The Economic Impact of Software

software.org BSA Foundation

UNITED STATES[1]

Software is so much more than your desktop at work. Software is apps. Software is data. Software is cloud computing. It creates breakthroughs and drives growth in nearly every industry. Software empowers countless people and American businesses, and improves our lives each day in ways big and small. Along with all this progress comes the dramatic, positive impact software has on our national economy each year. *The Economic Impact of Software*, a study from Software.org: the BSA Foundation conducted in 2017 by The Economist Intelligence Unit (EIU), captures the growth of the software industry in the US and the sweeping economic impact it is making at state and national levels.

Total Value-Added GDP:
$1.14 trillion
(includes indirect and induced impacts)[2]

Direct Value-Added GDP:
$564.4 billion

EMPLOYMENT

Direct:
2.9 million jobs

Total:
10.5 million jobs
(includes indirect and induced impacts)

Software creates jobs for a wide variety of professionals in today's workplaces — everything from software developers and web designers to project coordinators, administrative assistants, and accountants. The number of jobs created directly by the software industry has increased 14.6 percent since 2014.

WAGES

Average Annual Wage for
Software Developers:
$104,360[3]

A software developer's wage is more than twice the average annual wage for all US occupations, which was $49,630 in 2016.[4]

RESEARCH & DEVELOPMENT

R&D Investment by
Software Companies:
$63.1 billion[5]

19.6% of All Domestic Business
R&D in the US[6]

The software industry's commitment to R&D continues to spur innovation at unprecedented rates.

[1] All data is from 2016 unless otherwise indicated.
[2] For definitions of "indirect" and "induced," see Methodology section on the other side of this document.
[3] US Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics. Data from May 2016.
[4] Ibid.
[5] National Science Foundation/National Center for Science and Engineering Statistics and US Census Bureau, Business R&D and Innovation Survey. 2013 Industry breakdown. Where data is not available for 2013, the most recent year is used.
[6] National Science Foundation/National Center for Science and Engineering Statistics.

The Economist Intelligence Unit

ARIZONA

Direct Value-Added GDP:

$6.7 billion

EMPLOYMENT

JOBS

Direct: **49,092 jobs**

Total: **99,625 jobs**
(includes indirect and induced impacts)

Software creates jobs for a wide variety of professionals in today's workplaces — everything from software developers and web designers to project coordinators, administrative assistants, and accountants. In Arizona, the number of jobs created directly by the software industry has increased 20.2 percent since 2014.

RESEARCH & DEVELOPMENT

R&D Investment by
Software Companies:

$235 million[7]

Arizona's economy and workforce benefit from software's broad investment in new technology. From developing new data analytics to driving breakthrough technologies like cognitive computing, the software industry's commitment to R&D continues to spur innovation at unprecedented rates.

[7] National Science Foundation/National Center for Science and Engineering Statistics and US Census Bureau, Business R&D and Innovation Survey. 2013 Industry breakdown. Where data is not available for 2013, the most recent year is used.

METHDOLOGY

To estimate the total contributions of the software industry to the US economy, The EIU analyzed the direct contributions and estimated indirect and induced impacts using various economic multipliers:

(1) *Direct contributions:* the levels of output or employment of the industry in question;

(2) *Indirect impacts:* the inter-industry economic activity resulting from the direct contributions (e.g., purchases of inputs);

(3) *Induced impacts:* the additional economic activity supported by spending on goods and services by households whose income was affected by the direct contributions and indirect impacts.

Data sources include The EIU, IMPLAN, National Science Foundation, US Bureau of Economic Analysis, US Bureau of Labor Statistics, US Census Bureau.

The Economist Intelligence Unit