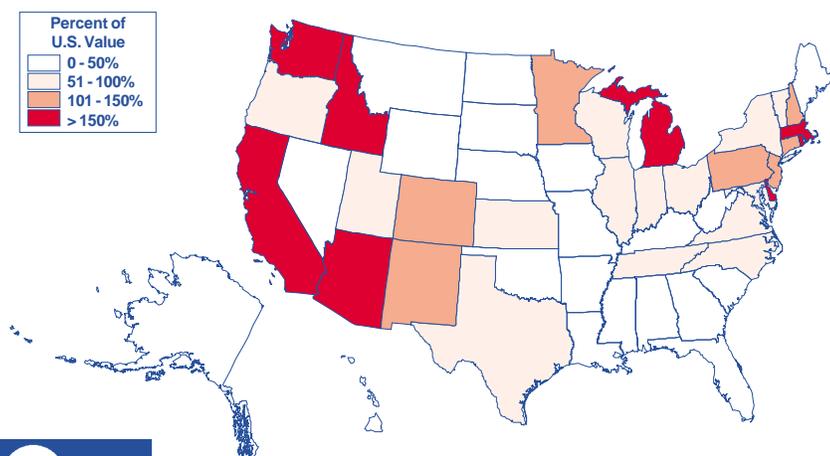
Source of Data

Expenditures for Industry-performed R&D:

Industry R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Industrial Research and Development: 1999. The data will be available online in the report, *Research and Development in Industry: 1999*, when it is released later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).



Expenditures for Industry-performed R&D per \$1,000 of GSP: 1999

STATE	Industry R&D, millions	GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$556	\$115,071	\$4.83	37	25%
Alaska	\$3 *	\$26,353	\$0.11	49	1%
Arizona	\$4,434	\$143,683	\$30.86	8	161%
Arkansas	\$216	\$64,773	\$3.33	42	17%
California	\$39,047	\$1,229,098	\$31.77	7	166%
Colorado	\$3,136	\$153,728	\$20.40	14	107%
Connecticut	\$3,984	\$151,779	\$26.25	11	137%
Delaware	\$1,261	\$34,669	\$36.37	3	190%
Florida	\$2,697	\$442,895	\$6.09	34	32%
Georgia	\$1,827	\$275,719	\$6.63	31	35%
Hawaii	\$27	\$40,914	\$0.66	47	3%
Idaho	\$1,210	\$34,025	\$35.56	4	186%
Illinois	\$7,715	\$445,666	\$17.31	19	90%
Indiana	\$2,246	\$182,202	\$12.33	25	64%
Iowa	\$559	\$85,243	\$6.56	32	34%
Kansas	\$1,284	\$80,843	\$15.88	20	83%
Kentucky	\$684	\$113,539	\$6.02	35	31%
Louisiana	\$187	\$128,959	\$1.45	46	8%
Maine	\$140	\$34,064	\$4.11	41	21%
Maryland	\$1,700	\$174,710	\$9.73	29	51%
Massachusetts	\$9,314	\$262,564	\$35.47	5	185%
Michigan	\$17,714	\$308,310	\$57.46	1	300%
Minnesota	\$3,379	\$172,982	\$19.53	15	102%
Mississippi	\$114	\$64,286	\$1.77	44	9%
Missouri	\$1,387	\$170,470	\$8.14	30	43%
Montana	\$33	\$20,636	\$1.60	45	8%
Nebraska	\$178	\$53,744	\$3.31	43	17%
Nevada	\$337	\$69,864	\$4.82	38	25%
New Hampshire	\$1,099	\$44,229	\$24.85	12	130%
New Jersey	\$9,453	\$331,544	\$28.51	9	149%
New Mexico	\$1,342	\$51,026	\$26.30	10	137%
New York	\$11,388	\$754,590	\$15.09	22	79%
North Carolina	\$3,953	\$258,592	\$15.29	21	80%
North Dakota	\$75	\$16,991	\$4.41	39	23%
Ohio	\$6,514	\$361,981	\$18.00	17	94%
Oklahoma	\$365	\$86,382	\$4.23	40	22%
Oregon	\$1,540	\$109,694	\$14.04	24	73%
Pennsylvania	\$8,932	\$382,980	\$23.32	13	122%
Rhode Island	\$1,264	\$32,546	\$38.84	2	203%
South Carolina	\$665	\$106,917	\$6.22	33	33%
South Dakota	\$13	\$21,631	\$0.60	48	3%
Tennessee	\$1,768	\$170,085	\$10.39	27	54%
Texas	\$9,935	\$687,272	\$14.46	23	76%
Utah	\$1,123	\$62,641	\$17.93	18	94%
Vermont	\$318	\$17,164	\$18.53	16	97%
Virginia	\$2,488	\$242,221	\$10.27	28	54%
Washington	\$7,231	\$209,258	\$34.56	6	181%
West Virginia	\$216	\$40,685	\$5.31	36	28%
Wisconsin	\$1,949	\$166,481	\$11.71	26	61%
Wyoming	\$0 *	\$17,448	\$0.00	50	0%
United States (50 States)	\$177,000	\$9,253,147	\$19.13	—	100%
Dist of Columbia	\$171	\$55,832	\$3.06	—	16%
Puerto Rico	N/A	—	—	—	--

* Please see *Data Considerations and Limitations* section on page 2-4.



Federally Performed R&D Expenditures

Definition

Federally performed research & development (R&D) per \$1,000 of gross state product (GSP) is computed by dividing the amount of federally performed R&D in each state by the state's GSP. Federally performed R&D is the sum of all basic research, applied research, and development performed by federal agencies located in a state. Federally funded R&D centers that are administered by private industry are excluded from this category, as are those administered by colleges, universities, or non-profits. GSP is the output of goods and services produced by the labor and property located in the state.

However, they also reflect on the labor force and research support of the state and local area in which they are located.

Data Considerations and Limitations

R&D expenditure estimates are based on surveys of Federal R&D agencies. Federal R&D data includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

Relevance

This metric describes the importance of federal R&D performance to the economies of the states. In 1999, the federal government performed \$18.3 billion in R&D. Federal agencies performed about 7.5% of the total national R&D. The percentage of total R&D performed by federal agencies has steadily declined since the mid-1970s.

The total federally performed R&D expenditures for the 50 states was \$15.5 billion or \$1.67 per \$1,000 of U.S. gross domestic product (GDP). The median expenditure for federally performed R&D in the 50 states was \$0.83 per \$1,000 of GSP.

Federal performance of R&D is indicative of where the federal government has R&D facilities. These facilities were often located for strategic, national security, and political reasons.

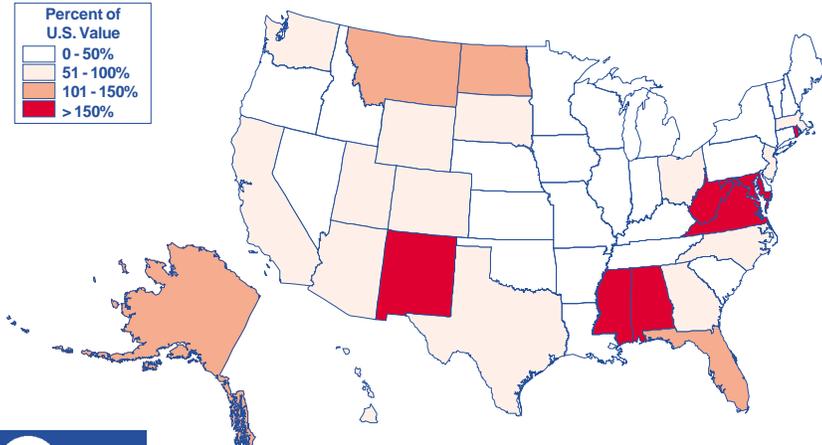
Source of Data

Expenditures for Federally Performed R&D:

Federal R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001. The data will be available online in the report, *Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001*, when it is released later this year.

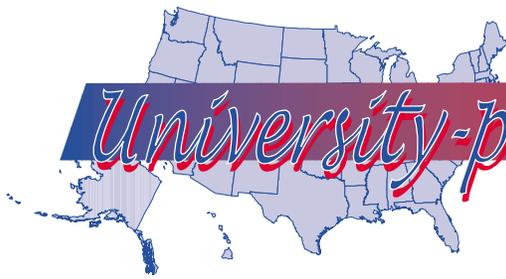
Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp/>> (2001, June 12); Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." *Puerto Rico Planning Board Economic Report, 2000*. <<http://www.jp.prstar.net/>> (2001 July 12).



Expenditures for Federally Performed R&D per \$1,000 of GSP: 1999

STATE	Federal R&D, thousands	GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$771,923	\$115,071	\$6.71	5	401%
Alaska	\$53,287	\$26,353	\$2.02	9	121%
Arizona	\$170,099	\$143,683	\$1.18	17	71%
Arkansas	\$46,122	\$64,773	\$0.71	28	43%
California	\$1,749,647	\$1,229,098	\$1.42	16	85%
Colorado	\$238,003	\$153,728	\$1.55	14	93%
Connecticut	\$17,883	\$151,779	\$0.12	48	7%
Delaware	\$2,747	\$34,669	\$0.08	50	5%
Florida	\$763,344	\$442,895	\$1.72	11	103%
Georgia	\$278,552	\$275,719	\$1.01	19	60%
Hawaii	\$64,534	\$40,914	\$1.58	13	94%
Idaho	\$27,448	\$34,025	\$0.81	27	48%
Illinois	\$77,055	\$445,666	\$0.17	46	10%
Indiana	\$54,903	\$182,202	\$0.30	40	18%
Iowa	\$39,213	\$85,243	\$0.46	33	28%
Kansas	\$35,743	\$80,843	\$0.44	35	26%
Kentucky	\$9,146	\$113,539	\$0.08	49	5%
Louisiana	\$58,976	\$128,959	\$0.46	34	27%
Maine	\$4,975	\$34,064	\$0.15	47	9%
Maryland	\$4,814,517	\$174,710	\$27.56	1	1649%
Massachusetts	\$240,059	\$262,564	\$0.91	21	55%
Michigan	\$149,473	\$308,310	\$0.48	32	29%
Minnesota	\$37,878	\$172,982	\$0.22	44	13%
Mississippi	\$196,245	\$64,286	\$3.05	6	183%
Missouri	\$48,097	\$170,470	\$0.28	41	17%
Montana	\$42,816	\$20,636	\$2.07	8	124%
Nebraska	\$28,769	\$53,74	\$0.54	30	32%
Nevada	\$27,843	\$69,864	\$0.40	38	24%
New Hampshire	\$28,353	\$44,229	\$0.64	29	38%
New Jersey	\$486,722	\$331,544	\$1.47	15	88%
New Mexico	\$409,886	\$51,026	\$8.03	2	481%
New York	\$132,848	\$754,590	\$0.18	45	11%
North Carolina	\$230,780	\$258,592	\$0.89	23	53%
North Dakota	\$30,561	\$16,991	\$1.80	10	108%
Ohio	\$604,957	\$361,981	\$1.67	12	100%
Oklahoma	\$45,912	\$86,382	\$0.53	31	32%
Oregon	\$89,369	\$109,694	\$0.81	26	49%
Pennsylvania	\$168,382	\$382,980	\$0.44	36	26%
Rhode Island	\$232,701	\$32,546	\$7.15	4	428%
South Carolina	\$45,050	\$106,917	\$0.42	37	25%
South Dakota	\$20,709	\$21,631	\$0.96	20	57%
Tennessee	\$64,783	\$170,085	\$0.38	39	23%
Texas	\$584,149	\$687,272	\$0.85	25	51%
Utah	\$74,129	\$62,641	\$1.18	18	71%
Vermont	\$4,065	\$17,164	\$0.24	43	14%
Virginia	\$1,793,639	\$242,221	\$7.40	3	443%
Washington	\$191,104	\$209,258	\$0.91	22	55%
West Virginia	\$116,330	\$40,685	\$2.86	7	171%
Wisconsin	\$41,110	\$166,481	\$0.25	42	15%
Wyoming	\$15,508	\$17,448	\$0.89	24	53%
United States (50 States)	\$15,460,344	\$9,253,147	\$1.67	—	100%
Dist of Columbia	\$1,912,131	\$55,832	\$34.25	—	2050%
Puerto Rico	\$8,548	\$38,297	\$0.22	—	13%



University-performed R&D Expenditures

Definition

Expenditures for university-performed research & development (R&D) per \$1,000 of gross state product (GSP) is calculated by dividing the amount of research performed by universities and colleges in a state by that state's GSP. R&D performance includes the total of basic research, applied research, and development. The research performed by universities may be funded by the federal government, non-federal governments, industry, non-profits, or the universities themselves. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

This metric describes the importance of university research to a state's economy. Universities tend to be oriented toward basic research that focuses on long-term, fundamental knowledge and discoveries of new underlying principles. In 1999, universities performed \$28.4 billion in total research or 11.6% of the total R&D performed in the U.S. Approximately 58% of university research was funded by the federal government.

The total university-performed R&D expenditures for the 50 states were \$27.2 billion or \$2.94 per \$1,000 of U.S. gross domestic product (GDP). The median expenditure for university-performed R&D in the 50 states was \$2.89 per \$1,000 of GSP.

Because universities specialize in basic research, the economic impact of their R&D accrues over many years. Further, universities have historically advocated publishing their research findings and thus disseminated their research findings

well beyond their state boundaries. Nonetheless, universities' faculty, facilities, and knowledge contribute substantially to the resource base that attracts new businesses to a state. World class research institutions are frequently cited as reasons for new businesses to locate in an area. In recent times, universities have become more likely to conduct applied R&D for the benefit of particular sponsors. This type of research impacts the competitiveness of local businesses more directly and in a shorter time frame than does basic research. Finally, some research universities have begun to support the process of new business formation based on intellectual property developed at the university by its faculty, staff, and students.

Data Considerations and Limitations

The federal R&D performance expenditure data reported by universities and industry will differ from the Federal agency reported R&D funding totals because expenditures may occur in a different year than when the funds were originally authorized, obligated, or outlayed. During the last several years, the differential between federal R&D expenditures and funding has increased considerably. Performers and funders of R&D may differ in what they report as R&D. Another difficulty in tracking R&D expenditures is that funds are further passed through to other performers.

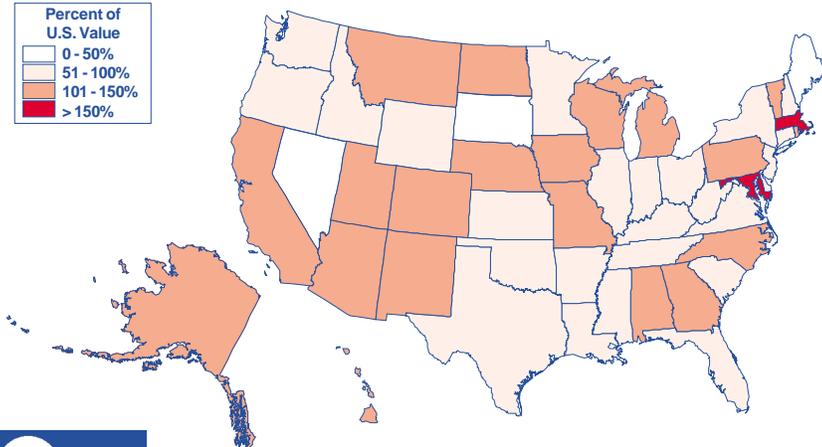
Source of Data

Expenditures for University-performed R&D:

National Science Foundation, Division of Science Resources Studies. *Academic Research and Development Expenditures: Fiscal Year 1999 [Early Release Tables]*. Arlington, VA. (2000, December).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12); Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." *Puerto Rico Planning Board Economic Report, 2000*. <<http://www.jp.prstar.net/>> (2001 July 12).



Expenditures for University-performed R&D per \$1,000 of GSP: 1999

STATE	University R&D, thousands	GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$416,594	\$115,071	\$3.62	14	123%
Alaska	\$93,687	\$26,353	\$3.56	15	121%
Arizona	\$439,286	\$143,683	\$3.06	19	104%
Arkansas	\$111,999	\$64,773	\$1.73	45	59%
California	\$3,658,622	\$1,229,098	\$2.98	22	101%
Colorado	\$507,673	\$153,728	\$3.30	17	112%
Connecticut	\$418,122	\$151,779	\$2.75	29	94%
Delaware	\$76,286	\$34,669	\$2.20	39	75%
Florida	\$788,743	\$442,895	\$1.78	44	61%
Georgia	\$839,715	\$275,719	\$3.05	20	104%
Hawaii	\$156,810	\$40,914	\$3.83	8	131%
Idaho	\$71,674	\$34,025	\$2.11	43	72%
Illinois	\$1,101,056	\$445,666	\$2.47	36	84%
Indiana	\$460,418	\$182,202	\$2.53	33	86%
Iowa	\$375,300	\$85,243	\$4.40	3	150%
Kansas	\$234,501	\$80,843	\$2.90	25	99%
Kentucky	\$273,903	\$113,539	\$2.41	37	82%
Louisiana	\$376,098	\$128,959	\$2.92	23	99%
Maine	\$44,437	\$34,064	\$1.30	49	44%
Maryland	\$1,387,262	\$174,710	\$7.94	1	270%
Massachusetts	\$1,402,522	\$262,564	\$5.34	2	182%
Michigan	\$919,390	\$308,310	\$2.98	21	102%
Minnesota	\$375,919	\$172,982	\$2.17	42	74%
Mississippi	\$160,287	\$64,286	\$2.49	35	85%
Missouri	\$549,876	\$170,470	\$3.23	18	110%
Montana	\$84,460	\$20,636	\$4.09	6	139%
Nebraska	\$205,363	\$53,744	\$3.82	9	130%
Nevada	\$91,485	\$69,864	\$1.31	48	45%
New Hampshire	\$127,135	\$44,229	\$2.87	26	98%
New Jersey	\$520,957	\$331,544	\$1.57	47	54%
New Mexico	\$224,500	\$51,026	\$4.40	4	150%
New York	\$2,065,882	\$754,590	\$2.74	30	93%
North Carolina	\$1,012,576	\$258,592	\$3.92	7	133%
North Dakota	\$61,695	\$16,991	\$3.63	13	124%
Ohio	\$830,701	\$361,981	\$2.29	38	78%
Oklahoma	\$238,799	\$86,382	\$2.76	28	94%
Oregon	\$319,700	\$109,694	\$2.91	24	99%
Pennsylvania	\$1,400,286	\$382,980	\$3.66	12	125%
Rhode Island	\$120,868	\$32,546	\$3.71	11	126%
South Carolina	\$267,549	\$106,917	\$2.50	34	85%
South Dakota	\$25,522	\$21,631	\$1.18	50	40%
Tennessee	\$371,439	\$170,085	\$2.18	41	74%
Texas	\$1,829,967	\$687,272	\$2.66	32	91%
Utah	\$273,192	\$62,641	\$4.36	5	149%
Vermont	\$64,791	\$17,164	\$3.77	10	129%
Virginia	\$531,286	\$242,221	\$2.19	40	75%
Washington	\$588,075	\$209,258	\$2.81	27	96%
West Virginia	\$64,340	\$40,685	\$1.58	46	54%
Wisconsin	\$560,648	\$166,481	\$3.37	16	115%
Wyoming	\$47,197	\$17,448	\$2.71	31	92%
United States (50 States)	\$27,168,593	\$9,253,147	\$2.94	—	100%
Dist of Columbia	\$223,786	\$55,832	\$4.01	—	137%
Puerto Rico	\$90,543	\$38,297	\$2.36	—	81%



Federal R&D Obligations

Definition

Federal obligations for research & development (R&D) per \$1,000 of gross state product (GSP) are calculated by dividing federal R&D obligations committed to a state by that state's GSP. Federal obligations are the amounts of money for orders placed, contracts awarded, services received, and similar transactions directed to a state during a given period of time regardless of when the funds were appropriated and when future payment of money is required. The R&D obligations include the costs of specific R&D projects as well as the applicable overhead costs such as planning, laboratory overhead, pay of military personnel, and departmental administration. R&D obligations may be given to federal agencies, industrial firms, universities and colleges, non-profits, state and local governments, and federally funded R&D centers. GSP is the output of goods and services produced by the labor and property located in the state.

The geographic distribution of Department of Defense development funding to industry reflects only the location of prime contractors, not the numerous subcontractors who perform much of the research and development.

Relevance

This metric measures the magnitude of federal R&D dollars flowing into a state. These dollars will be used by R&D performers within the state to execute research, development, and demonstration projects. States benefit in two ways from federal R&D obligations. First, the obligations go to support employees, facilities, administrators, and purchases of materials within the state, thus, contributing to the state's overall level of economic activity. Second, the obligations go to support research that may lead to wealth creation from new technology, new products, and new businesses in the state. The total federal R&D obligations for the 50 states was \$71.2

billion or \$7.69 per \$1,000 of U.S. gross domestic product (GDP). The median federal R&D obligation for the 50 states was \$4.52 per \$1,000 of GSP.

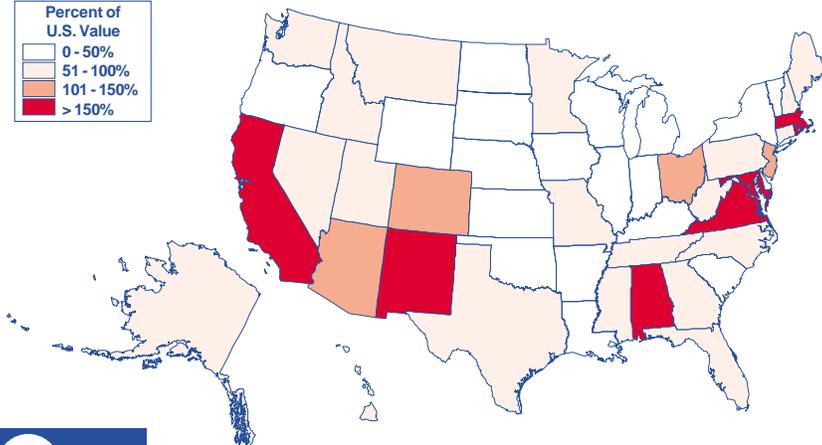
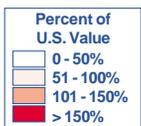
Federal R&D obligations also reflect on the capabilities and capacities of the research institutions within a state. Many of the federal obligations are awarded on a competitive basis so the level of R&D funding is one indicator of the state's research competitiveness.

Data Considerations and Limitations

Data for this metric were derived from the *Survey of Federal Funds for Research and Development* conducted by the National Science Foundation. The accuracy of the data depends in part on the judgment of the survey respondents. Since many agency R&D programs are not identified as budget-line items, agency officials must identify R&D activities within their broader programs. Over the years, personnel of participating agencies have developed increasing skill and consistency in meeting the survey requirements which has considerably increased the reliability of the data.

Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration, and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this data represent approximately 98 percent of total Federal R&D obligations in fiscal year 1999.

This survey was conducted during the third quarter of fiscal year 1999. The amounts reported for 1999 reflect congressional appropriation actions as of that period, as well as apportionment and reprogramming decisions as of that time.



Source of Data

Federal Obligations for R&D:

Federal R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001. The data will be available online in the report, *Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001*, when it is released later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp/>> (2001, June 12); Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." *Puerto Rico Planning Board Economic Report, 2000*. <<http://www.jp.prstar.net/>> (2001 July 12).



Federal Obligations for R&D per \$1,000 of GSP: 1999

STATE	Federal Obligations for R&D, thousands	GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$1,806,956	\$115,071	\$15.70	4	204%
Alaska	\$115,015	\$26,353	\$4.36	27	57%
Arizona	\$1,116,946	\$143,683	\$7.77	11	101%
Arkansas	\$106,422	\$64,773	\$1.64	48	21%
California	\$15,600,123	\$1,229,098	\$12.69	5	165%
Colorado	\$1,438,682	\$153,728	\$9.36	9	122%
Connecticut	\$655,191	\$151,779	\$4.32	28	56%
Delaware	\$52,255	\$34,669	\$1.51	49	20%
Florida	\$2,284,405	\$442,895	\$5.16	20	67%
Georgia	\$2,023,240	\$275,719	\$7.34	12	95%
Hawaii	\$198,808	\$40,914	\$4.86	24	63%
Idaho	\$200,672	\$34,025	\$5.90	15	77%
Illinois	\$1,316,085	\$445,666	\$2.95	37	38%
Indiana	\$413,864	\$182,202	\$2.27	40	30%
Iowa	\$264,060	\$85,243	\$3.10	36	40%
Kansas	\$191,603	\$80,843	\$2.37	39	31%
Kentucky	\$146,845	\$113,539	\$1.29	50	17%
Louisiana	\$219,218	\$128,959	\$1.70	47	22%
Maine	\$150,569	\$34,064	\$4.42	26	57%
Maryland	\$8,094,369	\$174,710	\$46.33	1	602%
Massachusetts	\$3,129,401	\$262,564	\$11.92	7	155%
Michigan	\$839,757	\$308,310	\$2.72	38	35%
Minnesota	\$885,141	\$172,982	\$5.12	21	67%
Mississippi	\$351,571	\$64,286	\$5.47	18	71%
Missouri	\$928,681	\$170,470	\$5.45	19	71%
Montana	\$95,446	\$20,636	\$4.63	25	60%
Nebraska	\$94,089	\$53,744	\$1.75	46	23%
Nevada	\$279,129	\$69,864	\$4.00	30	52%
New Hampshire	\$291,723	\$44,229	\$6.60	13	86%
New Jersey	\$2,661,153	\$331,544	\$8.03	10	104%
New Mexico	\$2,068,291	\$51,026	\$40.53	2	527%
New York	\$2,689,016	\$754,590	\$3.56	34	46%
North Carolina	\$1,007,518	\$258,592	\$3.90	31	51%
North Dakota	\$59,947	\$16,991	\$3.53	35	46%
Ohio	\$3,687,855	\$361,981	\$10.19	8	132%
Oklahoma	\$165,818	\$86,382	\$1.92	44	25%
Oregon	\$408,099	\$109,694	\$3.72	32	48%
Pennsylvania	\$1,907,139	\$382,980	\$4.98	22	65%
Rhode Island	\$391,717	\$32,546	\$12.04	6	156%
South Carolina	\$215,941	\$106,917	\$2.02	42	26%
South Dakota	\$38,951	\$21,631	\$1.80	45	23%
Tennessee	\$684,712	\$170,085	\$4.03	29	52%
Texas	\$3,853,339	\$687,272	\$5.61	16	73%
Utah	\$305,019	\$62,641	\$4.87	23	63%
Vermont	\$61,707	\$17,164	\$3.60	33	47%
Virginia	\$5,750,372	\$242,221	\$23.74	3	309%
Washington	\$1,306,757	\$209,258	\$6.24	14	81%
West Virginia	\$227,023	\$40,685	\$5.58	17	73%
Wisconsin	\$377,801	\$166,481	\$2.27	41	29%
Wyoming	\$35,219	\$17,448	\$2.02	43	26%
United States (50 States)	\$71,193,660	\$9,253,147	\$7.69	—	100%
Dist of Columbia	\$2,451,606	\$55,832	\$43.91	—	571%
Puerto Rico	\$72,709	\$38,297	\$1.90	—	25%



Definition

The number of Small Business Innovation Research Program (SBIR) awards per 10,000 business establishments was calculated by averaging the number of SBIR awards made to businesses in each state for the years 1998, 1999, and 2000 and dividing this by the number of business establishments in each state in 1999. Phase 1 and Phase 2 awards were combined for this metric. Total business establishments are the total number of businesses located at discrete addresses as reported in the 1999 County Business Patterns. SBIR awards go also to small businesses in the District of Columbia and Puerto Rico.

Relevance

This metric indicates the degree to which small companies in each state are participating in federally funded research and development (R&D) and adding to the United States' base for technical achievement. The SBIR program was started in 1982 and was re-authorized in 1992. The program is widely recognized as a way to encourage technological innovation within small businesses. The SBIR program funds research to evaluate the feasibility and scientific merit of new technology and to develop the technology so it can be commercialized.

The total average annual number of SBIR awards granted from 1998-2000 for all 50 states was 4,413 or 6.3 SBIR awards granted per 10,000 business establishments. The median number of SBIR awards granted in the 50 states was 3.6 per 10,000 business establishments.

The potential benefits from the SBIR awards are many. First, the federal government may find new suppliers for technologically advanced products thus stimulating the growth of small businesses. Second, small businesses are provided capital with which to invest in new technology that can improve their market position. Third, the technology developed and commercialized as a result of the SBIR awards may lead to the formation of new businesses.

Data Considerations and Limitations

The total SBIR budget dictates how many awards will be given in any year. The SBIR budget fluctuates depending on the agency budgets, making year-to-year comparisons of state award receipt more difficult. Also, because of the relatively small number of awards each year, the actual number of awards going to any one state can vary widely on a yearly basis. Using a three-year average helps to smooth out the yearly fluctuations.

Source of Data

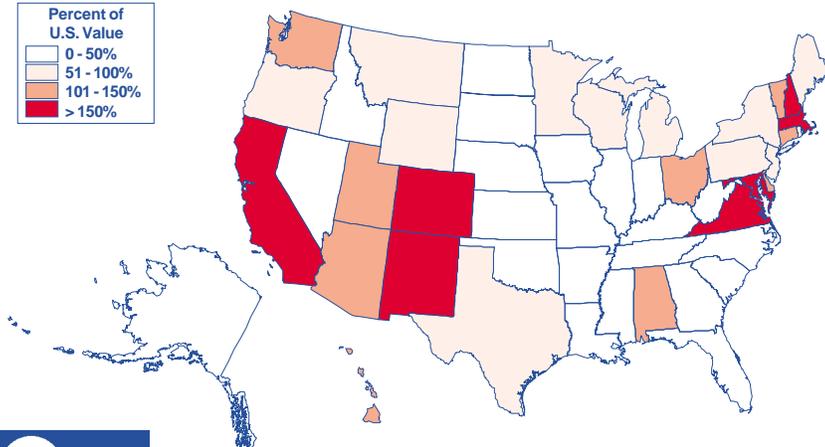
Information for 1998, 1999, and 2000 SBIR awards is available electronically through the Small Business Administration web site at <http://www.sba.gov/SBIR/library.html>.

SBIR Awards Granted:

Small Business Administration. *Technology - 1998 SBIR State Rank*. <http://www.sbaonline.sba.gov/SBIR/98sbirrank.html> (1999, November 22); Small Business Administration. *Technology - 1999 SBIR State Chart*. <http://www.sba.gov/SBIR/sbir1999state.html> (2001, May 1); Small Business Administration. *Technology - 2000 SBIR State Chart*. <http://www.sba.gov/SBIR/sbir2000state.html> (2001, May 1).

Establishments:

U.S. Census Bureau, *County Business Patterns 1999*. U.S. Government Printing Office, Washington, DC, 2001.



Average Annual Number of SBIR Awards per 10,000 Business Establishments: 1998-2000

STATE	Average Annual SBIR Awards	1999 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	79	100,507	7.9	11	124%
Alaska	2	18,433	1.3	47	20%
Arizona	93	112,545	8.2	10	130%
Arkansas	6	62,737	1.0	48	16%
California	882	784,935	11.2	7	178%
Colorado	224	133,743	16.7	4	265%
Connecticut	86	92,454	9.3	8	148%
Delaware	18	23,381	7.8	12	124%
Florida	98	424,089	2.3	35	36%
Georgia	46	197,759	2.3	34	37%
Hawaii	22	29,569	7.3	14	116%
Idaho	7	36,975	2.0	37	31%
Illinois	72	306,899	2.3	33	37%
Indiana	25	146,528	1.7	39	27%
Iowa	7	81,213	0.9	50	14%
Kansas	15	74,486	2.1	36	33%
Kentucky	12	89,946	1.3	45	21%
Louisiana	9	101,020	0.9	49	14%
Maine	13	38,878	3.3	27	53%
Maryland	217	127,431	17.0	3	270%
Massachusetts	662	173,267	38.2	1	605%
Michigan	84	236,456	3.5	26	56%
Minnesota	63	137,305	4.6	23	72%
Mississippi	8	59,834	1.3	44	21%
Missouri	22	144,874	1.5	42	24%
Montana	17	31,365	5.5	19	88%
Nebraska	7	48,968	1.5	43	24%
Nevada	8	46,890	1.7	38	27%
New Hampshire	48	37,180	13.0	6	206%
New Jersey	132	231,823	5.7	18	90%
New Mexico	82	42,918	19.0	2	301%
New York	177	485,954	3.6	24	58%
North Carolina	56	201,706	2.8	30	44%
North Dakota	5	20,380	2.6	32	41%
Ohio	173	270,766	6.4	16	101%
Oklahoma	13	84,854	1.6	40	25%
Oregon	58	99,945	5.8	17	91%
Pennsylvania	148	293,491	5.1	21	80%
Rhode Island	14	28,240	5.1	20	80%
South Carolina	12	96,440	1.3	46	20%
South Dakota	6	23,693	2.7	31	42%
Tennessee	38	131,116	2.9	29	45%
Texas	170	467,087	3.6	25	58%
Utah	44	53,809	8.2	9	130%
Vermont	16	21,598	7.6	13	120%
Virginia	245	173,550	14.1	5	223%
Washington	111	162,932	6.8	15	108%
West Virginia	6	41,451	1.5	41	24%
Wisconsin	45	139,646	3.2	28	51%
Wyoming	8	17,909	4.7	22	74%
United States (50 States)	4,413	6,988,975	6.3	—	100%
Dist of Columbia	17	19,469	8.6	—	136%
Puerto Rico	1	N/A	—	—	--



SBIR Award Dollars

Definition

The average annual dollar award of Small Business Innovation Research Program (SBIR) grants per \$1,000 of gross state product (GSP) was calculated by averaging the dollar awards given to companies in each state for the years 1998, 1999 and 2000 and dividing this average by the state's GSP in 1999. Phase 1 and Phase 2 awards dollars were combined to compute this metric. SBIR awards go also to small businesses in the District of Columbia and Puerto Rico. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

This metric is useful in understanding the magnitude of the federal government's investment in innovative small businesses in each state. The SBIR program was started in 1982 and was reauthorized in 1992. The program is widely recognized as a way to encourage technological innovation within small businesses. The SBIR program funds research to evaluate the feasibility and scientific merit of new technology and to develop the technology to a point where it can be commercialized. Phase I awards can be made up to \$100,000 for a six-month effort. Phase II awards are for \$750,000 or less and normally do not exceed a duration of two years.

The total average annual SBIR award dollars granted from 1998-2000 for all 50 states was \$1.05 billion or \$0.11 per \$1,000 of U.S. gross domestic product (GDP). The median SBIR award dollars granted in the 50 states was \$0.06 per \$1,000 of GSP.

While the absolute dollars are a small part of GDP, the potential long-term benefits to small businesses and their local economy are much greater. First, small businesses are provided capital which is leveraged with their own investment dollars to develop new technology and products that can improve their market position. Second, the technology developed and commercialized as a result of the SBIR awards may lead to the formation of new businesses or the accelerated growth of existing small businesses. Third, the federal government may find new suppliers for technologically advanced products thus stimulating the growth of small businesses.

Data Considerations and Limitations

The total SBIR budget depends on the extramural R&D budgets of federal agencies. The SBIR budget fluctuates depending on the agency budgets making year-to-year comparisons of state award receipt more difficult. Also, because of the relatively small number of awards each year, the dollar value of SBIR awards going to any one state can vary widely on a yearly basis. Using a three-year average helps to smooth out the yearly fluctuations.

Source of Data

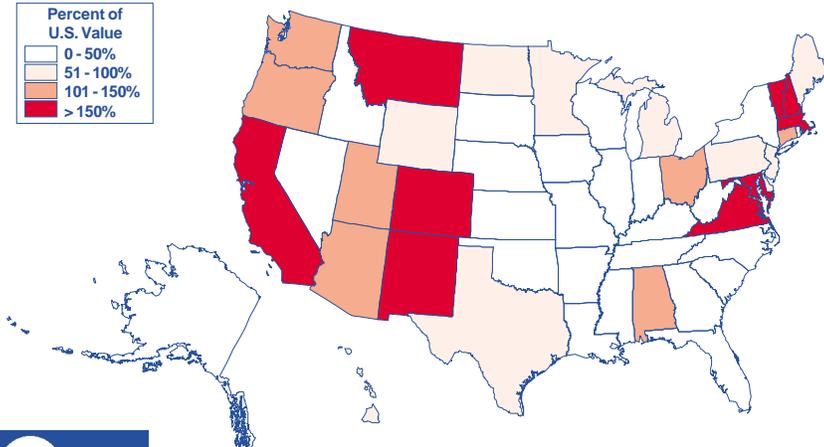
SBIR data for 1998, 1999, and 2000 are available electronically at <http://www.sba.gov/SBIR/library.html>.

SBIR Award Dollars Granted:

Small Business Administration. *Technology - 1998 SBIR State Rank*. <http://www.sbaonline.sba.gov/SBIR/98sbirrank.html> (1999, November 22); Small Business Administration. *Technology - 1999 SBIR State Chart*. <http://www.sba.gov/SBIR/sbir1999state.html> (2001, May 1); Small Business Administration. *Technology - 2000 SBIR State Chart*. <http://www.sba.gov/SBIR/sbir2000state.html> (2001, May 1).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <http://www.bea.doc.gov/bea/regional/gsp> (2001, June 12); Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." *Puerto Rico Planning Board Economic Report, 2000*. <http://www.jp.prstar.net/> (2001 July 12).



Average Annual SBIR Award Dollars per \$1,000 of GSP: 1998-2000

STATE	Average Annual SBIR Dollars, thousands	1999 GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$19,427	\$115,071	\$0.17	10	149%
Alaska	\$433	\$26,353	\$0.02	48	15%
Arizona	\$20,020	\$143,683	\$0.14	12	123%
Arkansas	\$1,443	\$64,773	\$0.02	45	20%
California	\$215,076	\$1,229,098	\$0.17	9	155%
Colorado	\$55,264	\$153,728	\$0.36	3	317%
Connecticut	\$20,860	\$151,779	\$0.14	13	121%
Delaware	\$3,199	\$34,669	\$0.09	19	81%
Florida	\$22,261	\$442,895	\$0.05	30	44%
Georgia	\$11,835	\$275,719	\$0.04	34	38%
Hawaii	\$3,545	\$40,914	\$0.09	20	76%
Idaho	\$886	\$34,025	\$0.03	43	23%
Illinois	\$15,416	\$445,666	\$0.03	37	31%
Indiana	\$4,852	\$182,202	\$0.03	42	24%
Iowa	\$1,232	\$85,243	\$0.01	49	13%
Kansas	\$3,385	\$80,843	\$0.04	35	37%
Kentucky	\$2,424	\$113,539	\$0.02	46	19%
Louisiana	\$1,578	\$128,959	\$0.01	50	11%
Maine	\$2,091	\$34,064	\$0.06	24	54%
Maryland	\$53,413	\$174,710	\$0.31	4	270%
Massachusetts	\$162,172	\$262,564	\$0.62	1	545%
Michigan	\$21,075	\$308,310	\$0.07	23	60%
Minnesota	\$13,364	\$172,982	\$0.08	21	68%
Mississippi	\$1,560	\$64,286	\$0.02	44	21%
Missouri	\$5,155	\$170,470	\$0.03	39	27%
Montana	\$4,004	\$20,636	\$0.19	8	171%
Nebraska	\$1,568	\$53,744	\$0.03	41	26%
Nevada	\$2,063	\$69,864	\$0.03	40	26%
New Hampshire	\$11,696	\$44,229	\$0.26	5	234%
New Jersey	\$31,531	\$331,544	\$0.10	18	84%
New Mexico	\$19,838	\$51,026	\$0.39	2	343%
New York	\$40,635	\$754,590	\$0.05	28	48%
North Carolina	\$12,619	\$258,592	\$0.05	33	43%
North Dakota	\$1,000	\$16,991	\$0.06	26	52%
Ohio	\$43,093	\$361,981	\$0.12	16	105%
Oklahoma	\$2,921	\$86,382	\$0.03	38	30%
Oregon	\$13,700	\$109,694	\$0.12	14	110%
Pennsylvania	\$36,765	\$382,980	\$0.10	17	85%
Rhode Island	\$2,457	\$32,546	\$0.08	22	67%
South Carolina	\$2,233	\$106,917	\$0.02	47	18%
South Dakota	\$1,060	\$21,631	\$0.05	32	43%
Tennessee	\$8,461	\$170,085	\$0.05	31	44%
Texas	\$39,635	\$687,272	\$0.06	27	51%
Utah	\$8,954	\$62,641	\$0.14	11	126%
Vermont	\$3,633	\$17,164	\$0.21	7	187%
Virginia	\$61,379	\$242,221	\$0.25	6	224%
Washington	\$25,296	\$209,258	\$0.12	15	107%
West Virginia	\$1,423	\$40,685	\$0.03	36	31%
Wisconsin	\$8,940	\$166,481	\$0.05	29	47%
Wyoming	\$1,060	\$17,448	\$0.06	25	54%
United States (50 States)	\$1,047,933	\$9,253,147	\$0.11	—	100%
Dist of Columbia	\$3,747	\$55,832	\$0.07	—	59%
Puerto Rico	\$236	\$38,297	\$0.01	—	5%



Definition

The number of Small Business Technology Transfer Program (STTR) awards per 10,000 business establishments was calculated by averaging the number of STTR awards in each state for the years 1997, 1998, and 1999 and dividing this by the number of business establishments in each state in 1998, the middle year of the three-year period. STTR awards are given to partnerships of small businesses and non-profit research institutions. Phase 1 and Phase 2 awards were combined to compute this metric. STTR awards are also granted to small businesses in the District of Columbia. Total business establishments are the total number of businesses as reported in the 1998 *County Business Patterns*.

Relevance

This metric indicates the degree to which partnerships of small companies and non-profit research institutions in each state are participating in federally funded research and development and adding to the United States' base for creating technical innovation. The STTR program was started in 1992 for U.S. companies that have fewer than 500 employees and are operated on a for-profit basis. The program is widely recognized as a way to encourage technological innovation within small businesses and for building strategic linkages between businesses and research institutions. The STTR program funds research to evaluate the feasibility and scientific merit of new technology and to develop the technology to a point where it can be commercialized. It shares the philosophy of the Small Business Innovation Research (SBIR) Program but differs because it requires a partnership between small business and selected federal and non-profit research institutions.

The total average annual number of STTR awards granted from 1997-9 for 49 states was 327 or 0.47 STTR awards granted per 10,000 business establishments. The median number of STTR awards granted in the 49 states was about 0.25 per 10,000 business establishments. The potential benefits from the STTR awards are many. First, the STTR program helps form strong technical relationships between small businesses and research institutions that can last beyond the performance of the specific grant. Second, small businesses receive capital to invest in new technology that can improve their market position. Third, the federal government may find new suppliers for technologically advanced products thus stimulating the growth of small businesses.

Data Considerations and Limitations

The total STTR budget dictates how many awards will be given in any year. The STTR budget fluctuates depending on the level of the R&D budgets of participating federal agencies thus making year-to-year comparisons of state awards more difficult. Also, because of the relatively small number of awards each year, the actual number of awards going to any one state can vary widely on an annual basis. Using a three-year average helps to smooth out the yearly fluctuations.

Source of Data

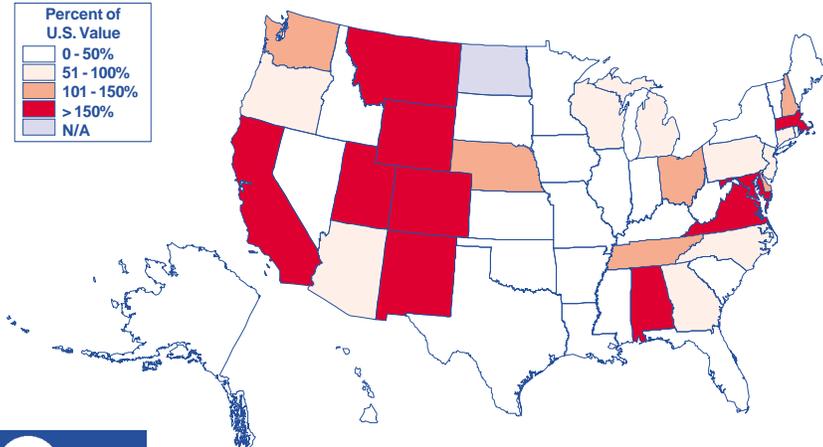
The 1997 and 1998 data for this metric is available electronically at <http://www.sba.gov/SBIR/library.html>. The 1999 data was obtained through a special request to the SBA. It will be available online at the above location later this year.

STTR Awards Granted:

Small Business Administration. *Technology - 1997 STTR State Rank*. <http://www.sbaonline.sba.gov/SBIR/section03f05.html> (September 29, 1999); Small Business Administration. *Technology - 1998 STTR State Rank*. <http://www.sbaonline.sba.gov/SBIR/section03f14.html> (September 29, 1999); Small Business Administration, Office of Technology. *Total STTR Awards Awarded for Fiscal Year 99*. Received via a fax transmission June 21, 2001.

Establishments:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Average Annual Number of STTR Awards per 10,000 Business Establishments: 1997-9

STATE	Average Annual STTR Awards	1998 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	9	100,316	0.9	9	190%
Alaska	0	18,212	0.2	33	39%
Arizona	4	110,245	0.3	21	70%
Arkansas	0	62,353	0.1	46	11%
California	65	773,925	0.8	10	177%
Colorado	13	130,354	1.0	8	205%
Connecticut	4	92,362	0.4	18	92%
Delaware	1	22,871	0.4	17	92%
Florida	6	420,638	0.1	40	30%
Georgia	5	194,213	0.3	23	58%
Hawaii	0	29,603	0.0	49	0%
Idaho	1	35,961	0.2	32	39%
Illinois	5	304,533	0.2	35	37%
Indiana	2	146,197	0.2	38	34%
Iowa	2	80,838	0.2	31	44%
Kansas	2	74,019	0.2	28	48%
Kentucky	1	89,593	0.1	45	16%
Louisiana	0	100,667	0.0	48	7%
Maine	1	38,334	0.2	36	37%
Maryland	13	126,577	1.0	7	211%
Massachusetts	46	167,929	2.8	1	583%
Michigan	6	235,403	0.3	25	54%
Minnesota	2	134,981	0.2	37	37%
Mississippi	1	59,771	0.2	29	47%
Missouri	3	143,912	0.2	27	49%
Montana	4	30,957	1.2	4	250%
Nebraska	3	48,655	0.7	12	145%
Nevada	0	44,613	0.1	44	16%
New Hampshire	2	36,842	0.5	15	115%
New Jersey	11	230,860	0.5	16	98%
New Mexico	6	42,608	1.4	2	298%
New York	11	481,962	0.2	30	47%
North Carolina	5	198,690	0.3	26	53%
North Dakota	N/A	—	—	—	—
Ohio	19	270,343	0.7	11	146%
Oklahoma	1	84,881	0.1	43	17%
Oregon	4	99,183	0.4	19	78%
Pennsylvania	8	292,659	0.3	22	60%
Rhode Island	1	28,245	0.4	20	75%
South Carolina	0	94,985	0.0	47	7%
South Dakota	0	23,521	0.1	41	30%
Tennessee	8	131,110	0.6	14	129%
Texas	8	462,875	0.2	34	38%
Utah	6	52,025	1.2	3	257%
Vermont	0	21,261	0.2	39	33%
Virginia	20	172,182	1.2	5	245%
Washington	11	161,473	0.7	13	140%
West Virginia	0	41,703	0.1	42	17%
Wisconsin	4	138,635	0.3	24	56%
Wyoming	2	17,888	1.1	6	236%
United States (49 States)	327	6,901,963	0.5	—	100%
Dist of Columbia	1	19,571	0.7	—	144%
Puerto Rico	N/A	N/A	—	—	—



STTR Award Dollars

Definition

The average annual dollar award of Small Business Technology Transfer Program (STTR) grants per \$1,000 of gross state product (GSP) was calculated by averaging the dollar awards over the three-year period of 1997-9 and dividing this average by the state's GSP in 1998. STTR awards are given to partnerships of small businesses and non-profit research institutions. Phase 1 and Phase 2 awards dollars were combined to compute this metric. STTR awards go also to small businesses in the District of Columbia. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

This metric is useful in understanding the magnitude of federal investment in research partnerships between small businesses and non-profit research institutions. The STTR program was authorized in 1992 for U.S. companies that have fewer than 500 employees and are operated on a for-profit basis. The program is widely recognized as a way to encourage technological innovation within small businesses and to build strategic linkages between businesses and research institutions.

Each year, five federal departments are required to reserve a portion of their research and development (R&D) funds to award to small business/non-profit research institution partnerships. They include the Department of Defense, the Department of Energy, the Department of Health and Human Services, the National Aeronautics and Space Administration, and the National Science Foundation. Phase I awards of up to \$100,000 cover approximately one year's exploration of the scientific, technical, and commercial feasibility of an idea or technology. Phase II awards can range up to \$500,000 for two years to expand the Phase I results. The U.S. Small

Business Administration is the coordinating agency for the STTR program.

The total average annual STTR award dollars granted from 1997-9 for 49 states was \$63.0 million or \$0.007 per \$1,000 of U.S. gross domestic product (GDP). The median STTR award dollars granted in the 49 states was \$0.004 per \$1,000 of GSP. While the absolute dollars are a small part of GDP, the potential long-term benefits to small businesses and their local economy are much greater. First, small businesses are required to develop a strategic partnership with a federal research facility or non-profit research center. Second, small businesses are provided capital which is leveraged with their own investment dollars to develop new technology and products that can improve their market position. Third, the technology developed and commercialized as a result of the STTR awards may lead to the formation of new businesses or the accelerated growth of existing small businesses. Fourth, the federal government may find new suppliers for technologically advanced products thus stimulating the growth of small businesses.

Data Considerations and Limitations

The total STTR budget depends on the extramural R&D budgets of selected federal agencies. The STTR budget fluctuates depending on the agency budgets making year-to-year comparisons of state award receipt more difficult. Also, because of the relatively small number of awards each year, the dollar value of STTR awards going to any one state can vary widely on an annual basis. Using a three-year average helps to smooth out the yearly fluctuations.

Source of Data

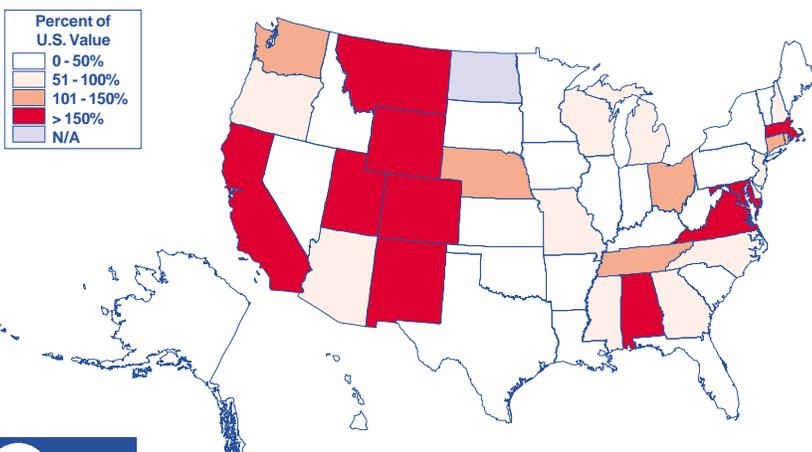
The 1997 and 1998 data for this metric is available electronically at <http://www.sba.gov/SBIR/library.html>. The 1999 data was obtained through a special request to the SBA. It will be available online at the above location later this year.

STTR Award Dollars Granted:

Small Business Administration. *Technology - 1997 STTR State Rank*. <http://www.sbaonline.sba.gov/SBIR/section03f05.html> (September 29, 1999); Small Business Administration. *Technology - 1998 STTR State Rank*. <http://www.sbaonline.sba.gov/SBIR/section03f14.html> (September 29, 1999); Small Business Administration, Office of Technology. *Total STTR Awards Awarded for Fiscal Year 99*. Received via a fax transmission June 21, 2001.

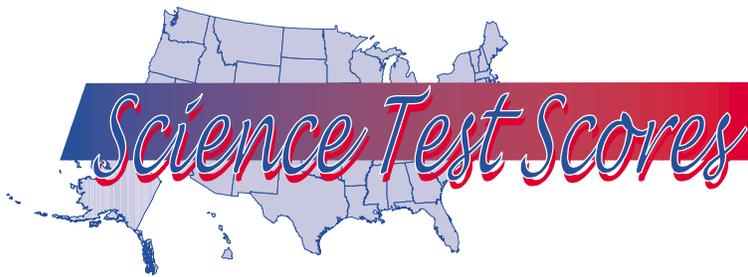
Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2000, September). *Gross State Product 1998*. <http://www.bea.doc.gov/bea/regional/gsp> (2000, December 8).



Average Annual STTR Award Dollars per \$1,000 of GSP: 1997-9

STATE	Average Annual STTR Dollars, thousands	1998 GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$2,273	\$109,833	\$0.021	5	285%
Alaska	\$33	\$24,236	\$0.001	43	19%
Arizona	\$610	\$133,801	\$0.005	24	63%
Arkansas	\$33	\$61,628	\$0.001	45	7%
California	\$12,626	\$1,118,945	\$0.011	10	155%
Colorado	\$2,134	\$141,791	\$0.015	8	207%
Connecticut	\$1,287	\$142,099	\$0.009	13	125%
Delaware	\$233	\$33,735	\$0.007	17	95%
Florida	\$1,425	\$418,851	\$0.003	29	47%
Georgia	\$1,019	\$253,769	\$0.004	27	55%
Hawaii	\$0	\$39,712	\$0.000	49	0%
Idaho	\$73	\$30,936	\$0.002	35	33%
Illinois	\$1,030	\$425,679	\$0.002	34	33%
Indiana	\$352	\$174,433	\$0.002	39	28%
Iowa	\$300	\$84,628	\$0.004	28	49%
Kansas	\$213	\$76,991	\$0.003	33	38%
Kentucky	\$67	\$107,152	\$0.001	44	9%
Louisiana	\$33	\$129,251	\$0.000	47	4%
Maine	\$67	\$32,318	\$0.002	37	28%
Maryland	\$2,676	\$164,798	\$0.016	7	224%
Massachusetts	\$9,404	\$239,379	\$0.039	1	541%
Michigan	\$1,216	\$294,505	\$0.004	26	57%
Minnesota	\$362	\$161,392	\$0.002	36	31%
Mississippi	\$399	\$62,216	\$0.006	18	88%
Missouri	\$815	\$162,772	\$0.005	22	69%
Montana	\$515	\$19,861	\$0.026	4	357%
Nebraska	\$326	\$51,737	\$0.006	19	87%
Nevada	\$33	\$63,044	\$0.001	46	7%
New Hampshire	\$295	\$41,313	\$0.007	16	98%
New Jersey	\$1,655	\$319,201	\$0.005	21	71%
New Mexico	\$1,337	\$47,736	\$0.028	2	386%
New York	\$2,135	\$706,886	\$0.003	32	42%
North Carolina	\$1,249	\$235,752	\$0.005	20	73%
North Dakota	N/A	—	—	—	—
Ohio	\$3,519	\$341,070	\$0.010	11	142%
Oklahoma	\$275	\$81,655	\$0.003	30	46%
Oregon	\$433	\$104,771	\$0.004	25	57%
Pennsylvania	\$1,208	\$364,039	\$0.003	31	46%
Rhode Island	\$223	\$30,443	\$0.007	15	101%
South Carolina	\$22	\$100,350	\$0.000	48	3%
South Dakota	\$33	\$21,224	\$0.002	42	22%
Tennessee	\$1,381	\$159,575	\$0.009	14	119%
Texas	\$1,145	\$645,596	\$0.002	41	24%
Utah	\$1,547	\$59,624	\$0.026	3	357%
Vermont	\$33	\$16,257	\$0.002	38	28%
Virginia	\$3,899	\$230,825	\$0.017	6	233%
Washington	\$1,974	\$192,864	\$0.010	12	141%
West Virginia	\$78	\$39,938	\$0.002	40	27%
Wisconsin	\$768	\$157,761	\$0.005	23	67%
Wyoming	\$200	\$17,530	\$0.011	9	157%
United States (49 States)	\$62,963	\$8,673,902	\$0.0073	—	100%
Dist of Columbia	\$319	\$54,100	\$0.006	—	81%
Puerto Rico	N/A	—	—	—	5%



Science Test Scores

Definition

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what students know in the areas of reading, mathematics, science, writing, history/geography, and other fields. The assessment represents the consensus of groups of curriculum experts, educators, and the general public on what should be covered in such a test. The scores reported in this metric refer to the results from eighth grade students in public schools in the area of science.

Relevance

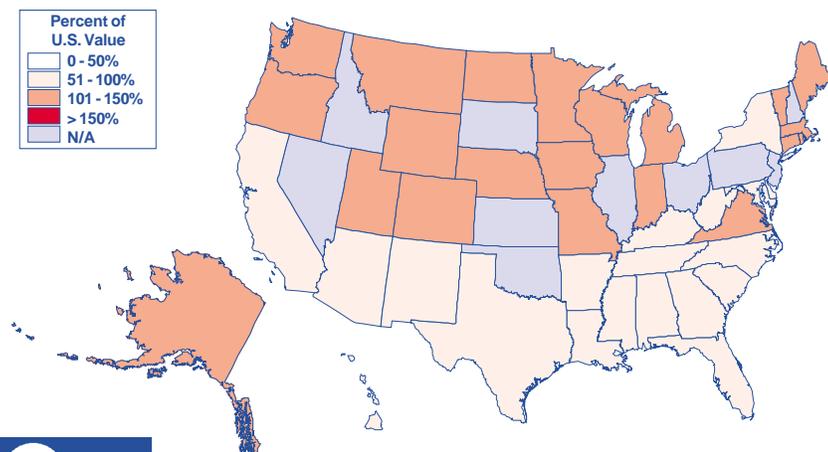
NAEP is a congressionally mandated project of the National Center for Education Statistics, the U.S. Department of Education. This metric reports the average overall scale score for the field of science by eighth grade students by state from the 1996 NAEP assessment. It is an indicator of how effectively students in a particular state are learning science at the elementary and middle school levels.

The average national score on this test was 148. The median test score for the participating states was 149. However, since participation in this assessment program was voluntary, only 40 states chose to participate. Thus, the aggregated data across states does not necessarily provide representative national results.

Data Considerations and Limitations

The results of the 1996 state assessment program are based upon state-level samples of eighth-grade public school students. The samples were selected based on a two-stage sample design selection of schools within participating states and selection of students within schools. Nevada, New Hampshire, and New Jersey did not obtain participation from 70% of their schools and thus failed to meet the minimum participation requirement. Their scores are not reported. Ten additional states met the 70% requirement but did not satisfy one or more of the guidelines for public school participation rates. The states of Alaska, Arkansas, Iowa, Maryland, Michigan, Montana, New York, South Carolina, Vermont, and Wisconsin fall into this category.

The data for this metric are identical to those published in the previous edition of this report. The science test is administered every four years. The test for the 2000 NAEP assessment program was administered during the winter of 2000. The results are not scheduled to be released until fall, 2001.



Source of Data

The findings from the National Assessment of Educational Progress in science are found in the National Center for Education Statistics report titled *NAEP 1996 science cross-state data compendium for the grade 8 assessment*. It is available electronically on the World Wide Web at <<http://nces.ed.gov/naep>>.

NAEP Science Test Scores:

Keiser, K.K., Nelson, J.E., Norris, N.A., Szyszkiewicz, S., *NAEP 1996 science cross-state data compendium for the grade 8 assessment*. Washington, DC: National Center for Education Statistics, (1998).

National Assessment of Educational Progress (NAEP) in Science Average State Test Scores: 1996

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	139	35	94%
Alaska	153	15	103%
Arizona	145	26	98%
Arkansas	144	29	97%
California	138	37	93%
Colorado	155	12	105%
Connecticut	155	12	105%
Delaware	142	31	96%
Florida	142	31	96%
Georgia	142	31	96%
Hawaii	135	38	91%
Idaho	N/A	—	—
Illinois	N/A	—	—
Indiana	153	15	103%
Iowa	158	6	107%
Kansas	N/A	—	—
Kentucky	147	22	99%
Louisiana	132	40	89%
Maine	163	1	110%
Maryland	145	26	98%
Massachusetts	157	8	106%
Michigan	153	15	103%
Minnesota	159	5	107%
Mississippi	133	39	90%
Missouri	151	18	102%
Montana	162	2	109%
Nebraska	157	8	106%
Nevada	N/A	—	—
New Hampshire	N/A	—	—
New Jersey	N/A	—	—
New Mexico	141	34	95%
New York	146	25	99%
North Carolina	147	22	99%
North Dakota	162	2	109%
Ohio	N/A	—	—
Oklahoma	N/A	—	—
Oregon	155	12	105%
Pennsylvania	N/A	—	—
Rhode Island	149	20	101%
South Carolina	139	35	94%
South Dakota	N/A	—	—
Tennessee	143	30	97%
Texas	145	26	98%
Utah	156	11	105%
Vermont	157	8	106%
Virginia	149	20	101%
Washington	150	19	101%
West Virginia	147	22	99%
Wisconsin	160	4	108%
Wyoming	158	6	107%
United States (40 States)	148	—	100%
Dist of Columbia	113	—	76%
Puerto Rico	N/A	—	—



Definition

This metric represents an estimate of the percentage of a state's non-institutional population aged 25 and older that has completed high school. The estimate was based on the March 2000 Supplement to the 2000 Current Population Survey (CPS). The CPS is a monthly interview-based survey conducted by the U.S. Bureau of the Census, and the supplement contains additional questions asked annually in March about money income received in the previous calendar year, educational attainment, household and family characteristics, marital status, and geographical mobility.

Relevance

High school completion, either through graduation or by successfully passing the general equivalency examination, is the first major educational milestone that is not mandated by law. Attaining this milestone represents a choice made by the student that affects both his own destiny and that of the wider community. The amount of education an individual has directly correlates with his earnings potential. A better-educated work force impacts the state's ability to grow established businesses and to attract new ones.

High school completion rates represent the first level of outcomes through which state educational systems can be compared. Graduation rates depend not only on teachers, classrooms, and buildings, but also on the emphasis that parents and the community place on education and on their willingness to provide alternative routes to meet the goal of high school completion.

Nationwide, 84.1% of all adults ages 25 and over have completed high school, but state high school completion rates vary from a low of 77.1% in West Virginia to a high of 91.8% in South Dakota and Washington. The median high school completion rate for the 50 states was 86.1%. The high school completion level of young adults (ages 25 to 29) was 88%, while 90% of the employed civilian labor force ages 25 and over had a high school diploma.

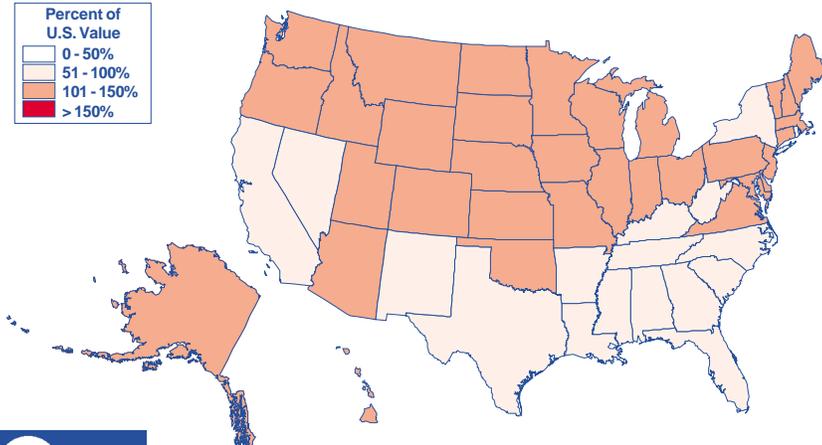
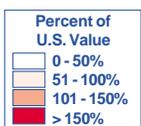
Data Considerations and Limitations

The data used for this metric represent estimates based on a sample survey and are subject to sample variability. The survey uses an estimation procedure that adjusts weighted sample results to agree with independent estimates of the civilian non-institutional population of the U.S. by age, sex, race, Hispanic/non-Hispanic origin, and state of residence.

Source of Data

High School Completion:

U.S. Census Bureau. (2000, December 19). *Educational Attainment in the United States: March 2000*. P20-528. <<http://www.cache.census.gov/population/socdemo/education/p20-536/tab13.txt>> (2001, March 22).



Percent of the Population that has Completed High School: 2000

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	77.5%	49	92%
Alaska	90.4%	5	107%
Arizona	85.1%	31	101%
Arkansas	81.7%	40	97%
California	81.2%	42	97%
Colorado	89.7%	9	107%
Connecticut	88.2%	13	105%
Delaware	86.1%	25	102%
Florida	84.0%	34	100%
Georgia	82.6%	37	98%
Hawaii	87.4%	17	104%
Idaho	86.2%	23	102%
Illinois	85.5%	29	102%
Indiana	84.6%	33	101%
Iowa	89.7%	9	107%
Kansas	88.1%	14	105%
Kentucky	78.7%	48	94%
Louisiana	80.8%	43	96%
Maine	89.3%	12	106%
Maryland	85.7%	27	102%
Massachusetts	85.1%	31	101%
Michigan	86.2%	23	102%
Minnesota	90.8%	3	108%
Mississippi	80.3%	44	95%
Missouri	86.6%	21	103%
Montana	89.6%	11	107%
Nebraska	90.4%	5	107%
Nevada	82.8%	36	98%
New Hampshire	88.1%	14	105%
New Jersey	87.3%	18	104%
New Mexico	82.2%	39	98%
New York	82.5%	38	98%
North Carolina	79.2%	46	94%
North Dakota	85.5%	29	102%
Ohio	87.0%	19	103%
Oklahoma	86.1%	25	102%
Oregon	88.1%	14	105%
Pennsylvania	85.7%	27	102%
Rhode Island	81.3%	41	97%
South Carolina	83.0%	35	99%
South Dakota	91.8%	1	109%
Tennessee	79.9%	45	95%
Texas	79.2%	46	94%
Utah	90.7%	4	108%
Vermont	90.0%	7	107%
Virginia	86.6%	21	103%
Washington	91.8%	1	109%
West Virginia	77.1%	50	92%
Wisconsin	86.7%	20	103%
Wyoming	90.0%	7	107%
United States (50 States)	84.1%	—	100%
Dist of Columbia	83.2%	—	99%
Puerto Rico	N/A	—	—



Associate's Degrees Granted

Definition

The number of associate's degrees conferred by Title IV eligible, degree-granting institutions in the 1997-8 academic year was segmented by state and normalized to the population of 18-24 year olds in each state. The 18-24 year old segment of the population was selected because it is the age division that corresponds most closely to the population of individuals who were the most likely candidates for an associate's degree. In this way, the number of associate's degrees granted by individual states can be compared. In addition to reporting the number of degrees awarded for size of the potential student population, this method of normalization also removed any differences in the age distribution of the population in different states. This was particularly important for those states having a high percentage of retirees.

Relevance

Obtaining an associate's degree is a next step in the educational ladder beyond the high school diploma. Some students who are awarded an associate's degree will continue with their education to the bachelor's level, but many will not. Since approximately twice as many bachelor's degrees are awarded each year as are associate's degrees, many bachelor's degree holders do not receive an associate's degree.

The total number of associate's degrees granted during 1997-8 in the 50 states was 558,101 that was equivalent to 2.19% of the 18-24 year old population. The median equivalent percentage of associate's degrees granted in the 50 states was 2.03% of the 18-24 year old population.

Data Considerations and Limitations

Data on the number of associate's degrees awarded were provided by state coordinators for the Integrated Postsecondary Education Data System (IPEDS) or by officials at individual institutions. Over 4,000 surveys were mailed to accredited institutions of higher education in the 50 states, District of Columbia, and the outlying areas. A response rate of over 97% was obtained from qualifying institutions in the 50 states and D.C. For institutions that failed to respond, data from the prior year or from fall enrollment surveys were used to develop imputed data.

The number of degrees awarded represents only the overall number of degrees awarded by institutions within a state. Degree recipients may include residents, out-of-state students, and foreign students. Data related to the degrees awarded by foreign institutions are not available by U.S. state of residence. Associate's degrees granted in Colorado, Connecticut, Maryland, and New York include data for U.S. Service Schools located in the state.

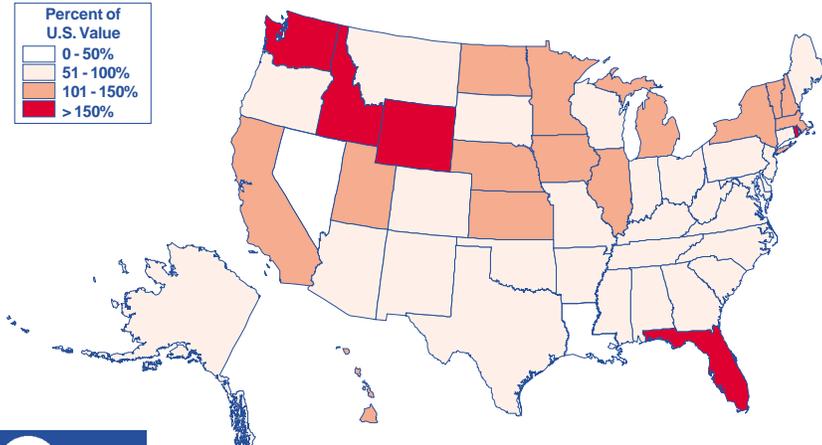
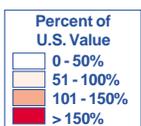
Source of Data

Associate's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] *Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98*, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.

Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). *1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex*. <<http://www.census.gov/population/www/estimates/st-99-10.html>> (2000, December 11).



Associate's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8

STATE	Associate's Degrees Granted	1998 Population 18-24 Years of Age	VALUE	Rank	Percent of U.S. Value
Alabama	9,077	436,188	2.08%	23	95%
Alaska	952	68,938	1.38%	44	63%
Arizona	9,246	449,276	2.06%	25	94%
Arkansas	3,155	251,125	1.26%	47	57%
California	72,030	3,167,158	2.27%	18	104%
Colorado	7,823	377,072	2.07%	24	95%
Connecticut	4,350	258,459	1.68%	39	77%
Delaware	1,087	67,145	1.62%	41	74%
Florida	48,209	1,206,087	4.00%	2	182%
Georgia	9,267	755,097	1.23%	48	56%
Hawaii	3,459	119,455	2.90%	10	132%
Idaho	5,093	139,361	3.65%	4	166%
Illinois	26,898	1,120,513	2.40%	15	109%
Indiana	10,747	571,553	1.88%	35	86%
Iowa	8,905	276,701	3.22%	6	147%
Kansas	7,163	261,877	2.74%	13	125%
Kentucky	6,386	398,182	1.60%	42	73%
Louisiana	4,785	474,896	1.01%	50	46%
Maine	2,336	109,713	2.13%	21	97%
Maryland	7,867	433,859	1.81%	37	83%
Massachusetts	11,912	505,375	2.36%	16	107%
Michigan	20,993	921,169	2.28%	17	104%
Minnesota	11,052	439,443	2.52%	14	115%
Mississippi	5,742	299,779	1.92%	32	87%
Missouri	10,207	508,710	2.01%	28	91%
Montana	1,648	88,569	1.86%	36	85%
Nebraska	3,745	166,843	2.24%	19	102%
Nevada	1,605	148,346	1.08%	49	49%
New Hampshire	2,898	95,762	3.03%	8	138%
New Jersey	13,171	672,197	1.96%	30	89%
New Mexico	3,493	173,926	2.01%	27	91%
New York	51,401	1,598,032	3.22%	7	147%
North Carolina	14,085	700,260	2.01%	26	92%
North Dakota	2,030	68,004	2.99%	9	136%
Ohio	19,904	1,052,593	1.89%	33	86%
Oklahoma	6,750	338,329	2.00%	29	91%
Oregon	5,850	303,420	1.93%	31	88%
Pennsylvania	21,470	1,022,038	2.10%	22	96%
Rhode Island	3,592	83,035	4.33%	1	197%
South Carolina	6,398	384,372	1.66%	40	76%
South Dakota	1,674	77,324	2.16%	20	99%
Tennessee	7,080	514,647	1.38%	45	63%
Texas	28,163	2,048,729	1.37%	46	63%
Utah	8,087	290,497	2.78%	11	127%
Vermont	1,442	52,011	2.77%	12	126%
Virginia	11,378	657,492	1.73%	38	79%
Washington	19,164	539,752	3.55%	5	162%
West Virginia	2,918	182,594	1.60%	43	73%
Wisconsin	9,386	497,893	1.89%	34	86%
Wyoming	2,028	53,105	3.82%	3	174%
United States (50 States)	558,101	25,426,901	2.19%	—	100%
Dist of Columbia	454	43,309	1.05%	—	48%
Puerto Rico	N/A	N/A	—	—	—



Bachelor's Degrees Granted

Definition

The number of bachelor's degrees conferred by Title IV eligible, degree-granting institutions in the 1997-8 academic year was segmented by state and normalized to the population of 18-24 year olds for each state. The 18-24 year old segment of the population was selected because it corresponds most closely to the population of individuals who were the most likely to be pursuing a bachelor's degree. In this way, the number of bachelor's degrees granted by individual states can be compared. In addition to reporting the number of degrees awarded for size of the potential student population, this method of normalization also removed any differences in the age distribution of the population in different states. This was particularly important for those states having a high percentage of retirees.

Relevance

The bachelor's degree represents a four-year course of study beyond high school. Students receiving the bachelor's degree may or may not have received an associate's degree. States ranking high in the number of bachelor's degrees granted as a percentage of population of 18-24 year olds have invested in their higher education infrastructure and have a population of young adults who believe higher education is an important investment in their future. The total number of bachelor's degrees granted during 1997-8 in the 50 states was 1,177,037 which was equivalent to 4.63% of the 18-24 year old population. The median equivalent percentage of bachelor's degrees granted in the 50 states was 4.71% of the 18-24 year old population.

Data Considerations and Limitations

Data on the number of bachelor's degrees awarded were provided by state coordinators for the Integrated Postsecondary Education Data System (IPEDS) or by officials at individual institutions. Over 4,000 surveys were mailed to accredited institutions of higher education in the 50 states, District of Columbia, and the outlying areas. A response rate of over 97% was obtained from qualifying institutions in the 50 states and D.C. For institutions that failed to respond, data from the prior year or from the fall enrollment survey were used to develop imputed data.

The number of degrees awarded represents only the overall number of degrees awarded by institutions within a state. Degree recipients may include residents, out-of-state students, and foreign students. Data related to the degrees awarded by foreign institutions are not available by U.S. state of residence. Bachelor's degrees granted in Colorado, Connecticut, Maryland, and New York include data for U.S. Service Schools located in the state.

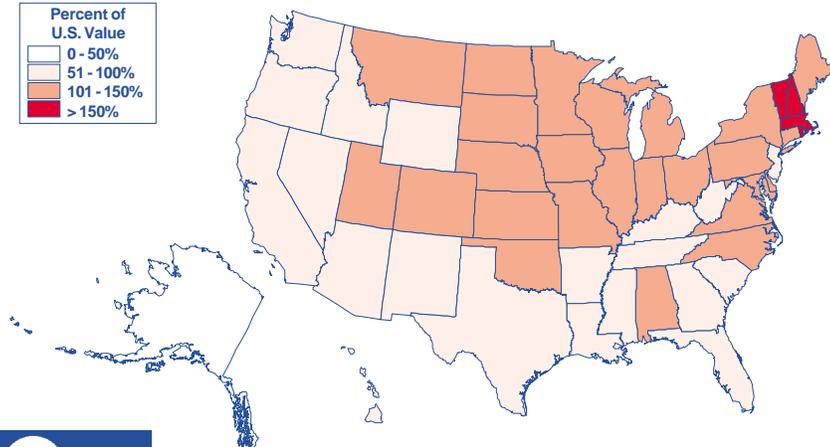
Source of Data

Total Bachelor's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] *Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98*, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.

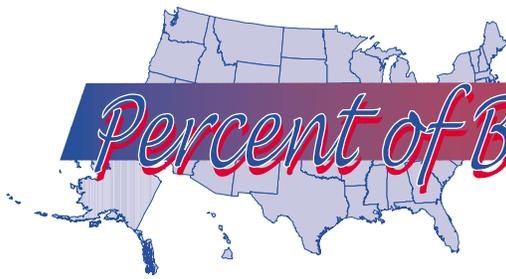
Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). *1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex*. <<http://www.census.gov/population/www/estimates/st-99-10.html>> (2000, December 11).



Total Bachelor's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8

STATE	Bachelor's Degrees Granted	1998 Population 18-24 Years of Age	VALUE	Rank	Percent of U.S. Value
Alabama	20,335	436,188	4.66%	28	101%
Alaska	1,479	68,938	2.15%	50	46%
Arizona	18,381	449,276	4.09%	34	88%
Arkansas	9,222	251,125	3.67%	43	79%
California	112,145	3,167,158	3.54%	44	76%
Colorado	21,314	377,072	5.65%	13	122%
Connecticut	13,750	258,459	5.32%	19	115%
Delaware	4,418	67,145	6.58%	6	142%
Florida	48,463	1,206,087	4.02%	35	87%
Georgia	29,408	755,097	3.89%	39	84%
Hawaii	4,653	119,455	3.90%	38	84%
Idaho	4,602	139,361	3.30%	47	71%
Illinois	52,196	1,120,513	4.66%	29	101%
Indiana	30,833	571,553	5.39%	17	117%
Iowa	17,543	276,701	6.34%	7	137%
Kansas	14,026	261,877	5.36%	18	116%
Kentucky	14,977	398,182	3.76%	41	81%
Louisiana	18,553	474,896	3.91%	37	84%
Maine	5,442	109,713	4.96%	22	107%
Maryland	21,720	433,859	5.01%	21	108%
Massachusetts	40,727	505,375	8.06%	3	174%
Michigan	44,186	921,169	4.80%	24	104%
Minnesota	23,044	439,443	5.24%	20	113%
Mississippi	10,290	299,779	3.43%	46	74%
Missouri	28,888	508,710	5.68%	12	123%
Montana	4,932	88,569	5.57%	14	120%
Nebraska	10,071	166,843	6.04%	9	130%
Nevada	3,937	148,346	2.65%	49	57%
New Hampshire	7,600	95,762	7.94%	4	171%
New Jersey	25,056	672,197	3.73%	42	81%
New Mexico	6,582	173,926	3.78%	40	82%
New York	93,577	1,598,032	5.86%	10	126%
North Carolina	34,129	700,260	4.87%	23	105%
North Dakota	4,588	68,004	6.75%	5	146%
Ohio	49,080	1,052,593	4.66%	27	101%
Oklahoma	15,887	338,329	4.70%	26	101%
Oregon	13,652	303,420	4.50%	31	97%
Pennsylvania	63,484	1,022,038	6.21%	8	134%
Rhode Island	8,169	83,035	9.84%	1	213%
South Carolina	15,174	384,372	3.95%	36	85%
South Dakota	4,273	77,324	5.53%	15	119%
Tennessee	21,538	514,647	4.19%	33	90%
Texas	71,771	2,048,729	3.50%	45	76%
Utah	16,670	290,497	5.74%	11	124%
Vermont	4,455	52,011	8.57%	2	185%
Virginia	31,000	657,492	4.71%	25	102%
Washington	23,442	539,752	4.34%	32	94%
West Virginia	8,290	182,594	4.54%	30	98%
Wisconsin	27,379	497,893	5.50%	16	119%
Wyoming	1,706	53,105	3.21%	48	69%
United States (50 States)	1,177,037	25,426,901	4.63%	—	100%
Dist of Columbia	7,369	43,309	17.01%	—	368%
Puerto Rico	N/A	N/A	—	—	—



Percent of Bachelor's Degrees in S&E

Definition

Science and engineering (S&E) bachelor's degrees are defined as bachelor's degrees with a major field of study in the area of natural sciences and mathematics and engineering. Specific disciplines include: agriculture and natural resources, biology, computer sciences, physical sciences, and engineering/technology. To calculate this metric, the number of bachelor's degrees awarded to students with one of these major fields of study was divided by the total number of bachelor's degrees awarded in the academic year 1997-8. The data were segmented by state.

degrees will be high. Similarly, if students find departments in the areas of science and technology that are well-staffed, well-equipped, and doing interesting, cutting edge research they will tend to be attracted to those areas.

The total number of S&E bachelor's degrees granted during 1997-8 in the 50 states was 207,244 or 17.6% of all bachelor's degrees granted. For the 50 states, the median percentage of bachelor's degrees awarded in S&E was 17.6%.

Relevance

Bachelor's degrees can be granted in many fields of study and represent the initial level of specialization. The students earning bachelor's degrees in S&E are likely to be the technical workers of the future. The absolute number of bachelor's degrees in S&E gives an indication of the capacity of a state's higher education system to train technical workers. This number will vary widely and should be normalized to account for population differences before any comparison of technical training-capacity between states is made. (See data on population of 18-24 year olds in previous metric.)

Data Considerations and Limitations

Data on the number of bachelor's degrees awarded by area of specialization were provided by state coordinators for the Integrated Postsecondary Education Data System (IPEDS) or by officials at individual institutions. Over 4,000 surveys were mailed to accredited institutions of higher education in the fifty states, District of Columbia, and the outlying areas. A response rate of over 97% was obtained from qualifying institutions in the 50 states and D.C. For institutions that failed to respond, data from the prior year or from the fall enrollment survey were used to develop imputed data. Bachelor's degrees in S&E conferred by U.S. Service schools are not included.

The percent of bachelor's degrees granted in S&E provides an indication of the orientation of a state's higher education resources toward science and technology. If a state has relatively few institutions of higher learning and those institutions are heavily technology-oriented, the percentage of technical

Source of Data

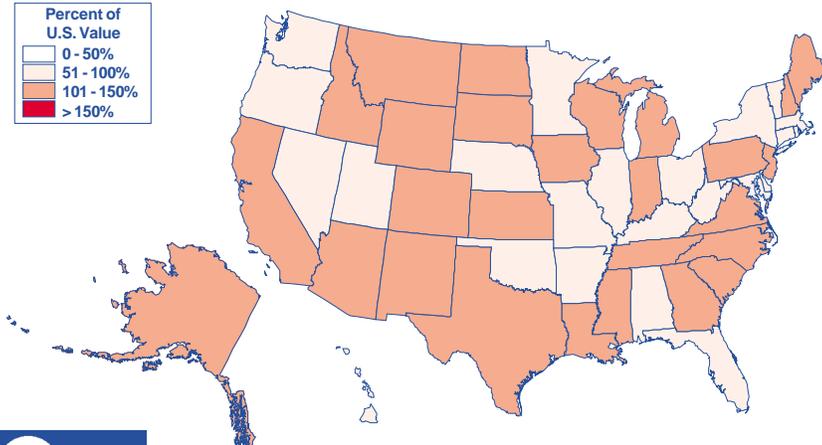
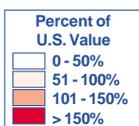
Data on the number and area of specialization of bachelor's degrees granted was compiled from the IPEDS database. For additional information available through IPEDS contact Frank Morgan at (202) 219-1779.

Science and Engineering Bachelor's Degrees Granted:

Arrangements for special tabulations from the IPEDS database were made by Thomas Snyder, Program Director, Annual Reports Program-ECICSD, National Center for Education Statistics at (202) 502-7452 on May 9, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Total Bachelor's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] *Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98*, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.



Percent of Bachelor's Degrees Granted in Science and Engineering: 1997-8

STATE	S&E Bachelor's Degrees Granted	Total Bachelor's Degrees Granted	VALUE	Rank	Percent of U.S. Value
Alabama	3,568	20,335	17.5%	29	100%
Alaska	322	1,479	21.8%	4	124%
Arizona	3,565	18,381	19.4%	9	110%
Arkansas	1,519	9,222	16.5%	39	94%
California	21,279	112,145	19.0%	13	108%
Colorado	4,389	21,314	20.6%	5	117%
Connecticut	1,843	13,750	13.4%	49	76%
Delaware	705	4,418	16.0%	42	91%
Florida	7,176	48,463	14.8%	47	84%
Georgia	5,338	29,408	18.2%	21	103%
Hawaii	594	4,653	12.8%	50	73%
Idaho	925	4,602	20.1%	7	114%
Illinois	9,003	52,196	17.2%	32	98%
Indiana	5,894	30,833	19.1%	12	109%
Iowa	3,091	17,543	17.6%	26	100%
Kansas	2,484	14,026	17.7%	23	101%
Kentucky	2,456	14,977	16.4%	40	93%
Louisiana	3,561	18,553	19.2%	11	109%
Maine	1,048	5,442	19.3%	10	109%
Maryland	3,660	21,720	16.9%	36	96%
Massachusetts	7,130	40,727	17.5%	30	99%
Michigan	9,039	44,186	20.5%	6	116%
Minnesota	3,859	23,044	16.7%	37	95%
Mississippi	1,893	10,290	18.4%	18	104%
Missouri	4,804	28,888	16.6%	38	94%
Montana	1,192	4,932	24.2%	2	137%
Nebraska	1,602	10,071	15.9%	43	90%
Nevada	564	3,937	14.3%	48	81%
New Hampshire	1,384	7,600	18.2%	20	103%
New Jersey	4,651	25,056	18.6%	17	105%
New Mexico	1,208	6,582	18.4%	19	104%
New York	13,888	93,577	14.8%	46	84%
North Carolina	6,348	34,129	18.6%	16	106%
North Dakota	894	4,588	19.5%	8	111%
Ohio	8,435	49,080	17.2%	34	98%
Oklahoma	2,575	15,887	16.2%	41	92%
Oregon	2,369	13,652	17.4%	31	99%
Pennsylvania	11,363	63,484	17.9%	22	102%
Rhode Island	1,233	8,169	15.1%	45	86%
South Carolina	2,685	15,174	17.7%	24	100%
South Dakota	1,030	4,273	24.1%	3	137%
Tennessee	3,797	21,538	17.6%	25	100%
Texas	12,645	71,771	17.6%	27	100%
Utah	2,868	16,670	17.2%	33	98%
Vermont	783	4,455	17.6%	28	100%
Virginia	5,767	31,000	18.6%	15	106%
Washington	3,977	23,442	17.0%	35	96%
West Virginia	1,307	8,290	15.8%	44	90%
Wisconsin	5,096	27,379	18.6%	14	106%
Wyoming	438	1,706	25.7%	1	146%
United States (50 States)	207,244	1,177,037	17.6%	—	100%
Dist of Columbia	975	7,369	13.2%	—	75%
Puerto Rico	N/A	N/A	—	—	—



Definition

The total number of science and engineering (S&E) graduate students in each state was normalized by dividing by the 18-24 year old population in that state to calculate the S&E graduate students as a percent of the 18-24 year old population. This does not imply that all graduate students are 18-24 years old. Rather, it indicates the size of the population (according to age divisions used by the Bureau of the Census) from which the graduate students are most likely to be drawn. This approach corrects for differences in population of the various states and also minimizes any differences in age distribution of the general population between states. For instance, a disproportionate percentage of retirees in one state's population will not affect this metric for that state.

Relevance

This metric indicates where the next generation of scientists and engineers with advanced degrees are being trained for entry into the economic pipeline. States with the highest percentages of S&E graduate students have invested most heavily in creating the infrastructure to train students for advanced S&E degrees. The total number of S&E graduate students during 1999 in the 50 states was 401,390 which was equivalent to 1.55% of the 18-24 year old population. For the 50 states, the median number of S&E graduate students was equivalent to 1.39% of the 18-24 year old population.

Data Considerations and Limitations

The data pertaining to the number of S&E graduate students came from the fall 1999 National Science Foundation/National Institutes of Health (NSF/NIH) *Survey of Graduate Students and Postdoctorates in Science and Engineering*. The data represent estimates of total enrollment in science and engineering programs in approximately 11,833 graduate departments at 599 institutions in the U.S. and outlying areas. It covers graduate enrollment and postdoctoral employment at the beginning of academic year 1999-2000 in all academic institutions in the U.S. that offer doctorate or master's degree programs in any science or engineering field including physical sciences, environmental sciences, mathematical sciences, computer sciences, agricultural sciences, life sciences, social sciences, psychology, and engineering. Student counts exclude M.D., D.V.M., D.D.S., and D.O. candidates, interns, and residents unless they are concurrently working for a master's or Ph.D. in a science or engineering field or are enrolled in a joint M.D./Ph.D. program.

Source of Data

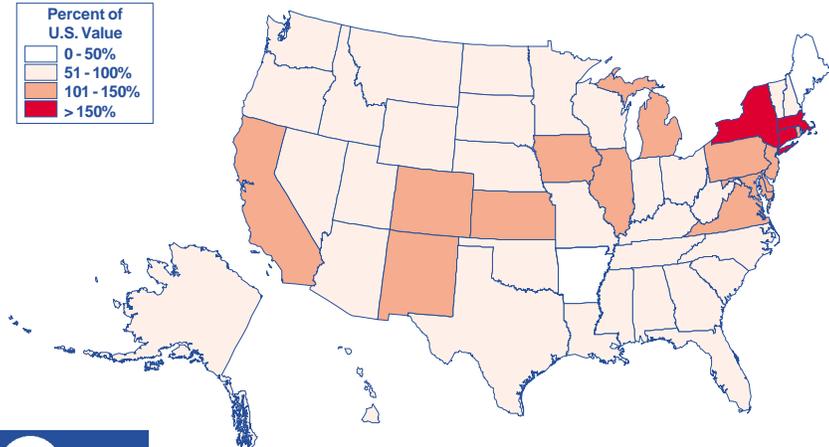
Data on the number of S&E graduate students can be accessed electronically at <http://www.nsf.gov/sbe/srs/gss/start.htm> or by calling (301) 947-2722 to obtain the report.

Science and Engineering Graduate Students:

National Science Foundation, Division of Science Resources Studies, *Graduate Students and Postdoctorates in Science and Engineering: Fall 1999*, NSF 01-315, Project Officer, Joan Burrelli (Arlington, VA 2001).

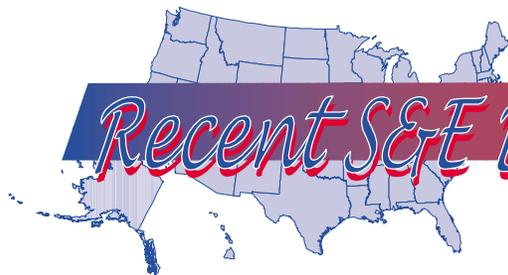
Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). *1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex*. <http://www.census.gov/population/www/estimates/st-99-10.html> (2000, December 11).



Science and Engineering Graduate Students as a Percent of the 18-24 Year Old Population: 1999

STATE	S&E Graduate Students	Population 18-24 Years of Age	VALUE	Rank	Percent of U.S. Value
Alabama	4,968	439,534	1.13%	35	73%
Alaska	671	70,923	0.95%	44	61%
Arizona	6,402	459,678	1.39%	25	90%
Arkansas	1,901	251,473	0.76%	49	49%
California	53,188	3,318,684	1.60%	13	104%
Colorado	8,242	392,703	2.10%	4	136%
Connecticut	6,063	255,714	2.37%	3	153%
Delaware	1,441	69,255	2.08%	5	135%
Florida	14,802	1,235,957	1.20%	32	77%
Georgia	8,550	773,918	1.10%	38	71%
Hawaii	1,488	119,733	1.24%	30	80%
Idaho	1,458	143,975	1.01%	42	66%
Illinois	22,581	1,143,197	1.98%	8	128%
Indiana	8,097	576,310	1.40%	21	91%
Iowa	4,437	282,178	1.57%	15	102%
Kansas	5,600	271,382	2.06%	7	133%
Kentucky	3,777	404,621	0.93%	45	60%
Louisiana	5,376	481,018	1.12%	36	72%
Maine	572	110,630	0.52%	50	33%
Maryland	9,169	441,978	2.07%	6	134%
Massachusetts	19,786	512,732	3.86%	1	250%
Michigan	14,561	927,893	1.57%	16	102%
Minnesota	6,903	454,001	1.52%	19	98%
Mississippi	2,464	302,471	0.81%	48	53%
Missouri	5,805	520,487	1.12%	37	72%
Montana	1,238	89,389	1.38%	26	90%
Nebraska	2,375	170,141	1.40%	23	90%
Nevada	1,378	155,758	0.88%	46	57%
New Hampshire	1,314	98,125	1.34%	27	87%
New Jersey	10,579	672,511	1.57%	14	102%
New Mexico	2,953	176,216	1.68%	12	108%
New York	39,808	1,618,762	2.46%	2	159%
North Carolina	9,896	709,470	1.39%	24	90%
North Dakota	1,057	68,507	1.54%	17	100%
Ohio	16,204	1,065,274	1.52%	18	98%
Oklahoma	3,699	342,931	1.08%	40	70%
Oregon	3,733	311,544	1.20%	31	78%
Pennsylvania	18,208	1,025,209	1.78%	10	115%
Rhode Island	1,641	83,921	1.96%	9	126%
South Carolina	3,288	392,508	0.84%	47	54%
South Dakota	791	78,159	1.01%	43	65%
Tennessee	5,725	519,799	1.10%	39	71%
Texas	27,421	2,100,197	1.31%	28	84%
Utah	3,780	300,984	1.26%	29	81%
Vermont	605	53,195	1.14%	34	74%
Virginia	11,460	673,268	1.70%	11	110%
Washington	5,773	557,946	1.03%	41	67%
West Virginia	2,103	179,418	1.17%	33	76%
Wisconsin	7,304	508,317	1.44%	20	93%
Wyoming	755	53,784	1.40%	22	91%
United States (50 States)	401,390	25,965,778	1.55%	—	100%
Dist of Columbia	7,230	45,671	15.83%	—	1024%
Puerto Rico	2,601	N/A	—	—	—



Recent S&E Bachelor's in the Work Force

Definition

ehT

The number of individuals who had earned a bachelor's degree in the fields of science and engineering (S&E) as their highest degree during the academic years of 1990-1998 was identified from the National Science Foundation's Scientists and Engineers Statistical Data System (SESTAT) database. This group was segmented by employer location reported for the week of April 15, 1999. Excluded from the group were degree holders who were unemployed or not in the labor force at that time, as well as those who had earned recent S&E degrees from foreign institutions.

The percent of the civilian work force with a recent degree in science or engineering was calculated by dividing the number of bachelor's degree holders described above by the size of the 1999 civilian work force in that state. No attempt was made to identify or separate science and engineering bachelor's degree holders who were employed in a non-science and engineering field.

SESTAT is a database of the employment, education, and demographic characteristics of the nation's scientists and engineers. The National Science Foundation developed 1999 estimates based upon survey results from:

- The National Survey of College Graduates,
- The National Survey of Recent College Graduates, and
- The Survey of Doctorate Recipients.

Data on the size of the civilian work force in each state came from the Bureau of Labor Statistics.

Relevance

This metric indicates where recent graduates with bachelor's degrees in S&E are choosing to work. It reflects a number of individualistic location criteria related to quality of life, economic opportunities, family responsibilities, and continuing educational opportunities. Regardless of their reasons for selecting a particular location, the presence of large numbers of recent S&E graduates enriches a state's work force and catalyzes the transfer of current technical knowledge into the local economy. In the 50 states, the total number of persons with recent S&E bachelor's degrees employed in the workforce during 1999 was 1,973,510 or 1.42% of the total workforce. For the 50 states, the median percentage of persons with recent S&E bachelor's degrees in the work force was 1.29%.

Data Considerations and Limitations

The National Science Foundation provided estimates of the number of recent S&E bachelor's degree holders by state from a special tabulation of the 1999 SESTAT database. A special tabulation was needed because the data on recent graduates are not usually published at the state level.

Because the survey sample design for the SESTAT database does not include geography as part of the sampling strata, the reliability of the estimates in states with small populations is lower than in more highly populated states. The number of degree holders in each state was rounded to the nearest ten to reflect the precision justified by the statistical analysis.

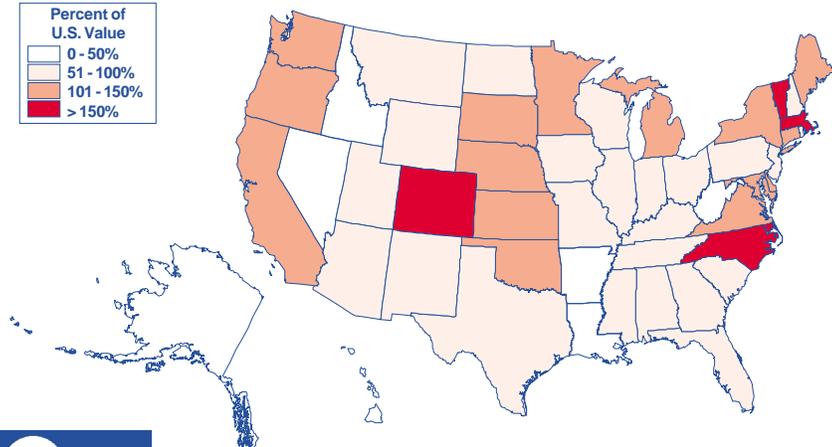
Source of Data

Recent Science and Engineering Bachelor's Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Civilian Labor Force (1999 Data):

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). *State and Regional Unemployment, 2000 Annual Averages*. <ftp://146.142.4.23/pub/news.release/srgune.txt> (2001, March 21).



Percent of Civilian Work Force with a Recent Bachelor's Degree in Science or Engineering: 1999

STATE	Recent S&E Bachelor's Degrees Employed	Civilian Labor Force, thousands	VALUE	Rank	Percent of U.S. Value
Alabama	21,360	2,141	1.00%	38	70%
Alaska	2,030	319	0.64%	47	45%
Arizona	29,330	2,359	1.24%	29	88%
Arkansas	5,110	1,229	0.42%	50	29%
California	258,450	16,596	1.56%	16	110%
Colorado	54,760	2,264	2.42%	3	170%
Connecticut	29,990	1,708	1.76%	13	124%
Delaware	6,940	390	1.78%	12	125%
Florida	68,220	7,361	0.93%	41	65%
Georgia	52,610	4,078	1.29%	26	91%
Hawaii	4,200	593	0.71%	44	50%
Idaho	4,490	651	0.69%	46	49%
Illinois	76,250	6,378	1.20%	33	84%
Indiana	36,820	3,076	1.20%	32	84%
Iowa	19,080	1,573	1.21%	31	85%
Kansas	28,350	1,434	1.98%	7	139%
Kentucky	15,080	1,967	0.77%	42	54%
Louisiana	14,400	2,052	0.70%	45	49%
Maine	13,190	670	1.97%	8	139%
Maryland	45,130	2,775	1.63%	15	115%
Massachusetts	97,340	3,284	2.96%	1	209%
Michigan	75,250	5,144	1.46%	18	103%
Minnesota	51,780	2,703	1.92%	10	135%
Mississippi	13,360	1,268	1.05%	37	74%
Missouri	36,700	2,841	1.29%	25	91%
Montana	6,720	474	1.42%	20	100%
Nebraska	17,650	912	1.94%	9	136%
Nevada	5,220	942	0.55%	48	39%
New Hampshire	8,400	668	1.26%	27	89%
New Jersey	51,600	4,205	1.23%	30	86%
New Mexico	10,630	809	1.31%	24	93%
New York	167,010	8,882	1.88%	11	132%
North Carolina	94,020	3,868	2.43%	2	171%
North Dakota	3,840	337	1.14%	35	80%
Ohio	67,360	5,754	1.17%	34	82%
Oklahoma	24,810	1,655	1.50%	17	106%
Oregon	29,030	1,761	1.65%	14	116%
Pennsylvania	57,900	5,976	0.97%	40	68%
Rhode Island	4,970	504	0.99%	39	69%
South Carolina	25,920	1,963	1.32%	22	93%
South Dakota	8,190	400	2.05%	6	144%
Tennessee	30,560	2,816	1.09%	36	76%
Texas	134,360	10,219	1.31%	23	93%
Utah	13,550	1,086	1.25%	28	88%
Vermont	7,720	336	2.30%	4	162%
Virginia	50,590	3,528	1.43%	19	101%
Washington	64,560	3,075	2.10%	5	148%
West Virginia	3,410	816	0.42%	49	29%
Wisconsin	21,770	2,890	0.75%	43	53%
Wyoming	3,500	262	1.34%	21	94%
United States (50 States)	1,973,510	138,992	1.42%	—	100%
Dist of Columbia	29,060	281	10.34%	—	728%
Puerto Rico	11,680	1,302	0.90%	—	63%



Recent S&E Master's in the Work Force

Definition

The number of individuals who had earned a master's degree in the fields of science and engineering (S&E) as their highest degree during the academic years of 1990-1998 was identified from the National Science Foundation's Scientists and Engineers Statistical Data System (SESTAT) database. This group was segmented by employer location reported for the week of April 15, 1999. Excluded from the group were degree holders who were unemployed or not in the labor force at that time, as well as those who had earned recent S&E degrees from foreign institutions.

The percent of the civilian work force with a recent degree in science or engineering was calculated by dividing number of master's degree holders described above by the size of the 1999 civilian work force in that state. No attempt was made to identify or separate science and engineering master's degree holders who were employed in a non-science and engineering field.

SESTAT is a database of the employment, education, and demographic characteristics of the nation's scientists and engineers. The National Science Foundation developed 1999 estimates based upon survey results from:

- The National Survey of College Graduates,
- The National Survey of Recent College Graduates, and
- The Survey of Doctorate Recipients.

Data on the size of the civilian work force in each state came from the Bureau of Labor Statistics.

Relevance

This metric indicates where recent graduates with master's degrees in S&E are choosing to work. It reflects a number of individualistic location criteria related to quality of life, economic opportunities, family responsibilities, and continuing educational opportunities. Regardless of their reasons for selecting a particular location, the presence of large numbers of recent S&E graduates enriches a state's work force and catalyzes the transfer of current technical knowledge into the local economy. In the 50 states, the total number of persons with recent S&E master's degrees employed in the workforce during 1999 was 447,710 or 0.32% of the total workforce. For the 50 states, the median percentage of persons with recent S&E master's degrees in the work force was 0.28%.

Data Considerations and Limitations

The National Science Foundation provided estimates of the number of recent S&E master's degree holders by state from a special tabulation of the 1999 SESTAT database. A special tabulation was needed because the data on recent graduates are not usually published at the state level.

Because the survey sample design for the SESTAT database does not include geography as part of the sampling strata, the reliability of the estimates in states with small populations is lower than in more highly populated states. The number of degree holders in each state was rounded to the nearest ten to reflect the precision justified by the statistical analysis.

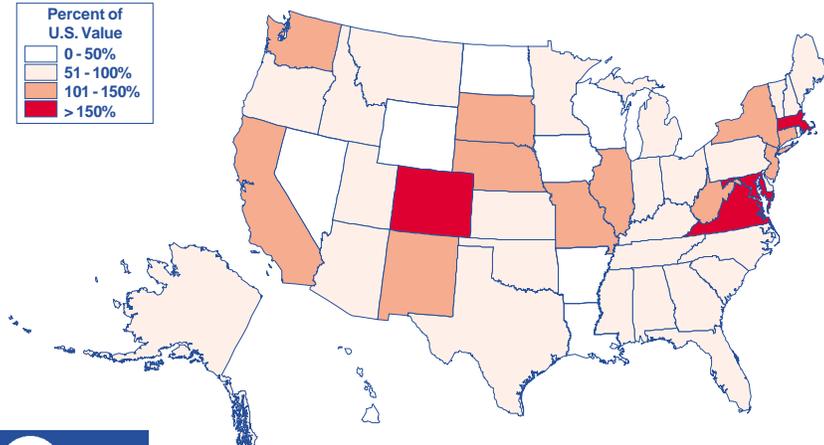
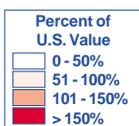
Source of Data

Recent Science and Engineering Master's Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

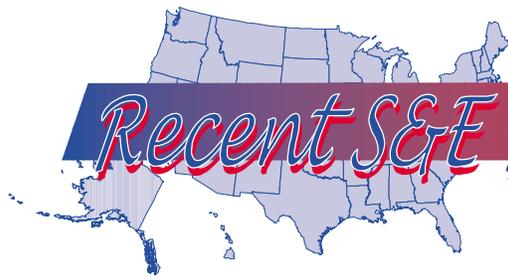
Civilian Labor Force (1999 Data):

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). *State and Regional Unemployment, 2000 Annual Averages*. <ftp://146.142.4.23/pub/news.release/srgune.txt> (2001, March 21).



Percent of Civilian Work Force with a Recent Master's Degree in Science or Engineering: 1999

STATE	Recent S&E Master's Degrees Employed	Civilian Labor Force, thousands	VALUE	Rank	Percent of U.S. Value
Alabama	5,160	2,141	0.24%	35	75%
Alaska	810	319	0.25%	33	79%
Arizona	7,450	2,359	0.32%	17	98%
Arkansas	1,900	1,229	0.15%	43	48%
California	67,410	16,596	0.41%	8	126%
Colorado	11,550	2,264	0.51%	3	158%
Connecticut	5,740	1,708	0.34%	14	104%
Delaware	1,040	390	0.27%	29	83%
Florida	16,550	7,361	0.22%	38	70%
Georgia	12,650	4,078	0.31%	19	96%
Hawaii	620	593	0.10%	48	32%
Idaho	1,700	651	0.26%	31	81%
Illinois	24,340	6,378	0.38%	10	118%
Indiana	7,360	3,076	0.24%	36	74%
Iowa	2,290	1,573	0.15%	44	45%
Kansas	4,330	1,434	0.30%	20	94%
Kentucky	4,080	1,967	0.21%	39	64%
Louisiana	2,640	2,052	0.13%	46	40%
Maine	1,650	670	0.25%	34	76%
Maryland	14,810	2,775	0.53%	2	166%
Massachusetts	19,060	3,284	0.58%	1	180%
Michigan	16,420	5,144	0.32%	16	99%
Minnesota	7,060	2,703	0.26%	30	81%
Mississippi	3,250	1,268	0.26%	32	80%
Missouri	10,670	2,841	0.38%	12	117%
Montana	850	474	0.18%	42	56%
Nebraska	4,090	912	0.45%	5	139%
Nevada	1,090	942	0.12%	47	36%
New Hampshire	1,810	668	0.27%	27	84%
New Jersey	16,860	4,205	0.40%	9	124%
New Mexico	3,080	809	0.38%	11	118%
New York	32,830	8,882	0.37%	13	115%
North Carolina	10,840	3,868	0.28%	24	87%
North Dakota	260	337	0.08%	50	24%
Ohio	13,730	5,754	0.24%	37	74%
Oklahoma	4,730	1,655	0.29%	23	89%
Oregon	5,540	1,761	0.31%	18	98%
Pennsylvania	16,310	5,976	0.27%	26	85%
Rhode Island	1,350	504	0.27%	28	83%
South Carolina	3,670	1,963	0.19%	41	58%
South Dakota	1,300	400	0.33%	15	101%
Tennessee	5,330	2,816	0.19%	40	59%
Texas	30,320	10,219	0.30%	21	92%
Utah	3,020	1,086	0.28%	25	86%
Vermont	990	336	0.29%	22	91%
Virginia	17,940	3,528	0.51%	4	158%
Washington	13,470	3,075	0.44%	6	136%
West Virginia	3,330	816	0.41%	7	127%
Wisconsin	4,160	2,890	0.14%	45	45%
Wyoming	270	262	0.10%	49	32%
United States (50 States)	447,710	138,992	0.32%	—	100%
Dist of Columbia	8,430	281	3.00%	—	931%
Puerto Rico	1,420	1,302	0.11%	—	34%



Recent S&E PhD's in the Work Force

Definition

The number of individuals who had earned a Ph.D. degree in the fields of science and engineering (S&E) as their highest degree during the academic years of 1990-1998 was identified from the National Science Foundation's 1999 Scientists and Engineers Statistical Data System (SESTAT) database. This group was segmented by employer location reported for the week of April 15, 1999. Excluded from the group were degree holders who were unemployed or not in the labor force at that time, as well as those who had earned recent S&E degrees from foreign institutions. Holders of doctoral level professional degrees such as those awarded in medicine, law, or education are not included.

The percent of the civilian work force with a recent degree in science or engineering was calculated by dividing the number of Ph.D. degree holders described above by the size of the 1999 civilian work force in that state. No attempt was made to identify or separate S&E Ph.D. degree holders who were employed in a non-science and engineering field.

SESTAT is a database of the employment, education, and demographic characteristics of the nation's scientists and engineers. The National Science Foundation developed 1999 estimates based upon survey results from:

- The National Survey of College Graduates,
- The National Survey of Recent College Graduates, and
- The Survey of Doctorate Recipients.

Data on the size of the civilian work force in each state came from the Bureau of Labor Statistics.

Relevance

This metric indicates where recent graduates with doctorate degrees in S&E are choosing to work. It reflects a number of individualistic location criteria related to quality of life, economic opportunities, family responsibilities, and continuing educational opportunities. Regardless of their reasons for selecting a particular location, the presence of large numbers of recent S&E graduates enriches a state's work force and catalyzes the transfer of current technical knowledge into the local economy.

In the 50 states, the total number of persons with recent S&E doctorate degrees employed in the workforce during 1999 was 189,680 or 0.14% of the total workforce. For the 50 states, the median percentage of persons with recent S&E doctorate degrees in the work force was 0.11%.

Data Considerations and Limitations

The National Science Foundation provided estimates of the number of recent S&E doctorate degree holders by state from a special tabulation of the 1999 SESTAT database. A special tabulation was needed because the data on recent graduates are not usually published at the state level.

Because the survey sample design for the SESTAT database does not include geography as part of the sampling strata, the reliability of the estimates in states with small populations is lower than in more highly populated states. The number of degree holders in each state was rounded to the nearest ten to reflect the precision justified by the statistical analysis.

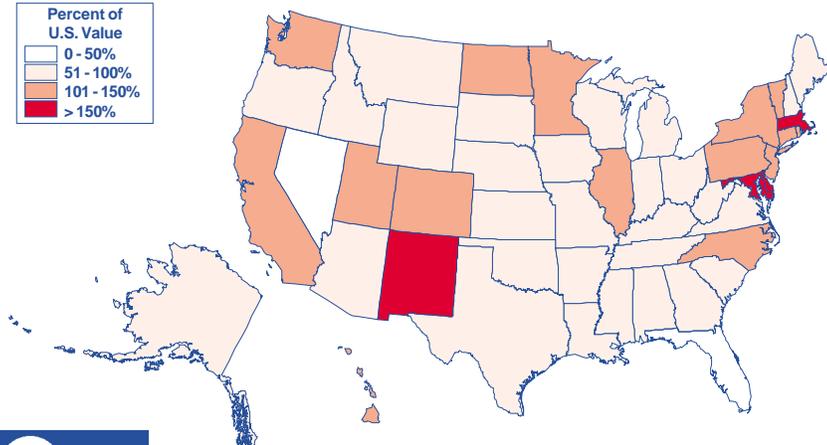
Source of Data

Recent Science and Engineering Ph.D. Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Civilian Labor Force (1999 Data):

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). *State and Regional Unemployment, 2000 Annual Averages*. <ftp://146.142.4.23/pub/news.release/srgune.txt> (2001, March 21).



Percent of Civilian Work Force with a Recent PhD in Science or Engineering: 1999

STATE	Recent S&E Doctorate Degrees Employed	Civilian Labor Force, thousands	VALUE	Rank	Percent of U.S. Value
Alabama	1,840	2,141	0.09%	40	63%
Alaska	290	319	0.09%	37	67%
Arizona	2,320	2,359	0.10%	35	72%
Arkansas	1,110	1,229	0.09%	38	66%
California	29,140	16,596	0.18%	9	129%
Colorado	4,020	2,264	0.18%	7	130%
Connecticut	3,200	1,708	0.19%	5	137%
Delaware	950	390	0.24%	4	178%
Florida	4,850	7,361	0.07%	49	48%
Georgia	4,420	4,078	0.11%	28	79%
Hawaii	850	593	0.14%	16	105%
Idaho	800	651	0.12%	23	90%
Illinois	8,770	6,378	0.14%	19	101%
Indiana	3,310	3,076	0.11%	29	79%
Iowa	1,420	1,573	0.09%	39	66%
Kansas	1,170	1,434	0.08%	44	60%
Kentucky	1,500	1,967	0.08%	46	56%
Louisiana	1,890	2,052	0.09%	36	67%
Maine	570	670	0.09%	42	62%
Maryland	7,710	2,775	0.28%	3	204%
Massachusetts	11,240	3,284	0.34%	1	251%
Michigan	6,400	5,144	0.12%	22	91%
Minnesota	4,250	2,703	0.16%	10	115%
Mississippi	1,260	1,268	0.10%	34	73%
Missouri	3,170	2,841	0.11%	26	82%
Montana	540	474	0.11%	25	83%
Nebraska	980	912	0.11%	30	79%
Nevada	530	942	0.06%	50	41%
New Hampshire	670	668	0.10%	33	73%
New Jersey	7,510	4,205	0.18%	6	131%
New Mexico	2,660	809	0.33%	2	241%
New York	13,960	8,882	0.16%	11	115%
North Carolina	5,330	3,868	0.14%	18	101%
North Dakota	500	337	0.15%	14	109%
Ohio	7,020	5,754	0.12%	24	89%
Oklahoma	1,410	1,655	0.09%	41	62%
Oregon	2,390	1,761	0.14%	20	99%
Pennsylvania	8,620	5,976	0.14%	15	106%
Rhode Island	710	504	0.14%	17	103%
South Carolina	1,370	1,963	0.07%	48	51%
South Dakota	340	400	0.09%	43	62%
Tennessee	2,200	2,816	0.08%	45	57%
Texas	11,250	10,219	0.11%	27	81%
Utah	1,700	1,086	0.16%	12	115%
Vermont	590	336	0.18%	8	129%
Virginia	4,490	3,528	0.13%	21	93%
Washington	4,600	3,075	0.15%	13	110%
West Virginia	590	816	0.07%	47	53%
Wisconsin	3,000	2,890	0.10%	31	76%
Wyoming	270	262	0.10%	32	76%
United States (50 States)	189,680	138,992	0.14%	—	100%
Dist of Columbia	3,960	1.41%	3.00%	—	1033%
Puerto Rico	550	1,302	0.04%	—	31%



Definition

Venture capital funds are equity investments made in private companies by the venture capital community. The amount of venture capital funds raised in 2000 per \$1,000 of gross state product (GSP) is calculated by dividing the total amount of venture capital invested in a state in 2000 by the 1999 GSP of the state which represents the most current data available. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

As a method of raising funds for growth and expansion, companies typically seek venture capital investments at an early stage in their growth prior to establishing a predictable sales history that would qualify them for other types of financing. Because of the risks involved with this type of investment, venture capitalists require higher rates of return and a greater degree of control in the company in exchange for their investment. This metric provides an indication of the role that venture capital financing plays in each state.

The industries and individual companies that venture capitalists choose to invest in reflect their opinions as to the sources of future wealth creation. Companies that attract venture capital investment are perceived to be working at the cutting edge of technology in their respective industries and are deemed to have a high chance for success.

In 2000, venture capital companies invested a total of \$84.4 billion in U.S. companies located in the 50 states. This represents an investment equivalent to \$9.22 per \$1,000 of U.S. gross domestic product (GDP). The median amount of venture capital invested per \$1,000 of GSP in the 50 states was \$3.24.

Data Considerations and Limitations

This data came from the PricewaterhouseCoopers Money Tree™ Survey in Partnership with VentureOne. The survey measures cash-for-equity investment by the professional venture capital community and similar entities in emerging private companies in the United States. It does not include buyouts, recapitalizations, secondary purchases, IPO's, investments in public companies, or other forms of private equity involving services-in-kind or any form of debt. Also excluded are investments for which the proceeds are primarily intended for acquisitions, such as roll-ups and spinouts of operating divisions of established companies. Debt and bridge rounds are included only upon conversion to equity.

Over one thousand venture capital and private equity firms are sent a questionnaire each quarter. This data is augmented by other research techniques to identify and quantify investment activity. In order for a company to be included in the results, it must have received at least one round of funding that involved a recognized, professional venture capital firm. If a company has received funding from a professional venture capital firm in a prior round, all subsequent rounds are included regardless of financing source. If a company receives its first round of funding from a professional venture capital firm in the current period, any investments from prior periods are included regardless of financing source. Therefore, results are updated periodically and are subject to change at any time.

Note: This methodology represents an expansion in the scope of the survey from that used in previous years. Unless data from previous years have been restated, they are not directly comparable.

Source of Data

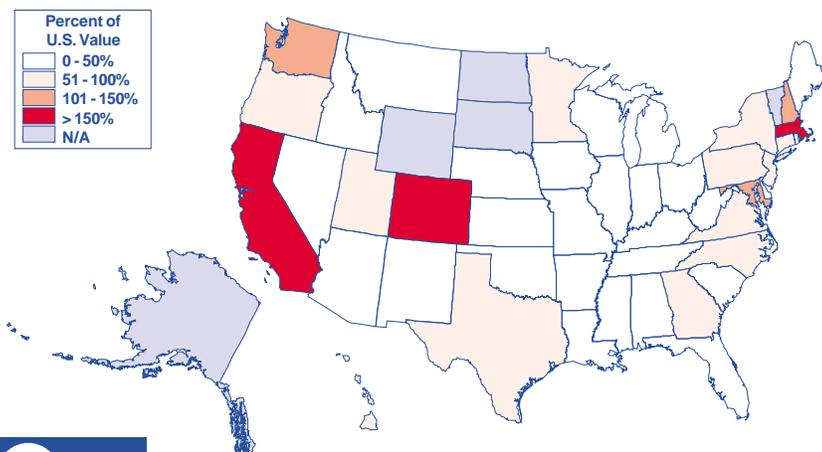
Data on venture capital investments were obtained from the PricewaterhouseCoopers Money Tree™ Survey in partnership with VentureOne. A national report summarizing the U.S. findings for the most recent quarter can be accessed electronically at <http://www.pwcmoneytree.com>.

Venture Capital:

PricewaterhouseCoopers Money Tree™ Survey in Partnership with VentureOne.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).



Amount of Venture Capital Funds Invested per \$1,000 of GSP: 2000

STATE	Venture Capital Invested, millions	1999 GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$98	\$115,071	\$0.85	32	9%
Alaska	N/A	—	—	—	—
Arizona	\$421	\$143,683	\$2.93	24	32%
Arkansas	\$1	\$64,773	\$0.02	45	0%
California	\$37,765	\$1,229,098	\$30.73	2	333%
Colorado	\$4,162	\$153,728	\$27.07	3	293%
Connecticut	\$1,297	\$151,779	\$8.55	7	93%
Delaware	\$134	\$34,669	\$3.88	19	42%
Florida	\$1,498	\$442,895	\$3.38	21	37%
Georgia	\$1,907	\$275,719	\$6.92	12	75%
Hawaii	\$230	\$40,914	\$5.62	15	61%
Idaho	\$7	\$34,025	\$0.21	40	2%
Illinois	\$1,443	\$445,666	\$3.24	23	35%
Indiana	\$171	\$182,202	\$0.94	30	10%
Iowa	\$11	\$85,243	\$0.13	42	1%
Kansas	\$127	\$80,843	\$1.57	26	17%
Kentucky	\$149	\$113,539	\$1.31	27	14%
Louisiana	\$31	\$128,959	\$0.24	37	3%
Maine	\$115	\$34,064	\$3.36	22	36%
Maryland	\$1,679	\$174,710	\$9.61	6	104%
Massachusetts	\$8,848	\$262,564	\$33.70	1	365%
Michigan	\$387	\$308,310	\$1.26	28	14%
Minnesota	\$878	\$172,982	\$5.07	18	55%
Mississippi	\$14	\$64,286	\$0.21	38	2%
Missouri	\$592	\$170,470	\$3.47	20	38%
Montana	\$15	\$20,636	\$0.73	33	8%
Nebraska	\$6	\$53,744	\$0.10	43	1%
Nevada	\$22	\$69,864	\$0.31	36	3%
New Hampshire	\$485	\$44,229	\$10.96	5	119%
New Jersey	\$2,355	\$331,544	\$7.10	10	77%
New Mexico	\$11	\$51,026	\$0.21	39	2%
New York	\$5,021	\$754,590	\$6.65	13	72%
North Carolina	\$1,814	\$258,592	\$7.01	11	76%
North Dakota	N/A	—	—	—	—
Ohio	\$317	\$361,981	\$0.88	31	9%
Oklahoma	\$14	\$86,382	\$0.16	41	2%
Oregon	\$593	\$109,694	\$5.41	16	59%
Pennsylvania	\$2,023	\$382,980	\$5.28	17	57%
Rhode Island	\$67	\$32,546	\$2.07	25	22%
South Carolina	\$75	\$106,917	\$0.70	34	8%
South Dakota	N/A	—	—	—	—
Tennessee	\$164	\$170,085	\$0.96	29	10%
Texas	\$4,494	\$687,272	\$6.54	14	71%
Utah	\$511	\$62,641	\$8.16	9	88%
Vermont	N/A	—	—	—	—
Virginia	\$1,983	\$242,221	\$8.19	8	89%
Washington	\$2,400	\$209,258	\$11.47	4	124%
West Virginia	\$3	\$40,685	\$0.07	44	1%
Wisconsin	\$102	\$166,481	\$0.61	35	7%
Wyoming	N/A	—	—	—	—
United States (45 States)	\$84,437	\$9,153,560	\$9.22	—	100%
Dist of Columbia	\$437	\$55,832	\$7.82	—	85%
Puerto Rico	N/A	—	—	—	—



Definition

Congress created the Small Business Investment Company (SBIC) Program in 1958 to fill the gap between available venture capital and the financial needs of small business in start-up and growth situations. The average annual amount of SBIC funds disbursed per \$1,000 of gross state product (GSP) was calculated by averaging the amount of SBIC funds invested in small business in a particular state for the three-year period from 1998-2000 and dividing by that state's 1999 GSP. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

SBICs are profit-motivated businesses that provide equity capital, long-term loans, debt-equity investments, and management assistance to small businesses. They are licensed by the Small Business Administration (SBA) and leverage their own capital with funds borrowed at favorable rates with an SBA guarantee. This metric provides an indication of the role that SBIC financing plays in each state.

SBICs make funding available to all types of manufacturing and service industries, but many focus on companies with new products or services because of the strong growth potential of such firms. SBICs are prohibited from investing in other SBICs, finance and investment companies or finance-type leasing companies, unimproved real estate, companies with less than one-half of their assets and operations in the U.S., passive or casual businesses, or companies which will use the proceeds to acquire farm land. SBIC investment can take many forms including seed financing, start-up capi-

tal, early stage capital, expansion financing, later state financing, or MBO/LBO/Acquisition financing.

In the 50 states, SBICs disbursed \$12.9 billion to small U.S. companies over the 1998-2000 period for an average of \$4.3 billion annually. This represented an investment equivalent to \$0.46 per \$1,000 of U.S. gross domestic product (GDP). The median amount of SBIC funds disbursed per \$1,000 of GSP in the 50 states was \$0.33.

Data Considerations and Limitations

A three-year average of SBIC disbursements was used to minimize year-to-year variability. GSP data from 1999, the middle year of the three-year period, was used to normalize the disbursement data to account for differences in the size of a state's business base.

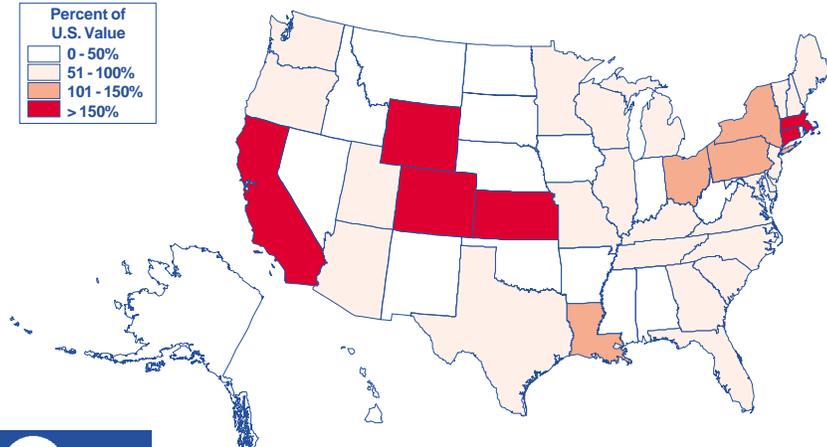
Source of Data

SBIC Funds Disbursed:

Small Business Administration. (2000, April 21). *SBIC Program Financing to Small Business - Table 7: ALL SBIC Program Licensees Financing to Small Businesses by State*. <<http://www.sba.gov/INV/stat/2001.html>> (2000, December 12).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product: 1999*. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12); Government of Puerto Rico, Office of the Governor. (2001, March 13) "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." *Puerto Rico Planning Board Economic Report, 2000*. <<http://www.jp.prstar.net/>> (2001, July 12).



Average Annual Amount of SBIC Funds Disbursed per \$1,000 of GSP: 1998-2000

STATE	Avg. Annual Number of SBIC Funding Disbursements	Average Annual SBIC Funds Disbursed	1999 GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	24.7	\$16,362,911	\$115,071	\$0.14	40	31%
Alaska	0.3	\$187,625	\$26,353	\$0.01	50	2%
Arizona	30.3	\$65,420,847	\$143,683	\$0.46	12	98%
Arkansas	11.7	\$2,514,881	\$64,773	\$0.04	48	8%
California	603.3	\$900,033,271	\$1,229,098	\$0.73	4	158%
Colorado	72.7	\$121,929,991	\$153,728	\$0.79	3	171%
Connecticut	69.7	\$109,913,135	\$151,779	\$0.72	6	156%
Delaware	9.0	\$9,091,721	\$34,669	\$0.26	32	57%
Florida	101.7	\$128,847,091	\$442,895	\$0.29	31	63%
Georgia	84.3	\$117,694,386	\$275,719	\$0.43	16	92%
Hawaii	5.0	\$1,228,370	\$40,914	\$0.03	49	6%
Idaho	2.7	\$2,166,356	\$34,025	\$0.06	46	14%
Illinois	409.3	\$190,893,571	\$445,666	\$0.43	15	92%
Indiana	18.7	\$13,877,029	\$182,202	\$0.08	44	16%
Iowa	13.7	\$19,084,425	\$85,243	\$0.22	35	48%
Kansas	43.7	\$58,902,643	\$80,843	\$0.73	5	157%
Kentucky	31.0	\$27,761,659	\$113,539	\$0.24	34	53%
Louisiana	11.3	\$65,819,946	\$128,959	\$0.51	10	110%
Maine	5.3	\$8,329,625	\$34,064	\$0.24	33	53%
Maryland	63.7	\$53,090,354	\$174,710	\$0.30	30	66%
Massachusetts	218.3	\$224,419,686	\$262,564	\$0.85	1	184%
Michigan	37.7	\$102,374,588	\$308,310	\$0.33	25	72%
Minnesota	51.0	\$64,534,818	\$172,982	\$0.37	20	80%
Mississippi	11.0	\$12,460,788	\$64,286	\$0.19	38	42%
Missouri	53.3	\$70,843,848	\$170,470	\$0.42	17	90%
Montana	1.3	\$2,891,667	\$20,636	\$0.14	42	30%
Nebraska	3.7	\$2,337,111	\$53,744	\$0.04	47	9%
Nevada	6.3	\$4,919,244	\$69,864	\$0.07	45	15%
New Hampshire	20.7	\$16,640,738	\$44,229	\$0.38	18	81%
New Jersey	163.3	\$152,484,330	\$331,544	\$0.46	11	99%
New Mexico	5.3	\$11,231,668	\$51,026	\$0.22	37	47%
New York	733.7	\$490,818,536	\$754,590	\$0.65	7	140%
North Carolina	43.7	\$82,665,136	\$258,592	\$0.32	27	69%
North Dakota	2.3	\$2,408,680	\$16,991	\$0.14	41	31%
Ohio	75.3	\$193,477,477	\$361,981	\$0.53	8	115%
Oklahoma	10.7	\$19,109,069	\$86,382	\$0.22	36	48%
Oregon	19.7	\$33,831,627	\$109,694	\$0.31	28	67%
Pennsylvania	156.7	\$199,546,098	\$382,980	\$0.52	9	112%
Rhode Island	12.7	\$14,431,230	\$32,546	\$0.44	14	96%
South Carolina	18.7	\$32,744,369	\$106,917	\$0.31	29	66%
South Dakota	1.3	\$2,054,333	\$21,631	\$0.09	43	20%
Tennessee	47.7	\$62,717,251	\$170,085	\$0.37	21	80%
Texas	221.7	\$309,595,869	\$687,272	\$0.45	13	97%
Utah	35.3	\$20,262,790	\$62,641	\$0.32	26	70%
Vermont	9.0	\$5,851,669	\$17,164	\$0.34	23	74%
Virginia	60.3	\$90,805,627	\$242,221	\$0.37	19	81%
Washington	53.7	\$73,686,494	\$209,258	\$0.35	22	76%
West Virginia	12.3	\$6,922,275	\$40,685	\$0.17	39	37%
Wisconsin	16.7	\$56,453,983	\$166,481	\$0.34	24	73%
Wyoming	0.7	\$14,776,807	\$17,448	\$0.85	2	183%
United States (50 States)	3,716	\$4,290,447,642	\$9,253,147	\$0.46	—	100%
Dist of Columbia	5.7	\$16,473,334	\$55,832	\$0.30	—	64%
Puerto Rico	4.0	\$1,314,034	\$38,297	\$0.03	—	7%



Definition

Initial public offerings (IPOs) are another method by which companies raise capital for growth and expansion. The average annual amount of IPO funds raised per \$1,000 of gross state product (GSP) was calculated by taking the average annual amount of IPO funds raised by companies in the state for the period of 1998-2000 and dividing by the 1999 GSP for that state. GSP is the output of goods and services produced by the labor and property located in the state.

Relevance

IPOs occur when a privately owned company wishes to offer shares of its common stock to the public. This process is under the control of Securities and Exchange Commission. Companies are required to file appropriate documentation prior to being allowed to start trading. An IPO is one method available to a company for raising funds for expansion, product development, or acquisition. It is typically used by companies that have grown to the stage of having a predictable sales history. This metric provides an indication of the role that IPO financing plays in each state.

In the 50 states, U.S. companies raised \$148.7 billion from 1998-2000 through initial public offerings for an average of \$49.6 billion annually. This represented an investment equivalent to \$5.36 per \$1,000 of U.S. gross domestic product (GDP). The median amount of IPO funds raised per \$1,000 of GSP in the 50 states was \$1.63.

Data Considerations and Limitations

For this metric, the average annual amount of IPO funds raised was calculated over a three-year period to reduce the year-to-year variability in the data.

The data includes all U.S.-based IPOs regardless of the stock type. Excluded are real estate investment trusts (REITs), bank conversions, closed-end funds, and over-the-counter offerings.

Source of Data

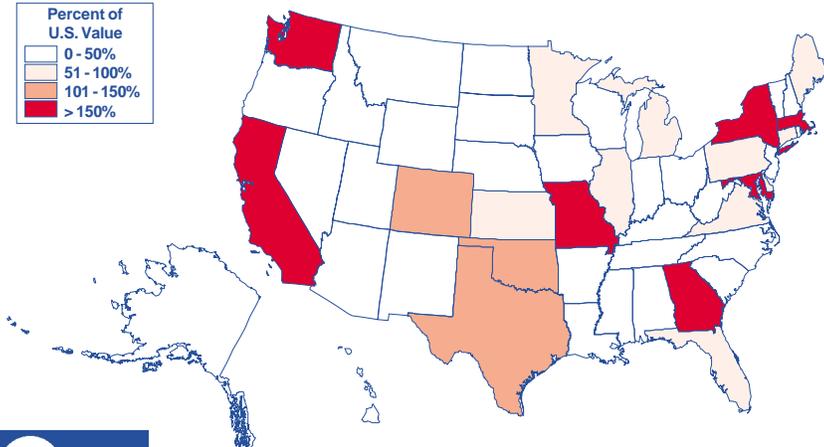
The IPO data was compiled by Hale and Dorr LLP using the following sources: IPO Central, IPO Data Systems, Securities Data Company and the Washington Service Bureau. Questions regarding the IPO data should be directed to Tim Gallagher at timothy.gallagher@haledorr.com.

IPO Funds Raised:

Hale and Dorr LLP. (1999, April 30). *1998 New England IPO Report*. <http://www.haledorr.com/publications/ipo/ipo98/NEIPO_1998.pdf> (1999, October 19); Hale and Dorr LLP. (2000, February 17). *1999 The IPO Report*. <http://www.haleanddorr.com/publications/ipo/ipo99_98/99report.pdf> (2000, February 25); Hale and Dorr LLP. (2001, February 26). *2000 The IPO Report*. <http://www.haledorr.com/db30/cgi-bin/pubs/2000_IPO_report.pdf> (2001, June 13).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). *Gross State Product*. 1999 <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).



Average Annual Amount of IPO Funds Raised per \$1,000 of GSP: 1998-2000

STATE	Average Annual IPO Funds Raised, millions	1999 GSP, millions	VALUE	Rank	Percent of U.S. Value
Alabama	\$4	\$115,071	\$0.03	46	1%
Alaska	\$47	\$26,353	\$1.77	24	33%
Arizona	\$382	\$143,683	\$2.66	21	50%
Arkansas	\$19	\$64,773	\$0.29	40	5%
California	\$11,294	\$1,229,098	\$9.19	6	172%
Colorado	\$900	\$153,728	\$5.85	9	109%
Connecticut	\$545	\$151,779	\$3.59	15	67%
Delaware	\$153	\$34,669	\$4.40	11	82%
Florida	\$1,803	\$442,895	\$4.07	13	76%
Georgia	\$2,729	\$275,719	\$9.90	4	185%
Hawaii	\$18	\$40,914	\$0.43	38	8%
Idaho	\$8	\$34,025	\$0.24	41	5%
Illinois	\$1,427	\$445,666	\$3.20	16	60%
Indiana	\$25	\$182,202	\$0.14	43	3%
Iowa	\$58	\$85,243	\$0.68	32	13%
Kansas	\$256	\$80,843	\$3.16	18	59%
Kentucky	\$55	\$113,539	\$0.48	37	9%
Louisiana	\$66	\$128,959	\$0.51	36	10%
Maine	\$148	\$34,064	\$4.36	12	81%
Maryland	\$1,488	\$174,710	\$8.52	7	159%
Massachusetts	\$3,423	\$262,564	\$13.04	2	243%
Michigan	\$919	\$308,310	\$2.98	19	56%
Minnesota	\$471	\$172,982	\$2.72	20	51%
Mississippi	\$61	\$64,286	\$0.95	28	18%
Missouri	\$1,649	\$170,470	\$9.67	5	181%
Montana	\$13	\$20,636	\$0.65	33	12%
Nebraska	\$22	\$53,744	\$0.42	39	8%
Nevada	\$60	\$69,864	\$0.85	31	16%
New Hampshire	\$62	\$44,229	\$1.41	27	26%
New Jersey	\$591	\$331,544	\$1.78	23	33%
New Mexico	\$3	\$51,026	\$0.06	45	1%
New York	\$8,090	\$754,590	\$10.72	3	200%
North Carolina	\$243	\$258,592	\$0.94	29	18%
North Dakota	\$0	\$16,991	\$0.00	47	0%
Ohio	\$227	\$361,981	\$0.63	34	12%
Oklahoma	\$471	\$86,382	\$5.45	10	102%
Oregon	\$269	\$109,694	\$2.45	22	46%
Pennsylvania	\$1,221	\$382,980	\$3.19	17	60%
Rhode Island	\$7	\$32,546	\$0.23	42	4%
South Carolina	\$58	\$106,917	\$0.54	35	10%
South Dakota	\$2	\$21,631	\$0.10	44	2%
Tennessee	\$284	\$170,085	\$1.67	25	31%
Texas	\$4,356	\$687,272	\$6.34	8	118%
Utah	\$100	\$62,641	\$1.59	26	30%
Vermont	\$0	\$17,164	\$0.00	47	0%
Virginia	\$883	\$242,221	\$3.65	14	68%
Washington	\$4,497	\$209,258	\$21.49	1	401%
West Virginia	\$0	\$40,685	\$0.00	47	0%
Wisconsin	\$145	\$166,481	\$0.87	30	16%
Wyoming	\$0	\$17,448	\$0.00	47	0%
United States (50 States)	\$49,552	\$9,253,147	\$5.36	—	100%
Dist of Columbia	\$186	\$55,832	\$3.33	—	62%
Puerto Rico	N/A	—	—	—	—



Business Incubators

Definition

The number of business incubators available to serve 10,000 businesses in a particular state was calculated by dividing the total number of business incubators in that state in 2001 by the total number of businesses in the state and multiplying the result by 10,000. In this case, the data were normalized to the number of businesses since businesses represent the clients that the incubator is designed to serve. 1999 data on the number of businesses in a state was used since that is the most current data available.

Relevance

In addition to accessible capital, other resources can facilitate the growth and development of entrepreneurial companies. Business incubators offering specialized physical facilities at reduced rates, flexible lease terms, shared support services, business assistance services, and management coaching enable start-up companies to stretch their resources farther and to develop the internal capacity to grow their companies. The entire bundle of facilities and value added support services make the incubation program attractive to start-up companies. The success rate of businesses that have graduated from business incubators is significantly higher than that of start-up companies without this support. Although it is not clear whether this success is due to the initial screening process that many incubators employ. Many states support business incubators as a means of stimulating economic development.

Over half of all North American business incubators are sponsored by government and non-profit organizations. Incubators

facilitate job creation, economic diversification, and/or expansion of the tax base. Another quarter of the business incubators are affiliated with academic institutions, and, in addition, these incubators provide opportunities to commercialize technology developed at the institution and investment opportunities for alumni, faculty, and associated groups.

In 2001, there were 1,130 incubators in the 50 states, which amounted to 1.62 incubators per 10,000 business establishments. The median number of business incubators per 10,000 business establishments in the 50 states was 1.32.

Data Considerations and Limitations

Data on the number and location of incubators came from the database of the National Business Incubation Association (NBIA), a not-for-profit 501(c)(3) membership organization headquartered in Athens, Ohio. NBIA identifies incubators from inquiries to their web site, referrals from other incubators, incubators who purchase materials through their bookstore, etc. Their database of business incubators appears to be the most complete nationwide listing available, and NBIA estimates that it covers more than 50% of the total U.S. incubators. However, there is no reliable method of determining exactly what fraction of the total number of incubators is included in the NBIA database.

Source of Data

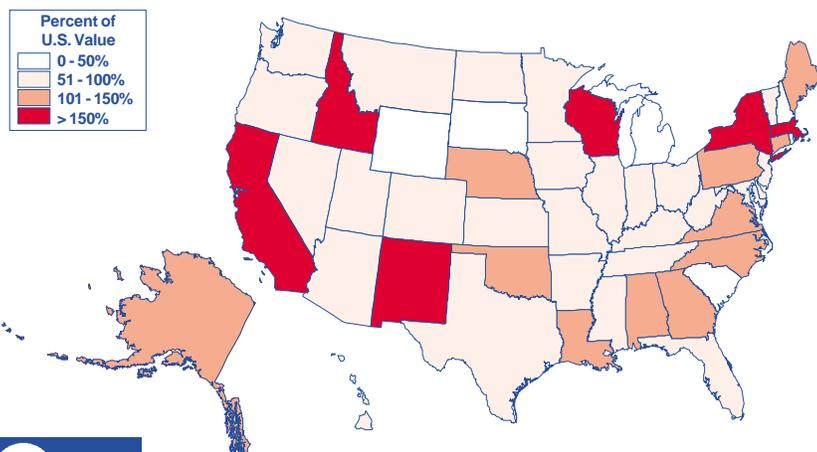
Data on the number of incubators by state was furnished by the National Business Incubation Association (NBIA), 20 East Circle Drive, Suite 190, Athens, OH 45701 in a fax transmission dated April 16, 2001. This data was compiled from the NBIA membership database.

Business Incubators:

National Business Incubation Association, 20 East Circle Drive, Suite 190, Athens, OH 45701.

Establishments:

U.S. Census Bureau, *County Business Patterns 1999*. U.S. Government Printing Office, Washington, DC, 2001.



Number of Business Incubators per 10,000 Business Establishments: 2001

STATE	Business Incubators	1999 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	17	100,507	1.69	12	105%
Alaska	3	18,433	1.63	17	101%
Arizona	10	112,545	0.89	43	55%
Arkansas	7	62,737	1.12	32	69%
California	201	784,935	2.56	5	158%
Colorado	18	133,743	1.35	23	83%
Connecticut	15	92,454	1.62	18	100%
Delaware	2	23,381	0.86	45	53%
Florida	46	424,089	1.08	35	67%
Georgia	33	197,759	1.67	15	103%
Hawaii	5	29,569	1.69	13	105%
Idaho	12	36,975	3.25	1	201%
Illinois	31	306,899	1.01	39	62%
Indiana	19	146,528	1.30	27	80%
Iowa	7	81,213	0.86	44	53%
Kansas	8	74,486	1.07	36	66%
Kentucky	9	89,946	1.00	40	62%
Louisiana	20	101,020	1.98	9	122%
Maine	8	38,878	2.06	8	127%
Maryland	17	127,431	1.33	25	83%
Massachusetts	54	173,267	3.12	2	193%
Michigan	16	236,456	0.68	47	42%
Minnesota	19	137,305	1.38	22	86%
Mississippi	8	59,834	1.34	24	83%
Missouri	16	144,874	1.10	34	68%
Montana	4	31,365	1.28	28	79%
Nebraska	8	48,968	1.63	16	101%
Nevada	7	46,890	1.49	19	92%
New Hampshire	3	37,180	0.81	46	50%
New Jersey	26	231,823	1.12	31	69%
New Mexico	11	42,918	2.56	4	159%
New York	119	485,954	2.45	6	151%
North Carolina	34	201,706	1.69	14	104%
North Dakota	2	20,380	0.98	41	61%
Ohio	38	270,766	1.40	21	87%
Oklahoma	16	84,854	1.89	10	117%
Oregon	13	99,945	1.30	26	80%
Pennsylvania	64	293,491	2.18	7	135%
Rhode Island	3	28,240	1.06	38	66%
South Carolina	5	96,440	0.52	49	32%
South Dakota	1	23,693	0.42	50	26%
Tennessee	16	131,116	1.22	29	75%
Texas	50	467,087	1.07	37	66%
Utah	6	53,809	1.12	33	69%
Vermont	2	21,598	0.93	42	57%
Virginia	32	173,550	1.84	11	114%
Washington	23	162,932	1.41	20	87%
West Virginia	5	41,451	1.21	30	75%
Wisconsin	40	139,646	2.86	3	177%
Wyoming	1	17,909	0.56	48	35%
United States (50 States)	1,130	6,988,975	1.62	—	100%
Dist of Columbia	5	19,469	2.57	—	159%
Puerto Rico	N/A	N/A	—	—	—



High-technology Establishments

Definition

This metric refers to the percentage of the total number of establishments within a state that fall into one of the 31 three-digit SIC codes included in the 1999 Bureau of Labor Statistics' related definition of high-technology industries. High-technology industries are those with employment in both research and development (R&D) and in all technology-oriented occupations that accounts for a proportion of employment that is at least twice the average for all industries in the Occupational Employment Statistics Survey. (See page 1-4 for a listing of high-technology SIC codes.) High-technology occupations are scientific, technical, and engineering occupations that include engineers, life and physical scientists, mathematical specialists, engineering and science technicians, computer specialists, and engineering, scientific, and computer managers.

The percent of establishments in high-technology SIC codes was calculated by dividing the number of establishments in the state in 1998 that were classified into one of the 31 three-digit high-technology SIC codes by the total number of establishments in that state in 1998.

Relevance

The percentage of a state's business base that is classified as high-technology provides a measure of the extent to which the state's business base is poised to capitalize on new technology. High-technology industries include both manufacturing and service industries where technology is rapidly evolving. As the national economy shifts toward higher value-added products and IT and communications services, the states with the highest percentage of high-technology business establishments will be best poised to take advantage of this shift.

In 1998, there were 397,942 establishments in the 50 states that were classified in the 31 high-technology SIC codes. This represents 5.7% of the 6,922,251 total establishments in all 50 states in 1998. The median percentage of high-technology establishments out of all establishments in the 50 states was 4.9%.

Data Considerations and Limitations

Not all establishments that are identified by a single SIC code will employ high-technology or high-technology workers to the same degree. Some may be very technically sophisticated while others may not have changed their mode of operation for many years. The data do not currently exist to perform this analysis on an establishment by establishment basis. Therefore, although SIC code classifications represent only a crude approximation of technical sophistication, they are the best data available at this time. Certainly, there are establishments in other SIC codes that employ high-technology and high-technology workers, and there are also some establishments in these 31 SIC codes that do not. However, these 31 SIC codes are thought to contain the highest percentage of companies that employ high-technology workers.

Please note that the definition of high-technology SIC codes has changed since the last edition of this publication so these data are not directly comparable with previously reported values.

Source of Data

The U.S. Census Bureau furnished the data for this metric from a special tabulation based upon the 6.9 million employer-establishments contained in the Standard Statistical Establishment List. This is the same database that is used to generate *County Business Patterns*. Arrangements for special tabulations can be made by contacting Trey Cole at the U.S. Census Bureau, Company Statistics Division in Washington, D.C. at (301) 457-3320.

High-technology Definition:

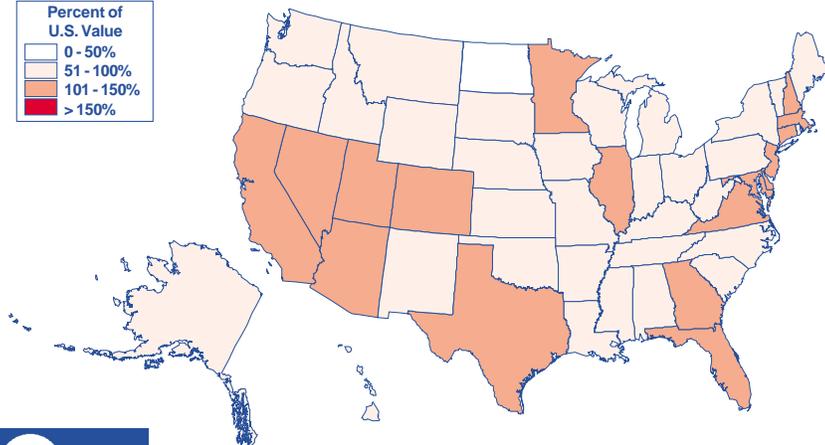
U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). *Monthly Labor Review June 1999, High-technology employment: a broader view*. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

High-technology Establishments:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Total Establishments:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Percent of Establishments in High-technology SIC Codes: 1998

STATE	Establishments in High-tech SICs	Total Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	3,966	100,316	4.0%	39	69%
Alaska	747	18,212	4.1%	34	71%
Arizona	6,891	110,245	6.3%	14	109%
Arkansas	1,957	62,353	3.1%	45	55%
California	54,815	773,925	7.1%	7	123%
Colorado	10,325	130,354	7.9%	3	138%
Connecticut	6,342	92,362	6.9%	9	119%
Delaware	1,363	22,871	6.0%	15	104%
Florida	24,387	420,638	5.8%	17	101%
Georgia	12,149	194,213	6.3%	13	109%
Hawaii	1,181	29,603	4.0%	38	69%
Idaho	1,378	35,961	3.8%	41	67%
Illinois	20,318	304,533	6.7%	11	116%
Indiana	6,527	146,197	4.5%	29	78%
Iowa	2,514	80,838	3.1%	46	54%
Kansas	3,279	74,019	4.4%	30	77%
Kentucky	3,380	89,593	3.8%	42	66%
Louisiana	4,093	100,667	4.1%	35	71%
Maine	1,552	38,334	4.0%	36	70%
Maryland	9,566	126,577	7.6%	5	131%
Massachusetts	13,812	167,929	8.2%	2	143%
Michigan	12,053	235,403	5.1%	23	89%
Minnesota	9,270	134,981	6.9%	8	119%
Mississippi	1,783	59,771	3.0%	48	52%
Missouri	6,252	143,912	4.3%	31	76%
Montana	1,166	30,957	3.8%	43	66%
Nebraska	1,745	48,655	3.6%	44	62%
Nevada	2,990	44,613	6.7%	10	117%
New Hampshire	2,788	36,842	7.6%	4	132%
New Jersey	19,038	230,860	8.2%	1	143%
New Mexico	2,090	42,608	4.9%	25	85%
New York	26,471	481,962	5.5%	19	96%
North Carolina	9,658	198,690	4.9%	26	85%
North Dakota	515	20,288	2.5%	50	44%
Ohio	14,037	270,343	5.2%	21	90%
Oklahoma	3,684	84,881	4.3%	32	75%
Oregon	5,222	99,183	5.3%	20	92%
Pennsylvania	15,171	292,659	5.2%	22	90%
Rhode Island	1,439	28,245	5.1%	24	89%
South Carolina	3,797	94,985	4.0%	37	70%
South Dakota	681	23,521	2.9%	49	50%
Tennessee	5,497	131,110	4.2%	33	73%
Texas	27,356	462,875	5.9%	16	103%
Utah	3,339	52,025	6.4%	12	112%
Vermont	1,018	21,261	4.8%	27	83%
Virginia	12,871	172,182	7.5%	6	130%
Washington	9,253	161,473	5.7%	18	100%
West Virginia	1,268	41,703	3.0%	47	53%
Wisconsin	6,246	138,635	4.5%	28	78%
Wyoming	702	17,888	3.9%	40	68%
United States (50 States)	397,942	6,922,251	5.7%	—	100%
Dist of Columbia	2,399	19,571	12.3%	—	213%
Puerto Rico	N/A	N/A	—	—	—



High-technology Employment

Definition

The percent of a state's employment in high-technology industries is found by dividing the employment in establishments classified in the 31 SIC codes identified by the Bureau of Labor Statistics (BLS) as high-technology by the total employment within the state. High-technology industries are those with employment in both research and development (R&D) and in all technology-oriented occupations that accounts for a proportion of employment that is at least twice the average for all industries in the Occupational Employment Statistics Survey.

Relevance

Like other metrics in this section, the percent of employment in establishments that are classified by high-technology SIC codes helps to assess the technical orientation of the business base in the state.

The percentage of employment in the high-technology sector can be compared to the percentage of business establishments that are classified by high-technology SIC codes. This comparison indicates if high-technology establishments employ more people than the average establishment. Economic development organizations can use this measure to generate information regarding the relative importance of high-technology to the mix of businesses in their state.

In 1998, there were 9,451,789 employees in the 50 states who were working in establishments classified in the 31 three-digit high-technology SIC codes. This represents 8.8% of the 107,715,661 total employees in all 50 states in 1998.

The median percentage of total employment in high-technology establishments in the 50 states was 8.3%.

Data Considerations and Limitations

The U.S. Census Bureau provided this data from a special tabulation of employment counts by state for the aggregate of the 31 three-digit SIC codes corresponding to high-technology industries. It was necessary to run a special tabulation because the data pertaining to some SIC codes were suppressed for confidentiality reasons in *County Business Patterns, 1998*.

Data are suppressed when they will reveal establishment specific employment or payroll data, thereby violating the non-disclosure agreement between the establishment and the U.S. Census Bureau. This situation occurs when there are only a few businesses in a particular industry within the state or when the industry is dominated by a few large companies.

Please note that the definition of high-technology SIC codes has changed since the last edition of this publication so these data are not directly comparable with previously reported values.

Source of Data

The U.S. Census Bureau furnished the data for this metric from a special tabulation based upon the 6.9 million employer-establishments contained in the Standard Statistical Establishment List. This is the same database that is used to generate *County Business Patterns*. Arrangements for special tabulations can be made by contacting Trey Cole at the U.S. Census Bureau, Company Statistics Division in Washington, D.C. at (301) 457-3320.

High-technology Definition:

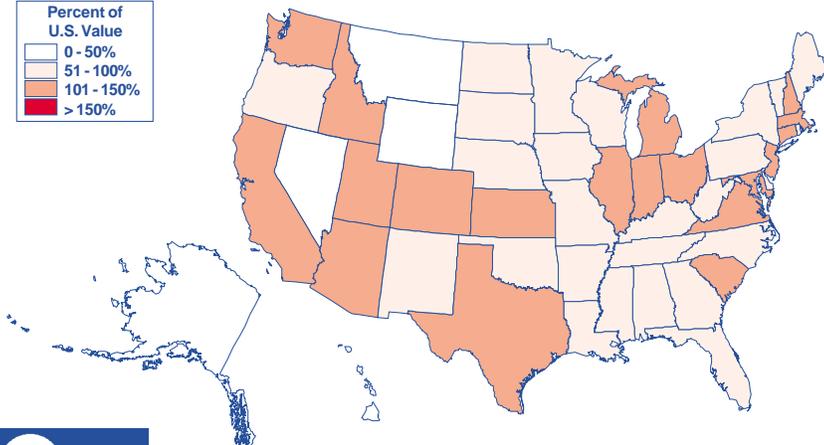
U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). *Monthly Labor Review June 1999, High-technology employment: a broader view*. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

High-technology Employment:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Total Employment:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Percent of Employment in High-technology SIC Codes: 1998

STATE	Employment in High-tech SICs	Total Employment	VALUE	Rank	Percent of U.S. Value
Alabama	107,411	1,604,110	6.7%	37	76%
Alaska	7,562	196,135	3.9%	47	44%
Arizona	158,760	1,763,508	9.0%	18	103%
Arkansas	57,875	944,935	6.1%	38	70%
California	1,306,558	12,026,989	10.9%	7	124%
Colorado	175,100	1,757,628	10.0%	10	114%
Connecticut	164,438	1,493,964	11.0%	5	125%
Delaware	30,119	354,643	8.5%	22	97%
Florida	342,938	5,756,353	6.0%	39	68%
Georgia	231,321	3,198,950	7.2%	33	82%
Hawaii	9,116	416,571	2.2%	50	25%
Idaho	41,416	423,615	9.8%	12	111%
Illinois	461,422	5,221,782	8.8%	19	101%
Indiana	254,234	2,540,866	10.0%	9	114%
Iowa	83,511	1,213,285	6.9%	36	78%
Kansas	107,435	1,081,941	9.9%	11	113%
Kentucky	111,796	1,443,015	7.7%	30	88%
Louisiana	92,789	1,577,220	5.9%	40	67%
Maine	22,469	456,715	4.9%	45	56%
Maryland	200,946	1,938,727	10.4%	8	118%
Massachusetts	360,170	2,924,913	12.3%	1	140%
Michigan	427,224	3,919,567	10.9%	6	124%
Minnesota	191,733	2,271,671	8.4%	23	96%
Mississippi	54,338	937,023	5.8%	42	66%
Missouri	196,989	2,310,122	8.5%	20	97%
Montana	10,907	277,144	3.9%	46	45%
Nebraska	51,541	720,252	7.2%	34	82%
Nevada	27,620	800,861	3.4%	49	39%
New Hampshire	60,796	518,526	11.7%	2	134%
New Jersey	312,876	3,368,365	9.3%	15	106%
New Mexico	45,989	540,186	8.5%	21	97%
New York	506,915	6,993,814	7.2%	32	83%
North Carolina	257,954	3,223,178	8.0%	29	91%
North Dakota	12,705	249,476	5.1%	44	58%
Ohio	434,384	4,806,046	9.0%	17	103%
Oklahoma	83,485	1,167,709	7.1%	35	81%
Oregon	106,474	1,310,750	8.1%	27	93%
Pennsylvania	376,145	4,906,190	7.7%	31	87%
Rhode Island	23,465	402,485	5.8%	41	66%
South Carolina	141,851	1,526,106	9.3%	14	106%
South Dakota	24,067	289,422	8.3%	25	95%
Tennessee	185,978	2,299,348	8.1%	28	92%
Texas	699,754	7,570,820	9.2%	16	105%
Utah	83,905	866,146	9.7%	13	110%
Vermont	19,742	239,034	8.3%	26	94%
Virginia	316,483	2,700,589	11.7%	3	134%
Washington	241,168	2,134,598	11.3%	4	129%
West Virginia	29,664	547,234	5.4%	43	62%
Wisconsin	194,303	2,319,343	8.4%	24	95%
Wyoming	5,948	163,791	3.6%	48	41%
United States (50 States)	9,451,789	107,715,661	8.8%	—	100%
Dist of Columbia	40,579	402,070	10.1%	—	115%
Puerto Rico	N/A	N/A	—	—	—



High-technology Payroll

Definition

The percent of technology intensive payroll within a state is calculated by dividing the payroll for the 31 three-digit SIC codes identified as high-technology by the Bureau of Labor Statistics (BLS) by the total payroll for all industries within the state. High-technology industries are those with employment in both research and development (R&D) and in all technology-oriented occupations that accounts for a proportion of employment that is at least twice the average for all industries in the Occupational Employment Statistics Survey.

Relevance

This metric is useful in assessing the relative compensation levels of jobs in high-technology industries. It is helpful to view this metric in conjunction with the previous metric, the percent of employment in high-technology industries. If high-technology industries are creating a high percentage of well-paying jobs, the percent of a state's payroll from those industries will be higher than the percent of employment in those industries. If a state is attracting or growing companies in high-technology industries without significantly growing the payroll, it is likely that higher paying jobs are not being created, at which point the state might wish to reassess its economic development strategy.

In 1998, there was \$462 billion in payroll in the 50 states in establishments classified in the 31 three-digit SIC codes for high-technology industries. This represents 14.0% of the \$3,292 billion in total payroll for all 50 states in 1998. The median percentage of total payroll in high-technology establishments in the 50 states was 12.5%.

Data Considerations and Limitations

The U.S. Census Bureau provided this data from a special tabulation of payroll counts by state for the aggregate of the SIC codes corresponding to high-technology industries. It was necessary to run a special tabulation because the data pertaining to some SIC codes were suppressed for confidentiality reasons in *County Business Patterns, 1998*.

Data are suppressed when they will reveal establishment specific employment or payroll data, thereby violating the non-disclosure agreement between the establishment and the U.S. Census Bureau. This situation occurs when there are only a few businesses in a particular industry within the state or when the industry is dominated by a few large companies.

Please note that the definition of high-technology SIC codes has changed since the last edition of this publication so these data are not directly comparable with previously reported values.

Source of Data

The U.S. Census Bureau furnished the data for this metric from a special tabulation based upon the 6.9 million employer-establishments contained in the Standard Statistical Establishment List. This is the same database that is used to generate *County Business Patterns*. Arrangements for special tabulations can be made by contacting Trey Cole at the U.S. Census Bureau, Company Statistics Division in Washington, D.C. at (301) 457-3320.

High-technology Definition:

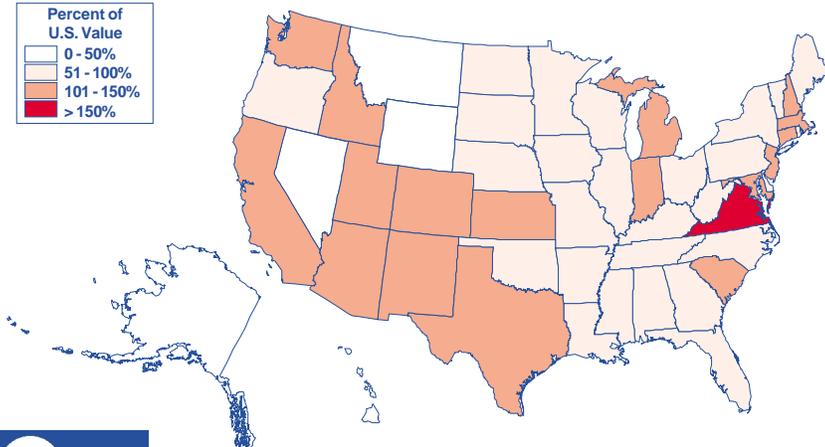
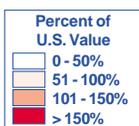
U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). *Monthly Labor Review June 1999, High-technology employment: a broader view*. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

High-technology Payroll:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Total Payroll:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Percent of Payroll in High-technology SIC Codes: 1998

STATE	Payroll in High-tech SICs, thousands	Total Payroll, thousands	VALUE	Rank	Percent of U.S. Value
Alabama	\$4,218,233	\$40,330,597	10.5%	36	75%
Alaska	\$398,015	\$6,883,920	5.8%	48	41%
Arizona	\$7,268,214	\$49,052,246	14.8%	14	106%
Arkansas	\$1,926,228	\$21,764,625	8.9%	42	63%
California	\$75,178,157	\$406,481,070	18.5%	3	132%
Colorado	\$8,755,199	\$53,790,978	16.3%	9	116%
Connecticut	\$9,036,429	\$58,225,763	15.5%	12	111%
Delaware	\$1,583,814	\$11,831,134	13.4%	21	95%
Florida	\$14,194,377	\$149,936,849	9.5%	39	68%
Georgia	\$10,963,018	\$94,687,270	11.6%	32	83%
Hawaii	\$417,641	\$11,291,978	3.7%	50	26%
Idaho	\$1,868,247	\$10,595,285	17.6%	5	126%
Illinois	\$22,802,926	\$175,703,556	13.0%	22	93%
Indiana	\$10,885,840	\$71,435,864	15.2%	13	109%
Iowa	\$3,293,089	\$30,409,574	10.8%	33	77%
Kansas	\$4,519,654	\$28,747,577	15.7%	10	112%
Kentucky	\$4,736,813	\$36,889,001	12.8%	24	92%
Louisiana	\$4,401,780	\$40,802,387	10.8%	34	77%
Maine	\$827,014	\$11,559,136	7.2%	45	51%
Maryland	\$10,013,090	\$59,817,673	16.7%	8	119%
Massachusetts	\$20,996,084	\$105,871,311	19.8%	2	141%
Michigan	\$21,808,532	\$128,649,484	17.0%	7	121%
Minnesota	\$8,553,166	\$70,094,975	12.2%	28	87%
Mississippi	\$1,647,823	\$21,066,790	7.8%	44	56%
Missouri	\$8,340,525	\$64,669,474	12.9%	23	92%
Montana	\$363,575	\$5,960,687	6.1%	46	44%
Nebraska	\$1,890,070	\$18,178,238	10.4%	37	74%
Nevada	\$1,268,765	\$21,847,334	5.8%	47	41%
New Hampshire	\$2,594,867	\$14,863,829	17.5%	6	125%
New Jersey	\$18,037,233	\$125,787,145	14.3%	18	102%
New Mexico	\$1,922,711	\$13,133,707	14.6%	16	104%
New York	\$25,364,393	\$274,634,982	9.2%	41	66%
North Carolina	\$10,341,654	\$86,780,877	11.9%	31	85%
North Dakota	\$451,046	\$5,533,810	8.2%	43	58%
Ohio	\$19,536,521	\$140,265,358	13.9%	19	99%
Oklahoma	\$3,053,757	\$28,667,008	10.7%	35	76%
Oregon	\$4,790,827	\$37,722,920	12.7%	25	91%
Pennsylvania	\$18,036,614	\$145,569,019	12.4%	26	88%
Rhode Island	\$1,037,481	\$11,115,638	9.3%	40	67%
South Carolina	\$5,673,492	\$38,559,169	14.7%	15	105%
South Dakota	\$793,295	\$6,403,476	12.4%	27	88%
Tennessee	\$7,561,438	\$62,441,176	12.1%	29	86%
Texas	\$35,948,526	\$229,185,833	15.7%	11	112%
Utah	\$3,237,821	\$22,199,933	14.6%	17	104%
Vermont	\$798,620	\$5,907,989	13.5%	20	96%
Virginia	\$17,299,282	\$81,261,075	21.3%	1	152%
Washington	\$13,545,278	\$73,268,188	18.5%	4	132%
West Virginia	\$1,286,972	\$13,278,895	9.7%	38	69%
Wisconsin	\$7,842,368	\$64,912,499	12.1%	30	86%
Wyoming	\$224,019	\$3,980,094	5.6%	49	40%
United States (50 States)	\$461,534,533	\$3,292,047,396	14.0%	—	100%
Dist of Columbia	\$2,505,336	\$17,358,137	14.4%	—	103%
Puerto Rico	N/A	N/A	—	—	—



High-technology Establishment Births

Definition

Establishment births are identified as employer-establishments that did not exist according to the records of the Standard Statistical Establishment List housed at the U.S. Census Bureau during 1997 and came into existence at one geographic location and were placed on record during 1998. The percent of establishment births in high-technology industries was determined by dividing the total number of establishment births within the Bureau of Labor Statistics' (BLS) 31 three-digit high-technology SIC codes by the total number of establishment births in all industries within the state.

Relevance

This metric provides an indication of the degree to which establishment births are concentrated in high-technology SIC codes. States with high percentages of high-technology establishment births are making progress in shifting their business base toward the high-technology sector.

The number of high-technology establishment births and the number of total establishment births also provide useful information when they are normalized to the number of establishments within a state. The number of establishment births per 10,000 business establishments indicates how supportive the state's business climate is to the formation of new businesses and how strong the sense of entrepreneurship is in that state. Likewise, the number of high-technology establishment births per 10,000 business establishments indicates how supportive the state's business climate is to the formation of new high-technology businesses.

For the 50 states, there were 57,973 establishment births in the 31 three-digit high-technology SIC codes out of 717,742 total births or 8.1%. The median percentage of establishment births in high-technology SIC codes for the 50 states was 6.6%.

Data Considerations and Limitations

The U.S. Census Bureau defines an establishment as a single physical location at which business is conducted. An establishment is not necessarily identical to a company, because a company can consist of one or more establishments. For an establishment to be counted as a birth during 1998 it must be a new operation at a new physical location, employing one or more full or part-time paid employees at that location. It must have also had an Employer Identification Number (EIN) assigned by the IRS. Only when an establishment, as defined above, did not exist in 1997 and did exist in 1998 is it counted as a birth.

Please note that the definition of high-technology SIC codes has changed since the last edition of this publication so these data are not directly comparable with previously reported values.

Source of Data

The U.S. Census Bureau furnished the data for this metric from a special tabulation based upon the 6.9 million employer-establishments contained in the Standard Statistical Establishment List. This is the same database that is used to generate *County Business Patterns*. Arrangements for special tabulations can be made by contacting Trey Cole at the U.S. Census Bureau, Company Statistics Division in Washington, D.C. at (301) 457-3320.

High-technology Definition:

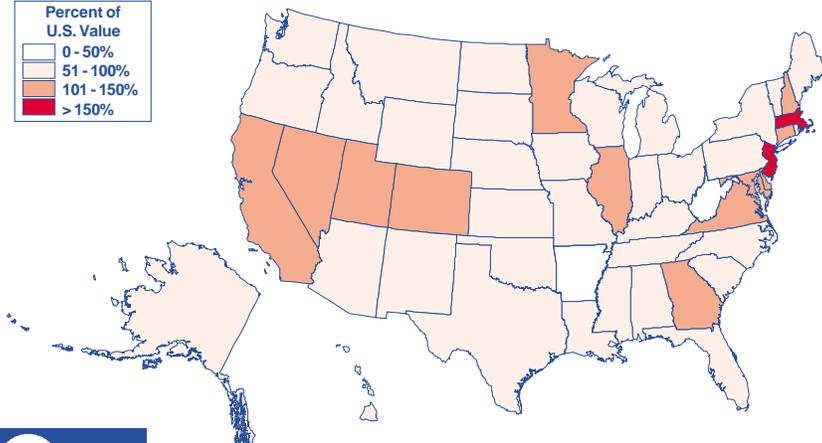
U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). *Monthly Labor Review June 1999, High-technology employment: a broader view.* <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

High-technology and Total Establishment Births:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Total Establishments:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Percent of Establishment Births in High-technology SIC Codes: 1998

STATE	Establishment Births in High-tech SICs	Total Establishment Births	Total Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	589	10,315	100,316	5.7%	36	71%
Alaska	108	1,950	18,212	5.5%	37	69%
Arizona	1,044	13,195	110,245	7.9%	16	98%
Arkansas	244	6,528	62,353	3.7%	50	46%
California	8,044	86,861	773,925	9.3%	11	115%
Colorado	1,677	15,929	130,354	10.5%	7	130%
Connecticut	796	8,235	92,362	9.7%	10	120%
Delaware	260	2,586	22,871	10.1%	8	124%
Florida	3,948	51,234	420,638	7.7%	20	95%
Georgia	2,057	23,414	194,213	8.8%	13	109%
Hawaii	129	2,735	29,603	4.7%	45	58%
Idaho	205	4,100	35,961	5.0%	43	62%
Illinois	2,771	28,415	304,533	9.8%	9	121%
Indiana	885	13,380	146,197	6.6%	26	82%
Iowa	359	6,713	80,838	5.3%	40	66%
Kansas	471	7,162	74,019	6.6%	28	81%
Kentucky	477	8,849	89,593	5.4%	39	67%
Louisiana	621	10,152	100,667	6.1%	31	76%
Maine	224	3,814	38,334	5.9%	34	73%
Maryland	1,426	12,841	126,577	11.1%	3	137%
Massachusetts	1,948	15,400	167,929	12.6%	1	157%
Michigan	1,480	21,677	235,403	6.8%	23	85%
Minnesota	1,322	12,410	134,981	10.7%	6	132%
Mississippi	249	6,114	59,771	4.1%	48	50%
Missouri	843	14,133	143,912	6.0%	32	74%
Montana	162	3,357	30,957	4.8%	44	60%
Nebraska	220	4,199	48,655	5.2%	42	65%
Nevada	594	6,464	44,613	9.2%	12	114%
New Hampshire	378	3,539	36,842	10.7%	5	132%
New Jersey	2,999	23,946	230,860	12.5%	2	155%
New Mexico	310	4,663	42,608	6.6%	25	82%
New York	3,824	48,862	481,962	7.8%	18	97%
North Carolina	1,443	21,302	198,690	6.8%	24	84%
North Dakota	72	1,665	20,288	4.3%	47	54%
Ohio	1,722	23,254	270,343	7.4%	22	92%
Oklahoma	517	8,778	84,881	5.9%	33	73%
Oregon	692	10,703	99,183	6.5%	29	80%
Pennsylvania	1,948	25,124	292,659	7.8%	19	96%
Rhode Island	198	2,507	28,245	7.9%	17	98%
South Carolina	572	10,397	94,985	5.5%	38	68%
South Dakota	99	2,164	23,521	4.6%	46	57%
Tennessee	798	13,633	131,110	5.9%	35	72%
Texas	4,215	52,813	462,875	8.0%	15	99%
Utah	520	6,427	52,025	8.1%	14	100%
Vermont	121	1,909	21,261	6.3%	30	78%
Virginia	1,965	18,283	172,182	10.7%	4	133%
Washington	1,413	18,349	161,473	7.7%	21	95%
West Virginia	144	3,667	41,703	3.9%	49	49%
Wisconsin	772	11,731	138,635	6.6%	27	81%
Wyoming	98	1,864	17,888	5.3%	41	65%
United States (50 States)	57,973	717,742	6,922,251	8.1%	—	100%
Dist of Columbia	328	1,874	19,571	17.5%	—	217%
Puerto Rico	N/A	N/A	N/A	—	—	—



Net High-technology Business Formations

Definition

In this metric, net high-technology establishment formations are equal to the number of establishments, classified in one of the 31 three-digit SIC codes from the Bureau of Labor Statistics' (BLS) list, that began operations in 1998 minus the number of establishments in the same set of SIC codes that ceased operations during the same year. The net high-technology establishment formations were normalized to the total number of business establishments in the state to eliminate the scale sensitivity.

Relevance

This metric provides a measure of the state's ability to create and sustain formation of new high-technology businesses. Net formation of high-technology establishments was positive for all 50 states indicating that, in 1998, technology intensive establishments were being formed faster than they were dying across the nation. The ratio of net establishment formations in high-technology SICs to the number of establishments in the state provides a measure of the progress that a state is making in adding to its high-technology sector.

For the 50 states, there were 57,973 establishment births and 39,353 establishment deaths in the 31 three-digit high-technology SIC codes for a net gain of 18,620. This equates to a net formation of 26.9 high-technology establishments per 10,000 business establishments. The median net number of high-technology establishment formations per 10,000 business establishments in the 50 states was 19.6.

Data Considerations and Limitations

The U.S. Census Bureau defines an establishment as a single physical location at which business is conducted. An establishment is not necessarily identical to a company because a company can consist of one or more establishments. For an establishment formation to be counted during 1998, a company must have begun conducting operations in 1998 at an entirely new physical location (not a relocation). Changes in company name, ownership, or address that occur during the year are not counted as formations because the new and old Employer Identification Numbers (EINs) are linked in the U.S. Census Bureau records. Similarly, for a death to be counted during 1998, the company must have been conducting operations at its location in 1997 with one or more full or part-time paid employees and ceased all operations at its location and not resumed any operations at any new physical location during 1998. It must have also had an EIN assigned by the IRS during 1997. Only when an establishment, as defined above, did exist in 1997 and did not exist in 1998 is it counted as a death.

Caution must be exercised in interpreting this metric. The data represent only the events from a single year and are subject to year-to-year variability. In states with only a small business base, small fluctuations can cause a dramatic shift in this metric's value.

Please note that the definition of high-technology SIC codes has changed since the last edition of this publication so these data are not directly comparable with previously reported values.

Source of Data

The U.S. Census Bureau furnished the data for this metric from a special tabulation based upon the 6.9 million employer-establishments contained in the Standard Statistical Establishment List. This is the same database that is used to generate *County Business Patterns*. Arrangements for special tabulations can be made by contacting Trey Cole at the U.S. Census Bureau, Company Statistics Division in Washington, D.C. at (301) 457-3320.

High-technology Definition:

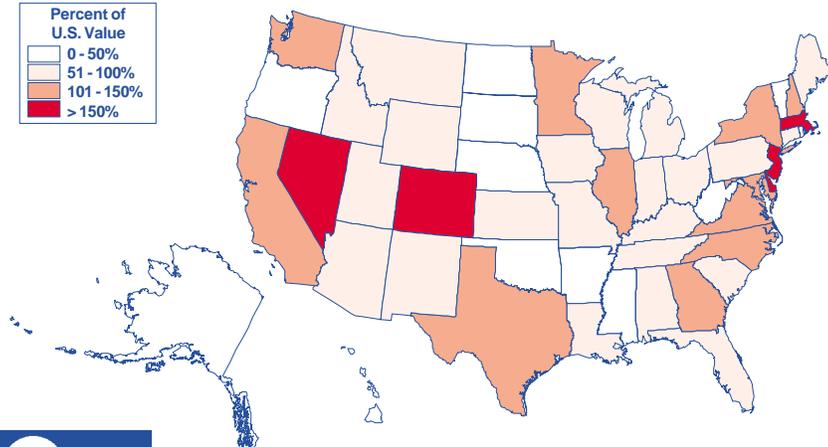
U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). *Monthly Labor Review June 1999, High-technology employment: a broader view*. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

High-technology Establishment Births and Deaths:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Total Establishments:

U.S. Census Bureau, *County Business Patterns 1998*. U.S. Government Printing Office, Washington, DC, 2000.



Net Formations of High-technology Establishments per 10,000 Business Establishments: 1998

STATE	Estab. Births in High-tech SICs	Estab. Deaths in High-tech SICs	Net Formations	Total Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	589	441	148	100,316	14.8	37	55%
Alaska	108	89	19	18,212	10.4	43	39%
Arizona	1,044	805	239	110,245	21.7	21	81%
Arkansas	244	227	17	62,353	2.7	49	10%
California	8,044	5,601	2,443	773,925	31.6	12	117%
Colorado	1,677	1,048	629	130,354	48.3	4	179%
Connecticut	796	616	180	92,362	19.5	28	72%
Delaware	260	131	129	22,871	56.4	3	210%
Florida	3,948	2,834	1,114	420,638	26.5	17	98%
Georgia	2,057	1,310	747	194,213	38.5	9	143%
Hawaii	129	127	2	29,603	0.7	50	3%
Idaho	205	121	84	35,961	23.4	20	87%
Illinois	2,771	1,791	980	304,533	32.2	11	120%
Indiana	885	598	287	146,197	19.6	25	73%
Iowa	359	240	119	80,838	14.7	38	55%
Kansas	471	340	131	74,019	17.7	30	66%
Kentucky	477	342	135	89,593	15.1	36	56%
Louisiana	621	416	205	100,667	20.4	23	76%
Maine	224	157	67	38,334	17.5	31	65%
Maryland	1,426	933	493	126,577	38.9	7	145%
Massachusetts	1,948	1,212	736	167,929	43.8	5	163%
Michigan	1,480	1,149	331	235,403	14.1	39	52%
Minnesota	1,322	795	527	134,981	39.0	6	145%
Mississippi	249	185	64	59,771	10.7	42	40%
Missouri	843	626	217	143,912	15.1	35	56%
Montana	162	100	62	30,957	20.0	24	74%
Nebraska	220	170	50	48,655	10.3	44	38%
Nevada	594	340	254	44,613	56.9	2	212%
New Hampshire	378	236	142	36,842	38.5	8	143%
New Jersey	2,999	1,674	1,325	230,860	57.4	1	213%
New Mexico	310	240	70	42,608	16.4	33	61%
New York	3,824	2,460	1,364	481,962	28.3	15	105%
North Carolina	1,443	885	558	198,690	28.1	16	104%
North Dakota	72	53	19	20,288	9.4	45	35%
Ohio	1,722	1,264	458	270,343	16.9	32	63%
Oklahoma	517	405	112	84,881	13.2	40	49%
Oregon	692	576	116	99,183	11.7	41	43%
Pennsylvania	1,948	1,325	623	292,659	21.3	22	79%
Rhode Island	198	131	67	28,245	23.7	19	88%
South Carolina	572	386	186	94,985	19.6	26	73%
South Dakota	99	85	14	23,521	6.0	48	22%
Tennessee	798	593	205	131,110	15.6	34	58%
Texas	4,215	2,865	1,350	462,875	29.2	14	108%
Utah	520	391	129	52,025	24.8	18	92%
Vermont	121	106	15	21,261	7.1	47	26%
Virginia	1,965	1,315	650	172,182	37.8	10	140%
Washington	1,413	936	477	161,473	29.5	13	110%
West Virginia	144	111	33	41,703	7.9	46	29%
Wisconsin	772	509	263	138,635	19.0	29	71%
Wyoming	98	63	35	17,888	19.6	27	73%
United States (50 States)	57,973	39,353	18,620	6,922,251	26.9	—	100%
Dist of Columbia	328	252	76	19,571	38.8	—	144%
Puerto Rico	N/A	N/A	N/A	N/A	—	—	—



Definition

This metric is based upon a count of the average number of U.S. patents of U.S. origin issued during the three-year period of 1998-2000. The average number of U.S. patents was used to minimize year-to-year variability. Patents were classified according to the state of residence of the first-named inventor. The data were normalized to the number of businesses located within each state in 1999 to facilitate state-to-state comparisons of the intensity of patent activity.

Relevance

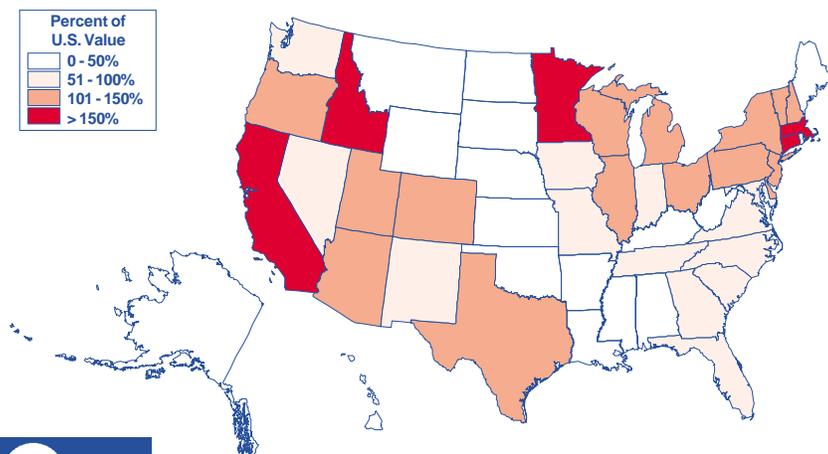
A patent for an invention is the grant of a property right to the inventor that is issued by the Patent and Trademark Office for a period of 20 years from the date on which the application was filed in the U.S. subject to the payment of maintenance fees. The level of patent activity is one measure of the amount of intellectual property being created within a state. Other types of intellectual property include trade secrets and know-how, but these sources are more difficult to measure.

For the 50 states, there were on average 93,827 patents issued per year from 1998 to 2000. This results in a national average of 134 patents per 10,000 business establishments. In the 50 states, the median number of patents issued per 10,000 business establishments was 95.

Data Considerations and Limitations

These data are likely to contain a bias toward states that host the central R&D activities of large corporations with multiple operational sites or major government research centers. If an organization patents prolifically, the vast majority of its patents may be credited to the state where the majority of its researchers reside while the competitive advantage of the intellectual property created by those patents may be practiced and may create value elsewhere.

States with a high concentration of research universities may generate patents that are not reduced to commercial practice if the university does not have an active licensing program.



Source of Data

U.S. Patents Issued:

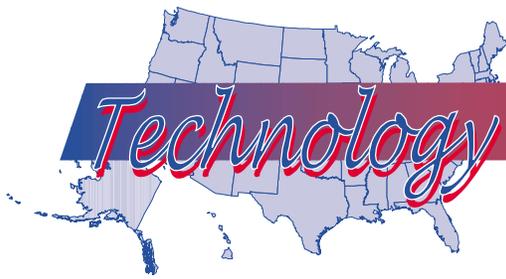
U.S. Patent and Trademark Office, Information Products Division/TAF Branch, Dozier, G. (2001, April 13). *Patent Counts by Country/State and Year, All Patents, All Types, January 1, 1977 — December 31, 2000.* <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_all.pdf> (2001, May 25).

Establishments:

U.S. Census Bureau, *County Business Patterns 1999.* U.S. Government Printing Office, Washington, DC, 2001.

Average Annual Number of U.S. Patents Issued per 10,000 Business Establishments: 1998-2000

STATE	Average Annual Patents	1999 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	430	100,507	43	42	32%
Alaska	66	18,433	36	45	27%
Arizona	1,685	112,545	150	11	112%
Arkansas	219	62,737	35	47	26%
California	18,844	784,935	240	2	179%
Colorado	1,993	133,743	149	12	111%
Connecticut	2,061	92,454	223	3	166%
Delaware	432	23,381	185	7	138%
Florida	3,095	424,089	73	31	54%
Georgia	1,528	197,759	77	29	58%
Hawaii	94	29,569	32	50	24%
Idaho	1,258	36,975	340	1	253%
Illinois	4,396	306,899	143	16	107%
Indiana	1,656	146,528	113	24	84%
Iowa	738	81,213	91	26	68%
Kansas	458	74,486	61	36	46%
Kentucky	477	89,946	53	38	39%
Louisiana	547	101,020	54	37	40%
Maine	146	38,878	38	44	28%
Maryland	1,567	127,431	123	23	92%
Massachusetts	3,798	173,267	219	4	163%
Michigan	3,989	236,456	169	10	126%
Minnesota	2,891	137,305	211	5	157%
Mississippi	213	59,834	36	46	26%
Missouri	1,035	144,874	71	32	53%
Montana	145	31,365	46	40	34%
Nebraska	253	48,968	52	39	39%
Nevada	365	46,890	78	28	58%
New Hampshire	673	37,180	181	8	135%
New Jersey	4,325	231,823	187	6	139%
New Mexico	356	42,918	83	27	62%
New York	7,017	485,954	144	15	108%
North Carolina	1,998	201,706	99	25	74%
North Dakota	81	20,380	40	43	30%
Ohio	3,976	270,766	147	14	109%
Oklahoma	568	84,854	67	35	50%
Oregon	1,469	99,945	147	13	110%
Pennsylvania	3,948	293,491	135	20	100%
Rhode Island	362	28,240	128	21	96%
South Carolina	655	96,440	68	34	51%
South Dakota	78	23,693	33	48	24%
Tennessee	964	131,116	74	30	55%
Texas	6,398	467,087	137	19	102%
Utah	757	53,809	141	18	105%
Vermont	374	21,598	173	9	129%
Virginia	1,200	173,550	69	33	52%
Washington	2,028	162,932	124	22	93%
West Virginia	178	41,451	43	41	32%
Wisconsin	1,985	139,646	142	17	106%
Wyoming	58	17,909	32	49	24%
United States (50 States)	93,827	6,988,975	134	—	100%
Dist of Columbia	71	19,469	36	—	27%
Puerto Rico	28	N/A	—	—	—



Technology Fast 500 Companies

Definition

The 2000 Deloitte & Touche Technology Fast 500 ranks the fastest growing U.S. technology companies over a five-year period. Companies qualify as technology companies if they produce technology, manufacture a technology-related product, are technology intensive, or devote a high percentage of effort to R&D.

Companies can be nominated for consideration by winning one of the 22 regional U.S. and Canadian Fast 50 programs, by submitting a nomination directly, or by public company database research. To be eligible, a company must have annual 1995 revenues of at least \$50,000 and must be headquartered in the U.S. or Canada. It must also have been in business during the entire period extending from 1995-9. For this reason, Internet companies have just begun to qualify and now comprise 17% of the Fast 500 field, up from just 9% in 1999.

From the Technology Fast 500 list of companies, the number of companies headquartered in each state was counted and normalized to the number of business establishments in that state. Comparisons were then possible between states.

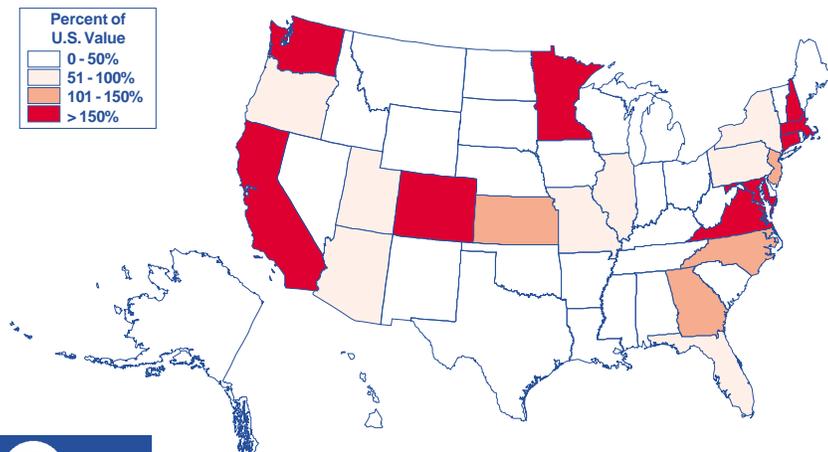
Relevance

Technology has become a key ingredient of economic development and the Fast 500 program was created to recognize fast-growing technology companies. This list provides a picture of where the fastest growing technology companies are being created and where the highest concentrations of them exist.

In 2000, there was an average of 0.7 Technology Fast 500 Companies per 10,000 business establishments. The 50-state median number of Technology Fast 500 Companies per 10,000 business establishments was 0.2. Forty-six percent of the companies on the 2000 list were from the Software industry. Other industries with significant numbers of fast-growing technology companies included Internet (17%), Communications (9%), Biotechnology (9%), and Medical, Scientific, and Technical Manufacturing (9%).

Data Considerations and Limitations

Both public and private companies are included on the list, although only the private companies, or another entity working on their behalf, are required to initiate their own nominations. This could produce a bias toward public technology companies in the final list.



Source of Data

The most recent list of Deloitte & Touche list of Technology Fast 500 companies can be found on the web at <http://www.dttus.com/fast500/who_are_fast_500/search/company_search.asp>.

Technology Fast 500 Companies:

Deloitte & Touche. *Technology Fast 500*. <<http://www.dttus.com/fast500/>>. (2000, December 12)

Establishments:

U.S. Census Bureau, *County Business Patterns 1999*. U.S. Government Printing Office, Washington, DC, 2001.



Number of Technology Fast 500 Companies per 10,000 Business Establishments: 2000

STATE	2000 Fast 500 Companies	1999 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	1	100,507	0.1	28	15%
Alaska	0	18,433	0.0	33	0%
Arizona	5	112,545	0.4	18	68%
Arkansas	0	62,737	0.0	33	0%
California	106	784,935	1.4	6	207%
Colorado	16	133,743	1.2	8	183%
Connecticut	16	92,454	1.7	3	265%
Delaware	0	23,381	0.0	33	0%
Florida	17	424,089	0.4	19	61%
Georgia	14	197,759	0.7	13	109%
Hawaii	0	29,569	0.0	33	0%
Idaho	0	36,975	0.0	33	0%
Illinois	11	306,899	0.4	21	55%
Indiana	1	146,528	0.1	31	10%
Iowa	0	81,213	0.0	33	0%
Kansas	6	74,486	0.8	12	123%
Kentucky	0	89,946	0.0	33	0%
Louisiana	0	101,020	0.0	33	0%
Maine	1	38,878	0.3	24	39%
Maryland	16	127,431	1.3	7	192%
Massachusetts	38	173,267	2.2	1	336%
Michigan	1	236,456	0.0	32	6%
Minnesota	20	137,305	1.5	4	223%
Mississippi	1	59,834	0.2	26	26%
Missouri	8	144,874	0.6	16	85%
Montana	0	31,365	0.0	33	0%
Nebraska	0	48,968	0.0	33	0%
Nevada	1	46,890	0.2	25	33%
New Hampshire	4	37,180	1.1	9	165%
New Jersey	20	231,823	0.9	11	132%
New Mexico	0	42,918	0.0	33	0%
New York	29	485,954	0.6	14	91%
North Carolina	18	201,706	0.9	10	137%
North Dakota	0	20,380	0.0	33	0%
Ohio	4	270,766	0.1	27	23%
Oklahoma	0	84,854	0.0	33	0%
Oregon	4	99,945	0.4	20	61%
Pennsylvania	16	293,491	0.5	17	84%
Rhode Island	1	28,240	0.4	22	54%
South Carolina	0	96,440	0.0	33	0%
South Dakota	0	23,693	0.0	33	0%
Tennessee	1	131,116	0.1	29	12%
Texas	15	467,087	0.3	23	49%
Utah	3	53,809	0.6	15	85%
Vermont	0	21,598	0.0	33	0%
Virginia	38	173,550	2.2	2	336%
Washington	23	162,932	1.4	5	216%
West Virginia	0	41,451	0.0	33	0%
Wisconsin	1	139,646	0.1	30	11%
Wyoming	0	17,909	0.0	33	0%
United States (50 States)	456	6,988,975	0.7	—	100%
Dist of Columbia	0	19,469	0.0	—	0%
Puerto Rico	N/A	N/A	—	—	—



Inc. 500 Companies

Definition

Inc. publishes an annual list of 500 independent and privately held companies that are ranked on their revenue growth over the last five years. To be included in this list, a company must apply to *Inc.* and must provide tax forms or financial statements prepared by an independent accountant showing its annual revenues during fiscal years 1995-1999. Minimum sales in fiscal 1996 must be at least \$200,000. Ranking is determined solely by net sales growth, and profitability is not a factor. Nonprofits are eligible for this list, but public companies, holding companies, regulated banks, and utilities are not.

From the *Inc.* list of 500 companies, the number of companies in each state was identified. This number was normalized by the number of business establishments in each state to correct for differences in the size of the business base of each state. The resulting metric, the number of *Inc.* 500 companies in 2000 per 10,000 business establishments, allowed comparisons between the states.

Relevance

The *Inc.* 500 list provides a picture of where the fastest growing, privately held companies are being created. Normalizing the count by state to the size of the state's business base provides insight as to where the highest concentrations of fast-growing businesses are located.

In 2000, there was an average of 0.7 *Inc.* 500 Companies per 10,000 business establishments. The 50-state median number of *Inc.* 500 Companies per 10,000 business

establishments was 0.5. Thirty-eight percent of the companies were in the Computer Software and Services sector followed by 17% in Diversified Services. Other sectors that were well represented included Materials and Construction (6%), Telecommunications (6%) and Computer Hardware (5%). Sixty-eight percent of the companies reported that their initial start-up capital was \$50,000 or less. Most (92%) raised start-up capital by tapping the personal assets of the CEO. Only 4% received venture capital as seed money.

Data Considerations and Limitations

Companies on the *Inc.* 500 list had to apply for the ranking, making this process subject to self-selection rather than being an objective independent assessment. There are a number of factors that may have influenced a company's decision to participate. Companies on the list may have been more aware of and more interested in the ranking than those who were equally qualified but failed to apply. Regional differences in the perceived importance of the list may also exist. Companies in different industries may place different degrees of emphasis on the value of participating. Finally, some private companies may not wish to publicly release their annual sales data while others consider the process a useful step toward an eventual IPO.

It should be noted that corporate registration requirements might affect where a company is registered. The state of registration may not reflect the state(s) where the majority of its business activities take place.

Source of Data

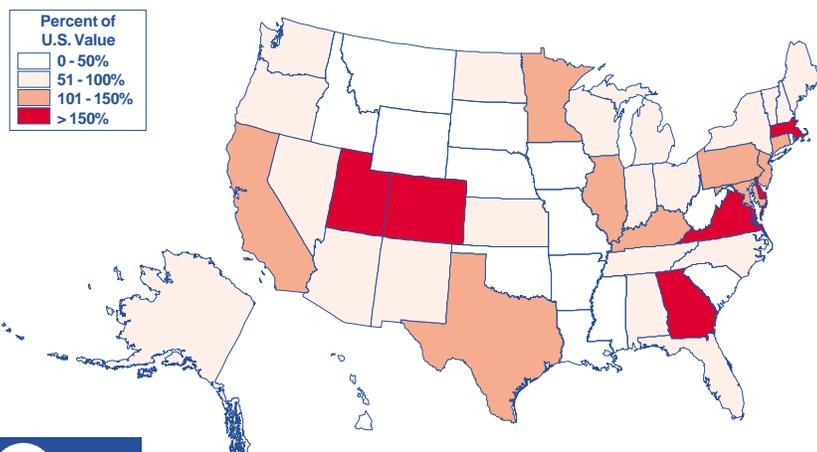
The 2000 listing of *Inc.* 500 companies can be found in textual form in the October, 2000 issue of *Inc. Magazine*. It is available electronically at <http://www.inc.com/500>.

2000 *Inc.* 500 Companies:

Inc. Magazine. (2000) *The Inc. 500*. <http://www.inc.com/500> (2000, December 12).

Establishments:

U.S. Census Bureau, *County Business Patterns 1999*. U.S. Government Printing Office, Washington, DC, 2001.



Number of Inc. 500 Companies per 10,000 Business Establishments: 2000

STATE	2000 Inc. 500 Companies	1999 Establishments	VALUE	Rank	Percent of U.S. Value
Alabama	5	100,507	0.5	28	70%
Alaska	1	18,433	0.5	24	76%
Arizona	5	112,545	0.4	34	62%
Arkansas	0	62,737	0.0	45	0%
California	69	784,935	0.9	10	123%
Colorado	17	133,743	1.3	6	178%
Connecticut	7	92,454	0.8	14	106%
Delaware	4	23,381	1.7	2	240%
Florida	27	424,089	0.6	20	89%
Georgia	26	197,759	1.3	5	184%
Hawaii	0	29,569	0.0	45	0%
Idaho	1	36,975	0.3	42	38%
Illinois	27	306,899	0.9	9	123%
Indiana	7	146,528	0.5	31	67%
Iowa	1	81,213	0.1	44	17%
Kansas	4	74,486	0.5	26	75%
Kentucky	8	89,946	0.9	8	125%
Louisiana	3	101,020	0.3	40	42%
Maine	2	38,878	0.5	27	72%
Maryland	12	127,431	0.9	7	132%
Massachusetts	26	173,267	1.5	3	210%
Michigan	14	236,456	0.6	23	83%
Minnesota	11	137,305	0.8	13	112%
Mississippi	1	59,834	0.2	43	23%
Missouri	4	144,874	0.3	41	39%
Montana	1	31,365	0.3	38	45%
Nebraska	0	48,968	0.0	45	0%
Nevada	3	46,890	0.6	19	90%
New Hampshire	2	37,180	0.5	25	75%
New Jersey	20	231,823	0.9	11	121%
New Mexico	3	42,918	0.7	18	98%
New York	24	485,954	0.5	29	69%
North Carolina	12	201,706	0.6	22	83%
North Dakota	1	20,380	0.5	30	69%
Ohio	17	270,766	0.6	21	88%
Oklahoma	3	84,854	0.4	37	50%
Oregon	7	99,945	0.7	17	98%
Pennsylvania	21	293,491	0.7	15	100%
Rhode Island	2	28,240	0.7	16	99%
South Carolina	3	96,440	0.3	39	44%
South Dakota	0	23,693	0.0	45	0%
Tennessee	6	131,116	0.5	33	64%
Texas	39	467,087	0.8	12	117%
Utah	8	53,809	1.5	4	208%
Vermont	1	21,598	0.5	32	65%
Virginia	31	173,550	1.8	1	250%
Washington	7	162,932	0.4	36	60%
West Virginia	0	41,451	0.0	45	0%
Wisconsin	6	139,646	0.4	35	60%
Wyoming	0	17,909	0.0	45	0%
United States (50 States)	499	6,988,975	0.7	—	100%
Dist of Columbia	1	19,469	0.5	—	72%
Puerto Rico	0	N/A	—	—	—

Average Annual Pay Per Worker: 1999

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	\$28,069	30	84%
Alaska	\$34,034	11	102%
Arizona	\$30,523	22	92%
Arkansas	\$25,371	45	76%
California	\$37,564	4	113%
Colorado	\$34,192	10	103%
Connecticut	\$42,653	1	128%
Delaware	\$35,102	8	105%
Florida	\$28,911	29	87%
Georgia	\$32,339	16	97%
Hawaii	\$29,771	25	89%
Idaho	\$26,042	41	78%
Illinois	\$36,279	5	109%
Indiana	\$30,027	23	90%
Iowa	\$26,939	37	81%
Kansas	\$28,029	31	84%
Kentucky	\$27,748	33	83%
Louisiana	\$27,221	35	82%
Maine	\$26,887	38	81%
Maryland	\$34,472	9	103%
Massachusetts	\$40,331	3	121%
Michigan	\$35,734	7	107%
Minnesota	\$33,487	12	101%
Mississippi	\$24,392	46	73%
Missouri	\$29,958	24	90%
Montana	\$23,253	49	70%
Nebraska	\$26,633	39	80%
Nevada	\$31,213	19	94%
New Hampshire	\$32,139	17	96%
New Jersey	—	—	—
New Mexico	\$26,270	40	79%
New York	\$42,133	2	126%
North Carolina	\$29,453	28	88%
North Dakota	\$23,753	48	71%
Ohio	\$31,396	18	94%
Oklahoma	\$25,748	43	77%
Oregon	\$30,867	21	93%
Pennsylvania	\$32,694	15	98%
Rhode Island	\$31,177	20	94%
South Carolina	\$27,124	36	81%
South Dakota	\$23,765	47	71%
Tennessee	\$29,518	27	89%
Texas	\$32,895	14	99%
Utah	\$27,884	32	84%
Vermont	\$27,595	34	83%
Virginia	\$33,015	13	99%
Washington	\$35,736	6	107%
West Virginia	\$26,008	42	78%
Wisconsin	\$29,597	26	89%
Wyoming	\$25,639	44	77%
United States (50 States)	\$33,313	—	100%
Dist of Columbia	\$50,742	—	152%
Puerto Rico	\$18,531	—	56%



Population Above Poverty

Definition

The percent of the population living above the federal poverty threshold is defined as 100 percent minus the percent of the population living below the poverty threshold. This metric was selected in place of the more common estimate of the percent of the population living in poverty because it demonstrates a direct, rather than an inverse, relationship with the goals of economic development.

The federal poverty threshold used in this metric is adjusted annually. The threshold of money income that is used to define who is poor varies by the size of the family, age of the householder, and the number of related children under 18 years of age. A detailed matrix defining the poverty threshold can be obtained from the U.S. Census Bureau.

Relevance

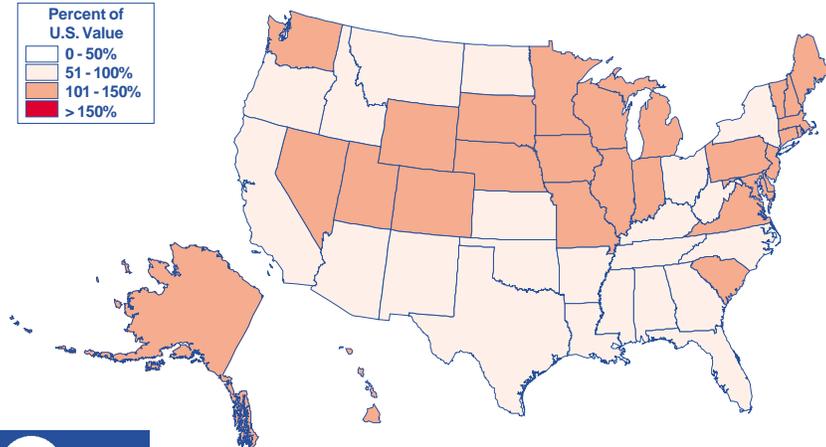
The percent of the population living above the federal poverty threshold provides some indication of how widely the basic needs of a state's population are being met.

The percent of the total U.S. population living above poverty in 1999 was 88.2%. The median for the percent of each state's population living above poverty in 1999 was 88.4%. The percentage of children under the age of 18 living above the threshold increased to 83.1%. The percent of the population living above the poverty level increased for every racial and ethnic group in 1999. The percent of Blacks, Whites (not of Hispanic origin), and Hispanics living above the poverty threshold increased to 76.4%, 92.3%, and 77.2%, respectively.

Data Considerations and Limitations

Official poverty estimates are made by the U.S. Bureau of the Census from data collected during the Current Population Survey (CPS). The CPS is a sample survey of approximately 50,000 households nationwide. These data, taken from the March 2000 supplement to the CPS, reflect conditions during calendar year 1999.

Because of the limited size of the sample, standard errors for a particular state during a single year may be significant. Using the two- or three-year averages rather than data for only a single year will reduce the magnitude of the error.



Source of Data

National, state and local area data on the percent of the population living in poverty can be accessed electronically at <http://www.census.gov/hhes/www/poverty.html>.

Percent of the Population Above Poverty:

U.S. Census Bureau. (2000, September 29). *Current Population Survey: Annual Demographic Survey, March Supplement, Table 25*. http://ferret.bls.census.gov/macro/032000/pov/new25_001.htm (2000, December 11).

Percent of the Population Living Above the Federal Poverty Threshold: 1999

STATE	Percent of Population Living Below Poverty	VALUE	Rank	Percent of U.S. Value
Alabama	15.1%	84.9%	45	96%
Alaska	7.6%	92.4%	7	105%
Arizona	12.0%	88.0%	30	100%
Arkansas	14.7%	85.3%	43	97%
California	13.8%	86.2%	40	98%
Colorado	8.3%	91.7%	12	104%
Connecticut	7.1%	92.9%	3	105%
Delaware	10.4%	89.6%	20	102%
Florida	12.4%	87.6%	34	99%
Georgia	12.9%	87.1%	37	99%
Hawaii	10.9%	89.1%	22	101%
Idaho	13.9%	86.1%	41	98%
Illinois	9.9%	90.1%	18	102%
Indiana	6.7%	93.3%	2	106%
Iowa	7.5%	92.5%	6	105%
Kansas	12.2%	87.8%	33	100%
Kentucky	12.1%	87.9%	32	100%
Louisiana	19.2%	80.8%	49	92%
Maine	10.6%	89.4%	21	101%
Maryland	7.3%	92.7%	5	105%
Massachusetts	11.7%	88.3%	27	100%
Michigan	9.7%	90.3%	16	102%
Minnesota	7.2%	92.8%	4	105%
Mississippi	16.1%	83.9%	48	95%
Missouri	11.6%	88.4%	25	100%
Montana	15.6%	84.4%	46	96%
Nebraska	10.9%	89.1%	22	101%
Nevada	11.3%	88.7%	24	101%
New Hampshire	7.7%	92.3%	8	105%
New Jersey	7.8%	92.2%	10	105%
New Mexico	20.7%	79.3%	50	90%
New York	14.1%	85.9%	42	97%
North Carolina	13.5%	86.5%	39	98%
North Dakota	13.0%	87.0%	38	99%
Ohio	12.0%	88.0%	30	100%
Oklahoma	12.7%	87.3%	36	99%
Oregon	12.6%	87.4%	35	99%
Pennsylvania	9.4%	90.6%	14	103%
Rhode Island	9.9%	90.1%	18	102%
South Carolina	11.7%	88.3%	27	100%
South Dakota	7.7%	92.3%	8	105%
Tennessee	11.9%	88.1%	29	100%
Texas	15.0%	85.0%	44	96%
Utah	5.7%	94.3%	1	107%
Vermont	9.7%	90.3%	16	102%
Virginia	7.9%	92.1%	11	104%
Washington	9.5%	90.5%	15	103%
West Virginia	15.7%	84.3%	47	96%
Wisconsin	8.6%	91.4%	13	104%
Wyoming	11.6%	88.4%	25	100%
United States (50 States)	11.8%	88.2%	—	100%
Dist of Columbia	14.9%	85.1%	—	96%
Puerto Rico	N/A	—	—	—



Definition

State per capita personal income is calculated as the annual total personal income of the residents of the state divided by the resident population of the state as of July 1, 1999. Personal income is the income received by all persons from participation in production, from government and business transfer payments, and from government interest. Personal income is the sum of net earnings by place of residence, rental income of persons, personal dividend income, personal interest income, and transfer payments. Net earnings is earnings by place of work--the sum of wage and salary disbursements (payrolls), other labor income, and proprietors' income--less personal contributions for social insurance, plus an adjustment to convert earnings by place of work to a place-of-residence basis. Personal income is measured before the deduction of personal income taxes and other personal taxes and is reported in current dollars (no adjustment is made for price changes). It does not include the wages and salaries of foreign residents who work in the U.S. or of U.S. residents who are temporarily working abroad.

The national average per capita income in 1999 was \$28,542. The median per capita income for the 50 states was \$26,941. Earnings in high cost-of-living states tend to be higher than in low cost-of-living states. In 1999, the five states with the fastest growth in per capita income were Massachusetts, Washington, Wyoming, New Hampshire, and Colorado.

Data Considerations and Limitations

The Bureau of Economic Analysis (BEA) uses data from a variety of sources to compute state per capita personal income. Many of these sources reflect the state in which the income is earned rather than the state in which the individual resides. BEA uses a well-defined allocation methodology to assign this income to individual states and to keep the total of all states' personal income consistent with national estimates. This process is intended to minimize the effect of cross-border transfers that are particularly significant in small states.

Relevance

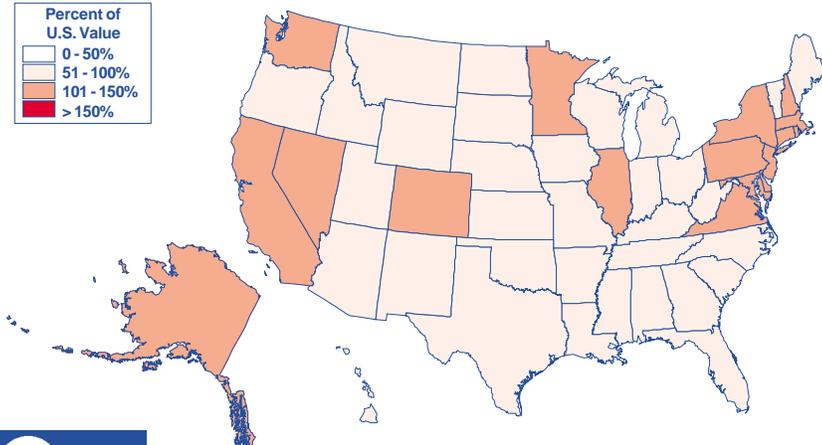
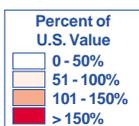
State per capita personal income is used by both the public and private sectors to track the income of people who live or work in a state. These estimates are used in econometric models and as the basis for allocating federal funds. For instance, in fiscal year 1996, the distribution of \$122 billion in federal funds was affected by the estimates of state per capita personal income (<http://www.bea.doc.gov/bea/regional/articles/spi2997/maintext.htm>).

Source of Data

These data can be obtained electronically from the Bureau of Economic Analysis, U.S. Department of Commerce at <http://www.bea.doc.gov/bea/regional/spi>. Per capita personal income was computed using state population estimates from the Bureau of the Census available as of March 1999.

Per Capita Income:

U.S. Department of Commerce, Bureau of Economic Analysis. (2000, October 18). *State Personal Income, Revised Estimates for 1997-99*. <<http://www.bea.doc.gov/bea/ARTICLES/REGIONAL/PERSINC/2000/1000spi.pdf>> (2001, April 9).



Per Capita Personal Income: 1999

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	\$22,987	42	81%
Alaska	\$28,577	17	100%
Arizona	\$25,189	35	88%
Arkansas	\$22,244	46	78%
California	\$29,910	13	105%
Colorado	\$31,546	6	111%
Connecticut	\$39,300	1	138%
Delaware	\$30,778	11	108%
Florida	\$27,780	19	97%
Georgia	\$27,340	22	96%
Hawaii	\$27,544	20	97%
Idaho	\$22,835	45	80%
Illinois	\$31,145	7	109%
Indiana	\$26,143	30	92%
Iowa	\$25,615	33	90%
Kansas	\$26,824	27	94%
Kentucky	\$23,237	41	81%
Louisiana	\$22,847	44	80%
Maine	\$24,603	37	86%
Maryland	\$32,465	5	114%
Massachusetts	\$35,551	2	125%
Michigan	\$28,113	18	98%
Minnesota	\$30,793	10	108%
Mississippi	\$20,688	50	72%
Missouri	\$26,376	29	92%
Montana	\$22,019	47	77%
Nebraska	\$27,049	24	95%
Nevada	\$31,022	9	109%
New Hampshire	\$31,114	8	109%
New Jersey	\$35,551	2	125%
New Mexico	\$21,853	48	77%
New York	\$33,890	4	119%
North Carolina	\$26,003	31	91%
North Dakota	\$23,313	39	82%
Ohio	\$27,152	23	95%
Oklahoma	\$22,953	43	80%
Oregon	\$27,023	25	95%
Pennsylvania	\$28,605	16	100%
Rhode Island	\$29,377	15	103%
South Carolina	\$23,545	38	82%
South Dakota	\$25,045	36	88%
Tennessee	\$25,574	34	90%
Texas	\$26,858	26	94%
Utah	\$23,288	40	82%
Vermont	\$25,889	32	91%
Virginia	\$29,789	14	104%
Washington	\$30,392	12	106%
West Virginia	\$20,966	49	73%
Wisconsin	\$27,390	21	96%
Wyoming	\$26,396	28	92%
United States (50 States)	\$28,542	—	100%
Dist of Columbia	\$39,858	—	140%
Puerto Rico	N/A	—	—



Labor Force Participation

Definition

The participation rate represents the proportion of the population that is in the labor force. In this case, population means civilian, non-institutional population and is restricted to persons who are all of the following: 16 years of age or older, residing in the 50 states or the District of Columbia, not inmates of institutions (e.g., penal or mental facilities or homes for the aged), and not on active duty in the Armed Forces.

From this population, the labor force is comprised of all persons classified as employed or unemployed. Employed persons are those who did any work at all (at least 1 hour) as paid employees, worked in their own business or profession or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family or were not working but had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, child-care problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons. Unemployed persons are all persons who had no employment, were available for work, except for temporary illness, and had made specific efforts to find employment.

Relevance

The civilian non-institutional population of the U.S. age 16 and older was 209.7 million in 2000 for the 50 states and the District of Columbia. The civilian labor force totaled 140.9 million making the overall U.S. labor force participation rate 67.2%. The median labor force participation rate for the 50 states was 68.7%.

The labor force participation rate can be affected by the number of individuals who are students or retirees or who are engaged in providing care for their own children or for an incapacitated relative. Typically, the labor force participation rate for males is higher than for females.

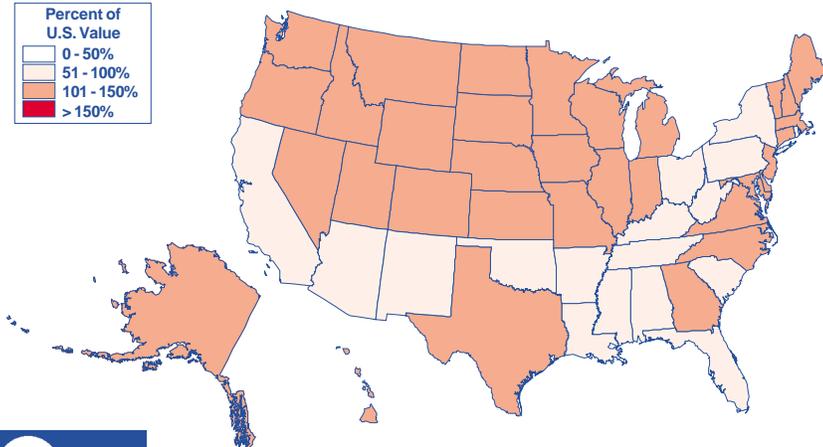
Data Considerations and Limitations

These data represent estimates derived from the Current Population Survey, a sample survey of about 50,000 households conducted monthly for the Bureau of Labor Statistics by the U.S. Census Bureau. Data for Puerto Rico are provided by the Puerto Rico Department of Labor and Human Resources. Because these data are estimates rather than a complete census of the population, they are subject to sampling error. Error ranges for these estimates have been calculated in the form of 90% confidence levels. The typical error ranges from 3-6%, although it may be higher or lower for a few states.

Source of Data

Labor Force Participation:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). *State and Regional Unemployment, 2000 Annual Averages*. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).



Labor Force Participation Rate: 2000

STATE	Civilian Labor Force, thousands	Non-inst. Civilian Pop., 16+ Years of Age, thousands	VALUE	Rank	Percent of U.S. Value
Alabama	2,154	3,401	63.3%	44	94%
Alaska	322	438	73.5%	3	109%
Arizona	2,347	3,626	64.7%	39	96%
Arkansas	1,238	1,977	62.6%	48	93%
California	17,091	25,489	67.1%	34	100%
Colorado	2,276	3,141	72.5%	7	108%
Connecticut	1,746	2,537	68.8%	25	102%
Delaware	409	588	69.6%	19	104%
Florida	7,490	11,960	62.6%	47	93%
Georgia	4,173	5,967	69.9%	16	104%
Hawaii	595	889	66.9%	35	100%
Idaho	658	951	69.2%	21	103%
Illinois	6,419	9,199	69.8%	18	104%
Indiana	3,084	4,529	68.1%	30	101%
Iowa	1,563	2,193	71.3%	10	106%
Kansas	1,411	2,001	70.5%	12	105%
Kentucky	1,982	3,082	64.3%	41	96%
Louisiana	2,030	3,289	61.7%	49	92%
Maine	689	998	69.0%	23	103%
Maryland	2,805	4,015	69.9%	17	104%
Massachusetts	3,237	4,804	67.4%	31	100%
Michigan	5,201	7,548	68.9%	24	103%
Minnesota	2,739	3,648	75.1%	1	112%
Mississippi	1,326	2,086	63.6%	43	95%
Missouri	2,930	4,166	70.3%	14	105%
Montana	479	691	69.3%	20	103%
Nebraska	924	1,254	73.7%	2	110%
Nevada	986	1,408	70.0%	15	104%
New Hampshire	686	939	73.1%	4	109%
New Jersey	4,188	6,292	66.6%	36	99%
New Mexico	833	1,318	63.2%	45	94%
New York	8,941	14,163	63.1%	46	94%
North Carolina	3,958	5,809	68.1%	28	101%
North Dakota	339	477	71.1%	11	106%
Ohio	5,783	8,624	67.1%	33	100%
Oklahoma	1,648	2,558	64.4%	40	96%
Oregon	1,803	2,608	69.1%	22	103%
Pennsylvania	5,972	9,290	64.3%	42	96%
Rhode Island	505	753	67.1%	32	100%
South Carolina	1,985	3,032	65.5%	37	97%
South Dakota	401	552	72.6%	6	108%
Tennessee	2,798	4,284	65.3%	38	97%
Texas	10,325	15,132	68.2%	27	102%
Utah	1,104	1,527	72.3%	8	108%
Vermont	332	471	70.5%	13	105%
Virginia	3,610	5,299	68.1%	29	101%
Washington	3,045	4,434	68.7%	26	102%
West Virginia	825	1,445	57.1%	50	85%
Wisconsin	2,935	4,031	72.8%	5	108%
Wyoming	267	371	72.0%	9	107%
United States (50 States)	140,587	209,284	67.2%	—	100%
Dist of Columbia	279	413	67.6%	—	101%
Puerto Rico	1,306	2,834	46.1%	—	69%



Work Force Employment

Definition

The percent of the civilian work force that is employed is defined as 100% minus the percent of the work force that is unemployed. This metric was selected in place of the more common estimate of unemployment rate because it demonstrates a direct, rather than an inverse, relationship with the goals of economic development.

The civilian work force is defined as the number of individuals 16 years of age and older who are not institutionalized or serving in the military and who are employed or actively seeking work.

Relevance

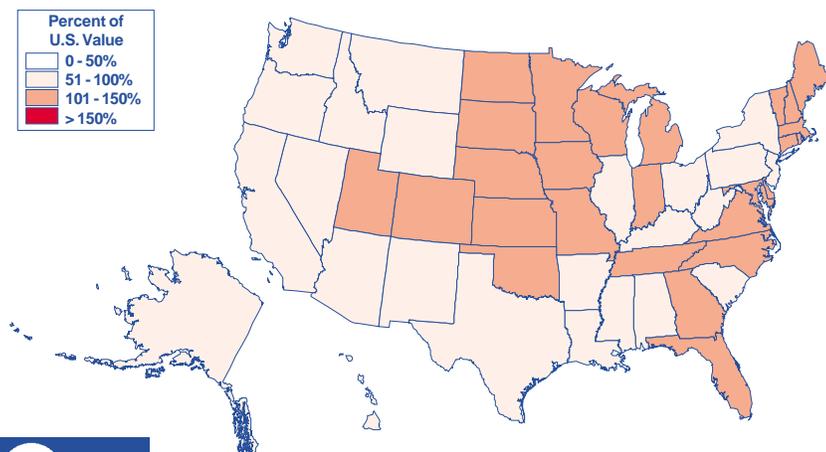
The percent of the civilian work force that is employed reflects the extent to which a state's economy is providing work for those who seek it.

In 2000, the U.S. civilian work force totaled 140.9 million individuals in the 50 states and District of Columbia, with 135.2 million being classified as employed and 5.7 million as unemployed. The national average for the work force employment level was 96.0% in 2000, its highest point in 31 years. At the regional level, the Midwest maintained the highest work force employment level in 2000 at 96.3%, leading the nation for the tenth year in a row.

Data Considerations and Limitations

The unemployment rate used in this calculation is an estimate made by the Bureau of Labor Statistics (BLS) based on models specific for each state. These models use the relationship between the state's monthly unemployment insurance claims data and the Current Population Survey (CPS), a computer-assisted survey covering 50,000 households conducted monthly for BLS by the Bureau of the Census. The state models used by the BLS also incorporate trend and seasonal components to make them consistent with other employment data. The estimates for Puerto Rico are based on a monthly household survey similar to the CPS conducted by the Puerto Rico Department of Labor and Human Resources.

At the 90% confidence level, the 2000 unemployment rate estimates have a typical error range of 3-6%, although the error may be higher or lower for a few states.



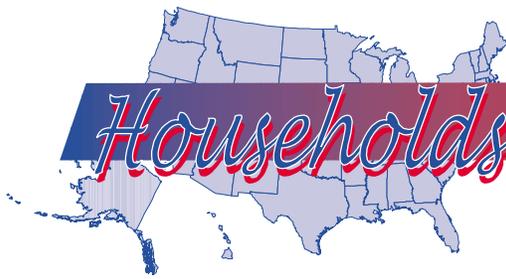
Source of Data

Work Force Employment:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). *State and Regional Unemployment, 2000 Annual Averages*. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

Percent of the Civilian Workforce Employed: 2000

STATE	Unemployment Rate	VALUE	Rank	Percent of U.S. Value
Alabama	4.6%	95.4%	39	99%
Alaska	6.6%	93.4%	50	97%
Arizona	3.9%	96.1%	24	100%
Arkansas	4.4%	95.6%	37	100%
California	4.9%	95.1%	41	99%
Colorado	2.7%	97.3%	6	101%
Connecticut	2.3%	97.7%	2	102%
Delaware	4.0%	96.0%	29	100%
Florida	3.6%	96.4%	18	100%
Georgia	3.7%	96.3%	21	100%
Hawaii	4.3%	95.7%	36	100%
Idaho	4.9%	95.1%	41	99%
Illinois	4.4%	95.6%	37	100%
Indiana	3.2%	96.8%	12	101%
Iowa	2.6%	97.4%	4	101%
Kansas	3.7%	96.3%	21	100%
Kentucky	4.1%	95.9%	30	100%
Louisiana	5.5%	94.5%	47	98%
Maine	3.5%	96.5%	15	101%
Maryland	3.9%	96.1%	24	100%
Massachusetts	2.6%	97.4%	4	101%
Michigan	3.6%	96.4%	18	100%
Minnesota	3.3%	96.7%	14	101%
Mississippi	5.7%	94.3%	49	98%
Missouri	3.5%	96.5%	15	101%
Montana	4.9%	95.1%	41	99%
Nebraska	3.0%	97.0%	9	101%
Nevada	4.1%	95.9%	30	100%
New Hampshire	2.8%	97.2%	7	101%
New Jersey	3.8%	96.2%	23	100%
New Mexico	4.9%	95.1%	41	99%
New York	4.6%	95.4%	39	99%
North Carolina	3.6%	96.4%	18	100%
North Dakota	3.0%	97.0%	9	101%
Ohio	4.1%	95.9%	30	100%
Oklahoma	3.0%	97.0%	9	101%
Oregon	4.9%	95.1%	41	99%
Pennsylvania	4.2%	95.8%	34	100%
Rhode Island	4.1%	95.9%	30	100%
South Carolina	3.9%	96.1%	24	100%
South Dakota	2.3%	97.7%	2	102%
Tennessee	3.9%	96.1%	24	100%
Texas	4.2%	95.8%	34	100%
Utah	3.2%	96.8%	12	101%
Vermont	2.9%	97.1%	8	101%
Virginia	2.2%	97.8%	1	102%
Washington	5.2%	94.8%	46	99%
West Virginia	5.5%	94.5%	47	98%
Wisconsin	3.5%	96.5%	15	101%
Wyoming	3.9%	96.1%	24	100%
United States (50 States)	4.0%	96.0%	—	100%
Dist of Columbia	5.8%	94.2%	—	98%
Puerto Rico	10.1%	89.9%	—	94%



Households with Computers

Definition

The percent of households with a computer is calculated by dividing the number of households with a computer by the total number of households. The household has been chosen as the traditional standard by which access is defined, in the United States and around the world. Computer ownership is highest among households with the highest income and education levels. The gap between Black households and the national average as well as that between Hispanic households and the national average has remained stable between 1998 and 2000.

Relevance

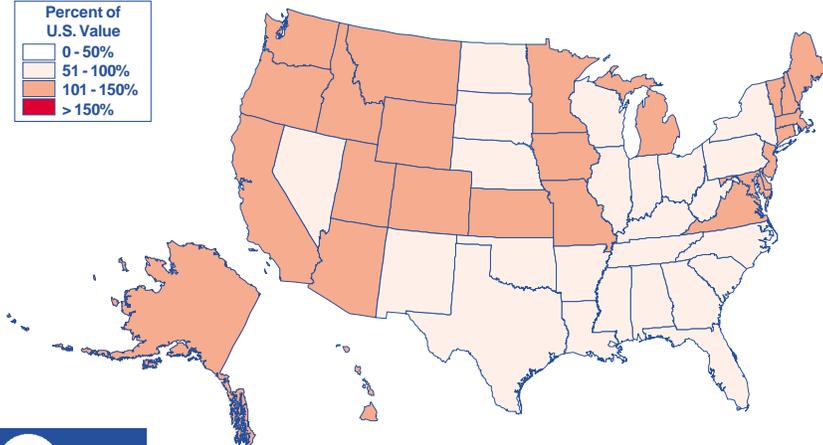
Nationally, just over half of U.S. households (51%) owned computers by August 2000. Twenty months earlier (December 1998), the percent of households with computers was at 42.1%. Seven states had computer ownership levels exceeding 60% (Alaska, Colorado, Connecticut, New Hampshire, Oregon, Utah, and Washington) while no state had computers in fewer than 37% of its households by August 2000. These data indicate that home access to computers continues to increase at a rapid pace across the nation.

The presence of a computer in the home tends to promote digital literacy by providing more convenient access to software programs for word processing, spreadsheets, tutorials, and games. Schools, libraries, and other public access points provide computer access to those individuals who do not have a computer at home.

Data Considerations and Limitations

Data for this metric come from the Census Bureau's August 2000 Current Population Survey (CPS) of approximately 48,000 sample households. These households were selected from the 1990 Decennial Census files continually updated to account for new residential construction after 1990. The CPS sample is representative of all fifty states and the District of Columbia. Since the CPS is designed to produce both state and national estimates, the proportion of the total population and the sampling rates differ among the states. In general, the smaller the population of the state the larger the sampling proportion.

All statistics are subject to sampling error, as well as non-sampling error such as survey design flaws, respondent classification and reporting errors, data processing mistakes, and undercoverage. The Census Bureau has taken steps to minimize errors in the form of quality control and edit procedures to reduce errors made by respondents, coders, and interviewers.



Source of Data

Households with Computers:

U.S. Department of Commerce, National Telecommunications and Information Administration. (2000, October). *Falling Through the Net: Toward Digital Inclusion*. <<http://search.ntia.doc.gov/pdf/ftn00.pdf>> (2000, December 27).

Percent of Households with Computers: 2000

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	44.2%	44	87%
Alaska	64.8%	2	127%
Arizona	53.5%	20	105%
Arkansas	37.3%	49	73%
California	56.6%	11	111%
Colorado	62.6%	4	123%
Connecticut	60.4%	7	118%
Delaware	58.6%	8	115%
Florida	50.1%	29	98%
Georgia	47.1%	40	92%
Hawaii	52.4%	23	103%
Idaho	54.5%	14	107%
Illinois	50.2%	28	98%
Indiana	48.8%	31	96%
Iowa	53.6%	19	105%
Kansas	55.8%	12	109%
Kentucky	46.2%	41	91%
Louisiana	41.2%	48	81%
Maine	54.7%	13	107%
Maryland	53.7%	17	105%
Massachusetts	53.0%	21	104%
Michigan	51.5%	24	101%
Minnesota	57.0%	10	112%
Mississippi	37.2%	50	73%
Missouri	52.6%	22	103%
Montana	51.5%	24	101%
Nebraska	48.5%	34	95%
Nevada	48.8%	31	96%
New Hampshire	63.7%	3	125%
New Jersey	54.3%	15	106%
New Mexico	47.6%	38	93%
New York	48.7%	33	95%
North Carolina	45.3%	43	89%
North Dakota	47.5%	39	93%
Ohio	49.5%	30	97%
Oklahoma	41.5%	47	81%
Oregon	61.1%	5	120%
Pennsylvania	48.4%	35	95%
Rhode Island	47.9%	36	94%
South Carolina	43.3%	45	85%
South Dakota	50.4%	27	99%
Tennessee	45.7%	42	90%
Texas	47.9%	36	94%
Utah	66.1%	1	130%
Vermont	53.7%	17	105%
Virginia	53.9%	16	106%
Washington	60.7%	6	119%
West Virginia	42.8%	46	84%
Wisconsin	50.9%	26	100%
Wyoming	58.2%	9	114%
United States (50 States)	51.0%	—	100%
Dist of Columbia	48.8%	—	96%
Puerto Rico	N/A	—	—



Households with Internet Access

Definition

The percent of households with Internet access is calculated by dividing the number of households with Internet access by the total number of households. Rural households showed significant gains in household Internet access between 1998 and 2000, putting them at approximately the same rate as all households across the country. Individuals 50 years of age and older are among the least likely to be Internet users, but this group experienced the highest rate of growth in Internet usage of all age groups.

Relevance

Nationally, Internet access rates within households rose to 41.5% in August 2000 from 26.2% in December 1998. The West continues to be the most on-line region of the country with a household Internet access rate of 46.6%, followed by the Northeast at 43.0%, the Midwest at 40.9%, and the South at 37.9%. The lowest household Internet access rates occurred in Northeast central city regions (33.1%) and in rural regions in the South (33.8%).

However, not every resident of a household with Internet access makes use of the Internet, and many people access the Internet from points other than their homes. Nearly 120 million Americans were online at some location in August 2000, compared with 32 million only 20 months earlier. If that rate of growth continues, more than half of all Americans are projected to be using the Internet by the middle of 2001.

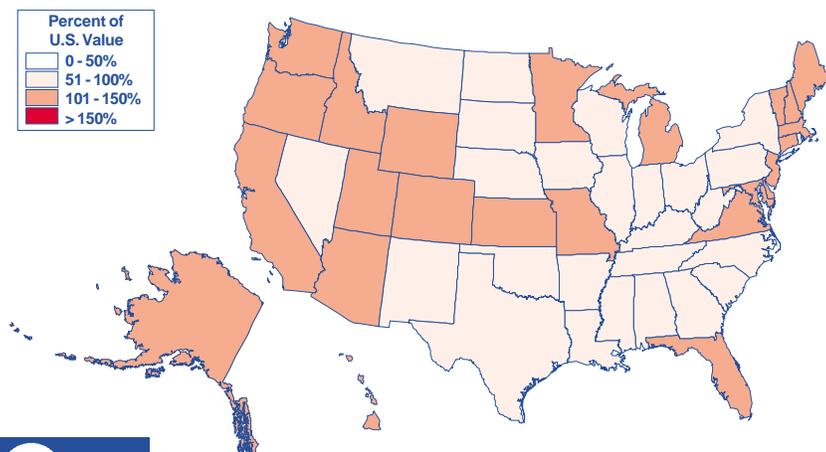
E-mail is the most widely used Internet application with nearly 80% of Internet users reporting use for this purpose. Online

shopping and bill paying are seeing the fastest growth. Access to information technologies is transforming the economy and our lives.

Data Considerations and Limitations

Data for this metric come from the Census Bureau's August 2000 Current Population Survey (CPS) of approximately 48,000 sample households. These households were selected from the 1990 Decennial Census files continually updated to account for new residential construction after 1990. The CPS sample is representative of all fifty states and the District of Columbia. Since the CPS is designed to produce both state and national estimates, the proportion of the total population and the sampling rates differ among the states. In general, the smaller the population of the state the larger the sampling proportion.

All statistics are subject to sampling error, as well as non-sampling error such as survey design flaws, respondent classification and reporting errors, data processing mistakes, and undercoverage. The Census Bureau has taken steps to minimize errors in the form of quality control and edit procedures to reduce errors made by respondents, coders, and interviewers.



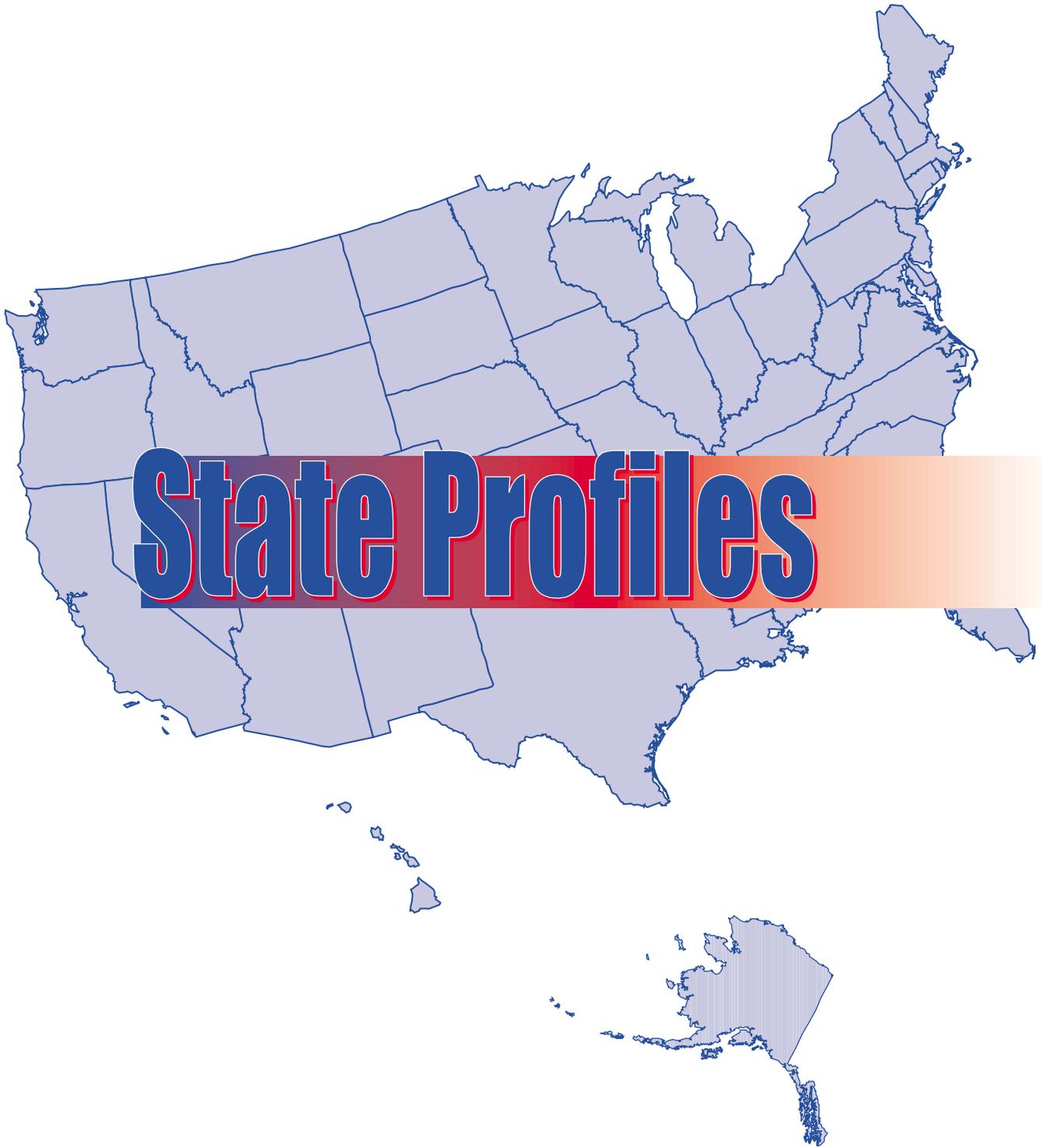
Source of Data

Households with Internet Access:

U.S. Department of Commerce, National Telecommunications and Information Administration. (2000, October). *Falling Through the Net: Toward Digital Inclusion*. <<http://search.ntia.doc.gov/pdf/ftn00.pdf>> (2000, December 27).

Percent of Households with Internet Access: 2000

STATE	VALUE	Rank	Percent of U.S. Value
Alabama	35.5%	43	86%
Alaska	55.6%	2	134%
Arizona	42.5%	21	102%
Arkansas	26.5%	49	64%
California	46.7%	10	113%
Colorado	51.8%	3	125%
Connecticut	51.2%	4	123%
Delaware	50.7%	6	122%
Florida	43.2%	17	104%
Georgia	38.3%	35	92%
Hawaii	43.0%	18	104%
Idaho	42.3%	23	102%
Illinois	40.1%	29	97%
Indiana	39.4%	32	95%
Iowa	39.0%	33	94%
Kansas	43.9%	15	106%
Kentucky	36.6%	40	88%
Louisiana	30.2%	48	73%
Maine	42.6%	20	103%
Maryland	43.8%	16	106%
Massachusetts	45.5%	12	110%
Michigan	42.1%	24	101%
Minnesota	43.0%	18	104%
Mississippi	26.3%	50	63%
Missouri	42.5%	21	102%
Montana	40.6%	27	98%
Nebraska	37.0%	39	89%
Nevada	41.0%	25	99%
New Hampshire	56.0%	1	135%
New Jersey	47.8%	9	115%
New Mexico	35.7%	42	86%
New York	39.8%	31	96%
North Carolina	35.3%	44	85%
North Dakota	37.7%	38	91%
Ohio	40.7%	26	98%
Oklahoma	34.3%	45	83%
Oregon	50.8%	5	122%
Pennsylvania	40.1%	29	97%
Rhode Island	38.8%	34	93%
South Carolina	32.0%	47	77%
South Dakota	37.9%	37	91%
Tennessee	36.3%	41	87%
Texas	38.3%	35	92%
Utah	48.4%	8	117%
Vermont	46.7%	10	113%
Virginia	44.3%	13	107%
Washington	49.7%	7	120%
West Virginia	34.3%	45	83%
Wisconsin	40.6%	27	98%
Wyoming	44.1%	14	106%
United States (50 States)	41.5%	—	100%
Dist of Columbia	39.6%	—	95%
Puerto Rico	N/A	—	—



State Profiles

3. Contents

This section contains a one-page descriptive profile of each state, the District of Columbia, and Puerto Rico. The states appear alphabetically, followed by the District of Columbia and Puerto Rico.

Each profile includes a summary of the overall economic conditions within the state, a description of the science and technology (S&T) infrastructure located in the state including electronic links with key technology organizations, and a state contact for obtaining additional statistical information.

The state's performance on individual metrics is summarized on the bar graph that appears on each state profile page. The numerical value of the state's performance on each metric is shown inside the parentheses that follow each metric's name. The state's ranking on that metric is given to the right of the metric name with the lower numbers denoting a higher ranking. A ranking of 1 denotes the highest performer, while a ranking of 50 denotes the lowest performer. The state's performance on each metric also is depicted graphically with long bars denoting performance above the national average and short bars, performance below the national average.

For questions pertaining to the raw data, inquires should be directed first to the source of the data, provided in Section 2 as well as in the Appendix, and then to the State Statistical Information Contact.

Rankings have not been done for the District of Columbia and Puerto Rico because of the lack of data in some instances and the fact that their data may come from different sources than the other states.



Overall State Economic Conditions

Alabama ranks 23rd in population with over 4.3 million people in 1999, just over 70% of whom live in metropolitan areas (23rd in 1999). Its 1999 per capita income of \$22,987 (in 1992 constant dollars) ranked 42nd nationally. In 1999, 15.1% of its population lived at or below the poverty level. In 1999, Alabama's gross state product was \$115.1 billion (25th) and it had 100,507 business establishments (24th). The state ranks 9th in percentage of non-farm employment in manufacturing (16% of its workforce in 1999).

Science & Technology Organizations

<http://www.adeca.state.al.us>

The Science and Technology Section of the **Alabama Department of Economic and Community Affairs** administers several science and technology programs, including the Alabama Research Institute, the Technology Assistance Program, the Commission on Aerospace Science and Industry, the Advanced Telecommunications Demonstration Project, and the Alabama Experimental Program to Stimulate Competitive Technology (EPSCoT) Project.

http://www.adeca.state.al.us/adeca/pages/pages_stm/STE_STP_Alabama-Research-Institute.stm

The **Alabama Research Institute** is an organization funding research projects by Alabama's research universities that foster economic development potential. Recently the following technology or industry clusters have been priorities: Advanced Manufacturing and Robotics, Aerospace, Automotive, Biomedical and Biotechnology, Environmental Sciences, Information Technology, Materials Science, and Emerging Technologies.

http://www.adeca.state.al.us/adeca/pages/pages_stm/STE_STP_Alabama-Commission-on-Aerospace-Science-and-Industry.stm

The **Alabama Commission on Aerospace Science and Industry** consists of 21 aerospace industry representatives appointed by the Governor, with the mission of expanding Alabama's aerospace industry.

<http://backcharge.uah.edu/hightech/.vindex2.html>

The **High Tech Directory** is an electronic database of 400 high-tech companies in Alabama.

Statistical Information Contact

The University of Alabama

Center for Business and Economic Research
P.O. Box 870221
Tuscaloosa, AL 35487-0221
(205) 348-6191
<http://cber.cba.ua.edu/>

Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$15.31)	28				
Industry R&D/\$1,000 of GSP (\$4.83)	37				
Federal R&D/\$1,000 of GSP (\$6.71)	5				
University R&D/\$1,000 of GSP (\$3.62)	14				
Fed Obligations for R&D/\$1,000 of GSP (\$15.70)	4				
SBIR Awards/10,000 Businesses (7.9)	11				
SBIR Award \$/\$1,000 of GSP (\$0.17)	10				
STTR Awards/10,000 Businesses (0.9)	9				
STTR Award \$/\$1,000 of GSP (\$0.021)	5				
Human Resources					
NAEP Science Test Scores (139)	35				
% of Population Completing High School (77.5%)	49				
% Associates Degrees Granted/Pop 18-24 (2.08%)	23				
% Bachelors Degrees Granted/Pop 18-24 (4.66%)	28				
% S&E BS Degrees Granted/Total Bach's (17.5%)	29				
% S&E Grad Students/Pop 18-24 (1.13%)	35				
% of Workforce w/Recent S&E BS Degree (1.00%)	38				
% of Workforce w/Recent S&E MS Degree (0.24%)	35				
% of Workforce w/Recent S&E PhD (0.09%)	40				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (\$0.85)	32				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.14)	40				
IPO Funds Raised/\$1,000 of GSP (\$0.03)	46				
Business Incubators/10,000 Businesses (1.7)	12				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (4.0%)	39				
% Employment in High-technology SICs (6.7%)	37				
% Payroll in High-technology SICs (10.5%)	36				
% Business Births in High-technology SICs (5.7%)	36				
Net High-tech Formations/10,000 Estab. (14.8)	37				
Outcome Measures					
Patents Issued/10,000 Businesses (43)	42				
Fast 500 Companies/10,000 Businesses (0.1)	28				
Inc. 500 Companies/10,000 Businesses (0.5)	28				
Average Annual Earnings/Job (\$28,069)	30				
% Population Above Federal Poverty Level (84.9%)	45				
Per Capita Personal Income (\$22,987)	42				
Labor Force Participation Rate (63.3%)	44				
% of Workforce Employed (95.4%)	39				
% of Households w/Computer (44.2%)	44				
% of Households w/Internet Access (35.5%)	43				

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$5.77)	47	
Industry R&D/\$1,000 of GSP (\$0.11)	49	
Federal R&D/\$1,000 of GSP (\$2.02)	9	
University R&D/\$1,000 of GSP (\$3.56)	15	
Fed Obligations for R&D/\$1,000 of GSP (\$4.36)	27	
SBIR Awards/10,000 Businesses (1.3)	47	
SBIR Award \$/\$1,000 of GSP (\$0.02)	48	
STTR Awards/10,000 Businesses (0.2)	33	
STTR Award \$/\$1,000 of GSP (\$0.001)	43	
Human Resources		
NAEP Science Test Scores (153)	15	
% of Population Completing High School (90.4%)	5	
% Associates Degrees Granted/Pop 18-24 (1.38%)	44	
% Bachelors Degrees Granted/Pop 18-24 (2.15%)	50	
% S&E BS Degrees Granted/Total Bach's (21.8%)	4	
% S&E Grad Students/Pop 18-24 (0.95%)	44	
% of Workforce w/Recent S&E BS Degree (0.64%)	47	
% of Workforce w/Recent S&E MS Degree (0.25%)	33	
% of Workforce w/Recent S&E PhD (0.09%)	37	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (--)	--	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.01)	50	
IPO Funds Raised/\$1,000 of GSP (\$1.77)	24	
Business Incubators/10,000 Businesses (1.6)	17	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.1%)	34	
% Employment in High-technology SICs (3.9%)	47	
% Payroll in High-technology SICs (5.8%)	48	
% Business Births in High-technology SICs (5.5%)	37	
Net High-tech Formations/10,000 Estab. (10.4)	43	
Outcome Measures		
Patents Issued/10,000 Businesses (36)	45	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.5)	24	
Average Annual Earnings/Job (\$34,034)	11	
% Population Above Federal Poverty Level (92.4%)	7	
Per Capita Personal Income (\$28,577)	17	
Labor Force Participation Rate (73.5%)	3	
% of Workforce Employed (93.4%)	50	
% of Households w/Computer (64.8%)	2	
% of Households w/Internet Access (55.6%)	2	

Overall State Economic Conditions

With 619,500 people, Alaska ranks 48th in population. Just over 41% of its people live in metropolitan areas, making it one of the least urbanized states (43rd). Alaska ranked 17th in 1999 per capita income (\$28,577) up from 19th place in 1997. The percentage of its population at poverty levels dropped from 8.2% in 1996 to 7.6% in 1999. In 1999, Alaska's gross state product was \$26.4 billion (45th) and it had 18,433 business establishments (49th). Only 3.7% of its workforce was employed in manufacturing.

Science & Technology Organizations

<http://www.astf.org>

The **Alaska Science and Technology Foundation (ASTF)** is a state agency, part of the Department of Community and Economic Development. It invests in Alaska's economy and tries to increase the state's science and engineering capabilities. It offers grants for small and large business development and research projects.

<http://www.akaerospace.com/frames1.html>

The **Alaska Aerospace Development Corporation (AADC)** is a public corporation created in 1992 to develop aerospace-related economic and technical opportunities for the State of Alaska. AADC is working with private corporations, government agencies, and universities to develop a comprehensive low earth orbit launch complex and full service satellite ground station facilities.

AADC is administered by the Department of Commerce and Economic Development and is affiliated with the University of Alaska (UA).

<http://www.dced.state.ak.us>

The **Department of Commerce and Economic Development** is the main development agency for the state.

Statistical Information Contact

Department of Commerce

Division of Community and Business Development
 P.O. Box 110804
 Juneau, AK 99811-0804
 (907) 465-2017
<http://www.dced.state.ak.us/>



Overall State Economic Conditions

With 4,778,332 people, Arizona ranks 20th in population. Nearly 88% of its people live in metropolitan areas, making it one of the most urbanized states (9th). Arizona ranked 35th in 1999 per capita income (\$25,189). The percentage of its population living at or below poverty levels dropped from 20.5% in 1996 to 12.0% in 1999. In 1999, Arizona's gross state product was \$143.7 billion (23rd) and it had 112,545 business establishments (22nd). Arizona had 8.2% of its workforce employed in manufacturing.

Science & Technology Organizations

The **Governor's Science and High Technology Council** promotes high tech industry economic development in Arizona. The members come from private industry, universities, and state government. The contact is Jack Haenichen at [voice/fax] (602) 280-1330/1302 or email: jackh@ep.state.az.us.

The **Arizona Space Commission** promotes space-related industry in Arizona. The contact is Brad Tittle at the Arizona Department of Commerce at [voice/fax] (602) 280-1393/ 1338 or email: bradt@ep.state.az.us.

<http://www.commerce.state.az.us/>

The **Arizona Department of Commerce** is the state's lead economic development agency. Its annual directory includes a list of local economic development contacts for the whole state and all economic development and business service programs.

<http://www.azcommerce.com/gsped.htm>

The **Governor's Strategic Partnership for Economic Development** (C. Diane Bishop, Director) is a public/private partnership that enhances the competitiveness of the state's economy by focusing on export-driven industry clusters.

Statistical Information Contact

University of Arizona

Economic and Business Research
College of Business and Public Administration
McClelland Hall 204
Tucson, AZ 85721-0108
(520) 621-2155
<http://www.ebr.bpa.arizona.edu/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$35.43)	10	
Industry R&D/\$1,000 of GSP (\$30.86)	8	
Federal R&D/\$1,000 of GSP (\$1.18)	17	
University R&D/\$1,000 of GSP (\$3.06)	19	
Fed Obligations for R&D/\$1,000 of GSP (\$7.77)	11	
SBIR Awards/10,000 Businesses (8.2)	10	
SBIR Award \$/\$1,000 of GSP (\$0.14)	12	
STTR Awards/10,000 Businesses (0.3)	21	
STTR Award \$/\$1,000 of GSP (\$0.005)	24	
Human Resources		
NAEP Science Test Scores (145)	26	
% of Population Completing High School (85.1%)	31	
% Associates Degrees Granted/Pop 18-24 (2.06%)	25	
% Bachelors Degrees Granted/Pop 18-24 (4.09%)	34	
% S&E BS Degrees Granted/Total Bach's (19.4%)	9	
% S&E Grad Students/Pop 18-24 (1.39%)	25	
% of Workforce w/Recent S&E BS Degree (1.24%)	29	
% of Workforce w/Recent S&E MS Degree (0.32%)	17	
% of Workforce w/Recent S&E PhD (0.10%)	35	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$2.93)	24	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.46)	12	
IPO Funds Raised/\$1,000 of GSP (\$2.66)	21	
Business Incubators/10,000 Businesses (0.9)	43	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.3%)	14	
% Employment in High-technology SICs (9.0%)	18	
% Payroll in High-technology SICs (14.8%)	14	
% Business Births in High-technology SICs (7.9%)	16	
Net High-tech Formations/10,000 Estab. (21.7)	21	
Outcome Measures		
Patents Issued/10,000 Businesses (150)	11	
Fast 500 Companies/10,000 Businesses (0.4)	18	
Inc. 500 Companies/10,000 Businesses (0.4)	34	
Average Annual Earnings/Job (\$30,523)	22	
% Population Above Federal Poverty Level (88.0%)	30	
Per Capita Personal Income (\$25,189)	35	
Labor Force Participation Rate (64.7%)	39	
% of Workforce Employed (96.1%)	24	
% of Households w/Computer (53.5%)	20	
% of Households w/Internet Access (42.5%)	21	

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$5.84)	46	
Industry R&D/\$1,000 of GSP (\$3.33)	42	
Federal R&D/\$1,000 of GSP (\$0.71)	28	
University R&D/\$1,000 of GSP (\$1.73)	45	
Fed Obligations for R&D/\$1,000 of GSP (\$1.64)	48	
SBIR Awards/10,000 Businesses (1.0)	48	
SBIR Award \$/\$1,000 of GSP (\$0.02)	45	
STTR Awards/10,000 Businesses (0.1)	46	
STTR Award \$/\$1,000 of GSP (\$0.001)	45	
Human Resources		
NAEP Science Test Scores (144)	29	
% of Population Completing High School (81.7%)	40	
% Associates Degrees Granted/Pop 18-24 (1.26%)	47	
% Bachelors Degrees Granted/Pop 18-24 (3.67%)	43	
% S&E BS Degrees Granted/Total Bach's (16.5%)	39	
% S&E Grad Students/Pop 18-24 (0.76%)	49	
% of Workforce w/Recent S&E BS Degree (0.42%)	50	
% of Workforce w/Recent S&E MS Degree (0.15%)	43	
% of Workforce w/Recent S&E PhD (0.09%)	38	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.02)	45	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.04)	48	
IPO Funds Raised/\$1,000 of GSP (\$0.29)	40	
Business Incubators/10,000 Businesses (1.1)	32	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.1%)	45	
% Employment in High-technology SICs (6.1%)	38	
% Payroll in High-technology SICs (8.9%)	42	
% Business Births in High-technology SICs (3.7%)	50	
Net High-tech Formations/10,000 Estab. (2.7)	49	
Outcome Measures		
Patents Issued/10,000 Businesses (35)	47	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.0)	45	
Average Annual Earnings/Job (\$25,371)	45	
% Population Above Federal Poverty Level (85.3%)	43	
Per Capita Personal Income (\$22,244)	46	
Labor Force Participation Rate (62.6%)	48	
% of Workforce Employed (95.6%)	37	
% of Households w/Computer (37.3%)	49	
% of Households w/Internet Access (26.5%)	49	

Overall State Economic Conditions

With over 2.5 million people, Arkansas ranks 33rd in population. People living in metropolitan areas is at 49% of the population (38th among states). Arkansas ranked 46th in 1999 per capita income (\$22,244). The percentage of its population below poverty level is 14.7. In 1999, Arkansas' gross state product was \$64.8 billion (33rd) and it had 62,737 business establishments (32nd). Just under 19% of its non-farm workforce was employed in manufacturing (4th highest percentage among states).

Science & Technology Organizations

http://www.state.ar.us/asta/tax_credit.html

The **Arkansas Science & Technology Authority** promotes scientific research, technology development, business innovation, and math, science, and engineering education. Its Board includes scientists, engineers, and manufacturing experts. The Authority's EPSCoR effort provides state matching funds for federally-approved research projects to bring Arkansas' science and engineering research to international levels. The Authority also administers programs on applied and basic research, a Manufacturing Extension Network, a Seed Capital Investment fund, and programs for technology development and transfer.

<http://www.aedc.state.ar.us/>

The **Arkansas Economic Development Commission (AEDC)** is the state's lead agency for business development and attraction. AEDC's Established Industries Services include the Workforce Training Program; ScrapMatch, which electronically helps Arkansas manufacturers find markets for industrial scrap materials; the Industrial Waste Minimization Program and Resource Recovery Program; and Trade and Export Development.

Statistical Information Contact

University of Arkansas at Little Rock

Institute for Economic Advancement
2801 South University
Little Rock, AR 72204
(501) 569-8530
<http://www.aiea.ualr.edu/>



Overall State Economic Conditions

California ranks first in population with over 33.1 million people, nearly 97% of whom live in metropolitan areas. Its 1999 per capita income of \$29,910 is 13th highest among states—down from 8th in 1990. The state has 13.8% of its population living at or below the poverty level, which is an improvement since 1997. In 1999, California's gross state product was \$1,229 billion (1st) and it had 784,935 business establishments (1st). The state ranks 29th in percentage of non-farm workforce employed in manufacturing (10.8%).

Science & Technology Organizations

<http://commerce.ca.gov/agency/org-ost.html>

The **Goldstrike Partnership** is a program of the California Trade and Commerce Agency's **Office of Strategic Technology (OST)**. OST provides cash matches to leverage private and federal dollars for technology development and commercialization, especially defense industry conversion. Through the Goldstrike program, OST works with the state's Regional Technology Alliances. OST currently has two grant programs: the Manufacturing Technology Program and the California Technology Investment Partnership (CalTIP).

<http://goldstrike.net/>

The Goldstrike Partnership includes several Regional Technology Alliances (RTAs) and other organizations: the **Los Angeles Regional Technology Alliance (LARTA)**; the **Bay Area Regional Technology Alliance (BARTA)** (including the Economic Development Advisory Board of Alameda County, the Bay Area Bioscience Center, and Joint Venture Silicon Valley); the **San Diego Regional Technology Alliance (SDRTA)**; and the **California Space and Technology Alliance**.

<http://www.techcoast.com/>

The **Tech Coast Alliance** provides a marketing and communication platform as well as opportunities for regional collaboration for business, education, government, and community leaders in Southern California (the Santa Barbara-San Diego Coastal plain).

<http://commerce.ca.gov/dsti/>

California's **Division of Science, Technology & Innovation (DSTI)** is responsible for promoting smart tech policy, developing supportive programs and forming turnkey partnerships to ensure a technology-driven economy for all Californians.

Statistical Information Contact

Department of Finance

915 L Street, 8th Floor
Sacramento, CA 95814
(916) 445-3878
<http://www.dof.ca.gov/>



Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$39.02)	7				
Industry R&D/\$1,000 of GSP (\$31.77)	7				
Federal R&D/\$1,000 of GSP (\$1.42)	16				
University R&D/\$1,000 of GSP (\$2.98)	22				
Fed Obligations for R&D/\$1,000 of GSP (\$12.69)	5				
SBIR Awards/10,000 Businesses (11.2)	7				
SBIR Award \$/\$1,000 of GSP (\$0.17)	9				
STTR Awards/10,000 Businesses (0.8)	10				
STTR Award \$/\$1,000 of GSP (\$0.011)	10				
Human Resources					
NAEP Science Test Scores (138)	37				
% of Population Completing High School (81.2%)	42				
% Associates Degrees Granted/Pop 18-24 (2.27%)	18				
% Bachelors Degrees Granted/Pop 18-24 (3.54%)	44				
% S&E BS Degrees Granted/Total Bach's (19.0%)	13				
% S&E Grad Students/Pop 18-24 (1.60%)	13				
% of Workforce w/Recent S&E BS Degree (1.56%)	16				
% of Workforce w/Recent S&E MS Degree (0.41%)	8				
% of Workforce w/Recent S&E PhD (0.18%)	9				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (\$30.73)	2				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.73)	4				
IPO Funds Raised/\$1,000 of GSP (\$9.19)	6				
Business Incubators/10,000 Businesses (2.6)	5				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (7.1%)	7				
% Employment in High-technology SICs (10.9%)	7				
% Payroll in High-technology SICs (18.5%)	3				
% Business Births in High-technology SICs (9.3%)	11				
Net High-tech Formations/10,000 Estab. (31.6)	12				
Outcome Measures					
Patents Issued/10,000 Businesses (240)	2				
Fast 500 Companies/10,000 Businesses (1.4)	6				
Inc. 500 Companies/10,000 Businesses (0.9)	10				
Average Annual Earnings/Job (\$37,564)	4				
% Population Above Federal Poverty Level (86.2%)	40				
Per Capita Personal Income (\$29,910)	13				
Labor Force Participation Rate (67.1%)	34				
% of Workforce Employed (95.1%)	41				
% of Households w/Computer (56.6%)	11				
% of Households w/Internet Access (46.7%)	10				

Overall State Economic Conditions

Colorado ranks 24th in population with just over four million people, 84% of whom live in metropolitan areas (14th). Its 1999 per capita income of \$31,546 gives it 6th place among states—up from 9th in 1997. The state has dramatically improved its ranking in the percentage of population living at or below the poverty level (8.3%). In 1999, Colorado's gross state product was \$153.7 billion (21st) and it had 133,743 business establishments (19th). The state ranks 41st in manufacturing employment (7.3% of its workforce).

Science & Technology Organizations

The **Office of Innovation and Technology** is the state's lead technology agency. (The Colorado Advanced Technology Institute which had been the State of Colorado's science and technology economic development agency was abolished in June 1999). The office, which is headed by a cabinet-level Secretary of Technology, is tasked with making Colorado a world leader in the development and implementation of 21st Century technologies and management efficiencies and can be reached by calling (303) 866-6331.

http://www.state.co.us/gov_dir/oed/sdi/space.html

The **Colorado Space Business Roundtable/Foundation**, in partnership with **Office of Economic Development**, provides networking and advocacy for the state's space-related activities, both military (U.S. Space Command, Air Force Space Command, NORAD, and Army Space Command) and civilian, telecommunications companies which rely on Colorado's geographic location for effective satellite control and data uplink.

http://www.state.co.us/gov_dir/oed.html

The **Office of Economic Development** (OED) works with companies starting, expanding, or relocating in Colorado.

Statistical Information Contact

University of Colorado

Boulder, CO 80309-0420
(303) 492-8227
<http://www.colorado.edu/libraries/govpubs/online.htm>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$27.38)	15	
Industry R&D/\$1,000 of GSP (\$20.40)	14	
Federal R&D/\$1,000 of GSP (\$1.55)	14	
University R&D/\$1,000 of GSP (\$3.30)	17	
Fed Obligations for R&D/\$1,000 of GSP (\$9.36)	9	
SBIR Awards/10,000 Businesses (16.7)	4	
SBIR Award \$/\$1,000 of GSP (\$0.36)	3	
STTR Awards/10,000 Businesses (1.0)	8	
STTR Award \$/\$1,000 of GSP (\$0.015)	8	
Human Resources		
NAEP Science Test Scores (155)	12	
% of Population Completing High School (89.7%)	9	
% Associates Degrees Granted/Pop 18-24 (2.07%)	24	
% Bachelors Degrees Granted/Pop 18-24 (5.65%)	13	
% S&E BS Degrees Granted/Total Bach's (20.6%)	5	
% S&E Grad Students/Pop 18-24 (2.10%)	4	
% of Workforce w/Recent S&E BS Degree (2.42%)	3	
% of Workforce w/Recent S&E MS Degree (0.51%)	3	
% of Workforce w/Recent S&E PhD (0.18%)	7	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$27.07)	3	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.79)	3	
IPO Funds Raised/\$1,000 of GSP (\$5.85)	9	
Business Incubators/10,000 Businesses (1.3)	23	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (7.9%)	3	
% Employment in High-technology SICs (10.0%)	10	
% Payroll in High-technology SICs (16.3%)	9	
% Business Births in High-technology SICs (10.5%)	7	
Net High-tech Formations/10,000 Estab. (48.3)	4	
Outcome Measures		
Patents Issued/10,000 Businesses (149)	12	
Fast 500 Companies/10,000 Businesses (1.2)	8	
Inc. 500 Companies/10,000 Businesses (1.3)	6	
Average Annual Earnings/Job (\$34,192)	10	
% Population Above Federal Poverty Level (91.7%)	12	
Per Capita Personal Income (\$31,546)	6	
Labor Force Participation Rate (72.5%)	7	
% of Workforce Employed (97.3%)	6	
% of Households w/Computer (62.6%)	4	
% of Households w/Internet Access (51.8%)	3	

Connecticut

Overall State Economic Conditions

Connecticut ranks 29th in population with nearly 3.3 million people, 95.6% of whom live in metropolitan areas (4th). Its 1999 per capita income of \$39,300 was the highest nationally. In 1999, it had 7.1 % of its population living at or below the poverty level compared to 11.7% in 1996. In 1999, Connecticut's gross state product was \$151.7 billion (22nd) and it had 92,454 business establishments (27th). The state ranks 16th in manufacturing employment (13.9% of its workforce), down from 15th place in 1998.

Science & Technology Organizations

<http://www.ctinnovations.com>

Connecticut Innovations is the state's leading investor in high technology, making risk capital investments in high-tech companies throughout the state. Connecticut Innovations targets seven critical high technology areas: Advanced Marine Applications, Aerospace, Energy and Environmental Systems, Photonics, Advanced Materials, BioScience Technology, and Information Technology. Connecticut Innovations administers the Connecticut Technology Partnership Program, which invests matching funds in companies performing research and development under federal programs.

<http://www.state.ct.us/ecd/Clusters/default.htm>

The **Department of Economic and Community Development** focuses its economic development efforts on identifying and nurturing industry clusters in Connecticut.

<http://www.ct.org>

The **Connecticut Technology Council** is an advocacy partnership committed to growing and diversifying the state's technology base. It forms industry-working groups (including software, medical devices, web designers, biotechnology, telecommunications, manufacturing and photonics).

<http://www.cerc.com>

The **Connecticut Economic Resource Center, Inc.** is a private, non-profit corporation formed by a partnership between utility/telecommunications companies and state government to coordinate the state's business attraction and marketing efforts.

Statistical Information Contact

Connecticut Department of Economic & Community Development

505 Hudson St.
Hartford, CT 06106
(860) 270-8165
<http://www.state.ct.us/ecd/>

Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$29.23)	12				
Industry R&D/\$1,000 of GSP (\$26.25)	11				
Federal R&D/\$1,000 of GSP (\$0.12)	48				
University R&D/\$1,000 of GSP (\$2.75)	29				
Fed Obligations for R&D/\$1,000 of GSP (\$4.32)	28				
SBIR Awards/10,000 Businesses (9.3)	8				
SBIR Award \$/\$1,000 of GSP (\$0.14)	13				
STTR Awards/10,000 Businesses (0.4)	18				
STTR Award \$/\$1,000 of GSP (\$0.009)	13				
Human Resources					
NAEP Science Test Scores (155)	12				
% of Population Completing High School (88.2%)	13				
% Associates Degrees Granted/Pop 18-24 (1.68%)	39				
% Bachelors Degrees Granted/Pop 18-24 (5.32%)	19				
% S&E BS Degrees Granted/Total Bach's (13.4%)	49				
% S&E Grad Students/Pop 18-24 (2.37%)	3				
% of Workforce w/Recent S&E BS Degree (1.76%)	13				
% of Workforce w/Recent S&E MS Degree (0.34%)	14				
% of Workforce w/Recent S&E PhD (0.19%)	5				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (\$8.55)	7				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.72)	6				
IPO Funds Raised/\$1,000 of GSP (\$3.59)	15				
Business Incubators/10,000 Businesses (1.6)	18				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (6.9%)	9				
% Employment in High-technology SICs (11.0%)	5				
% Payroll in High-technology SICs (15.5%)	12				
% Business Births in High-technology SICs (9.7%)	10				
Net High-tech Formations/10,000 Estab. (19.5)	28				
Outcome Measures					
Patents Issued/10,000 Businesses (223)	3				
Fast 500 Companies/10,000 Businesses (1.7)	3				
Inc. 500 Companies/10,000 Businesses (0.8)	14				
Average Annual Earnings/Job (\$42,653)	1				
% Population Above Federal Poverty Level (92.9%)	3				
Per Capita Personal Income (\$39,300)	1				
Labor Force Participation Rate (68.8%)	25				
% of Workforce Employed (97.7%)	2				
% of Households w/Computer (60.4%)	7				
% of Households w/Internet Access (51.2%)	4				



Metric Title (Value)	Rank	Percent of U.S. Value
		0 50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$38.74)	8	
Industry R&D/\$1,000 of GSP (\$36.37)	3	
Federal R&D/\$1,000 of GSP (\$0.08)	50	
University R&D/\$1,000 of GSP (\$2.20)	39	
Fed Obligations for R&D/\$1,000 of GSP (\$1.51)	49	
SBIR Awards/10,000 Businesses (7.8)	12	
SBIR Award \$/\$1,000 of GSP (\$0.09)	19	
STTR Awards/10,000 Businesses (0.4)	17	
STTR Award \$/\$1,000 of GSP (\$0.007)	17	
Human Resources		
NAEP Science Test Scores (142)	31	
% of Population Completing High School (86.1%)	25	
% Associates Degrees Granted/Pop 18-24 (1.62%)	41	
% Bachelors Degrees Granted/Pop 18-24 (6.58%)	6	
% S&E BS Degrees Granted/Total Bach's (16.0%)	42	
% S&E Grad Students/Pop 18-24 (2.08%)	5	
% of Workforce w/Recent S&E BS Degree (1.78%)	12	
% of Workforce w/Recent S&E MS Degree (0.27%)	29	
% of Workforce w/Recent S&E PhD (0.24%)	4	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$3.88)	19	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.26)	32	
IPO Funds Raised/\$1,000 of GSP (\$4.40)	11	
Business Incubators/10,000 Businesses (0.9)	45	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.0%)	15	
% Employment in High-technology SICs (8.5%)	22	
% Payroll in High-technology SICs (13.4%)	21	
% Business Births in High-technology SICs (10.1%)	8	
Net High-tech Formations/10,000 Estab. (56.4)	3	
Outcome Measures		
Patents Issued/10,000 Businesses (185)	7	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (1.7)	2	
Average Annual Earnings/Job (\$35,102)	8	
% Population Above Federal Poverty Level (89.6%)	20	
Per Capita Personal Income (\$30,778)	11	
Labor Force Participation Rate (69.6%)	19	
% of Workforce Employed (96.0%)	29	
% of Households w/Computer (58.6%)	8	
% of Households w/Internet Access (50.7%)	6	

Overall State Economic Conditions

Delaware ranks 45th in population with over 750,000 people, over 81% of whom live in metropolitan areas (17th). Its 1999 per capita income of \$30,778 was the 11th highest nationally. In 1999, the state had 10.4% of its population living at or below the poverty level. In 1999, Delaware's gross state product was \$34.7 billion (41st) and it had 23,381 business establishments (46th). The state ranks 31st in manufacturing employment (10.6% of its workforce).

Science & Technology Organizations

http://www.state.de.us/dedo/initiatives/atcs/atc_home.htm

The **Advanced Technology Center Program** was established by the Council on Science and Technology, and is administered by the Delaware Economic Development Office and funds the Advanced Technology Center for Medical Devices, Inc.; the Fraunhofer Resource Center - Delaware; the University of Delaware Center for Agricultural Biotechnology; the Applied Optics Center of Delaware, Inc; and the Center for Nanomachined Surfaces Advanced Technology. Delaware's **Twenty-First Century Fund Program** is the funding organization for the Centers.

The **Semiconductor Initiative** targets the semiconductor industry with all state departments directed to cooperate to promote and attract this vital industry.

<http://www.udel.edu/PR/DBI/about.html>

The **Biotechnology Institute**, with the Delaware Economic Development Office (DEDO), has initiated the Center for Agricultural Biotechnology and Environmental Science and the Center for Poultry Disease at the University of Delaware; and the Center for Applied Optics at Delaware State University.

<http://www.delawareinnovationfund.com>

The **Delaware Innovation Fund** provides technical and financial assistance in the form of early-stage "investment" to Delaware's emerging companies.

Statistical Information Contact

Delaware Economic Development Office

99 Kings Highway
 Dover, DE 19901
 (302) 739-4271
<http://www.state.de.us/dedo/>



Overall State Economic Conditions

Florida ranks 4th in population with over 15.1 million people, 93% of whom live in metropolitan areas (6th). Its 1999 per capita income of \$27,780 was the 19th highest nationally. In 1999, the state had 12.4 percent of its population living at or below the poverty level. In 1999, Florida's gross state product was \$442.9 billion (5th) and it had 424,089 business establishments (4th). The state ranks 44th in manufacturing employment (5.7% of its workforce).

Science & Technology Organizations

<http://www.floridabusiness.com>

Enterprise Florida, Inc. is a partnership between Florida's government and business leaders and is the principal economic development organization for the State of Florida. Selected industry sectors have been targeted as "high impact", beginning with silicon technology.

The Enterprise Florida Technology Development Corporation sponsors these Innovation and Commercialization Centers (ICCs): the Northern Florida Technology Innovation Center; the Central Florida Innovation Corporation (Orlando); the Enterprise North Florida Corporation (Jacksonville); the Office for Corporate Development at the University of S. FL. (Tampa); and the Enterprise Development Corporation of South Florida (West Palm Beach).

http://cfic.org/central_florida_technology.htm

The new partnership includes **Enterprise Florida's Central Florida Innovation Corporation**, the **Florida High Technology Corridor Council**, the **Economic Development Commission of Mid-Florida**, and the **Orlando Regional Chamber of Commerce**. It promotes networking and growth for high tech companies in modeling/simulation, semiconductor manufacturing, information technology, defense and aerospace, lasers/optics, biotech/medical, and film/entertainment.

Statistical Information Contact

University of Florida

Bureau of Economic and Business Research
221 Matherly Hall
Gainesville, FL 32611-7145
(352) 392-0171
<http://www.bebr.ufl.edu/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$9.63)	36	
Industry R&D/\$1,000 of GSP (\$6.09)	34	
Federal R&D/\$1,000 of GSP (\$1.72)	11	
University R&D/\$1,000 of GSP (\$1.78)	44	
Fed Obligations for R&D/\$1,000 of GSP (\$5.16)	20	
SBIR Awards/10,000 Businesses (2.3)	35	
SBIR Award \$/\$1,000 of GSP (\$0.05)	30	
STTR Awards/10,000 Businesses (0.1)	40	
STTR Award \$/\$1,000 of GSP (\$0.003)	29	
Human Resources		
NAEP Science Test Scores (142)	31	
% of Population Completing High School (84.0%)	34	
% Associates Degrees Granted/Pop 18-24 (4.00%)	2	
% Bachelors Degrees Granted/Pop 18-24 (4.02%)	35	
% S&E BS Degrees Granted/Total Bach's (14.8%)	47	
% S&E Grad Students/Pop 18-24 (1.20%)	32	
% of Workforce w/Recent S&E BS Degree (0.93%)	41	
% of Workforce w/Recent S&E MS Degree (0.22%)	38	
% of Workforce w/Recent S&E PhD (0.07%)	49	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$3.38)	21	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.29)	31	
IPO Funds Raised/\$1,000 of GSP (\$4.07)	13	
Business Incubators/10,000 Businesses (1.1)	35	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.8%)	17	
% Employment in High-technology SICs (6.0%)	39	
% Payroll in High-technology SICs (9.5%)	39	
% Business Births in High-technology SICs (7.7%)	20	
Net High-tech Formations/10,000 Estab. (26.5)	17	
Outcome Measures		
Patents Issued/10,000 Businesses (73)	31	
Fast 500 Companies/10,000 Businesses (0.4)	19	
Inc. 500 Companies/10,000 Businesses (0.6)	20	
Average Annual Earnings/Job (\$28,911)	29	
% Population Above Federal Poverty Level (87.6%)	34	
Per Capita Personal Income (\$27,780)	19	
Labor Force Participation Rate (62.6%)	47	
% of Workforce Employed (96.4%)	18	
% of Households w/Computer (50.1%)	29	
% of Households w/Internet Access (43.2%)	17	

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$10.73)	34	
Industry R&D/\$1,000 of GSP (\$6.63)	31	
Federal R&D/\$1,000 of GSP (\$1.01)	19	
University R&D/\$1,000 of GSP (\$3.05)	20	
Fed Obligations for R&D/\$1,000 of GSP (\$7.34)	12	
SBIR Awards/10,000 Businesses (2.3)	34	
SBIR Award \$/\$1,000 of GSP (\$0.04)	34	
STTR Awards/10,000 Businesses (0.3)	23	
STTR Award \$/\$1,000 of GSP (\$0.004)	27	
Human Resources		
NAEP Science Test Scores (142)	31	
% of Population Completing High School (82.6%)	37	
% Associates Degrees Granted/Pop 18-24 (1.23%)	48	
% Bachelors Degrees Granted/Pop 18-24 (3.89%)	39	
% S&E BS Degrees Granted/Total Bach's (18.2%)	21	
% S&E Grad Students/Pop 18-24 (1.10%)	38	
% of Workforce w/Recent S&E BS Degree (1.29%)	26	
% of Workforce w/Recent S&E MS Degree (0.31%)	19	
% of Workforce w/Recent S&E PhD (0.11%)	28	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$6.92)	12	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.43)	16	
IPO Funds Raised/\$1,000 of GSP (\$9.90)	4	
Business Incubators/10,000 Businesses (1.7)	15	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.3%)	13	
% Employment in High-technology SICs (7.2%)	33	
% Payroll in High-technology SICs (11.6%)	32	
% Business Births in High-technology SICs (8.8%)	13	
Net High-tech Formations/10,000 Estab. (38.5)	9	
Outcome Measures		
Patents Issued/10,000 Businesses (77)	29	
Fast 500 Companies/10,000 Businesses (0.7)	13	
Inc. 500 Companies/10,000 Businesses (1.3)	5	
Average Annual Earnings/Job (\$32,339)	16	
% Population Above Federal Poverty Level (87.1%)	37	
Per Capita Personal Income (\$27,340)	22	
Labor Force Participation Rate (69.9%)	16	
% of Workforce Employed (96.3%)	21	
% of Households w/Computer (47.1%)	40	
% of Households w/Internet Access (38.3%)	35	

Overall State Economic Conditions

Georgia ranks 10th in population with nearly 7.8 million people, over 69% of whom live in metropolitan areas (28th). Its 1999 per capita income of \$27,340 was the 22nd highest nationally. In 1999, the state had 12.9% of its population living at or below the poverty level. In 1999, Georgia's gross state product was \$275.7 billion (10th) and it had 197,759 business establishments (11th). The state ranks 22nd in percentage of manufacturing employment (13.0% of its workforce).

Science & Technology Organizations

<http://www.gra.org/>

The **Georgia Research Alliance** is a partnership of the state's research universities, business leaders, and state government to leverage research capabilities in support of scientific and technology-based business. Research programs are concentrated in advanced communications, biotechnology, and environmental technologies. Through fiscal year 1998, the State of Georgia invested \$200 million through the Alliance in research and development programs at its six member universities.

<http://www.atdc.org/>

The **Advanced Technology Development Center (ATDC)** at Georgia Tech provides support services, including incubator space, for both emerging and established high technology firms. ATDC assists corporate R&D teams with access to faculty, researchers, and laboratories at Georgia Tech.

<http://www.gcatt.gatech.edu/>

The **Georgia Center for Advanced Telecommunications Technology**, a division of the **Georgia Research Alliance** based at Georgia Tech, promotes advanced research and commercialization partnerships with companies and collaborative research by Georgia universities.

Statistical Information Contact

University of Georgia

Selig Center for Economic Growth
 Terry College of Business
 Athens, GA 30602-6269
 (706) 542-4085
<http://www.selig.uga.edu/>



Overall State Economic Conditions

Hawaii ranks 42nd in population with almost 1.2 million people, over 72% of whom live in metropolitan areas (22nd). Its 1999 per capita income of \$27,544 was the 20th highest nationally, down from 16th in 1997. In 1999, the state had the 28th highest poverty rate (22nd place in 1996), with 10.9% of its population living at or below the poverty level. In 1999, Hawaii's gross state product was \$40.9 billion (39th) and it had 29,569 business establishments (43rd). The state ranks last in manufacturing employment (2.4% of its workforce).

Science & Technology Organizations

<http://www.htdc.org>

The **High Technology Development Corporation (HTDC)** is the state agency supporting development and growth of commercial high technology industry in Hawaii. HTDC actively markets and promotes Hawaii as a site for high-technology applications. HTDC is administratively attached to the Department of Business, Economic Development & Tourism (DBEDT).

Affiliated centers include the Manoa Innovation Center, the Laupahoehoe Teleservice/Telework Program, the Maui Research and Technology Center, and the Hawaii Electric Vehicle Demonstration Program.

<http://www.htdc.org/mic/venture.html>

The **Hawaii Venture Capital Association (HVCA)** assists in developing the infrastructure of service providers necessary to support Hawaii's entrepreneurs. HVCA tries to reduce Hawaii's dependence on tourism, military, and real estate ventures. Members include leading banks, chambers, state agencies, the HTDC, and the MIT Enterprise Forum.

Statistical Information Contact

Hawaii State Department of Business and Economic Development & Tourism

Research and Economic Analysis Division
 Statistics Branch
 P.O. Box 2359
 Honolulu, HI 96804
 (808) 586-2481
<http://www.hawaii.gov/dbedt>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$6.61)	43	
Industry R&D/\$1,000 of GSP (\$0.66)	47	
Federal R&D/\$1,000 of GSP (\$1.58)	13	
University R&D/\$1,000 of GSP (\$3.83)	8	
Fed Obligations for R&D/\$1,000 of GSP (\$4.86)	24	
SBIR Awards/10,000 Businesses (7.3)	14	
SBIR Award \$/\$1,000 of GSP (\$0.09)	20	
STTR Awards/10,000 Businesses (0.0)	49	
STTR Award \$/\$1,000 of GSP (\$0.000)	49	
Human Resources		
NAEP Science Test Scores (135)	38	
% of Population Completing High School (87.4%)	17	
% Associates Degrees Granted/Pop 18-24 (2.90%)	10	
% Bachelors Degrees Granted/Pop 18-24 (3.90%)	38	
% S&E BS Degrees Granted/Total Bach's (12.8%)	50	
% S&E Grad Students/Pop 18-24 (1.24%)	30	
% of Workforce w/Recent S&E BS Degree (0.71%)	44	
% of Workforce w/Recent S&E MS Degree (0.10%)	48	
% of Workforce w/Recent S&E PhD (0.14%)	16	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$5.62)	15	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.03)	49	
IPO Funds Raised/\$1,000 of GSP (\$0.43)	38	
Business Incubators/10,000 Businesses (1.7)	13	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.0%)	38	
% Employment in High-technology SICs (2.2%)	50	
% Payroll in High-technology SICs (3.7%)	50	
% Business Births in High-technology SICs (4.7%)	45	
Net High-tech Formations/10,000 Estab. (0.7)	50	
Outcome Measures		
Patents Issued/10,000 Businesses (32)	50	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.0)	45	
Average Annual Earnings/Job (\$29,771)	25	
% Population Above Federal Poverty Level (89.1%)	22	
Per Capita Personal Income (\$27,544)	20	
Labor Force Participation Rate (66.9%)	35	
% of Workforce Employed (95.7%)	36	
% of Households w/Computer (52.4%)	23	
% of Households w/Internet Access (43.0%)	18	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$38.48)	9					
Industry R&D/\$1,000 of GSP (\$35.56)	4					
Federal R&D/\$1,000 of GSP (\$0.81)	27					
University R&D/\$1,000 of GSP (\$2.11)	43					
Fed Obligations for R&D/\$1,000 of GSP (\$5.90)	15					
SBIR Awards/10,000 Businesses (2.0)	37					
SBIR Award \$/\$1,000 of GSP (\$0.03)	43					
STTR Awards/10,000 Businesses (0.2)	32					
STTR Award \$/\$1,000 of GSP (\$0.002)	35					
Human Resources						
NAEP Science Test Scores (N/A)	--					
% of Population Completing High School (86.2%)	23					
% Associates Degrees Granted/Pop 18-24 (3.65%)	4					
% Bachelors Degrees Granted/Pop 18-24 (3.30%)	47					
% S&E BS Degrees Granted/Total Bach's (20.1%)	7					
% S&E Grad Students/Pop 18-24 (1.01%)	42					
% of Workforce w/Recent S&E BS Degree (0.69%)	46					
% of Workforce w/Recent S&E MS Degree (0.26%)	31					
% of Workforce w/Recent S&E PhD (0.12%)	23					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.21)	40					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.06)	46					
IPO Funds Raised/\$1,000 of GSP (\$0.24)	41					
Business Incubators/10,000 Businesses (3.2)	1					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (3.8%)	41					
% Employment in High-technology SICs (9.8%)	12					
% Payroll in High-technology SICs (17.6%)	5					
% Business Births in High-technology SICs (5.0%)	43					
Net High-tech Formations/10,000 Estab. (23.4)	20					
Outcome Measures						
Patents Issued/10,000 Businesses (340)	1					
Fast 500 Companies/10,000 Businesses (0.0)	33					
Inc. 500 Companies/10,000 Businesses (0.3)	42					
Average Annual Earnings/Job (\$26,042)	41					
% Population Above Federal Poverty Level (86.1%)	41					
Per Capita Personal Income (\$22,835)	45					
Labor Force Participation Rate (69.2%)	21					
% of Workforce Employed (95.1%)	41					
% of Households w/Computer (54.5%)	14					
% of Households w/Internet Access (42.3%)	23					

Overall State Economic Conditions

Idaho ranks 40th in population with over 1.2 million people, more than 38% of whom live in metropolitan areas (44th). Its 1999 per capita income of \$22,835 ranked 45th nationally, down from 43rd in 1997. In 1999, 13.9% of its population lived at or below the poverty level. Between 1987 and 1997, high technology employment increased 77%. In 1999, Idaho's gross state product was \$34 billion (43rd) and it had 36,975 business establishments (41st). The state ranks 33rd in manufacturing employment (10.1% of its workforce).

Science & Technology Organizations

<http://www.id.doe.gov/doeid/inside/brief%20history.htm>

In eastern Idaho, the **Idaho National Engineering and Environmental Laboratory (INEEL)** specializes in research and environmental engineering technology. The laboratory houses one of the U.S. Department of Energy's technical research centers. The facility is responsible for addressing many technical problems, including energy development, waste management, and the safe application of nuclear energy.

INEEL provides companies in Idaho with many opportunities for technology development. A key mission of INEEL is to transfer technology to the private sector by entering into joint ventures to produce needed products and processes or by buying products or services directly from Idaho entrepreneurial companies.

Electronics and computer equipment manufacturers in the state produce about \$4 billion in value added sales annually, employing 32,000 people. Global firms like Hewlett Packard, Micron Technology, Micron Electronics, American Microsystems, and Zilog have large research and production facilities in Idaho.

<http://www.idoc.state.id.us/>

The **Idaho Department of Commerce** is the state's lead economic development agency.

Statistical Information Contact

Idaho Department of Commerce

700 West State Street
 Boise, ID 83720-0093
 (208) 334-2470
<http://www.idoc.state.id.us/>



Overall State Economic Conditions

Illinois ranks 5th in population with slightly more than 12 million people, over 84% of whom live in metropolitan areas (12th among states). Its 1999 per capita income of \$31,145 ranked 7th nationally. In 1999, 9.9% of its population lived at or below the poverty level. In 1999, Illinois' gross state product was \$445.7 billion (4th) and it had 306,899 business establishments (5th). The state ranks 19th in manufacturing employment (13.5% of its workforce).

Science & Technology Organizations

The Illinois Department of Commerce and Community Affairs' newly created **Bureau of Workforce Training and Development** administers technology training programs; the Technology Enterprise Development Program to assist high-tech entrepreneurs; and Technology Challenge Grants for technology commercialization. The bureau also administers the NIST Manufacturing Extension Partnership in Illinois.

The **Technology Venture Investment Program** collaborates with private investment companies to invest in businesses in fields such as health care and biomedical products, information and telecommunications, computing and electronic equipment, manufacturing technology, materials, transportation and aerospace, geoscience, financial and service industries, and agriculture and biotechnology.

<http://www.illinoiscoalition.org>

The **Illinois Coalition** brings together leaders from industry, academia, labor, and government to strengthen Illinois' research institutions and promote growth of technology firms. In partnership with the City of Chicago, the Coalition in early 1999 announced the Chicago Technology Growth Fund to provide seed-stage equity financing to high-tech startup firms; development of a "wired" building in Chicago's South Loop for computer software and information technology firms; and design of a digital infrastructure to provide high-speed telecommunications throughout Chicago.

Statistical Information Contact

University of Illinois

Bureau of Economic and Business Research
430 Wohlers Hall
1206 South 6th Street
Champaign, IL 61820
(217) 333-2332
<http://www.cba.uiuc.edu/research/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$21.81)	20	
Industry R&D/\$1,000 of GSP (\$17.31)	19	
Federal R&D/\$1,000 of GSP (\$0.17)	46	
University R&D/\$1,000 of GSP (\$2.47)	36	
Fed Obligations for R&D/\$1,000 of GSP (\$2.95)	37	
SBIR Awards/10,000 Businesses (2.3)	33	
SBIR Award \$/\$1,000 of GSP (\$0.03)	37	
STTR Awards/10,000 Businesses (0.2)	35	
STTR Award \$/\$1,000 of GSP (\$0.002)	34	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (85.5%)	29	
% Associates Degrees Granted/Pop 18-24 (2.40%)	15	
% Bachelors Degrees Granted/Pop 18-24 (4.66%)	29	
% S&E BS Degrees Granted/Total Bach's (17.2%)	32	
% S&E Grad Students/Pop 18-24 (1.98%)	8	
% of Workforce w/Recent S&E BS Degree (1.20%)	33	
% of Workforce w/Recent S&E MS Degree (0.38%)	10	
% of Workforce w/Recent S&E PhD (0.14%)	19	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$3.24)	23	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.43)	15	
IPO Funds Raised/\$1,000 of GSP (\$3.20)	16	
Business Incubators/10,000 Businesses (1.0)	39	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.7%)	11	
% Employment in High-technology SICs (8.8%)	19	
% Payroll in High-technology SICs (13.0%)	22	
% Business Births in High-technology SICs (9.8%)	9	
Net High-tech Formations/10,000 Estab. (32.2)	11	
Outcome Measures		
Patents Issued/10,000 Businesses (143)	16	
Fast 500 Companies/10,000 Businesses (0.4)	21	
Inc. 500 Companies/10,000 Businesses (0.9)	9	
Average Annual Earnings/Job (\$36,279)	5	
% Population Above Federal Poverty Level (90.1%)	18	
Per Capita Personal Income (\$31,145)	7	
Labor Force Participation Rate (69.8%)	18	
% of Workforce Employed (95.6%)	37	
% of Households w/Computer (50.2%)	28	
% of Households w/Internet Access (40.1%)	29	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$15.17)	29					
Industry R&D/\$1,000 of GSP (\$12.33)	25					
Federal R&D/\$1,000 of GSP (\$0.30)	40					
University R&D/\$1,000 of GSP (\$2.53)	33					
Fed Obligations for R&D/\$1,000 of GSP (\$2.27)	40					
SBIR Awards/10,000 Businesses (1.7)	39					
SBIR Award \$/\$1,000 of GSP (\$0.03)	42					
STTR Awards/10,000 Businesses (0.2)	38					
STTR Award \$/\$1,000 of GSP (\$0.002)	39					
Human Resources						
NAEP Science Test Scores (153)	15					
% of Population Completing High School (84.6%)	33					
% Associates Degrees Granted/Pop 18-24 (1.88%)	35					
% Bachelors Degrees Granted/Pop 18-24 (5.39%)	17					
% S&E BS Degrees Granted/Total Bach's (19.1%)	12					
% S&E Grad Students/Pop 18-24 (1.40%)	21					
% of Workforce w/Recent S&E BS Degree (1.20%)	32					
% of Workforce w/Recent S&E MS Degree (0.24%)	36					
% of Workforce w/Recent S&E PhD (0.11%)	29					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.94)	30					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.08)	44					
IPO Funds Raised/\$1,000 of GSP (\$0.14)	43					
Business Incubators/10,000 Businesses (1.3)	27					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (4.5%)	29					
% Employment in High-technology SICs (10.0%)	9					
% Payroll in High-technology SICs (15.2%)	13					
% Business Births in High-technology SICs (6.6%)	26					
Net High-tech Formations/10,000 Estab. (19.6)	25					
Outcome Measures						
Patents Issued/10,000 Businesses (113)	24					
Fast 500 Companies/10,000 Businesses (0.1)	31					
Inc. 500 Companies/10,000 Businesses (0.5)	31					
Average Annual Earnings/Job (\$30,027)	23					
% Population Above Federal Poverty Level (93.3%)	2					
Per Capita Personal Income (\$26,143)	30					
Labor Force Participation Rate (68.1%)	30					
% of Workforce Employed (96.8%)	12					
% of Households w/Computer (48.8%)	31					
% of Households w/Internet Access (39.4%)	32					

Overall State Economic Conditions

Indiana ranks 14th in population with 5.9 million people, nearly 72% of whom live in metropolitan areas (24th among states). Its 1999 per capita income of \$26,143 ranked 30th nationally. In 1999, 6.7% of its population (compared with 7.5% in 1996) was living at or below the poverty level. In 1999, Indiana's gross state product was \$182.2 billion (15th) and it had 146,528 business establishments (15th). The state ranks 1st in manufacturing employment (20.7% of its workforce).

Science & Technology Organizations

<http://arti.indiana.edu/21st/21st.html>

The newly created **Indiana 21st Century Research and Technology Fund** plans to invest \$50 million by March 2001 to develop Indiana technology. The Fund's nine-member board represents research, finance, and business leadership in Indiana. The Fund contact is Kathy Davis, 21st Century Research and Technology Fund, One North Capitol Suite 925, Indianapolis, IN 46204.

<http://www.bmtadvantage.org>

The **Indiana Business Modernization & Technology Corp.** (BMT) provides small and medium-sized manufacturers with business, technology and manufacturing support and funding programs.

<http://www.state.in.us/doc/>

Indiana Department of Commerce is the lead state agency for economic development.

<http://www.hightechindy.com>

Indianapolis Regional Economic Development Partnership is a not-for-profit organization working as the sales organization to market the Indianapolis region. Their mission is to serve as a catalyst for increased capital investment and quality job growth in the Indianapolis region, with their primary goal being to serve as the sales organization to market the Indianapolis region. They are a client-focused organization serving targeted industry and decision-maker groups.

Statistical Information Contact

Indiana University

Indiana Business Research Center
 School of Business
 801 W. Michigan St.
 Indianapolis, IN 46202-5151
 (317) 274-2979
<http://www.ibrc.indiana.edu/>



Overall State Economic Conditions

Iowa ranks 30th in population with nearly 2.9 million people, nearly 45% of whom live in metropolitan areas (40th among states). Its 1999 per capita income of \$25,615 ranked 33rd nationally. In 1999, 7.5% of its population lived at or below the poverty. In 1999, Iowa's gross state product was \$85.2 billion (30th) and it had 81,213 business establishments (30th). The state ranks 11th in manufacturing employment (15.6% of its workforce).

Science & Technology Organizations

<http://www.state.ia.us/government/ided/>

The Iowa Department of Economic Development (IDED), through its Entrepreneurial Ventures Assistance (EVA) program, provides financial and technical assistance to start-up and early-stage companies. Information Technology (IT) focuses on industry sectors offering the greatest start-up and growth potential for the state, including, but not limited to, biotechnology, recyclable materials, software development and computer-related products, advanced materials, advanced manufacturing, and medical and surgical instruments.

<http://www.state.ia.us/ided/index.html>

IDED's Iowa Capital Corporation (ICC) is a for-profit venture capital corporation established with funds provided by the State of Iowa and equity investments from Iowa financial institutions, insurance companies, and electric utilities. The corporation provides its shareholders an attractive, risk-adjusted rate of return on investments that advance economic development in Iowa.

<http://iabiotech.ftchg.com>

The Iowa Biotechnology Association was formed to commercialize new biotechnologies in a timely manner and reduce the lead time for their deployment by helping Iowa companies share ideas on the transfer and development of technologies. (Doug Getter, Executive Director, (515) 242-4815).

Statistical Information Contact

Public Interest Institute

600 North Jackson Street
Mount Pleasant, IA 52641
(319) 385-3462
<http://www.limitedgovernment.org/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$11.76)	32	
Industry R&D/\$1,000 of GSP (\$6.56)	32	
Federal R&D/\$1,000 of GSP (\$0.46)	33	
University R&D/\$1,000 of GSP (\$4.40)	3	
Fed Obligations for R&D/\$1,000 of GSP (\$3.10)	36	
SBIR Awards/10,000 Businesses (0.9)	50	
SBIR Award \$/\$1,000 of GSP (\$0.01)	49	
STTR Awards/10,000 Businesses (0.2)	31	
STTR Award \$/\$1,000 of GSP (\$0.004)	28	
Human Resources		
NAEP Science Test Scores (158)	6	
% of Population Completing High School (89.7%)	9	
% Associates Degrees Granted/Pop 18-24 (3.22%)	6	
% Bachelors Degrees Granted/Pop 18-24 (6.34%)	7	
% S&E BS Degrees Granted/Total Bach's (17.6%)	26	
% S&E Grad Students/Pop 18-24 (1.57%)	15	
% of Workforce w/Recent S&E BS Degree (1.21%)	31	
% of Workforce w/Recent S&E MS Degree (0.15%)	44	
% of Workforce w/Recent S&E PhD (0.09%)	39	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.13)	42	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.22)	35	
IPO Funds Raised/\$1,000 of GSP (\$0.68)	32	
Business Incubators/10,000 Businesses (0.9)	44	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.1%)	46	
% Employment in High-technology SICs (6.9%)	36	
% Payroll in High-technology SICs (10.8%)	33	
% Business Births in High-technology SICs (5.3%)	40	
Net High-tech Formations/10,000 Estab. (14.7)	38	
Outcome Measures		
Patents Issued/10,000 Businesses (91)	26	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.1)	44	
Average Annual Earnings/Job (\$26,939)	37	
% Population Above Federal Poverty Level (92.5%)	6	
Per Capita Personal Income (\$25,615)	33	
Labor Force Participation Rate (71.3%)	10	
% of Workforce Employed (97.4%)	4	
% of Households w/Computer (53.6%)	19	
% of Households w/Internet Access (39.0%)	33	

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$19.24)	23	
Industry R&D/\$1,000 of GSP (\$15.88)	20	
Federal R&D/\$1,000 of GSP (\$0.44)	35	
University R&D/\$1,000 of GSP (\$2.90)	25	
Fed Obligations for R&D/\$1,000 of GSP (\$2.37)	39	
SBIR Awards/10,000 Businesses (2.1)	36	
SBIR Award \$/\$1,000 of GSP (\$0.04)	35	
STTR Awards/10,000 Businesses (0.2)	28	
STTR Award \$/\$1,000 of GSP (\$0.003)	33	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (88.1%)	14	
% Associates Degrees Granted/Pop 18-24 (2.74%)	13	
% Bachelors Degrees Granted/Pop 18-24 (5.36%)	18	
% S&E BS Degrees Granted/Total Bach's (17.7%)	23	
% S&E Grad Students/Pop 18-24 (2.06%)	7	
% of Workforce w/Recent S&E BS Degree (1.98%)	7	
% of Workforce w/Recent S&E MS Degree (0.30%)	20	
% of Workforce w/Recent S&E PhD (0.08%)	44	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$1.57)	26	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.73)	5	
IPO Funds Raised/\$1,000 of GSP (\$3.16)	18	
Business Incubators/10,000 Businesses (1.1)	36	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.4%)	30	
% Employment in High-technology SICs (9.9%)	11	
% Payroll in High-technology SICs (15.7%)	10	
% Business Births in High-technology SICs (6.6%)	28	
Net High-tech Formations/10,000 Estab. (17.7)	30	
Outcome Measures		
Patents Issued/10,000 Businesses (61)	36	
Fast 500 Companies/10,000 Businesses (0.8)	12	
Inc. 500 Companies/10,000 Businesses (0.5)	26	
Average Annual Earnings/Job (\$28,029)	31	
% Population Above Federal Poverty Level (87.8%)	33	
Per Capita Personal Income (\$26,824)	27	
Labor Force Participation Rate (70.5%)	12	
% of Workforce Employed (96.3%)	21	
% of Households w/Computer (55.8%)	12	
% of Households w/Internet Access (43.9%)	15	

Overall State Economic Conditions

Kansas ranks 32nd in population with 2.6 million people, 56.8% of whom live in metropolitan areas (36th among states). Its 1999 per capita income of \$26,824 ranked 27th nationally. In 1999, 12.2% of its population (compared with 11.2% in 1996) lived at or below the poverty level. In 1999, Kansas' gross state product was \$80.8 billion (31st) and it had 74,486 business establishments (31st). The state ranks 17th in manufacturing employment (13.7% of its workforce).

Science & Technology Organizations

<http://www.ktec.com/>

The **Kansas Technology Enterprise Corporation (KTEC)** is a quasi-public corporation to promote advanced technology-based economic development. KTEC has established Innovation and Commercialization Corporations (ICCs) to help entrepreneurs by offering business incubation services.

Kansas has established five Centers of Excellence, university-based research centers providing basic and applied research, product and process development, and technical consulting. They include: the Advanced Manufacturing Institute at Kansas State University, the Center for Design, Development and Production at Pittsburg State University, the Higuchi Biosciences Center and the Information and Telecommunication Technology Center at the University of Kansas, and the National Institute for Aviation Research at Wichita State University.

<http://www.smartkc.com/>

The **Kansas City Area Development Council** is a private, non-profit organization attracting job-creating investment to the 15-county, bistate Kansas City Area.

<http://www.ink.org/public/ks-inc/>

Kansas, Inc. promotes new and existing industries by formulating statewide economic development strategy, recommending program and public policy initiatives, and conducting oversight and evaluation.

Statistical Information Contact

University of Kansas

Policy Research Institute
607 Blake Hall
Lawrence, KS 66045-2960
(785) 864-3701
<http://www.ukans.edu/cwis/units/IPPBR/>

Kentucky

Overall State Economic Conditions

Kentucky ranks 25th in population with over 3.9 million people, 48.4% of whom live in metropolitan areas (39th among states). Its 1999 per capita income of \$23,237 ranked 41st nationally. In 1999, 12.1% of its population lived at or below the poverty level. In 1999, Kentucky's gross state product was \$113.5 billion (26th) and it had 89,946 business establishments (28th). The state ranks 12th in percentage of manufacturing employment (14.9% of the non-farm workforce).

Science & Technology Organizations

<http://www.edc.state.ky.us/kyedc/biztech.html>

The **Business and Technology Branch** of the Kentucky Cabinet for Economic Development fosters the development and use of technology within Kentucky companies by linking them with services and programs designed to enhance their competitiveness. It provides businesses with information on technology resources and research capabilities available through public and private sector entities. This includes alliance assistance programs which provide facilitation and resources for identifying market opportunities, creating alliances, finding suitable partners and analyzing existing alliances and joint ventures.

<http://www.kstc.org/index.cfm>

The **Kentucky Science and Technology Corporation** is a private, non-profit corporation for the advancement of science and technology in Kentucky. It coordinates the Experimental Program to Stimulate Competitive Research (EPSCoR), which has realized \$40 million in federal R&D activity. It recently prepared the state's first science and technology plan.

<http://www.thinkkentucky.com/kyedc/kedpartner.html>

The **Kentucky Economic Development Partnership**, a 13-member private/public board, provides oversight to the Kentucky Cabinet for Economic Development and a common framework for state development policy, technology and research, technical assistance, and employment and training.

Statistical Information Contact

Kentucky Cabinet for Economic Development

Division of Research
500 Mero Street
Capital Plaza Tower
Frankfort, KY 40601
(502) 564-4886
<http://www.edc.state.ky.us/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$8.52)	38	
Industry R&D/\$1,000 of GSP (\$6.02)	35	
Federal R&D/\$1,000 of GSP (\$0.08)	49	
University R&D/\$1,000 of GSP (\$2.41)	37	
Fed Obligations for R&D/\$1,000 of GSP (\$1.29)	50	
SBIR Awards/10,000 Businesses (1.3)	45	
SBIR Award \$/\$1,000 of GSP (\$0.02)	46	
STTR Awards/10,000 Businesses (0.1)	45	
STTR Award \$/\$1,000 of GSP (\$0.001)	44	
Human Resources		
NAEP Science Test Scores (147)	22	
% of Population Completing High School (78.7%)	48	
% Associates Degrees Granted/Pop 18-24 (1.60%)	42	
% Bachelors Degrees Granted/Pop 18-24 (3.76%)	41	
% S&E BS Degrees Granted/Total Bach's (16.4%)	40	
% S&E Grad Students/Pop 18-24 (0.93%)	45	
% of Workforce w/Recent S&E BS Degree (0.77%)	42	
% of Workforce w/Recent S&E MS Degree (0.21%)	39	
% of Workforce w/Recent S&E PhD (0.08%)	46	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$1.31)	27	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.24)	34	
IPO Funds Raised/\$1,000 of GSP (\$0.48)	37	
Business Incubators/10,000 Businesses (1.0)	40	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.8%)	42	
% Employment in High-technology SICs (7.7%)	30	
% Payroll in High-technology SICs (12.8%)	24	
% Business Births in High-technology SICs (5.4%)	39	
Net High-tech Formations/10,000 Estab. (15.1)	36	
Outcome Measures		
Patents Issued/10,000 Businesses (53)	38	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.9)	8	
Average Annual Earnings/Job (\$27,748)	33	
% Population Above Federal Poverty Level (87.9%)	32	
Per Capita Personal Income (\$23,237)	41	
Labor Force Participation Rate (64.3%)	41	
% of Workforce Employed (95.9%)	30	
% of Households w/Computer (46.2%)	41	
% of Households w/Internet Access (36.6%)	40	



Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$4.86)	48	
Industry R&D/\$1,000 of GSP (\$1.45)	46	
Federal R&D/\$1,000 of GSP (\$0.46)	34	
University R&D/\$1,000 of GSP (\$2.92)	23	
Fed Obligations for R&D/\$1,000 of GSP (\$1.70)	47	
SBIR Awards/10,000 Businesses (0.9)	49	
SBIR Award \$/\$1,000 of GSP (\$0.01)	50	
STTR Awards/10,000 Businesses (0.0)	48	
STTR Award \$/\$1,000 of GSP (\$0.00)	47	
Human Resources		
NAEP Science Test Scores (132)	40	
% of Population Completing High School (80.8%)	43	
% Associates Degrees Granted/Pop 18-24 (1.01%)	50	
% Bachelors Degrees Granted/Pop 18-24 (3.91%)	37	
% S&E BS Degrees Granted/Total Bach's (19.2%)	11	
% S&E Grad Students/Pop 18-24 (1.12%)	36	
% of Workforce w/Recent S&E BS Degree (0.70%)	45	
% of Workforce w/Recent S&E MS Degree (0.13%)	46	
% of Workforce w/Recent S&E PhD (0.09%)	36	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.24)	37	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.51)	10	
IPO Funds Raised/\$1,000 of GSP (\$0.51)	36	
Business Incubators/10,000 Businesses (2.0)	9	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.1%)	35	
% Employment in High-technology SICs (5.9%)	40	
% Payroll in High-technology SICs (10.8%)	34	
% Business Births in High-technology SICs (6.1%)	31	
Net High-tech Formations/10,000 Estab. (20.4)	23	
Outcome Measures		
Patents Issued/10,000 Businesses (54)	37	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.3)	40	
Average Annual Earnings/Job (\$27,221)	35	
% Population Above Federal Poverty Level (80.8%)	49	
Per Capita Personal Income (\$22,847)	44	
Labor Force Participation Rate (61.7%)	49	
% of Workforce Employed (94.5%)	47	
% of Households w/Computer (41.2%)	48	
% of Households w/Internet Access (30.2%)	48	

Overall State Economic Conditions

Louisiana ranks 22nd in population with nearly 4.4 million people, over 75% of whom live in metropolitan areas (21st among states). Its 1999 per capita income of \$22,847 placed the state 44th nationally. In 1999, 19.2% of its population lived at or below the poverty level. In 1999, Louisiana's gross state product was \$129 billion (24th) and it had 101,020 business establishments (23rd). The state also ranks 40th in manufacturing employment (8.0% of its workforce).

Science & Technology Organizations

<http://www.lded.state.la.us/new/techmain.htm>

The **Technology, Innovation, and Modernization Office** of the **Louisiana Department of Economic Development (LDED)** fosters development of manufacturing networks and interfirm collaboration, maintains an electronic directory of university centers, and assists technology transfer from federal laboratories.

<http://www.louisianapartnership.com>

The **Louisiana Partnership for Technology and Innovation** (lapti@aol.com) is a non-profit corporation advancing Louisiana-based technologies and their application in the manufacturing and service sectors. It provides assistance to early stage, technology ventures, supports state agencies on technology policy issues, and helps universities market technologies and develop technology partnerships.

<http://lpc.louisiana.edu/>

The **Louisiana Productivity Center** at the University of Southwestern Louisiana has a grant from the NIST to operate a Manufacturing Extension Partnership.

<http://www.biomed.org/center.html>

The **Biomedical Research Foundation of Northwest Louisiana** works to enhance the scientific capacity and economic development of Northwest Louisiana.

Statistical Information Contact

University of New Orleans

Division of Business and Economic Research
 New Orleans, LA 70148
 (504) 280-6240
<http://leap.ulm.edu/STAAB.HTM>



Overall State Economic Conditions

Maine ranks 39th in population with 1.25 million people, over 36% of whom live in metropolitan areas (45th among states). Its 1999 per capita income of \$24,603 ranked 37th nationally. In 1999, 10.6% of its population lived at or below the poverty level. In 1999, Maine's gross state product was \$34.1 billion (42nd) and it had 38,878 business establishments (39th). The state ranks 24th in manufacturing employment (12.1% of its workforce).

Science & Technology Organizations

<http://www.msstf.org/>

The **Maine Science and Technology Foundation** promotes the practical application of science and technology in education, research, and business. Key programs are: EPSCoR, a federal-state-industry partnership to enhance Maine's science and engineering infrastructure, and the Maine SBIR Assistance Program.

The **Office of Business Development (OBD)** in Maine's **Department of Economic and Community Development** is the state's agency for providing assistance to existing businesses, attracting new business investment to the state, and finding resources for worker retraining and technology improvement.

<http://www.mdf.org/>

The **Maine Development Foundation**, with a membership of 300 companies, educational institutions, municipalities, government agencies, and nonprofit organizations, promotes Maine's long-term economic growth by building the state's leadership capacity.

<http://www.mainetechnology.org/>

Established by the Maine Legislature in 1999, the primary objective of the **Maine Technology Institute** is to provide seed investment grants to private companies and research laboratories that will increase the level and the pace of research and development and create new jobs for Maine in seven targeted technology sectors.

Statistical Information Contact

Maine Department of Economic and Community Development

State House
Station 59
Augusta, ME 04333
(207) 287-2656
<http://www.econdevmaine.com/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$6.59)	44	
Industry R&D/\$1,000 of GSP (\$4.11)	41	
Federal R&D/\$1,000 of GSP (\$0.15)	47	
University R&D/\$1,000 of GSP (\$1.30)	49	
Fed Obligations for R&D/\$1,000 of GSP (\$4.42)	26	
SBIR Awards/10,000 Businesses (3.3)	27	
SBIR Award \$/\$1,000 of GSP (\$0.06)	24	
STTR Awards/10,000 Businesses (0.2)	36	
STTR Award \$/\$1,000 of GSP (\$0.002)	37	
Human Resources		
NAEP Science Test Scores (163)	1	
% of Population Completing High School (89.3%)	12	
% Associates Degrees Granted/Pop 18-24 (2.13%)	21	
% Bachelors Degrees Granted/Pop 18-24 (4.96%)	22	
% S&E BS Degrees Granted/Total Bach's (19.3%)	10	
% S&E Grad Students/Pop 18-24 (0.52%)	50	
% of Workforce w/Recent S&E BS Degree (1.97%)	8	
% of Workforce w/Recent S&E MS Degree (0.25%)	34	
% of Workforce w/Recent S&E PhD (0.09%)	42	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$3.36)	22	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.24)	33	
IPO Funds Raised/\$1,000 of GSP (\$4.36)	12	
Business Incubators/10,000 Businesses (2.1)	8	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.0%)	36	
% Employment in High-technology SICs (4.9%)	45	
% Payroll in High-technology SICs (7.2%)	45	
% Business Births in High-technology SICs (5.9%)	34	
Net High-tech Formations/10,000 Estab. (17.5)	31	
Outcome Measures		
Patents Issued/10,000 Businesses (38)	44	
Fast 500 Companies/10,000 Businesses (0.3)	24	
Inc. 500 Companies/10,000 Businesses (0.5)	27	
Average Annual Earnings/Job (\$26,887)	38	
% Population Above Federal Poverty Level (89.4%)	21	
Per Capita Personal Income (\$24,603)	37	
Labor Force Participation Rate (69.0%)	23	
% of Workforce Employed (96.5%)	15	
% of Households w/Computer (54.7%)	13	
% of Households w/Internet Access (42.6%)	20	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$46.29)	5					
Industry R&D/\$1,000 of GSP (\$9.73)	29					
Federal R&D/\$1,000 of GSP (\$27.56)	1					
University R&D/\$1,000 of GSP (\$7.94)	1					
Fed Obligations for R&D/\$1,000 of GSP (\$46.33)	1					
SBIR Awards/10,000 Businesses (17.0)	3					
SBIR Award \$/\$1,000 of GSP (\$0.31)	4					
STTR Awards/10,000 Businesses (1.0)	7					
STTR Award \$/\$1,000 of GSP (\$0.016)	7					
Human Resources						
NAEP Science Test Scores (145)	26					
% of Population Completing High School (85.7%)	27					
% Associates Degrees Granted/Pop 18-24 (1.81%)	37					
% Bachelors Degrees Granted/Pop 18-24 (5.01%)	21					
% S&E BS Degrees Granted/Total Bach's (16.9%)	36					
% S&E Grad Students/Pop 18-24 (2.07%)	6					
% of Workforce w/Recent S&E BS Degree (1.63%)	15					
% of Workforce w/Recent S&E MS Degree (0.53%)	2					
% of Workforce w/Recent S&E PhD (0.28%)	3					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$9.61)	6					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.30)	30					
IPO Funds Raised/\$1,000 of GSP (\$8.52)	7					
Business Incubators/10,000 Businesses (1.3)	25					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (7.6%)	5					
% Employment in High-technology SICs (10.4%)	8					
% Payroll in High-technology SICs (16.7%)	8					
% Business Births in High-technology SICs (11.1%)	3					
Net High-tech Formations/10,000 Estab. (38.9)	7					
Outcome Measures						
Patents Issued/10,000 Businesses (123)	23					
Fast 500 Companies/10,000 Businesses (1.3)	7					
Inc. 500 Companies/10,000 Businesses (0.9)	7					
Average Annual Earnings/Job (\$34,472)	9					
% Population Above Federal Poverty Level (92.7%)	5					
Per Capita Personal Income (\$32,465)	5					
Labor Force Participation Rate (69.9%)	17					
% of Workforce Employed (96.1%)	24					
% of Households w/Computer (53.7%)	17					
% of Households w/Internet Access (43.8%)	16					

Overall State Economic Conditions

Maryland ranks 19th in population with over 5.1 million people, nearly 93% of whom live in metropolitan areas (7th among states). Its 1999 per capita income of \$32,465 ranked 5th nationally. In 1999, nearly 7.3% of its population lived at or below the poverty level. In 1999, Maryland's gross state product was \$174.7 billion (16th) and it had 127,431 business establishments (21st). The state ranks 43rd in manufacturing employment (5.7% of its workforce).

Science & Technology Organizations

<http://www.marylandtedco.org/>

The **Maryland Technology Development Corporation (TEDCO)** fosters the development of a technology economy that will create and sustain businesses throughout all regions in the State of Maryland. Their vision is that Maryland will become internationally recognized as one of the nation's premier 21st century locations for technology and technology-based economic development.

<http://www.mdbusiness.state.md.us/>

The **Maryland Technology Alliance**, a private/public consortium consisting of federal labs, state agencies, Maryland universities, and technology councils, is responsible for maximizing the state's resources for technology-based development and business creation and expansion. Target technology areas are aerospace, bioscience and biotechnology, earth and environmental sciences, health care, information science and technology, materials science and engineering, telecommunications, and scientific computation.

<http://www.mdhitech.org/>

The **Technology Council of Maryland**, a 600-plus member consortium in Maryland and the Greater Washington Region, operates the Maryland Technology Channel Internet site with on-demand video and live broadcasts and will provide members with virtual networking in late 1999.

<http://www.baltimoretech.org/>

The **Greater Baltimore Technology Organization** is a networking and advocacy organization for the area's technology companies and community.

Statistical Information Contact

Regional Economic Studies Institute (RESI)

8000 York Road
Towson University
Towson, MD 21252-0001
(410) 830-7374
<http://www.resiusa.org/>

Massachusetts

Overall State Economic Conditions

Massachusetts ranks 13th in population with over 6.1 million people, slightly over 96% of whom live in metropolitan areas (3rd among states). Its 1999 per capita income of \$35,551 ranked 2nd nationally. In 1999, 11.7% of its population lived at or below the poverty level. In 1999, Massachusetts' gross state product was \$262.6 billion (11th) and it had 173,267 business establishments (13th). The state ranks 23rd in manufacturing employment (12.3% of its workforce).

Science & Technology Organizations

<http://www.mtpc.org/>

The **Massachusetts Technology Collaborative (MTC)** is a state-sponsored economic development organization fostering greater collaboration among the state's companies, higher education, capital, and technology communities. MTC is establishing a **Massachusetts Innovation Council** as a formal mechanism for tying together the interests of academia, hospitals, entrepreneurs, and technology market leaders. Priority industry sectors include photonics, medical devices, IT, and e-commerce.

<http://www.mtdc.com/>

The **Massachusetts Technology Development Corporation** is a venture capital firm addressing the "capital gap" for start-up and expansion of early-stage technology companies

<http://www.state.ma.us/econ/ded.htm>

The **Massachusetts Department of Economic Development** is the state's lead development agency and with the **Massachusetts Office of Business Development** is responsible for business creation, expansion, and relocation.

<http://www.massdevelopment.com/>

MassDevelopment's Emerging Technology Fund (ETF) is a financing tool for technology based companies. Its purpose is to help companies to obtain debt financing and to preserve equity.

Statistical Information Contact

Massachusetts Institute for Social and Economic Research

Box 37515
University of Massachusetts at Amherst
Amherst, MA 01003-7515
(413) 545-3460
<http://www.umass.edu/miser/>

Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$46.43)	4				
Industry R&D/\$1,000 of GSP (\$35.47)	5				
Federal R&D/\$1,000 of GSP (\$0.91)	21				
University R&D/\$1,000 of GSP (\$5.34)	2				
Fed Obligations for R&D/\$1,000 of GSP (\$11.92)	7				
SBIR Awards/10,000 Businesses (38.2)	1				
SBIR Award \$/\$1,000 of GSP (\$0.62)	1				
STTR Awards/10,000 Businesses (2.8)	1				
STTR Award \$/\$1,000 of GSP (\$0.039)	1				
Human Resources					
NAEP Science Test Scores (157)	8				
% of Population Completing High School (85.1%)	31				
% Associates Degrees Granted/Pop 18-24 (2.36%)	16				
% Bachelors Degrees Granted/Pop 18-24 (8.06%)	3				
% S&E BS Degrees Granted/Total Bach's (17.5%)	30				
% S&E Grad Students/Pop 18-24 (3.86%)	1				
% of Workforce w/Recent S&E BS Degree (2.96%)	1				
% of Workforce w/Recent S&E MS Degree (0.58%)	1				
% of Workforce w/Recent S&E PhD (0.34%)	1				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (\$33.70)	1				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.85)	1				
IPO Funds Raised/\$1,000 of GSP (\$13.04)	2				
Business Incubators/10,000 Businesses (3.1)	2				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (8.2%)	2				
% Employment in High-technology SICs (12.3%)	1				
% Payroll in High-technology SICs (19.8%)	2				
% Business Births in High-technology SICs (12.6%)	1				
Net High-tech Formations/10,000 Estab. (43.8)	5				
Outcome Measures					
Patents Issued/10,000 Businesses (219)	4				
Fast 500 Companies/10,000 Businesses (2.2)	1				
Inc. 500 Companies/10,000 Businesses (1.5)	3				
Average Annual Earnings/Job (\$40,331)	3				
% Population Above Federal Poverty Level (88.3%)	27				
Per Capita Personal Income (\$35,551)	2				
Labor Force Participation Rate (67.4%)	31				
% of Workforce Employed (97.4%)	4				
% of Households w/Computer (53.0%)	21				
% of Households w/Internet Access (45.5%)	12				

Metric Title (Value)	Rank	Percent of U.S. Value
		0 50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$60.97)	2	
Industry R&D/\$1,000 of GSP (\$57.46)	1	
Federal R&D/\$1,000 of GSP (\$0.48)	32	
University R&D/\$1,000 of GSP (\$2.98)	21	
Fed Obligations for R&D/\$1,000 of GSP (\$2.72)	38	
SBIR Awards/10,000 Businesses (3.5)	26	
SBIR Award \$/\$1,000 of GSP (\$0.07)	23	
STTR Awards/10,000 Businesses (0.3)	25	
STTR Award \$/\$1,000 of GSP (\$0.004)	26	
Human Resources		
NAEP Science Test Scores (153)	15	
% of Population Completing High School (86.2%)	23	
% Associates Degrees Granted/Pop 18-24 (2.28%)	17	
% Bachelors Degrees Granted/Pop 18-24 (4.80%)	24	
% S&E BS Degrees Granted/Total Bach's (20.5%)	6	
% S&E Grad Students/Pop 18-24 (1.57%)	16	
% of Workforce w/Recent S&E BS Degree (1.46%)	18	
% of Workforce w/Recent S&E MS Degree (0.32%)	16	
% of Workforce w/Recent S&E PhD (0.12%)	22	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$1.26)	28	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.33)	25	
IPO Funds Raised/\$1,000 of GSP (\$2.98)	19	
Business Incubators/10,000 Businesses (0.7)	47	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.1%)	23	
% Employment in High-technology SICs (10.9%)	6	
% Payroll in High-technology SICs (17.0%)	7	
% Business Births in High-technology SICs (6.8%)	23	
Net High-tech Formations/10,000 Estab. (14.1)	39	
Outcome Measures		
Patents Issued/10,000 Businesses (169)	10	
Fast 500 Companies/10,000 Businesses (0.0)	32	
Inc. 500 Companies/10,000 Businesses (0.6)	23	
Average Annual Earnings/Job (\$35,734)	7	
% Population Above Federal Poverty Level (90.3%)	16	
Per Capita Personal Income (\$28,113)	18	
Labor Force Participation Rate (68.9%)	24	
% of Workforce Employed (96.4%)	18	
% of Households w/Computer (51.5%)	24	
% of Households w/Internet Access (42.1%)	24	

Overall State Economic Conditions

Michigan ranks 8th in population with 9.9 million people, over 82% of whom live in metropolitan areas (16th among states). Its 1999 per capita income of \$28,113 ranked 18th nationally. In 1999, 9.7% of its population lived at or below the poverty level. In 1999, Michigan's gross state product was \$308.3 billion (9th) and it had 236,456 business establishments (8th). The state ranks 10th in manufacturing employment (15.9% of its workforce).

Science & Technology Organizations

<http://medc.michigan.org/>

The **Michigan Economic Development Corporation (MEDC)** is a newly-formed economic development corporation for business expansion, relocation, and other services, including technology services. MEDC is forming a commercialization assistance program to provide early stage seed financing and consulting support for technology start-ups.

<http://np-serv1.bizserve.com/MI/forump.nsf/SBCAP2>

The **Michigan Commercialization Assistance Program (MCAP)** provides analysis, evaluation, and possible arrangement of private placement financing for new high potential, technology-based applications in biotechnology, information technologies, advanced manufacturing, and medical/health-related ventures.

<http://www.greattechnology.org/>

This website, a production of the 1998 Governor's Innovation Forum, provides a comprehensive list of industry associations, government agencies, companies, and institutions supporting technology innovation in the state.

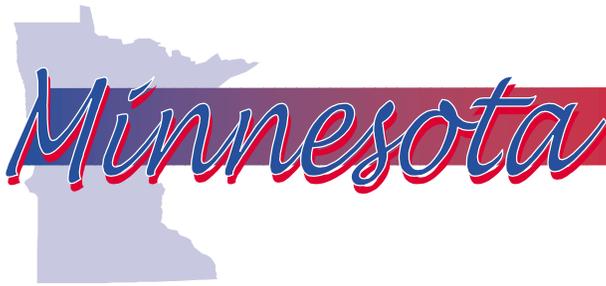
<http://www.itsmi.org/>

The **Intelligent Transportation Society-Michigan** is an organization of leaders in the transportation industry.

Statistical Information Contact

Michigan Information Center

Department of Management & Budget
Demographic Research and Statistics
P.O. Box 30026
Lansing, MI 48909
(517) 373-7910
<http://www.state.mi.us/dmb/mic>



Overall State Economic Conditions

Minnesota ranks 21st in population with 4.8 million people, over 70% of whom live in metropolitan areas (25th among states). Its 1999 per capita income of \$30,793 ranked 10th nationally. In 1999, 7.2% of its population lived at or below the poverty level. In 1999, Minnesota's gross state product was \$173 billion (17th) and it had 137,305 business establishments (18th). The state ranks 15th in percentage of manufacturing employment (14.0% of its workforce).

Science & Technology Organizations

<http://www.minnesotatechnology.org/>

Minnesota Technology (MT), an affiliate of the NIST-MEP program, promotes technology-based economic development. It publishes an annual directory of 1,300 technology companies and provides Minnesota industry with electronic access to business and technical information. MT's Technology Development Office provides liaison for companies with the Institute of Technology (IT) at the **University of Minnesota**, where it is co-located. The IT provides access to more than 400 faculty experts. In addition, the Patents and Technology Marketing site at the University of Minnesota features licensable technologies in medical devices, drugs & diagnostics, agriculture & horticulture, chemical, mechanical & biological technologies, and computers & electrical engineering.

<http://mbbnet.umn.edu/>

MBBNET is an electronically-based University-industry collaborative network for the state's biomedical, engineering, biotechnology, and health care companies.

<http://www.dted.state.mn.us/01x00f.asp>

Minnesota Department of Trade and Economic Development is the state's lead economic development agency. Its Business and Community Development division assists business expansion of existing Minnesota businesses while providing financial, training and technical services to communities, businesses, and economic development professionals.

Statistical Information Contact

Department of Trade and Economic Development

Business and Community Development Division
 121 East 7th Place
 500 Metro Square Building
 St. Paul, MN 55101-2146
 (651) 297-1291
<http://www.dted.state.mn.us/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$22.57)	18	
Industry R&D/\$1,000 of GSP (\$19.53)	15	
Federal R&D/\$1,000 of GSP (\$0.22)	44	
University R&D/\$1,000 of GSP (\$2.17)	42	
Fed Obligations for R&D/\$1,000 of GSP (\$5.12)	21	
SBIR Awards/10,000 Businesses (4.6)	23	
SBIR Award \$/\$1,000 of GSP (\$0.08)	21	
STTR Awards/10,000 Businesses (0.2)	37	
STTR Award \$/\$1,000 of GSP (\$0.002)	36	
Human Resources		
NAEP Science Test Scores (159)	5	
% of Population Completing High School (90.8%)	3	
% Associates Degrees Granted/Pop 18-24 (2.52%)	14	
% Bachelors Degrees Granted/Pop 18-24 (5.24%)	20	
% S&E BS Degrees Granted/Total Bach's (16.7%)	37	
% S&E Grad Students/Pop 18-24 (1.52%)	19	
% of Workforce w/Recent S&E BS Degree (1.92%)	10	
% of Workforce w/Recent S&E MS Degree (0.26%)	30	
% of Workforce w/Recent S&E PhD (0.16%)	10	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$5.07)	18	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.37)	20	
IPO Funds Raised/\$1,000 of GSP (\$2.72)	20	
Business Incubators/10,000 Businesses (1.4)	22	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.9%)	8	
% Employment in High-technology SICs (8.4%)	23	
% Payroll in High-technology SICs (12.2%)	28	
% Business Births in High-technology SICs (10.7%)	6	
Net High-tech Formations/10,000 Estab. (39.0)	6	
Outcome Measures		
Patents Issued/10,000 Businesses (211)	5	
Fast 500 Companies/10,000 Businesses (1.5)	4	
Inc. 500 Companies/10,000 Businesses (0.8)	13	
Average Annual Earnings/Job (\$33,487)	12	
% Population Above Federal Poverty Level (92.8%)	4	
Per Capita Personal Income (\$30,793)	10	
Labor Force Participation Rate (75.1%)	1	
% of Workforce Employed (96.7%)	14	
% of Households w/Computer (57.0%)	10	
% of Households w/Internet Access (43.0%)	18	

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$7.41)	42	
Industry R&D/\$1,000 of GSP (\$1.77)	44	
Federal R&D/\$1,000 of GSP (\$3.05)	6	
University R&D/\$1,000 of GSP (\$2.49)	35	
Fed Obligations for R&D/\$1,000 of GSP (\$5.47)	18	
SBIR Awards/10,000 Businesses (1.3)	44	
SBIR Award \$/\$1,000 of GSP (\$0.02)	44	
STTR Awards/10,000 Businesses (0.2)	29	
STTR Award \$/\$1,000 of GSP (\$0.006)	18	
Human Resources		
NAEP Science Test Scores (133)	39	
% of Population Completing High School (80.3%)	44	
% Associates Degrees Granted/Pop 18-24 (1.92%)	32	
% Bachelors Degrees Granted/Pop 18-24 (3.43%)	46	
% S&E BS Degrees Granted/Total Bach's (18.4%)	18	
% S&E Grad Students/Pop 18-24 (0.81%)	48	
% of Workforce w/Recent S&E BS Degree (1.05%)	37	
% of Workforce w/Recent S&E MS Degree (0.26%)	32	
% of Workforce w/Recent S&E PhD (0.10%)	34	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.21)	38	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.19)	38	
IPO Funds Raised/\$1,000 of GSP (\$0.95)	28	
Business Incubators/10,000 Businesses (1.3)	24	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.0%)	48	
% Employment in High-technology SICs (5.8%)	42	
% Payroll in High-technology SICs (7.8%)	44	
% Business Births in High-technology SICs (4.1%)	48	
Net High-tech Formations/10,000 Estab. (10.7)	42	
Outcome Measures		
Patents Issued/10,000 Businesses (36)	46	
Fast 500 Companies/10,000 Businesses (0.2)	26	
Inc. 500 Companies/10,000 Businesses (0.2)	43	
Average Annual Earnings/Job (\$24,392)	46	
% Population Above Federal Poverty Level (83.9%)	48	
Per Capita Personal Income (\$20,688)	50	
Labor Force Participation Rate (63.6%)	43	
% of Workforce Employed (94.3%)	49	
% of Households w/Computer (37.2%)	50	
% of Households w/Internet Access (26.3%)	50	

Overall State Economic Conditions

Mississippi ranks 31st in population with 2.77 million people, over 36% of whom live in metropolitan areas (46th among states). Its 1999 per capita income of \$20,688 ranked 50th nationally. In 1999, 16.1% of its population lived at or below the poverty level. In 1999, Mississippi's gross state product was \$64.3 billion (34th) and it had 59,834 business establishments (33rd). The state ranks 5th in the proportion of its workforce in manufacturing employment (17.6%).

Science & Technology Organizations

<http://www.decd.state.ms.us/>

The **Mississippi Department of Economic and Community Development** is the state's lead development organization. It maintains a list of key technology organizations contributing to industry and economic development.

<http://www.psrc.usm.edu/MPI/>

The **University of Southern Mississippi's Polymer Institute (MPI)** serves the state's 200 polymer-related manufacturers with its rapid prototyping service.

<http://www.msstate.edu/dept/research/EPSCoR/mrc.html#advisor>

The **Mississippi Research Consortium**, consisting of the state's four biggest universities, has helped lead development of the state's Experimental Program to Stimulate Competitive Research (EPSCoR) program and the creation of the new **Mississippi Technology, Inc.**, which will help develop state technology strategy and policy with private sector participation.

Statistical Information Contact

Mississippi State University

College of Business and Industry
 Division of Research
 P.O. Box 5288
 Mississippi State, MS 39762
 (662) 325-3817
<http://www.cbi.msstate.edu/>



Overall State Economic Conditions

Missouri ranks 17th in population with 5.47 million people, 68% of whom live in metropolitan areas (29th among states). Its 1999 per capita income of \$26,376 ranked 29th nationally. In 1999, 11.6% of its population lived at or below the poverty level. In 1999, Missouri's gross state product was \$170.5 billion (18th) and it had 144,874 business establishments (16th). The state ranks 21st in percentage of total employment in manufacturing (13.1% of its workforce).

Science & Technology Organizations

<http://www.ecodev.state.mo.us/technology/innovation.html>

Missouri's Centers for Advanced Technology (CAT) program provides state funding for industry research contracted through a state university. The centers include the **Manufacturing Research and Training Center** and the **Electronic Materials Applied Research Center** (EMARC), both at the University of Missouri-Rolla.

Missouri sponsors four innovation centers providing management and technical assistance for early stage development of new technology-based business ventures. These include the **Center for Emerging Technologies** (St. Louis); the **Missouri Enterprise Business Assistance Center** (Rolla/Springfield); the **Missouri Innovation Center** (Columbia); and the **Center for Business Innovation** (Kansas City). The state also provides building sites specifically developed for technology-based business ventures in the Missouri Research Park, Chesterfield.

<http://www.missourienterprise.org/>

Missouri Enterprise, a non-profit organization serving the needs of small and medium-size businesses in Missouri, operates an Innovation Center and an environmental program, as well as hosts the Mid-America Manufacturing Technology Center, a NIST-MEP affiliate. Services at the Innovation Center include an incubator, financial support for research projects, and technology transfer assistance.

Statistical Information Contact

University of Missouri

Economic and Policy Analysis Research Center
10 Professional Bldg.
Columbia, MO 65211
(573) 882-4805
<http://econ.missouri.edu/eparc/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$11.79)	31	
Industry R&D/\$1,000 of GSP (\$8.14)	30	
Federal R&D/\$1,000 of GSP (\$0.28)	41	
University R&D/\$1,000 of GSP (\$3.23)	18	
Fed Obligations for R&D/\$1,000 of GSP (\$5.45)	19	
SBIR Awards/10,000 Businesses (1.5)	42	
SBIR Award \$/\$1,000 of GSP (\$0.03)	39	
STTR Awards/10,000 Businesses (0.2)	27	
STTR Award \$/\$1,000 of GSP (\$0.005)	22	
Human Resources		
NAEP Science Test Scores (151)	18	
% of Population Completing High School (86.6%)	21	
% Associates Degrees Granted/Pop 18-24 (2.01%)	28	
% Bachelors Degrees Granted/Pop 18-24 (5.68%)	12	
% S&E BS Degrees Granted/Total Bach's (16.6%)	38	
% S&E Grad Students/Pop 18-24 (1.12%)	37	
% of Workforce w/Recent S&E BS Degree (1.29%)	25	
% of Workforce w/Recent S&E MS Degree (0.38%)	12	
% of Workforce w/Recent S&E PhD (0.11%)	26	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$3.47)	20	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.42)	17	
IPO Funds Raised/\$1,000 of GSP (\$9.67)	5	
Business Incubators/10,000 Businesses (1.1)	34	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.3%)	31	
% Employment in High-technology SICs (8.5%)	20	
% Payroll in High-technology SICs (12.9%)	23	
% Business Births in High-technology SICs (6.0%)	32	
Net High-tech Formations/10,000 Estab. (15.1)	35	
Outcome Measures		
Patents Issued/10,000 Businesses (71)	32	
Fast 500 Companies/10,000 Businesses (0.6)	16	
Inc. 500 Companies/10,000 Businesses (0.3)	41	
Average Annual Earnings/Job (\$29,958)	24	
% Population Above Federal Poverty Level (88.4%)	25	
Per Capita Personal Income (\$26,376)	29	
Labor Force Participation Rate (70.3%)	14	
% of Workforce Employed (96.5%)	15	
% of Households w/Computer (52.6%)	22	
% of Households w/Internet Access (42.5%)	21	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$8.17)	39					
Industry R&D/\$1,000 of GSP (\$1.60)	45					
Federal R&D/\$1,000 of GSP (\$2.07)	8					
University R&D/\$1,000 of GSP (\$4.09)	6					
Fed Obligations for R&D/\$1,000 of GSP (\$4.63)	25					
SBIR Awards/10,000 Businesses (5.5)	19					
SBIR Award \$/\$1,000 of GSP (\$0.19)	8					
STTR Awards/10,000 Businesses (1.2)	4					
STTR Award \$/\$1,000 of GSP (\$0.026)	4					
Human Resources						
NAEP Science Test Scores (162)	2					
% of Population Completing High School (89.6%)	11					
% Associates Degrees Granted/Pop 18-24 (1.86%)	36					
% Bachelors Degrees Granted/Pop 18-24 (5.57%)	14					
% S&E BS Degrees Granted/Total Bach's (24.2%)	2					
% S&E Grad Students/Pop 18-24 (1.38%)	26					
% of Workforce w/Recent S&E BS Degree (1.42%)	20					
% of Workforce w/Recent S&E MS Degree (0.18%)	42					
% of Workforce w/Recent S&E PhD (0.11%)	25					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.73)	33					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.14)	42					
IPO Funds Raised/\$1,000 of GSP (\$0.65)	33					
Business Incubators/10,000 Businesses (1.3)	28					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (3.8%)	43					
% Employment in High-technology SICs (3.9%)	46					
% Payroll in High-technology SICs (6.1%)	46					
% Business Births in High-technology SICs (4.8%)	44					
Net High-tech Formations/10,000 Estab. (20.0)	24					
Outcome Measures						
Patents Issued/10,000 Businesses (46)	40					
Fast 500 Companies/10,000 Businesses (0.0)	33					
Inc. 500 Companies/10,000 Businesses (0.3)	38					
Average Annual Earnings/Job (\$23,253)	49					
% Population Above Federal Poverty Level (84.4%)	46					
Per Capita Personal Income (\$22,019)	47					
Labor Force Participation Rate (69.3%)	20					
% of Workforce Employed (95.1%)	41					
% of Households w/Computer (51.5%)	24					
% of Households w/Internet Access (40.6%)	27					

Overall State Economic Conditions

Montana ranks 44th in population with just over 880,000 people, 33.4% of whom live in metropolitan areas (48th among states). Its 1999 per capita income of \$22,019 ranked 47th nationally. In 1999, 15.6% of its population lived at or below the poverty level. In 1999, Montana's gross state product was \$20.6 billion (47th) and it had 31,365 business establishments (42nd). The state ranks 46th in percentage of manufacturing employment (4.4% of its workforce).

Science & Technology Organizations

Montana Research and Commercialization Technology Board was appointed in August 1999 to improve the scientific infrastructure of the state and to help commercialize research. The Board will administer a research fund that will provide matching funds for federal grants.

The **Montana Department of Commerce Small Business Development Center/SBIR** Program is being created with a federal grant to provide technical assistance to help Montana's high-tech small businesses win SBIR/STTR grants.

<http://commerce.state.mt.us/EconDev/>

The **Montana Department of Commerce's Regional Development Office** provides support and direct assistance to local and regional development efforts in five regions. Under development is a Montana manufacturing community database promoting the replacement of parts and supplies currently being furnished by non-Montana suppliers.

<http://commerce.state.mt.us/EconDev/Manuf.htm>

The **Montana Manufacturing Extension Center (MMEC)**, affiliated with NIST-MEP, provides Montana manufacturers with engineering and managerial assistance. This state-wide program has its home office at Montana State University—Bozeman. The **University Technical Assistance Program** provides technical assistance to Montana manufacturers through engineering graduate students.

Statistical Information Contact

Montana Department of Commerce

Census and Economic Information Center
 1424 9th Avenue
 Helena, MT 59620
 (406) 444-2896
<http://ceic.commerce.state.mt.us/>

Nebraska

Overall State Economic Conditions

Nebraska ranks 38th in population with over 1.6 million people, over 52% of whom live in metropolitan areas (37th among states). Its 1999 per capita income of \$27,049 ranked 24th nationally. In 1999, nearly 11% of its population lived at or below the poverty level. In 1999, Nebraska's gross state product was \$53.7 billion (36th) and it had 48,968 business establishments (35th). The state ranks 27th in percentage of its workforce employed in manufacturing (11.9%).

Science & Technology Organizations

<http://www.unl.edu/research/NRI.htm>

Nebraska Research Initiative Centers /University of Nebraska-Lincoln Office of Research includes The Center for Biotechnology; Center for Communication and Information Science (NRI); Center for Infrastructure Research (NRI); Center for Laser-Analytical Studies of Trace Gas Dynamics (NRI); Center for Materials Research and Analysis (NRI); Center for Microelectronic and Optical Materials Research; Center for Nontraditional Manufacturing Research, Center for Water Sciences (NRI); and several Engineering Research Centers ((402) 472-3123).

Nebraska EPSCoR, by the end of September 1999, will have received more than \$26.7 million from the **National Science Foundation** and other federal agencies.

<http://stc.neded.org:80/nicainfo.htm>

Nebraska Industrial Competitiveness Alliance (NICA) is a permanent board which presides over the manufacturing extension program and advises the governor on science and technology policy.

<http://www.nol.org/home/NDN/>

The **Nebraska Development Network** connects business and community leaders throughout the state with people within organizations, agencies, and the private sector who served as partners in community and economic growth. More than 475 organizational members represent 8,000 individuals within the Network.

Statistical Information Contact

Department of Economic Development

Division of Research
Box 94666
Lincoln, NE 68509
(402) 471-3111
<http://www.neded.org/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$7.77)	40	
Industry R&D/\$1,000 of GSP (\$3.31)	43	
Federal R&D/\$1,000 of GSP (\$0.54)	30	
University R&D/\$1,000 of GSP (\$3.82)	9	
Fed Obligations for R&D/\$1,000 of GSP (\$1.75)	46	
SBIR Awards/10,000 Businesses (1.5)	43	
SBIR Award \$/\$1,000 of GSP (\$0.03)	41	
STTR Awards/10,000 Businesses (0.7)	12	
STTR Award \$/\$1,000 of GSP (\$0.006)	19	
Human Resources		
NAEP Science Test Scores (157)	8	
% of Population Completing High School (90.4%)	5	
% Associates Degrees Granted/Pop 18-24 (2.24%)	19	
% Bachelors Degrees Granted/Pop 18-24 (6.04%)	9	
% S&E BS Degrees Granted/Total Bach's (15.9%)	43	
% S&E Grad Students/Pop 18-24 (1.40%)	23	
% of Workforce w/Recent S&E BS Degree (1.94%)	9	
% of Workforce w/Recent S&E MS Degree (0.45%)	5	
% of Workforce w/Recent S&E PhD (0.11%)	30	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.10)	43	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.04)	47	
IPO Funds Raised/\$1,000 of GSP (\$0.42)	39	
Business Incubators/10,000 Businesses (1.6)	16	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.6%)	44	
% Employment in High-technology SICs (7.2%)	34	
% Payroll in High-technology SICs (10.4%)	37	
% Business Births in High-technology SICs (5.2%)	42	
Net High-tech Formations/10,000 Estab. (10.3)	44	
Outcome Measures		
Patents Issued/10,000 Businesses (52)	39	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.0)	45	
Average Annual Earnings/Job (\$26,633)	39	
% Population Above Federal Poverty Level (89.1%)	22	
Per Capita Personal Income (\$27,049)	24	
Labor Force Participation Rate (73.7%)	2	
% of Workforce Employed (97.0%)	9	
% of Households w/Computer (48.5%)	34	
% of Households w/Internet Access (37.0%)	39	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$6.55)	45					
Industry R&D/\$1,000 of GSP (\$4.82)	38					
Federal R&D/\$1,000 of GSP (\$0.40)	38					
University R&D/\$1,000 of GSP (\$1.31)	48					
Fed Obligations for R&D/\$1,000 of GSP (\$4.00)	30					
SBIR Awards/10,000 Businesses (1.7)	38					
SBIR Award \$/\$1,000 of GSP (\$0.03)	40					
STTR Awards/10,000 Businesses (0.1)	44					
STTR Award \$/\$1,000 of GSP (\$0.001)	46					
Human Resources						
NAEP Science Test Scores (N/A)	--					
% of Population Completing High School (82.8%)	36					
% Associates Degrees Granted/Pop 18-24 (1.08%)	49					
% Bachelors Degrees Granted/Pop 18-24 (2.65%)	49					
% S&E BS Degrees Granted/Total Bach's (14.3%)	48					
% S&E Grad Students/Pop 18-24 (0.88%)	46					
% of Workforce w/Recent S&E BS Degree (0.55%)	48					
% of Workforce w/Recent S&E MS Degree (0.12%)	47					
% of Workforce w/Recent S&E PhD (0.06%)	50					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.31)	36					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.07)	45					
IPO Funds Raised/\$1,000 of GSP (\$0.85)	31					
Business Incubators/10,000 Businesses (1.5)	19					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (6.7%)	10					
% Employment in High-technology SICs (3.4%)	49					
% Payroll in High-technology SICs (5.8%)	47					
% Business Births in High-technology SICs (9.2%)	12					
Net High-tech Formations/10,000 Estab. (56.9)	2					
Outcome Measures						
Patents Issued/10,000 Businesses (78)	28					
Fast 500 Companies/10,000 Businesses (0.2)	25					
Inc. 500 Companies/10,000 Businesses (0.6)	19					
Average Annual Earnings/Job (\$31,213)	19					
% Population Above Federal Poverty Level (88.7%)	24					
Per Capita Personal Income (\$31,022)	9					
Labor Force Participation Rate (70.0%)	15					
% of Workforce Employed (95.9%)	30					
% of Households w/Computer (48.8%)	31					
% of Households w/Internet Access (41.0%)	25					

Overall State Economic Conditions

Nevada ranks 35th in population with just over 1.8 million people, nearly 87% of whom live in metropolitan areas (10th among states). Its 1999 per capita income of \$31,022 ranked 9th nationally. In 1999, 11.3% of its population was below the poverty level. In 1999, Nevada's gross state product was \$69.9 billion (32nd) and it had 46,890 business establishments (36th). The state ranks 47th in manufacturing employment (4.1% of its workforce in 1999).

Science & Technology Organizations

<http://www.state.nv.us/ose/>

The Nevada Office of Science, Engineering, and Technology in the Governor's Office catalyzes economic development and diversification activities in science and technology and coordinates Nevada's science and technology investments in education and research.

<http://www.expand2nevada.com/index2.html>

The Nevada Commission on Economic Development is the state's lead business attraction and economic development agency.

<http://www.nevadadevelopment.org/>

The Nevada Development Authority (NDA) promotes business development and attraction in Southern Nevada. Its Technology Committee identifies and catalogs technologies currently being developed in Southern Nevada, and develops marketing strategies that help NDA promote technology-based development.

<http://www.edawn.org/>

The Economic Development Authority of Western Nevada (EDAWN) provides industrial and corporate location assistance in the western part of the state.

Statistical Information Contact

Department of Administration

Budget and Planning Division
 209 East Musser Street, Suite 200
 Carson City, NV 89701
 (775) 684-0222
<http://www.state.nv.us/budget/stateab.htm>

New Hampshire

Overall State Economic Conditions

New Hampshire ranks 41st in population with just over 1.2 million people, just over 60% of whom live in metropolitan areas (34th among states). Its 1999 per capita income of \$31,114 ranked 8th nationally. In 1999, 7.7% of its population lived at or below the poverty level, 42nd among states. In 1999, New Hampshire's gross state product was \$44.2 billion (38th) and it had 37,180 business establishments (40th). The state ranks 13th in percentage of non-farm employment in manufacturing (14.6% of its workforce).

Science & Technology Organizations

<http://www.ded.state.nh.us/obid/>

The **Office of Business and Industrial Development**, in the **Department of Resources and Economic Development**, coordinates a statewide Technology Resource Roundtable of organizations providing access to advanced technologies for New Hampshire businesses.

<http://www.nhirc.sr.unh.edu/background.html>

The **New Hampshire Industrial Research Center** at the University of New Hampshire in Durham provides assistance in basic and applied R&D and manufacturing improvement through a state funded **Technical Assistance Grant (TAG)** program. It also offers commercialization assistance to inventors.

Statistical Information Contact

Office of State Planning

2 1/2 Beacon Street
Concord, NH 03301-4497
(603) 271-2155
<http://www.state.nh.us/osp/nhresnet/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$28.40)	13	
Industry R&D/\$1,000 of GSP (\$24.85)	12	
Federal R&D/\$1,000 of GSP (\$0.64)	29	
University R&D/\$1,000 of GSP (\$2.87)	26	
Fed Obligations for R&D/\$1,000 of GSP (\$6.60)	13	
SBIR Awards/10,000 Businesses (13.0)	6	
SBIR Award \$/\$1,000 of GSP (\$0.26)	5	
STTR Awards/10,000 Businesses (0.5)	15	
STTR Award \$/\$1,000 of GSP (\$0.007)	16	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (88.1%)	14	
% Associates Degrees Granted/Pop 18-24 (3.03%)	8	
% Bachelors Degrees Granted/Pop 18-24 (7.94%)	4	
% S&E BS Degrees Granted/Total Bach's (18.2%)	20	
% S&E Grad Students/Pop 18-24 (1.34%)	27	
% of Workforce w/Recent S&E BS Degree (1.26%)	27	
% of Workforce w/Recent S&E MS Degree (0.27%)	27	
% of Workforce w/Recent S&E PhD (0.10%)	33	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$10.96)	5	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.38)	18	
IPO Funds Raised/\$1,000 of GSP (\$1.41)	27	
Business Incubators/10,000 Businesses (0.8)	46	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (7.6%)	4	
% Employment in High-technology SICs (11.7%)	2	
% Payroll in High-technology SICs (17.5%)	6	
% Business Births in High-technology SICs (10.7%)	5	
Net High-tech Formations/10,000 Estab. (38.5)	8	
Outcome Measures		
Patents Issued/10,000 Businesses (181)	8	
Fast 500 Companies/10,000 Businesses (1.1)	9	
Inc. 500 Companies/10,000 Businesses (0.5)	25	
Average Annual Earnings/Job (\$32,139)	17	
% Population Above Federal Poverty Level (92.3%)	8	
Per Capita Personal Income (\$31,114)	8	
Labor Force Participation Rate (73.1%)	4	
% of Workforce Employed (97.2%)	7	
% of Households w/Computer (63.7%)	3	
% of Households w/Internet Access (56.0%)	1	



Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$31.78)	11	
Industry R&D/\$1,000 of GSP (\$28.51)	9	
Federal R&D/\$1,000 of GSP (\$1.47)	15	
University R&D/\$1,000 of GSP (\$1.57)	47	
Fed Obligations for R&D/\$1,000 of GSP (\$8.03)	10	
SBIR Awards/10,000 Businesses (5.7)	18	
SBIR Award \$/\$1,000 of GSP (\$0.10)	18	
STTR Awards/10,000 Businesses (0.5)	16	
STTR Award \$/\$1,000 of GSP (\$0.005)	21	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (87.3%)	18	
% Associates Degrees Granted/Pop 18-24 (1.96%)	30	
% Bachelors Degrees Granted/Pop 18-24 (3.73%)	42	
% S&E BS Degrees Granted/Total Bach's (18.6%)	17	
% S&E Grad Students/Pop 18-24 (1.57%)	14	
% of Workforce w/Recent S&E BS Degree (1.23%)	30	
% of Workforce w/Recent S&E MS Degree (0.40%)	9	
% of Workforce w/Recent S&E PhD (0.18%)	6	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$7.10)	10	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.46)	11	
IPO Funds Raised/\$1,000 of GSP (\$1.78)	23	
Business Incubators/10,000 Businesses (1.1)	31	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (8.2%)	1	
% Employment in High-technology SICs (9.3%)	15	
% Payroll in High-technology SICs (14.3%)	18	
% Business Births in High-technology SICs (12.5%)	2	
Net High-tech Formations/10,000 Estab. (57.4)	1	
Outcome Measures		
Patents Issued/10,000 Businesses (187)	6	
Fast 500 Companies/10,000 Businesses (0.9)	11	
Inc. 500 Companies/10,000 Businesses (0.9)	11	
Average Annual Earnings/Job (N/A)	--	
% Population Above Federal Poverty Level (92.2%)	10	
Per Capita Personal Income (\$35,551)	2	
Labor Force Participation Rate (66.6%)	36	
% of Workforce Employed (96.2%)	23	
% of Households w/Computer (54.3%)	15	
% of Households w/Internet Access (47.8%)	9	

Overall State Economic Conditions

New Jersey ranks 9th in population, with over 8.1 million people, 100% of whom live in metropolitan areas (1st among states). Its 1999 per capita income of \$35,551 ranked 2nd nationally. In 1999, 7.8% of its population lived at or below the poverty level. In 1999, New Jersey's gross state product was \$331.5 billion (8th) and it had 231,823 business establishments (9th). The state ranks 36th in percentage of workforce employed in manufacturing (9.3%).

Science & Technology Organizations

<http://www.njcst.com/>

The **New Jersey Commission on Science and Technology** is the state's lead agency for technology-based economic development. It supports technical initiatives with many of the state's technology centers.

The **Technology Transfer & Commercialization Program (TTCP)** offers direct funding of \$50,000 to \$250,000 to small technology companies to conduct projects with near-term commercial outcome.

The **New Jersey Technology Funding Program** offers expansion capital for growing second-stage, technology-based enterprises.

<http://www.state.nj.us/commerce/>

The **New Jersey Commerce & Economic Growth Commission** coordinates the state's economic development activities.

<http://www.njtc.org/>

The **New Jersey Technology Council** offers small businesses networking and collaboration opportunities and recruits new technology businesses to the state.

Statistical Information Contact

New Jersey State Data Center

New Jersey Department of Labor
 P.O. Box 388
 Trenton, NJ 08625-0388
 (609) 984-2595
<http://www.state.nj.us/labor/lra/njsdc.htm>



New Mexico

Overall State Economic Conditions

New Mexico ranks 37th in population with 1.7 million people, 57% of whom live in metropolitan areas (35th among states). Its 1999 per capita income of \$21,853 ranked 48th nationally. In 1999, 20.7% of its population was below the poverty level, the highest among all the states. In 1999, New Mexico's gross state product was \$51 billion (37th) and it had 42,918 business establishments (37th). The state ranks 45th in percentage of manufacturing employment (4.8% of its workforce).

Science & Technology Organizations

<http://www.edd.state.nm.us/TECHNO/index.html>

The **Office of Science & Technology** is the state's advocate for high technology-based business start-ups. It publishes the *New Mexico Directory of Technology Organizations*, a searchable directory of organizations and laboratories. Among other activities, its resource network assists with the development of business plans, conducts market and technology evaluations, and identifies financing sources.

<http://www.edd.state.nm.us/TECHNO/ACT.htm>

The **New Mexico Technology Assets Program (TAP)** is an all-volunteer coalition of business, university, and government participants offering mentoring to high-technology businesses and entrepreneurs.

<http://www.techventures.org/>

Technology Ventures Corporation is a nonprofit, tax-exempt New Mexico corporation established in 1993 to identify technologies with commercial potential, coordinate the development of business and management capabilities, and seek sources of risk investment capital. It supports commercialization of technologies developed at the Department of Energy's national laboratories and regional research universities, as well as formation of new and expansion of existing businesses.

Statistical Information Contact

University of New Mexico

Bureau of Business and Economic Research
1920 Lomas N.E.
Albuquerque, NM 87131-6021
(505) 277-6626
<http://www.unm.edu/~bber/>

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$64.26)	1					
Industry R&D/\$1,000 of GSP (\$26.30)	10					
Federal R&D/\$1,000 of GSP (\$8.03)	2					
University R&D/\$1,000 of GSP (\$4.40)	4					
Fed Obligations for R&D/\$1,000 of GSP (\$40.53)	2					
SBIR Awards/10,000 Businesses (19.0)	2					
SBIR Award \$/\$1,000 of GSP (\$0.39)	2					
STTR Awards/10,000 Businesses (1.4)	2					
STTR Award \$/\$1,000 of GSP (\$0.028)	2					
Human Resources						
NAEP Science Test Scores (141)	34					
% of Population Completing High School (82.2%)	39					
% Associates Degrees Granted/Pop 18-24 (2.01%)	27					
% Bachelors Degrees Granted/Pop 18-24 (3.78%)	40					
% S&E BS Degrees Granted/Total Bach's (18.4%)	19					
% S&E Grad Students/Pop 18-24 (1.68%)	12					
% of Workforce w/Recent S&E BS Degree (1.31%)	24					
% of Workforce w/Recent S&E MS Degree (0.38%)	11					
% of Workforce w/Recent S&E PhD (0.33%)	2					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.21)	39					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.22)	37					
IPO Funds Raised/\$1,000 of GSP (\$0.06)	45					
Business Incubators/10,000 Businesses (2.6)	4					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (4.9%)	25					
% Employment in High-technology SICs (8.5%)	21					
% Payroll in High-technology SICs (14.6%)	16					
% Business Births in High-technology SICs (6.6%)	25					
Net High-tech Formations/10,000 Estab. (16.4)	33					
Outcome Measures						
Patents Issued/10,000 Businesses (83)	27					
Fast 500 Companies/10,000 Businesses (0.0)	33					
Inc. 500 Companies/10,000 Businesses (0.7)	18					
Average Annual Earnings/Job (\$26,270)	40					
% Population Above Federal Poverty Level (79.3%)	50					
Per Capita Personal Income (\$21,853)	48					
Labor Force Participation Rate (63.2%)	45					
% of Workforce Employed (95.1%)	41					
% of Households w/Computer (47.6%)	38					
% of Households w/Internet Access (35.7%)	42					

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$18.70)	24					
Industry R&D/\$1,000 of GSP (\$15.09)	22					
Federal R&D/\$1,000 of GSP (\$0.18)	45					
University R&D/\$1,000 of GSP (\$2.74)	30					
Fed Obligations for R&D/\$1,000 of GSP (\$3.56)	34					
SBIR Awards/10,000 Businesses (3.6)	24					
SBIR Award \$/\$1,000 of GSP (\$0.05)	28					
STTR Awards/10,000 Businesses (0.2)	30					
STTR Award \$/\$1,000 of GSP (\$0.003)	32					
Human Resources						
NAEP Science Test Scores (146)	25					
% of Population Completing High School (82.5%)	38					
% Associates Degrees Granted/Pop 18-24 (3.22%)	7					
% Bachelors Degrees Granted/Pop 18-24 (5.86%)	10					
% S&E BS Degrees Granted/Total Bach's (14.8%)	46					
% S&E Grad Students/Pop 18-24 (2.46%)	2					
% of Workforce w/Recent S&E BS Degree (1.88%)	11					
% of Workforce w/Recent S&E MS Degree (0.37%)	13					
% of Workforce w/Recent S&E PhD (0.16%)	11					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$6.65)	13					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.65)	7					
IPO Funds Raised/\$1,000 of GSP (\$10.72)	3					
Business Incubators/10,000 Businesses (2.4)	6					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (5.5%)	19					
% Employment in High-technology SICs (7.2%)	32					
% Payroll in High-technology SICs (9.2%)	41					
% Business Births in High-technology SICs (7.8%)	18					
Net High-tech Formations/10,000 Estab. (28.3)	15					
Outcome Measures						
Patents Issued/10,000 Businesses (144)	15					
Fast 500 Companies/10,000 Businesses (0.6)	14					
Inc. 500 Companies/10,000 Businesses (0.5)	29					
Average Annual Earnings/Job (\$42,133)	2					
% Population Above Federal Poverty Level (85.9%)	42					
Per Capita Personal Income (\$33,890)	4					
Labor Force Participation Rate (63.1%)	46					
% of Workforce Employed (95.4%)	39					
% of Households w/Computer (48.7%)	33					
% of Households w/Internet Access (39.8%)	31					

Overall State Economic Conditions

New York ranks 3rd in population with over 18.1 million people, nearly 92% of whom live in metropolitan areas (8th among states). Its 1999 per capita income of \$33,890 ranked 4th nationally. In 1999, 14.1% of its population lived at or below the poverty level. In 1999, New York's gross state product was \$754.6 billion (2nd) and it had 485,954 business establishments (2nd). The state ranks 38th in percentage of workforce employed in manufacturing (8.2% in 1999).

Science & Technology Organizations

http://www.empire.state.ny.us/serv_newtech.html

Empire State Development's New York State Science and Technology Foundation is the state-based public corporation charged with promoting technology-based economic development in New York, charged with scientific and technical education, industrial research and development, manufacturing modernization, and capitalizing high-tech companies. The Foundation's **Centers for Advanced Technology Program** is a statewide network of cooperative research and development centers among universities, private industry and state government. Through these, researchers at New York's leading universities work side-by-side with their counterparts at large and small companies to develop and commercialize new technologies. The Foundation's ten **Technology Development Organizations**, part of the national NIST network, provide business planning, access to venture capital, product development, marketing, manufacturing and quality systems, engineering, and information technology.

<http://www.empire.state.ny.us/>

Empire State Development is the state's lead business development and attraction agency.

Statistical Information Contact

Nelson A. Rockefeller Institute of Government

411 State Street
Albany, NY 12203-1003
(518) 443-5522
<http://www.rockinst.org/>

North Carolina

Overall State Economic Conditions

North Carolina ranks 11th in population with over 7.6 million people, just over 67% of whom live in metropolitan areas (32nd among states). Its 1999 per capita income of \$26,003 ranked 31st nationally. In 1999, 13.5% of its population lived at or below the poverty level. In 1999, North Carolina's gross state product was \$258.6 billion (12th) and it had 201,706 business establishments (10th). The state ranks 3rd in percentage of workforce employed in manufacturing (over 19%).

Science & Technology Organizations

<http://www.commerce.state.nc.us/>

The **North Carolina Department of Commerce** is the lead agency for economic, community and workforce development. Among the Department's auspices is the information technology function for the state government and agencies that regulate commerce in the state. The Department's mission is improvement of the economic well being and quality of life for all North Carolinians.

<http://www.mcnc.org/who.html>

MCNC, formerly the Microelectronics Center of North Carolina, offers access to advanced electronic and information technologies, interoperability testing for new products, and processes and technologies for rapid product commercialization.

<http://www.ncbiotech.org/>

The **North Carolina Biotechnology Center** supports biotechnology research, business development, product commercialization, and education and workforce training.

<http://www.researchtriangle.org/>

The **Research Triangle Research Partnership** stimulates economic development and business attraction by marketing Research Triangle assets.

Statistical Information Contact

North Carolina Office of Governor

Office of State Budget, Planning and Management
20321 Mail Service Center
Raleigh, NC 27699-0321
(919) 733-4131
<http://www.osbpm.state.nc.us/#Demographer/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$20.37)	22	
Industry R&D/\$1,000 of GSP (\$15.29)	21	
Federal R&D/\$1,000 of GSP (\$0.89)	23	
University R&D/\$1,000 of GSP (\$3.92)	7	
Fed Obligations for R&D/\$1,000 of GSP (\$3.90)	31	
SBIR Awards/10,000 Businesses (2.8)	30	
SBIR Award \$/\$1,000 of GSP (\$0.05)	33	
STTR Awards/10,000 Businesses (0.3)	26	
STTR Award \$/\$1,000 of GSP (\$0.005)	20	
Human Resources		
NAEP Science Test Scores (147)	22	
% of Population Completing High School (79.2%)	46	
% Associates Degrees Granted/Pop 18-24 (2.01%)	26	
% Bachelors Degrees Granted/Pop 18-24 (4.87%)	23	
% S&E BS Degrees Granted/Total Bach's (18.6%)	16	
% S&E Grad Students/Pop 18-24 (1.39%)	24	
% of Workforce w/Recent S&E BS Degree (2.43%)	2	
% of Workforce w/Recent S&E MS Degree (0.28%)	24	
% of Workforce w/Recent S&E PhD (0.14%)	18	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$7.01)	11	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.32)	27	
IPO Funds Raised/\$1,000 of GSP (\$0.94)	29	
Business Incubators/10,000 Businesses (1.7)	14	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.9%)	26	
% Employment in High-technology SICs (8.0%)	29	
% Payroll in High-technology SICs (11.9%)	31	
% Business Births in High-technology SICs (6.8%)	24	
Net High-tech Formations/10,000 Estab. (28.1)	16	
Outcome Measures		
Patents Issued/10,000 Businesses (99)	25	
Fast 500 Companies/10,000 Businesses (0.9)	10	
Inc. 500 Companies/10,000 Businesses (0.6)	22	
Average Annual Earnings/Job (\$29,453)	28	
% Population Above Federal Poverty Level (86.5%)	39	
Per Capita Personal Income (\$26,003)	31	
Labor Force Participation Rate (68.1%)	28	
% of Workforce Employed (96.4%)	18	
% of Households w/Computer (45.3%)	43	
% of Households w/Internet Access (35.3%)	44	

North Dakota

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$9.90)	35					
Industry R&D/\$1,000 of GSP (\$4.41)	39					
Federal R&D/\$1,000 of GSP (\$1.80)	10					
University R&D/\$1,000 of GSP (\$3.63)	13					
Fed Obligations for R&D/\$1,000 of GSP (\$3.53)	35					
SBIR Awards/10,000 Businesses (2.6)	32					
SBIR Award \$/\$1,000 of GSP (\$0.06)	26					
STTR Awards/10,000 Businesses (--)	--					
STTR Award \$/\$1,000 of GSP (--)	--					
Human Resources						
NAEP Science Test Scores (162)	2					
% of Population Completing High School (85.5%)	29					
% Associates Degrees Granted/Pop 18-24 (2.99%)	9					
% Bachelors Degrees Granted/Pop 18-24 (6.75%)	5					
% S&E BS Degrees Granted/Total Bach's (19.5%)	8					
% S&E Grad Students/Pop 18-24 (1.54%)	17					
% of Workforce w/Recent S&E BS Degree (1.14%)	35					
% of Workforce w/Recent S&E MS Degree (0.08%)	50					
% of Workforce w/Recent S&E PhD (0.15%)	14					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (--)	--					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.14)	41					
IPO Funds Raised/\$1,000 of GSP (\$0.00)	47					
Business Incubators/10,000 Businesses (1.0)	41					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (2.5%)	50					
% Employment in High-technology SICs (5.1%)	44					
% Payroll in High-technology SICs (8.2%)	43					
% Business Births in High-technology SICs (4.3%)	47					
Net High-tech Formations/10,000 Estab. (9.4)	45					
Outcome Measures						
Patents Issued/10,000 Businesses (40)	43					
Fast 500 Companies/10,000 Businesses (0.0)	33					
Inc. 500 Companies/10,000 Businesses (0.5)	30					
Average Annual Earnings/Job (\$23,753)	48					
% Population Above Federal Poverty Level (87.0%)	38					
Per Capita Personal Income (\$23,313)	39					
Labor Force Participation Rate (71.1%)	11					
% of Workforce Employed (97.0%)	9					
% of Households w/Computer (47.5%)	39					
% of Households w/Internet Access (37.7%)	38					

Overall State Economic Conditions

North Dakota ranks 47th in population with over 633,000 people, slightly over 43% of whom live in metropolitan areas (41st among states). Its 1999 per capita income of \$23,313 ranked 39th nationally. In 1999, 13% of its population lived at or below the poverty level. In 1999, North Dakota's gross state product was \$17 billion (50th) and it had 20,380 business establishments (48th). The state ranks 42nd in percentage of manufacturing employment (6.8% of its non-farm workforce).

Science & Technology Organizations

<http://www.und.nodak.edu/dept/cibd/default.htm>

The **Center for Innovation** is located next to University of North Dakota campus. It provides entrepreneurs and manufacturers with strategic planning services and operational assistance for new ventures, commercializing new products, and licensing new technologies. Services include marketing services, business plans, SBIR applications, and patent & trademark searches. The Center also coordinates a technology park and incubator.

<http://www.growingnd.com/>

The **North Dakota Economic Development and Finance Department** is the state's lead agency for business development and attraction.

<http://www.ndatl.k12.nd.us/>

The **North Dakota Association of Technology Leaders** strives to improve education through the uses of technology. They are involved in activities such as: providing communication among technology leaders across the state; providing education technology expertise, support and information to the North Dakota Council of Educational Leaders and its constituent associations; providing a unified voice to community, state and national decision-makers; promoting the professional, economic, social and civic status of school technology leaders; providing leadership and information in the area of educational technology; and providing support for statewide technology initiatives.

Statistical Information Contact

North Dakota Department of Economic Development & Finance

1833 East Bismark Expressway
Bismark, ND 58504-6708
(701) 328-5300
<http://www.growingnd.com/>





Overall State Economic Conditions

Ohio ranks 7th nationally with a population of over 11 million. Almost 81% of its residents reside within metropolitan areas. While its per capita income in 1999 was \$27,152 (23rd nationally), 12% of its population lived below the poverty level. In 1999, Ohio's gross state product was \$362 billion (7th) and it had 270,766 business establishments (7th). The state ranks 7th in percentage of manufacturing employment (17.1% of its non-farm workforce).

Science & Technology Organizations

<http://www.odod.state.oh.us/tech/edison/default.htm>

Ohio's **Thomas Edison Program** has achieved national and international recognition as a model for state-industry-university partnerships. The program includes technology centers, technology incubators, and technology transfer initiatives designed to bring together technology providers and users to create commercial opportunities.

<http://www.odod.state.oh.us/>

The **Ohio Department of Development** serves as the contact point for economic development and technology development activities within Ohio.

<http://www.connectohio.com>

Site contains businesses and organizations located throughout Ohio. Searches can be run by name of the organization or business sector. The Science and Technology option provides linkages with each of the Edison Centers as well as with the **Great Lakes Industrial Technology Center** and the **Wright Technology Network**.

<http://www.resourceohio.com>

Site provides a complete guide to business support for Ohio companies in the areas of financial assistance, applied technology and research, technical assistance, and employment and training.

Statistical Information Contact

Ohio Department of Development

Office of Strategic Research
P.O. Box 1001
Columbus, OH 43216-1001
(614) 466-2115
<http://www.odod.state.oh.us/osr/data.htm>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$22.33)	19	
Industry R&D/\$1,000 of GSP (\$18.00)	17	
Federal R&D/\$1,000 of GSP (\$1.67)	12	
University R&D/\$1,000 of GSP (\$2.29)	38	
Fed Obligations for R&D/\$1,000 of GSP (\$10.19)	8	
SBIR Awards/10,000 Businesses (6.4)	16	
SBIR Award \$/\$1,000 of GSP (\$0.12)	16	
STTR Awards/10,000 Businesses (0.7)	11	
STTR Award \$/\$1,000 of GSP (\$0.010)	11	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (87.0%)	19	
% Associates Degrees Granted/Pop 18-24 (1.89%)	33	
% Bachelors Degrees Granted/Pop 18-24 (4.66%)	27	
% S&E BS Degrees Granted/Total Bach's (17.2%)	34	
% S&E Grad Students/Pop 18-24 (1.52%)	18	
% of Workforce w/Recent S&E BS Degree (1.17%)	34	
% of Workforce w/Recent S&E MS Degree (0.24%)	37	
% of Workforce w/Recent S&E PhD (0.12%)	24	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.88)	31	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.53)	8	
IPO Funds Raised/\$1,000 of GSP (\$0.63)	34	
Business Incubators/10,000 Businesses (1.4)	21	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.2%)	21	
% Employment in High-technology SICs (9.0%)	17	
% Payroll in High-technology SICs (13.9%)	19	
% Business Births in High-technology SICs (7.4%)	22	
Net High-tech Formations/10,000 Estab. (16.9)	32	
Outcome Measures		
Patents Issued/10,000 Businesses (147)	14	
Fast 500 Companies/10,000 Businesses (0.1)	27	
Inc. 500 Companies/10,000 Businesses (0.6)	21	
Average Annual Earnings/Job (\$31,396)	18	
% Population Above Federal Poverty Level (88.0%)	30	
Per Capita Personal Income (\$27,152)	23	
Labor Force Participation Rate (67.1%)	33	
% of Workforce Employed (95.9%)	30	
% of Households w/Computer (49.5%)	30	
% of Households w/Internet Access (40.7%)	26	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$7.69)	41					
Industry R&D/\$1,000 of GSP (\$4.23)	40					
Federal R&D/\$1,000 of GSP (\$0.53)	31					
University R&D/\$1,000 of GSP (\$2.76)	28					
Fed Obligations for R&D/\$1,000 of GSP (\$1.92)	44					
SBIR Awards/10,000 Businesses (1.6)	40					
SBIR Award \$/\$1,000 of GSP (\$0.03)	38					
STTR Awards/10,000 Businesses (0.1)	43					
STTR Award \$/\$1,000 of GSP (\$0.003)	30					
Human Resources						
NAEP Science Test Scores (N/A)	--					
% of Population Completing High School (86.1%)	25					
% Associates Degrees Granted/Pop 18-24 (2.00%)	29					
% Bachelors Degrees Granted/Pop 18-24 (4.70%)	26					
% S&E BS Degrees Granted/Total Bach's (16.2%)	41					
% S&E Grad Students/Pop 18-24 (1.08%)	40					
% of Workforce w/Recent S&E BS Degree (1.50%)	17					
% of Workforce w/Recent S&E MS Degree (0.29%)	23					
% of Workforce w/Recent S&E PhD (0.09%)	41					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.16)	41					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.22)	36					
IPO Funds Raised/\$1,000 of GSP (\$5.45)	10					
Business Incubators/10,000 Businesses (1.9)	10					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (4.3%)	32					
% Employment in High-technology SICs (7.1%)	35					
% Payroll in High-technology SICs (10.7%)	35					
% Business Births in High-technology SICs (5.9%)	33					
Net High-tech Formations/10,000 Estab. (13.2)	40					
Outcome Measures						
Patents Issued/10,000 Businesses (67)	35					
Fast 500 Companies/10,000 Businesses (0.0)	33					
Inc. 500 Companies/10,000 Businesses (0.4)	37					
Average Annual Earnings/Job (\$25,748)	43					
% Population Above Federal Poverty Level (87.3%)	36					
Per Capita Personal Income (\$22,953)	43					
Labor Force Participation Rate (64.4%)	40					
% of Workforce Employed (97.0%)	9					
% of Households w/Computer (41.5%)	47					
% of Households w/Internet Access (34.3%)	45					

Overall State Economic Conditions

Oklahoma ranks 27th in population, with 3.3 million people, over 60% of whom live in metropolitan areas (33rd among states). Its 1999 per capita income of \$22,953 ranked 43rd nationally. In 1999, 12.7% of its population lived at or below the poverty level. In 1999, Oklahoma's gross state product was \$86.4 billion (29th) and it had 84,854 business establishments (29th). The state ranks 34th in percentage of manufacturing employment (10.1% of its non-farm workforce).

Science & Technology Organizations

<http://www.ocast.state.ok.us/>

The **Oklahoma Center for the Advancement of Science and Technology** is the lead agency for technology development, transfer, and commercialization. Current sponsored centers and programs include the Oklahoma Applied Research Support Program (OARS); the Technology Commercialization Center; the Oklahoma Alliance for Manufacturing Excellence; the Oklahoma Health Research Program; the Technology Business Finance Program; and the Oklahoma Inventors Assistance Program. OCAST assists firms with procuring federal assistance from SBIR and other programs.

<http://www.odoc.state.ok.us/index.html>

The **Office of Business Development** in the Oklahoma Department of Commerce assists both entrepreneurial and established businesses in Oklahoma. Regional directors housed across the state provide both on-site consulting, and connect companies with specific services offered by Department of Commerce specialists. The Regional Offices Team includes thirteen economic/business development professionals.

Statistical Information Contact

University of Oklahoma

Center for Economic and Management Research
307 West Brooks Street, Room 4
Norman, OK 73019
(405) 325-7688
<http://origins.ou.edu/>



Overall State Economic Conditions

Oregon ranks 28th in population with over 3.3 million people, nearly 73% of whom live in metropolitan areas (23rd among states). Its 1999 per capita income of \$27,023 ranked 25th nationally. In 1999, 12.6% of its population was below the poverty level. In 1999, Oregon's gross state product was \$109.7 billion (27th) and it had 99,945 business establishments (25th). The state ranks 26th in percentage of manufacturing employment (11.9% of its workforce).

Science & Technology Organizations

<http://www.ost.state.or.us/investment/oregongrowthaccount.htm>

The **Oregon Growth Account Investment Board** sets guidelines for providing equity-based capital to Oregon's emerging industries. By the year 2003, the fund is projected to receive a total of \$30 million in lottery revenue.

<http://www.econ.state.or.us/brdcom.htm>

The **Oregon Economic and Community Development Commission** provides strategic direction to state economic development policy direction.

<http://www.oef.org/oefabout.html>

The **Oregon Entrepreneurs Forum** is a non-profit corporation of entrepreneurs and business professionals in finance, law, marketing, and management who donate time and advice to assist entrepreneurs in new ventures or expansions.

<http://www.nibtec.com/about.htm>

The **Northwest Innovative Business and Technology Center** is a Portland-based non-profit corporation that helps technology-driven companies find appropriate technologies and R&D funding. It assists in technology concept and commercial evaluation, and coordinates R & D partnerships and joint ventures between universities, federal laboratories, large corporate R&D entities, and small technology-driven businesses.

Statistical Information Contact

Oregon Secretary of State

Business Services Division
 Publication Services Bldg.
 255 Capital Street, NE, Suite 180
 Salem, OR 97310
 (503) 986-2234
<http://www.sos.state.or.us/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$18.00)	26	
Industry R&D/\$1,000 of GSP (\$14.04)	24	
Federal R&D/\$1,000 of GSP (\$0.81)	26	
University R&D/\$1,000 of GSP (\$2.91)	24	
Fed Obligations for R&D/\$1,000 of GSP (\$3.72)	32	
SBIR Awards/10,000 Businesses (5.8)	17	
SBIR Award \$/\$1,000 of GSP (\$0.12)	14	
STTR Awards/10,000 Businesses (0.4)	19	
STTR Award \$/\$1,000 of GSP (\$0.004)	25	
Human Resources		
NAEP Science Test Scores (155)	12	
% of Population Completing High School (88.1%)	14	
% Associates Degrees Granted/Pop 18-24 (1.93%)	31	
% Bachelors Degrees Granted/Pop 18-24 (4.50%)	31	
% S&E BS Degrees Granted/Total Bach's (17.4%)	31	
% S&E Grad Students/Pop 18-24 (1.20%)	31	
% of Workforce w/Recent S&E BS Degree (1.65%)	14	
% of Workforce w/Recent S&E MS Degree (0.31%)	18	
% of Workforce w/Recent S&E PhD (0.14%)	20	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$5.41)	16	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.31)	28	
IPO Funds Raised/\$1,000 of GSP (\$2.45)	22	
Business Incubators/10,000 Businesses (1.3)	26	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.3%)	20	
% Employment in High-technology SICs (8.1%)	27	
% Payroll in High-technology SICs (12.7%)	25	
% Business Births in High-technology SICs (6.5%)	29	
Net High-tech Formations/10,000 Estab. (11.7)	41	
Outcome Measures		
Patents Issued/10,000 Businesses (147)	13	
Fast 500 Companies/10,000 Businesses (0.4)	20	
Inc. 500 Companies/10,000 Businesses (0.7)	17	
Average Annual Earnings/Job (\$30,867)	21	
% Population Above Federal Poverty Level (87.4%)	35	
Per Capita Personal Income (\$27,023)	25	
Labor Force Participation Rate (69.1%)	22	
% of Workforce Employed (95.1%)	41	
% of Households w/Computer (61.1%)	5	
% of Households w/Internet Access (50.8%)	5	

Pennsylvania

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$27.93)	14	
Industry R&D/\$1,000 of GSP (\$23.32)	13	
Federal R&D/\$1,000 of GSP (\$0.44)	36	
University R&D/\$1,000 of GSP (\$3.66)	12	
Fed Obligations for R&D/\$1,000 of GSP (\$4.98)	22	
SBIR Awards/10,000 Businesses (5.1)	21	
SBIR Award \$/\$1,000 of GSP (\$0.10)	17	
STTR Awards/10,000 Businesses (0.3)	22	
STTR Award \$/\$1,000 of GSP (\$0.003)	31	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (85.7%)	27	
% Associates Degrees Granted/Pop 18-24 (2.10%)	22	
% Bachelors Degrees Granted/Pop 18-24 (6.21%)	8	
% S&E BS Degrees Granted/Total Bach's (17.9%)	22	
% S&E Grad Students/Pop 18-24 (1.78%)	10	
% of Workforce w/Recent S&E BS Degree (0.97%)	40	
% of Workforce w/Recent S&E MS Degree (0.27%)	26	
% of Workforce w/Recent S&E PhD (0.14%)	15	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$5.28)	17	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.52)	9	
IPO Funds Raised/\$1,000 of GSP (\$3.19)	17	
Business Incubators/10,000 Businesses (2.2)	7	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.2%)	22	
% Employment in High-technology SICs (7.7%)	31	
% Payroll in High-technology SICs (12.4%)	26	
% Business Births in High-technology SICs (7.8%)	19	
Net High-tech Formations/10,000 Estab. (21.3)	22	
Outcome Measures		
Patents Issued/10,000 Businesses (135)	20	
Fast 500 Companies/10,000 Businesses (0.5)	17	
Inc. 500 Companies/10,000 Businesses (0.7)	15	
Average Annual Earnings/Job (\$32,694)	15	
% Population Above Federal Poverty Level (90.6%)	14	
Per Capita Personal Income (\$28,605)	16	
Labor Force Participation Rate (64.3%)	42	
% of Workforce Employed (95.8%)	34	
% of Households w/Computer (48.4%)	35	
% of Households w/Internet Access (40.1%)	29	

Overall State Economic Conditions

Pennsylvania ranks 6th in population, with just under 12 million people, nearly 85% of whom live in metropolitan areas (13th among states). Its 1999 per capita income of \$28,605 ranked 16th nationally. In 1999, 9.4% of its population lived at or below the poverty level. In 1999, Pennsylvania's gross state product was \$383 billion (6th) and it had 293,491 business establishments (6th). The state ranks 18th in manufacturing employment (13.6% of its workforce).

Science & Technology Organizations

<http://www.benfranklin.org/>

Ben Franklin Technology Partners supports the development and application of new products and technologies by entrepreneurs and established companies. It operates four centers that provide grants, loans, venture capital, and technical assistance and transfer.

http://www.state.pa.us/PA_Exec/DCED/tech21/index.htm

The **Governor's Action TEAM**, the "one stop" business development service based in the Department of Community and Economic Development, recently coordinated development of the industry-led **Technology 21 Plan**, which produced strategic recommendations for advanced manufacturing, advanced materials, agribusiness, biotechnology, environmental technology, and IT.

<http://www.pghtech.org/>

The **Pittsburgh Technology Council** includes nearly 1,700 technology, manufacturing, and service companies. The Council is a partner in the Digital Greenhouse, which aims to make Southwestern Pennsylvania a leader in the development of next-generation system-on-a-chip technology.

Statistical Information Contact

Pennsylvania State Data Center

Institute of State and Regional Affairs
 Penn State Harrisburg
 777 West Harrisburg Pike
 Middletown, PA 17057-4898
 (717) 948-6336
<http://pasdc.hbg.psu.edu/pasdc/>



Rhode Island

Overall State Economic Conditions

Rhode Island ranks 43rd in population with 990,000 people, nearly 94% of whom live in metropolitan areas (5th among states). Its 1999 per capita income of \$29,377 ranked 15th nationally. In 1999, 9.9% of its population lived at or below the poverty level. In 1999, Rhode Island's gross state product was \$32.5 billion (44th) and it had 28,240 business establishments (44th). The state ranks 14th in percentage of manufacturing employment (14.2% of its non-farm workforce).

Science & Technology Organizations

<http://www.riedc.com/growth/technology/tech.html>

The **Samuel Slater Innovation Partnership Program** of the Rhode Island Economic Development Corporation provides public-sector matching funds to private-sector initiated industry-higher education partnerships, multi-firm collaboration, and technology entrepreneur seed grants.

<http://www.ctc-ri.com/>

The **Rhode Island Technology Transfer Center** helps companies access process and product developments from NASA, the Federal and university laboratories, and private research. RITTC is one of seven satellite offices of NASA's Center for Technology Commercialization (CTC).

<http://www.ritec.org/>

The **Rhode Island Technology Council** is a trade association promoting information technology development, education, and company networking.

<http://www.ribiotech.com/>

The **Rhode Island Center for Cellular Medicine** serves the biotechnology cluster in Rhode Island, building on the research programs at the Brown University School of Medicine. The Center focuses on the development of companies working in cellular medicine and tissue engineering.

Statistical Information Contact

Rhode Island Economic Development Corporation

1 West Exchange Street
Providence, RI 02903
(401) 222-2601
<http://www.riedc.com/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$50.73)	3	
Industry R&D/\$1,000 of GSP (\$38.84)	2	
Federal R&D/\$1,000 of GSP (\$7.15)	4	
University R&D/\$1,000 of GSP (\$3.71)	11	
Fed Obligations for R&D/\$1,000 of GSP (\$12.04)	6	
SBIR Awards/10,000 Businesses (5.1)	20	
SBIR Award \$/\$1,000 of GSP (\$0.08)	22	
STTR Awards/10,000 Businesses (0.4)	20	
STTR Award \$/\$1,000 of GSP (\$0.007)	15	
Human Resources		
NAEP Science Test Scores (149)	20	
% of Population Completing High School (81.3%)	41	
% Associates Degrees Granted/Pop 18-24 (4.33%)	1	
% Bachelors Degrees Granted/Pop 18-24 (9.84%)	1	
% S&E BS Degrees Granted/Total Bach's (15.1%)	45	
% S&E Grad Students/Pop 18-24 (1.96%)	9	
% of Workforce w/Recent S&E BS Degree (0.99%)	39	
% of Workforce w/Recent S&E MS Degree (0.27%)	28	
% of Workforce w/Recent S&E PhD (0.14%)	17	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$2.07)	25	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.44)	14	
IPO Funds Raised/\$1,000 of GSP (\$0.23)	42	
Business Incubators/10,000 Businesses (1.1)	38	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.1%)	24	
% Employment in High-technology SICs (5.8%)	41	
% Payroll in High-technology SICs (9.3%)	40	
% Business Births in High-technology SICs (7.9%)	17	
Net High-tech Formations/10,000 Estab. (23.7)	19	
Outcome Measures		
Patents Issued/10,000 Businesses (128)	21	
Fast 500 Companies/10,000 Businesses (0.4)	22	
Inc. 500 Companies/10,000 Businesses (0.7)	16	
Average Annual Earnings/Job (\$31,177)	20	
% Population Above Federal Poverty Level (90.1%)	18	
Per Capita Personal Income (\$29,377)	15	
Labor Force Participation Rate (67.1%)	32	
% of Workforce Employed (95.9%)	30	
% of Households w/Computer (47.9%)	36	
% of Households w/Internet Access (38.8%)	34	

South Carolina

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$9.16)	37	
Industry R&D/\$1,000 of GSP (\$6.22)	33	
Federal R&D/\$1,000 of GSP (\$0.42)	37	
University R&D/\$1,000 of GSP (\$2.50)	34	
Fed Obligations for R&D/\$1,000 of GSP (\$2.02)	42	
SBIR Awards/10,000 Businesses (1.3)	46	
SBIR Award \$/\$1,000 of GSP (\$0.02)	47	
STTR Awards/10,000 Businesses (0.0)	47	
STTR Award \$/\$1,000 of GSP (\$0.00)	48	
Human Resources		
NAEP Science Test Scores (139)	35	
% of Population Completing High School (83.0%)	35	
% Associates Degrees Granted/Pop 18-24 (1.66%)	40	
% Bachelors Degrees Granted/Pop 18-24 (3.95%)	36	
% S&E BS Degrees Granted/Total Bach's (17.7%)	24	
% S&E Grad Students/Pop 18-24 (0.84%)	47	
% of Workforce w/Recent S&E BS Degree (1.32%)	22	
% of Workforce w/Recent S&E MS Degree (0.19%)	41	
% of Workforce w/Recent S&E PhD (0.07%)	48	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.70)	34	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.31)	29	
IPO Funds Raised/\$1,000 of GSP (\$0.54)	35	
Business Incubators/10,000 Businesses (0.5)	49	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.0%)	37	
% Employment in High-technology SICs (9.3%)	14	
% Payroll in High-technology SICs (14.7%)	15	
% Business Births in High-technology SICs (5.5%)	38	
Net High-tech Formations/10,000 Estab. (19.6)	26	
Outcome Measures		
Patents Issued/10,000 Businesses (68)	34	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.3)	39	
Average Annual Earnings/Job (\$27,124)	36	
% Population Above Federal Poverty Level (88.3%)	27	
Per Capita Personal Income (\$23,545)	38	
Labor Force Participation Rate (65.5%)	37	
% of Workforce Employed (96.1%)	24	
% of Households w/Computer (43.3%)	45	
% of Households w/Internet Access (32.0%)	47	

Overall State Economic Conditions

South Carolina ranks 26th in population with 3.8 million people, over 70% of whom live in metropolitan areas (26th among states). Its 1999 per capita income of \$23,545 ranked 38th nationally. In 1999, 11.7% of its population lived at or below the poverty level. In 1999, South Carolina's gross state product was \$106.9 billion (28th) and it had 96,440 business establishments (26th). The state ranks 6th in percentage of non-farm employment in manufacturing (17.2% of its workforce).

Science & Technology Organizations

<http://www.sctech.org/index.asp>

The **South Carolina Technology Alliance** mission is to prepare a technology-capable workforce; increase investment in rapidly growing companies and start-ups; invest in research programs linked to South Carolina industry; and create a business climate that supports technology-intensive companies. Priority technology areas are manufacturing and materials, information technology, living systems, and the environment. The SCTA is also developing a state technology strategy.

<http://www.scra.org/>

The **South Carolina Research Authority** (SCRA) is a public non-profit corporation managing the university-affiliated SCRA Research Parks System. It provides locations for technologically advanced companies needing equipment and facilities for specialized research programs, advanced computer and information services, and manufacturing, medical, and environmental-related technology. Included are the Clemson Research Park, the Carolina Research Park in Columbia, the Francis Marion University Research Park in Florence, and the Charleston Research Park.

<http://www.callsouthcarolina.com/DepartmentofCommerce.htm>

The **South Carolina Department of Commerce** is the state's lead agency for the growth and development of business and industry.

Statistical Information Contact

South Carolina Budget and Control Board

Office of Research and Statistical Services
1919 Blanding Street, Room 425
Columbia, SC 29201
(803) 734-3781
<http://www.ors.state.sc.us/>



South Dakota

Overall State Economic Conditions

South Dakota ranks 46th in population with 733,000 people, over 34% of whom live in metropolitan areas (47th among states). Its 1999 per capita income of \$25,045 ranked 36th nationally. In 1999, 7.7% of its population lived at or below the poverty level. In 1999, South Dakota's gross state product was \$21.6 billion (46th) and it had 23,693 business establishments (45th). The state ranks 25th in percentage of non-farm employment in manufacturing (11.9% of its workforce).

Science & Technology Organizations

<http://epscor.sdstate.edu/>

The **South Dakota EPSCoR** works to build the state's science and technology capability, recently participating in two projects to bring high bandwidth computer networking to the state — the Great Plains Network consortium and the NSF Connections program. The South Dakota Board of Regents recently created several Centers of Excellence in Biostress, Engineering Technology, Advanced Manufacturing and Production, and Ambulatory Care.

<http://www.state.sd.us/state/executive/deca/workforc/sdtechs.htm>

The four regional **South Dakota Technical Institutes** work to provide skills training for advanced technology industries.

<http://www.sdgreatprofits.com/>

The Governor's **Office of Economic Development** is the state's lead agency for business attraction and development.

<http://www.state.sd.us/bit/tele/rdtn/rdtn.htm>

The **South Dakota Rural Development Telecommunications Network** is a statewide video communications network, operating 18 fully interactive fully equipped studios in eleven communities.

Statistical Information Contact

University of South Dakota

State Data Center
Business Research Bureau
Vermillion, SD 57069-2390
(605) 677-5287
<http://www.usd.edu/brbinfo/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$2.76)	50	
Industry R&D/\$1,000 of GSP (\$0.60)	48	
Federal R&D/\$1,000 of GSP (\$0.96)	20	
University R&D/\$1,000 of GSP (\$1.18)	50	
Fed Obligations for R&D/\$1,000 of GSP (\$1.80)	45	
SBIR Awards/10,000 Businesses (2.7)	31	
SBIR Award \$/\$1,000 of GSP (\$0.05)	32	
STTR Awards/10,000 Businesses (0.1)	41	
STTR Award \$/\$1,000 of GSP (\$0.002)	42	
Human Resources		
NAEP Science Test Scores (N/A)	--	
% of Population Completing High School (91.8%)	1	
% Associates Degrees Granted/Pop 18-24 (2.16%)	20	
% Bachelors Degrees Granted/Pop 18-24 (5.53%)	15	
% S&E BS Degrees Granted/Total Bach's (24.1%)	3	
% S&E Grad Students/Pop 18-24 (1.01%)	43	
% of Workforce w/Recent S&E BS Degree (2.05%)	6	
% of Workforce w/Recent S&E MS Degree (0.33%)	15	
% of Workforce w/Recent S&E PhD (0.09%)	43	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (--)	--	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.09)	43	
IPO Funds Raised/\$1,000 of GSP (\$0.10)	44	
Business Incubators/10,000 Businesses (0.4)	50	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (2.9%)	49	
% Employment in High-technology SICs (8.3%)	25	
% Payroll in High-technology SICs (12.4%)	27	
% Business Births in High-technology SICs (4.6%)	46	
Net High-tech Formations/10,000 Estab. (6.0)	48	
Outcome Measures		
Patents Issued/10,000 Businesses (33)	48	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.0)	45	
Average Annual Earnings/Job (\$23,765)	47	
% Population Above Federal Poverty Level (92.3%)	8	
Per Capita Personal Income (\$25,045)	36	
Labor Force Participation Rate (72.6%)	6	
% of Workforce Employed (97.7%)	2	
% of Households w/Computer (50.4%)	27	
% of Households w/Internet Access (37.9%)	37	

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$13.47)	30					
Industry R&D/\$1,000 of GSP (\$10.39)	27					
Federal R&D/\$1,000 of GSP (\$0.38)	39					
University R&D/\$1,000 of GSP (\$2.18)	41					
Fed Obligations for R&D/\$1,000 of GSP (\$4.03)	29					
SBIR Awards/10,000 Businesses (2.9)	29					
SBIR Award \$/\$1,000 of GSP (\$0.05)	31					
STTR Awards/10,000 Businesses (0.6)	14					
STTR Award \$/\$1,000 of GSP (\$0.009)	14					
Human Resources						
NAEP Science Test Scores (143)	30					
% of Population Completing High School (79.9%)	45					
% Associates Degrees Granted/Pop 18-24 (1.38%)	45					
% Bachelors Degrees Granted/Pop 18-24 (4.19%)	33					
% S&E BS Degrees Granted/Total Bach's (17.6%)	25					
% S&E Grad Students/Pop 18-24 (1.10%)	39					
% of Workforce w/Recent S&E BS Degree (1.09%)	36					
% of Workforce w/Recent S&E MS Degree (0.19%)	40					
% of Workforce w/Recent S&E PhD (0.08%)	45					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$0.96)	29					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.37)	21					
IPO Funds Raised/\$1,000 of GSP (\$1.67)	25					
Business Incubators/10,000 Businesses (1.2)	29					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (4.2%)	33					
% Employment in High-technology SICs (8.1%)	28					
% Payroll in High-technology SICs (12.1%)	29					
% Business Births in High-technology SICs (5.9%)	35					
Net High-tech Formations/10,000 Estab. (15.6)	34					
Outcome Measures						
Patents Issued/10,000 Businesses (74)	30					
Fast 500 Companies/10,000 Businesses (0.1)	29					
Inc. 500 Companies/10,000 Businesses (0.5)	33					
Average Annual Earnings/Job (\$29,518)	27					
% Population Above Federal Poverty Level (88.1%)	29					
Per Capita Personal Income (\$25,574)	34					
Labor Force Participation Rate (65.3%)	38					
% of Workforce Employed (96.1%)	24					
% of Households w/Computer (45.7%)	42					
% of Households w/Internet Access (36.3%)	41					

Overall State Economic Conditions

Tennessee ranks 16th in population with 5.4 million people, nearly 68% of whom live in metropolitan areas (30th among states). Its 1999 per capita income of \$25,574 ranked 34th nationally. In 1999, 11.9% of its population lived at or below the poverty level. In 1999, Tennessee's gross state product was \$170.1 billion (19th) and it had 131,116 business establishments (20th). The state ranks 8th in percentage of non-farm employment in manufacturing (16.9% of its workforce).

Science & Technology Organizations

http://www.state.tn.us/ecd/tech_council.htm

The **Tennessee Science and Technology Advisory Council** advises state government on science and technology through the Office of Science and Technology of the Department of Economic and Community Development.

<http://www.korrnet.org/ttdc/>

The recently established **Tennessee Technology Development Corporation** supports development of science and technology in the state, and transfer of science, technology, and quality improvement methods to private and public enterprises.

<http://www.tech2020.org/>

Technology 2020 is a public-private partnership designed to build an information industry cluster in East Tennessee, capitalizing on the presence of the Oak Ridge National Lab, the University of Tennessee-Knoxville, the TVA, and information technology companies.

http://www.state.tn.us/ecd/tech_search.htm

The **Tennessee Database of Technology and Knowledge-Intensive Firms**, operated by the state's Office of Science and Technology, is a searchable list of the state's 3,200 technology-driven manufacturing and service firms.

Statistical Information Contact

University of Tennessee at Knoxville

Center for Business and Economic Research
 College of Business Administration
 100 Glocker
 Knoxville, TN 37996-4170
 (865) 974-5441
<http://cber.bus.utk.edu/>



Overall State Economic Conditions

Texas ranks 2nd in population with more than 20 million people, over 84% of whom live in metropolitan areas (11th among states). Its 1999 per capita income of \$26,858 ranked 26th nationally. In 1999, 15% of its population lived at or below the poverty level. In 1999, Texas's gross state product was \$687.3 billion (3rd) and it had 467,087 business establishments (3rd). The state ranks 35th in percentage of non-farm employment in manufacturing (9.3% of its workforce).

Science & Technology Organizations

<http://www.state.tx.us/Technology/>

The **Texas Science and Technology Council**, created in 1996, developed a strategic technology plan that identified development of technologically advanced workforce skills as a key challenge. The Council is composed of 26 of the state's company, university, and government officials.

<http://www.tded.state.tx.us/>

The **Texas Department of Economic Development** is the state's lead development agency.

<http://www.harc.edu/>

The **Houston Advanced Research Center** focuses on scientific research and applied technology development.

<http://www.mcc.com/mcc/about/aboutmcc.html>

MCC is an Austin-based consortium of leading computer, semiconductor, and electronics manufacturers, and users and producers of information technology.

<http://www.sematech.org/public/corporate/>

Sematech is an Austin-based R&D consortium of semiconductor manufacturers. Member companies cooperate, pre-competitively, to accelerate development of advanced semiconductor science and technology.

Statistical Information Contact

Texas Department of Economic Development

Business and Industry Data Center
1700 North Congress Street, Suite 220
P.O. Box 12728
Austin, TX 78701
(512) 936-0550
<http://www.bidc.state.tx.us/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$18.08)	25	
Industry R&D/\$1,000 of GSP (\$14.46)	23	
Federal R&D/\$1,000 of GSP (\$0.85)	25	
University R&D/\$1,000 of GSP (\$2.66)	32	
Fed Obligations for R&D/\$1,000 of GSP (\$5.61)	16	
SBIR Awards/10,000 Businesses (3.6)	25	
SBIR Award \$/\$1,000 of GSP (\$0.06)	27	
STTR Awards/10,000 Businesses (0.2)	34	
STTR Award \$/\$1,000 of GSP (\$0.002)	41	
Human Resources		
NAEP Science Test Scores (145)	26	
% of Population Completing High School (79.2%)	46	
% Associates Degrees Granted/Pop 18-24 (1.37%)	46	
% Bachelors Degrees Granted/Pop 18-24 (3.50%)	45	
% S&E BS Degrees Granted/Total Bach's (17.6%)	27	
% S&E Grad Students/Pop 18-24 (1.31%)	28	
% of Workforce w/Recent S&E BS Degree (1.31%)	23	
% of Workforce w/Recent S&E MS Degree (0.30%)	21	
% of Workforce w/Recent S&E PhD (0.11%)	27	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$6.54)	14	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.45)	13	
IPO Funds Raised/\$1,000 of GSP (\$6.34)	8	
Business Incubators/10,000 Businesses (1.1)	37	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.9%)	16	
% Employment in High-technology SICs (9.2%)	16	
% Payroll in High-technology SICs (15.7%)	11	
% Business Births in High-technology SICs (8.0%)	15	
Net High-tech Formations/10,000 Estab. (29.2)	14	
Outcome Measures		
Patents Issued/10,000 Businesses (137)	19	
Fast 500 Companies/10,000 Businesses (0.3)	23	
Inc. 500 Companies/10,000 Businesses (0.8)	12	
Average Annual Earnings/Job (\$32,895)	14	
% Population Above Federal Poverty Level (85.0%)	44	
Per Capita Personal Income (\$26,858)	26	
Labor Force Participation Rate (68.2%)	27	
% of Workforce Employed (95.8%)	34	
% of Households w/Computer (47.9%)	36	
% of Households w/Internet Access (38.3%)	35	

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$23.53)	16	
Industry R&D/\$1,000 of GSP (\$17.93)	18	
Federal R&D/\$1,000 of GSP (\$1.18)	18	
University R&D/\$1,000 of GSP (\$4.36)	5	
Fed Obligations for R&D/\$1,000 of GSP (\$4.87)	23	
SBIR Awards/10,000 Businesses (8.2)	9	
SBIR Award \$/\$1,000 of GSP (\$0.14)	11	
STTR Awards/10,000 Businesses (1.2)	3	
STTR Award \$/\$1,000 of GSP (\$0.026)	3	
Human Resources		
NAEP Science Test Scores (156)	11	
% of Population Completing High School (90.7%)	4	
% Associates Degrees Granted/Pop 18-24 (2.78%)	11	
% Bachelors Degrees Granted/Pop 18-24 (5.74%)	11	
% S&E BS Degrees Granted/Total Bach's (17.2%)	33	
% S&E Grad Students/Pop 18-24 (1.26%)	29	
% of Workforce w/Recent S&E BS Degree (1.25%)	28	
% of Workforce w/Recent S&E MS Degree (0.28%)	25	
% of Workforce w/Recent S&E PhD (0.16%)	12	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$8.16)	9	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.32)	26	
IPO Funds Raised/\$1,000 of GSP (\$1.59)	26	
Business Incubators/10,000 Businesses (1.1)	33	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (6.4%)	12	
% Employment in High-technology SICs (9.7%)	13	
% Payroll in High-technology SICs (14.6%)	17	
% Business Births in High-technology SICs (8.1%)	14	
Net High-tech Formations/10,000 Estab. (24.8)	18	
Outcome Measures		
Patents Issued/10,000 Businesses (141)	18	
Fast 500 Companies/10,000 Businesses (0.6)	15	
Inc. 500 Companies/10,000 Businesses (1.5)	4	
Average Annual Earnings/Job (\$27,884)	32	
% Population Above Federal Poverty Level (94.3%)	1	
Per Capita Personal Income (\$23,288)	40	
Labor Force Participation Rate (72.3%)	8	
% of Workforce Employed (96.8%)	12	
% of Households w/Computer (66.1%)	1	
% of Households w/Internet Access (48.4%)	8	

Overall State Economic Conditions

Utah ranks 34th in population with more than 2.1 million people, slightly over 76% of whom live in metropolitan areas (20th among states). Its 1999 per capita income of \$23,288 ranked 40th nationally. In 1999, 5.7% of its population lived at or below the poverty level. In 1999, Utah's gross state product was \$62.6 billion (35th) and it had 53,809 business establishments (34th). The state ranks 28th in percentage of non-farm employment in manufacturing (11.2% of its workforce).

Science & Technology Organizations

<http://www.dced.state.ut.us/techdev/>

The **Office of Technology Development** in the Utah Department of Community and Economic Development administers the state's **Centers of Excellence Program**, which supports selected research programs at Utah's universities with potential commercial value. Centers for Advanced Structural Composites (Brigham Young University), Biomedical Optics (U.Utah), and Harsh Environment Electronics (U.Utah) are among the sixteen currently active.

<http://www.utfc.org/>

The **Utah Technology Finance Corporation**, an independent, non-profit corporation, provides debt investment in start-up and growing Utah businesses, including technology companies concentrated in the Wasatch Front .

<http://www.uita.org/>

The **Utah Information Technology Association** provides advocacy, marketing, education, and other support services for the state's information technology sector.

Statistical Information Contact

University of Utah

Bureau of Economic and Business Research
 David Eccles School of Business
 1645 East Campus Center Drive
 Salt Lake City, UT 84112-9302
 (801) 581-6333
<http://www.business.utah.edu/BEBR/>



Overall State Economic Conditions

Vermont ranks 49th in population with 593,000 people, nearly 28% of whom live in metropolitan areas (50th among states). Its 1999 per capita income of \$25,889 ranked 32nd nationally. In 1999, 9.7% of its population lived at or below the poverty level. In 1999, Vermont's gross state product was \$17.2 billion (49th) and it had 21,598 business establishments (47th). The state ranks 20th in percentage of non-farm employment in manufacturing (13.3% of its workforce).

Science & Technology Organizations

<http://epscor.uvm.edu/vtc.html>

The **Vermont Technology Council**, with leaders from business, academia, and state government, is responsible for increasing the impact of science and technology on Vermont's economy. They developed a state strategic science and technology plan and guide the Vermont EPSCoR program.

<http://www.vmec.org/>

The **Vermont Manufacturing Extension Center**, an MEP affiliate, assists small and medium-sized manufacturers in Vermont with one-on-one support and services.

<http://www.state.vt.us/veda/>

The **Vermont Economic Development Authority (VEDA)** operates state financing programs, including direct loans, industrial revenue bonds, and the issuance of mortgage loan insurance.

<http://www.thinkvermont.com/>

The **Vermont Department of Economic Development** is the state's lead business development and attraction agency.

Statistical Information Contact

Labor Market Information

Department of Employment and Training
 5 Green Mountain Drive
 P.O. Box 488
 Montpelier, VT 05601-0488
 (802) 828-4202
<http://www.det.state.vt.us/>



Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$22.64)	17				
Industry R&D/\$1,000 of GSP (\$18.53)	16				
Federal R&D/\$1,000 of GSP (\$0.24)	43				
University R&D/\$1,000 of GSP (\$3.77)	10				
Fed Obligations for R&D/\$1,000 of GSP (\$3.60)	33				
SBIR Awards/10,000 Businesses (7.6)	13				
SBIR Award \$/\$1,000 of GSP (\$0.21)	7				
STTR Awards/10,000 Businesses (0.2)	39				
STTR Award \$/\$1,000 of GSP (\$0.002)	38				
Human Resources					
NAEP Science Test Scores (157)	8				
% of Population Completing High School (90.0%)	7				
% Associates Degrees Granted/Pop 18-24 (2.77%)	12				
% Bachelors Degrees Granted/Pop 18-24 (8.57%)	2				
% S&E BS Degrees Granted/Total Bach's (17.6%)	28				
% S&E Grad Students/Pop 18-24 (1.14%)	34				
% of Workforce w/Recent S&E BS Degree (2.30%)	4				
% of Workforce w/Recent S&E MS Degree (0.29%)	22				
% of Workforce w/Recent S&E PhD (0.18%)	8				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (--)	--				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.34)	23				
IPO Funds Raised/\$1,000 of GSP (\$0.00)	47				
Business Incubators/10,000 Businesses (0.9)	42				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (4.8%)	27				
% Employment in High-technology SICs (8.3%)	26				
% Payroll in High-technology SICs (13.5%)	20				
% Business Births in High-technology SICs (6.3%)	30				
Net High-tech Formations/10,000 Estab. (7.1)	47				
Outcome Measures					
Patents Issued/10,000 Businesses (173)	9				
Fast 500 Companies/10,000 Businesses (0.0)	33				
Inc. 500 Companies/10,000 Businesses (0.5)	32				
Average Annual Earnings/Job (\$27,595)	34				
% Population Above Federal Poverty Level (90.3%)	16				
Per Capita Personal Income (\$25,889)	32				
Labor Force Participation Rate (70.5%)	13				
% of Workforce Employed (97.1%)	8				
% of Households w/Computer (53.7%)	17				
% of Households w/Internet Access (46.7%)	10				

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (\$21.06)	21					
Industry R&D/\$1,000 of GSP (\$10.27)	28					
Federal R&D/\$1,000 of GSP (\$7.40)	3					
University R&D/\$1,000 of GSP (\$2.19)	40					
Fed Obligations for R&D/\$1,000 of GSP (\$23.74)	3					
SBIR Awards/10,000 Businesses (14.1)	5					
SBIR Award \$/\$1,000 of GSP (\$0.25)	6					
STTR Awards/10,000 Businesses (1.2)	5					
STTR Award \$/\$1,000 of GSP (\$0.017)	6					
Human Resources						
NAEP Science Test Scores (149)	20					
% of Population Completing High School (86.6%)	21					
% Associates Degrees Granted/Pop 18-24 (1.73%)	38					
% Bachelors Degrees Granted/Pop 18-24 (4.71%)	25					
% S&E BS Degrees Granted/Total Bach's (18.6%)	15					
% S&E Grad Students/Pop 18-24 (1.70%)	11					
% of Workforce w/Recent S&E BS Degree (1.43%)	19					
% of Workforce w/Recent S&E MS Degree (0.51%)	4					
% of Workforce w/Recent S&E PhD (0.13%)	21					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (\$8.19)	8					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.37)	19					
IPO Funds Raised/\$1,000 of GSP (\$3.65)	14					
Business Incubators/10,000 Businesses (1.8)	11					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (7.5%)	6					
% Employment in High-technology SICs (11.7%)	3					
% Payroll in High-technology SICs (21.3%)	1					
% Business Births in High-technology SICs (10.7%)	4					
Net High-tech Formations/10,000 Estab. (37.8)	10					
Outcome Measures						
Patents Issued/10,000 Businesses (69)	33					
Fast 500 Companies/10,000 Businesses (2.2)	2					
Inc. 500 Companies/10,000 Businesses (1.8)	1					
Average Annual Earnings/Job (\$33,015)	13					
% Population Above Federal Poverty Level (92.1%)	11					
Per Capita Personal Income (\$29,789)	14					
Labor Force Participation Rate (68.1%)	29					
% of Workforce Employed (97.8%)	1					
% of Households w/Computer (53.9%)	16					
% of Households w/Internet Access (44.3%)	13					

Overall State Economic Conditions

Virginia ranks 12th in population with over 6.8 million people, just over 78% of whom live in metropolitan areas (19th among states). Its 1999 per capita income of \$29,789 ranked 14th nationally. In 1999, 7.9% of its population lived at or below the poverty level. In 1999, Virginia's gross state product was \$242.2 billion (13th) and it had 173,550 business establishments (12th). The state ranks 32nd in percentage of non-farm employment in manufacturing (10.4% of its workforce).

Science & Technology Organizations

<http://www.cim.state.va.us/>

The **Secretary of Technology** is responsible for the state's overall technology policy. The **Department of Technology Planning** functions as the Secretary's staff in developing government technology standards, and programs for Virginia's high technology industry sectors.

http://www.cit.org/index_ns3.html

The **Center for Innovative Technology (CIT)** is a nonprofit corporation created by the Commonwealth to support technology commercialization. It provides companies access to Virginia university research (including eleven CIT-sponsored, university-based Technology Development Centers) and to the federal laboratory system.

<http://www.yesvirginia.org/wv/bd.html>

The **Virginia Economic Development Partnership** is the state's lead agency for business attraction and development, with a Global Information System (GIS) utilizing satellite and electronic technology.

<http://www.jmu.edu/vmic/>

The **Virginia Manufacturing Innovation Center**, co-sponsored by James Madison University and the Center of Innovative Technology (CIT), provides small and mid-sized firms services and training related to advanced manufacturing, with a focus on intelligent manufacturing bio-manufacturing, and micro-electronics. It is a close partner of the Virginia's Philpott Manufacturing Extension Partnership.

Statistical Information Contact

University of Virginia

Weldon Cooper Center for Public Service
 918 Emmet Street
 North Suite 300
 Charlottesville, VA 22903-4832
 (804) 982-5585
<http://www.virginia.edu/coopercenter/>

Washington

Overall State Economic Conditions

Washington ranks 15th in population, with over 5.7 million people, 83% of whom live in metropolitan areas (15th among states). Its 1999 per capita income of \$30,392 ranked 12th nationally. In 1999, over 9% of its population lived at or below the poverty level. In 1999, Washington's gross state product was \$209.3 billion (14th) and it had 162,932 business establishments (14th). The state ranks 30th in percentage of non-farm employment in manufacturing (10.8% of its workforce).

Science & Technology Organizations

<http://www.watechcenter.org/>

The **Washington Technology Center (WTC)** funds and facilitates market-driven, high technology focused, industry-university R&D partnerships and technology transfer. WTC's industry-university partnerships are focused on advanced materials and manufacturing, biotechnology and biomedical instrumentation, computer systems/human interface technology, and microelectronics.

<http://www.technology-alliance.com/>

The **Washington Technology Alliance** is a consortium of Washington State technology-based businesses, their trade associations, the state's leading research institutions, and other cooperating organizations. It organizes networking events and technology-sector research, while its Alliance of Angels promotes investment in new technology companies.

<http://www.sirti.org/>

The **Spokane Intercollegiate Research & Technology Institute** is a technology development and commercialization institute, with specialized laboratories and programs focusing on environmental technologies, digital technologies, software engineering, multimedia, intelligent manufacturing, microelectronics, and biomedical and agricultural technologies.

Statistical Information Contact

Washington State Office of Financial Management

Forecasting Division
P.O. Box 43113
Olympia, WA 98504-3113
(360) 902-0599
<http://www.ofm.wa.gov/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$39.84)	6	
Industry R&D/\$1,000 of GSP (\$34.56)	6	
Federal R&D/\$1,000 of GSP (\$0.91)	22	
University R&D/\$1,000 of GSP (\$2.81)	27	
Fed Obligations for R&D/\$1,000 of GSP (\$6.24)	14	
SBIR Awards/10,000 Businesses (6.8)	15	
SBIR Award \$/\$1,000 of GSP (\$0.12)	15	
STTR Awards/10,000 Businesses (0.7)	13	
STTR Award \$/\$1,000 of GSP (\$0.010)	12	
Human Resources		
NAEP Science Test Scores (150)	19	
% of Population Completing High School (91.8%)	1	
% Associates Degrees Granted/Pop 18-24 (3.55%)	5	
% Bachelors Degrees Granted/Pop 18-24 (4.34%)	32	
% S&E BS Degrees Granted/Total Bach's (17.0%)	35	
% S&E Grad Students/Pop 18-24 (1.03%)	41	
% of Workforce w/Recent S&E BS Degree (2.10%)	5	
% of Workforce w/Recent S&E MS Degree (0.44%)	6	
% of Workforce w/Recent S&E PhD (0.15%)	13	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$11.47)	4	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.35)	22	
IPO Funds Raised/\$1,000 of GSP (\$21.49)	1	
Business Incubators/10,000 Businesses (1.4)	20	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (5.7%)	18	
% Employment in High-technology SICs (11.3%)	4	
% Payroll in High-technology SICs (18.5%)	4	
% Business Births in High-technology SICs (7.7%)	21	
Net High-tech Formations/10,000 Estab. (29.5)	13	
Outcome Measures		
Patents Issued/10,000 Businesses (124)	22	
Fast 500 Companies/10,000 Businesses (1.4)	5	
Inc. 500 Companies/10,000 Businesses (0.4)	36	
Average Annual Earnings/Job (\$35,736)	6	
% Population Above Federal Poverty Level (90.5%)	15	
Per Capita Personal Income (\$30,392)	12	
Labor Force Participation Rate (68.7%)	26	
% of Workforce Employed (94.8%)	46	
% of Households w/Computer (60.7%)	6	
% of Households w/Internet Access (49.7%)	7	

West Virginia

Metric Title (Value)	Rank	Percent of U.S. Value
		0 50 100 150 200+
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$10.78)	33	
Industry R&D/\$1,000 of GSP (\$5.31)	36	
Federal R&D/\$1,000 of GSP (\$2.86)	7	
University R&D/\$1,000 of GSP (\$1.58)	46	
Fed Obligations for R&D/\$1,000 of GSP (\$5.58)	17	
SBIR Awards/10,000 Businesses (1.5)	41	
SBIR Award \$/\$1,000 of GSP (\$0.03)	36	
STTR Awards/10,000 Businesses (0.1)	42	
STTR Award \$/\$1,000 of GSP (\$0.002)	40	
Human Resources		
NAEP Science Test Scores (147)	22	
% of Population Completing High School (77.1%)	50	
% Associates Degrees Granted/Pop 18-24 (1.60%)	43	
% Bachelors Degrees Granted/Pop 18-24 (4.54%)	30	
% S&E BS Degrees Granted/Total Bach's (15.8%)	44	
% S&E Grad Students/Pop 18-24 (1.17%)	33	
% of Workforce w/Recent S&E BS Degree (0.42%)	49	
% of Workforce w/Recent S&E MS Degree (0.41%)	7	
% of Workforce w/Recent S&E PhD (0.07%)	47	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.07)	44	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.17)	39	
IPO Funds Raised/\$1,000 of GSP (\$0.00)	47	
Business Incubators/10,000 Businesses (1.2)	30	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (3.0%)	47	
% Employment in High-technology SICs (5.4%)	43	
% Payroll in High-technology SICs (9.7%)	38	
% Business Births in High-technology SICs (3.9%)	49	
Net High-tech Formations/10,000 Estab. (7.9)	46	
Outcome Measures		
Patents Issued/10,000 Businesses (43)	41	
Fast 500 Companies/10,000 Businesses (0.0)	33	
Inc. 500 Companies/10,000 Businesses (0.0)	45	
Average Annual Earnings/Job (\$26,008)	42	
% Population Above Federal Poverty Level (84.3%)	47	
Per Capita Personal Income (\$20,966)	49	
Labor Force Participation Rate (57.1%)	50	
% of Workforce Employed (94.5%)	47	
% of Households w/Computer (42.8%)	46	
% of Households w/Internet Access (34.3%)	45	

Overall State Economic Conditions

West Virginia ranks 36th in population with 1.8 million people, nearly 42% of whom live in metropolitan areas (42nd among states). Its 1999 per capita income of \$20,966 ranked 49th nationally. In 1999, 15.7% of its population lived at or below the poverty level. In 1999, West Virginia's gross state product was \$40.7 billion (40th) and it had 41,451 business establishments (38th). The state ranks 37th in percentage of non-farm employment in manufacturing (9% of its workforce).

Science & Technology Organizations

http://www.state.wv.us/got/goals-missions/goals_and_mission_of_the_wv_gove.htm

The **West Virginia Governor's Office of Technology** develops, transfers, and manages technology to benefit government agencies and private sector companies, undertaking cooperative relationships with entrepreneurs, the state university research system, federal laboratories, and state development and technology agencies.

<http://www.wvhtf.org/>

The **West Virginia High Technology Consortium Foundation** is a non-profit corporation supporting economic diversification. The Foundation's Virtual Company program established a hub of skilled program and contract managers, management systems, and other resources to train small businesses for success in complex markets.

<http://www.rcbi.org/>

The **Robert C. Byrd Institute for Advanced Flexible Manufacturing** works to develop a just-in-time, quality supply base for the Department of Defense (DoD), by providing small and medium-sized manufacturers access to advanced technologies and technical training.

Statistical Information Contact

West Virginia University

College of Business and Economics
 Bureau of Business and Economic Research
 P.O. Box 6025
 Morgantown, WV 26506-6025
 (304) 293-7831
<http://www.bber.wvu.edu/>





Overall State Economic Conditions

Wisconsin ranks 18th in population with 5.2 million people, nearly 68% of whom live in metropolitan areas (31st among states). Its 1999 per capita income of \$27,390 ranked 21st nationally. In 1999, 8.6% of its population lived at or below the poverty level. In 1999, Wisconsin's gross state product was \$166.5 billion (20th) and it had 139,646 business establishments (17th). The state ranks 2nd in percentage of non-farm employment in manufacturing (19.8% of its workforce).

Science & Technology Organizations

<http://www.commerce.state.wi.us/ED/ED-TDF.html>

The **Technology Development Fund** of the Wisconsin Department of Commerce assists Wisconsin businesses in technology development and commercialization projects.

<http://www.commerce.state.wi.us/ED/ED-TDL.html>

The **Technology Development Loan (TDL)** Program assists technology commercialization by businesses and university/business consortia providing funds for acquiring land, buildings, and equipment ; for working capital; or for new construction.

<http://www.commerce.state.wi.us/MT/MT-FAX-0902.html>

The **Manufacturing Assessment Center**, affiliated with the Wisconsin Manufacturing Extension Partnership, is Wisconsin's lead agency for providing assessments of small to medium manufacturing establishments. It provides protocols and training in manufacturing assessment to WMEP field engineers.

<http://www.wmep.org/>

The **Wisconsin Manufacturing Extension Partnership**, part of the NIST/MEP network, provides manufacturing, technical, and management assistance to small and midsize manufacturers.

<http://www.forwardwi.com/index2.html>

Forward Wisconsin, Inc. is a public-private marketing organization for business attraction, chaired by the Governor.

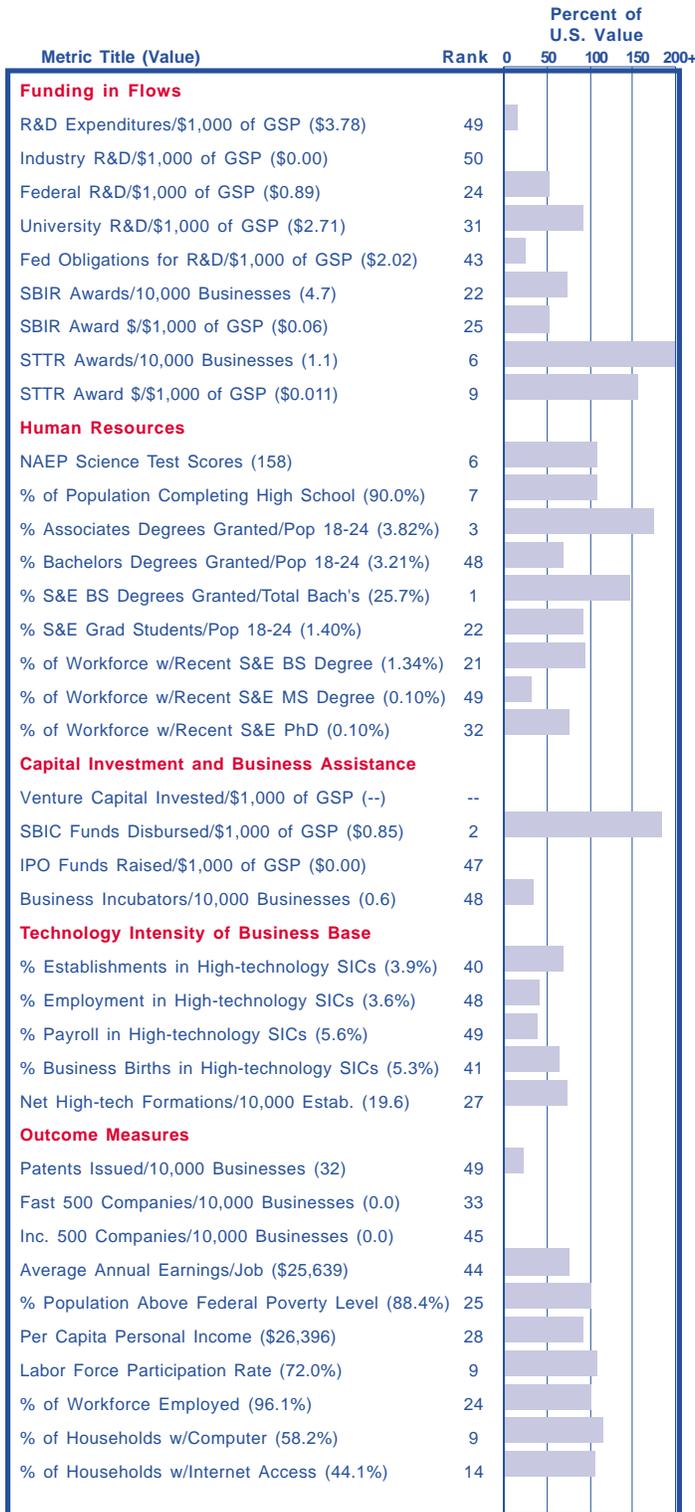
Statistical Information Contact

Wisconsin Legislative Reference Bureau

P.O. Box 2037
 Madison, WI 53701-2037
 (608) 266-7098
<http://www.legis.state.wi.us/lrb/bb/>

Metric Title (Value)	Rank	Percent of U.S. Value
	0	50
	100	150
	200+	
Funding in Flows		
R&D Expenditures/\$1,000 of GSP (\$15.41)	27	
Industry R&D/\$1,000 of GSP (\$11.71)	26	
Federal R&D/\$1,000 of GSP (\$0.25)	42	
University R&D/\$1,000 of GSP (\$3.37)	16	
Fed Obligations for R&D/\$1,000 of GSP (\$2.27)	41	
SBIR Awards/10,000 Businesses (3.2)	28	
SBIR Award \$/\$1,000 of GSP (\$0.05)	29	
STTR Awards/10,000 Businesses (0.3)	24	
STTR Award \$/\$1,000 of GSP (\$0.005)	23	
Human Resources		
NAEP Science Test Scores (160)	4	
% of Population Completing High School (86.7%)	20	
% Associates Degrees Granted/Pop 18-24 (1.89%)	34	
% Bachelors Degrees Granted/Pop 18-24 (5.50%)	16	
% S&E BS Degrees Granted/Total Bach's (18.6%)	14	
% S&E Grad Students/Pop 18-24 (1.44%)	20	
% of Workforce w/Recent S&E BS Degree (0.75%)	43	
% of Workforce w/Recent S&E MS Degree (0.14%)	45	
% of Workforce w/Recent S&E PhD (0.10%)	31	
Capital Investment and Business Assistance		
Venture Capital Invested/\$1,000 of GSP (\$0.61)	35	
SBIC Funds Disbursed/\$1,000 of GSP (\$0.34)	24	
IPO Funds Raised/\$1,000 of GSP (\$0.87)	30	
Business Incubators/10,000 Businesses (2.9)	3	
Technology Intensity of Business Base		
% Establishments in High-technology SICs (4.5%)	28	
% Employment in High-technology SICs (8.4%)	24	
% Payroll in High-technology SICs (12.1%)	30	
% Business Births in High-technology SICs (6.6%)	27	
Net High-tech Formations/10,000 Estab. (19.0)	29	
Outcome Measures		
Patents Issued/10,000 Businesses (142)	17	
Fast 500 Companies/10,000 Businesses (0.1)	30	
Inc. 500 Companies/10,000 Businesses (0.4)	35	
Average Annual Earnings/Job (\$29,597)	26	
% Population Above Federal Poverty Level (91.4%)	13	
Per Capita Personal Income (\$27,390)	21	
Labor Force Participation Rate (72.8%)	5	
% of Workforce Employed (96.5%)	15	
% of Households w/Computer (50.9%)	26	
% of Households w/Internet Access (40.6%)	27	





Overall State Economic Conditions

Wyoming ranks 50th in population with 479,000 people, just under 30% of whom live in metropolitan areas (49th among states). Its 1999 per capita income of \$26,396 ranked 28th nationally. In 1999, 11.6% of its population lived at or below the poverty level. In 1999, Wyoming's gross state product was \$17.4 billion (48th) and it had 17,909 business establishments (50th). The state ranks 49th in percentage of non-farm employment in manufacturing (3.6% of its workforce).

Science & Technology Organizations

<http://epscor-wise.uwyo.edu:80/wyoming/>

Wyoming EPSCoR is a partnership combining resources and management from the State of Wyoming and the University of Wyoming to build the state's science and technology capability.

<http://uwadmnweb.uwyo.edu/sbir/>

The Wyoming Small Business Innovative Initiative helps Wyoming technology-based businesses in Wyoming access federal SBIR/STTR funds for making technical innovations, developing new product concepts, and enhancing existing product lines. The National Science Foundation EPSCoR Program, the University of Wyoming Research Office, and the State of Wyoming have funded this initiative.

<http://www.wyomingbusiness.org/>

The recently formed Wyoming Business Council has been designated the state's lead organization for business and economic development.

Statistical Information Contact

Department of Administration and Information

Division of Economic Analysis
 2001 Capitol Avenue
 327 E. Emerson Building
 Cheyenne, WY 82002-0060
 (307) 777-7504
<http://eadiv.state.wy.us/eahome.htm>

District of Columbia

Overall State Economic Conditions

The District's population was 519,000 in 1999, with 100% of the population living in metropolitan areas. Its 1999 per capita income was \$39,858, which would have placed the District as the highest in a per capita income ranking of states. In 1999, nearly 15% of its population lived at or below the poverty level. In 1999, the District of Columbia's gross product was \$55.8 billion and it had 19,469 business establishments. The percentage of manufacturing employment in 1999 was only 1%.

Science & Technology Organizations

<http://dcbiz.dc.gov/main.shtm>

The **Office of Economic Development** develops and implements programs and policies for the retention, expansion, and attraction of commerce and trade, including local, small, disadvantaged businesses. (202) 727-6365.

<http://netpreneur.org/>

The **Netpreneur Exchange**, run by the Morino Institute, has helped build a network of Internet information for communications entrepreneurs, business people, technology professionals, and academia in the Greater Washington region. It publishes Netpreneur News and Netpreneur Calendar, and provides primary information in the region for funding and starting new companies.

http://www.potomacconference.org/potomac_conferencehistory_page.htm

The **Potomac Conference**, sponsored by the Greater Washington Board of Trade, brings together leadership from the private and public sectors to set a regional economic competitiveness agenda.

<http://www.wdctech.net/>

The recently formed **Washington DC Technology Council (DCTech)** is a coalition of companies, city government, and the academic community focused on promoting the development, growth and recognition of the area's technology companies. Its mission includes developing linkages among technology industry, government, educational and research entities. It also promotes regional implementation of technology to enhance competitiveness.

Statistical Information Contact

Office of Planning

Data Management Division
801 North Capitol St., N.E.
Washington, DC 20002
(202) 442-7603
<http://dclibrary.org/sdc/>

Metric Title (Value)	Rank	Percent of U.S. Value			
		0	50	100	150
Funding in Flows					
R&D Expenditures/\$1,000 of GSP (\$44.95)	N/A				
Industry R&D/\$1,000 of GSP (\$3.06)	N/A				
Federal R&D/\$1,000 of GSP (\$34.25)	N/A				
University R&D/\$1,000 of GSP (\$4.01)	N/A				
Fed Obligations for R&D/\$1,000 of GSP (\$43.91)	N/A				
SBIR Awards/10,000 Businesses (8.6)	N/A				
SBIR Award \$/\$1,000 of GSP (\$0.07)	N/A				
STTR Awards/10,000 Businesses (0.7)	N/A				
STTR Award \$/\$1,000 of GSP (\$0.006)	N/A				
Human Resources					
NAEP Science Test Scores (113)	N/A				
% of Population Completing High School (83.2%)	N/A				
% Associates Degrees Granted/Pop 18-24 (1.05%)	N/A				
% Bachelors Degrees Granted/Pop 18-24 (17.01%)	N/A				
% S&E BS Degrees Granted/Total Bach's (13.2%)	N/A				
% S&E Grad Students/Pop 18-24 (15.83%)	N/A				
% of Workforce w/Recent S&E BS Degree (10.34%)	N/A				
% of Workforce w/Recent S&E MS Degree (3.00%)	N/A				
% of Workforce w/Recent S&E PhD (1.41%)	N/A				
Capital Investment and Business Assistance					
Venture Capital Invested/\$1,000 of GSP (\$7.82)	N/A				
SBIC Funds Disbursed/\$1,000 of GSP (\$0.30)	N/A				
IPO Funds Raised/\$1,000 of GSP (\$3.33)	N/A				
Business Incubators/10,000 Businesses (2.6)	N/A				
Technology Intensity of Business Base					
% Establishments in High-technology SICs (12.3%)	N/A				
% Employment in High-technology SICs (10.1%)	N/A				
% Payroll in High-technology SICs (14.4%)	N/A				
% Business Births in High-technology SICs (17.5%)	N/A				
Net High-tech Formations/10,000 Estab. (38.8)	N/A				
Outcome Measures					
Patents Issued/10,000 Businesses (36)	N/A				
Fast 500 Companies/10,000 Businesses (0.0)	N/A				
Inc. 500 Companies/10,000 Businesses (0.5)	N/A				
Average Annual Earnings/Job (\$50,742)	N/A				
% Population Above Federal Poverty Level (85.1%)	N/A				
Per Capita Personal Income (\$39,858)	N/A				
Labor Force Participation Rate (67.6%)	N/A				
% of Workforce Employed (94.2%)	N/A				
% of Households w/Computer (48.8%)	N/A				
% of Households w/Internet Access (39.6%)	N/A				

Metric Title (Value)	Rank	Percent of U.S. Value				
		0	50	100	150	200+
Funding in Flows						
R&D Expenditures/\$1,000 of GSP (--)	N/A					
Industry R&D/\$1,000 of GSP (--)	N/A					
Federal R&D/\$1,000 of GSP (\$0.22)	N/A					
University R&D/\$1,000 of GSP (\$2.36)	N/A					
Fed Obligations for R&D/\$1,000 of GSP (\$1.90)	N/A					
SBIR Awards/10,000 Businesses (--)	N/A					
SBIR Award \$/\$1,000 of GSP (\$0.01)	N/A					
STTR Awards/10,000 Businesses (--)	N/A					
STTR Award \$/\$1,000 of GSP (--)	N/A					
Human Resources						
NAEP Science Test Scores (N/A)	N/A					
% of Population Completing High School (N/A)	N/A					
% Associates Degrees Granted/Pop 18-24 (--)	N/A					
% Bachelors Degrees Granted/Pop 18-24 (--)	N/A					
% S&E BS Degrees Granted/Total Bach's (--)	N/A					
% S&E Grad Students/Pop 18-24 (--)	N/A					
% of Workforce w/Recent S&E BS Degree (0.90%)	N/A					
% of Workforce w/Recent S&E MS Degree (0.11%)	N/A					
% of Workforce w/Recent S&E PhD (0.04%)	N/A					
Capital Investment and Business Assistance						
Venture Capital Invested/\$1,000 of GSP (--)	N/A					
SBIC Funds Disbursed/\$1,000 of GSP (\$0.03)	N/A					
IPO Funds Raised/\$1,000 of GSP (--)	N/A					
Business Incubators/10,000 Businesses (--)	N/A					
Technology Intensity of Business Base						
% Establishments in High-technology SICs (--)	N/A					
% Employment in High-technology SICs (--)	N/A					
% Payroll in High-technology SICs (--)	N/A					
% Business Births in High-technology SICs (--)	N/A					
Net High-tech Formations/10,000 Estab. (--)	N/A					
Outcome Measures						
Patents Issued/10,000 Businesses (--)	N/A					
Fast 500 Companies/10,000 Businesses (--)	N/A					
Inc. 500 Companies/10,000 Businesses (--)	N/A					
Average Annual Earnings/Job (\$18,531)	N/A					
% Population Above Federal Poverty Level (--)	N/A					
Per Capita Personal Income (N/A)	N/A					
Labor Force Participation Rate (46.1%)	N/A					
% of Workforce Employed (89.9%)	N/A					
% of Households w/Computer (N/A)	N/A					
% of Households w/Internet Access (N/A)	N/A					

Overall State Economic Conditions

Puerto Rico's population as of 1999 was 3,889,507. In 1990, 79% of the population lived in metropolitan areas. In 1989, 55.3% of its population lived at or below the poverty level. In 1999, Puerto Rico's gross product was \$38.3 billion and it had 42,463 business establishments in 1997. The island's 1990 per capita income was \$4,177. In 1997, 12.3% of its labor force was employed in manufacturing. (According to the Puerto Rico Department of Economic Development and Commerce, manufacturing employment has remained stable during 1997-98 at well above 150,000 jobs.)

Science & Technology Organizations

<http://www.puertorico4business.com/sci&tech.html>

The **Office of Science and Technology** in the Puerto Rico Department of Economic Development and Commerce is the state's principal technology agency.

<http://www.puertorico4business.com>

The **Department of Economic Development and Commerce** promotes the economic development of Puerto Rico and its transition to a knowledge-intensive economy. The department grew out of a reorganization plan designed to integrate all government activity related to the economic development of the island in sectors such as manufacturing, commerce, tourism, cooperatives, and services.

<http://www.pridco.com/english/index.htm>

The **Puerto Rico Industrial Development Company** serves as a liaison with other government agencies to assist manufacturing companies relocating or expanding in Puerto Rico.

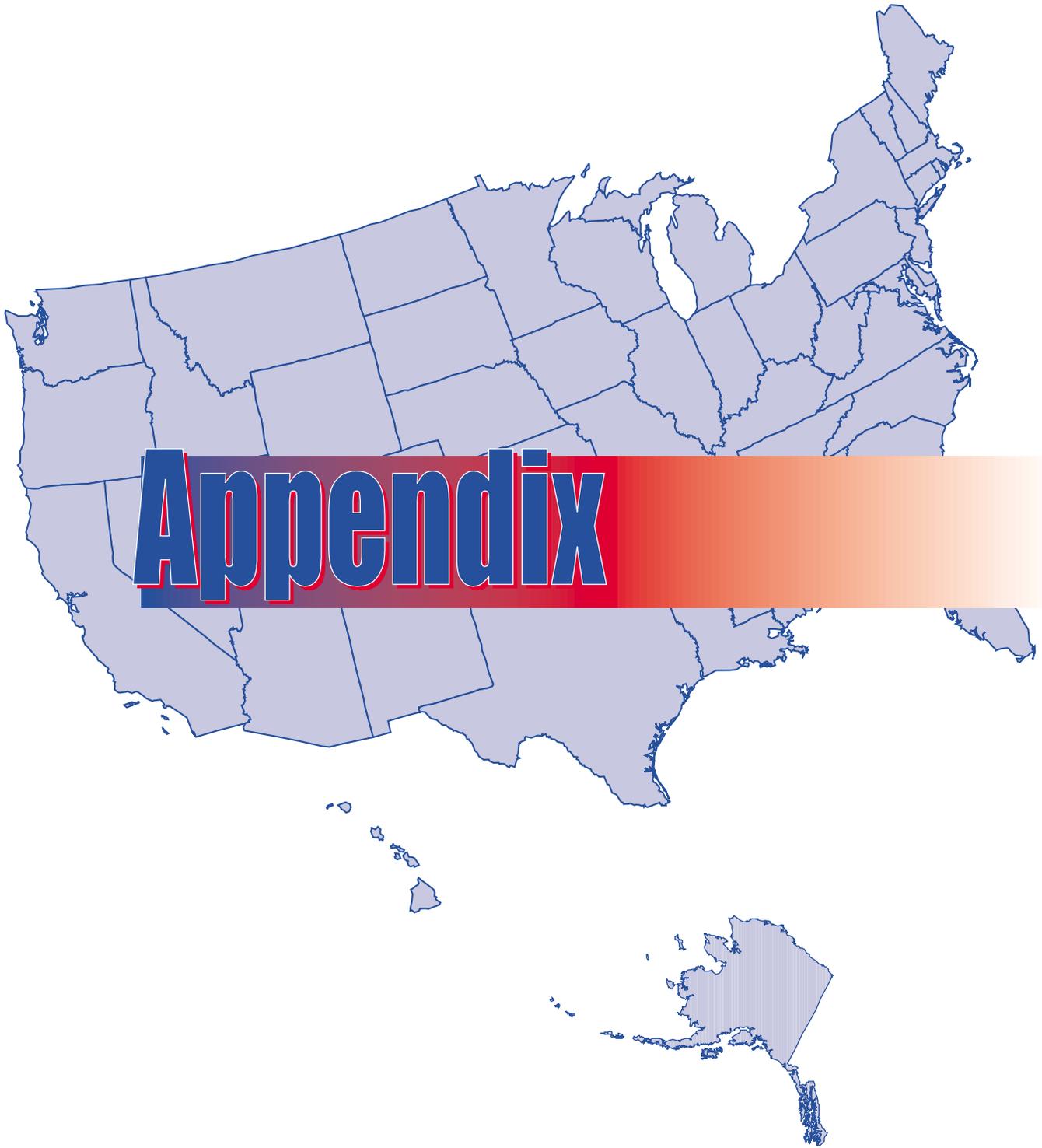
<http://www.pupr.edu/>

The **Polytechnic University of Puerto Rico** participates in consortia with private enterprises to train company personnel. It receives donations of equipment such as the state-of-the-art Surface Mount Technology Laboratory.

Statistical Information Contact

Junta de Planificacion

Oficina del Censo
P.O. Box 41119
Centro Gubernamental Minillas
San Juan, PR 00940-1119
(787) 728-4430/(787) 723-6200, x 2502
<http://www.jp.prstar.net/>



List of Data Sources

1. Expenditures for Total R&D Performed per \$1,000 of GSP: 1999

Expenditures for Total R&D Performed:

Total R&D 1999 was compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>. The data will be available online in the report, National Patterns of R&D Resources 2001, later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).

2. Expenditures for Industry-Performed R&D per \$1,000 of GSP: 1999

Expenditures for Industry-Performed R&D:

Industry R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Industrial Research and Development: 1999. The data will be available online in the report, Research and Development in Industry: 1999, when it is released later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).

3. Expenditures for Federally Performed R&D per \$1,000 of GSP: 1999

Expenditures for Federally Performed R&D:

Federal R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001. The data will be available online in the report, Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001, when it is released later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12);

Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." Puerto Rico Planning Board Economic Report, 2000. <<http://www.jp.prstar.net/>> (2001 July 12).

4. Expenditures for University-Performed R&D per \$1,000 of GSP: 1999

Expenditures for University-Performed R&D:

National Science Foundation, Division of Science Resources Studies. Academic Research and Development Expenditures: Fiscal Year 1999 [Early Release Tables]. Arlington, VA. (2000, December).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12);

Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." Puerto Rico Planning Board Economic Report, 2000. <<http://www.jp.prstar.net/>> (2001 July 12).

www.jp.prstar.net/ (2001 July 12).

5. Federal Obligations for R&D per \$1,000 of GSP: 1999

Federal Obligations for R&D:

Federal R&D was collected and compiled by the National Science Foundation, Division of Science Resources Studies <<http://www.nsf.gov/sbe/srs/>>, Survey of Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001. The data will be available online in the report, Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001, when it is released later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12);

Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." Puerto Rico Planning Board Economic Report, 2000. <<http://www.jp.prstar.net/>> (2001 July 12).

6. Average Annual Number of SBIR Awards per 10,000 Business Establishments: 1998-2000

SBIR Awards Granted:

Small Business Administration. Technology - 1998 SBIR State Rank. <<http://www.sbaonline.sba.gov/SBIR/98sbirrank.html>> (1999, November 22);

Small Business Administration. Technology - 1999 SBIR State Chart. <<http://www.sba.gov/SBIR/sbir1999state.html>> (2001, May 1);

Small Business Administration. Technology - 2000 SBIR State Chart. <<http://www.sba.gov/SBIR/sbir2000state.html>> (2001, May 1).

Establishments:

U.S. Census Bureau, County Business Patterns 1999. U.S. Government Printing Office, Washington, DC, 2001.

7. Average Annual SBIR Award Dollars per \$1,000 of GSP: 1998-2000

SBIR Award Dollars Granted:

Small Business Administration. Technology - 1998 SBIR State Rank. <<http://www.sbaonline.sba.gov/SBIR/98sbirrank.html>> (1999, November 22);

Small Business Administration. Technology - 1999 SBIR State Chart. <<http://www.sba.gov/SBIR/sbir1999state.html>> (2001, May 1);

Small Business Administration. Technology - 2000 SBIR State Chart. <<http://www.sba.gov/SBIR/sbir2000state.html>> (2001, May 1).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12);

Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." Puerto Rico Planning Board Economic Report, 2000. <<http://www.jp.prstar.net/>> (2001 July 12).

8. Average Annual Number of STTR Awards per 10,000 Business Establishments: 1997-9

STTR Awards Granted:

Small Business Administration. Technology - 1997 STTR State Rank. <<http://www.sbaonline.sba.gov/SBIR/section03f05.html>> (September 29, 1999);

Small Business Administration. Technology - 1998 STTR State Rank. <<http://www.sbaonline.sba.gov/SBIR/section03f14.html>> (September 29, 1999);

Small Business Administration, Office of Technology. Total STTR Awards Awarded for Fiscal Year 99. Received via a fax transmission June 21, 2001. The data will be available online at <<http://www.sba.gov/SBIR/library.html>> later this year.

Establishments:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

9. Average Annual STTR Award Dollars per \$1,000 of GSP: 1997-9

STTR Award Dollars Granted:

Small Business Administration. Technology - 1997 STTR State Rank. <<http://www.sbaonline.sba.gov/SBIR/section03f05.html>> (September 29, 1999);

Small Business Administration. Technology - 1998 STTR State Rank. <<http://www.sbaonline.sba.gov/SBIR/section03f14.html>> (September 29, 1999);

Small Business Administration, Office of Technology. Total STTR Awards Awarded for Fiscal Year 99. Received via a fax transmission June 21, 2001. The data will be available online at <<http://www.sba.gov/SBIR/library.html>> later this year.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2000, September). Gross State Product 1998. <<http://www.bea.doc.gov/bea/regional/gsp>> (2000, December 8).

10. National Assessment of Educational Progress (NAEP) in Science Average State Test Scores: 1996

NAEP Science Test Scores:

Keiser, K.K., Nelson, J.E., Norris, N.A., Szyszkiewicz, S., NAEP 1996 science cross-state data compendium for the grade 8 assessment. Washington, DC: National Center for Education Statistics, (1998).

11. Percent of the Population that has Completed High School: 2000

High School Completion:

U.S. Census Bureau. (2000, December 19). Educational Attainment in the United States: March 2000. P20-528. <<http://www.cache.census.gov/population/socdemo/education/p20-536/tab13.txt>> (2001, March 22).

12. Associate's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8

Associate's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.

Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). 1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex. <<http://www.census.gov/population/www/estimates/st-99-10.html>> (2000, December 11).

13. Total Bachelor's Degrees Granted as a Percent of the 18-24 Year Old Population: 1997-8

Total Bachelor's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.

Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). 1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex. <<http://www.census.gov/population/www/estimates/st-99-10.html>> (2000, December 11).

14. Percent of Bachelor's Degrees Granted in Science and Engineering: 1997-8

Science and Engineering Bachelor's Degrees Granted:

Arrangements for special tabulations were made by Thomas Snyder, Program Director, Annual Reports Program-ECICSD, National Center for Education Statistics at (202) 502-7452 on May 9, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Total Bachelor's Degrees Granted:

U.S. Department of Education, National Center for Education Statistics, [E.D. Tabs] Degrees and Other Awards Conferred by Title IV Participating, Degree-granting Institutions: 1997-98, NCES 2001-177, by Frank B. Morgan, Washington, DC: 2000.

15. Science and Engineering Graduate Students as a Percent of the 18-24 Year Old Population: 1999

Science and Engineering Graduate Students:

National Science Foundation, Division of Science Resources Studies. Graduate Students and Postdoctorates in Science and Engineering: Fall 1999, NSF 01-315, Project Officer, Joan Burrelli (Arlington, VA 2001).

Population, 18-24 Years Old:

U.S. Census Bureau. (2000, November 2). 1990 to 1999 Annual Time Series of State Population Estimates By Single Year of Age and Sex. <<http://www.census.gov/population/www/estimates/st-99-10.html>> (2000, December 11).

16. Percent of Civilian Work Force with a Recent Bachelor's Degree in Science or Engineering: 1999

Recent Science and Engineering Bachelor's Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Civilian Labor Force:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). State and Regional Unemployment, 2000 Annual Averages. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

17. Percent of the Civilian Work Force with a Recent Master's Degree in Science or Engineering: 1999

Recent Science and Engineering Master's Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Civilian Labor Force:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). State and Regional Unemployment, 2000 Annual Averages. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

18. Percent of the Civilian Work Force with a Recent Ph.D. Degree in Science or Engineering: 1999

Recent Science and Engineering Ph.D. Degrees:

Arrangements for the special tabulation of the 1999 SESTAT database were made by Kelly H. Kang, Senior Analyst, Science Resources Studies Division, National Science Foundation (kkang@nsf.gov) on April 24, 2001 per a special request from Taratec Corporation, Columbus, Ohio.

Civilian Labor Force:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). State and Regional Unemployment, 2000 Annual Averages. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

19. Amount of Venture Capital Funds Invested per \$1,000 of GSP: 2000

Venture Capital:

PricewaterhouseCoopers Money Tree™ Survey in Partnership with VentureOne.

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).

20. Average Annual Amount of SBIC Funds Disbursed per \$1,000 of GSP: 1998-2000

SBIC Funds Disbursed:

Small Business Administration. (2000, April 21). SBIC Program Financing to Small Business - Table 7: ALL SBIC Program Licensees Financing to Small Businesses by State. <<http://www.sba.gov/INV/stat/2001.html>> (2000, December 12).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12);

Government of Puerto Rico, Office of the Governor. (2001, March 13). "Appendix Statistics: Table 1 - Selected Series of Income and Product, Total and Per Capita." Puerto Rico Planning Board Economic Report, 2000. <<http://www.jp.prstar.net/>> (2001 July 12).

21. Average Annual Amount of IPO Funds Raised per \$1,000 of GSP: 1998-2000

IPO Funds Raised:

Hale and Dorr LLP. (1999, April 30). 1998 New England IPO Report. <http://www.haledorr.com/publications/ipo/ipo98/NEIPO_1998.pdf> (1999, October 19);

Hale and Dorr LLP. (2000, February 17). 1999 The IPO Report. <http://www.haleanddorr.com/publications/ipo/ipo99_98/>

99report.pdf> (2000, February 25);

Hale and Dorr LLP. (2001, February 26). 2000 The IPO Report. <http://www.haledorr.com/db30/cgi-bin/pubs/2000_IPO_report.pdf> (2001, June 13).

Gross State Product:

U.S. Department of Commerce, Bureau of Economic Analysis. (2001, June). Gross State Product: 1999. <<http://www.bea.doc.gov/bea/regional/gsp>> (2001, June 12).

22. Number of Business Incubators per 10,000 Business Establishments: 2001

Business Incubators:

National Business Incubation Association, 20 East Circle Drive, Suite 190, Athens, OH 45701.

Establishments:

U.S. Census Bureau, County Business Patterns 1999. U.S. Government Printing Office, Washington, DC, 2001.

23. Percent of Establishments in High-technology SIC Codes: 1998

High-technology Definition:

U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). Monthly Labor Review June 1999, High-technology employment: a broader view. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

Establishments in High-technology SIC Codes:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Establishments:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

24. Percent of Employment in High-technology SIC Codes: 1998

High-technology Definition:

U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). Monthly Labor Review June 1999, High-technology employment: a broader view. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

Employment in High-technology SIC Codes:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Employment:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

25. Percent of Payroll in High-technology SIC Codes: 1998

High-technology Definition:

U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). Monthly Labor Review June 1999, High-technology employment: a broader view. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

Payroll in High-technology SIC Codes:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Payroll:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

26. Percent of Establishment Births in High-technology SIC Codes: 1998

High-technology Definition:

U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). Monthly Labor Review June 1999, High-technology employment: a broader view. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

Establishment Births in High-technology SIC Codes:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Establishments:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

27. Net Formations of High-technology Establishments per 10,000 Business Establishments: 1998

High-technology Definition:

U.S. Department of Labor, Bureau of Labor Statistics. (1999, June). Monthly Labor Review June 1999, High-technology employment: a broader view. <<http://www.bls.gov/opub/mlr/1999/06/art3abs.htm>> (2001, June 26).

Births and Deaths of High-technology Establishments:

These data were prepared by the U.S. Census Bureau under contract with Taratec Corporation, Columbus, Ohio.

Establishments:

U.S. Census Bureau, County Business Patterns 1998. U.S. Government Printing Office, Washington, DC, 2000.

28. Average Annual Number of U.S. Patents Issued per 10,000 Business Establishments: 1998-2000

U.S. Patents Issued:

U.S. Patent and Trademark Office, Information Products Division/TAF Branch, Dozier, G. (2001, April 13). Patent Counts by Country/State and Year, All Patents, All Types, January 1, 1977 — December 31, 2000. <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_all.pdf> (2001, May 25).

Establishments:

U.S. Census Bureau, County Business Patterns 1999. U.S. Government Printing Office, Washington, DC, 2001.

29. Number of Technology Fast 500 Companies per 10,000 Business Establishments: 2000

Technology Fast 500 Companies:

Deloitte & Touche. Technology Fast 500. <<http://www.dttus.com/fast500/>>. (2000, December 12).

Establishments:

U.S. Census Bureau, County Business Patterns 1999. U.S. Government Printing Office, Washington, DC, 2001.

30. Number of Inc. 500 Companies per 10,000 Business Establishments: 2000

2000 Inc. 500 Companies:

Inc. Magazine. (2000) The Inc. 500. <<http://www.inc.com/500>> (2000, December 12).

Establishments:

U.S. Census Bureau, County Business Patterns 1999. U.S. Government Printing Office, Washington, DC, 2001.

31. Average Annual Earnings per Job: 1999

Average Annual Earnings per Job:

U.S. Department of Labor, Bureau of Labor Statistics. (2000, November 17). Table 1. State average annual pay for 1998 and 1999 and percent change in pay for all covered workers. <<http://stats.bls.gov/news.release/annpay.t01.htm>> (2000, December 11).

32. Percent of the Population Living Above the Federal Poverty Threshold: 1999

Percent of the Population Above Poverty:

U.S. Census Bureau. (2000, September 29). Current Population Survey: Annual Demographic Survey, March Supplement, Table 25. <http://ferret.bls.census.gov/macro/032000/pov/new25_001.htm> (2000, December 11).

33. Per Capita Personal Income: 1999

Per Capita Income:

U.S. Department of Commerce, Bureau of Economic Analysis. (2000, October 18). State Personal Income, Revised Estimates for 1997–99. <<http://www.bea.doc.gov/bea/ARTICLES/REGIONAL/PERSINC/2000/1000spi.pdf>> (2001, April 9).

34. Labor Force Participation Rate: 2000

Labor Force Participation:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). State and Regional Unemployment, 2000 Annual Averages. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

35. Percent of the Civilian Work Force Employed: 2000

Work Force Employment:

U.S. Department of Labor, Bureau of Labor Statistics. (2001, February 23). State and Regional Unemployment, 2000 Annual Averages. <<ftp://146.142.4.23/pub/news.release/srgune.txt>> (2001, March 21).

36. Percent of Households with Computers: 2000

Households with Computers:

U.S. Department of Commerce, National Telecommunications and Information Administration. (2000, October). Falling Through the Net: Toward Digital Inclusion. <<http://search.ntia.doc.gov/pdf/fttn00.pdf>> (2000, December 27).

37. Percent of Households with Internet Access: 2000

Households with Internet Access:

U.S. Department of Commerce, National Telecommunications and Information Administration. (2000, October). Falling Through the Net: Toward Digital Inclusion. <<http://search.ntia.doc.gov/pdf/fttn00.pdf>> (2000, December 27).