

**VIDEO GAMES  
IN THE 21ST  
CENTURY:**

# The 2024 Economic Impact Report

# Contents

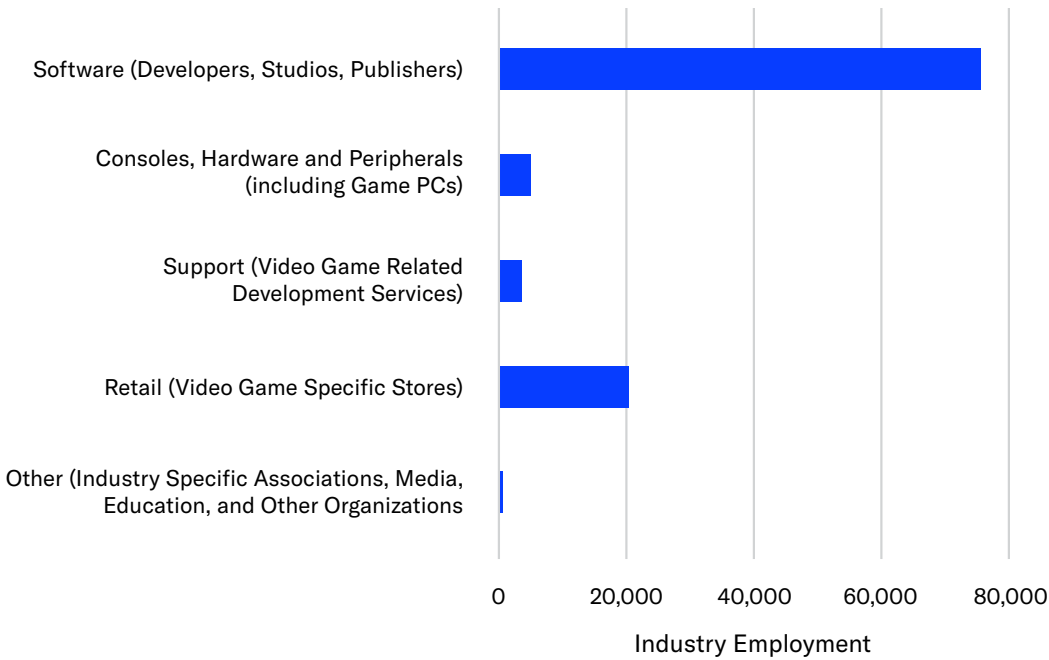
- 4 Executive Summary
- 6 Introduction
- 7 Defining and Measuring the Size of the U.S. Video Game Industry
- 14 Economic Impact of the U.S. Video Game Industry
- 20 Conclusion
- 21 Appendix A
- 33 Appendix B
- 37 Appendix C

# Executive Summary

In 2023, the Entertainment Software Association (ESA) contracted with TEconomy Partners, LLC (TEconomy) to update and perform a detailed economic impact analysis of the U.S. video game industry. This current analysis defines **the U.S. video game industry into five sectors capturing more than 104,000 U.S. employees**, as shown in ES-1. The industry is driven by the development of video game software, which accounts for more than 75,000 of these employees.

**Figure ES-1: U.S. Video Game Industry Employment, by Sector, 2023.**

Source: TEconomy analysis of 2023 U.S. Video Game Industry Database

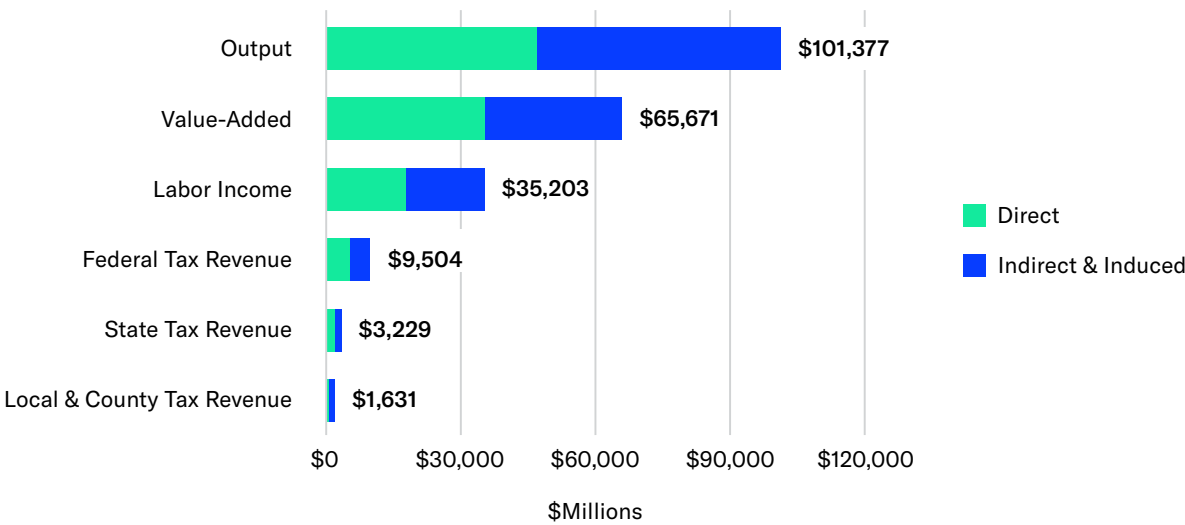


The overall industry, while having a presence in all 50 states, Washington D.C. and Puerto Rico, is highly concentrated in a handful of states. **More than 42% (over 44,000 jobs) are located across the state of California. Washington, Texas, New York and Florida round out the top five states, with these five states accounting for approximately 72% of the industry’s employment.** An increasingly important factor reflected by the U.S. video game industry is the increased use of hybrid (those workers with a specific office location that can work one or more days a week at home) and remote workers (those workers working from home or elsewhere without a defined corporate office). In 2023, these remote workers accounted for 18,000 jobs or 17% of total U.S. industry employment.

**The U.S. video game industry has an outsized economic impact—the industry created and supported more than 350,000 total jobs across the U.S. economy while generating and supporting more than \$101 billion in total economic impacts. Within these economic impacts, the U.S. video game industry contributed nearly \$66 billion to U.S. GDP in 2023.**

**Figure ES-2: Economic Contributions of the U.S. Video Game Industry to the U.S. Economy, 2023.**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023



The labor income impacts (total compensation including salaries, wages and benefits) leads to an average industry compensation of \$168,600, ranging from \$67,500 in the video game retail sector to \$197,800 in the video game software sector.

These economic impacts are generated and supported across all 50 states, Washington, D.C. and Puerto Rico. The top five states for both employment impacts and output impacts are shown in Table ES-1.

**Table ES-1: Top 5 States in Video Game Industry Employment and Economic Impact, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

State	Employment Impacts			Output Impacts (\$ Millions)		
	Intrastate - Direct Effect	Intrastate – Total Impacts	Interstate - Total Impacts	Intrastate - Direct Effect	Intrastate - Total Impacts	Interstate – Total Impacts
California	44,205	126,657	172,150	\$26,097.1	\$44,891.6	\$55,678.0
Washington	10,870	28,424	38,249	\$7,191.6	\$11,436.6	\$13,907.5
Texas	9,437	22,445	29,517	\$2,556.0	\$5,118.6	\$6,578.1
New York	5,730	13,291	17,360	\$2,339.3	\$4,071.2	\$5,035.5
Florida	4,306	10,388	13,669	\$1,105.6	\$2,238.4	\$2,881.6

The substantial employment in the U.S. video game industry, as well as the economic expenditures driven by the industry, are multiplied many times over. The expenditures of industry suppliers, as well as the spending of personal incomes by workers related to and supporting the industry, perpetuate this ripple effect through the economies of the nation and its individual states. This analysis estimates that **the total economic impact generated by the U.S. video game industry is over \$101 billion dollars, and the business activity generated by the industry supports more than 350,000 jobs across the U.S. On average, every job within the U.S. video game industry supports at least 2.36 additional jobs in the national economy.**

# Introduction

In 2020, the Entertainment Software Association (ESA) contracted with TEconomy Partners, LLC (TEconomy) to perform a detailed economic and functional impact analysis of the U.S. video game industry.<sup>1</sup> With the changes in the U.S. and global economy stemming from the pandemic, and curious to understand how these changes may have impacted the industry, ESA once again contracted with TEconomy for an update to the economic analysis. Where the previous public study was focused and built around data from 2019, this current effort examines the state of the industry in 2023, with most company employment data collected between July and October of 2023.

The challenge of this updated study is that over the span of a few years, very little has changed in some respects, while in others, massive changes have occurred. From a broad market perspective, the pandemic lockdown drove a significant increase in video game involvement that continued into 2023. From a business environment perspective, the forced changes in operations due to local, state and national lockdowns had dire effects on many small video game retail and arcade businesses. Delving deeper into this dichotomy drives the interest in this analytical update. This is the starting point for updating the U.S. video game industry database used for this effort.

TEconomy’s experience performing the previous analysis also allowed for and required some changes to the methodology for this updated effort. In general, these changes generated more conservative values from the analytical effort. This updated study also brings more focus to the core industry most reflected in the ESA’s membership. These changes are detailed in Appendix B. It is important to recognize that measuring economic impact relies on models to generate and estimate the economic activities reflective of the employment numbers captured in the industry database. Changes in the employment levels included and captured in the 2023 database will shape the resulting economic impact values.

The net result is an analysis that should be of interest to industry members, policymakers, economic development professionals, the media and other parties who seek to understand and communicate the size, economic impacts and workforce characteristics of this dynamic U.S. industry.<sup>2</sup>

<sup>1</sup> To explore the functional impacts of the U.S. video game industry, Chapter IV of the 2020 study is still highly relevant in highlighting the innovation advancements, wealth generation and application spillover effects of the U.S. video game industry. See: <https://www.theesa.com/wp-content/uploads/2019/02/Video-Games-in-the-21st-Century-2020-Economic-Impact-Report-Final.pdf>.

<sup>2</sup> It should be noted that this effort is designed to capture and estimate the economic impacts of the U.S. video game industry – its game designers, console and hardware manufacturers and the organizations that collaborate with and support the industry. It is not designed to measure or include the economic value or impact of in-game purchases and sales.

# Defining and Measuring the Size of the U.S. Video Game Industry

At the heart of this analysis is the task of developing an estimate of the size and scale of the U.S. video game industry. The industry structure continually evolves through on-going merger and acquisition activities and through entrepreneurs who start new ventures, often via strong teams departing former studios or the emergence of developers to fill a new niche. While major corporations dominate the console and software space, the industry is open to individuals focusing their talents on a personal project that use industry specific e-commerce sites to bring their project to the market.

## Definition of the Video Game Industry

For this study, the **video game industry** is defined to include the following sectors:

- **Video game software firms** (includes developers, studios, developer/publishers and publishers that release games for use with console systems, personal computing devices, tablets and mobile phones, as well as software accessed online).<sup>3</sup> The distribution of physical software (e.g., game cartridges or disks) are also included in this sector.
- **Video game consoles, hardware and peripherals firms** (includes consoles, gaming-specific PCs, core processor technologies and gaming-specific peripherals such as game controllers, joysticks, headphones, gaming keyboards, etc.). Console, hardware and peripheral distribution activities are also included in this sector.<sup>4</sup>
- **Video game-related support services and activities** including artistic, graphic and audio support firms, firms specializing in in-game marketing and monetization technologies and associated interactive media and streaming platforms such as Twitch and PlayVS.
- **Video game specific retail outlets** focused on selling video games, consoles, hardware and peripherals. Notable physical examples include GameStop, RazerStore and the Nintendo Store in New York City. This sector also includes the e-Commerce activities of Steam (Valve Corporation) and similar platforms.
- **Other** distinct, but video game specific, activities (e.g., marketing or PR firms focused on the video game industry; specialized education providers related to the development of video games; trade and business associations).

<sup>3</sup> Typically, developers are responsible for a creating video game and publishers are responsible for the marketing, sales and PR of the game. Developers may be internal to the publishing company or an external/independent company.

<sup>4</sup> It is often difficult to discern specific U.S.-based console/hardware employment from the major combined console and software firms. Corporate databases often classify these establishments under software industry codes since much of their revenue comes from software (video game other non-video game software) sales, likely limiting the console, hardware and peripherals employment.

## Building the Industry Records Database

Similar to the previous TEconomy study, [the underlying data for the analysis was developed by compiling a database of companies and locations from multiple data resources](#), building upon the previous efforts but once again accessing game industry databases, websites, e-commerce sites and other publicly accessible industry data resources, as well as proprietary data resources and market research reports.

Drawing from the experience of previous studies and through discussion with ESA staff, some changes were made to the methodology and approach used to create the 2023 industry database. These changes include:

1. Removal of firms with no visible active or updated presence on websites or social media since the previous data development efforts.
2. Removal of establishments primarily involved in video gambling.
3. Removal of establishments operating video game arcades.
4. Eliminated efforts to capture employment shares of broad department stores or other large multiline “big box” retail establishments.
5. Elimination of entities primarily involved in branding and marketing “gamification” services.
6. Focusing efforts to develop site specific employment estimates and to capture the extended remote workforce for many U.S. video game industry firms.
7. Reduced reliance on corporate data providers for very small firms.
8. Improved approach to estimating the video game-related employment for diversified companies and electronic component suppliers in the Consoles, Hardware and Peripherals sector.

Per this last point, the task of assembling this industry database is complicated by the fact that many companies with a major influence in the video game industry have diversified business models that extend well into non-game industries. Companies such as Microsoft, Sony and NVIDIA, for example, are central players in the video game industry, yet have extensive business activities unrelated to video games. The development of the video game industry database has taken this into account and focuses on identification of the portion of these diversified businesses that are video game related. The primary resources used in developing the database are listed in Appendix B.

## Size of the U.S. Video Game Industry

Table 1 and Figure 1 provide summaries of the records and employment data captured within the 2023 U.S. video game industry database, showing the overall industry to be [a significant U.S. employer with 104,080 direct jobs](#).<sup>5</sup> Nearly 5,700 U.S. video game industry records (consisting of both address-specific records and state-specific records capturing remote workers) were identified.

The largest sector of the U.S. video game industry is game-related software, accounting for more than 75,300 U.S. employees and more than 72% of the total industry employment. This employment includes

<sup>5</sup> While every effort was made, within the resources available for this project, to identify establishments and their employment involved in the U.S. video game industry, the data most assuredly has not identified and captured all players in the industry due to the incomplete nature or vagaries in the source data. In this regard, the economic impacts derived from the data included in the U.S. video game industry database are seen as conservative in nature.

nearly 36,000 employees working within studios, independent developer teams or home offices across the country. An additional 32,000 workers are part of developer/publisher operations, including captive studio operations and significant publishing and marketing functions.

Distinct publishing operations, including Activision Publishing and NetEase among others, account for an additional 3,700 industry jobs. Key tools, such as standalone video game engine companies and graphics software companies, make up the development tools subsector and account for more than 2,400 jobs within the U.S. video game industry. Lastly, the more than 900 employees in the “software – other” subsector consists of various entities supporting the overall software sector including specific video game distribution activities.

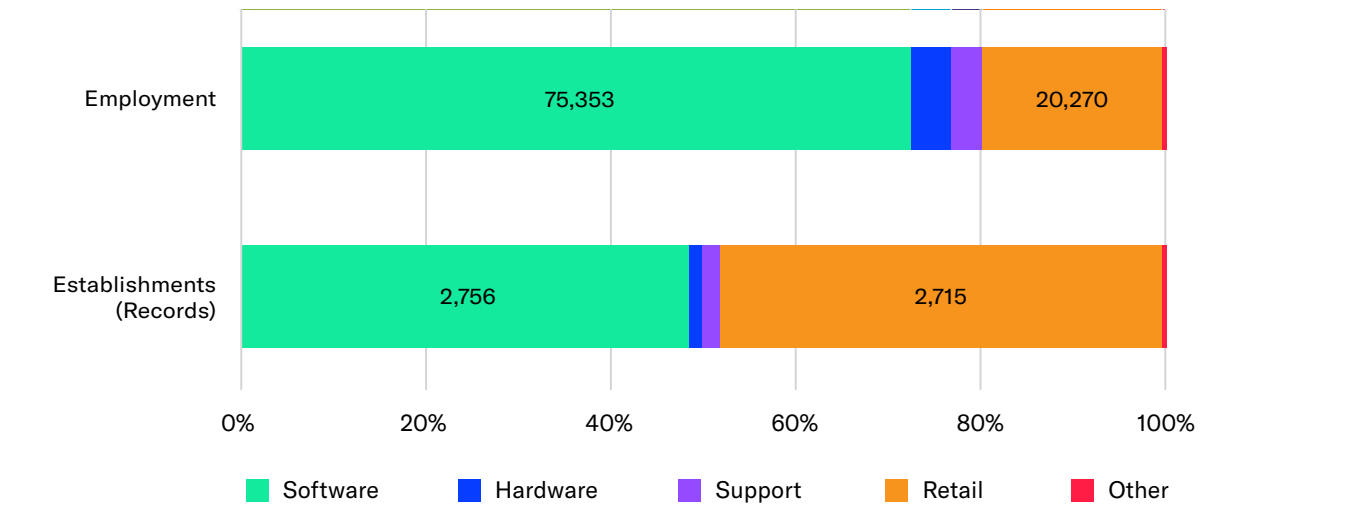
**Table 1: Establishments and Employment for the U.S. Video Game Industry and its Principal Sectors, 2023.**

Source: TEconomy analysis of 2023 U.S. Video Game Industry Database

Video Game Industry Sectors and Key Subsectors	Number of Records	Employment	Share of Total U.S. Video Game Industry
Total Video Game Industry	5,684	104,080	100.0%
Software	2,756	75,353	72.4%
Developer	2,042	35,954	34.5%
Developer/Publisher	422	32,282	31.0%
Publisher	181	3,755	3.6%
Development Tools	67	2,439	2.3%
Other	44	923	0.9%
Consoles, Hardware and Peripherals	77	4,661	4.5%
Support (Video Game Related Development Services)	113	3,431	3.3%
Retail (Video Game Specific Stores)	2,715	20,270	19.5%
Other (Industry Specific Associations, Media, Education, and Other Organizations)	23	365	0.4%

**Figure 1: Employment Distribution in the U.S. Video Game Industry and its Principal Sectors**

Source: TEconomy analysis of 2023 U.S. Video Game Industry Database





The consoles, hardware and peripherals sector is conservatively estimated to employ nearly 4,700 U.S. workers, or approximately 4% of the U.S. video game industry workforce. While significant manufacturing of consoles, components and peripherals occurs overseas, key engineering, design, marketing and distribution capacities are located in the U.S.<sup>6</sup>

The support sector includes firms that provide creative and development assistance to the industry, often on a contract basis, in the form of graphic or animation artists, audio and sound effects engineers, motion-capture firms and ancillary software programming services. Additionally, new support firms are stepping into the remote workspace to help both developers and creatives market themselves to remote teams and to assist firms in developing virtual teams. Altogether, these support sector firms provide unique services used in the development of video games and account for more than 3,400 U.S. workers, or more than 3% of the industry’s workforce.

In addition to the methodological changes cited in the list above, changes were made regarding the inclusion of retail establishments. Most U.S. cities have one or more locally owned “video game stores” that often serve dedicated customers with both new and classic/retro/vintage or otherwise used video games and equipment. However, these stores often employ only the owner and perhaps one or two other individuals and are extremely difficult to capture via third-party corporate record datasets. These stores were also hit hard by the COVID-19 pandemic with many going out of business during the 2020-2021 period. It is challenging for third-party corporate datasets to capture these changes. To this end, the inclusion of retail establishments in the 2023 video game industry database is now focused on operations with a marked corporate presence for ease of inclusion, which yields a more conservative estimate of the total retail context of the video game industry. Together it is estimated that these included retail outlets employ nearly 20,300 workers across the U.S. and account for more than 19% of the defined U.S. industry.

Finally, to capture key organizations that promote, support and provide other unique services to the video game industry, an all “other” sector is also included. Together, these firms add an additional 365 jobs to the U.S. video game industry and include organizations such as the Entertainment Software Association, DigiPen, the Academy of Interactive Arts & Sciences and the National Videogame Museum.

Specifying the Geographic Location of Video Game Industry Employment

The 2020 analysis performed by TEconomy made principal use of third-party corporate providers for the establishment level employment data for records within the video game industry database. With ESA’s combined interest in establishing more specific locations for this employment, and the need to recognize the “remote worker” element of industry employment, better options to determine location-specific employment values were explored. TEconomy worked with LinkedIn to obtain access to the LinkedIn Talent Insights (LTI) tool, which uses the locational information within each professional user’s LinkedIn profile to define an employee’s work location more precisely.

<sup>6</sup> Actual manufacturing employment related to various video game consoles, computers, other hardware and peripherals, often based in various parts of Southeast Asia, is not included in these employment values.

ESA Members Highlight

Current ESA members account for more than 45,000 of the U.S. video game industry’s 104,000 employees or 43% and nearly 60% of the U.S. video game industry’s software sector.

The use of this tool led to some specific findings different from the previous analysis. Other third-party data sources often report data values that are significantly different from those found using LTI. In some instances, the numbers from LTI are larger – typically representing a more up-to-date data source. However, there were also a substantial number of records where total employment levels, though similar to previous analysis, were now split into a number of geographies around the country, if not the world. This variation reflects a truly remote workforce and, importantly for this effort, more geographically distributed economic impacts. For these instances, if TEconomy could identify a physical address reflecting an LTI-specified location, that location was used and the LTI employment for that geography was applied to that address. If TEconomy could not find a closely corresponding physical address, those workers are treated as part of the substantial and growing element of remote workers, and their employment is captured in the state specified in the LTI profile.

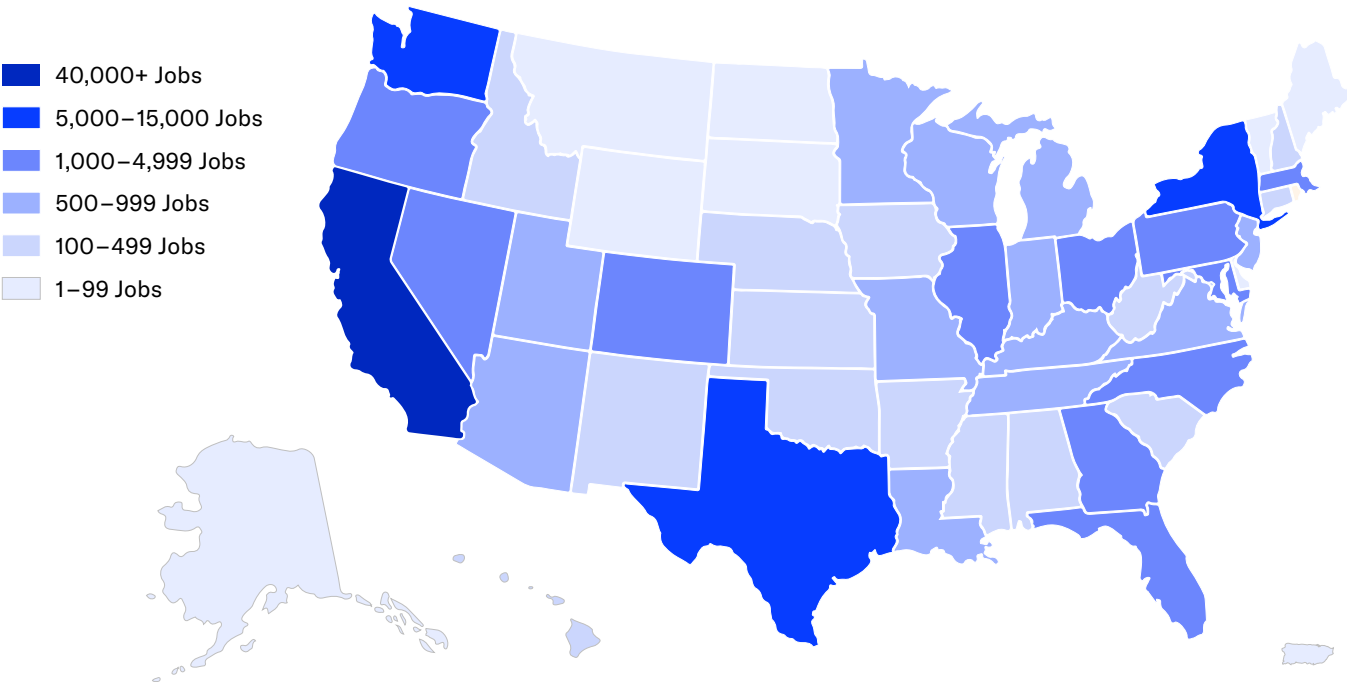
Geographic Distribution of Video Game Industry Employment

A key characteristic of the video game industry is that it is an entrepreneurial industry, open to new business innovations and business entrants. Additionally, the industry, especially the developers and studios, maintain a strong “reseeding” component as studio leadership from one studio often leave to start a new studio.

This constant evolution of the U.S. video game industry combined with a growing remote workforce increases the opportunity for wider geographic distribution of industry company operations. This is certainly seen in the data, with every state in the U.S. having establishments and employment in the industry (Figure 2).

Figure 2: Geographic Distribution of Video Game Industry 2023 Employment in the United States.

Source: TEconomy analysis of 2023 Video Game Industry Database



As most readers familiar with the U.S. video game industry would expect, California hosts the largest number of video game industry firms and workers, accounting for 774 specific establishments (address- specific locations) and more than 44,000 jobs. Three other states each account for more than 200 establishments—Texas with 409, Florida with 227 and Washington with 216. From a total employment perspective, four additional states exceed 4,000 video game industry jobs each—Washington with 10,870, Texas with 9,437, New York with 5,730 and Florida with 4,306.

### The Remote Workforce of the U.S. Video Game Industry

The use of remote workers potentially has significant implications for capturing and measuring the economic impacts of the industry and will continue to change the employment landscape.

The video game industry, like other aspects of the software industry and other industries with significant marketing and sales infrastructures, has utilized an extended and external workforce approach for both competitive and efficiency reasons, even prior to the pandemic. However, pandemic-related changes increased, expanded and, in many instances, enhanced corporate comfort level in the use of remote workers. This is especially true within the software sector, with many studios continuing to use a remote or “digital-first” staffing approach.

While many firms have returned to the office, others have retained a hybrid model (workers reporting to an address specific location, but some amount of time is spent working from home) or a fully remote model (an actual employee of the company, versus a hired contractor, works almost exclusively from a home-based office often many miles or states away from their company’s headquarters or studio). In fact, through the development of the U.S. video game industry database, a number of smaller “virtual” firms have been identified that are 100% remote where no physical, company facility exists.

The development of the industry database captured the most extensive aspect of the truly remote worker geographic distribution. The database identifies more than 18,000 workers, or 17% of the industry’s employment, as truly remote workers. These numbers do not capture the many thousands of industry employees now working in a hybrid fashion, spending work time away from their company office.

While a remote worker approach will likely, in time, spread the geographic distribution of the industry further, there are specific challenges to operating with fully remote workers that might slow this spread. For example, many firms specify particular states where remote work is permitted due to existing or favorable business operating conditions (e.g., limiting the number of states in which the company must handle tax payments and file returns). Hence, these conditions might in many ways reinforce the leading employment states, but perhaps ultimately lead to movement of employment outside a state’s major cities. Additionally, workers located in one of the leading states may now find new remote opportunities for which they are not required to move allowing them to remain in their current location. Indeed, California, Texas, Washington, New York and Florida lead U.S. states in the number of remote video game industry workers.

#### ESA Members Highlight

Leading states for ESA member employment include California, Washington, Texas, New York and North Carolina.

### Perspectives on Other Recent Changes to the U.S. Video Game Industry

Beyond the remote worker aspect discussed above, the development of the industry database revealed additional findings and perspectives about changes to the U.S. video game industry since the 2020 report. Among these industry developments are:

- Many small firms (five or fewer employees) across all five sectors of the U.S. video game industry struggled to stay in business through the COVID-19 pandemic.
- Merger and acquisition activities have changed - and continue to change - the structure and landscape of the U.S. video game industry.
- The historical model of studios linked to publishers, while still maintaining a significant presence in the industry, continues to blur as technologies and platforms provide indie developers improved market access and hosting capabilities.
- Several companies captured in the previous analysis have morphed or become focused on areas that are now more tangential to the video game industry as defined for this study. Some firms have moved into broader advertising and marketing uses of major game engines (e.g., Unity, Unreal Engine). Still others have moved into the blockchain and NFT (non-fungible tokens) space. While these firms’ work often has the creative edge of the video game industry, their end product(s) fall outside of the games for enjoyment space.
- Though some development is seen in the AR/VR space, it remains a relatively small component of the overall U.S. video game industry.

### Key Findings

- The U.S. video game industry employed **104,080 workers** in 2023, with the industry generating employment in every state.
- The software sector dominates the industry accounting for **74% of industry employment**.
- California captures a significant share of industry employment, accounting for **over 42% of the industry’s workforce**. Washington, Texas, New York and Florida round out the top five states, with these five states accounting for approximately **72% of the industry’s employment**.
- Remote workers (those workers working from home or elsewhere without a defined corporate office) account for **18,000 workers, or 17% of industry employment**.

# Economic Impact of the U.S. Video Game Industry

Input-Output analysis (see below) is a well-established methodology for measuring the total economic impacts of an industry. The direct employment levels captured within the industry database, shown in Table 1, are used to drive and ultimately estimate and quantify the full economic impacts of the U.S. video game industry on both national and individual state economies.

## Overview of Input-Output Analysis

Input-Output (I-O) analysis models the interrelationships and financial transactions between economic sectors. I-O multipliers are based on the flow of commodities between industries, consumers and institutions in a state or regional economy. The analysis uses U.S. and state specific I-O models developed by IMPLAN. The IMPLAN model used by TEconomy is the most widely deployed model in the nation and is based on the U.S. Bureau of Economic Analysis (BEA) national accounts data, supplemented with state level employment data from the U.S. Bureau of Labor Statistics (BLS) and other economic data from the U.S. Bureau of the Census. As used for this effort, the impact models are driven by the U.S. and state-level employment numbers stemming from the video game industry establishment database. The resulting analysis calculates three types of impacts:

- **Direct Impacts** – the specific impacts of the direct employment and expenditures of video game industry companies.
- **Indirect Impacts** – the impacts of in-state or national suppliers to these companies.
- **Induced Impacts** – the additional economic impacts resulting from the spending of industry and supplier employees.
- **Total Impact** – the sum of the three impact types.

The I-O analysis models multiplier effects (also known as “ripple effects”) that originate from video game company employment and estimated expenditures in the U.S. and individual state economies.

The IMPLAN I-O model is used to derive estimates for five impact metrics:

- **Employment** is the total number of jobs created, including the direct industry employment.
- **Labor Income** is the total amount of income, including salaries, wages and the value of benefits, received by employees, owners and others in the related supply-chain. Often called total compensation.
- **Value-Added** represents the difference between Output and the cost of intermediate inputs (e.g., purchases from suppliers) and represents the specified industry’s contribution to Gross Domestic Product (GDP).

- **Output** (also known as production, sales or business volume) is the total value of the goods and services produced in the economy due to the video game industry. Total output impacts are traditionally described as the “total economic impacts”.
- **Government Revenues** includes estimates of revenues generated for local/county, state and federal governments through taxes on the economic activity measured.

## National Economic Impact of the U.S. Video Game Industry

The U.S. video game industry, with 104,080 direct jobs (from Table 1), each allocated to the relevant IMPLAN model industry sector, drives a large-scale economic impact for the United States. Table 3 contains the results of the input-output analysis, showing an industry that produced the following estimated impacts for 2023:<sup>7</sup>

- Created and supported **350,015 total jobs** across the U.S. economy.
- **Generated \$101.4 billion in total economic impact.**
- Contributed **\$65.7 billion to U.S. GDP.**
- Generated total income (salaries, wages and benefits) for U.S. employees of \$35.2 billion across all sectors of the economy, including \$17.6 billion in direct labor income to U.S. video game industry workers (equivalent to an **average total compensation value of \$168,627 per industry worker**).
- **Generated \$14.4 billion in taxes**, comprising \$9.5 billion in taxes generated for the federal government, \$3.2 billion generated for state governments and \$1.6 billion generated for local and county governments.

ESA Members Highlight

ESA members, accounting for 43% of U.S. video game industry employment, directly generate nearly \$19 billion of U.S. GDP and support an additional \$14 billion contribution to GDP.

**Table 3: The Economic Impact of the U.S. Video Game Industry on the U.S. Economy, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

Impact Type	Employment	Values in \$ Millions					
		Labor Income	Value-Added	Output	Local & County Tax Revenue	State Tax Revenue	Federal Tax Revenue
Direct	104,080	\$17,550.7	\$35,160.7	\$46,728.1	\$543.7	\$1,632.5	\$5,093.9
Indirect	80,963	\$6,865.9	\$10,855.9	\$19,797.0	\$254.5	\$455.3	\$1,685.4
Induced	164,972	\$10,786.0	\$19,654.3	\$34,851.7	\$832.8	\$1,141.0	\$2,724.1
Total Impact	350,015	\$35,202.6	\$65,670.8	\$101,376.7	\$1,631.0	\$3,228.8	\$9,503.5
Multiplier	3.36	2.01	1.87	2.17			

<sup>7</sup> Appendix C includes an economic impact table specific to the employment of ESA member firms.



The direct employment impact of 104,080 jobs had a strong multiplier effect on additional job creation in the U.S. economy. **The national employment multiplier of 3.36 indicates that for each individual direct job in the U.S. video game industry, an additional 2.36 jobs are supported within the broader U.S. economy.** In terms of economic output, the multiplier of 2.17 indicates that for every \$1.00 in direct output generated by U.S. the video game industry, an additional \$1.17 is generated across the U.S. economy.

While the average compensation for a U.S. video game industry employee exceeds \$168,600, there are substantial variations among the industry sectors (Table 4). Excluding retail employment, the average compensation for the remainder of the U.S. video game industry reaches nearly \$192,500.

**Table 4: Average U.S. Video Game Worker Compensation, by Industry Sector, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

U.S. Video Game Industry Sector	Average Industry Worker Compensation (including Benefits)
Software	\$197,800
Hardware	\$127,100
Support	\$176,100
Retail	\$67,500
Other	\$89,000
Industry Average	\$168,600

The software sector’s employees are estimated to receive \$197,800 in total compensation including the costs and value of all benefits. The support sector accounts for the second largest average compensation of \$176,100, indicative of the value and importance placed on these external support services. As would be expected, the retail sector constitutes the lowest average total compensation among the five sectors, averaging \$67,500.

The economic impacts of the broader video game industry are felt widely across the U.S. economy. Table 5 shows 12 key industry supplier segments within the national economy that benefit from the presence and operations of the U.S. video game industry and the demand it generates. In terms of the sales of U.S.-based suppliers to the U.S. video game industry (indirect output), these 12 segments account for \$16.3 billion of the total \$19.8 billion in supplier (indirect) output (83%). Similarly, these 12 segments account for nearly 65,700 jobs, or fully 81% of indirect supplier employment.

**ESA Members Highlight**

The 28 ESA members accounted for nearly \$48.5 billion in economic impact in 2023 or 48% of the entire U.S. video game industry’s economic impacts.

**Table 5: Key Industry Supplier Segments to the U.S. Video Game Industry, 2023 (\$ in millions)**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

Industry Supplier Segment	Indirect U.S. Output	Indirect U.S. Employment
<b>Total, All Segments</b>	<b>\$19,793.7</b>	<b>80,963</b>
Software and IT Services	\$3,245.9	6,770
Professional and Technical Services	\$2,397.3	9,890
Financial, Insurance and Real Estate Services	\$2,169.2	8,071
Employment Services	\$1,870.0	15,479
Business Management and Administration	\$1,454.7	7,496
Broadcasting, Programming and Telecommunication Carriers	\$1,373.0	1,394
Wholesale Professional Equipment, Machinery and Supplies	\$999.0	2,409
Electronic Components and Parts Manufacturing	\$950.4	1,696
Transportation, Delivery and Warehousing Services	\$707.1	5,369
Business and Facility Support Services	\$691.8	6,227
Utilities	\$375.7	250
Printing	\$124.3	644
<b>Total 12 Key Industry Suppliers</b>	<b>\$16,358.5</b>	<b>65,694</b>

Note: Columns do not sum to values in Total, All Segments row.

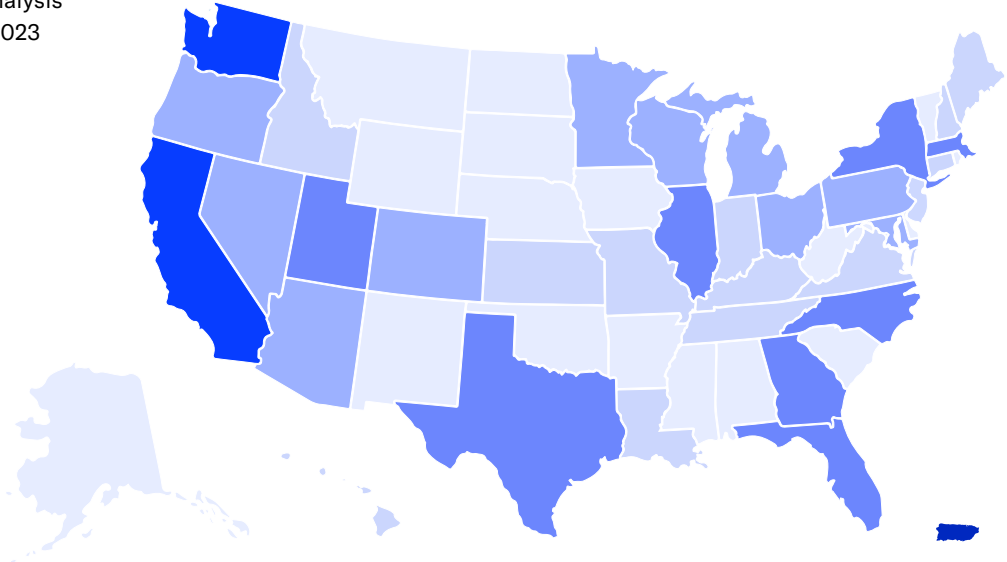
**State Economic Impact of the Video Game Industry**

As Figure 2 shows, the distribution of video game employment is spread across the U.S., but with key states capturing a significant share of the total employment. The level and type (i.e., sector) of employment plays a significant role in determining the ultimate economic impacts within a state or region. Figure 3 shows the distribution of employment multipliers across the 50 states, the District of Columbia, and Puerto Rico. Three geographies yielded employment multipliers of 3.50 or greater: Washington (3.52), California (3.89) and Puerto Rico (4.61).

**Figure 3: Geographic Distribution of Video Game Industry Interstate Employment Multipliers in the United States, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

- 4.00+ Multiplier
- 3.50–3.99 Multiplier
- 3.00–3.49 Multiplier
- 2.50–2.99 Multiplier
- 2.00–2.49 Multiplier
- 1.50–1.99 Multiplier



This multi-state economic impact effort generates, at the state level, an estimate of each state’s impact stemming from its direct industry employment, or its – **intrastate impacts** (e.g., firms in each state captured within the U.S. Video Game Industry database). Additionally, the impact effort estimates each state’s **interstate impacts**, or impacts captured within a state from the sales of its firms (from any sector) to the video game firms in the other states. Table 6 lists the Top 15 states by direct video game industry employment (direct video game state-level employment is also displayed in Figure 2), and Table 7 lists the Top 15 states by total economic impacts (interstate impacts). The outsized importance of California to the U.S. video game industry is shown in both tables, with the tables also showing that Washington, Texas, New York, Florida, North Carolina and Illinois are key states both in terms of direct U.S. video game industry employment and as drivers of total economic impacts. Combined, these seven states account for more than 76% of U.S. video game industry employment and more than 86% of the industry’s \$101.3 billion in total economic impacts.

**ESA Members Highlight**

ESA members account for 50% or more of seven states’ video game industry employment. The share ranges from 61% in North Carolina to 50% in both California and Utah. Additional states include Washington, Maryland, Minnesota and Wisconsin.

**Table 6: Top 15 States Ranked by Direct Video Game Industry Employment, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

State	Employment Impacts		
	Intrastate - Direct Effect	Intrastate – Total Impacts	Interstate - Total Impacts
California	44,205	126,657	172,150
Washington	10,870	28,424	38,249
Texas	9,437	22,445	29,517
New York	5,730	13,291	17,360
Florida	4,306	10,388	13,669
North Carolina	2,849	6,854	9,023
Illinois	2,169	4,994	6,540
Georgia	1,802	4,289	5,632
Massachusetts	1,731	4,096	5,408
Pennsylvania	1,727	3,678	4,741
Oregon	1,560	3,433	4,441
Maryland	1,418	2,893	3,687
Ohio	1,280	2,545	3,220
Colorado	1,150	2,584	3,370
Nevada	1,031	2,280	2,940

Beyond the seven leading states, the remaining Top 15 shift in order, with Ohio included in the direct video game industry employment list (Table 6), replaced by Minnesota in the U.S. video game industry economic output table (Table 7).

**Table 7: Top 15 States Ranked by Total Video Game Industry Economic Output, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

State	Output Impacts (\$ Millions)		
	Intrastate - Direct Effect	Intrastate - Total Impacts	Interstate – Total Impacts
California	\$26,097.1	\$44,891.6	<b>\$55,678.0</b>
Washington	\$7,191.6	\$11,436.6	<b>\$13,907.5</b>
Texas	\$2,556.0	\$5,118.6	<b>\$6,578.1</b>
New York	\$2,339.3	\$4,071.2	<b>\$5,035.5</b>
Florida	\$1,105.6	\$2,238.4	<b>\$2,881.6</b>
North Carolina	\$901.5	\$1,660.3	<b>\$2,089.8</b>
Illinois	\$588.3	\$1,163.3	<b>\$1,492.4</b>
Massachusetts	\$642.9	\$1,170.0	<b>\$1,473.1</b>
Georgia	\$455.7	\$934.8	<b>\$1,205.0</b>
Oregon	\$579.8	\$965.0	<b>\$1,178.4</b>
Maryland	\$549.7	\$841.4	<b>\$1,004.5</b>
Pennsylvania	\$410.2	\$786.4	<b>\$1,000.1</b>
Colorado	\$338.4	\$635.2	<b>\$805.1</b>
Nevada	\$279.2	\$514.6	<b>\$645.3</b>
Minnesota	\$247.7	\$491.15	<b>\$628.92</b>

It is interesting to note that while state-level concentrations exist, each of the major geographic regions of the U.S. have at least one state included in each of these two tables.

Key Findings

- The U.S. Video Game industry created and supported **more than 350,000 total jobs** across the U.S. economy while generating and supporting more than **\$101 billion in total economic impacts**.
- A high value-added industry, the U.S. video game industry **contributed nearly \$66 billion** to U.S. GDP.
- The national employment multiplier is 3.36, with estimated state-level interstate multipliers ranging from **1.58 to 4.61**.
- Average industry compensation stands at **\$168,000** but ranges across the video game industry sectors from **\$67,500** in the retail sector to **\$197,000** in the software sector.
- Economic impacts are generated and supported **across all 50 states**, Washington, D.C. and Puerto Rico.

# Conclusion

The substantial employment in the U.S. video game industry, as well as the economic expenditures driven by the industry, are multiplied many times over. The expenditures of industry suppliers, as well as the spending of personal incomes by workers related to and supporting the industry, perpetuate this ripple effect through the economies of the nation and its individual states. Input-Output analysis estimates that **the total economic impact generated by the U.S. video game industry is over \$101 billion dollars, and the business activity generated by the industry supports more than 350,000 jobs across the U.S. On average, every job within the U.S. video game industry supports at least 2.36 additional jobs in the national economy.**

# Appendix A.

## State Economic Impacts of the U.S. Video Game Industry

The video game industry has a physical business presence in every state, with industry establishments located in all 50 U.S. states, the District of Columbia, and Puerto Rico. The research results (presented as Tables A-1 through A-7 on the subsequent pages) provide two distinct sets of measures of impacts being generated by the video game industry at a state level:

1. The first set of metrics measures the impacts generated in each state by video game industry establishments that are physically located in each state. Thus, the impacts and metrics in columns 2-6 are the states’ “in-state” (intrastate) video game industry impacts, with the sum of states’ intrastate metrics included at the bottom.<sup>8</sup>
2. The second set of measures (columns 7 and 8) are the total impacts within each state that are generated by the effects of the nationwide video game industry (including the intra-state industry impacts shown in column 5 and additional inter-state impacts). This is, by definition, a larger number because it includes the impact in each state of the expenditures of both in-state and out-of-state video game industries and the expenditures of associated parties. In effect, this second measure represents the “share” of the total U.S. video game industry impacts that are captured in each state.

For example: in the case of Alabama on Table A-1, column 5 shows the total intrastate impact on employment, and column 6 is the intrastate multiplier (i.e., Alabama’s domestic video game industry impact on Alabama is 540 jobs). The impact of the whole U.S. video game industry in Alabama (including the impacts from the industry in other states spending money within Alabama) provided in column 7 is 648 jobs.

State impact tables are provided for employment (Table A-1), total employment compensation (Table A-2), value added (Table A-3), economic output (Table A-4, local/county taxes (Table A-5), state taxes (Table A-6) and federal taxes (Table A-7).

<sup>8</sup> It should be noted that the sum of individual state in-state impacts will not equal the total national impacts shown in Table 3.



Table A-1: State Employment Impacts of U.S. Video Game Industry, 2023

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-6) and Interstate Impact of U.S. Industry Overall (Columns 7-8).

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Alabama	335	97	108	540	1.61	648	1.94
Alaska	44	6	11	60	1.37	69	1.58
Arizona	880	435	655	1,970	2.24	2,560	2.91
Arkansas	200	55	57	312	1.56	371	1.85
California	44,205	27,582	54,870	126,657	2.87	172,150	3.89
Colorado	1,150	504	930	2,584	2.25	3,370	2.93
Connecticut	287	88	126	501	1.75	617	2.15
Delaware	76	25	22	123	1.62	147	1.94
District of Columbia	138	46	33	217	1.57	258	1.87
Florida	4,306	2,490	3,592	10,388	2.41	13,669	3.17
Georgia	1,802	1,012	1,475	4,289	2.38	5,632	3.13
Hawaii	112	28	50	190	1.69	232	2.08
Idaho	260	95	103	458	1.76	562	2.16
Illinois	2,169	1,028	1,797	4,994	2.30	6,540	3.02
Indiana	622	179	256	1,057	1.70	1,291	2.08
Iowa	204	48	64	316	1.55	376	1.84
Kansas	382	140	190	712	1.86	889	2.33
Kentucky	523	178	203	903	1.73	1,105	2.11
Louisiana	732	275	313	1,320	1.80	1,632	2.23
Maine	66	22	31	120	1.82	149	2.25
Maryland	1,418	620	856	2,893	2.04	3,687	2.60
Massachusetts	1,731	749	1,616	4,096	2.37	5,408	3.12
Michigan	890	345	529	1,763	1.98	2,237	2.51
Minnesota	944	476	732	2,152	2.28	2,807	2.97
Mississippi	253	53	60	366	1.45	426	1.68
Missouri	538	182	241	961	1.79	1,189	2.21
Montana	57	12	17	85	1.50	101	1.77
Nebraska	134	29	43	206	1.54	245	1.83
Nevada	1,031	602	647	2,280	2.21	2,940	2.85
New Hampshire	180	52	107	339	1.88	426	2.37
New Jersey	738	240	366	1,344	1.82	1,672	2.27
New Mexico	192	39	56	287	1.50	339	1.76
New York	5,730	3,163	4,398	13,291	2.32	17,360	3.03
North Carolina	2,849	1,596	2,409	6,854	2.41	9,023	3.17
North Dakota	30	5	8	43	1.43	50	1.66
Ohio	1,280	565	700	2,545	1.99	3,220	2.52
Oklahoma	259	68	84	410	1.58	491	1.90
Oregon	1,560	784	1,089	3,433	2.20	4,441	2.85

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Pennsylvania	1,727	740	1,211	3,678	2.13	4,741	2.75
Rhode Island	54	13	17	83	1.54	99	1.83
South Carolina	413	123	144	680	1.65	821	1.99
South Dakota	21	3	6	30	1.43	35	1.67
Tennessee	648	226	333	1,207	1.86	1,509	2.33
Texas	9,437	4,998	8,010	22,445	2.38	29,517	3.13
Utah	587	296	471	1,353	2.31	1,770	3.01
Vermont	38	10	13	61	1.60	73	1.92
Virginia	920	300	424	1,644	1.79	2,034	2.21
Washington	10,870	5,023	12,531	28,424	2.61	38,249	3.52
West Virginia	165	28	39	232	1.41	268	1.63
Wisconsin	795	333	610	1,737	2.19	2,255	2.84
Wyoming	46	10	9	65	1.42	75	1.64
Puerto Rico	52	78	47	177	3.40	240	4.61
U.S. Totals	104,080	56,095	102,705	262,881	2.53	350,015	3.36

Table A-2: State Labor Income (Total Compensation) Impacts of U.S. Video Game Industry, 2023 (\$millions)

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-6) and Interstate Impact of U.S. Industry Overall (Columns 7-8).

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Alabama	\$20.25	\$4.89	\$5.34	\$30.48	1.51	\$35.14	1.74
Alaska	\$2.61	\$0.36	\$0.66	\$3.63	1.39	\$4.12	1.58
Arizona	\$88.57	\$31.29	\$38.28	\$158.14	1.79	\$190.19	2.15
Arkansas	\$10.46	\$2.97	\$2.75	\$16.18	1.55	\$18.74	1.79
California	\$9,265.12	\$2,725.73	\$3,912.38	\$15,903.24	1.72	\$19,011.92	2.05
Colorado	\$145.29	\$42.58	\$57.63	\$245.50	1.69	\$292.16	2.01
Connecticut	\$25.07	\$6.68	\$9.07	\$40.82	1.63	\$48.15	1.92
Delaware	\$5.29	\$1.35	\$1.28	\$7.92	1.50	\$9.10	1.72
District of Columbia	\$27.40	\$5.96	\$3.07	\$36.43	1.33	\$40.22	1.47
Florida	\$475.37	\$158.33	\$197.66	\$831.36	1.75	\$995.73	2.09
Georgia	\$202.81	\$72.74	\$83.18	\$358.72	1.77	\$430.05	2.12
Hawaii	\$9.90	\$1.82	\$2.95	\$14.68	1.48	\$16.94	1.71
Idaho	\$17.03	\$6.10	\$5.43	\$28.56	1.68	\$33.69	1.98
Illinois	\$268.68	\$87.37	\$118.86	\$474.91	1.77	\$570.96	2.13
Indiana	\$43.41	\$12.58	\$14.77	\$70.76	1.63	\$83.31	1.92
Iowa	\$12.89	\$2.79	\$3.18	\$18.86	1.46	\$21.59	1.68
Kansas	\$36.19	\$9.22	\$10.14	\$55.54	1.53	\$64.36	1.78



State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Kentucky	\$36.16	\$10.40	\$11.00	\$57.56	1.59	\$67.27	1.86
Louisiana	\$49.56	\$14.58	\$15.48	\$79.62	1.61	\$93.27	1.88
Maine	\$4.90	\$1.42	\$1.76	\$8.08	1.65	\$9.55	1.95
Maryland	\$164.26	\$46.07	\$51.15	\$261.48	1.59	\$305.82	1.86
Massachusetts	\$286.91	\$78.96	\$123.17	\$489.04	1.70	\$584.48	2.04
Michigan	\$77.25	\$23.44	\$30.30	\$131.00	1.70	\$155.90	2.02
Minnesota	\$102.70	\$38.41	\$46.47	\$187.58	1.83	\$226.64	2.21
Mississippi	\$12.08	\$2.33	\$2.59	\$17.00	1.41	\$19.24	1.59
Missouri	\$38.61	\$11.59	\$13.31	\$63.51	1.64	\$74.90	1.94
Montana	\$2.99	\$0.58	\$0.86	\$4.44	1.48	\$5.11	1.71
Nebraska	\$8.63	\$1.71	\$2.30	\$12.64	1.46	\$14.50	1.68
Nevada	\$110.41	\$39.36	\$36.64	\$186.41	1.69	\$220.43	2.00
New Hampshire	\$22.54	\$4.25	\$7.32	\$34.11	1.51	\$39.63	1.76
New Jersey	\$73.20	\$19.44	\$25.88	\$118.51	1.62	\$139.57	1.91
New Mexico	\$11.61	\$2.15	\$2.74	\$16.49	1.42	\$18.76	1.62
New York	\$858.59	\$324.98	\$339.64	\$1,523.22	1.77	\$1,824.39	2.12
North Carolina	\$369.27	\$115.83	\$136.78	\$621.87	1.68	\$737.83	2.00
North Dakota	\$1.81	\$0.30	\$0.43	\$2.54	1.40	\$2.88	1.59
Ohio	\$96.75	\$34.70	\$38.76	\$170.22	1.76	\$203.74	2.11
Oklahoma	\$15.41	\$3.42	\$4.22	\$23.06	1.50	\$26.59	1.72
Oregon	\$168.46	\$68.95	\$66.92	\$304.33	1.81	\$365.41	2.17
Pennsylvania	\$175.75	\$60.27	\$76.59	\$312.61	1.78	\$375.92	2.14
Rhode Island	\$3.36	\$0.81	\$0.99	\$5.16	1.54	\$5.99	1.78
South Carolina	\$26.74	\$6.60	\$7.01	\$40.36	1.51	\$46.54	1.74
South Dakota	\$1.16	\$0.20	\$0.32	\$1.68	1.45	\$1.93	1.66
Tennessee	\$55.37	\$15.65	\$21.08	\$92.10	1.66	\$109.20	1.97
Texas	\$1,106.12	\$362.94	\$466.10	\$1,935.15	1.75	\$2,319.04	2.10
Utah	\$71.09	\$20.22	\$25.12	\$116.43	1.64	\$137.35	1.93
Vermont	\$2.39	\$0.62	\$0.73	\$3.75	1.57	\$4.37	1.83
Virginia	\$81.93	\$22.02	\$23.96	\$127.90	1.56	\$148.83	1.82
Washington	\$2,744.44	\$535.80	\$883.60	\$4,163.84	1.52	\$4,837.66	1.76
West Virginia	\$8.98	\$1.52	\$1.99	\$12.49	1.39	\$14.12	1.57
Wisconsin	\$96.67	\$23.73	\$34.80	\$155.20	1.61	\$182.67	1.89
Wyoming	\$2.78	\$0.49	\$0.39	\$3.66	1.32	\$4.05	1.46
Puerto Rico	\$5.52	\$3.25	\$1.77	\$10.54	1.91	\$12.66	2.29
U.S. Totals	\$17,550.74	\$5,069.74	\$6,968.83	\$29,589.31	1.69	\$35,202.59	2.01

Table A-3: State Value Added Impacts of U.S. Video Game Industry, 2023 (\$ millions)

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-6) and Interstate Impact of U.S. Industry Overall (Columns 7-8).

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Alabama	\$22.31	\$7.95	\$10.54	\$40.80	1.83	\$48.94	2.19
Alaska	\$2.23	\$0.66	\$1.18	\$4.07	1.83	\$4.91	2.20
Arizona	\$130.78	\$48.23	\$72.64	\$251.65	1.92	\$305.54	2.34
Arkansas	\$12.60	\$4.80	\$5.40	\$22.80	1.81	\$27.22	2.16
California	\$20,379.81	\$4,417.69	\$7,201.26	\$31,998.76	1.57	\$37,216.28	1.83
Colorado	\$239.81	\$65.13	\$108.39	\$413.34	1.72	\$491.40	2.05
Connecticut	\$32.10	\$11.07	\$15.98	\$59.15	1.84	\$71.17	2.22
Delaware	\$4.66	\$2.57	\$2.58	\$9.82	2.11	\$12.03	2.58
District of Columbia	\$56.11	\$8.96	\$4.67	\$69.74	1.24	\$75.21	1.34
Florida	\$715.33	\$240.16	\$381.64	\$1,337.13	1.87	\$1,615.71	2.26
Georgia	\$300.80	\$112.39	\$159.90	\$573.09	1.91	\$693.83	2.31
Hawaii	\$13.20	\$2.88	\$5.90	\$21.98	1.67	\$26.00	1.97
Idaho	\$21.18	\$9.59	\$10.13	\$40.91	1.93	\$49.40	2.33
Illinois	\$408.53	\$126.62	\$210.29	\$745.44	1.82	\$896.98	2.20
Indiana	\$54.34	\$17.91	\$26.51	\$98.76	1.82	\$118.53	2.18
Iowa	\$16.48	\$4.59	\$6.17	\$27.25	1.65	\$32.00	1.94
Kansas	\$42.57	\$13.89	\$19.18	\$75.64	1.78	\$90.26	2.12
Kentucky	\$41.21	\$15.43	\$19.91	\$76.56	1.86	\$92.08	2.23
Louisiana	\$65.97	\$22.16	\$30.02	\$118.15	1.79	\$141.19	2.14
Maine	\$6.48	\$2.21	\$3.41	\$12.10	1.87	\$14.61	2.25
Maryland	\$427.59	\$76.58	\$97.97	\$602.14	1.41	\$678.76	1.59
Massachusetts	\$465.26	\$120.29	\$208.94	\$794.49	1.71	\$943.18	2.03
Michigan	\$106.99	\$34.01	\$54.42	\$195.42	1.83	\$235.07	2.20
Minnesota	\$157.10	\$56.08	\$82.07	\$295.25	1.88	\$356.68	2.27
Mississippi	\$12.66	\$4.13	\$5.30	\$22.09	1.75	\$26.23	2.07
Missouri	\$49.20	\$18.28	\$24.54	\$92.01	1.87	\$110.89	2.25
Montana	\$2.46	\$0.98	\$1.49	\$4.93	2.01	\$6.04	2.46
Nebraska	\$8.64	\$2.96	\$4.49	\$16.09	1.86	\$19.42	2.25
Nevada	\$172.54	\$61.56	\$74.92	\$309.02	1.79	\$368.64	2.14
New Hampshire	\$25.69	\$6.64	\$12.88	\$45.21	1.76	\$54.11	2.11
New Jersey	\$89.18	\$29.89	\$45.31	\$164.38	1.84	\$197.93	2.22
New Mexico	\$13.88	\$3.64	\$5.45	\$22.97	1.65	\$27.03	1.95
New York	\$1,638.25	\$511.93	\$608.18	\$2,758.36	1.68	\$3,246.48	1.98
North Carolina	\$600.84	\$173.34	\$254.70	\$1,028.88	1.71	\$1,219.26	2.03
North Dakota	\$1.82	\$0.48	\$0.71	\$3.01	1.65	\$3.54	1.94
Ohio	\$146.09	\$56.18	\$72.99	\$275.25	1.88	\$332.04	2.27
Oklahoma	\$15.79	\$5.66	\$7.99	\$29.44	1.86	\$35.48	2.25

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Oregon	\$299.69	\$103.22	\$119.58	\$522.49	1.74	\$619.35	2.07
Pennsylvania	\$265.76	\$87.47	\$130.84	\$484.07	1.82	\$581.33	2.19
Rhode Island	\$3.49	\$1.32	\$1.81	\$6.61	1.90	\$7.99	2.29
South Carolina	\$28.45	\$10.38	\$14.33	\$53.16	1.87	\$64.09	2.25
South Dakota	\$1.07	\$0.35	\$0.55	\$1.97	1.84	\$2.37	2.21
Tennessee	\$63.93	\$23.28	\$37.78	\$124.99	1.95	\$152.39	2.38
Texas	\$1,630.46	\$554.83	\$867.44	\$3,052.73	1.87	\$3,688.98	2.26
Utah	\$108.74	\$31.53	\$51.34	\$191.61	1.76	\$228.82	2.10
Vermont	\$3.00	\$1.01	\$1.38	\$5.39	1.80	\$6.45	2.15
Virginia	\$117.78	\$36.59	\$47.58	\$201.95	1.71	\$238.95	2.03
Washington	\$5,937.84	\$897.70	\$1,772.58	\$8,608.12	1.45	\$9,827.54	1.66
West Virginia	\$8.59	\$2.53	\$3.68	\$14.80	1.72	\$17.56	2.04
Wisconsin	\$145.91	\$35.93	\$63.67	\$245.51	1.68	\$290.57	1.99
Wyoming	\$4.15	\$0.80	\$0.81	\$5.76	1.39	\$6.44	1.55
Puerto Rico	\$41.34	\$5.01	\$3.84	\$50.19	1.21	\$53.88	1.30
U.S. Totals	\$35,160.68	\$8,089.47	\$12,975.29	\$56,225.44	1.60	\$65,670.74	1.87

Table A-4: State Output Impacts of U.S. Video Game Industry, 2023 (\$ millions)

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-6) and Interstate Impact of U.S. Industry Overall (Columns 7-8).

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Alabama	\$39.47	\$17.18	\$18.60	\$75.25	1.91	\$95.09	2.41
Alaska	\$4.10	\$1.31	\$1.95	\$7.37	1.80	\$9.24	2.25
Arizona	\$246.14	\$93.03	\$124.16	\$463.34	1.88	\$586.01	2.38
Arkansas	\$22.91	\$10.15	\$9.75	\$42.82	1.87	\$53.74	2.35
California	\$26,097.1	\$7,186.10	\$11,608.48	\$44,891.6	1.72	\$55,678.0	2.13
Colorado	\$338.4	\$115.29	\$181.51	\$635.2	1.88	\$805.1	2.38
Connecticut	\$48.25	\$19.90	\$25.09	\$93.24	1.93	\$118.52	2.46
Delaware	\$9.59	\$4.66	\$4.15	\$18.40	1.92	\$23.20	2.42
District of Columbia	\$69.04	\$13.50	\$6.91	\$89.45	1.30	\$100.03	1.45
Florida	\$1,105.6	\$468.45	\$664.39	\$2,238.4	2.02	\$2,881.6	2.61
Georgia	\$455.7	\$207.38	\$271.73	\$934.8	2.05	\$1,205.0	2.64
Hawaii	\$19.78	\$5.54	\$9.65	\$34.97	1.77	\$43.74	2.21
Idaho	\$58.76	\$19.95	\$18.02	\$96.73	1.65	\$117.44	2.00
Illinois	\$588.3	\$224.98	\$350.07	\$1,163.3	1.98	\$1,492.4	2.54
Indiana	\$89.52	\$34.32	\$45.51	\$169.35	1.89	\$214.41	2.39
Iowa	\$27.04	\$9.34	\$10.80	\$47.18	1.74	\$58.41	2.16

State	Intrastate Impacts					Total Interstate Impacts	
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Multiplier	Total Impacts	Multiplier
Kansas	\$71.22	\$27.00	\$34.25	\$132.47	1.86	\$166.91	2.34
Kentucky	\$72.82	\$31.75	\$35.43	\$140.01	1.92	\$177.36	2.44
Louisiana	\$119.11	\$46.98	\$52.88	\$218.97	1.84	\$274.53	2.30
Maine	\$10.93	\$4.38	\$5.67	\$20.98	1.92	\$26.64	2.44
Maryland	\$549.7	\$132.64	\$159.00	\$841.4	1.53	\$1,004.5	1.83
Massachusetts	\$642.9	\$198.45	\$328.66	\$1,170.0	1.82	\$1,473.1	2.29
Michigan	\$164.15	\$67.50	\$96.33	\$327.98	2.00	\$421.05	2.57
Minnesota	\$247.72	\$102.78	\$140.65	\$491.15	1.98	\$628.92	2.54
Mississippi	\$22.79	\$9.40	\$9.80	\$41.99	1.84	\$52.60	2.31
Missouri	\$81.59	\$36.57	\$43.13	\$161.28	1.98	\$205.81	2.52
Montana	\$4.79	\$2.31	\$2.76	\$9.85	2.06	\$12.69	2.65
Nebraska	\$14.47	\$5.93	\$7.69	\$28.09	1.94	\$35.76	2.47
Nevada	\$279.2	\$112.74	\$122.74	\$514.6	1.84	\$645.3	2.31
New Hampshire	\$36.50	\$11.65	\$20.63	\$68.78	1.88	\$87.44	2.40
New Jersey	\$130.93	\$53.32	\$72.89	\$257.13	1.96	\$328.56	2.51
New Mexico	\$28.28	\$7.64	\$9.56	\$45.48	1.61	\$55.14	1.95
New York	\$2,339.3	\$811.61	\$920.31	\$4,071.2	1.74	\$5,035.5	2.15
North Carolina	\$901.5	\$320.01	\$438.81	\$1,660.3	1.84	\$2,089.8	2.32
North Dakota	\$3.14	\$1.08	\$1.32	\$5.53	1.76	\$6.87	2.19
Ohio	\$242.8	\$107.95	\$126.62	\$477.3	1.97	\$608.3	2.51
Oklahoma	\$26.97	\$12.68	\$14.81	\$54.47	2.02	\$69.82	2.59
Oregon	\$579.8	\$185.54	\$199.62	\$965.0	1.66	\$1,178.4	2.03
Pennsylvania	\$410.2	\$154.86	\$221.31	\$786.4	1.92	\$1,000.1	2.44
Rhode Island	\$5.94	\$2.57	\$2.98	\$11.50	1.93	\$14.60	2.46
South Carolina	\$47.42	\$22.10	\$25.06	\$94.57	1.99	\$120.83	2.55
South Dakota	\$1.91	\$0.73	\$0.98	\$3.62	1.90	\$4.59	2.41
Tennessee	\$100.20	\$44.69	\$62.94	\$207.83	2.07	\$268.90	2.68
Texas	\$2,556.0	\$1,036.12	\$1,526.42	\$5,118.6	2.00	\$6,578.1	2.57
Utah	\$159.19	\$60.72	\$89.33	\$309.24	1.94	\$394.69	2.48
Vermont	\$5.13	\$2.04	\$2.30	\$9.47	1.85	\$11.89	2.32
Virginia	\$176.44	\$66.37	\$78.69	\$321.50	1.82	\$402.59	2.28
Washington	\$7,191.6	\$1,448.08	\$2,796.92	\$11,436.6	1.59	\$13,907.5	1.93
West Virginia	\$15.41	\$5.37	\$6.48	\$27.26	1.77	\$33.90	2.20
Wisconsin	\$208.69	\$66.89	\$109.61	\$385.19	1.85	\$486.61	2.33
Wyoming	\$6.66	\$1.88	\$1.50	\$10.04	1.51	\$11.86	1.78
Puerto Rico	\$53.05	\$7.27	\$5.97	\$66.29	1.25	\$73.46	1.38
U.S. Totals	\$46,728.07	\$13,640.67	\$21,124.81	\$81,493.56	1.74	\$101,376.67	2.17

**Table A-5: Local/County Tax Impacts of U.S. Video Game Industry, 2023 (\$ millions)**

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-5) and Interstate Impact of U.S. Industry Overall (Columns 6).

State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Alabama	\$1.41	\$0.16	\$0.46	\$2.03	\$2.30
Alaska	\$0.09	\$0.01	\$0.03	\$0.13	\$0.15
Arizona	\$3.45	\$0.98	\$2.93	\$7.36	\$8.96
Arkansas	\$0.53	\$0.06	\$0.14	\$0.74	\$0.84
California	\$237.82	\$79.15	\$343.98	\$660.95	\$831.81
Colorado	\$5.93	\$1.20	\$6.17	\$13.30	\$16.14
Connecticut	\$2.21	\$0.32	\$0.81	\$3.34	\$3.83
Delaware	\$0.07	\$0.04	\$0.05	\$0.17	\$0.21
District of Columbia	\$2.31	\$0.39	\$0.37	\$3.07	\$3.43
Florida	\$15.84	\$6.01	\$17.55	\$39.39	\$49.84
Georgia	\$8.98	\$2.42	\$8.14	\$19.54	\$24.09
Hawaii	\$0.51	\$0.05	\$0.23	\$0.80	\$0.93
Idaho	\$0.61	\$0.13	\$0.33	\$1.08	\$1.28
Illinois	\$11.04	\$2.93	\$11.33	\$25.30	\$30.60
Indiana	\$2.21	\$0.35	\$0.86	\$3.41	\$3.92
Iowa	\$0.91	\$0.13	\$0.27	\$1.31	\$1.48
Kansas	\$1.55	\$0.23	\$0.83	\$2.61	\$3.08
Kentucky	\$1.70	\$0.32	\$0.69	\$2.70	\$3.10
Louisiana	\$4.89	\$0.55	\$1.68	\$7.12	\$8.06
Maine	\$0.29	\$0.06	\$0.17	\$0.53	\$0.62
Maryland	\$11.00	\$2.32	\$5.15	\$18.48	\$22.64
Massachusetts	\$6.47	\$2.02	\$7.44	\$15.93	\$19.93
Michigan	\$3.47	\$0.60	\$1.96	\$6.03	\$7.05
Minnesota	\$2.85	\$1.08	\$2.89	\$6.83	\$8.62
Mississippi	\$1.03	\$0.09	\$0.22	\$1.34	\$1.48
Missouri	\$2.28	\$0.48	\$1.23	\$3.99	\$4.66
Montana	\$0.06	\$0.02	\$0.04	\$0.12	\$0.15
Nebraska	\$0.53	\$0.08	\$0.19	\$0.79	\$0.90
Nevada	\$3.06	\$1.03	\$2.49	\$6.58	\$8.27
New Hampshire	\$0.65	\$0.21	\$0.62	\$1.47	\$1.80
New Jersey	\$4.41	\$1.03	\$2.52	\$7.96	\$9.40
New Mexico	\$0.44	\$0.07	\$0.17	\$0.68	\$0.79
New York	\$71.34	\$18.81	\$35.66	\$125.82	\$149.75
North Carolina	\$9.29	\$3.43	\$9.72	\$22.43	\$29.41
North Dakota	\$0.04	\$0.00	\$0.01	\$0.05	\$0.06
Ohio	\$7.77	\$1.62	\$3.30	\$12.69	\$14.74
Oklahoma	\$0.87	\$0.12	\$0.29	\$1.28	\$1.45
Oregon	\$10.55	\$3.06	\$5.18	\$18.79	\$22.24

State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Pennsylvania	\$9.34	\$2.45	\$5.48	\$17.28	\$20.39
Rhode Island	\$0.27	\$0.04	\$0.09	\$0.41	\$0.47
South Carolina	\$2.11	\$0.28	\$0.83	\$3.21	\$3.69
South Dakota	\$0.12	\$0.01	\$0.02	\$0.14	\$0.15
Tennessee	\$2.25	\$0.35	\$1.20	\$3.80	\$4.55
Texas	\$34.13	\$14.45	\$37.55	\$86.12	\$107.00
Utah	\$1.92	\$0.53	\$2.19	\$4.63	\$5.76
Vermont	\$0.06	\$0.01	\$0.03	\$0.10	\$0.12
Virginia	\$5.73	\$0.94	\$2.66	\$9.33	\$11.24
Washington	\$45.91	\$17.25	\$71.67	\$134.84	\$171.02
West Virginia	\$0.64	\$0.04	\$0.12	\$0.81	\$0.88
Wisconsin	\$2.60	\$0.84	\$2.61	\$6.04	\$7.48
Wyoming	\$0.14	\$0.01	\$0.03	\$0.18	\$0.20
Puerto Rico	N/A	N/A	N/A	N/A	N/A
U.S. Totals	\$543.67	\$168.77	\$600.61	\$1,313.04	\$1,630.96

**Table A-6: State Tax Impacts of U.S. Video Game Industry, 2023 (\$ millions)**

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-5) and Interstate Impact of U.S. Industry Overall (Columns 6).

State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Alabama	\$2.14	\$0.34	\$0.74	\$3.22	\$3.44
Alaska	\$0.10	\$0.02	\$0.05	\$0.16	\$0.18
Arizona	\$5.80	\$1.76	\$4.24	\$11.80	\$13.09
Arkansas	\$1.66	\$0.27	\$0.48	\$2.41	\$2.56
California	\$1,165.88	\$260.02	\$566.99	\$1,992.89	\$2,169.27
Colorado	\$7.78	\$1.90	\$4.66	\$14.35	\$15.77
Connecticut	\$2.35	\$0.54	\$1.00	\$3.89	\$4.21
Delaware	\$0.29	\$0.14	\$0.16	\$0.60	\$0.66
District of Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Florida	\$18.11	\$6.73	\$19.11	\$43.94	\$49.60
Georgia	\$11.92	\$3.74	\$7.59	\$23.25	\$25.65
Hawaii	\$1.34	\$0.17	\$0.57	\$2.08	\$2.25
Idaho	\$1.54	\$0.47	\$0.79	\$2.80	\$3.06
Illinois	\$19.01	\$5.28	\$12.93	\$37.23	\$41.16
Indiana	\$4.63	\$0.89	\$1.82	\$7.34	\$7.91
Iowa	\$1.15	\$0.20	\$0.34	\$1.69	\$1.80
Kansas	\$2.65	\$0.53	\$1.23	\$4.41	\$4.79
Kentucky	\$3.63	\$0.76	\$1.49	\$5.88	\$6.35



State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Louisiana	\$5.28	\$0.82	\$1.85	\$7.94	\$8.51
Maine	\$0.43	\$0.11	\$0.23	\$0.77	\$0.84
Maryland	\$17.25	\$3.30	\$6.59	\$27.14	\$29.23
Massachusetts	\$19.07	\$4.95	\$10.49	\$34.50	\$37.79
Michigan	\$6.58	\$1.38	\$3.47	\$11.43	\$12.48
Minnesota	\$9.23	\$3.23	\$6.16	\$18.63	\$20.60
Mississippi	\$1.95	\$0.23	\$0.45	\$2.63	\$2.77
Missouri	\$2.10	\$0.54	\$0.99	\$3.62	\$3.94
Montana	\$0.16	\$0.05	\$0.08	\$0.29	\$0.32
Nebraska	\$0.51	\$0.10	\$0.19	\$0.80	\$0.86
Nevada	\$6.07	\$2.04	\$4.96	\$13.07	\$14.58
New Hampshire	\$0.43	\$0.18	\$0.45	\$1.05	\$1.18
New Jersey	\$5.19	\$1.53	\$2.92	\$9.64	\$10.58
New Mexico	\$1.08	\$0.18	\$0.40	\$1.67	\$1.80
New York	\$79.25	\$23.71	\$34.64	\$137.60	\$149.47
North Carolina	\$21.96	\$7.05	\$14.40	\$43.40	\$47.94
North Dakota	\$0.14	\$0.02	\$0.03	\$0.18	\$0.19
Ohio	\$9.19	\$2.00	\$3.86	\$15.05	\$16.29
Oklahoma	\$1.38	\$0.23	\$0.48	\$2.09	\$2.24
Oregon	\$14.41	\$4.85	\$5.93	\$25.19	\$27.33
Pennsylvania	\$13.48	\$3.71	\$7.50	\$24.69	\$27.07
Rhode Island	\$0.32	\$0.06	\$0.11	\$0.49	\$0.53
South Carolina	\$2.16	\$0.40	\$0.86	\$3.43	\$3.69
South Dakota	\$0.13	\$0.01	\$0.02	\$0.16	\$0.17
Tennessee	\$4.36	\$0.81	\$2.57	\$7.75	\$8.49
Texas	\$37.04	\$15.44	\$39.43	\$91.92	\$103.81
Utah	\$4.51	\$1.23	\$2.96	\$8.70	\$9.61
Vermont	\$0.32	\$0.07	\$0.14	\$0.54	\$0.58
Virginia	\$6.42	\$1.36	\$2.61	\$10.40	\$11.23
Washington	\$102.48	\$33.93	\$131.61	\$268.02	\$305.26
West Virginia	\$1.34	\$0.12	\$0.29	\$1.75	\$1.84
Wisconsin	\$6.11	\$1.61	\$3.77	\$11.49	\$12.65
Wyoming	\$0.33	\$0.03	\$0.06	\$0.42	\$0.44
Puerto Rico	\$1.81	\$0.27	\$0.51	\$2.59	\$2.75
U.S. Totals	\$1,632.45	\$399.33	\$915.20	\$2,946.98	\$3,228.83

Table A-7: Federal Tax Impacts of U.S. Video Game Industry, 2023 (\$ millions)

Source: TEconomy IMPLAN analysis of 2023 U.S. Video Game Industry Database

Intrastate Impact of In-State Video Game Industry (Columns 2-5) and Interstate Impact of U.S. Industry Overall (Columns 6).

State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Alabama	\$4.42	\$1.13	\$1.30	\$6.85	\$7.93
Alaska	\$0.49	\$0.08	\$0.15	\$0.72	\$0.82
Arizona	\$22.38	\$7.53	\$9.74	\$39.65	\$47.36
Arkansas	\$2.30	\$0.68	\$0.68	\$3.66	\$4.25
California	\$2,793.85	\$683.02	\$1,002.61	\$4,479.49	\$5,241.27
Colorado	\$38.91	\$10.29	\$14.53	\$63.72	\$74.89
Connecticut	\$6.60	\$1.79	\$2.45	\$10.84	\$12.74
Delaware	\$1.01	\$0.31	\$0.30	\$1.62	\$1.89
District of Columbia	\$5.59	\$1.01	\$0.52	\$7.11	\$7.73
Florida	\$136.40	\$41.88	\$54.69	\$232.97	\$276.11
Georgia	\$50.98	\$17.00	\$20.55	\$88.53	\$105.17
Hawaii	\$2.23	\$0.40	\$0.71	\$3.34	\$3.86
Idaho	\$4.16	\$1.48	\$1.35	\$6.99	\$8.21
Illinois	\$68.27	\$19.99	\$28.66	\$116.92	\$138.85
Indiana	\$9.65	\$2.65	\$3.43	\$15.74	\$18.45
Iowa	\$2.88	\$0.64	\$0.76	\$4.29	\$4.91
Kansas	\$8.35	\$2.11	\$2.44	\$12.91	\$14.91
Kentucky	\$7.45	\$2.21	\$2.50	\$12.16	\$14.23
Louisiana	\$10.93	\$3.03	\$3.49	\$17.45	\$20.33
Maine	\$1.16	\$0.33	\$0.44	\$1.92	\$2.26
Maryland	\$50.66	\$11.23	\$12.90	\$74.79	\$85.42
Massachusetts	\$79.77	\$19.97	\$31.38	\$131.12	\$154.49
Michigan	\$18.90	\$5.41	\$7.43	\$31.74	\$37.50
Minnesota	\$25.96	\$8.80	\$11.19	\$45.96	\$54.87
Mississippi	\$2.31	\$0.53	\$0.62	\$3.46	\$3.97
Missouri	\$8.72	\$2.62	\$3.14	\$14.48	\$17.03
Montana	\$0.64	\$0.14	\$0.21	\$0.99	\$1.15
Nebraska	\$1.72	\$0.40	\$0.56	\$2.67	\$3.10
Nevada	\$30.99	\$10.30	\$10.22	\$51.51	\$60.41
New Hampshire	\$5.15	\$1.00	\$1.76	\$7.92	\$9.19
New Jersey	\$17.90	\$4.82	\$6.63	\$29.35	\$34.50
New Mexico	\$2.55	\$0.50	\$0.67	\$3.72	\$4.24
New York	\$240.48	\$79.46	\$85.36	\$405.30	\$477.44
North Carolina	\$95.90	\$27.11	\$33.57	\$156.59	\$183.54
North Dakota	\$0.37	\$0.07	\$0.09	\$0.53	\$0.60
Ohio	\$22.75	\$7.90	\$9.22	\$39.88	\$47.44
Oklahoma	\$2.94	\$0.74	\$0.96	\$4.65	\$5.41



State	Intrastate Impacts				Total Interstate Impacts
	Direct Effect	Indirect Effect	Induced Effect	Total Impacts	Total Impacts
Oregon	\$45.01	\$16.28	\$16.37	\$77.66	\$91.85
Pennsylvania	\$43.58	\$13.71	\$18.30	\$75.59	\$89.92
Rhode Island	\$0.75	\$0.19	\$0.25	\$1.20	\$1.40
South Carolina	\$5.94	\$1.55	\$1.80	\$9.29	\$10.77
South Dakota	\$0.23	\$0.05	\$0.07	\$0.35	\$0.41
Tennessee	\$12.16	\$3.52	\$4.95	\$20.63	\$24.45
Texas	\$275.71	\$83.92	\$112.94	\$472.57	\$560.77
Utah	\$18.49	\$4.87	\$6.42	\$29.79	\$34.84
Vermont	\$0.54	\$0.14	\$0.18	\$0.85	\$1.00
Virginia	\$20.29	\$5.37	\$6.14	\$31.80	\$36.87
Washington	\$856.12	\$141.10	\$240.09	\$1,237.31	\$1,412.05
West Virginia	\$1.67	\$0.32	\$0.45	\$2.44	\$2.79
Wisconsin	\$24.83	\$5.59	\$8.52	\$38.94	\$45.34
Wyoming	\$0.75	\$0.13	\$0.11	\$0.99	\$1.09
Puerto Rico	\$2.14	\$0.64	\$0.30	\$3.08	\$3.46
U.S. Totals	\$5,093.94	\$1,255.98	\$1,784.14	\$8,134.06	\$9,503.49

# Appendix B

## Development and Use of 2023 Video Game Industry Establishment-Record Database to Estimate Industry Economic Impacts

The development of the Video Game Industry establishment-record database used for this analysis and report was a two-step process.<sup>9</sup> The first step was to develop a “master list” of video game industry firms active in 2023. The second step was to connect, assign and/or develop employment and location information for these firms. A review and discussion of each of these steps is provided below. Once the industry database was complete, TEconomy used industry classification information and other firm-level information to assign each record to both a video game industry classification (e.g., developer, publisher, etc.) and to the appropriate sector for IMPLAN modeling.

### Developing a Master List of Core and Extended Video Game Industry Firms

A principal task while developing this master list was to include firms that were active in 2023 (captured during the July – October 2023 timeframe). Though additional of this characteristic was primarily achieved, there may be some firms that went “out of business” prior to 2023 that have games still available through one of the “publishers” used for source data. Considerable effort was made to determine a true “active in 2023” status of firms within the database by examining company websites and social media accounts for recent (2023 or at least 2022) activity. The second critical component was to determine the U.S. location or locations of each firm. The development of this list attempted to include any U.S.-based operations, even if the firm’s headquarter operations were located outside of the U.S.

### Sources of Video Game Firms

The development of this master list is graphically depicted in Figure 4. The following industry-specific sources were used, in whole or in part, to provide input for the 2023 list of active video game industry firms.

For 2023, the list of firms started with the prior TEconomy video game industry database and a recent dataset developed for ESA for mapping purposes. Additional lists of potential U.S. video game industry firms were added from GameDevMap, GiantBomb and Gamesmith using a web scraping tool or manual capture. Developer and publisher data from Steam were collected by accessing game data via the SteamSpy API and lists of companies with recent releases were collected from Indie DB and Riot Pixel. For developers identified through Steam, an additional check was performed to select only “paid for” games. Though there are several massively successful “free-to-play” games, these games do not generate economic activity measurable through the methodology used in this effort (though they may ultimately generate economic activity through in-game purchases and advertising sales).

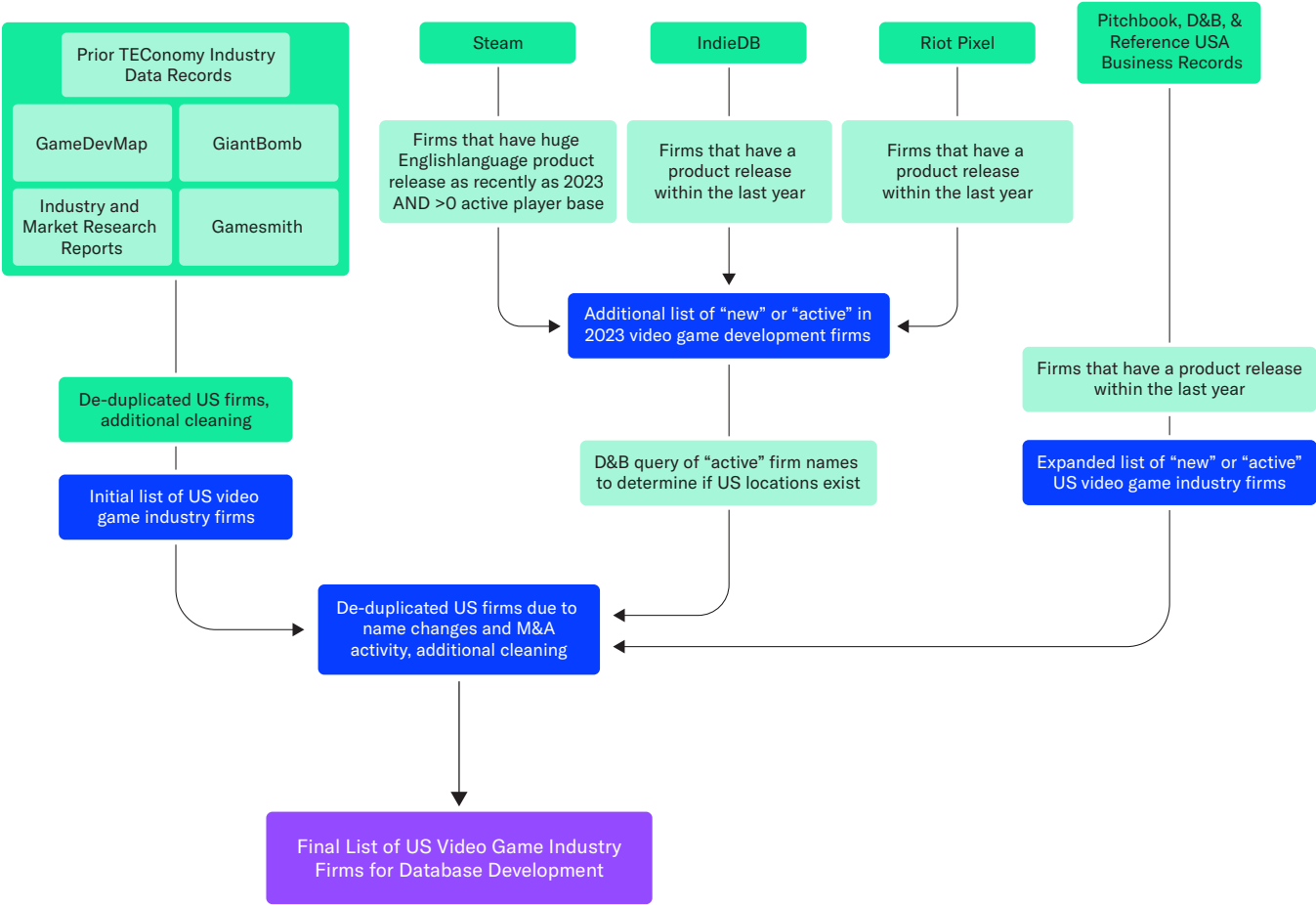
Additionally, a small number of companies were incorporated directly into the database from a variety of additional sources, including various industry and market research reports.

<sup>9</sup> Note: from a data perspective, any dataset that identifies and provides information regarding specific firms or establishment-level data is considered to be a microfirm-level database.

The inclusion of video game industry firms from these sources often yielded names of firms but little additional information—typically limited, if any, locational information, and no employment information. Where some locational information was available, these data were typically limited in geographic scope for individual firms (e.g., one record for all of Activision Blizzard with a single California location).

**Figure 4. Approach to Developing and Updating the U.S. Video Game Industry Database**

Source: TEconomy Partners



Beyond these industry-specific sources, two key proprietary data sources were also used for developing the master list and securing company employment and location information: Dun & Bradstreet/Hoovers (D&B) and Reference USA (a product of DataAxle). Finally, a fourth proprietary data source, the PitchBook venture capital database, was queried to find any additional, emerging companies involved in the video game industry that may be in the nascent or pre-revenue stage of development.

**Developing the Establishment Data Records**

The master list created in step one became the starting point for developing the ultimate industry database for this effort in step two. From this list, employment and locational specific information was added in a number of ways. These include:

**• Matching to the master list**

- Matching algorithms were used to match list to records within D&B and Reference USA.
- For video game firms from the curated list that had a strongly correlated matching data record (or records in the case of multi-establishment firms), those records were brought into the initial database.
- Though matching records worked in part, some stray matches, due to the algorithms and lack of corresponding information, did occur that had to be identified and removed.
- Many records had to be matched in a manual lookup process due to slight variations in names, etc. that did not allow for successful algorithmic matching within the D&B and Reference USA systems.

**• Developing data records for existing, but non-matched firms**

- Due to the update cycles and other issues inherent in the two proprietary company information providers, there were a significant number of existing video game firms (e.g., firms with active websites and new games in 2023) for which no record could be found within the D&B or Reference USA data.
- For these firms, TEconomy worked to find specific locations using web searches and company and employee information from websites and various social media pages (e.g., LinkedIn, X (Twitter), Facebook).

**• Consideration for multi-location video game firms**

- Many of the larger developers and developer/publisher firms have multiple specific locations, often due to the location of key developer studios. For these firms, website information (as well as annual reports of public firms) was used to identify the active (as of 2023) locations, capturing street address, city, state and zip code if possible.
- To the extent possible, these addresses were matched with specific records from D&B or Reference USA.
- If a key location record was not included with these proprietary datasets, TEconomy estimated the employment at these locations using company and employee information from annual reports, websites, company LinkedIn pages and the LinkedIn Talent Insights (LTI) tool that allows for querying among a set of employee LinkedIn pages all stating the same current employer.

• Consideration for video game firms’ remote workers

- The U.S. video game industry not only employs workers who are logistically “housed” within specific locations, but also has been a U.S. and global leader in providing remote work opportunities.
- When querying industry firms using the LTI tool, significant employment can be found at the state level that does not correspond to any of a firm’s existing “address-specific” location.
- For states, with and without address-specific locations, the LTI-specified employment was first examined at the metropolitan level (to associate individuals living near address-specific locations to those locations). For employment that reflected truly “remote” workers, sample LinkedIn profiles of these workers were examined to determine if these remote workers were actual company employees.
- If these locations (at the state level) met these inclusion criteria, for those with substantive levels of employment (typically at least 5+ workers), a record of this employment for the company in question was added to the U.S. video game industry database.

• Developing video game industry employment estimates for multi-industry firms

- Certain firms, primarily within the consoles, hardware and peripherals sector, are significant players in the video game industry that also have substantial, if not the majority, of their operations and revenue tied to non-video game-related markets. For this current effort, the approach used for these firms is a key difference from the prior analysis, as discussed in the next section.

• Industry-specific retail establishments

- For certain video game-specific retail establishments, (e.g., GameStop, RazerStore) we included 100% of their employment as video game-related, even though some items they may sell are ancillary to the core video game market. These retail firms were primarily limited to operations of publicly traded or otherwise large corporations.
- In this regard, TEconomy and ESA acknowledge that many smaller video game-related retail entities exist, and that video game-related merchandise is also sold by major retail players (e.g., Best Buy, Walmart, Target, etc.). To the extent that these additional retail sources of video games are not included within the analysis, this will inherently make the presented economic impact results more conservative.

# Appendix C

## Estimated Economic Impacts of ESA Members

- The data in these tables are based upon identification, within the 2023 U.S. Video Game Industry database, of ESA members and their studios and other operations located in the United States.

**Table C-1: The Economic Impact of the U.S. employment of ESA Members, 2023**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

Impact Type	Employment	(Values in \$ Millions)					
		Labor Income	Value-Added	Output	Local & County Tax Revenue	State Tax Revenue	Federal Tax Revenue
Direct	45,116	\$8,869.6	\$18,957.0	\$23,312.5	\$228.0	\$795.8	\$2,674.7
Indirect	34,277	\$2,937.7	\$4,638.8	\$8,224.0	\$102.9	\$189.8	\$724.1
Induced	80,853	\$5,287.4	\$9,634.5	\$17,084.7	\$408.4	\$559.2	\$1,335.5
Total Impact	160,246	\$17,048.6	\$32,973.0	\$48,476.7	\$740.1	\$1,538.7	\$4,711.6
Multiplier	3.55	1.92	1.74	2.08			

**Table C-2: ESA Member Impacts Share of Total Industry Impacts, 2023.**

Source: TEconomy IMPLAN analysis of U.S. Video Game Industry, 2023

Impact Type	Employment	Labor Income	Value-Added	Output	Local & County Tax Revenue	State Tax Revenue	Federal Tax Revenue
Direct	43%	51%	54%	50%	42%	49%	53%
Indirect	42%	43%	43%	42%	40%	42%	43%
Induced	49%	49%	49%	49%	49%	49%	49%
Total Impact	46%	48%	50%	48%	45%	48%	50%



© 2024 Entertainment Software Association



Innovating Tomorrow's Economic Landscape

TEconomy Partners, LLC | 8122 Blind Brook Ct., Columbus, Ohio 43235 | 1.800.TEC.1286 | [www.teconomypartners.com](http://www.teconomypartners.com)