

COPYRIGHT INDUSTRIES in the U.S. Economy



The 2018 Report

**By Stephen E. Siwek
Economists Incorporated**

**Prepared for the
International Intellectual
Property Alliance® (IIPA®)**

COPYRIGHT INDUSTRIES **in the U.S. Economy**



The 2018 Report

Copyright Industries in the U.S. Economy: The 2018 Report is the 17th report on the U.S. copyright industries prepared for the International Intellectual Property Alliance (IIPA) since 1990.

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- Stephen E. Siwek and Harold Furchtgott-Roth, *Copyright Industries in the U.S. Economy* (released in November 1990)
- Stephen E. Siwek and Harold Furchtgott-Roth, *Copyright Industries in the U.S. Economy: 1977-1990* (released in September 1992)
- Stephen E. Siwek and Harold Furchtgott-Roth, *Copyright Industries in the U.S. Economy: 1993 Perspective* (released in October 1993)
- Stephen E. Siwek and Harold Furchtgott-Roth, *Copyright Industries in the U.S. Economy: 1977-1993* (released in January 1995)
- Stephen E. Siwek and Gale Mosteller, *Copyright Industries in the U.S. Economy: The 1996 Report* (released in October 1996)
- Stephen E. Siwek and Gale Mosteller, *Copyright Industries in the U.S. Economy: The 1998 Report* (released in May 1998)
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- Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2006 Report* (released in January 2007)
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- Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2011 Report* (released in November 2011)
- Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2013 Report* (released in November 2013)
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Our research assistants, Charlie Sheils and Hera Liu, performed much of the computer work that was used throughout this *Report*. Economists Incorporated is grateful to the International Intellectual Property Alliance (IIPA) and its member associations for their support and assistance in the drafting of this *Report*. We thank Eric Schwartz, Kevin Rosenbaum, and Dima Budron of the IIPA for their guidance throughout this process, and we would also like to thank Pamela Burchette for her assistance in preparing this *Report*.

Formed in 1984, the IIPA is a private sector coalition of trade associations representing U.S. copyright-based industries in bilateral and multilateral efforts working to improve international protection and enforcement of copyrighted materials and open up foreign markets closed by piracy and other market access barriers. IIPA’s five member associations represent over 3,200 U.S. companies producing and distributing materials protected by copyright laws throughout the world—including computer and video games for video game consoles, personal computers, and the Internet; theatrical films, television programs, DVDs and home video and digital representations of audiovisual works; music, records, CDs, audiocassettes and digital representations of musical works; and fiction and non-fiction books, education instruction and assessment materials, and professional and scholarly journals, databases and software in all formats. Visit <https://iipa.org/>. Members of the IIPA include *Association of American Publishers*, *Entertainment Software Association*, *Independent Film & Television Alliance*, *Motion Picture Association of America*, and *Recording Industry Association of America*.

PREFACE

The International Intellectual Property Alliance (IIPA) was founded in 1984 as an alliance of trade associations representing creators, producers, and distributors of copyrighted material, including: movies and television programming; music in both physical and digital formats; entertainment software and video games; and books and journals. Since its inception, the IIPA has worked with the U.S. government, foreign governments, and rights holders to improve copyright protection and enforcement abroad and to provide fairer and more equitable market access in foreign markets. These efforts have resulted in significant improvements in foreign copyright laws and on-the-ground enforcement in dozens of countries, as well as lowering of market access barriers that otherwise have made it more difficult for creators to compete on a level playing field in global markets. These legal reform, enforcement, and market access improvements have had a substantial positive impact on how the creative industries contribute to the U.S. economy, whether measured in terms of overall contribution, employment and wages, or foreign sales and exports, to the benefit of millions of individuals and enterprises in the United States.

In 1990, in order to quantify the contribution of the copyright industries, IIPA commissioned the first economic study of the contributions of the copyright industries to the U.S. economy and, since then, has periodically prepared subsequent reports. *Copyright Industries in the U.S. Economy: The 2018 Report* is the 17th such report, all of which have been prepared by Stephen E. Siwek of Economists Incorporated. The 2018 *Report* covers the period from 2014 to 2017 and is based almost entirely on U.S. government data. This 2018 *Report* shows that the copyright industries: (1) make up an increasingly large percentage of value added to GDP; (2) create more and better paying jobs than other sectors of the U.S. economy; (3) grow faster than the rest of the U.S. economy; and (4) contribute substantially to U.S. foreign sales and exports, outpacing many industry sectors. As this *Report* shows, the contribution of the core copyright industries to the U.S. economy now well surpasses one trillion dollars per year.¹

As international trade has increased and globalized, foreign governments and intergovernmental organizations such as the World Intellectual Property Organization (WIPO) have become acutely aware of the significance of the copyright industries to national economies and the positive impact these industries have on economic growth, technological innovation and digital trade, and cultural diversity. In 2003, WIPO took a critical step forward by issuing a *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*. The *Guide*, developed by an experts' group of economists from many countries, including the author of this *Report*, Stephen E. Siwek, describes methodologies for measuring the role of copyright industries in domestic economies. These methodologies have now been adapted in well over 40 countries' national reports. Subsequently, in 2015, WIPO published a revised edition of the *Guide*, which can be found at: <http://www.wipo.int/publications/en/details.jsp?id=259>. The revised *Guide* referenced the many national copyright industry studies that have been released since the original *Guide* was published. The revised *Guide* also included a variety of tables and charts that quantify the extent to which the WIPO principles of copyright contributions to national economies have been adopted in national studies

¹The "core" copyright industries are those industries whose primary purpose is to create, produce, distribute or exhibit copyright materials.

throughout the world. These national studies provide the economic underpinnings for efforts to reform copyright law, improve enforcement to open markets for new and existing methods of dissemination of copyrighted materials, and lower rates of copyright piracy.²

Despite the robust achievements of the copyright industries during the period covered in this *Report*, significant challenges remain. The copyright industries derive a growing percentage of their revenue from the digital marketplace. Problems such as outdated copyright and related enforcement laws, inadequate enforcement (especially against online piracy), unlicensed uses of copyright materials, and market access challenges inhibit the growth of these markets in the United States and abroad. Economic reports such as this one underscore what is at stake. They provide a compelling argument for more effective laws, improved enforcement, and market access regimes that will promote and foster the growth of the copyright industries throughout the world for the benefit of consumers, as well as the creators, producers, and distributors of copyrighted materials.

– Eric J. Schwartz, Kevin M. Rosenbaum, Dima S. Budron, and Pamela S. Burchette
International Intellectual Property Alliance

² The various national studies are described and compared in a WIPO document titled, *2014 WIPO Studies on the Economic Contribution of the Copyright Industries Overview*, http://www.wipo.int/export/sites/www/copyright/en/performance/pdf/economic_contribution_analysis_2014.pdf. National studies conducted to date include the following 42 countries: Argentina (2013), Australia (2011), Bhutan (2011), Brunei (2011), Bulgaria (2011), Canada (2004), China (2009), Colombia (2008), Croatia (2007), Dominica (2012), Finland (2010), Grenada (2012), Hungary (2010), Indonesia (2013), Jamaica (2007), Jordan (2012), Kenya (2009), Korea (2012), Latvia (2004), Lebanon (2007), Lithuania (2012), Malawi (2013), Malaysia (2008), Mexico (2006), Netherlands (2009), Pakistan (2010), Panama (2009), Peru (2009), Philippines (2006), Romania (2008), Russia (2007), Singapore (2007), Slovenia (2010), South Africa (2011), St. Kitts/Nevis (2012), St. Lucia (2012), St. Vincent (2012), Tanzania (2012), Thailand (2012), Trinidad and Tobago (2011), Ukraine (2008), and United States (2013).

I. EXECUTIVE SUMMARY

Copyright Industries in the U.S. Economy: The 2018 Report demonstrates that the core copyright industries of the United States—those industries whose primary purpose is to create, produce, distribute, or exhibit copyright materials—provide significant value added to U.S. gross domestic product (“GDP”); real growth which outpaces the rest of the economy; an increasing number of high-paying jobs; and substantial foreign sales and exports, surpassing many industry sectors.

Copyright Industries Contribute Significantly to U.S. Gross Domestic Product (GDP)

- In 2017, the value added by the core copyright industries to U.S. GDP reached more than \$1.3 trillion dollars (\$1,328.3 billion), accounting for 6.85% of the U.S. economy.
- In 2017, the value added by the total copyright industries³ to U.S. GDP exceeded \$2.2 trillion (\$2,247.4 billion), accounting for 11.59% of the U.S. economy.

Copyright Industries’ Real Growth Rates Outpace the Rest of the U.S. Economy

- During the period 2014-2017, the core copyright industries grew at an aggregate annual rate of 5.23%. The average annual growth rate of the entire U.S. economy over the same period was only 2.21%. The core copyright industries grew at a rate more than 137% greater than the remainder of the U.S. economy.
- During the same period, the total copyright industries grew at an annual rate of 4.26%, also well surpassing the growth rate for the remainder of the U.S. economy.

Copyright Industries Employ Millions of Workers Who Earn a “Compensation Premium”

- The core copyright industries employed nearly 5.7 million workers in 2017, accounting for 3.85% of the entire U.S. workforce, and 4.54% of total private employment in the United States.
- The average annual 2017 compensation paid to core copyright workers – \$98,336 – far exceeds the average annual compensation paid to all U.S. workers – \$70,498 – amounting to a 39% “compensation premium” over the average U.S. annual wage.
- The total copyright industries employed over 11.6 million workers in 2017, accounting for 7.87% of all U.S. employment, or 9.28% of all private employment in the United States.
- The average annual compensation paid to employees of the total copyright industries in 2017 – \$86,308 – exceeds the U.S. average annual wage by around 22%.

Copyright Industries Contribute Significantly to Foreign Sales and Exports, Outperforming Many Major U.S. Industry Sectors

- Sales of select U.S. copyright products in overseas markets amounted to \$191.2 billion in 2017, a significant increase over previous years.⁴
- The foreign sales of selected copyright industry sectors exceed foreign sales of other major U.S. industries, including electronic equipment, appliances and components (\$174.2 billion); agricultural products (\$138.2 billion); chemicals (excluding pharmaceuticals & medicines) (\$137.0 billion); aerospace products and parts (\$134.4 billion), and pharmaceuticals and medicines (\$55.8 billion).

³The “total” copyright industries include not only the core copyright industries but also the partial copyright, non-dedicated support, and interdependent industries. “Partial” copyright industries are those industries in which only some aspect or portion of the products that they create qualify for copyright protection. These industries range from fabric to jewelry to furniture to toys and games. “Non-dedicated support” industries include those that distribute both copyright and non-copyright protected materials to businesses and consumers. Examples are transportation services, telecommunications and wholesale and retail trade. As in past studies, only a portion of the total value added by these industries is considered to be part of the copyright industries. “Interdependent” industries include those that produce, manufacture, and sell equipment whose function is primarily to facilitate the creation, production, or use of works of copyrighted matter. Examples include manufacturers, wholesalers and retailers of TV sets, personal computers, and other devices, and usage dependent products including blank recording material, and certain categories of paper.

⁴This includes total foreign sales of the following “selected” core copyright industry sectors: recorded music; motion pictures, television, and video; software publishing; and non-software publications including newspapers, books and periodicals.

II. INTRODUCTION

Copyright Industries in the U.S. Economy: The 2018 Report is the 17th in a series issued over the last 28 years by Economists Incorporated, updating and supplementing 16 earlier reports prepared on behalf of the IIPA. This latest *Report* presents data on the value added contributions of the copyright sector to the U.S. economy for the years 2014–2017; the percentage contribution of the copyright sector to the overall U.S. economy; the relative growth of the copyright industries compared with the remainder of the economy; employment levels in the copyright sector; the average compensation for workers in the copyright sector in comparison to other sectors; and the contributions of selected copyright industries to exports and foreign sales. The underlying data used in this *Report* is current through 2017.⁵

The *Report* confirms once again that the U.S. copyright industries contribute significantly to U.S. GDP and continue to outpace the rest of the economy in real growth. The copyright industries also continue to employ millions of workers whose average compensation levels substantially exceed the average level of compensation paid to all U.S. workers. Indicators from select core copyright industries of the U.S. demonstrate growth in terms of foreign sales and exports, with foreign sales and exports in those sectors outperforming many key U.S. industrial sectors.

As in previous years, this *Report* is presented in five sections:

- The Copyright Industries
- Value Added by the Copyright Industries
- Employment in the Copyright Industries
- U.S. Copyright Materials in World Markets
- Conclusion

This *Report* continues to reflect the use of industry data classifications adopted under the North American Industry Classification System (“NAICS”), which has been widely implemented by U.S. statistical agencies. It also continues to follow the international standards and recommendations propounded by the World Intellectual Property Organization (“WIPO”) in 2003 regarding the development of economic and statistical standards to measure the impact of domestic copyright industries on domestic economies.⁶

The data in this *Report* quantify the size and critical importance of the copyright industries to the U.S. economy, generally using the most current information available. As in past studies, the U.S. copyright industries’ contribution to the U.S. economy is measured by three economic indicators: (1) value added to the U.S. GDP in current dollars; (2) industry employment and share of national employment; and (3) revenues generated from foreign sales and exports. In addition, this *Report* includes two additional indicators of the importance of the copyright industries to the U.S. economy: compensation per employee and real annual growth. As set forth in this *Report*, during the period 2014–2017, the copyright industries, both core and total, achieved an average real annual growth rate in excess of 4.2% per year. By contrast, during the period considered in the 2016 *Report* (2012–2015), the copyright industries produced real growth rates in excess of 3.9% annually.⁷

Of course, the copyright industries were not the only beneficiaries of the improving economic climate after 2009. For example, during the years 2014–2017, real GDP for the United States as a whole increased at an average annual rate of 2.21%. As this *Report* documents, the U.S. copyright industries continue to make a disproportionately positive contribution to real growth in U.S. GDP.

⁵ In this *Report* the values presented for 2014 and 2015 have been updated from the results presented in *Copyright Industries in the U.S. Economy: The 2016 Report*. The updates result from data revisions published by the U.S. Bureau of Economic Analysis (“BEA”) and by other government agencies since the last report was completed.

⁶ The author of this *Report*, Stephen E. Siwek, participated as an expert at the meeting of the “Working Group of Experts of the Preparation of a WIPO Handbook on Survey Guidelines for Assessing the Economic Impact of Copyright and Related Rights” which was co-sponsored by WIPO and held in Helsinki, Finland, in July 2002. That meeting launched the process which resulted in WIPO’s 2003 publication of its *Guide on Surveying the Economic Contribution of the Copyright-Based Industries*, which describes many of the recommendations and standards used in this *Report*.

⁷ *Copyright Industries in the U.S. Economy: The 2016 Report*, Tables A.1, A.2.

III. THE COPYRIGHT INDUSTRIES

In nine of our 16 prior economic reports, we divided the copyright industries into four groups: core, partial, distribution, and copyright related. We developed and defined these sectors in our first report that was issued in 1990. Beginning with the 2004 *Report*, we still used four categories, but in order to conform to the international standard, we relied upon the four copyright categories defined by WIPO: core, partial, non-dedicated support, and interdependent.

Core copyright industries include those industries whose primary purpose is to create, produce, distribute or exhibit copyright materials. These industries include books, newspapers and periodicals, motion pictures, recorded music, radio and television broadcasting, and software in all formats, including video games.

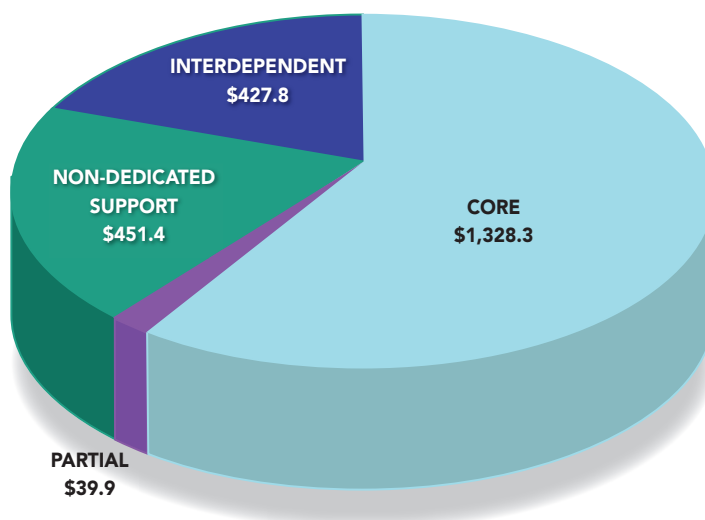
Partial copyright industries include industries in which only some aspect or portion of the products they create qualify for copyright protection. These industries range from fabric, jewelry and furniture, to toys and games.

Non-dedicated support industries include those that distribute both copyright and non-copyright protected materials to businesses and consumers. Examples here include transportation services, telecommunications, and wholesale and retail trade. As in past studies, only a portion of the total value added by these industries is considered to be part of the copyright industries.

Interdependent industries include those that produce, manufacture, and sell equipment whose function is primarily to facilitate the creation, production, or use of works of copyrighted matter. These industries include manufacturers, wholesalers, and retailers of CD players, TV sets, VCRs, personal computers and usage dependent products, including blank recording material and certain categories of paper.

We refer to the four groups together – core, partial, non-dedicated support, and interdependent – as the “**total**” copyright industries.

**COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY
(VALUE ADDED IN BILLIONS OF DOLLARS) 2017**



2017 TOTAL: \$2,247.4 BILLION OR MORE THAN \$2.2 TRILLION

IV. VALUE ADDED BY THE COPYRIGHT INDUSTRIES

The most appropriate way to measure an industry's contribution to the national economy is to measure the industry's value added. Value added reflects the economic contribution of labor and capital of a particular industry. The sum of the value added of all industries in the United States is equal to GDP, a standard measure of the size of the U.S. economy. For this reason, value added calculations can be used to draw comparisons of the relative size and growth rates of different industries in a way that is consistent with the federal government's national income and product accounting data.

In our past reports, we noted that timely estimates of the value added by individual industries were not generally available from government sources for many of the industries considered in these studies. As a result, our prior estimates of copyright industry value added were derived by applying historical input-output factors to more current data on industry sales from both government and non-government sources. By contrast, in the most recent reports, we make direct use of the industry specific value added estimates produced by the BEA to derive the contributions made by the core and total copyright industries to the U.S. economy. An additional benefit of using these data is that the BEA calculates both current dollar and constant dollar value added for the industry classifications that it analyzes. In this *Report*, the constant dollar value added figures are used to derive estimates of the real growth rates achieved by the core and total copyright industries on a year-by-year basis. These data are also used to measure the contribution made by the copyright industries to the real annual growth achieved by the U.S. economy as a whole.

Within this context, the copyright industries remain a particularly important contributor to U.S. GDP. As shown in Table 1 below, the current dollar value added to U.S. GDP by the core copyright industries reached \$1,328 billion in 2017. That same year, U.S. GDP reached \$19,391 trillion. Thus, in 2017, the core copyright industries maintained a 6.85% share of nominal U.S. GDP. The values added by the total copyright industries in the same period are also shown in Table 1. It illustrates the value added to U.S. GDP by the total copyright industries in 2017 was \$2,247 trillion, or 11.59% of U.S. GDP.

TABLE 1

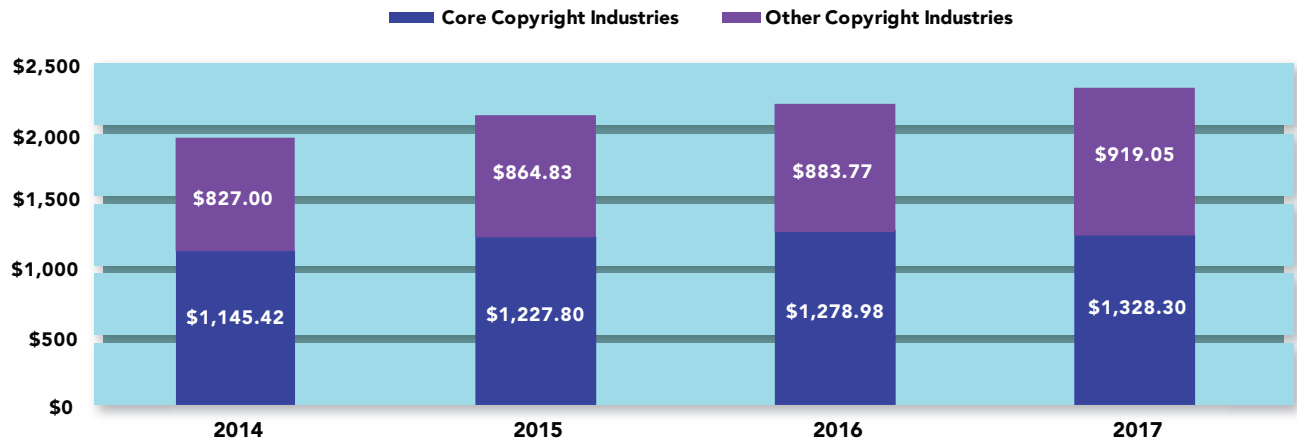
**COPYRIGHT INDUSTRIES' VALUE ADDED
(BILLIONS OF U.S. DOLLARS), 2014–2017**

	2014	2015	2016	2017
Core Copyright Industries	\$1,145.4	\$1,227.8	\$1,279.0	\$1,328.3
Total U.S. GDP	\$17,427.6	\$18,120.7	\$18,624.5	\$19,390.6
Core Share of U.S. GDP	6.57%	6.78%	6.87%	6.85%
	2014	2015	2016	2017
Total Copyright Industries	\$1,972.4	\$2,092.6	\$2,162.7	\$2,247.4
Total U.S. GDP	\$17,427.6	\$18,120.7	\$18,624.5	\$19,390.6
Total Share of U.S. GDP	11.32%	11.55%	11.61%	11.59%

As shown in Chart 1 below, our current estimates of the value added for the core copyright industries increased from \$1,145.42 billion in 2014 to \$1,328.30 billion in 2017. The estimated value added for the other (non-core) copyright industries rose from \$827.00 billion in 2014 to \$919.05 billion in 2017.

CHART 1

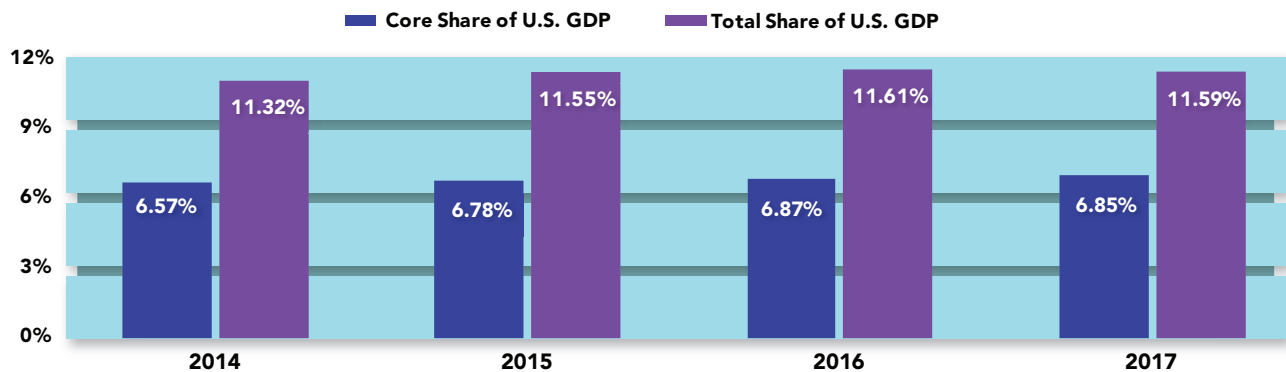
**COPYRIGHT INDUSTRIES' VALUE ADDED
(BILLIONS OF CURRENT DOLLARS), 2014–2017**



The copyright industries' current dollar share of the U.S. economy is provided in Chart 2 below. On the basis of the methodology described above, we now estimate that the core copyright industries' current dollar share of the U.S. economy has increased from approximately 6.57% to 6.85% of the U.S. economy over the years 2014 through 2017. Total copyright industries' current dollar share of U.S. GDP reached 11.59% in 2017.

CHART 2

**COPYRIGHT INDUSTRIES' SHARE OF
CURRENT DOLLAR GDP, 2014–2017**



To put these figures in perspective, it is useful to compare the economic contributions of the U.S. copyright industries to the contributions made by other U.S. industries in the same time period. Inter-industry comparisons to the U.S. copyright industry are shown in Table 2.

In Table 2, the total value added to the U.S. economy by the entire federal government in 2017 was \$759.7 billion.⁸ This amount is substantially lower than the value added by the total copyright industries in the same year. Also in 2017, the total value added to the U.S. economy by state and local governments was \$1,705.0 billion, or over \$1.7 trillion. This value is approximately 24% lower than the value added by the total copyright industries in 2017. Comparisons of the copyright industries' value added in 2016 and 2017, to other sectors of the U.S. economy are also provided in Table 2. These comparisons clearly document the size and importance of the copyright industries today.

TABLE 2

VALUE ADDED COMPARISONS BETWEEN COPYRIGHT AND OTHER SECTORS (BILLIONS OF U.S. DOLLARS), 2016–2017

	2016	2017
Core Copyright	\$1,279.0	\$1,328.3
Total Copyright	\$2,162.7	\$2,247.4
Federal Government	\$743.1	\$759.7
State & Local Government	\$1,656.7	\$1,705.0
Construction	\$792.5	\$826.1
Healthcare & Social Assistance	\$1,349.3	\$1,412.6
Finance & Insurance	\$1,404.9	\$1,454.0

The value added estimates for the copyright industries that are contained in this *Report* reflect underlying data obtained from the BEA, the U.S. Census Bureau and other government statistical agencies. In particular, the estimates of copyright industry value added make direct use of the industry-specific estimates of U.S. value added regularly published by the BEA. These industry-specific estimates (in both current dollar and real terms) are used as starting points to derive the contributions made by the core and total copyright industries to U.S. GDP.

Real growth rates in value added experienced during the period 2014–2017 by the U.S. copyright industries, and by the U.S. economy as a whole, are provided in Table 3.⁹ For each of the periods 2014–2015, 2015–2016, and 2016–2017, the U.S. core copyright industries experienced positive real growth of 4.00% or more annually. Over the entire period 2014–2017, the core copyright industries grew at a real annual growth rate of 5.23%.

The total copyright industries experienced a comparable pattern of real growth during the years 2014–2017. As shown in Table 3, in 2014–2015, 2015–2016, and 2016–2017, the total copyright industries grew at annual rates in excess of 3.6% per year. For the full period of 2014–2017, the real value added by the total copyright industries grew at a rate of 4.26% per year.

⁸ U.S. GDP figures from U.S. BEA, *Value Added by Industry*, found here: <http://www.bea.gov/iTable/iTable.cfm?ReqID=51&step=1#reqid=51&step=51&isuri=1&5114=a&5102=1>.

⁹ Real growth rates measure changes in constant dollar value added over time. In these estimates, current dollar value added figures are converted to “chained” dollars for the year 2009.

Both the U.S. copyright industries and the U.S. economy experienced positive real annual growth during the years 2014 through 2017. In order to provide a basis of comparison, the growth patterns for the U.S. economy are also provided in Table 3.

For the period 2014–2017, the U.S. economy grew at an annual rate of 2.21%. For the individual years 2014–2015, 2015–2016, and 2016–2017, the U.S. economy increased at annual rates of 2.86%, 1.49%, and 2.27% respectively. As these figures make clear, for this period, the compound annual growth rate achieved by the U.S. copyright industries significantly exceeded the compound annual growth rate achieved by the U.S. economy as a whole.

TABLE 3

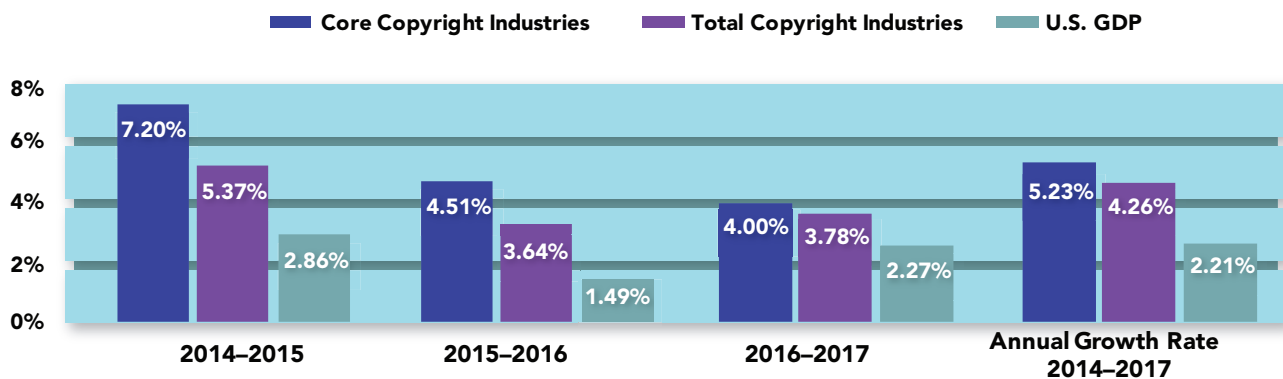
**REAL ANNUAL GROWTH RATES
VALUE ADDED TO U.S. GDP, 2014–2017**

	2014–2015	2015–2016	2016–2017	Annual Growth Rate 2014–2017
Core Copyright Industries	7.20%	4.51%	4.00%	5.23%
Total Copyright Industries	5.37%	3.64%	3.78%	4.26%
U.S. GDP	2.86%	1.49%	2.27%	2.21%

In Chart 3 we express the real (constant dollar) annual growth rates experienced by the copyright industries, compared with the real growth rate achieved by the U.S. economy as a whole, during the periods 2014–2017. Here we illustrate that the core copyright industries grew at a rate of 4.00% or more between 2014 and 2017. Similarly, the total copyright industries grew at a rate of 3.64% or more between 2014 and 2017. By contrast, the real growth rates achieved by the U.S. economy as a whole were 2.86% in 2014–2015, 1.49% in 2015–2016, and 2.27% in 2016–2017. Chart 3 clearly demonstrates that since 2014, the core and the total copyright industries have grown substantially faster than the real annual rate of growth experienced for the U.S. GDP as a whole.

CHART 3

**REAL ANNUAL GROWTH RATES
COPYRIGHT INDUSTRIES AND U.S. GDP, 2014–2017**



V. EMPLOYMENT IN THE COPYRIGHT INDUSTRIES

In this *Report*, as in the past, we estimate the number of workers employed in the core and total copyright industries for the years 2014-2017. The procedures used to derive our estimates of employment in this *Report* were largely based on the formulas derived in the earlier reports. In those reports, employee counts were derived so that the counts would be consistent in both the NAICS and ISIC classification systems. As in the past, the actual employee counts by NAICS code were extracted from the Bureau of Labor Statistics ("BLS") database.

Employment figures for the core and total copyright industries for the years 2014, 2015, 2016, and 2017 are provided in Table 4 below. As shown in Table 4, the core copyright industries employed 5.423 million workers in 2014. These workers represented 3.86% of the total U.S. workforce that year. By 2017, the number of core copyright employees in the United States had increased to 5.690 million. These workers represented 3.85% of the total U.S. workforce in 2017. Similarly, in 2014, the total copyright industries employed more than 11.1 million workers. By 2017, employment in the total copyright industries had increased to over 11.6 million. During the years of 2014–2017, the total copyright industries represented more than a 7.87% share of all U.S. employment. The total U.S. employment during this period increased from 140,381,000 in 2014 to 147,625,000 in 2017.

TABLE 4

**COPYRIGHT INDUSTRIES AND TOTAL U.S. EMPLOYMENT
(IN THOUSANDS), 2014–2017**

	2014	2015	2016	2017
Core Copyright Industries	5,423.0	5,535.4	5,631.0	5,690.2
Total U.S. Employment	140,381.0	143,093.0	145,437.0	147,625.0
Core Share of U.S. Employment	3.86%	3.87%	3.87%	3.85%
	2014	2015	2016	2017
Total Copyright Industries	11,149.8	11,361.3	11,516.2	11,625.3
Total U.S. Employment	140,381.0	143,093.0	145,437.0	147,625.0
Total Share of U.S. Employment	7.94%	7.94%	7.92%	7.87%

For U.S. private industry, employment growth during the years 2014–2017 was comparable to the employment trends experienced for the U.S. economy as a whole. As shown in Table 5, total U.S. private employment increased from 118,432,000 in 2014 to 125,294,000 in 2017. During these years, the core copyright industries by and large maintained a 4.54% share of all private employment, while the total copyright industries' share of private employment remained near 9.3% for the entire period.

TABLE 5

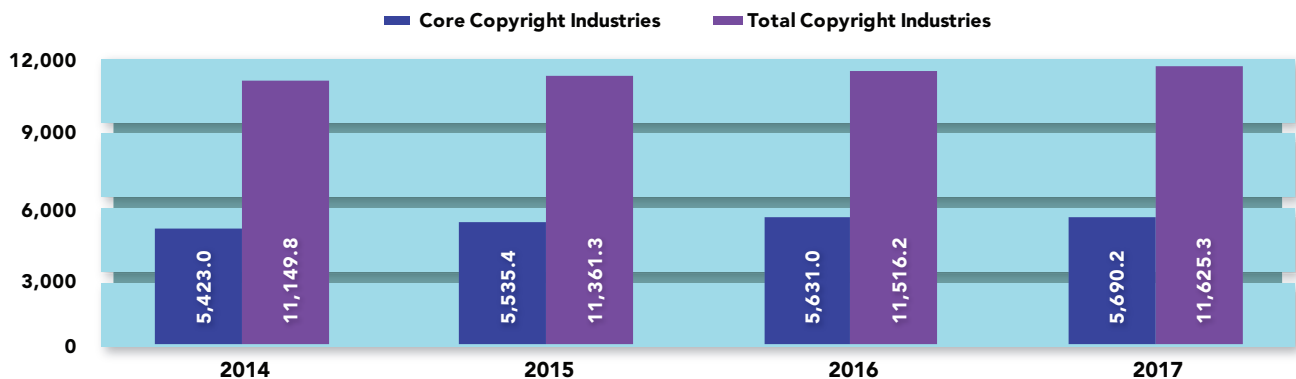
COPYRIGHT INDUSTRIES AND TOTAL PRIVATE EMPLOYMENT (IN THOUSANDS), 2014–2017

	2014	2015	2016	2017
Core Copyright Industries	5,423.0	5,535.4	5,631.0	5,690.2
Total U.S. Private Employment	118,432.0	120,993.0	123,131.0	125,294.0
Core Share of U.S. Employment	4.58%	4.57%	4.57%	4.54%
	2014	2015	2016	2017
Total Copyright Industries	11,149.8	11,361.3	11,516.2	11,625.3
Total U.S. Private Employment	118,432.0	120,993.0	123,131.0	125,294.0
Total Share of U.S. Employment	9.41%	9.39%	9.35%	9.28%

U.S. copyright industry employment is also expressed in Chart 4 below. This chart demonstrates graphically that the total number of workers in the core copyright industries consistently increased from 2014 to 2017.¹⁰ Because U.S. total employment also rose during this period, the core copyright share of employment remained at approximately 3.9%, while the total copyright share of employment remained at approximately 7.9%, as shown in Table 4.

CHART 4

U.S. COPYRIGHT INDUSTRY EMPLOYMENT (IN THOUSANDS), 2014–2017



¹⁰ As a whole, the core copyright industries have consistently been able to add jobs to the U.S. economy. Within the core however, certain component industries, particularly in the printing sector, have experienced declines in employment since the late 1990s.

In this Report, we also quantify the average compensation per employee received by workers in the copyright industries and in the United States as a whole. In these calculations, “compensation” means “wages and salary accruals and supplements to wages and salary accruals.” These supplements include “employer contributions for employee pensions and insurance funds and employer contributions for government social insurance.”¹¹ These data are shown in Table 6.

During the period 2014-2017, average compensation per employee in both the core and total copyright industries increased. As shown in Table 6, average compensation earned by core copyright employees stood at \$98,335.55 in 2017. This value was 39% higher than the average compensation paid to all U.S. employees in 2017 (\$70,497.54). For total copyright industry workers, average compensation in 2017 was \$86,308.34, about 22% higher than the U.S. average.

TABLE 6

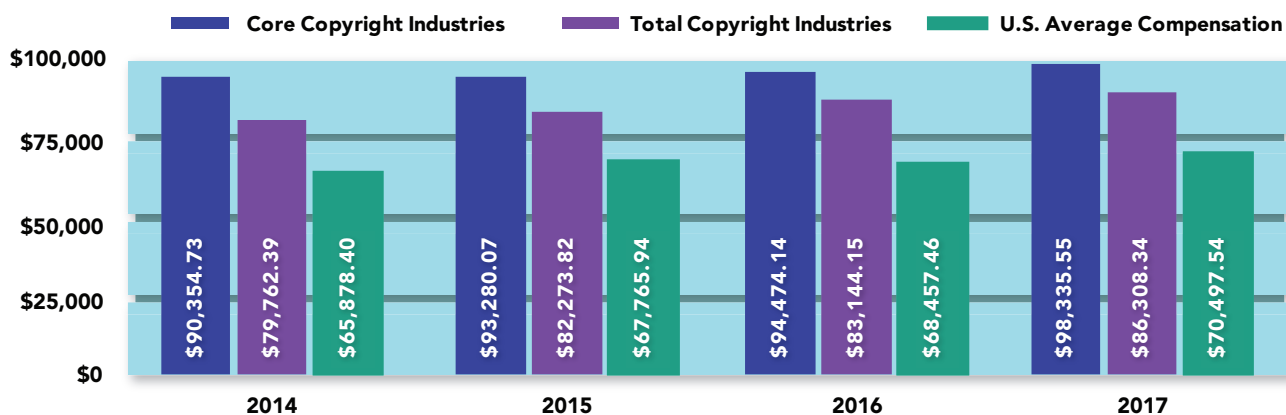
**COMPENSATION PER EMPLOYEE
(U.S. DOLLARS), 2014–2017**

Core Copyright	2014	2015	2016	2017
Core Copyright Industries	\$90,354.73	\$93,280.07	\$94,474.14	\$98,335.55
U.S. Average Compensation	\$65,878.40	\$67,765.94	\$68,457.46	\$70,497.54
Ratio: Core to U.S.	1.37	1.38	1.38	1.39
Total Copyright	2014	2015	2016	2017
Total Copyright Industries	\$79,762.39	\$82,273.82	\$83,144.15	\$86,308.34
U.S. Average Compensation	\$65,878.40	\$67,765.94	\$68,457.46	\$70,497.54
Ratio: Total to U.S.	1.21	1.21	1.21	1.22

Compensation data are also reported graphically in Chart 5. The compensation “premium” paid to workers in the copyright industries continued and increased through 2014, 2015, 2016, and 2017.

CHART 5

**U.S. COPYRIGHT INDUSTRY COMPENSATION
PER EMPLOYEE, 2014–2017**

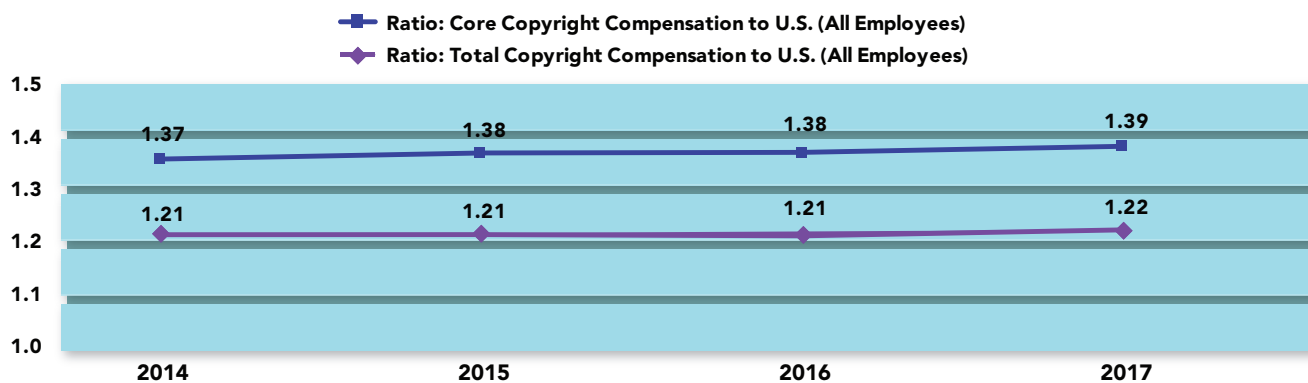


¹¹See U.S. BEA, *Glossary Index*.

The compensation “premium” paid to copyright industry employees can also be illustrated by ratio. In Chart 6A, the average compensation paid to employees in the core and total copyright industries is compared to the average compensation paid to all workers in the United States. For core copyright employees, the compensation premium has increased from 37% in 2014 to 39% in 2017. For total copyright employees, the compensation premium has centered at around 21%, but ended at 22% in 2017. In other words, in 2017, core copyright employees on average received about 39% more compensation than the average U.S. worker, while total copyright industry employees received about 22% more compensation than the average U.S. worker.

CHART 6A

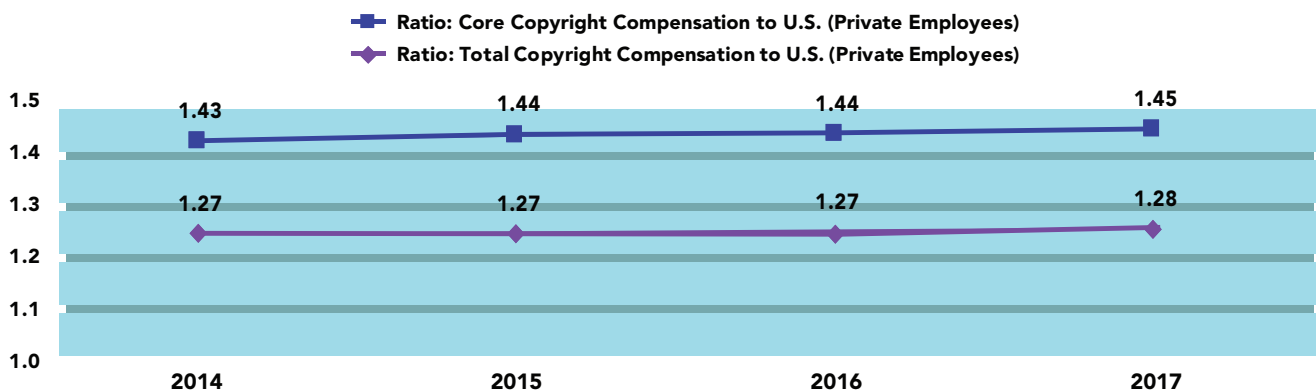
**U.S. COPYRIGHT INDUSTRY COMPENSATION RATIOS
COMPARED TO ALL U.S. EMPLOYEES (1.00=100%), 2014–2017**



Copyright industry workers are also paid more than the average U.S. worker in private industry. As shown in Chart 6B, the compensation paid to workers in the core copyright industries has generally been about 44% higher than the average compensation paid to U.S. private industry employees, and in 2017 was 45% higher. Similarly, the compensation paid to workers in the total copyright industries has generally been about 27% higher than the average compensation paid to U.S. private industry employees as a whole, and in 2017 was 28% higher.

CHART 6B

**U.S. COPYRIGHT INDUSTRY COMPENSATION RATIOS
COMPARED TO PRIVATE U.S. EMPLOYEES (1.00=100%), 2014–2017**



VI. U.S. COPYRIGHT MATERIALS IN WORLD MARKETS

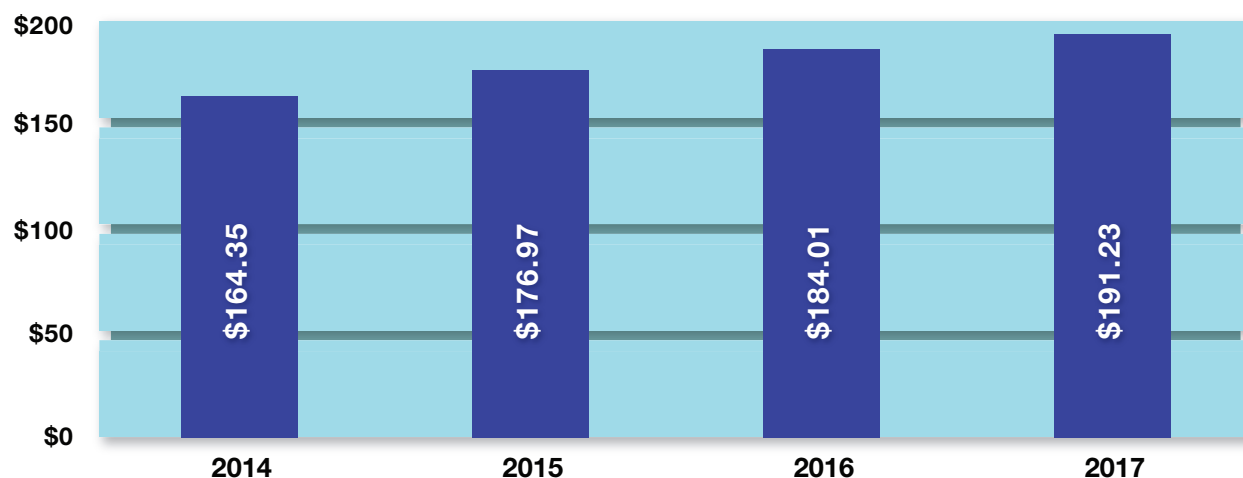
Consumers in non-U.S. markets continue to demand products that embody American creativity. Copyright products that are sold abroad may be manufactured in the United States or in foreign markets, but, in either case, the creative components of those products are nurtured by the protection afforded under U.S. laws.

As noted in prior reports on these industries, we believe that the U.S. government's statistics on "exports" of copyright products generally fail to measure accurately the true value of American copyright works sold abroad. We recognize that, in recent years, efforts have been undertaken to improve the scope of the copyright product export statistics that are gathered in government surveys. For example, the U.S. Census Bureau now reports "Estimated Export Revenue for Employer firms;" for a number of the copyright industries, including the motion picture industry and the sound recording industry.¹² However, the export statistics reported by the U.S. Census Bureau are substantially lower than foreign market sales figures derived from non-government sources.

In this 2018 *Report*, we again provide estimates of foreign sales and exports for four selected core copyright sectors for which we have data during the years 2014 through 2017: recorded music; motion pictures, television and video; software publishing; and non-software publications including newspapers, books, and periodicals. For these years, we report total foreign sales for these "selected" core copyright sectors of \$164.35 billion in 2014, \$176.97 billion in 2015, \$184.01 billion in 2016, and \$191.23 billion in 2017. Chart 7 illustrates these figures graphically.

CHART 7

REVENUE GENERATED BY FOREIGN SALES AND EXPORTS OF SELECTED COPYRIGHT SECTORS (IN BILLIONS OF DOLLARS), 2014–2017



¹² See U.S. Census Bureau, *Estimated Export Revenue for Employer Firms: 2010 through 2014*, Table 6.

Annual growth rates for foreign sales of the selected core copyright industries are provided in Table 7. As shown, the growth rate of foreign sales for these selected industries remained healthy throughout the 2014–2017 time period.

TABLE 7 ANNUAL GROWTH RATE OF FOREIGN SALES AND EXPORTS 2014–2017			
	2014–2015	2015–2016	2016–2017
Growth Rate	7.68%	3.98%	3.92%

In addition, the foreign sales and exports of these core copyright sectors exceed the entirety of exports of other major industry sectors. In 2017, the core copyright industries generated non-U.S. sales of \$191.2 billion, which is generally more than the exports of the other U.S. industries, as reported in Table 8. In the same year, foreign sales and exports for the U.S. electronic equipment industry amounted to \$174.2 billion and agricultural foreign sales and exports were approximately \$138.2 billion. The U.S. chemicals manufacturing industry (excluding pharmaceuticals & medicines) reached \$137.0 billion in 2017 and reported foreign sales and exports for U.S. aerospace products and parts approached \$134.4 billion. Foreign sales and exports of U.S. pharmaceuticals & medicines reached \$55.8 billion in 2017.

TABLE 8 FOREIGN SALES AND EXPORTS FOR SELECTED U.S. INDUSTRIES (BILLIONS OF U.S. DOLLARS), 2017	
	2017
Selected Copyright Industries	\$191.2
Electronic Equipment, Appliances & Components¹	\$174.2
Agricultural Products²	\$138.2
Chemicals (excluding Pharmaceuticals & Medicines)³	\$137.0
Aerospace Products and Parts³	\$134.4
Pharmaceuticals & Medicines³	\$ 55.8

¹Source: <http://www.worldstopexports.com/united-states-top-10-exports/>.

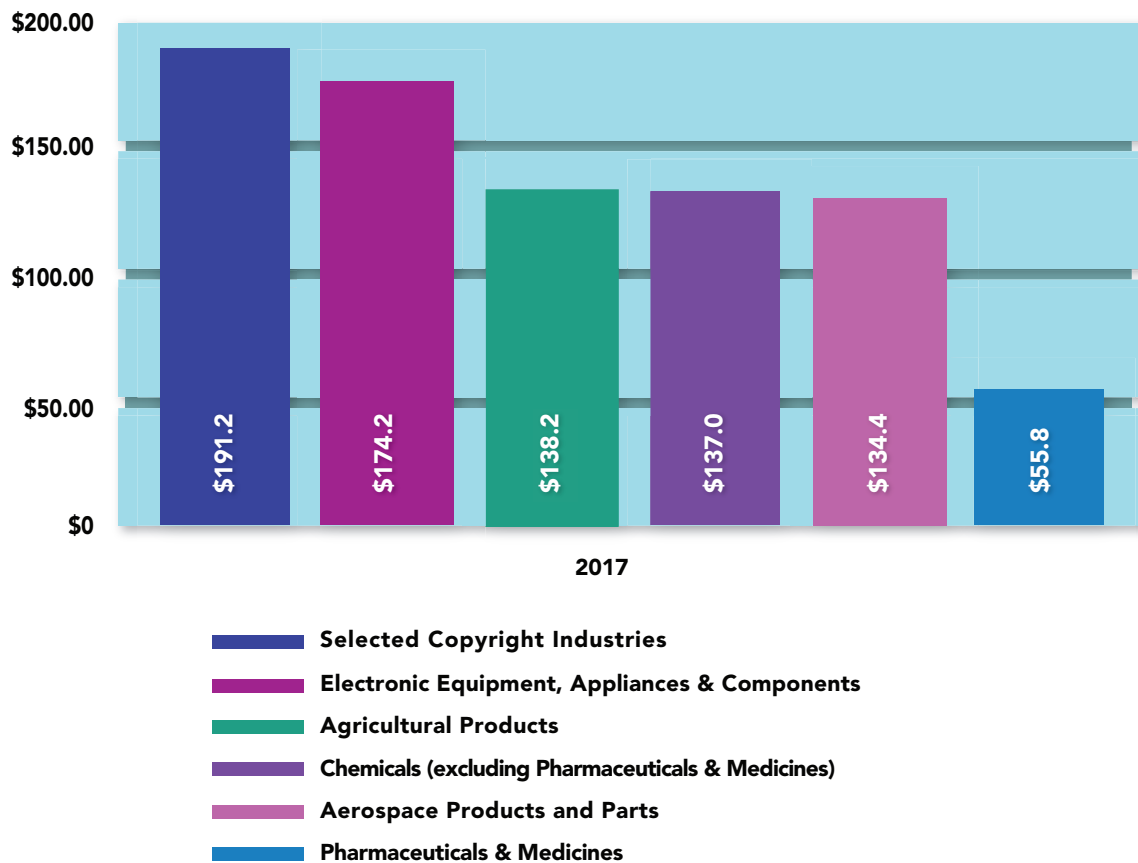
²Source: U.S. Department of Agriculture, Economic Research Service, <https://www.ers.usda.gov/data-products/foreign-agricultural-trade-of-the-united-states-fatus/us-agricultural-trade-data-update/>.

³Source: U.S. Census Bureau: Economic Indicators Division USA Trade Online.

Foreign sales and exports data by industry are also reported graphically in Chart 8. The data represent the significant contribution made by American copyright works sold abroad to the overall trade balance of the U.S. economy, as well as by comparison with other industry sectors.

CHART 8

**FOREIGN SALES AND EXPORTS FOR SELECTED INDUSTRIES
(BILLIONS OF U.S. DOLLARS), 2017**



VII. CONCLUSION

The U.S. copyright industries have consistently outperformed the rest of the U.S. economy, in terms of their real annual growth rates and their contributions to the overall growth of the U.S. economy as a whole. These industries also command significant shares of U.S. gross domestic product and employ millions of U.S. workers. In addition, the compensation paid to U.S. workers in the copyright industries consistently and substantially exceeds the average compensation level paid to U.S. workers as a whole. Finally, copyright sectors continue to play a prominent role in the growth of U.S. exports.

Value added in the copyright industries continues to grow. As of 2017, the value added by the core copyright industries was \$1,328.3 billion, approximately 6.85% of U.S. GDP. In the same year, value added for the total copyright industries stood at \$2,247.4 billion or 11.59% of U.S. GDP. From 2014–2017, the real annual growth rates achieved by both the core and total copyright industries were significantly higher than the real growth rates exhibited by the U.S. economy as a whole.

The U.S. core copyright industries now employ nearly 5.7 million workers, while some 11.6 million people are employed by the total copyright industries. In 2017, the annual compensation paid to core copyright workers exceeded the average annual compensation paid to all U.S. workers by 39%, and the average compensation paid to employees of the total copyright industries exceeded the U.S. average by 22%.

Sales of U.S. copyright materials continue to expand in overseas markets. For selected core copyright sectors, sales in foreign markets exceeded \$191 billion in 2017. The foreign sales of these selected copyright sectors exceeded foreign sales of other U.S. industries including the electronic equipment, appliances and components industry; the agricultural products industry; the chemicals manufacturing industry (excluding pharmaceuticals and medicines); the aerospace products and parts industry; and the pharmaceuticals and medicines industry.

These consistently positive trends solidify the status of the U.S. copyright industries as a key engine of growth for the U.S. economy as a whole. As new technologies support the development of new distribution methods for legitimate copyrighted products, the U.S. copyright-based industries represented by the IIPA remain optimistic that economic growth, combined with strong laws, effective enforcement, and steps to open markets, will continue to pave the way for economic growth both in the United States and abroad.

APPENDIX A: TABLES OF STATISTICS

TABLE A.1

CORE COPYRIGHT INDUSTRIES VALUE ADDED TO U.S. GDP, 2014–2017

Nominal Value Added (Billions of dollars)	2014	2015	2016	2017
Core Copyright	\$1,145.42	\$1,227.80	\$1,278.98	\$1,328.30
U.S. GDP	\$17,427.60	\$18,120.70	\$18,624.50	\$19,390.60
Share	6.57%	6.78%	6.87%	6.85%
Real Value Added (Billions of 2009 dollars)	2014	2015	2016	2017
Core Copyright	\$1,131.70	\$1,213.20	\$1,267.96	\$1,318.64
U.S. GDP	\$16,013.30	\$16,471.50	\$16,716.20	\$17,096.20
Share	7.07%	7.37%	7.59%	7.71%
Annual Growth in Real Value Added	2013–2014	2014–2015	2015–2016	2016–2017
Core Copyright	N/A	7.20%	4.51%	4.00%
U.S. GDP	N/A	2.86%	1.49%	2.27%

Compound Annual Growth Rates 2014–2017

Core Copyright	5.23%
U.S. GDP	2.21%

TABLE A.2

TOTAL COPYRIGHT INDUSTRIES VALUE ADDED TO U.S. GDP, 2014–2017

Nominal Value Added (Billions of dollars)	2014	2015	2016	2017
Total Copyright	\$1,972.41	\$2,092.63	\$2,162.75	\$2,247.34
U.S. GDP	\$17,427.60	\$18,120.70	\$18,624.50	\$19,390.60
Share	11.32%	11.55%	11.61%	11.59%
Real Value Added (Billions of 2009 dollars)	2014	2015	2016	2017
Total Copyright	\$1,922.95	\$2,026.14	\$2,099.98	\$2,179.35
U.S. GDP	\$16,013.30	\$16,471.50	\$16,716.20	\$17,096.20
Share	12.01%	12.30%	12.56%	12.75%
Annual Growth in Real Value Added	2013–2014	2014–2015	2015–2016	2016–2017
Total Copyright	N/A	5.37%	3.64%	3.78%
U.S. GDP	N/A	2.86%	1.49%	2.27%

Compound Annual Growth Rates 2014–2017

Total Copyright	4.26%
U.S. GDP	2.21%

TABLE A.3

U.S. COPYRIGHT INDUSTRY EMPLOYMENT (IN THOUSANDS), 2014–2017

Core Copyright	2014	2015	2016	2017
Core Copyright Employment	5,423	5,535	5,631	5,690
Total U.S. Employment	140,381	143,093	145,437	147,625
Total Private U.S. Employment	118,432	120,993	123,131	125,294
Core Copyright Share of U.S. Employment	3.86%	3.87%	3.87%	3.85%
Core Copyright Share of Private U.S. Employment	4.58%	4.57%	4.57%	4.54%
Total Copyright	2014	2015	2016	2017
Total Copyright Employment	11,149.8	11,361.3	11,516.2	11,625.3
Total U.S. Employment	140,381	143,093	145,437	147,625
Total Private U.S. Employment	118,432	120,993	123,131	125,294
Total Copyright Share of U.S. Employment	7.94%	7.94%	7.92%	7.87%
Total Copyright Share of Private U.S. Employment	9.41%	9.39%	9.35%	9.28%

TABLE A.4

U.S. COPYRIGHT INDUSTRY COMPENSATION PER EMPLOYEE (U.S. DOLLARS), 2014–2017

Core Copyright	2014	2015	2016	2017
Core Copyright Compensation/Employee	\$90,354.73	\$93,280.07	\$94,474.14	\$98,335.55
Average U.S. Compensation/Employee	\$65,878.40	\$67,765.94	\$68,457.46	\$70,497.54
Average Private U.S. Compensation/Employee	\$63,049.26	\$64,957.20	\$65,620.46	\$67,666.99
Ratio: Core Copyright Compensation to U.S.	1.37	1.38	1.38	1.39
Ratio: Core Copyright Compensation to Private U.S.	1.43	1.44	1.44	1.45
Total Copyright	2014	2015	2016	2017
Total Copyright Compensation/Employee	\$79,762.39	\$82,273.82	\$83,144.15	\$86,308.34
Average U.S. Compensation/Employee	\$65,878.40	\$67,765.94	\$68,457.46	\$70,497.54
Average Private U.S. Compensation/Employee	\$63,049.26	\$64,957.20	\$65,620.46	\$67,666.99
Ratio: Total Copyright Compensation to U.S.	1.21	1.21	1.21	1.22
Ratio: Total Copyright Compensation to Private U.S.	1.27	1.27	1.27	1.28

APPENDIX B: LIST OF REFERENCES

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