# VIDEO GAMES in the 21st CENTURY

## THE 2014 REPORT

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# Executive Summary

*Video Games in the 21st Century: The 2014 Report* measures the economic contributions made by the U.S. entertainment software industry to the American economy during the period from 2009-2012. The 2014 report updates and expands upon earlier studies that quantified the economic benefits provided by the entertainment software industry to the U.S. economy as a whole.[1,2]

## The *2014 report* concludes that:

- The U.S. video game industry directly employs more than 42,000 people in 36 states.
- In 2012, these employees received total compensation of over $4 billion.
- The total U.S. employment, both direct and indirect, that depends on the video game industry now exceeds 146,000.
- For the three-year period from 2009 through 2012, direct employment in the U.S. video game industry grew at an annual rate of nine percent. During the same period, total U.S. employment increased at an annual rate of 0.724 percent.
- In 2012, the average annual compensation per employee (wages, salaries and employer contributions for pensions, insurance, and government social insurance) was $94,747.
- The U.S. video game industry's value added to U.S. Gross Domestic Product (GDP) was over $6.2 billion.
- The real annual growth rate of the U.S. video game industry was 9.7 percent for the period from 2009-2012. During the same period, real growth for the U.S. economy as a whole was 2.4 percent.

[1] Siwek, Stephen E., *Video Games in the 21st Century: Economic Contributions of the U.S. Entertainment Software Industry*, Entertainment Software Association (2007).
[2] Siwek, Stephen E., *Video Games in the 21st Century: The 2010 Report,* Entertainment Software Association (2010).

# I. Introduction

The U.S. industry that develops and publishes video games creates wholly new forms of entertainment for consumers worldwide. The industry also generates sales in the billions of dollars and creates thousands of American jobs. The U.S. video game industry is, and has been, one of the most rapidly growing industries in the United States. From 2009 through 2012, the video game industry achieved real annual growth of 9.7 percent per year. By comparison, the entire U.S. economy grew by only 2.4 percent per year during the same three-year period.

This publication, *Video Games in the 21st Century: The 2014 Report*, presents a number of statistical measures that quantify the economic contributions of the video game industry from 2009-2012. Many of the statistical measures included in this report were either taken directly from U.S. government sources, such as the U.S. Census Bureau, or were derived using public data from those sources. A basic difficulty that arises when using U.S. government data to assess the video game industry is that many (but not all) of the most relevant statistics measure broader industry groupings, such as software publishing. For this reason, certain estimates presented in this report were derived initially using statistical data for a broader industry grouping than video game software publishing. Subsequently, where possible, these broader measures were adjusted better to reflect the known characteristics of the video game industry.

In addition to government sources, certain information on the number of U.S. game developer and game publisher establishments by state was obtained from a non-government source entitled http://gamedevmap.com. This source, created by Gaurav Mathur, identifies and locates publishers, developers, organizations, mobile/handheld developers, and online developer locations or establishments throughout the world. In this report, the developer locations in the United States were combined with other data sources to estimate the current level of direct employment in the video game software publishing industry on a state-by-state basis.

# II. U.S. Video Games and the Emergence of Apps

In 2013, U.S. retail sales of video and computer games reached $15.4 billion (See Table A-1). U.S. consumers play video games on game players (usually called consoles) such as the Sony PlayStation 4 and the Microsoft Xbox One, and on personal computers (PCs). Increasingly, U.S. consumers also enjoy video games on mobile video players such as the PlayStation Vita and the Nintendo 3DS. Video games are also played online among multiple players who connect over the Internet and other proprietary online networks. The U.S. video game industry increasingly supports game playing on smart phones.

In recent years, the U.S. video game industry has begun to realize substantial benefits from the development of video game apps in both U.S. and foreign markets. Most apps are used in conjunction with smartphones such as the Apple iPhone.

Consumers typically acquire apps from app stores such as the Apple Apps Store and Google Play. These entities are generally regarded as the two largest sources for apps, each store offering more than 800,000 apps.[3]

In December 2013, Apple announced that customers worldwide had spent more than $10 billion through the App Store.[4] Some apps are available free of charge, while others are paid apps. Video games now dominate the markets for both free and paid apps. In 2012, Canalys Research concluded that games accounted for 145 of the top 300 paid apps in the Apple App Store and 116 of Google Play's top 300 paid apps. With regard to free apps, games accounted for 94 of the top 300 free apps through the Apple Apps Store and 110 of the top 300 free apps through Google Play.[5]

## Table A-1: U.S. Computer and Video Game Sales 2009 – 2013

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Annual Sales (in billions of USD) | $10.1 | $17.1 | $16.7 | $15.2 | $15.4 |
| Annual Percent Change | N/A | 69.3% | -2.3% | -9.0% | 1.3% |
| Compound Annual Percent Change Since 2009 | N/A | 69.3% | 28.6% | 14.6% | 11.1% |

*Source: The NPD Group, Inc. / Retail Tracking Service.*

[3] Mobithinking, http://mobithinking.com/mobile-marketing-tools/latest

[4] Apple, http://www.apple.com/pr/library, *App Store Sales Top $10 Billion in 2013.*

[5] Canalys, "Top 25 U.S. developers account for half of app revenue." Press Release 2012/121, December 2012.

In the same study, Canalys found that 25 top developers accounted for 50 percent of total app revenue earned in the Apple App Store and Google Play. Of particular interest for this study was the related finding by Canalys that 24 of those 25 developers were game developers.[6] These developers included cross-platform game developers and mobile game specialists.

According to industry statistics, U.S. sales of computer and video games have grown from $10.1 billion in 2009 to well over $15.4 billion in 2013.

While the growth of the industry can be clearly seen in private source data, most government statistical references in the United States do not report software game publishing as a separate U.S. industry. In U.S. statistics, software game publishing is typically included within the broader industry category of software publishing. In the North American Industry Classification System (NAICS), the software publishing industry (NAICS 511210) "comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software publishers. These establishments may design, develop, and publish, or publish only."[7]

While U.S. government sources generally do not report separate statistics for the U.S. software game publishing industry, there is at least one exception to that rule. As part of its last detailed census for the years 2002 and 2007, the U.S. Census Bureau provided product line information for individual products and services within the broader category of software publishing. The product line information includes total product line receipts for the years 2002 and 2007. Table A-2 reports the product line receipts for video game software publishing, total publishing, and total software publishing for the years 2002 and 2007. As shown in Table A-2, in 2007, the annual product line receipts of the entertainment software publishing industry were $8.8 billion. This figure reflects an increase of more than 127 percent over 2002 receipts. As shown in the table, the video game software publishing industry reported total receipts in 2002 of only $3.9 billion.

For the broader product line category of application software, receipts in 2007 actually declined by 9.6 percent compared to 2002. The total U.S. software publishing industry achieved product line receipts of $128.9 billion in 2007, an increase of more than 24 percent since 2002.

## Table A-2: Product Line Receipts for U.S. Software Publishing Industries 2002 – 2007

| | 2002 | 2007 | Percent Change |
|---|---|---|---|
| Entertainment Software Publishing | $3,903,938 | $8,879,821 | 127.5% |
| Total Application Software Publishing | $46,747,671 | $42,260,711 | -9.60% |
| Total Software Publishing Industry | $103,505,848 | $128,937,975 | 24.57% |

*Source: U.S. Census Bureau, 2002 and 2007 Economic Census, Information Industry Series: Product Lines by Kind of Business for the United States.*

[6] Canalys, "Top 25 U.S. developers account for half of app revenue." Press Release 2012/121, December 2012.
[7] U.S. Office of Management and Budget, *North American Industry Classification System*, United States, 2002, 511210 – Software Publishing, page 657.

# III. Trends in Software Publishing as a Whole

In this analysis, more current estimates of game software publishing employment and value added are developed by combining government and industry source references. U.S. Census data for the broader software publishing industry represent one of the important sources.

Table B-1 provides information on trends in the U.S. software publishing industry for the years 2005-2012. Annual revenues for the U.S. software industry have grown from $139 billion in 2005 to $161.7 billion in 2013. Gross annual payroll for the U.S. software publishing industry was $40.7 billion in 2009, rising to $50 billion in 2012.

## Table B-1: U.S. Software Publishing Industry 2005 – 2012

| | 2005 | 2006 | 2007 | 2012 |
|---|---|---|---|---|
| Estimated Revenues (in billions of USD) | $139.0 | $145.4 | $156.8 | $161.7 |
| Annual Percent Change | N/A | 4.6% | 7.8% | 3.1% |
| | | | | |
| Gross Annual Payroll (in billions of USD) | $40.7 | $43.5 | $46.2 | $50.0 |
| Percent of Revenue | 29.3% | 29.9% | 29.4% | N/A |

*Source: U.S. Census Bureau, 2012 Service Annual Survey.*

More detailed information on software publishing employment is reported in Table B-2, which shows that total industry employment stood at 362,410 in 2011. In the same year, the software publishing industry reported 7,445 total establishments and 48.68 total employees per establishment. While total software industry employment slightly decreased between 2009 and 2011, industry payroll increased by nearly 10 percent in the same period. Payroll per employee in the software publishing industry rose from $119,663 in 2009 to $134,269 in 2011.

## Table B-2: U.S. Software Publishing Industry 2009 – 2011

| | 2009 | 2011 | Percent Change |
|---|---|---|---|
| Number of Employees | 370,019 | 362,410 | -2.06% |
| Number of Establishments | 7,647 | 7,445 | -2.64% |
| Employees Per Establishment | 48.39 | 48.68 | 0.60% |
| Payroll ($000) | $44,277,614 | $48,660,539 | 9.90% |
| Payroll / Employee | $119,663 | $134,269 | 12.21% |

*Source: U.S. Census Bureau, 2009 and 2011 Economic Census, Information Industry Series: Comparative Statistics for the United States.*

In Table B-3, the software publishing employment data from Table B-2 is disaggregated to illustrate the subset of software industry workers who are employed at firms with 500 or more employees. The data show that for this sub-category, the average number of employees per establishment in firms of 500 or more employees was 121.42 in 2011. For firms with less than 500 employees, the average number of employees per establishment was 19.34.

## Table B-3: U.S. Software Publishing Industry 2011

| | | Total Software Industry | Firms with 500 or More Employees | Firms with Less than 500 Employees |
|---|---|---|---|---|
| Paid Employees | # | 362,410 | 259,831 | 102,579 |
| | % | 100.0% | 71.7% | 28.3% |
| Number of Establishments | # | 7,445 | 2,140 | 5,305 |
| | % | 100.0% | 28.7% | 71.3% |
| Employees Per Establishment | | | 121.42 | 19.34 |

In Tables B-4A and B-4B, one further adjustment is made to estimate the number of software industry employees who work at firms with 0-4 employees. It is necessary to make this adjustment in order to estimate the number of game developers and publishers who similarly work at such firms. The data source used in the next part of this report does not capture video game software locations with fewer than five employees.

Table B-4A identifies the number of software publishing industry employees at firms with 0-4 employees. In 2011, there were 3,783 such employees. These employees are then removed from the overall employee counts. In Table B-4B, a similar calculation is made for software publishing industry establishments at these very small firms. In Table B-4B, the adjusted counts for software industry employees and establishments are then combined to produce a revised estimate of software employees per establishment at firms with less than 1,000 employees. That estimate is 32.49 employees.

## Table B-4A: U.S. Software Publishing Industry Adjustment for Firms with 0–4 Employees

| | Total Software Industry | Firms with Less than 500 Employees |
|---|---|---|
| Paid Employees | 362,410 | 102,579 |
| | 100.0% | 28.3% |
| Less: Employees in Firms with 0–4 Employees | (3,783) | (3,783) |
| Adjusted Employees | 358,627 | 98,796 |

## Table B-4B: U.S. Software Publishing Industry Adjustment for Firms with 0–4 Employees

| | Total Software Industry | Firms with Less than 500 Employees |
|---|---|---|
| Number of Establishments | 7,445 | 5,305 |
| | 100.0% | 71.3% |
| Less: Establishments in Firms With 0–4 Employees | (2,264) | (2,264) |
| Adjusted Establishments | 5,181 | 3,041 |
| Adjusted Employees Per Establishment* | | 32.49 |

** Adjusted Employees from Table B-4A divided by Adjusted Establishments from Table B-4B.*

The software publishing information presented here will be used in the analysis of the entertainment software industry that is described in the next section of this report. However, these calculations clearly indicate that in the U.S. software publishing industry, the average number of employees per establishment has remained quite stable since the original report.

Similarly, the current estimate of 32.49 software employees per establishment at firms with less than 500 employees aligns closely with the previous estimate of 32.98 employees.

In this analysis, it is assumed that the averages for software employees per establishment described above can be used to estimate video game software employees per establishment as well. In other words, the average number of employees per establishment in the video game software development *subset* of the broader industry is not appreciably different from what is observed in the rest of the software publishing industry. With this assumption in hand, video game software employment based on the number of video game software establishments (or locations) that now exist in the United States can be derived. There is some limited evidence from public data that the average number of employees per establishment in the video game industry does not differ significantly from the average number of employees per establishment in the software publishing industry as a whole.

For one example, Activision Blizzard is one of the largest video game developers in the world. The company currently employs 6,790 workers worldwide.[8] On its website, Activision Blizzard lists all of its corporate locations, including corporate offices, sales offices, studios, and manufacturing facilities. In total, the company publically reports 53 locations worldwide. Dividing Activision Blizzard's employee count by the company's reported locations yields an employee per location average of 128.1 employees. This figure is consistent with the software publishing average of 121.42 employees per location reported previously in Table B-3.

[8] Macroaxis, http://www.macroaxis.com/invest/ratio/ATV--Number%20of%20Employees.

# IV. U.S. Employment in Game Publishing and Development

Employees in the U.S. video game industry may work in small game developer shops or in large game publishing companies with thousands of employees. They may be employed as programmers, arts and animation specialists, game designers, game production experts, quality assurance personnel, audio specialists, legal staff members, or business and marketing personnel. Developers may specialize in games for specific types of platforms including mobile, handheld, and online media.

In the video game industry, websites are available that list the names and locations of publisher and developer establishments both in the United States and abroad. One of these websites, http://gamedevmap.com, provides publisher and developer locations by city and state. Locations are also provided for publisher/developers and for developers specializing in mobile, handheld, or online games. In this study, the U.S.-based publisher and developer locations listed in gamedevmap.com were used to estimate the number of computer and video game establishments by type of establishment and the number of workers now employed in the industry by state and for the U.S. as a whole.

The data in gamedevmap.com provides separate listings for game publisher and game publisher/developer locations. As show in Table C-1, in the United States there are at least 58 game publisher locations and 60 publisher/developer locations for a total of 118 locations or establishments in the publisher group. These 118 publisher establishments were located in 18 states.

## Table C-1: U.S. Publisher and Developer/Publisher Counts by State

| Number of States | Number of Publisher Locations | Number of Developer/ Publisher Locations | Total Developer/ Publisher Locations |
|---|---|---|---|
| 18 | 58 | 60 | 118 |

*Source: http://gamedevmap.com, pulled June 5, 2014.*

The data in gamedevmap.com also includeds listings for game developer locations by type of developer. As reported in Table C-2, there were 533 non-specialized developer locations, 147 mobile and handheld developer locations, and 188 online developer locations, for a total of 868 locations or establishments in the developer group. These 868 developer estimates were located in 36 separate states.

## Table C-2: U.S. Developer, Mobile/Handheld, and Online Developer Counts by State

| Number of States | Number of Developer Locations | Number of Mobile & Handheld Locations | Number of Online Developer Locations | Total Developer Locations |
|---|---|---|---|---|
| 36 | 533 | 147 | 188 | 868 |

*Source: http://gamedevmap.com, pulled June 5, 2014.*

One of the principal reasons for tabulating the publisher and developer counts by location in Table C-1 and Table C-2 was to estimate total game industry employment by state and for the U.S. as a whole. Recall that Table B-3 calculated the number of employees per establishment for large and smaller firms in the software publishing industry as a whole. For software firms with less than 500 employees, the average number of employees per establishment was 19.34.

In this analysis, the average number of employees per establishment in the video game publishing subset of the software publishing industry is not appreciably different from what is observed in the rest of the software publishing industry. In the video game publishing industry, game publisher firms would typically employ at least 500 U.S. workers in total, while game developer firms would generally employ fewer than 500 U.S. employees.

When the game publisher and developer location data are combined with the employment data for the software publishing industry, it is possible to derive estimates of entertainment software publisher and developer employment by location. The U.S. total employment figures are shown in Table C-3.

## Table C-3: U.S. Entertainment Software Industry Direct Employment By State

| Number of States | Employees in Publisher Group | Employees in Developers Group | Total Direct Employees |
|---|---|---|---|
| 36 | 14,327.1 | 28,199.6 | 42,526.7 |

*Note: Publisher Group includes Publishers, and Developer & Publishers; Developer Group includes Developers, Online Developers, and Mobile / Handhelds.*
*Employee data is calculated using Net Employees per Establishment with less than 500 employees for Developer Group (32.49) and Net Employees per Establishment with more than 500 employees for Publishing Group (121.42). See Tables B-3, B-5B.*
*Source: http://gamedevmap.com, pulled June 5, 2014.*

As reported in Table C-3, there are now at least 42,526.7 workers directly employed at entertainment software publisher and developer locations in the United States. Of this total, 14,327.1 workers are directly employed at game publishing companies while 28,199.6 people now work directly for U.S.-located game developer firms.

## Table C-4: Comparison of Employee Shares Per State – Top Seven States

| | Employees Per State Current Report | | Employees Per State Prior Report |
|---|---|---|---|
| State | Number | Percent | |
| California | 17,608 | 41.40% | 41.27% |
| Texas | 4,926 | 11.58% | 10.47% |
| Washington | 3,887 | 9.14% | 9.45% |
| New York | 2,603 | 6.12% | 5.22% |
| Massachusetts | 1,258 | 2.96% | 4.10% |
| Florida | 1,250 | 2.94% | 3.63% |
| Illinois | 1,120 | 2.63% | -- |
| Subtotal | 32,652 | 76.78% | 74.13% |
| Total All States | 42,527 | | 31,598 |

The employee data shown in Table C-4 can also be disaggregated on a state-by-state basis. The total number of workers directly employed at video game publisher and developer firms in the industries' top seven states is shown in Table C-4. The states of California, Texas, Washington, New York, Massachusetts, Florida, and Illinois collectively employ 32,652 workers, or 76 percent of the total direct employment for the U.S. video game industry as a whole.

In Table C-4, the employee percentages previously calculated for the top six states in the 2009 report. In that report, approximately 74 percent of all video game industry employees were located in the top six states. These figures confirm that, as a general matter, the top six states continue to employee nearly three quarters of the total entertainment software employees for the country as a whole.

In Table C-5, the employee total for all states that was previously reported in Table C-3 is adjusted upward by 1.05 percent. This adjustment is needed because, as noted earlier, the publisher and developer locations used in the state-by-state analysis did not extend to establishments with fewer than five employees. In Table C-5, data from the software publishing industry are used to estimate the number of entertainment software workers who were employed in small establishments with five or fewer employees. On the basis of this calculation, the total direct U.S. employment for the video game publishing industry rises from 42,527 to 42,975 workers.

## Table C-5: Total Direct Employment at U.S. Video Game Publisher/Developer Establishments – 2011

| | | |
|---|---|---|
| I. | Video Game Publisher/Developer Employees At Establishments with 5 or More Employees* | 42,527 |
| II. | Software Publishers Employees At Establishments with Less than 5 Employees Divided by Software Employees At Establishments with 5 or More Employees** | 3,783/358,627 |
| | | = 1.05% |
| III. | Apply to Video Game Publisher/Developer Employees | = 449 |
| IV. | Total Video Game Publisher/Developer Employees at All Establishments Row I Plus Row II | = 42,975 |

** Table C-3.*
*** Table B-5A.*

The employment figures presented in these tables refer to employees who work directly for entertainment software developers and publishers. However, any estimate of the number of workers who are directly employed in a given industry will not capture the full impact of that industry on the economy as a whole. The U.S. economy functions as an interlocking system where changes in supply and demand for one industry affect supply and demand in other industries as well.

The U.S. video game industry creates products that combine the skills of the industry's employees with other inputs of goods and services that are purchased from other industries. For example, a game developer may need to acquire a specific type of graphic design software from another firm in order to produce the game under development. Revenue from that purchase can be used to compensate employees at the firm that makes the graphic design software product. There would also be similar linkages to suppliers of the graphic design software firm and further linkages from those suppliers and on through the economy.

The U.S. government has developed a widely accepted mathematical model, known as the Regional Input-Output Modeling System that uses input-output relationships throughout the economy to capture these interlocking affects. The input-output relationships are industry specific and take the form of multipliers. In this analysis, employment multipliers for the software publishing industry were obtained from the U.S. Bureau of Economic Analysis (BEA) for all states where video game industry employment had been located. These multipliers were applied to the direct video game industry employee counts on a state-by-state basis. The weighted average multiplier across all states was 3.4445. As shown in Table C-6, these calculations suggest that, in 2011, the total direct and indirect employment for the U.S. entertainment software industry as a whole was 146,482 people.

## Table C-6: U.S. Entertainment Software Industry Direct and Indirect Employment by State

| Number of States | Total Direct Employment | Total Direct + Indirect Employment |
|---|---|---|
| 36 | 42,527 | 146,482 |

# V. Employment Growth Since 2009

As noted above, U.S. government sources do not generally report separate statistics for the U.S. entertainment software publishing industry. For this reason, there are no government reports that track the industry's annual growth over time. However, given the statistics that are available, the video game industry's growth since 2009 is undeniable.

Table D-1 compares the entertainment software industry employment data developed in this report with comparable employment figures derived in the 2009 study. As shown in Table D-1, direct employment in the video game industry rose from 31,598 in 2009 to 42,527 in 2011. Note that both of these figures exclude industry workers who were employed at establishments with fewer than five employees. The total number of game publisher and developer locations has also increased from 708 to 986 locations over the same period. Since industry employment and locations both increased substantially, employees per location declined slightly, from 44.63 employees to 43.13 employees.

## Table D-1: Estimate of U.S. Video Game Industry Employment (2009 – 2011)

| | 2011 | 2009 |
|---|---|---|
| U.S. Video Game Industry Estimates Establishments with 5 or More Employees | | |
| Employees* | 42,527 | 31,598 |
| Locations** | 986 | 708 |
| Employees/Location | 43.13 | 44.63 |

** See Table Nos. C-3.*
*** See Table Nos. C-1, C-2.*

Table D-2 is the total direct employment in the video game industry for all workers (including workers at establishments with fewer than five employees) for the years 2009 and 2012. These figures are used to calculate the compound annual growth rate in direct employment that the industry achieved over the period 2009 through 2012. That growth rate was nine percent per year. By contrast, in the initial report, it was estimated that the industry's annual growth rate in employment was only 4.44 percent over the period from 2002 through 2006.

## Table D-2: Growth in U.S. Video Game Industry's Direct Employment (2009 – 2012)

| | |
|---|---|
| **2009** | 33,140 |
| **2012** | 42,975 |

**Compound Annual Growth Rate = 9.0%**

In order to put the entertainment software industry's employment growth rate into perspective, it can be compared to the employment growth achieved by the broader U.S. software publishing industry for the same time period. According to the U.S. Bureau of Labor Statistics, total employment in all of software publishing increased from 257,700 in 2009 to 287,100 in 2012, an annual growth rate of 3.67 percent.[9] During these years total U.S. employment increased at a rate of 0.724 percent annually.

The growth rate observed in direct employment for the video game industry can also be compared to employment trends in other U.S. industries. For example, as shown in Table D-3, direct employment in a variety of U.S. industries either declined or increased by less than 5 percent annually during the period from 2009-2012. Employment growth in the following U.S. industries was negative in this time frame: computer and related manufacturing, newspaper publishing, textile mill manufacturing, and chemical manufacturing. During the same period, the following industries experienced employment growth at a rate of less than one percent per year: advertising and related services, aerospace products, and parts and food manufacturing.

## Table D-3: Employment Trends in Other Industries 2009 – 2012 (000)

| Industry | NAICS | 2009 Employment | 2012 Employment | Annual Growth Rate |
|---|---|---|---|---|
| Advertising and related services | 5418 | 421.6 | 433.8 | 0.96% |
| Custom computer programming services | 541511 | 615.0 | 701.7 | 4.49% |
| Computer and related manufacturing | 334 | 1,136.9 | 1,089.0 | -1.42% |
| Aerospace products and parts | 3364 | 492.2 | 498.6 | 0.43% |
| Newspaper publishing | 51111 | 276.7 | 224.8 | -6.69% |
| Food manufacturing | 311 | 1,456.4 | 1,468.8 | 0.28% |
| Textile mill manufacturing | 313 | 124.4 | 118.7 | -1.55% |
| Chemical manufacturing | 325 | 804.1 | 783.3 | -0.87% |

*Source: U.S. Bureau of Labor Statistics, Employment, Hours, and Earnings from the Current Employment Statistics survey (National).*

[9] U.S. Bureau of Labor Statistics, *Employment, Hours and Earnings from the Current Employment Statistics survey (National)*, Software Publishers, NAICS 5112, All Employees.

# VI. Wages and Supplemental Compensation Per Employee

For purposes of measuring the video game industry's contributions to the U.S. economy, it is important to consider measures in addition to the industry's proven ability to create jobs. One such measure is employment compensation. Table E-1 reports the annual value added and compensation levels achieved for all publishing industries in the U.S. economy for the years 2009-2012. This industry grouping (NAICS 511) incorporates all forms of publishing in the U.S., including software publishing (NAICS 5112).

As shown in Table E-1, an industry's value added has three basic components: compensation, taxes, and gross operating surplus (GOS). In 2012, the value added for the entire U.S. publishing industry group (including software publishing) was $191.5 billion. Of this total, approximately $93 billion (48 percent) consisted of employee compensation.

Employee compensation in turn can be divided into two separate categories. These categories are wages and salaries, and supplements. For the U.S. publishing industries in 2012, about 84 percent ($78.2 billion) of total compensation was paid in the form of wages and salaries. The remaining 16 percent ($14.6 billion) of the total publishing industries' compensation payments came in the form of supplements. Supplements consist of employer contributions for employee pensions and insurance funds and employer contributions for government social insurance.[10]

[10] U.S. Bureau of Economic Analysis, www.bea.gov.

## Table E-1: Value Added and Compensation All Publishing Industries ($ Billion)

| | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| Value Added | $174.9 | $181.5 | $184.7 | $191.5 |
| **Components of Value Added** | | | | |
| Compensation | $82.6 | $82.0 | $87.7 | $92.8 |
| Taxes (various) | $2.9 | $2.9 | $2.9 | $3.0 |
| GOS | $89.4 | $96.7 | $94.0 | $95.7 |
| **Total VA** | **$174.9** | **$181.5** | **$184.7** | **$191.5** |
| **Components of Compensation** | | | | |
| W&S | $67.6 | $68.8 | $73.5 | $78.2 |
| Suppl. | $15.0 | $13.2 | $14.3 | $14.6 |
| **Total Comp** | **$82.6** | **$82.0** | **$87.7** | **$92.8** |
| **Suppl. as % of Wages and Salaries** | **22.2%** | **19.2%** | **19.4%** | **18.7%** |

The figures reported in Table E-1 reflect the total amount of wages and salaries and wage supplements paid to employees in the U.S. publishing industry for the years 2009-2012. In order to assess these figures on a *per employee* basis, it is necessary to divide these values by the number of workers employed in the U.S. publishing industries. The total number of employees in the U.S. publishing industries (including software publishing) is reported, by year, in Table E-2. These employee totals are determined by the U.S. BEA and include both full-time and part-time workers. As shown in Table E-2, the total number of U.S. publishing industry employees declined from 877,000 workers in 2009 to 841,000 in 2012.

## Table E-2: Employment Trends in All Publishing Industries as Per U.S. BEA

| | All Publishing Industries (000) |
|---|---|
| **2009** | 877 |
| **2010** | 837 |
| **2011** | 838 |
| **2012** | 841 |

*Source: U.S. BEA, Gross Domestic Product by Industry Accounts, Full Time and Part Time Employees by Industry, Publishing Industries (includes software).*

The industry values for employee wages and salaries from Table E-1 can be divided by the employee counts in Table E-2 in order to measure wages and salaries on a per employee basis. These calculations are provided in Table E-3. For the U.S. publishing industries as a whole, annual wages and salaries per employee rose from $77,075 in 2009 to $92,927 in 2012. The publishing industries' wage increases in 2012 followed earlier increases in employee wages and salaries in previous years.

## Table E-3: Wages + Salaries per Employee in All Publishing Industries

| | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| W+S ($ Billions) | $67.6 | $68.8 | $73.5 | $78.2 |
| Employees (000) | 877 | 837 | 838 | 841 |
| (W+S) / Employees | $77,075 | $82,162 | $87,653 | $92,927 |

The wage and salary estimates in Table E-3 reflect average wages for the entire U.S. publishing industry, including software publishing. However, the government sources used to compile these figures do not separately report wages and salaries solely for the U.S. video game industry. Accordingly, in this study, an alternative source was used to measure the annual wages paid by video game software developer firms. The wage data used in this study were derived from public information that was originally reported in *Game Developer Salary Reports* for the relevant years. The *Game Developer Salary Reports* are compiled and published by Game Developer Research.

For the year 2009, the national average game developer salary, as determined in the *Game Developer Salary Reports*, was reported as $75,573. In 2011, the average wage paid to game developers in the United States rose to $75,984 per year. By 2012, wages increased even further to a level of $79,800. These national averages are reported in Table E-4.

In addition to the national average developer wage by year, Table E-4 also contains estimates of the annual wages that were paid to developers in the first, fifth, and tenth highest paying states in each year studied. These data were developed by calculating the ratios of developer wages in each top 10 state to the average developer wage nationally. These ratios were then applied to the national average developer wage for the years 2009, 2011, and 2012. It should be noted that these wage figures combine wage and salary data for seven separate video game disciplines. These disciplines are: visual arts, programming, game design, audio, production, quality assurance, and business and legal.[11] As shown in Table E-4, the average annual wage paid to game developer employees in the top ranked U.S. state was $93,696 in 2012. By contrast, in the tenth ranked state, the average annual wage paid to game developer employees was only $67,136.

[11] Game Developer Research, *The Game Developer Salary Report 2004-2007*, page 44-47.

## Table E-4: Approximate Wages + Salaries for Computer and Video Game Developer Employees

| Ranked State | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| 1st | $82,223 | -- | $86,772 | $93,696 |
| 5th | $74,364 | -- | $71,288 | $78,567 |
| 10th | $70,132 | -- | $69,891 | $67,136 |
| | | | | |
| Simple Average | $75,573 | -- | $75,984 | $79,800 |

*Source: Game Developer Research, Press Releases, Game Developer Salary Reports 2011, 2012, 2013 and 2014.*

The data in Table E-4 reflects average wages and salaries only. These data do not include the various forms of earnings supplements that are also used to measure total compensation in the U.S. national accounts. For that reason, it is necessary in this study to estimate the supplements that should be added to the average industry wage and salary figures that were shown in Table E-4. This calculation is provided in Table E-5.

In Table E-5, the average game developer wage figures from Table E-4 are adjusted to reflect the estimated payment of employee supplements beyond wages and salaries. As noted earlier in this report, supplements consist of employer contributions for employee pensions and insurance funds and employer contributions for government social insurance.[12]

The estimated supplement payments shown in Table E-5 are based on the reported supplements that are paid to employees in all U.S. publishing industries, including the software publishing industry. The supplement percentages that are used in Table E-5 were originally derived in Table E-1.

## Table E-5: Total Compensation per Employee for Video Game Developer Employees

| | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| Average Wages+Salaries | $75,573 | -- | $75,984 | $79,800 |
| Supplement Percentage (Table E-1) | 22.19% | 19.18% | 19.42% | 18.73% |
| Supplement to Wages+Salaries | $16,772 | -- | $14,753 | $14,948 |
| | | | | |
| Total Compensation per Employee | $92,345 | -- | $90,737 | $94,747 |

As shown in Table E-5, in 2009, the average compensation paid to employees in the U.S. video game software development industry was estimated at $92,345. By 2012, average compensation (including supplements) paid to game developers had risen to $94,747.

[12] U.S. Bureau of Economic Analysis, www.bea.gov. *Glossary.*

# VII. Industry Compensation and Value Added to U.S. GDP

In this section of the report, the estimated number of entertainment software employees from Table D-2 is combined with the figures for compensation per employee from Table E-5 in order to derive total compensation for the U.S. entertainment software industry as a whole. These calculations are reported in Table F-1.

## Table F-1: U.S. Entertainment Software – Compensation by Year

| | Number of Employees* | Compensation per Employee** | Total Compensation |
|---|---|---|---|
| 2009 | 33,140 | $92,345 | $3,060,297,235 |
| 2012 | 42,975 | $94,747 | $4,071,794,275 |

** Table D-2.*
*** Table E-5.*

As shown in Table F-1, the total compensation paid out by the U.S. entertainment software industry in 2009 was $3.060 billion. By 2012, the total compensation paid out by the U.S. entertainment software industry increased to $4.071 billion, an increase of 33 percent since 2009. This increase in industry compensation is driven by the rapid job growth experienced in the industry during this four-year period.

In earlier sections of this study, employee counts for the game software publishing industry were derived separately for game publishing and game development groups. As noted in Table C-3, these estimates were 14,327 direct employees in the U.S. publisher group and 28,200 direct employees in the U.S. developer group. In this study, it is assumed that U.S. employees in these two groups do not receive equal compensation for their work. In Table F-2, weighting factors taken from the broader U.S. software publishing industry are used to derive average employee compensation levels for video game software employees in each of these two employee groups.

In Table F-2, the average compensation levels for employees in the entertainment software publishing and developer groups are estimated using two equations with two unknown values. The first equation uses employee counts for the two groups to weight the unknown values of P for publisher and D for developer. These two unknowns, as weighted, are then set equal to $3.899 billion, the total video game software employee compensation estimated for 2011.[13] The second equation uses data for the software publishing industry as a whole to measure the relationship between the publishing group payroll per employee and the developer group payroll per employee. As shown in Section III of Table F-2, these two equations can then be solved for P and D.

The solutions for the equations in Table F-2 are as follows: average compensation per employee – video game software publishing group = $113,236 per employee. Average compensation per employee – video game software developer group = $79,306 per employee. These values are used in the subsequent tables in this section of the report.

## Table F-2: U.S. Video Game software – Compensation Per Employee by Group

| | | | (Pub) | (Dev) |
|---|---|---|---|---|
| I. | Employees (5 or more per firm)* | | 14,327 | 28,200 |
| | Employees (1-4 per firm)** + | | 151 | 297 |
| | Total Employees | | 14,478 | 28,497 |
| II. | Software Publishing: | | | |
| | Payroll (000) | | $38,120,432 | $10,540,107 |
| | Employeess*** ÷ | | 259,831 | 102,579 |
| | Payroll Per Employee | | $146,712 | $102,751 |
| | | | Pub = $146,712 / $102,751 Dev | |
| | | | Pub = | 1.428 Dev |
| III. | 1 | 14,478 (P) + 28,497 (D) = | $3,899,451,905 | 20672.67506 a |
| | 2 | (P) = | 1.428 (D) | 49,170 b |
| | | (P) = | $113,236.41 | $79,305.96 D |
| | | (D) = | $79,305.96 | |

** See Table C-3.*
***Allocated on the basis of 5 or more per firm breakdown.*
**** See Tables B-2, B-3A.*
*Note: The $3,899,451,905 number is used for 2011, not for 2012.*

In this study, it is estimated that 14,327 workers were employed by the publisher group firms in the U.S. video game industry in 2011. Using the employee compensation data from Table F-2, it can now be estimated that the total compensation paid to these direct workers was $1.622 billion in 2011 (See Table F-3A).

[13] See Table C-3.

## Table F-3A: U.S. Entertainment Software – Direct Compensation by Group for State Publishing Group

| Number of States | Number of Employees | Compensation per Employee | Total Direct Compensation |
|---|---|---|---|
| 36 | 14,327.1 | $113,236 | $1,622,352,810 |

*Table C-3.*
*Table F-2.*

It is estimated that 28,200 workers were employed by the developer group firms in the U.S. video game industry in 2011.[14] Using the employee compensation data from Table F-2, the estimated compensation paid to these direct workers was $2.236 billion in 2011 (See Table F-3B).

## Table F-3B: U.S. Entertainment Software – Direct Compensation by Group for State Developer Group

| Number of States | Number of Employees | Compensation per Employee | Total Direct Compensation |
|---|---|---|---|
| 36 | 28,200 | $79,306 | $2,236,394,847 |

*Table C-3.*
*Table F-2.*

In Table F-4, the estimates for the publishing and developer groups are combined into a single value to reflect the total compensation paid to all direct employees of the U.S. entertainment software industry in 2012. As shown in Table F-4, that value was $3.859 billion.

## Table F-4: U.S. Entertainment Software – Direct Compensation for Employees Located by State

| Number of States | Total Direct Compensation Game Publishers | Total Direct Compensation Game Developers | Total Direct Compensation Publishers & Developers Combined |
|---|---|---|---|
| 36 | $1,622,352,810 | $2,236,394,847 | $3,858,747,657 |

**Note: Omits direct compensation for industry employees whose location could not be identified.*

[14] See Table C-3.

The direct compensation value of $3.859 billion shown in Table F-4 does not reflect the total compensation paid to all U.S. workers in the U.S. entertainment software industry. As noted earlier in this report, an industry's direct employment does not capture the full impact of that industry on the U.S. economy as a whole. Direct employment counts omit any recognition that other input industries labored to make and sell intermediate products and services that ultimately were used to create the basic product at issue.

Earlier in this report, in Table C-6, a mathematical model that is developed and maintained by the U.S. BEA was used to measure the number of indirect employees that benefit from the demand for U.S. entertainment software products. That model suggested that the total number of U.S. entertainment software publishing employees (both direct and indirect) was in excess of 146,000 workers in 2012.

In Table F-5, the same model is used to estimate the total compensation paid to both direct and indirect employees of the U.S. entertainment software industry in 2012. As shown in Table F-5, that figure was $7.658 billion.

## Table F-5: U.S. Entertainment Software – Total (Direct & Indirect) Compensation for Employees Located by State

| Number of States | Total Direct Compensation | Total (Direct and Indirect) Compensation* |
|---|---|---|
| 36 | $3,858,747,657 | $7,658,070,600 |

** Reflects a weighted average direct-effects multiplier of 1.9846.*

As shown previously in Table E-1, employee compensation is one of three components that make up an industry's value added. An industry's value added is the: **"contribution of industries to the Nation's output, or gross domestic product (GDP). An industry's value added is equal to its *gross output* (which consists of sales or receipts and other operating income, commodity taxes, and inventory change) *minus its intermediate inputs* (which consist of energy, raw materials, semi-finished goods, and services that are purchased from domestic industries or from foreign sources). The three primary components of value added are an industry's return to domestic labor (compensation of employees), its return to government *(taxes on production and imports less subsidies)*, and its return to domestic capital *(gross operating surplus)*."**[15] (Emphasis Added)

In this study, a goal is to measure the value added to the U.S. economy by the U.S. video game industry. The first component of value added is employee compensation. As shown in Table F-1, the total compensation paid to employees of the U.S. video game industry was $4.071 billion in 2012. In Tables F-6, the other two components of value added for the U.S. entertainment software industry are measured.

[15] U.S. Bureau of Economic Analysis, *Gross Domestic Product by Industry Accounts,* Guide, Value Added by Industry.

Table F-6 has the estimated production taxes and GOS for the U.S. entertainment software industry for the years 2009 and 2012. The estimates rely on total U.S. publishing industry values that were previously reported in Table E-1. The values from Table E-1 are used to derive ratios of tax to compensation and GOS to compensation for the U.S. publishing industries as a whole. These ratios are shown as percentages in Table F-6. The total compensation figures for the video game industry in 2009 and 2012 are then multiplied by these ratios for the same years. These calculations yield estimates by year of the production taxes and GOS earned in the entertainment software industry in each year studied.

## Table F-6: U.S. Video Game Industry – Other Components of Value Added

| | 2009 | 2012 |
|---|---|---|
| **Taxes on Production and Imports (all subsidies)** | | |
| Compensation | $3,060,297,235 | $4,071,794,275 |
| Tax as Percent of Compensation | 3.509% | 3.226% |
| Taxes on Production and Imports | $107,374,950 | $131,336,878 |
| **Gross Operating Surplus** | | |
| Compensation | $3,060,297,235 | $4,071,794,275 |
| GOS as Percent of Compensation | 51.11% | 49.98% |
| GOS | $1,564,176,809 | $2,035,067,851 |

Table F-7 contains the combined results from Table F-6 with the industry compensation figures first reported in Table F-1. These figures are combined in order to derive the value added by the video game industry to U.S. GDP for the years 2009 and 2012. As shown in Table F-7, the total video game industry value added rose from $4.7 billion in 2009 to $6.2 billion in 2012.

## Table F-7: U.S. Video Game Industry – Direct Value Added to GDP ($ Million)

| | 2009 | 2012 |
|---|---|---|
| Compensation* | $3,060,297,235.2 | $4,071,794,274.9 |
| Taxes | $107,374,950.21 | $131,336,878.20 |
| GOS | $1,564,176,808.7 | $2,035,067,851.4 |
| **Value Added** | $4,731,848,994.1 | $6,238,199,004.5 |

**Table F-1.*

Table F-8 reports the value assets for the entire U.S. information sector as a whole. The U.S. information sector (NAICS 51) includes all U.S. publishing industries (including software publishing) plus the U.S. motion picture, recorded music, broadcasting, Internet publishing, telecommunications, and web search portal industries. As shown in Table F-8, these industries, in aggregate, generated $776.7 billion in current dollar value added to the U.S. economy in 2012.

Table F-8 also provides the value added by the U.S. information sector in real terms. These data are converted to real terms because time trends that are reported using current dollar figures are frequently misleading. Current dollar figures track value added in nominal terms. Over time, these figures combine changes in real economic growth with changes driven solely by inflation-induced price increases. Accordingly, economists generally prefer to review trend data on value added in real or inflation adjusted terms. As shown in Table F-8, this conversion slightly increases the value added for the video game industry for the U.S. information sector for period 2009-2012. The ratio of real to current dollar value added shown in Table F-8 is used subsequently in this report to estimate value added for the U.S. entertainment software industry in real terms.

## Table F-8: U.S. Information Sector – Value Added in Billons of Current and Real (2009) Dollars

| | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| Value Added – Current Dollars | $701,454 | $724,202 | $741,325 | $776,740 |
| Value Added – Real 2009 Dollars | $701,454 | $729,323 | $745,260 | $777,737 |
| Ratio of Real VA to Current VA | 1.000 | 1.007 | 1.005 | 1.001 |

*Value added data for U.S. Information Sector, NAICS 51.*
**Source: U.S. Bureau of Economic Analysis, Value Added by Industry, release date April 25, 2014.*

Table F-9 reports employee compensation figures for the U.S. information sector for the years 2011 and 2012. In this sector, the ratio of employee compensation in 2011 to employee compensation in 2012 was .9315.

## Table F-9: U.S. Information Sector – Compensation of Employees in Billions of Current Dollars

| | 2011 | 2012 | Ratio of 2011 over 2012 |
|---|---|---|---|
| Compensation of Employees in U.S. Information Sector | $432.5 | $464.3 | 0.9315 |

**Source: U.S. Bureau of Economic Analysis, State Personal Income,* SA06N Compensation of Employees by NAICS Industry, United States.

Table F-10 presents value added figures for the U.S. video game industry for the years 2009 and 2012. These estimates are shown in both current dollar and real 2009 dollar terms. The current dollar figures for 2009 and 2012 were reported previously in Table F-7. The real 2009 dollar values for the game industry in Table F-10 were calculated on the basis of the ratios reported in Table F-8.

As shown in Table F-10, real value added for the video game industry grew at a rate of 9.7 percent for the years 2009-2012.

## Table F-10: U.S. Video Game Industry – Value Added and Annual Growth Rate

| | 2009 | 2012 |
|---|---|---|
| Value Added – Current Dollars | $4,731,848,994.1 | $6,238,199,004.5 |
| Value Added – Real 2009 Dollars | $4,731,848,994.14 | $6,246,206,168.27 |
| Real Annual Growth Rates | 2009 – 2012 | |
| | 9.7% | |

*Value added (current dollars) for 2009 and 2012 from Table F-7.*
*Value Added (current dollars) for 2012 calculated as 2009 value times ratio of 2012/2009 U.S. Employee Compensation in U.S. Information Sector. See Table F-9.*
*Value Added (real 2009 dollars) calculated as current dollar value times ratio of real to current dollar value added in U.S. Information Sector. See Table F-8.*

Table F-11 compares the video game industry to U.S. Information Sector as a whole. As shown in Table F-11, the information sector's share of U.S. GDP grew substantially from 2009-2012.

## Table F-11: U.S. Video Game Industry Value Added Comparisons

| Year | Video Game Industry ($ Millons - Real 2009 Dollars) | Information Sector ($ Millons - Real 2009 Dollars) |
|---|---|---|
| 2009 | $4,731.8 | $701,457.0 |
| 2012 | $6,246.2 | $777,730.0 |
| **Growth Rates** | | |
| 2009 – 2012 | 9.7% | 3.5% |

*Values are presented in millions of Real (2009) Dollars.*

Table F-12 compares real growth in the entertainment software industry to real annual growth for the U.S. economy as a whole. As shown in Table F-12, the real annual growth rate of the entertainment software industry for the years 2009-2012, (9.7 percent) was more than two times the annual growth rate reported for the U.S. economy as a whole (4.1 percent) in the same years.

## Table F-12: U.S. Video Game Industry Contribution to Real Growth in U.S. GDP

| Period | Real Annual Growth Video Game Industry Value Added | Real Annual Growth U.S. GDP |
|---|---|---|
| 2009 – 2012 | 9.7% | 2.4% |

*Real US GDP in 2006 chained dollars was $14.42 trillion in 2009 and $15.47 trillion in 2012.*

# VIII. Conclusions

The U.S. video game industry achieved retail sales of $15.2 billion in 2012.

The statistical agencies of the U.S. government do not release detailed information on the U.S. video game industry. The industry classification system used by the U.S. government (NAICS) includes video game software publishing *within* the broader category of all software publishing (NAICS 5112). For this reason, the estimates presented in this report often combine U.S. government and private industry statistics.

On the basis of the calculations described in this report, it is estimated that the U.S. video game industry directly employs more than 42,000 people in 36 states. Of these 42,000 people, at least 14,000 are employed by larger publishing firms, while approximately 28,000 people are employed by smaller developer firms.[16] The total U.S. employment, both direct and indirect, that depends on the video game industry now exceeds 146,000 workers.

Approximately 76 percent of the employees in the U.S. video game software publishing industry are located in one of six states: California, Texas, Washington, New York, Massachusetts, Florida, and Illinois. California is the largest employer of entertainment software personnel, accounting for approximately 41 percent of the total number of employees in the U.S. as a whole.

In 2009, the U.S. video game industry directly employed fewer than 33,000 people. By 2012, with the industry's direct employment at approximately 42,000, industry employment had increased at an annual rate of nine percent. By contrast, in the same period, employment in software publishing as a whole increased from 257,700 in 2009 to 287,100 in 2012, an annual growth rate of 3.6 percent.

In 2012, U.S. video game industry employees received total compensation (including supplements) of $4.071 billion. For the industry as a whole, average compensation per employee from wages, salaries and employer contributions for pensions, insurance and government social insurance was $94,747. In video game publisher or publisher/developer firms, the average compensation per employee was $113,236. In video game developer firms, the average compensation per employee was $79,306.

In 2012, the U.S. video game industry's value added to U.S. GDP was $6.2 billion.

The real annual growth rate achieved by the U.S. video game industry exceeded 9.7 percent for the years 2009 through 2012. During the same years, real growth for the U.S. economy as a whole was only 2.4 percent (2009-2012).

[16] The study estimates that the video game industry also employs approximately 400 employees in very small establishments that could not be identified to a specific state or location.

# Methodological Note

Each year Game Developer Research of San Francisco publishes a detailed compilation of salary and employee compensation trends in the video game industry. These data, which appear in the annual *Game Developer Salary Report*, are based on survey responses provided by Game Developer subscribers, Game Developer Conference attendees, and Gamasutra.com members. In the ESA study, data from the *Game Developer Salary Reports* are combined with employee counts and other information from a variety of sources to estimate total game industry compensation and value added to GDP.

The most recent *Salary Report* considers three separate categories of compensation: annual salaries, additional compensation, and additional benefits.

With respect to annual salaries, the *Report* provides average salaries for seven disciplines within the video game industry. These disciplines are: programmers, artists and animators, game designers, production workers, quality assurance personnel, audio specialists, and business and legal executives. Within each discipline, salary data are disaggregated by years of experience, level of education, age, gender, state, and region.

Note that the salaries published in the *Game Developer Salary Report* do not include many other forms of employee compensation that may be particularly significant for higher level game industry executives. In the *Report,* the following items are identified as forms of additional compensation: annual bonuses, project bonuses, royalties, stock options, profit sharing, and pensions. The *Salary Report* provides estimates of the percentage of workers in each video game discipline who were offered each type of additional compensation during the year. The *Salary Report* also includes data on the average amount of compensation across all types of compensation that was provided to video game workers during the year.

In addition to annual salary and compensation data, the *Salary Report* also provides information on the following types of benefits: medical, dental, 401k and retirement, vision, health club, life insurance, and ESPP. As with the compensation data, the *Report* provides estimates of the percentage of workers in each discipline who were offered each type of benefit during the year.