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Interactive  
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Association

# ECONOMIC IMPACTS OF THE DEMAND FOR PLAYING INTERACTIVE ENTERTAINMENT SOFTWARE







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## EXECUTIVE SUMMARY

How significant is the overall demand for computer and video games in the U.S. economy? In 2000, its economic impacts, including direct and indirect economic effects, were:

- Employment for 219,600 people;
- Wages of \$7.2 billion;
- Federal and state personal income tax revenues of \$1.7 billion; and
- A \$10.5 billion market for game software publishing, wholesaling, and retailing, as well as transporting, wholesaling, and retailing of some, but by no means all, complementary game hardware.

Demand for computer and video games directly affected the information, trade, and transportation sectors. In the information sector alone, which is where game software is produced, the economic impacts, including direct effects of demand for game software and the indirect effects of all industry spending initiated by the game software publishing industry, were:

- 124,500 jobs;
- \$4.9 billion in wages;
- \$1.2 billion in taxes; and
- A \$9.3 billion market for game software publishing, wholesaling, and retailing.

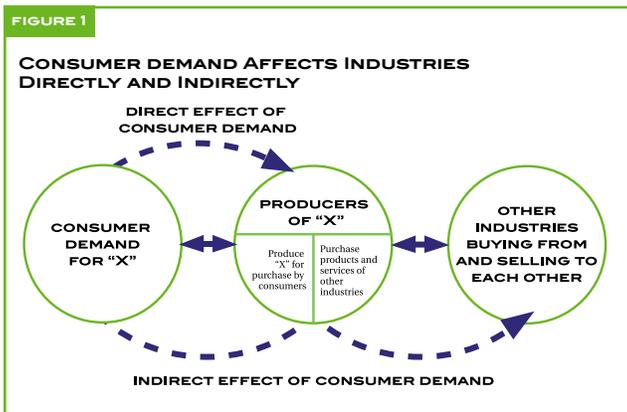
In 2000, sales in the game software industry were growing at a rate of 15 percent per year, more than double the rate of growth of the U.S. economy as a whole and far outpacing sales growth in related industries. In addition, the software publishing industry devotes 14 percent of its receipts to research and development, compared to other entertainment industries which devote 9 to 12 percent of sales to R&D. This dynamic industry is bringing improved technology, new types of games, and new users to the market, generating employment and fiscal revenue across the nation. Its significance to the U.S. economy will only continue to grow.

# 1.0

## INTRODUCTION

A 2000 survey by Peter D. Hart Research Associates, Inc. found that 60 percent of all Americans, or about 145 million people, play computer and video games regularly. Leading analysts forecast that computer and video game software sales alone will soon surpass \$10 billion, and that the next generation of video game consoles may achieve household penetration rates approaching 70 percent by 2005, making them nearly as commonplace in American homes as video cassette recorders.<sup>1</sup> Whether people are playing at home on their computers or on the latest “next generation” game console, or on the road on handheld devices such as Nintendo’s GameBoy, cell phones, or personal digital assistants, interactive games have an undisputed impact on our culture and economy.

This report presents estimates of the economic impacts of the demand for computer and video games. Impacts include direct and indirect effects on sales, employment, wages, and tax revenues. Direct effects are found in the information, transportation, and trade sectors of the economy —



the sectors that produce, transport, and sell computer and video games. Spending by the information, transportation, and trade sectors initiates spending by other sectors and industries that generates indirect effects. Such inter-industry spending occurs as an industry buys products and services of other industries to produce its product or provide its service (see Figure 1). For example, game software publishers purchase and use packaging materials, printed documentation, magnetic storage media, and advertising services, among other things, for the production and sale of game software.

In 2000, overall demand for computer and video games created a \$10.5 billion market for game software publishing, wholesaling, and retailing, as well as transporting, wholesaling, and retailing some, but not nearly all, complementary game hardware. Directly and indirectly, the demand for computer and video games generated employment for 219,600 people who earned \$7.2 billion in wages and paid \$1.7 billion in federal and state personal income taxes (see Table 1, grand totals). Of the total impact on employment, the total direct effect was 43,000 jobs (see Table 1, total direct effect). These employees earned \$2.7 billion in wages and paid \$650 million in federal and state personal income taxes. Total indirect effects were 176,600 jobs, \$4.5 billion in wages, and \$1.1 billion in federal and state personal income taxes.

The information sector of the economy is where computer and video games are produced. Within the information sector alone the direct and indirect effects totaled 124,500 jobs, \$4.9 billion in wages, and \$1.2 billion in taxes (see Table 1, information sector subtotal). The direct effect was a

1. Source: Forrester Research Inc., as reported in mmwire, September 1, 2000.

game software publishing industry that employed 29,500 people and paid \$2.5 billion in wages (see Table 1, information sector direct effect). These industry employees paid federal and personal income taxes totaling \$592 million. The indirect effect of inter-industry spending initiated by information sector spending generated another 95,000 jobs and \$2.4 billion in wages (see Table 1, information sector indirect effect). Taxes collected on the indirect wage effect totaled \$575 million.

Consumer and industry demand for computer and video games generated information sector sales of game software totaling \$7.8 billion in producer prices (see Table 1, direct effect on information

sector sales).<sup>2</sup> These sales consisted of \$4.5 billion to the wholesale and retail trade channels and \$3.3 billion to original equipment manufacturers (OEMs), direct to consumers, and for export. Sales to the trade channels were marked up 33 percent, resulting in a retail market for game software of \$6.0 billion in 2000.

A striking measure of the impact of the computer and video game software publishing industry on the U.S. economy was its 15 percent annual growth in sales between 1997 and 2000. In contrast, over the same period the U.S. economy grew only 6 percent per year and sales in the motion picture production, distribution, and allied services industry grew 4.6 percent per year.

These and other findings are presented in the remainder of this report. The direct effects of the demand for computer and video games are presented in Section 2, and the indirect effects and total economic impacts are presented in Section 3.

**TABLE 1**  
**SUMMARY OF ECONOMIC IMPACTS OF DEMAND FOR COMPUTER AND VIDEO GAMES BY SECTOR AND EFFECT, 2000**

Sector and Effect	Sales (\$ million)	Employment (thousand jobs)	Wages (\$ million)	Taxes/a (\$ million)
Information/b				
Direct	7,774	29.5	2,470.1	591.6
Indirect	/c	95.0	2,399.9	574.8
Subtotal	/c	124.5	4,869.9	1,166.4
Trade/d				
Direct	2,750/e	13.4	242.2	58.0
Indirect	/c	81.2	2,049.3	490.8
Subtotal	/c	94.6	2,291.4	548.8
Transportation				
Direct	20/f	0.1	3.4	0.8
Indirect	/c	0.4	12.3	3.0
Subtotal	/c	0.5	15.7	3.8
Total				
Direct	10,544	43.0	2,715.6	650.4
Indirect	/c	176.6	4,461.5	1,068.5
Grand Total	/c	219.6	7,177.1	1,718.9

a. Includes only federal and state personal income tax revenues.  
b. Industries in which there is a direct effect are software publishing, on-line information services, and data processing services.  
c. Not estimated.  
d. Includes wholesale and retail industries.  
e. Wholesale and retail margins on software and hardware. Wholesale margin is the difference between the price the wholesaler charges the retailer and the cost to the wholesaler. The retail margin is the difference between the price the retailer charges the consumer and the cost to the retailer. Hardware includes consoles and 8/16 bit and 32/64 bit console accessories, and portable video hardware and accessories, all of which is manufactured outside the United States.  
f. Transportation margin on hardware only. Margin is the cost of transporting hardware from the manufacturer to the wholesaler and from the wholesaler to the retailer.  
Lack of data prevented inclusion of software transportation margin.  
Source: Nathan Associates Inc.

2. Producer prices are the prices charged and received by the producer of the product.

## 2.0 DIRECT EFFECTS OF CONSUMER DEMAND FOR COMPUTER AND VIDEO GAMES

The direct effects of the demand for computer and video games are sales, employment, and wages in the sectors of the economy that produce, transport, and sell game software and complementary hardware. These sectors are information, transportation, and trade, with nearly all of the direct effect found in the information sector, which is where game software is published. Hardware is manufactured outside the United States. Hence, the manufacturing sector is not directly affected by the demand for computer and video games.

## 2.1 SECTORS AND INDUSTRIES DIRECTLY AFFECTED INFORMATION SECTOR

Within the information sector, the industries directly affected by the demand for computer and video games are game software publishing, on-line information services, and data processing services, with nearly all of the direct effect found in the information sector, which is where game software is published. Compared with the direct effect on software publishers, the direct effects on the on-line information and data processing services industries are negligible (less than one percent of sector sales). However, these industries are likely to be increasingly affected by the demand for computer and video games. Why? Because since 1996 a new segment of the market — interactive games played on the Internet — has emerged and grown in popularity. In 2000, there were approximately 39 million casual online PC gamers, a number expected to grow to 55 million by 2004.<sup>3</sup> The demand for on-line games — from role-playing games like Everquest, Ultima Online, and Asheron's Call to card, board, and trivia games — will create significant additional sales in the on-line information services industry in the coming years.

### TRADE SECTOR

Within the trade sector, wholesale and retail industries are effected directly by the demand for computer and video games. To avoid double counting the direct effect on the information sector, the direct effects on wholesale and retail “sales” are measured as wholesale and retail margins. These margins are the differences between sales revenue and the cost of sales. Included here are trade margins on hardware deemed complementary and purchased only for the purpose of playing games. Specifically, 8-, 16-, 32-, and 64-bit consoles and accessories and portable video hardware and accessories, all of which is manufactured outside the United States, are included. Although some personal computers (PCs) are purchased for the purpose of playing games, reported computer sales data do not identify such machines. Hence, trade margins on PCs are not included here. If included — and it’s notable that IDSA’s annual consumer survey shows that PCs

3. Source: IDC report “From Fantasy Worlds to Backgammon: IDC’s U.S. Online Gaming Forecast & Analysis, 1999-2004”, IDC #23744, December 2000.

are used to play games more than for any other application – the direct (and indirect) effects of the demand for computer and video games would likely be significantly greater than estimated and presented in this report.

## TRANSPORTATION SECTOR

While truck and air transportation industries are affected directly by the demand for computer and video games by virtue of their role in delivering packaged game software and complementary hardware to wholesalers and retailers, available data are inadequate to allow inclusion of software transportation. Hence, the effects presented here reflect transportation of hardware only — but not PCs. As a result, direct effects (and total impacts, as well) are understated.

## 2.2 MARKET SIZE AND GROWTH

Considering both software and hardware, the market created by the demand for computer and video games totaled at least \$10.5 billion in 2000 (see Table 2, total sales). The total market consisted of game software sales of \$7.8 billion in producer prices, software and hardware trade margins of \$2.7 billion, and hardware transportation costs of \$20 million.

Growth in that market is robust. Between 1997 and 2000, the software publishing industry's game software sales grew 15 percent per year (see Figure 2). In contrast, the U.S. economy grew only 6 percent per year during the same period. Moreover, game software sales grew at

TABLE 2

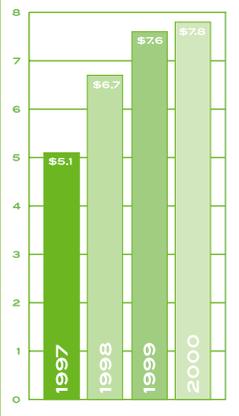
**DIRECT EFFECTS OF DEMAND FOR COMPUTER AND VIDEO GAMES BY SECTOR AND INDUSTRY, 2000**

Sector and Industry	Sales/a (\$ million)	Employment (thousand jobs)	Wages (\$ million)
<b>Information</b>			
Software publishing	7,773.5	29.5	2,469.8
On-line information services	0.7	0.0/b	0.2
Data processing services	0.1	0.0/b	0.0
Subtotal	7,774.3	29.5	2,470.1
<b>Trade /b</b>			
Wholesale	527.6	0.8	27.9
Retail	2,222.6	12.6	214.2
Subtotal	2,750.2	13.4	242.2
<b>Transportation/c</b>	19.7	0.1	3.4
<b>Total</b>	<b>10,544.3</b>	<b>43.0</b>	<b>2,715.6</b>

a. Margins for trade and transportation.  
 b. Software and hardware.  
 c. Hardware only.  
 Source: Nathan Associates Inc.

FIGURE 2

**INFORMATION SECTOR SALES OF COMPUTER AND VIDEO GAME SOFTWARE, PRODUCTS AND SERVICES 1997 - 2000 (\$BILLION IN PRODUCERS' PRICES)**



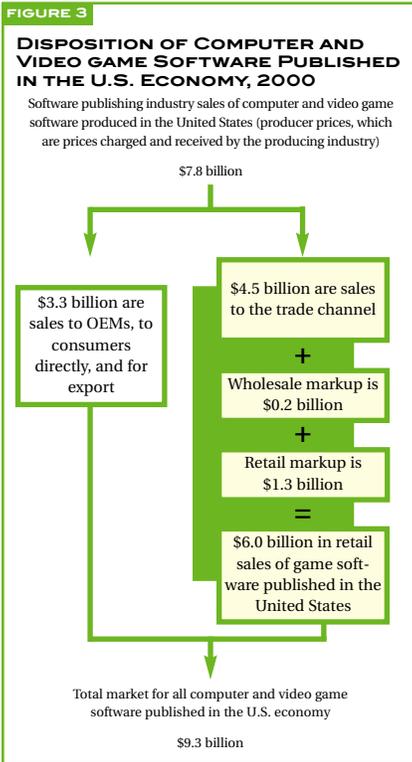
Source: Nathan Associates Inc.

TABLE 3

**15% GROWTH RATE IN SALES OF THE COMPUTER AND VIDEO GAME SOFTWARE PUBLISHING INDUSTRY OUTPACES GROWTH IN SALES OF RELATED INDUSTRIES**

Industry Group and Industry	Average annual growth (%)
<b>Computer and video game software</b>	<b>15.0</b>
<b>Entertainment</b>	
Motion picture production, distribution, and allied services	4.6
Motion picture theaters	7.5
Video tape rental	1.6
Theatrical producers, bands, orchestras, and entertainers	7.1
<b>Miscellaneous amusement and recreation services</b>	
Physical fitness facilities	10.3
Public golf courses	7.3
Coin-operated amusement devices	4.1
Amusement parks	4.7
Membership sports and recreation clubs	3.8
<b>Manufacturing</b>	
Consumer electronics	1.7
Computer storage devices	10.6
Electronic computer manufacturing	4.1

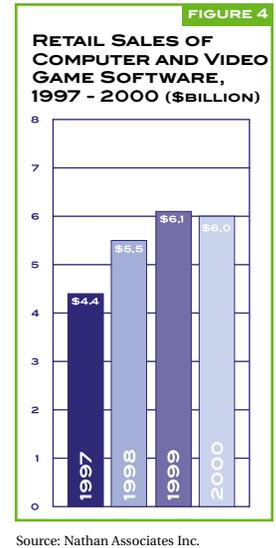
Source: Nathan Associates Inc. from Census Bureau data.



a faster rate than other major American industries including: motion picture production, distribution and allied services; amusement parks; consumer electronics manufacturing; and physical fitness facilities (see Table 3).

Considering only software, that is, excluding all hardware trade and transportation activities, the software-only market totaled \$9.3 billion in 2000 (see Figure 3). It consisted of \$3.3 billion in game software sales to OEMs, direct to consumers, and for export; \$4.5 billion in game software sales to the trade channel; \$200 million in wholesale margin on software sold to the trade channel; and \$1.3 billion in retail margin on software sold to the trade channel.

Looking more closely at the game software-only market, retail sales of game software totaled \$6.0 billion in 2000, a slight decline from 1999 sales of \$6.1 billion (see Figure 4). Retail sales of game software grew at an average annual rate of 11 percent between 1997 and 2000. Total retail sales in the U.S. economy grew only 5 percent during the same period.



## 2.3 VALUE ADDED TO THE U.S. ECONOMY

The contribution of any industry to the economy is measured by the value the industry adds to the economy, a conventional measure that is called value added. The value added by an industry is the industry's sales minus its cost for products and services purchased from and produced by other industries. The game software publishing industry purchases packaging materials, magnetic storage media to store software, and other products and services. The costs of these products and services, which are produced by other industries and purchased by the game software publishing industry, must be subtracted from the publishing industry's sales to determine its value added to the economy.

The computer and video game software publishing industry's value added to the U.S. economy was \$4.8 billion in 2000. This figure reflects game software publishing industry sales and software industry purchases of products and services from other industries. The U.S. Department of Commerce, Bureau of Economic Analysis, reports these purchases and other inter-industry transactions in the benchmark accounts of the U.S. economy.

## 2.4 EMPLOYMENT AND WAGES

In 2000, the direct effect of the demand for computer and video games was the employment of 43,000 people who earned wages totaling \$2.7 billion (see Table 2, total employment and wages). The game software publishing industry employed 29,500 people and paid wages of \$2.5 billion. The average annual wage in game software publishing was \$83,700 in 2000.

As a result of the demand for game software and complementary hardware the trade sector employed 13,400 people and paid wages totaling \$242 million. These direct effects were found mostly in retail industries, where 12,600 people were employed and paid \$214 million in wages. The average annual wage of these retail employees was \$17,000. Fewer than 100 people were employed in the transportation sector delivering the hardware that is complementary to game software and purchased only for playing computer and video games.

## 2.5 DIRECT EFFECTS ON THE SOFTWARE PUBLISHING INDUSTRY BY STATE

Computer and video game software publishing industry activity occurs in numerous states (see Table 4). Not surprisingly, most activity is in California where, in 2000, game software publishers' sales were \$6.8 billion. The industry employed 8,560 people in California and paid wages totaling \$814 million.

The success and growth of the game software publishing industry is due in part to its research and development (R&D). According to data from the National Science Foundation, the software publishing industry devotes 14 percent of its receipts to R&D. Other entertainment industries devote 9 to 12 percent of sales to R&D. In 2000, game software publishers' R&D spending totaled \$1.1 billion.

**TABLE 4**

**DIRECT EFFECTS OF DEMAND FOR COMPUTER AND VIDEO GAMES ON THE SOFTWARE PUBLISHING INDUSTRY BY STATE, 2000**

State	Sales (\$ million)	Employment (thousand jobs)	Wages (\$ million)
Arizona	124	0.47	27.5
California	6,847.7	8.56	814.0
Colorado	14.9	0.66	48.5
Connecticut	5.7	0.36	34.1
Florida	9.0	0.84	56.3
Georgia	7.7	0.79	69.2
Illinois	22.4	1.46	113.1
Maryland	45.8	0.50	41.0
Massachusetts	72.1	3.28	259.8
Michigan	8.7	0.55	38.0
Minnesota	5.3	0.44	30.4
New Jersey	19.1	0.91	76.8
New York	51.8	1.25	117.8
North Carolina	39.3	0.36	24.6
Ohio	12.7	0.71	40.7
Pennsylvania	2.3	0.84	82.3
Texas	208.8	1.77	169.6
Utah	179.0	0.50	34.3
Virginia	6.4	0.77	59.9
Washington	154.4	1.16	137.0
All Other States	47.9	3.31	194.8
<b>All States</b>	<b>7,773.5</b>	<b>29.49</b>	<b>2,469.8</b>

Source: U.S. Census Bureau, IDSA member company 10K and 10Q reports, and Nathan Associates Inc.

## 3.0 INDIRECT EFFECTS OF CONSUMER DEMAND FOR COMPUTER AND VIDEO GAMES AND TOTAL ECONOMIC IMPACTS

To produce computer and video game software and to provide game software and hardware trade and transportation services, the software publishing, wholesale, retail, and transportation industries purchase products and services from other industries. These purchases initiate inter-industry spending, spending that is indirectly linked to consumer demand for computer and video games. The impact of this inter-industry spending — the indirect effect of consumer demand for computer and video games — combined with the direct effect yields total economic impact.

### 3.1 INDIRECT EMPLOYMENT AND WAGE EFFECTS

In 2000, the demand for computer and video games indirectly generated jobs for 176,600 people who earned wages totaling \$4.5 billion (see Table 5, total).

The inter-industry spending initiated by the game software publishing industry resulted in an indirect employment effect of 95,000 jobs. The indirect wage effect totaled \$2.4 billion. These jobs are outside the software publishing industry, and accordingly, the average annual wage (\$23,500) is significantly lower than the average wage in the software industry.

### 3.2 TOTAL EMPLOYMENT AND WAGE IMPACTS

The total impact of consumer demand for computer and video games is calculated by adding the direct and indirect effects of demand (see Table 6). In 2000, the employment impact totaled 219,600 jobs, 124,500 of which were generated in or through the information sector. The total impact on wages was \$7.2 billion, \$4.9 billion of which was generated in or through the information sector.

**TABLE 5**  
INDIRECT EMPLOYMENT AND WAGE EFFECTS OF CONSUMER DEMAND FOR COMPUTER AND VIDEO GAMES BY SECTOR AND INDUSTRY INITIATING INTER-INDUSTRY SPENDING, 2000

Sector and Industry	Employment (thousand jobs)	Wages (\$ million)
<b>Information</b>		
Software publishing	95.0	2,399.6
On-line information services	0.0	0.2
Data processing services	0.0	0.0
Subtotal	95.0	2,399.9
<b>Trade /c</b>		
Wholesale	11.7	390.1
Retail	69.6	1,659.2
Subtotal	81.2	2,049.3
Transportation/d	0.4	12.3
<b>Total</b>	<b>176.6</b>	<b>4,461.5</b>

Source: Nathan Associates Inc.

**TABLE 6**  
TOTAL EMPLOYMENT AND WAGE IMPACTS BY SECTOR AND INDUSTRY, 2000

Sector and Industry	Employment (thousand jobs)			Wages (\$ million)		
	Direct	Indirect	Total	Direct	Indirect	Total
<b>Information</b>						
Software publishing	29.5	95.0	124.4	2,469.8	2,399.6	4,869.4
On-line information services	0.0	0.0	0.0	0.2	0.2	0.4
Data processing services	0.0	0.0	0.0	0.0	0.0	0.1
Subtotal	29.5	95.0	124.5	2,470.1	2,399.9	4,869.9
<b>Trade</b>						
Wholesale	0.8	11.7	12.4	27.9	390.1	418.0
Retail	12.6	69.6	82.2	214.2	1,659.2	1,873.4
Subtotal	13.4	81.2	94.6	242.2	2,049.3	2,291.4
Transportation	0.1	0.4	0.5	3.4	12.3	15.7
<b>Total</b>	<b>43.0</b>	<b>176.6</b>	<b>219.6</b>	<b>2,715.6</b>	<b>4,461.5</b>	<b>7,177.1</b>

Source: Nathan Associates Inc.

### 3.3 TOTAL FISCAL IMPACTS

In 2000, federal and state treasuries collected \$1.7 billion in personal income tax revenues on the total wage impact of the demand for computer and video games (see Table 7). Direct and indirect wages in the information sector generated \$1.2 billion in tax revenue — two-thirds of the total tax revenue impact.

**TABLE 7**

**TOTAL EMPLOYMENT AND WAGE IMPACTS BY SECTOR AND INDUSTRY, 2000**

Sector and Industry	State personal income tax revenue			Federal personal income tax revenue			Total		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
<b>Information</b>									
Software publishing	91.9	89.3	181.1	499.7	485.5	985.1	591.5	574.7	1,166.2
On-line information services	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Data processing services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	91.9	89.3	181.1	499.7	485.5	985.2	591.6	574.8	1,166.4
<b>Trade</b>									
Wholesale	1.0	14.5	15.5	5.7	78.9	84.6	6.7	93.4	100.1
Retail	8.0	61.7	69.7	43.3	335.7	379.0	51.3	397.4	448.7
Subtotal	9.0	76.2	85.2	49.0	414.6	463.6	58.0	490.8	548.8
<b>Transportation</b>									
Transportation	0.1	0.5	0.6	0.7	2.5	3.2	0.8	3.0	3.8
<b>Total</b>	<b>101.0</b>	<b>166.0</b>	<b>267.0</b>	<b>549.4</b>	<b>902.6</b>	<b>1,452.0</b>	<b>650.4</b>	<b>1,068.5</b>	<b>1,718.9</b>

Source: Nathan Associates Inc.

This report has presented data that clearly demonstrate that consumer demand for games has generated significant and positive economic activity in the United States. In the coming years, this dynamic industry will continue to expand as new technologies are brought to the market and hundreds of millions of users continue to make games a part of their daily lives. Thus, the industry's impact on the American economy will only continue to grow.



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## **AUTHOR OF STUDY**

The author of the study is Robert Damuth, Vice President and Director of Policy Studies at Nathan Associates, economic consultants in Arlington, Virginia. Mr. Damuth's expertise lies in helping people understand the economic impacts of change. During the past several years, his research has focused on industries in the information technology (IT) sector of the economy, but he has also helped industry leaders and policymakers understand the economic impacts of proposed legislation and regulation affecting manufacturing, trade, and transportation. In the IT sector, he has estimated the economic impacts of demand for semiconductors, software, packaged business software, and the products and services of the "new high-tech entrepreneurs." Currently he is authoring a report on the new wave — XML — of the computer revolution, its catalyzing effects on the evolution of the IT ecosystem, and its transforming effects on the business value of partnering. To learn more about Nathan Associates, visit [www.nathaninc.com](http://www.nathaninc.com).



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## **ABOUT THE INTERACTIVE DIGITAL SOFTWARE ASSOCIATION (IDSA)**

The IDSA is the U.S. association dedicated to serving the business and public affairs needs of companies publishing interactive games for video game consoles, handheld devices, personal computers, and the Internet. IDSA members collectively account for more than 90 percent of the \$6 billion in entertainment software sales in the U.S. in 2000, and billions more in export sales of American-made entertainment software. The IDSA offers a range of services to interactive entertainment software publishers, including operating a global anti-piracy program, staging the Electronic Entertainment Expo trade show, fielding business and consumer research, and representing the industry at the Federal, State and local levels on a wide range of policy issues. For more information, please visit [www.idsa.com](http://www.idsa.com)

APPENDIX TABLE A

## AVERAGE ANNUAL EMPLOYMENT BY INDUSTRY

Industry	1997	1998	1999	2000	Annual Growth
<b>Entertainment</b>					
Motion picture production, distribution and allied services	256,187	270,250	285,125	298,235	5.2%
Motion picture theatres	130,632	136,994	143,535	150,069	4.7%
Video tape rental	159,596	164,483	171,305	177,385	3.6%
Theatrical producers, bands, orchestras and entertainers	167,719	166,037	175,466	181,777	2.7%
<b>Commercial sports</b>					
Professional sports clubs and promoters	60,479	64,096	68,145	71,942	6.0%
<b>Miscellaneous amusement and recreation services</b>					
Physical fitness facilities	165,058	175,667	183,464	192,229	5.2%
Public golf courses	94,540	104,107	112,719	121,811	8.8%
Coin-operated amusement devices	85,447	85,995	92,697	97,925	4.6%
Amusement parks	129,567	132,935	138,504	143,599	3.5%
Membership sports and recreation clubs	319,481	329,891	338,094	346,917	2.8%
<b>Technology</b>					
Consumer electronics	54,929	54,478	54,245	54,028	-0.5%
Computer storage devices	44,525	42,410	44,440	45,166	0.5%
Electronic computer manufacturing	195,426	204,082	205,789	210,040	2.4%
<b>Computer and video game software publishing</b>	22,119	24,346	26,797	29,495	10.1%
<b>Total Private Industry</b>	<b>102,175,161</b>	<b>105,051,292</b>	<b>107,691,451</b>	<b>110,429,056</b>	<b>2.6%</b>

Source: US Bureau of Labor Statistics, Employment and Wages Annual Averages

APPENDIX TABLE B

AVERAGE TOTAL ANNUAL WAGES BY INDUSTRY  
(THOUSANDS OF DOLLARS)

Industry	1995	1996	1997	1998	1999	2000	Annual Growth
<b>Entertainment</b>							
Motion picture production, distribution and allied services	11,066,398	13,179,473	13,769,818	15,261,281	16,612,991	17,930,490	9.2%
Motion picture theatres	1,024,443	1,117,266	1,214,136	1,348,331	1,443,178	1,550,031	8.5%
Video tape rental	1,372,295	1,461,541	1,602,242	1,746,361	1,861,335	1,987,624	7.4%
Theatrical producers, bands, orchestras and entertainers	5,121,068	5,568,636	6,278,636	6,403,946	6,982,730	7,438,593	5.8%
<b>Commercial sports</b>							
Professional sports clubs and promoters	4,495,682	5,151,862	5,583,729	6,442,228	6,986,252	7,613,402	10.9%
<b>Miscellaneous amusement and recreation services</b>							
Physical fitness facilities	1,406,330	1,533,912	1,711,770	1,924,782	2,077,502	2,250,823	9.6%
Public golf courses	1,040,197	1,146,937	1,341,861	1,516,167	1,666,999	1,829,282	10.9%
Coin-operated amusement devices	1,292,001	1,397,029	1,639,376	1,738,766	1,912,454	2,070,718	8.1%
Amusement parks	1,805,436	1,923,253	2,254,995	2,362,552	2,587,332	2,787,641	7.3%
Membership sports and recreation clubs	4,492,964	4,788,180	5,114,385	5,490,638	5,801,349	6,133,271	6.2%
<b>Technology</b>							
Consumer electronics	1,802,932	1,923,629	2,117,310	2,241,099	2,398,288	2,549,106	6.4%
Computer storage devices	2,124,028	2,418,245	2,662,474	2,674,262	2,943,485	3,132,978	5.6%
Electronic computer manufacturing	11,317,350	11,821,031	13,761,608	16,764,743	17,986,872	19,815,148	12.9%
<b>Computer and video game software publishing</b>			1,526,770	1,792,330	2,104,082	2,470,058	17.4%
<b>Total Private Industry</b>	<b>2,658,927,216</b>	<b>2,837,334,217</b>	<b>3,071,807,287</b>	<b>3,332,422,405</b>	<b>3,538,862,441</b>	<b>3,764,358,304</b>	<b>7.0%</b>

Source: US Census Bureau of Labor Statistics, employment and Wages Annual Averages



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