COPYRIGHT INDUSTRIES in the U.S. Economy



The 2011 Report

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The 2011 Report

By Stephen E. Siwek Economists Incorporated Prepared for the International Intellectual Property Alliance®

Copyright Industries in the U.S. Economy: The 2011 Report is the thirteenth 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 Furchgott-Roth, Copyright Industries in the U.S. Economy (released in November 1990)
- Stephen E. Siwek and Harold Furchgott-Roth, Copyright Industries in the U.S. Economy: 1977-1990 (released in September 1992)
- Stephen E. Siwek and Harold Furchgott-Roth, Copyright Industries in the U.S. Economy: 1993 Perspective (released in October 1993)
- Stephen E. Siwek and Harold Furchgott-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)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 1999 Report (released in December 1999)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2000 Report (released in December 2000)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2002 Report (released in April 2002)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2004 Report (released in October 2004)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2006 Report (released in January 2007)
- Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2003-2007 Report (released in July 2009)

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The IIPA is a private sector coalition formed in 1984 to represent the U.S. copyright-based industries in bilateral and multilateral efforts to improve international protection and enforcement of copyrighted materials, and address market access barriers for the creative industries. These seven member associations – the Association of American Publishers (AAP), the Business Software Alliance (BSA), the Entertainment Software Association (ESA), the Independent Film & Television Alliance (IFTA), the Motion Picture Association of America (MPAA), the National Music Publishers' Association (NMPA) and the Recording Industry Association of America (RIAA) – in turn represent over 1,900 U.S. companies producing and distributing materials protected by copyright laws throughout the world—all types of computer software, including business applications software and entertainment software (such as videogame discs and cartridges, personal computer CD-ROMs, and multimedia products); theatrical films, television programs, DVDs and home video and digital representations of audiovisual works; music, records, CDs, and audiocassettes; and textbooks, trade books, reference and professional publications and journals (in both electronic and print media).

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PREFACE

Michael Schlesinger and Steven J. Metalitz International Intellectual Property Alliance

For the last 27 years, the International Intellectual Property Alliance® (IIPA®) and its association members have worked in partnership with the U.S. government to improve the ability of companies dependent on copyright to do business successfully in foreign markets. These efforts have resulted in very significant improvements in copyright laws in these countries, in the enforcement of those laws, and in the lowering of other market access barriers. These improvements have had a substantial positive impact on

revenue and employment in the U.S. creative industries; in helping these industries become one of the nation's largest contributors to exports and foreign trade; and in boosting U.S. economic growth overall. These improvements have also benefitted millions of creative individuals and enterprises in these foreign countries.

As international trade has increased and globalized, governments have become acutely aware of the significant

contributions that their copyright-based industries make to their own economic growth, technological innovation and cultural diversity. With the strongest copyright industries in the world, the U.S. was the first to quantify the economic impact of these industries. In 1990 IIPA commissioned one of the first reports of its kind to measure the role of the copyright industries as a distinct economic sector and to assess its revenue, employment, and growth impact on the U.S. economy. The series of reports that began in 1990 demonstrated that the creation and dissemination of knowledge-intensive intellectual property-based goods and services have become more and more critical to the continued economic growth of this country.

This 2011 Report, prepared for the IIPA by Steve Siwek of Economists Incorporated, underscores once again that the copyright industries are one of the most important contributors to U.S. economic growth. The U.S. copyright industries –

- continue to outpace the rest of the economy in real growth;
- employ over five million workers, who on average are paid significantly more than other U.S. employees; and
- contribute significantly to U.S. foreign sales and exports, exceeding those for many major U.S. industry sectors.

Other countries have discovered the value of preparing their own national studies. In 2003, the World Intellectual Property Organization (WIPO), building upon the methodologies developed by Steve Siwek of Economists Incorporated, issued its Guide on Surveying the Economic Contribution of the Copyright-Based Industries. The Guide describes methodologies for measuring the role of copyright industries in domestic economies that can, in particular, be adapted to developing countries. Since 2004, when the IIPA's report was the first to use this new WIPO methodology, 28 more countries have completed their own national reports. Studies employing the WIPO methodology have now been done in: Australia, Bhutan, Brunei, Bulgaria, Canada, China, Colombia, Croatia, Finland, Hungary, Jamaica, Kenya, Korea, Latvia, Lebanon, Malaysia, Mexico, Netherlands, Pakistan, Panama, Peru, Philippines, Romania, Russia, Singapore, Slovenia, South Africa, and the Ukraine. In many of these countries, the studies provide the economic underpinnings for efforts to reform copyright law and enforcement and to lower rates of copyright piracy. Other countries are expected to join this effort as well.

This 2011 report, our fourth report that follows the WIPO methodology, presents data on the value added contributions of the copyright sectors to the U.S. economy; the percentage contribution of the copyright sectors to the overall U.S. economy; their employment levels; the average compensation for workers in the copyright sectors in comparison to other sectors; and the contributions of selected copyright industries to exports and foreign sales. The period covered by this report (2007-2010) includes the financial crisis and the U.S. recession of 2008-2009. No previous report in this series has ever documented a period of such damaging impacts on the U.S. economy and on U.S. jobs. While the copyright industries were not immune to these impacts, the value added by the copyright industries to U.S. GDP continued to grow in real terms over the period as a whole, even though U.S. GDP overall did not. During the same period, the copyright industries also maintained their share of the overall U.S. workforce, and foreign sales and exports reached their highest levels ever in 2010.

Despite these robust achievements, the creative and knowledge-based industries, and our economy as a whole, face a significant challenge from global copyright piracy. A growing percentage of revenue is being generated by sales outside the United States, leading to new and higher paying U.S. jobs in the copyright sector. Piracy inhibits this growth in the U.S. and around the world.

The creativity, innovation, investment, jobs, and cultural benefits that the copyright-based industries supply to national economies and societies can no longer be denied. Widespread online and physical piracy of copyright materials undermines the vitality and vibrancy of creative industries. Economic reports such as this one underscore what is at stake. They provide a compelling argument for more effective legal, enforcement, and market access regimes to promote and foster the growth of the content-based industries in the U.S., and in national economies around the world.

EXECUTIVE SUMMARY

This report, *Copyright Industries in the U.S. Economy: The 2011 Report*, completed by Economists Incorporated, updates and supplements twelve earlier reports prepared on behalf of the International Intellectual Property Alliance ("IIPA"). This thirteenth report presents estimates of the copyright industries' contributions to the U.S. economy for the years 2007-2010, which reflects the most recent full year data (2010) at the time of the publication.¹

As will be explained herein, this report concludes that the U.S. copyright industries continue to contribute a large share of the U.S. gross domestic product and to employ millions of U.S. workers. Compensation paid to U.S. workers in the copyright industries substantially exceeds the average compensation paid to U.S. workers. The U.S. copyright industries also continue to contribute significantly to U.S. foreign sales and exports, exceeding those for many major U.S. industry sectors. Finally, despite the recession of 2008-2009, and the continuing harmful effects of copyright piracy, the U.S. copyright industries outperformed the rest of the U.S. economy as a whole during the period 2007-2010.

The period covered by this report includes the U.S. recession of 2008-2009. No previous report in this series has ever documented a period of such damaging impacts on the U.S. economy and on U.S. jobs. During the years 2008-2010 and continuing into 2011, the U.S. economy experienced a nearly unprecedented decline in GDP and employment.² The copyright industries were not immune to these impacts. But even through this difficult period, the value added by the copyright industries to U.S. GDP continued to grow in real terms while U.S. GDP as a whole did not. During the same period, the copyright industries' share of the overall U.S. employment market remained largely unchanged.

This 2011 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. The report 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.³

The data in this study quantify the size and critical importance of the copyright industries to the U.S. economy, generally using the most current data available. As in past studies, the U.S. copyright industries' contribution to the U.S. economy is measured by three economic indicators: value added to the U.S. gross domestic product ("GDP") in current dollars; industry employment and share of national employment; and revenues generated from foreign sales and exports. This study 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 below, for the period 2007-2010, the copyright industries, both core and total, achieved average real annual growth rates in excess of 1.0%. By contrast, for the same multi-year period, the U.S. economy's real growth was essentially flat. These growth rates were realized even though the study period included the 2008-2009 recession, a time when the copyright industries' real annual growth rates were negative.

Consistent with the declines experienced in total U.S. GDP and employment since 2007, the recent performance of the U.S. copyright industries did not match the copyright industries' achievements in years past and as documented in previous reports. However, even during this period, characterized in large part by the 2008-2009 recession, the U.S. copyright industries continued to contribute mightily to the overall U.S. GDP and were able to outperform the U.S. economy as a whole.

¹ In this study, the values presented for 2007 have been updated from the 2007 results presented in Copyright Industries in the U.S. Economy - The 2003-2007 Report. The updates result from data revisions published by the U.S. Bureau of Economic Analysis and by other government agencies since the last report was completed.

² See Appendix A.

³ 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.

COPYRIGHT INDUSTRY VALUE ADDED TO GDP – 2007-2010

As noted above, the harmful effects of the recession of 2008-2009 were widespread and most U.S. industries experienced declining sales and employment during those years. However, by 2010, the U.S. economy began to improve somewhat from its low point in 2009. Within this context, the copyright industries remained an important contributor to U.S. GDP.

As shown in Table 1, the current dollar "value added" to U.S. GDP by the "core" copyright industries reached \$931.8 billion in 2010. In the same year, U.S. GDP reached \$14.66 trillion. Thus, the core copyright industries maintained a 6.4% share of U.S. GDP. The value added by the total copyright industries in the same period is also shown in Table 1. As reported in Table 1, the value added to U.S. GDP by the "total" copyright industries in 2010 was \$1.627 trillion, or 11.10% of U.S. GDP.

| Table 1: 2007-2010 VALUE | ADDED | (BILLION: | S OF U.S. | DOLLARS) |
|----------------------------|------------|------------|------------|------------|
| | 2007 | 2008 | 2009 | 2010 |
| Core Copyright Industries | \$904.3 | \$913.9 | \$901.0 | \$931.8 |
| Total U.S. GDP | \$14,061.8 | \$14,369.1 | \$14,119.0 | \$14,660.4 |
| Core Share of U.S. GDP | 6.43% | 6.36% | 6.38% | 6.36% |
| | | | | |
| | 2007 | 2008 | 2009 | 2010 |
| Total Copyright Industries | \$1,583.6 | \$1,593.0 | \$1,562.7 | \$1,626.9 |
| Total U.S. GDP | \$14,061.8 | \$14,369.1 | \$14,119.0 | \$14,660.4 |
| Total Share of U.S. GDP | 11.26% | 11.09% | 11.07% | 11.10% |

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. As reported in Table 2, the total value added to the U.S. economy by the entire federal government in 2010 was \$637.7 billion. This amount is approximately 60% lower than the value added by the total copyright industries in the same year. In 2010, the total value added to the U.S. economy by state and local governments was \$1,326.1 billion. This value is approximately 18% lower than the value added by the total copyright industries in 2010. Comparisons of the copyright industry's value added in 2009 and 2010, 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: 2009 AND 2010 VALUE ADDED COMPARISONS TO OTHER SECTORS (BILLIONS OF U.S. DOLLARS)

| | 2009 | 2010 |
|---|-----------|-----------|
| Core Copyright - Value Added | \$900.9 | \$931.8 |
| Total Copyright - Value Added | \$1,562.7 | \$1,626.9 |
| Federal Government - Value Added | \$611.5 | \$637.7 |
| State and Local Government - Value Added | \$1,311.0 | \$1,326.1 |
| Construction - Value Added | \$537.5 | \$505.6 |
| Health Care and Social Assistance - Value Added | \$1,057.9 | \$1,111.7 |
| Finance and Insurance - Value Added | \$1,171.6 | \$1,235.2 |
| | | |

The value added estimates for the copyright industries that are contained in this report reflect underlying data that was obtained from the U.S. Bureau of Economic Analysis ("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 that are regularly published by the U.S. 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

⁴ U.S. GDP figures from Gilmore, T., Morgan, E. and Osborne, S., Annual Industry Accounts – Advanced Statistics on GDP by Industry, Survey of Current Business, May 2011, Table 1. (Hereinafter – U.S. BEA, Annual Industry Accounts).

COPYRIGHT INDUSTRY REAL GROWTH

The real growth rates in value added experienced by the U.S. copyright industries and by the U.S. economy during the period 2007-2010 are shown in Table 3.⁵ For the periods 2007-2008 and 2009-2010, the U.S. core copyright industries experienced positive real growth in excess of 3% annually. However, for 2008-2009, the core copyright industries' real value added declined by 3.07%.

The total copyright industries experienced a comparable pattern during the years 2007-2010. As shown in Table 3, for the periods 2007-2008 and 2009-2010, the total copyright industries grew at annual rates of 2.39% (2007-2008) and 4.20% (2009-2010). However, the total copyright industries also reported a reduction of 2.07% in real value added for 2008-2009.

This mixed pattern of growth and decline can also be observed for the U.S. economy as a whole. As shown in Table 3, U.S. GDP, in real terms, was flat in 2007-2008. However, in 2008-2009, real U.S. GDP fell by 2.63%. Subsequently, in 2009-2010, real U.S. GDP grew by 2.85%.

For U.S. private industry, the trends in real GDP were even worse than for the economy as a whole. Real private industry GDP fell by 0.67% in 2008 and by another 3.02% in 2009. Even by 2010, U.S. private industry GDP in real terms remained lower than it had been in 2007 (\$11.52 trillion in 2010 and \$11.62 trillion in 2007).

| Table 3: REAL ANNUAL GROWTH RATES | | | | | | | |
|------------------------------------|-----------|-----------|-----------|-------------|--|--|--|
| VAL | UE ADDE | D TO U.S. | GDP | Annual | | | |
| | | | | Growth Rate | | | |
| | 2007-2008 | 2008-2009 | 2009-2010 | 2007-2010 | | | |
| Core Copyright Industries | 3.05% | -3.07% | 3.44% | 1.10% | | | |
| Total Copyright Industries | 2.39% | -2.07% | 4.20% | 1.47% | | | |
| U.S. GDP | 0.00% | -2.63% | 2.85% | 0.05% | | | |
| | | | | | | | |

As Table 3 makes clear, in the years 2007-2010, both the U.S. copyright industries and the U.S. economy experienced dramatic ups and downs in real annual growth. In order to provide a longer term assessment of these growth patterns, the average annual growth rates for the entire period 2007-2010 are also provided in Table 3.

For the entire period 2007-2010, the U.S. core copyright industries, in real terms, grew at a compound annual growth rate of 1.10%. During the same period, the total U.S. copyright industries grew at a compound annual growth rate of 1.47%. By contrast, the U.S. economy's compound annual growth rate over the period 2007 through 2010 was only 0.05%.

As these data suggest, in 2007-2008, the core copyright industries grew at a rate in excess of 2.0% (and the total copyright industries grew at a rate in excess of 3.0%) while the U.S. economy did not grow at all. Subsequently, in 2008-2009, the copyright industries, like the rest of the economy, declined at an annual rate of 2-3%. Finally, in 2009-2010, the copyright industries experienced real growth of 3.4-4.2% while the U.S. economy grew at just under 3%. For the whole period of 2007-2010, 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.

COPYRIGHT INDUSTRY EMPLOYMENT AND COMPENSATION — 2007-2010

Employment figures for the core and total copyright industries for the years 2007, 2008, 2009, and 2010 are provided in Table 4. As shown in Table 4, the core copyright industries employed 5,496,100 workers in 2007. These workers represented 3.99% of the total U.S. workforce in 2007. By 2010, the number of core copyright employees in the United States had declined by 398,500 workers to 5,097,600. This number is significant, but must be

⁵ 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 2000.

understood in the context of overall U.S. employment, which declined by 7,780,000 from 137,598,000 in 2007 to 129.818.000 in 2010.6

| Table 4: 2007-2010 TOTAL EMPLOYMENT (IN THOUSANDS) | | | | | | |
|--|-----------|-----------|-----------|-----------|--|--|
| | 2007 | 2008 | 2009 | 2010 | | |
| Core Copyright Industries | 5,496.1 | 5,474.8 | 5,176.1 | 5,097.6 | | |
| Total U.S. Employment | 137,598 | 136,790 | 130,807 | 129,818 | | |
| Core Share of U.S. | 3.99% | 4.00% | 3.96% | 3.93% | | |
| | 2007 | 2008 | 2009 | 2010 | | |
| Total Copyright Industries | 11,557.2 | 11,473.8 | 10,814.8 | 10,632.2 | | |
| Total U.S. Employment | 137,598.0 | 136,790.0 | 130,807.0 | 129,818.0 | | |
| Total Share of U.S. | 8.40% | 8.39% | 8.27% | 8.19% | | |

For U.S. private industry, employment declines in the years 2007 through 2010 were even greater than for the U.S. economy as a whole. As shown in Table 5, total U.S. private employment fell by more than 8,000,000 from 115,380,000 in 2007 to 107,337,000 in 2010. During these years, the core copyright industries maintained a 4.8% share of all private employment while the total copyright industries' share of private employment declined slightly from 10.02% to 9.91%.

| Table 5: 2007-2010 TOTAL PRIVATE EMPLOYMENT (IN THOUSANDS) | | | | | | | | |
|---|----------|----------|----------|----------|--|--|--|--|
| | 2007 | 2008 | 2009 | 2010 | | | | |
| Core Copyright Industries | 5,496.1 | 5,474.8 | 5,176.1 | 5,097.6 | | | | |
| Total U.S. Private Employment | 115,380 | 114,281 | 108,252 | 107,337 | | | | |
| Core Share of U.S. Private Industry | 4.76% | 4.79% | 4.78% | 4.75% | | | | |
| | 2007 | 2008 | 2009 | 2010 | | | | |
| Total Copyright Industries | 11,557.2 | 11,473.8 | 10,814.8 | 10,632.2 | | | | |
| Total U.S. Private Employment | 115,380 | 114,281 | 108,252 | 107,337 | | | | |
| Total Share of U.S. Private Industry | 10.02% | 10.04% | 9.99% | 9.91% | | | | |

In this report, as in the past, we also present estimates of the total compensation paid to workers in the core and total copyright industries for the years 2007-2010. In these calculations, worker compensation includes both wage and salary accruals and supplements to wage and salary payments.⁷ These data are shown in Table 6.

During the period 2007-2010, 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 \$78,128 in 2010. This value was 27% higher than the average compensation paid to all U.S. employees in 2010, which stood at \$61,404. For all copyright industry workers, average compensation in 2010 was \$70,513, about 15% higher than the U.S. average.

| Table 6: 2007-2010 COMPENSATION PER EMPLOYEE (U.S. DOLLARS) | | | | | | | |
|--|-------------|-------------|-------------|-------------|--|--|--|
| | 2007 | 2008 | 2009 | 2010 | | | |
| Core Copyright Industries | \$74,450.18 | \$75,852.89 | \$76,015.33 | \$78,127.81 | | | |
| Total U.S. Compensation | \$57,093.10 | \$58,983.20 | \$59,678.60 | \$61,404.20 | | | |
| Ratio: Core to U.S. 1.30 1.29 1.27 1.27 | | | | | | | |
| | 2007 | 2008 | 2009 | 2010 | | | |
| Total Copyright Industries | \$67,320.41 | \$68,534.30 | \$68,621.60 | \$70,512.84 | | | |
| Total U.S. Compensation | \$57,093.10 | \$58,983.20 | \$59,678.60 | \$61,404.20 | | | |
| Ratio: Total to U.S. | 1.18 | 1.16 | 1.15 | 1.15 | | | |

FOREIGN SALES AND EXPORTS — 2007-2010

In terms of foreign sales and exports, this Report examines four selected core copyright industry sectors – the sound recording industry, the motion picture and television industry, the computer software industry and the nonsoftware publishing industries which include newspapers, books and periodicals. These core copyright industry

⁶ U.S. Bureau of Labor Statistics, Databases, Tables & Calculators by Subject, Employment, available at http://www.bls.gov/data/#employment. For U.S. private industry, the employment declines were even greater. For the years 2007 through 2010, U.S. private industry employment fell by almost 7.0%. Private employment in the United States fell from 115,380,000 in 2007 to 107,337,000 in 2010.

⁷ The definition of compensation used in this report tracks that used by the U.S. Bureau of Economic Analysis.

sectors continued to grow during the 2007-2010 time period. By 2010, foreign sales for these core copyright groups increased by nearly 4.0%.

Annual growth rates for foreign sales and exports of these selected core copyright industries are provided in Table 7. As shown in Table 7, foreign sales increased in 2008 by 4.4%, decreased in 2009 by 3.3%, and once again increased in 2010 by 3.8%.

| | | H RATE OF FORE | IGN | |
|-------------|------|----------------|------|--|
| | 2008 | 2009 | 2010 | |
| Growth Rate | 4.4% | -3.3% | 3.8% | |

In Table 8, the foreign sales of these selected copyright industry sectors, representing only a portion of the core copyright industries, are compared with sales and/or exports of other U.S. industries. In 2010, these selected copyright industry sectors alone generated non-U.S. sales of \$134.0 billion. These sales figures compare favorably to

many industry sectors. For example, in 2010, reported exports of U.S. aircraft, aircraft engines and parts were \$77.5 billion, while U.S. automobiles, transmissions, power trains and engines were nearly \$50 billion, and U.S. agricultural exports were approximately \$60 billion. In 2010, foreign sales of pharmaceuticals and medicines were \$36.4 billion. In the same year, the U.S. chemical industry (excluding pharmaceuticals and medicines) achieved somewhat higher foreign sales of \$143.1 billion.

| Table 8 2010 FOREIGN SALES AND EXPORTS FOR SELECTED INDUSTRIES (BILLIONS OF U.S. DOLLARS) | | | | | |
|--|---------|--|--|--|--|
| Industry | 2010 | | | | |
| Selected Copyright Industries | \$134.0 | | | | |
| Chemicals (excluding Pharmaceuticals & Medicines) | \$143.1 | | | | |
| Aircraft, Aircraft Engines and Parts | \$77.5 | | | | |
| Autos, Auto Trans & Power, Auto Engines | \$49.8 | | | | |
| Agricultural Products | \$60.2 | | | | |
| Food and Kindred Products | \$51.9 | | | | |
| Pharmaceuticals & Medicines | \$36.4 | | | | |

I. INTRODUCTION

This report, Copyright Industries in the U.S. Economy: The 2011 Report, is the thirteenth in a series issued over the last twenty-one years by Economists Incorporated on behalf of the International Intellectual Property Alliance (IIPA). This latest report confirms once again that the U.S. copyright industries have outpaced the rest of the economy in real growth. The copyright industries also continue to employ millions of workers whose compensation levels substantially exceed the average level of compensation paid to all U.S. workers. Finally, the U.S. copyright industries continue to contribute significantly to U.S. foreign sales and exports, exceeding those for many major U.S. industry sectors.

As in previous years, this study is presented in five sections:

- The copyright industries
- Value added by the copyright industries to the U.S. economy
- Employment in the copyright industries in the U.S. economy
- U.S. copyright materials in world markets
- Conclusion

II. THE COPYRIGHT INDUSTRIES

In nine of our twelve prior economic reports on the copyright industries, we divided the copyright industries into four groups: core, partial, distribution, and copyright related; these are the sectors we developed and defined in our first report issued in 1990. In the "2004," "2006," and "2003-2007" reports, 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.

The core industries are those industries whose primary purpose is to create, produce, distribute or exhibit copyright materials. These industries include newspapers and periodicals, motion pictures, recorded music, radio and television broadcasting, and computer software.

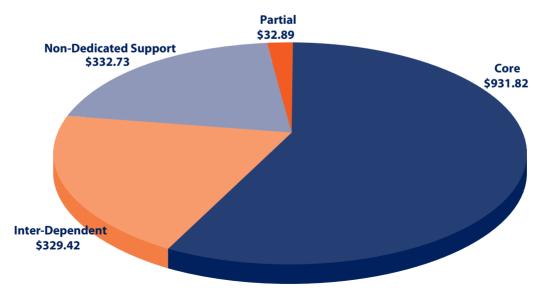
Partial copyright industries are industries in which only some aspect or portion of the products that they create can qualify for copyright protection. These industries range from fabric to jewelry to furniture to toys and games.

The third group, non-dedicated support industries, includes industries that distribute both copyright and non-copyright protected materials to business 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.

The fourth group involves the interdependent industries – 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 2010 (VALUE ADDED IN BILLIONS OF DOLLARS)



TOTAL: \$1,626.86 BILLION OR \$1.627 TRILLION

III. VALUE ADDED BY THE COPYRIGHT INDUSTRIES

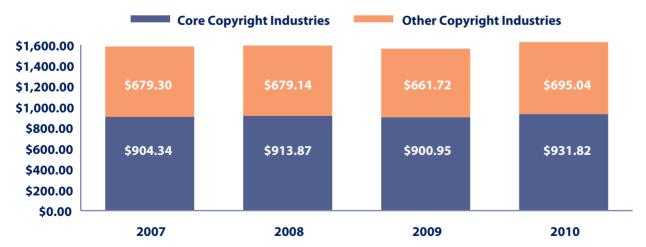
The most appropriate way to measure an industry's contribution to the national economy is to measure the industry's value added. Value added reflects the economic contribution of labor and capital of a particular industry. The sum of the value added of all industries in the United States is equal to gross domestic product (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.

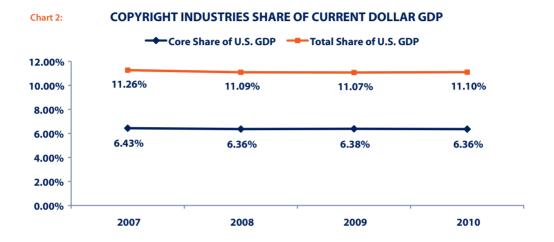
By contrast, in the most recent studies, we make direct use of the industry-specific value added estimates produced by the U.S. Bureau of Economic Analysis ("BEA") to derive the contributions made by the core and total copyright industries to the U.S. economy. An additional benefit of using these data 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.

As shown in Chart 1, our current estimates of the value added for the core copyright industries in 2007, 2008, 2009, and 2010 increased from \$904.34 billion in 2007 to \$931.82 billion in 2010. The estimated value added for the other (non-core) copyright industries rose from \$679.30 billion in 2007 to \$695.04 billion in 2010.

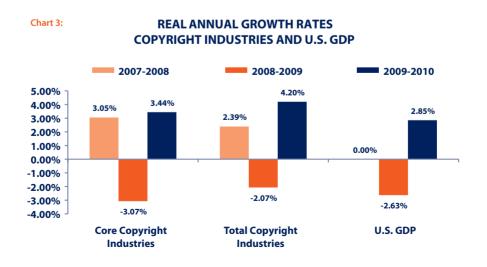




The copyright industries' current dollar share of the U.S. economy is provided in Chart 2. On the basis of the methodology described above, we now estimate that the core copyright industries' current dollar share of the U.S. economy has remained at approximately 6.4% of the U.S. economy for the years 2007 through 2010. The core copyright industries' current dollar share of the U.S. economy reached 6.43% in 2007. During the same years, the total copyright industries current dollar share of U.S. GDP remained at about 11.1%, peaking at 11.26% in 2007.

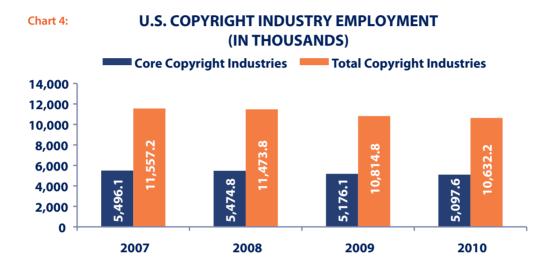


In Chart 3, we report the real (constant dollar) annual growth rates experienced by the copyright industries during the periods 2007-2008, 2008-2009, and 2009-2010. We also report the real growth rate achieved by the U.S. economy as a whole. As shown in Chart 3, the core copyright industries grew in excess of 3% in 2007-2008 and 2009-2010. Similarly, the total copyright industries grew at a rate of 2.39% in 2007-2008 and 4.20% in 2009-2010. By contrast, the real growth rates achieved by the U.S. economy as a whole were 0.0% in 2007-2008 and 2.85% in 2009-2010. In 2009, total copyright, core copyright, and the U.S. economy as a whole, retracted at rates of -2.07%, -3.07%, and -2.63%, respectively. As Chart 3 demonstrates, since 2007 the core and the total copyright industries have tended to grow moderately faster than the real annual rate of growth experienced for the U.S. GDP as a whole.



IV. 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 2007-2010. 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") data base.



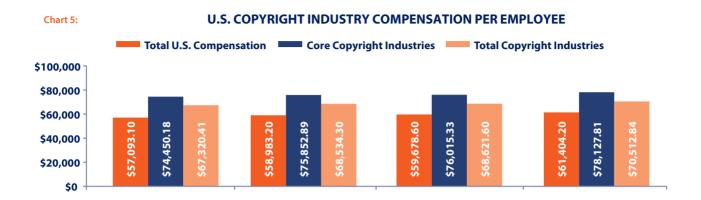
As shown in Chart 4, the core copyright industries employed 5.496 million workers in 2007. The total number of workers in the core copyright industries consistently decreased from 2007 to 2010. In 2010, the total number of workers employed in the core copyright industries was 5.098 million, a year-on-year decrease of 78.5 thousand and a decrease of 398.5 thousand from 2007. In 2007, the total copyright industries employed 11.557 million workers. Total employment in the total copyright industries decreased in 2008 and in all subsequent years through 2010. By 2010, the total copyright industries employed 10.632 million workers, a decrease of 924.9 thousand employees over the 2007 totals. However, because U.S. total employment also fell, the core copyright share of employment stayed right under 4%, while the total copyright share of employment slightly decreased from 8.4% to 8.2%.

In this report, we also quantify the average compensation per employee received by workers in the copyright industries and in the U.S. as a whole. In these calculations, "compensation" means "wages and salary accruals and supplements to wages and salary accruals." ⁹ These supplements include "employer contributions for employee pensions and insurance funds and employer contributions for government social insurance."

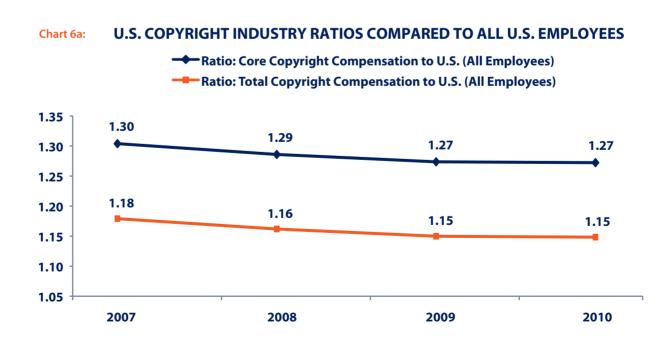
As reported in Chart 5, in 2007, the average annual compensation per worker was \$74,450 in the core copyright industries and \$67,320 in the total copyright industries. In the same year, the average annual compensation for all U.S. workers was only \$57,093. The compensation "premium" paid to workers in the copyright industries continued through 2008, 2009, and 2010. In 2010, the average annual compensation per worker was \$78,128 in the core copyright industries and \$70,513 in the total copyright industries. By contrast, in 2010, the average annual compensation for all U.S. workers was only \$61,404.

⁸ 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.

⁹ See U.S. Bureau of Economic Analysis, *Glossary Index*, available at http://www.bea.gov/glossary/glossary_c.htm.



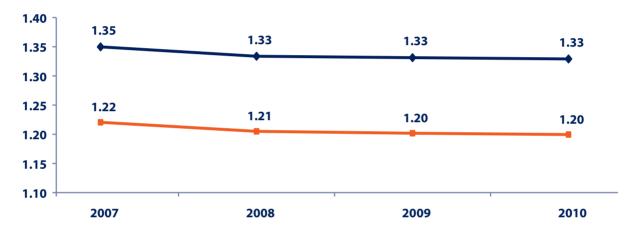
The compensation premium paid to copyright industry employees can also be illustrated by ratio. In Chart 6a, the average compensation paid to employees in the core and total copyright industries is compared to the average compensation paid to all workers in the United States. For core copyright employees, the compensation premium has generally been in the range of 25-30%, and in 2010, the compensation premium was right at 27%. For total copyright employees, the compensation premium in 2010 was 15%. In other words, in 2010, core copyright employees on average received 27% more compensation than the average U.S. worker while total copyright industry employees received about 15% more compensation.



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 33-35% higher than the average compensation paid to U.S. private industry employees, and in 2010, this "compensation premium" was right at 33%. Similarly, the compensation paid to workers in the total copyright industries has generally been about 21% higher than the average compensation paid to U.S. private industry employees as a whole, and in 2010, this "compensation premium" was at 20%.

Chart 6b: U.S. COPYRIGHT INDUSTRY RATIOS COMPARED TO PRIVATE U.S. EMPLOYEES





V. 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 U.S. or in foreign markets but, in either case, the creative components of those products are nurtured by the protection afforded under U.S. laws.

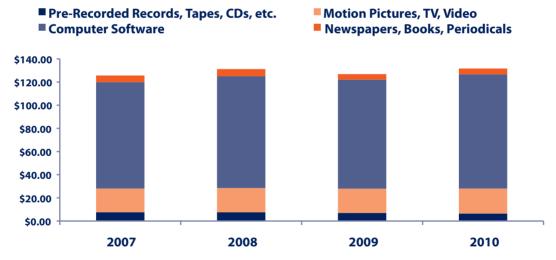
As noted in prior reports on these industries, we believe that the U.S. government's statistics on "exports" of copyright products generally fail to accurately measure the true value of American copyright works sold abroad. We recognize that, in recent years, efforts have been undertaken to improve the 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. ¹⁰ However, these statistics are dwarfed by the actual foreign market sales figures collected by the industries themselves.

¹⁰ See U.S. Census Bureau, Information Sector Services (NAICS 51), Estimated Export Revenue for Employer Firms: 1998 through 2004, Table 3.0.3.

As in past reports, we again provide estimates of foreign sales and exports for four selected core copyright industries during the years 2007 through 2010. These core industries are: the sound recording industry, the motion picture and television industry, the computer software industry, and the non-software publishing industries which include newspapers, books and periodicals. For these years, we report total foreign sales for the "selected" core copyright industries of \$127.9 billion in 2007, \$133.5 billion in 2008, \$129.1 billion in 2009, and \$134.0 billion in 2010. In Chart 7, these estimates are disaggregated as among the four copyright industries studied. The underlying figures by industry are also provided in Appendix A, Table A.5.

As noted earlier in this report, the foreign sales/exports of the core copyright industries remain significantly larger than the exports of other major industry sectors. As reported in Table 8, copyright industry sales in foreign markets significantly exceed foreign exports of the following U.S. industries: aircraft including aircraft engines and parts; agricultural products; food and kindred products; automobiles including gasoline engines and parts, transmissions and power trains; and pharmaceuticals and medicines.¹¹





¹¹ In this report, U.S. exports by industry were taken from the International Trade Statistics "Censtats" data base at the U.S. Census Bureau. Export statistics by industry were identified by NAICS code.

VI. 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 growth of the U.S. economy as a whole. These industries also constitute a large share of the U.S. gross domestic product and they 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, the copyright industries continue to play an increasingly prominent role in the growth of U.S. exports.

Value added in the copyright industries continues to grow. As of 2010, the value added by the core copyright industries was \$931.8 billion, approximately 6.36% of U.S. GDP. In the same years, value added for the total copyright industries stood at \$1,626.9 billion or 11.10% of GDP. In 2007, 2008, 2009, and 2010, the real annual growth rates achieved by both the core and total copyright industries tended to be higher than the growth rates exhibited by the U.S. as a whole.

The U.S. core copyright industries now employ nearly 5.1 million workers while some 10.6 million people are

employed by the total copyright industries. The annual compensation paid to core copyright workers exceeds the average annual compensation paid to all U.S. workers by 27%. The average compensation paid to employees of the total copyright industries exceeds the U.S. average by 15%.

Sales of U.S. copyright products continue to expand in overseas markets. We estimate that total core copyright sales in foreign markets were nearly \$128 billion in 2007 and amounted to \$134 billion in 2010. The foreign sales of the copyright industries significantly exceed foreign sales of other U.S. industries including aircraft, automobiles, agricultural products, food, and pharmaceuticals.

These consistently positive trends solidify the status of the 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 in the IIPA remain optimistic that economic growth, combined with strong laws and effective enforcement, will continue to pave the way for economic growth in both the U.S. and global markets.

APPENDIX A: TABLES OF STATISTICS

| CORE COPYRIGHT VALUE ADDED AND CONTRIBUTION TO GROWTH IN U.S. GDP (BILLIONS OF DOLLARS) | | | | | | | |
|---|-------------|-------------|-------------|-------------|--|--|--|
| ominal Value Added | 2007 rev. | 2008 | 2009 | 2010 est. | | | |
| ore | \$904.34 | \$913.87 | \$900.95 | \$931.82 | | | |
| S. GDP | \$14,061.80 | \$14,369.10 | \$14,119.00 | \$14,660.40 | | | |
| nare | 6.43% | 6.36% | 6.38% | 6.36% | | | |
| eal Value Added (Billions of 2005 dollars) | 2007 rev. | 2008 | 2009 | 2010 est. | | | |
| ore | \$898.58 | \$925.96 | \$897.57 | \$928.46 | | | |
| S. GDP | \$13,228.90 | \$13,228.80 | \$12,880.60 | \$13,248.20 | | | |
| nnual Growth in Real VA | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | | | |
| ore | N/A | 3.05% | -3.07% | 3.44% | | | |
| .S. GDP | N/A | 0.00% | -2.63% | 2.85% | | | |
| ompound Annual Growth Rates | 2007-2010 | | | | | | |
| ore | 1.10% | | | | | | |
| J.S. GDP | 0.05% | | | | | | |

| TOTAL COPYRIGHT VALUE ADDED AND CONTRIBUTION TO GROWTH IN U.S. GDP (BILLIONS OF DOLLARS) | | | | | | |
|--|-------------|-------------|-------------|-------------|--|--|
| Nominal Value Added | 2007 rev. | 2008 | 2009 | 2010 est. | | |
| Total Copyright | \$1,583.64 | \$1,593.01 | \$1,562.67 | \$1,626.86 | | |
| U.S. GDP | \$14,061.80 | \$14,369.10 | \$14,119.00 | \$14,660.40 | | |
| Share | 11.26% | 11.09% | 11.07% | 11.10% | | |
| Real Value Added (Billions of 2005 dollars) | 2007 rev. | 2008 | 2009 | 2010 est. | | |
| Total Copyright | \$1,594.96 | \$1,633.09 | \$1,599.21 | \$1,666.42 | | |
| U.S. GDP | \$13,228.90 | \$13,228.80 | \$12,880.60 | \$13,248.20 | | |
| Annual Growth in Real VA | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | | |
| Total Copyright | N/A | 2.39% | -2.07% | 4.20% | | |
| U.S. GDP | N/A | 0.00% | -2.63% | 2.85% | | |
| Compound Annual Growth Rates | 2007-2010 | | | | | |
| Total Copyright | 1.47% | | | | | |
| U.S. GDP | 0.05% | | | | | |

| 9 2010 6.1 5,097.6 807.0 129,818.0 252.0 107,337.0 |
|---|
| 6.1 5,097.6 807.0 129,818.0 |
| 807.0 129,818.0 |
| |
| 252.0 107.337.0 |
| 232.0 |
| % 3.93% |
| % 4.75% |
| 9 2010 |
| 14.8 10,632.2 |
| 807.0 129,818.0 |
| 252.0 107,337.0 |
| % 8.19% |
| 0; 8 0, |

| Table A.4 | U.S. COPYRIGHT INDUSTRY COMPENSATION PER EMPLOYEE |
|-----------|---|
| | |

| Core Copyright | 2007 rev. | 2008 | 2009 | 2010 |
|--|-------------|-------------|-------------|-------------|
| Core Copyright Compensation (per Employee) | \$74,450.18 | \$75,852.89 | \$76,015.33 | \$78,127.81 |
| Average U.S. Compensation (per Employee) | \$57,093.10 | \$58,983.20 | \$59,678.60 | \$61,404.20 |
| Average Private U.S. Compensation (per Employee) | \$55,156.50 | \$56,873.30 | \$57,098.90 | \$58,782.20 |
| Ratio: Core Copyright Compensation to U.S. | 1.30 | 1.29 | 1.27 | 1.27 |
| Ratio: Core Copyright Compensation to Private U.S. | 1.35 | 1.33 | 1.33 | 1.33 |
| | | | | |
| Total Copyright | 2007 rev. | 2008 | 2009 | 2010 |
| Total Copyright Compensation (per Employee) | \$67,320.41 | \$68.534.30 | \$68,621.60 | \$70,512.84 |
| Average U.S. Compensation (per Employee) | \$57,093.10 | \$58,983.20 | \$59,678.60 | \$61,404.20 |
| Average Private U.S. Compensation (per Employee) | \$55,156.50 | \$56,873.30 | \$57,098.90 | \$58,782.20 |
| | | | 1.15 | 1.15 |
| Ratio: Total Copyright Compensation to U.S. | 1.18 | 1.16 | 1.15 | 1.15 |

Table A.5

2007-2010 REVENUE GENERATED BY FOREIGN SALES/EXPORTS OF SELECTED U.S. CORE COPYRIGHT INDUSTRIES (BILLIONS OF DOLLARS)

| Industry | 2007 | 2008 | 2009 | 2010 |
|--|---------|---------|---------|---------|
| Pre-Recorded Records, Tapes, CDs, etc. | \$7.62 | \$7.52 | \$6.97 | \$6.48 |
| Motion Pictures, TV, Video | \$22.62 | \$23.24 | \$23.25 | \$23.89 |
| Computer Software | \$91.86 | \$96.57 | \$94.11 | \$98.60 |
| Newspapers, Books, Periodicals | \$5.78 | \$6.14 | \$4.79 | \$5.05 |
| Total for Selected Industries | \$127.9 | \$133.5 | \$129.1 | \$134.0 |

APPENDIX B: VALUE ADDED AND EMPLOYMENT TRENDS IN THE U.S. ECONOMY: 2007-2010

During the period 2008 through 2010 and continuing into 2011, the U.S. economy experienced a nearly unprecedented decline in output, value added, and employment. The harmful effects of the recession in 2008-2009 were widespread and most U.S. industries experienced flat or declining sales and employment during these years. By 2010, the U.S. economy had begun to improve somewhat from its low point in 2009.

| | 007-2010 UNITED STATES TOTAL AND PRIVATE INDUSTRY GDP | | | | |
|--------------------------------|---|------------|------------|------------|--|
| | 2007 | 2008 | 2009 | 2010 | |
| GDP - Current Dollars | \$14,061.8 | \$14,369.1 | \$14,119.0 | \$14,660.4 | |
| S. GDP – Real (2005) Dollars | \$13,228.9 | \$13,228.8 | \$12,880.6 | \$13,248.2 | |
| nnual % Change in Real GDP | N/A | -0.01% | -2.63% | 2.85% | |
| | 2007 | 2008 | 2009 | 2010 | |
| Private Industry GDP - Current | \$12,301.9 | \$12,514.0 | \$12,196.5 | \$12,696.5 | |
| Private Industry GDP – Real | \$11,623.6 | \$11,546.3 | \$11,197.6 | \$11,520.5 | |
| nual % Change in Real GDP | N/A | -0.67% | -3.02% | 2.88% | |

As shown in Table B.1, the U.S. gross domestic product has been essentially flat (in real terms) since 2007. ¹² Real GDP in 2008 was virtually identical to real GDP in 2007. In 2009, real GDP declined by 2.63%. However, in 2010, real U.S. GDP increased by 2.85%.

For U.S. private industry, the trends in real GDP were even worse than for the economy as a whole. Real private industry GDP fell by 0.67% in 2008 and by another 3.02% in 2009. Even by 2010, U.S. private industry GDP in real terms remained lower than it had been in 2007 (\$11.52 trillion in 2010 and \$11.62 trillion in 2007).

| Table B.2 | | | | |
|----------------------------------|------------------------|-----------|-----------|-----------|
| 2007 | VATE INDUSTRY EN 5) | IPLOYMENT | | |
| | 2007 | 2008 | 2009 | 2010 |
| U.S. Non-Farm Employment | 137,598.0 | 136,790.0 | 130,807.0 | 129,818.0 |
| Annual % Change | N/A | -0.59% | -4.37% | -0.76% |
| U.S. Private Industry Employment | 115,380.0 | 114,281.0 | 108,252.0 | 107,337.0 |
| Annual % Change | N/A | -0.95% | -5.28% | -0.85% |
| | | | | |

Employment trends for the U.S. economy as a whole are shown in Table B.2.¹³ For the period 2007-2010, total U.S. employment declined from 137,598,000 to 129,818,000, a drop of nearly 5.7%. For U.S. private industry, the employment declines were even greater. For the years 2007 through 2010, U.S. private industry employment fell by almost 7.0%. Private employment in the United States fell from 115,380,000 in 2007 to 107, 337,000 in 2010.

The declines in U.S. GDP and employment since 2007 provide a useful context for assessing the economic contributions made by the U.S. copyright industries during the same period. As shown in the body of this report, the performance of the U.S. copyright industries during these troubled years did not match the copyright industries' achievements in years past. However, even during this recession, the U.S. copyright industries were able to outperform the U.S. economy as measured by a subset of the metrics developed in this report.

¹² See U.S. BEA, Annual Industry Accounts, supra note 4.

¹³ U.S. Department of Labor, Bureau of Labor Statistics, Subject Areas: Overview of BLS Statistics on Employment, available at http://data.bls.gov/bls/employment.htm.

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