

COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY



THE 2006 REPORT

BY STEPHEN E. SIWEK
ECONOMISTS INCORPORATED

PREPARED FOR THE
INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE®



Copyright Industries in the U.S. Economy: The 2006 Report updates and supplements ten previous reports produced by Economists Incorporated for the International Intellectual Property Alliance:

- Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy* (released in November 1990)
- Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: 1977-1990* (released in September 1992)
- Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: 1993 Perspective* (released in October 1993)
- Siwek and Furchgott-Roth, *Copyright Industries in the U.S. Economy: 1977-1993* (released in January 1995)
- Siwek and Mosteller, *Copyright Industries in the U.S. Economy: The 1996 Report* (released in October 1996)
- Siwek and Mosteller, *Copyright Industries in the U.S. Economy: The 1998 Report* (released in May 1998)
- Siwek, *Copyright Industries in the U.S. Economy: The 1999 Report* (released in December 1999)
- Siwek, *Copyright Industries in the U.S. Economy: The 2000 Report* (released in December 2000)
- Siwek, *Copyright Industries in the U.S. Economy: The 2002 Report* (released in April 2002)
- Siwek, *Copyright Industries in the U.S. Economy: The 2004 Report* (released in October 2004)

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ABOUT THE AUTHOR

Stephen E. Siwek is Principal, Economists Incorporated, 1200 New Hampshire Avenue, N.W., Washington, DC 20036, www.ei.com. He is co-author of *International Trade in Computer Software* (Quorum Books, 1993) and *International Trade in Films and Television Programs* (American Enterprise Institute/Ballinger Publishing Company, 1988) and has written and lectured on trade in media services in the United States and Europe. Mr. Siwek has served as an economic and financial consultant to numerous communications and media corporations and trade associations. He is the principal author of ten prior reports on the economic contributions of the U.S. copyright industries to the U.S. economy. Mr. Siwek has also served as an advisor to foreign governments seeking to develop economic measures of their own copyright industries.

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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. 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 including: all types of computer software including business applications software and entertainment software (such as videogame CDs and cartridges, personal computer CD-ROMs and multimedia products); theatrical films, television programs, home videos and digital representations of audiovisual works; music, records, music CDs, and audiocassettes; and textbooks, tradebooks, reference and professional publications and journals (in both electronic and print media). Visit IIPA's website at www.iipa.com for more information.





FOREWORD

Eric H. Smith

International Intellectual Property Alliance (IIPA)

This report, prepared for the International Intellectual Property Alliance by Steve Siwek of Economists Incorporated, is the eleventh in a series dating back to 1990. *The 2006 Report* again shows that the U.S. copyright-based industries continue to be one of America's largest and fastest-growing economic sectors. These studies have continually demonstrated that the creation of knowledge-intensive intellectual property-based goods and services is critical to the continued economic growth of this country.

The IIPA is a private sector coalition of seven trade associations with over 1,900 U.S. company members producing and distributing materials protected by copyright laws throughout the world. For over 20 years, IIPA and its members have been working to improve the copyright law and enforcement systems in countries to deter piracy, strengthen legal foundations, foster technological and cultural development, and encourage local investment and employment.

In 1990, IIPA commissioned Economists Incorporated to prepare a report – the first of its kind – measuring the economic impact and trade role of the copyright industries in the U.S. economy. The report IIPA issued two years ago, *The 2004 Report*, was the first to use the new definitions and methodology for measuring the role of copyright industries in domestic economies that were the result of a 2003 research study published by the World Intellectual Property Organization (WIPO), *Guide on Surveying the Economic Contribution of the Copyright-Based Industries* (WIPO publication 893(E)), to which Steve Siwek contributed as a key expert.

Our new 2006 report continues to follow the WIPO methodology and thus allows inter-country comparisons with similar studies done in other countries. This IIPA report again includes comprehensive data

on the value-added contributions of the copyright sectors to the U.S. economy, these sectors' rate of economic growth, their employment and employment growth, as well as data on foreign sales/ex-wage compensation for employees in the copyright-based industries and, for the first time, a measurement of the percentage contribution of this sector to the overall growth in the U.S. economy.

Spurred by the issuance of the 2003 *WIPO Guide* on surveying the economic contribution of copyright-based industries, a number of countries have either published similar studies or are in the process of preparing such reports. For example, studies have been concluded in Singapore, Latvia, Hungary, and Canada (WIPO publication 624e, which also contains *The 2004 Report* on the U.S.). Studies are underway or about to be launched in Malaysia, the People's Republic of China, Brazil, the Philippines, Mexico, Colombia, Peru, Jamaica, Lebanon, Morocco, Bulgaria, Romania, Croatia, Russia and Ukraine. Proposals are just now being examined by many more governments. These studies all reveal the key role that copyright plays in economic growth, regardless of a country's level of development.

IIPA's U.S. studies and the other country studies that have and will follow, by demonstrating the importance of the creative industries to social and economic development, create the political underpinnings for eliminating or liberalizing the significant market access barriers that still exist for copyright products around the world, including the most damaging of them all, copyright piracy. Through creating awareness of the need to provide full market access and effective copyright protection and enforcement, we hope IIPA's studies and those of other countries will contribute toward governments nurturing creators and supporting the creative process.

EXECUTIVE SUMMARY

This report, *Copyright Industries in the U.S. Economy: The 2006 Report*, completed by Economists Incorporated, updates and supplements ten earlier reports prepared on behalf of the International Intellectual Property Alliance (“IIPA”). This eleventh report presents estimates of the copyright industries’ contribution to the U.S. economy through 2004 with estimates for 2005. The report demonstrates the continuing positive impact these industries have on the U.S. economy.

This 2006 study continues to reflect the use of industry data classifications adopted under the North American Industry Classification System (“NAICS”) which has now been widely implemented by U.S. statistical agencies. The report also follows the international standards and recommendations pro-pounded 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.

The data in this study quantify the size and critical importance of the copyright industries to the U.S. economy, 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. current dollar gross domestic product (GDP); share of national employment; and revenues generated from foreign sales and exports. In addition, for the first time, this study includes two additional indicators of the importance of the copyright industries to the U.S. economy. The new indicators are: compensation per employee in the copyright industries

and the contribution of the copyright industries to the real annual growth of the U.S. economy. As set forth below, in the years 2003, 2004 and 2005, the copyright industries’ contribution to the real growth of the U.S. economy was about double the current dollar shares of U.S. GDP achieved by the copyright industries in the same years.

CONTRIBUTION TO THE U.S. ECONOMY/ VALUE-ADDED TO GDP – 2004 AND 2005

As shown in Table 1, U.S. GDP in 2004 was \$11.7 trillion. By 2005, U.S. GDP (in current dollars) had risen to \$12.5 trillion. In the same years, the “value-added” to U.S. GDP by the “core” copyright industries reached \$760.49 billion or 6.48% of the U.S. economy in 2004 and an estimated \$819.06 billion or 6.56% in 2005. In 2004, the value added to U.S. GDP by the “total” copyright industries was \$1,300.77 billion (\$1.30 trillion) or 11.09% of U.S. GDP. In 2005, the estimated value added for the total copyright industries rose to \$1,388.13 billion (\$1.38 trillion) or 11.12% of U.S. GDP.

Table 1:

2004 AND 2005 (EST.) VALUE ADDED (BILLIONS OF U.S. DOLLARS)

| | 2004 | 2005 (est.) |
|----------------------------|-------------|-------------|
| Core Copyright Industries | \$760.49 | \$819.06 |
| Total U.S. GDP | \$11,734.30 | \$12,487.10 |
| Core Share of U.S. GDP | 6.48% | 6.56% |
| | 2004 | 2005 (est.) |
| Total Copyright Industries | \$1,300.77 | \$1,388.13 |
| Total U.S. GDP | \$11,734.30 | \$12,487.10 |
| Total Share of U.S. GDP | 11.09% | 11.12% |

¹ 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 and in the last (2004) IIPA report on the U.S. copyright industries.

² Copyright industry value-added figures for 2005 are “estimated” because they are derived from broader industry groups than the groups used to calculate copyright value-added through 2004.

To put these figures in perspective, in 2005 the gross consumption expenditures and investments of the entire federal government (a much broader measure than value added) were \$874.8 billion. This figure is only 6.8% greater than the net value added to the U.S. economy by the core copyright industries. In the same year, the actual value added to the U.S. economy by the federal government was only \$494.8 billion. Similarly, in 2005, the gross consumption expenditures and investments of all state and local governments in the United States were \$1,484.9 billion (\$1.48 trillion), an amount that is about 7% higher than the value added by the total copyright industries. However, in 2005, the net value added to the U.S. economy by all state and local governments was only \$1,057.5 billion (\$1.05 trillion). Additional comparisons of the copyright industry's value added in 2004 and to other sectors of the U.S. economy are provided in Table 2. These comparisons clearly document the size and importance of the copyright industries today.

Table 2: 2004 AND 2005 VALUE ADDED COMPARISONS TO OTHER SECTORS (BILLIONS OF U.S. DOLLARS)

| | 2004 | 2005 |
|---|------------|------------|
| Core Copyright - Value Added | \$760.49 | \$819.06 |
| Total Copyright - Value Added | \$1,300.77 | \$1,388.13 |
| Federal Government: | | |
| Gross Consumption and Investment | \$827.60 | \$874.80 |
| Value Added | \$475.90 | \$494.80 |
| State and Local Government: | | |
| Gross Consumption and Investment | \$1,388.30 | \$1,484.90 |
| Value Added | \$1,007.40 | \$1,057.50 |
| Construction - Value Added | \$549.50 | \$593.50 |
| Health Care and Social Assistance - Value Added | \$802.70 | \$864.40 |
| Finance and Insurance - Value Added | \$927.40 | \$1,011.50 |

The value added estimates for the copyright industries that are contained in this report reflect both changes in methodology and revisions in the underlying data that are obtained from the U.S. Census Bureau and by other statistical agencies. For the first time, 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. Bureau of Economic Analysis ("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.

COPYRIGHT INDUSTRY GROWTH AND CONTRIBUTION TO GROWTH IN THE U.S. ECONOMY

In Table 3, we report the real growth rates in value added achieved by the copyright industries and by the U.S. economy during the 2002 to 2005 time frame. As shown in Table 3, for the periods 2002-2004, 2002-2005 and 2003-2005, the core copyright industries achieved annual growth rates in excess of 7.0% per year. The total copyright industries achieved comparable or even higher real annual growth rates during the same periods. These growth rates were considerably above the real annual growth rates achieved by the U.S. economy as a whole. Real U.S. GDP grew at an annual rate of 3.46% during the two years 2002-2004 and 3.48% for the three years 2002-2005. In the same periods, the real growth rates achieved by both the core and total copyright industries were more than twice the real growth rates reported for the U.S. as a whole.

³ Economic Report of the President, February 2006, Table B-20, page 306.

⁴ Howells, T. and Barefoot, K., "Annual Industry Accounts, Advance Estimates for 2005," SURVEY OF CURRENT BUSINESS, May 2006, page 17.

⁵ Economic Report of the President, February 2006, Table B-20, page 306

Table 3:

REAL ANNUAL GROWTH RATES VALUE ADDED TO U.S. GDP

| | 2002-04 | 2002-05 | 2003-05 |
|----------------------------|---------|---------|---------|
| Core Copyright Industries | 7.50% | 7.31% | 7.98% |
| Total Copyright Industries | 7.70% | 7.66% | 8.65% |
| U.S. GDP | 3.46% | 3.48% | 3.87% |

In Table 4, we compute the contribution made by the copyright industries to the annual real growth achieved by the U.S. economy as a whole. In effect, these calculations combine the copyright industries' current dollar shares of GDP with the real growth rates achieved annually since 2003. In 2003, the core copyright industries were responsible for 14.12% of the growth achieved in 2003 for the U.S. economy as a whole. In 2004, the core growth contribution was 13.75% and in 2005, it was 12.96%.

Table 4:

2003, 2004, AND 2005 (EST.) CONTRIBUTION TO REAL U.S. ANNUAL GROWTH

| | 2003 | 2004 | 2005 (est.) |
|----------------------------|--------|--------|-------------|
| Core Copyright Industries | 14.12% | 13.75% | 12.96% |
| Ratio: Growth to Share | 2.21 | 2.12 | 2.00 |
| | 2003 | 2004 | 2005 (est.) |
| Total Copyright Industries | 23.28% | 25.36% | 23.78% |
| Ratio: Growth to Share | 2.12 | 2.29 | 2.14 |

As these estimates suggest, the growth contributions made by the core copyright industries in the years 2003, 2004 and 2005 were disproportionate to their share of the economy as measured in current dollars. Thus, in 2003, 2004 and 2005, the growth contributions made by the core copyright industries were at least double their current dollar share of U.S. GDP.

The growth contributions achieved by the total copyright industries were even more dramatic. As reported in Table 4, the total copyright industries contributed 23.28% of the total growth reported for the U.S. economy in 2003. The comparable figures were 25.36% in 2004 and 23.78% in 2005. As with core copyright industries, the growth contributions made by the total copyright industries in the years 2003,

2004 and 2005 were disproportionate to their share of the economy, as measured in current dollars. In 2003, 2004 and 2005, the contributions to real growth in U.S. GDP that were achieved by the total copyright industries were at least 2.1 times the total copyright industry's current dollar share of U.S. GDP.

COPYRIGHT INDUSTRY EMPLOYMENT AND COMPENSATION — 2004 AND 2005

Employment figures for the core and total copyright industries for the years 2004 and 2005 are provided in Table 5. As shown in Table 5, the core copyright industries employed 5,344,000 workers in 2004. These workers represented 4.07% of the total U.S. workforce in 2004. In 2005, the number of core copyright employees rose by 36,400 workers to 5,380,400. However, total U.S. employment also increased in 2005 so that the core copyright industries' employment share declined slightly from 4.07% to 4.03%.

Table 5:

2004 AND 2005 EMPLOYMENT (IN THOUSANDS)

| | 2004 | 2005 |
|----------------------------|------------|------------|
| Core Copyright Industries | 5,344.00 | 5,380.40 |
| Total U.S. Employment | 13,435.00 | 133,463.00 |
| Core Share of U.S. | 4.07% | 4.03% |
| | 2004 | 2005 |
| Total Copyright Industries | 11,206.60 | 11,325.70 |
| Total U.S. Employment | 131,435.00 | 133,463.00 |
| Total Share of U.S. | 8.53% | 8.49% |

The number of workers employed by the total copyright industries is also shown in Table 5. In 2004, the total copyright industries employed 11,206,600 people. These workers comprised 8.53% of total U.S. employment. In 2005, total copyright industry employment rose by 119,100 to 11,325,700. In 2005, workers in the total copyright industries comprised 8.49% of all U.S. employees, down from 8.53% in 2004.

In this report, we also present estimates of the total compensation paid to workers in the core and total copyright industries in 2004 and 2005. In these calculations, worker compensation includes both wage and salary accruals and supplements

to wage industry employee in 2004 was \$66,997. In 2005, the average compensation paid to a core copyright worker and salary payments. As shown in Table 6, the average annual compensation paid to a core copyright was \$69,839. These figures are considerable higher than the average compensation paid to all U.S. employees in the same years. As shown in Table 6, the compensation premium paid to core copyright industry employees has remained at approximately 40% in 2004 and 2005. In 2004, the average core copyright employee earned almost \$19,000 more than the average worker in the U.S. By 2005, that premium had risen to just over \$20,000 per year.

Table 6:

2004 AND 2005 COMPENSATION PER EMPLOYEE (U.S. DOLLARS)

| | 2004 | 2005 |
|---------------------------|-------------|-------------|
| Core Copyright Industries | \$66,997.00 | \$69,839.00 |
| Total U.S. Compensation | \$48,136.00 | \$49,828.00 |
| Ratio: Core to U.S. | 1.39 | 1.40 |

| | 2004 | 2005 |
|----------------------------|-------------|-------------|
| Total Copyright Industries | \$60,621.00 | \$66,727.00 |
| Total U.S. Compensation | \$48,136.00 | \$49,828.00 |
| Ratio: Total to U.S. | 1.26 | 1.26 |

The average annual compensation for employees in the total copyright industries is also reported in Table 6. In 2004, the average compensation paid to these workers was \$60,621 or about 26% above the U.S. average compensation level. In 2005, the compensation paid to employees of the total copyright industries rose to \$66,727.

FOREIGN SALES AND EXPORTS – 2004 AND 2005

Our revised and updated estimates of foreign sales and exports of the core copyright industries portray continued growth on the whole with a somewhat mixed picture among the individual industries studied, with foreign sales for some industries increasing, others remaining steady, and some declining and then recovering in the 2003-2005 timeframe.

Overall, the U.S. core copyright industries achieved annual increases in foreign sales of 7.5% in 2004 and 4.3% in 2005. In Table 7, these growth rates are compared to the growth rates achieved by the same industries in prior years.

Table 7: **ANNUAL GROWTH RATE OF
FOREIGN SALES & EXPORTS**

| Year | 1991 | 1996 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|-------------|------|-------|------|------|------|-------|------|------|
| Growth Rate | 6.4% | 13.3% | 8.3% | 3.4% | 1.1% | 10.7% | 7.5% | 4.3% |

In 2004, the actual revenue generated from foreign sales by the U.S. core copyright industries was at least \$106.2 billion. By 2005, we estimate that foreign sales of the core industries had increased to at least \$110.8 billion. The magnitude of the core copyright industries' foreign sales exceeds or is comparable to the U.S. Commerce Department's International Trade Administration's export estimates of several other major industry sectors (see Table 8). The figures below show exports for various industries as defined in the NAICS classification system.

Table 8: **FOREIGN SALES AND EXPORTS FOR
SELECTED INDUSTRIES 2004 AND 2005
2004 AND 2005 (IN BILLIONS OF DOLLARS)**

| Industry | Foreign Sales 2004 | and Exports 2005 |
|--|-----------------------|---------------------|
| Selected Core Copyright Industries | \$106.23 | \$110.82 |
| Chemicals and Related Products (not including medicinal and pharmaceutical products) | \$23.98 | \$25.95 |
| Medicinal and pharmaceutical products | \$23.98 | \$25.95 |
| Motor Vehicles, Parts, and Accessories | \$67.64 | \$76.26 |
| Aircraft and Associated Equipment | \$42.09 | \$49.79 |
| Primary and Fabricated Metal Products | \$41.98 | \$50.72 |
| Food and Live Animals | \$45.48 | \$48.29 |

For 2005, foreign sales for the core copyright industries exceeded total exports of other industry sectors, such as: motor vehicles, parts and accessories; aircraft and associated equipment; food and live animals; and medicinal and pharmaceutical products.



I. INTRODUCTION

This report, *Copyright Industries in the U.S. Economy: The 2006 Report*, is the eleventh in a series issued over the last sixteen 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 and in its contribution to the overall growth achieved by the U.S. economy as a whole. The copyright industries also continue to employ substantial numbers of workers whose compensation levels substantial exceed the average level of compensation paid to all U.S. workers.

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. copyrighted materials in the world market
- Conclusion

Appendix A presents data tables used in this report. Appendix B describes recent estimates of both current dollar and constant dollar value added by industry that are now produced by the U.S. Bureau of Economic Analysis. These estimates were used to revise the methodology used to estimate copyright industry value added and real growth through 2005. Appendix C provides an example of how current dollar and constant dollar value added figures for the copyright industries were used to measure the copyright industries' contribution to the annual rate growth rate achieved by the U.S. economy as whole. Appendix D supplies a list of reference material used in this report.

II. THE COPYRIGHT INDUSTRIES: DESCRIPTION

In nine of our ten 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 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.

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

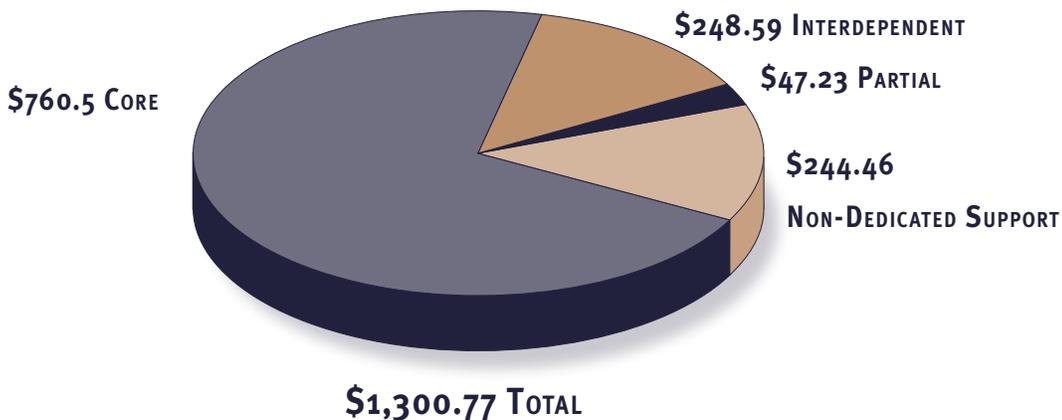
Partial copyright industries are industries in which only some aspect or portion of the products that they create they can qualify for copyright protection. These industries range from fabric to jewelry

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 2004
(VALUE ADDED IN BILLIONS OF DOLLARS)



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.

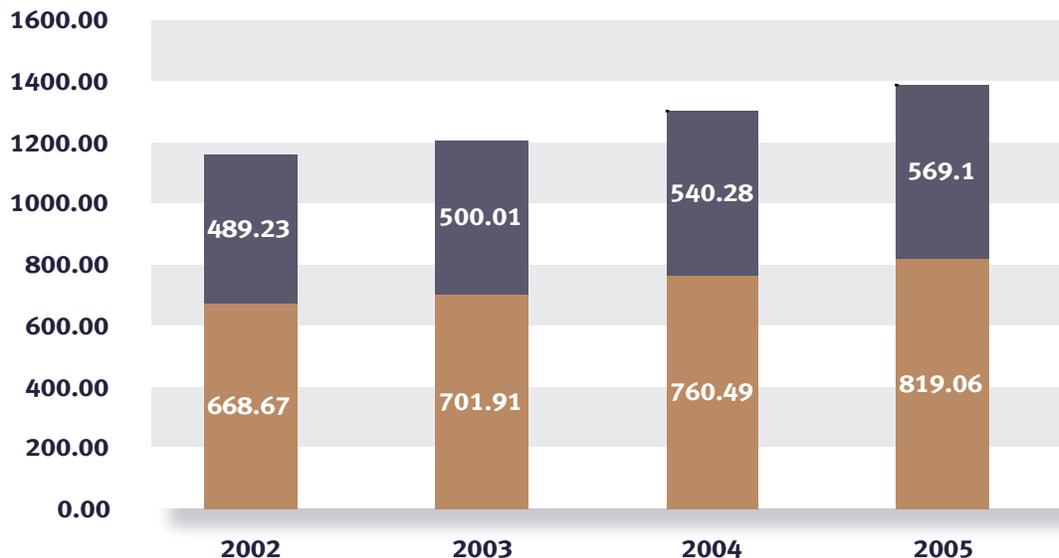
In our past reports, we noted that timely estimates of the value added by individual industries were not generally available from government sources for many of the industries considered in these studies. As a result, our prior estimates of copyright industry value added were derived by applying historical

input-output factors to more current data on industry sales from both government and non-government sources.

By contrast, in this study, for the first time 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 major industry classifications that it analyzes (see Appendix B). 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 (see Appendix C).

Chart 1: **COPYRIGHT INDUSTRIES VALUE ADDED (IN BILLIONS OF CURRENT DOLLARS)**

■ CORE ■ OTHER INDUSTRIES



As shown in Chart 1, our current estimates of the value added for the core copyright industries in 2002, 2003, 2004 and 2005 increased from \$668.7 billion in 2002 to \$819.1 billion in 2005. The estimated value added for the other (non-core) copyright industries rose from \$489.2 billion in 2002 to \$569.1 billion in 2005.

The copyright industries' current dollar share of the U.S. economy is provided in Chart 2. On the basis of the revised methodology described above, we now estimate that the core copyright industries' current dollar share of the U.S. economy rose from 6.39% in 2002 to 6.56% in 2005. In the same period, the total copyright industries current dollar share of U.S. GDP increased from 11.06% in 2002 to 11.12% in 2005.

It is important to note that the methodological changes introduced in this report produce estimates of current dollar value added for the copyright industries that differ modestly from the estimates published in our 2004 report. Specifically, for the year 2002, our current estimate of the value added for the core copyright industries (\$668.67 billion) is somewhat higher than the estimate for 2002 that was published in our last report. However, for the total copyright industries, the new methodology produced a value added estimate for 2002 (\$1,157.91 billion, or \$1.15 trillion) that was somewhat lower than our previous estimate for 2002. The estimates provided for 2003, 2004 and 2005 were all prepared using the new methodology.

Chart 2: COPYRIGHT INDUSTRIES SHARE OF CURRENT DOLLAR GDP

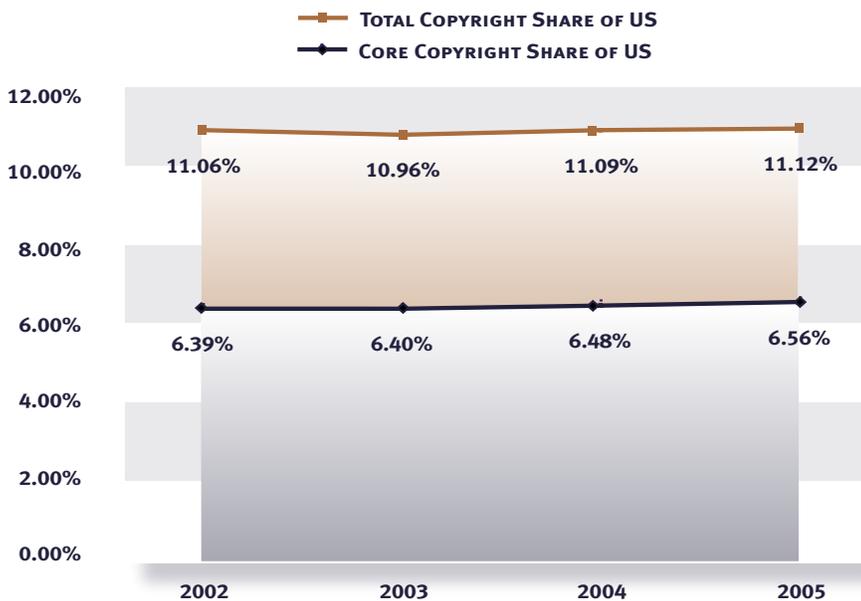
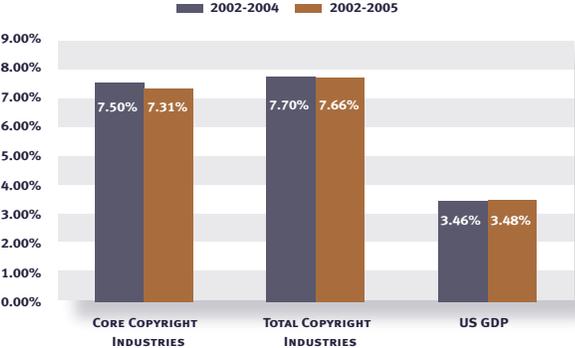




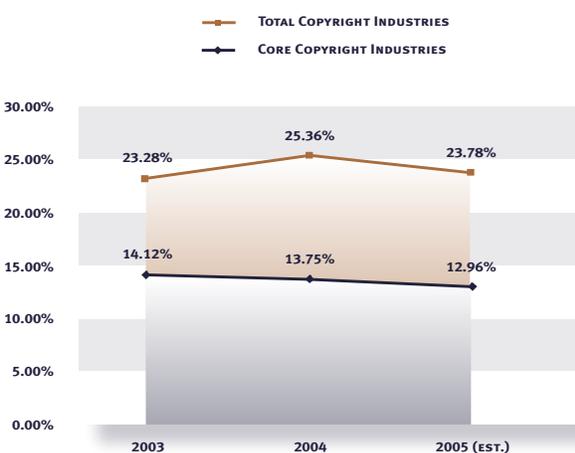
Chart 3: REAL ANNUAL GROWTH RATES
COPYRIGHT INDUSTRIES AND U.S. GDP



In Chart 3, we report the real (constant dollar) annual growth rates experienced by the copyright industries during the periods 2002-2004 and 2002-2005. We also report the real growth rate achieved by the U.S. economy as a whole. As shown in Chart 3, both the core and total copyright industries have achieved real annual growth rates well in excess of 7.0% per year. By contrast, the real growth rates achieved by the U.S. economy as a whole were 3.46% for the two year period 2002-2004 and 3.48% for the three year period 2002-2005. As this Chart demonstrates, since 2002 both the core and the total copyright industries have grown at more than double the real annual rate of growth reported for U.S. GDP as a whole.

Since the copyright industries are growing at rates that are more than twice the growth rates achieved for the U.S. as a whole, the copyright industries' contribution to the overall growth of the United States is substantial. Indeed, the growth contributions made by the copyright industries are much larger than these industries' share of U.S. GDP.

Chart 4: CONTRIBUTIONS TO REAL
U.S. ANNUAL GROWTH



As shown in Chart 4, the core copyright industries' contributions to real annual growth in the U.S. economy ranged from 14.12% in 2003 to 12.96% in 2005. For the total copyright industries, the annual contributions to real U.S. growth ranged from 23.28% in 2003 to 23.78% in 2005. To put these values in their proper context, consider that in 2005, real U.S. GDP increased from \$10.755 trillion to \$11.135 trillion, an increase of nearly \$380 billion. Of this amount, the total copyright industries contributed nearly 24%.

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 2002-2005. The procedures used to derive our estimates of employment in this report were based on the formulas derived in the 2004 copyright industry report. In that report, employee counts were derived so that the counts would be consistent in both the NAICS and ISIC classification systems. Appendix C in the 2004 report included a listing of all the NAICS and ISIC codes that were used in this analysis. 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 5, the core copyright industries employed 5.503 million workers in 2002. The total number of workers in the core fell in both 2003 and 2004 but turned around in 2005. In 2005, the total

number of workers employed in the core copyright industries was 5.380 million, an increase of 36.4 thousand workers over 2004. In 2002, the number of workers employed in the total copyright industries was 11.548 million workers. This total also fell in 2003 but began to increase in both 2004 and 2005. By 2005, the total copyright industries employed 11.3256 million workers, an increase of 119.1 thousand employees over the 2004 totals

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.” The supplements included in compensation are “employer contributions for employee pensions and insurance funds and employer contributions for government social insurance.”

Chart 5: **CHART 5: U.S. COPYRIGHT INDUSTRY EMPLOYMENT (IN THOUSANDS)**

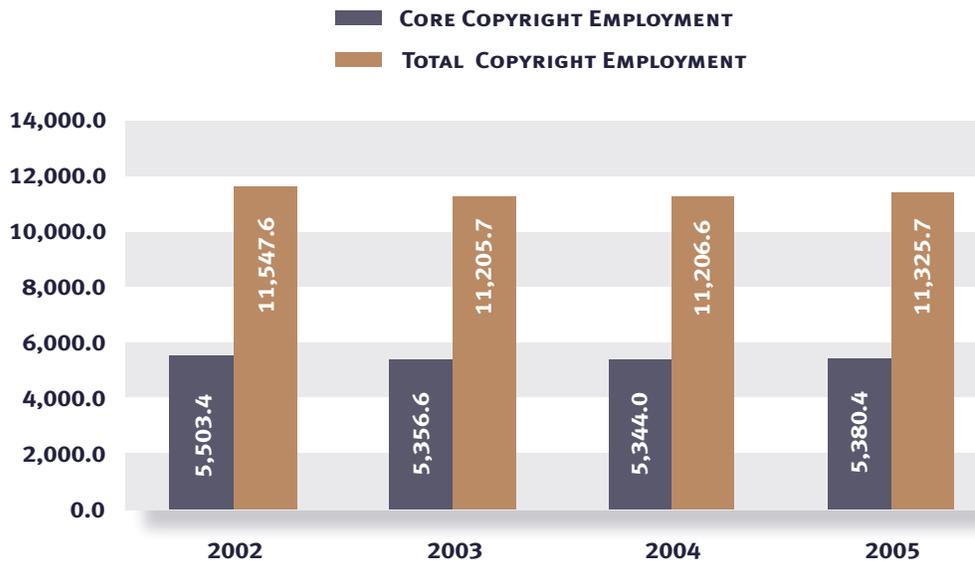
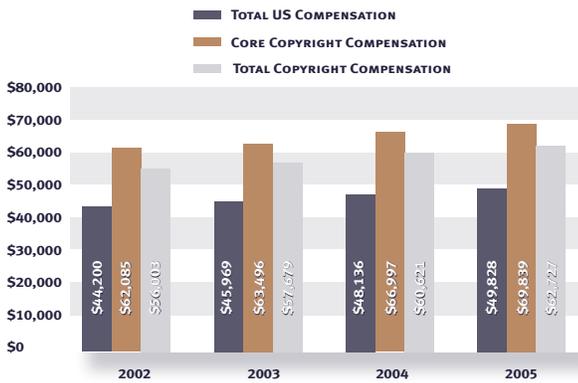


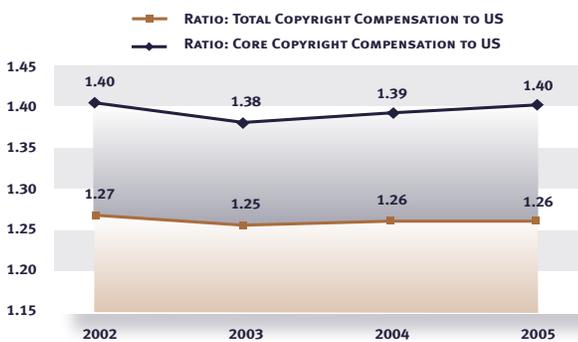


Chart 6: **U.S. COPYRIGHT INDUSTRY COMPENSATION PER EMPLOYEE**



As reported in Chart 6, in 2002, the average annual compensation per worker was \$62,085 in the core copyright industries and \$56,003 in the total copyright industries. In the same year, the average annual compensation for all U.S. workers was only \$44,200. The compensation premium paid to workers in the copyright industries continued through 2003, 2004 and 2005. In 2005, the average annual compensation per worker was \$69,839 in the core copyright industries and \$62,727 in the total copyright industries. By contrast, in 2005, the average annual compensation for all U.S. workers was \$49,828.

Chart 7: **U.S. COPYRIGHT INDUSTRY COMPENSATION PER EMPLOYEE**



The compensation premium paid to copyright industry employees can also be illustrated by ratio. As shown in Chart 7, the average compensation premium paid to employees in the core copyright industries now stands at approximately 40%. In other words, core copyright employees on average receive 40% more compensation than the average U.S. workers. The compensation premium paid to workers in the total copyright industries is also shown in Chart 7. Workers in these industries command a compensation premium that is now about 26% above the average compensation paid to all U.S. workers.

V. U.S. COPYRIGHTED MATERIALS IN WORLD MARKETS

Consumers in overseas 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 stated in prior reports, it is our view that the U.S. government's statistics on "exports" of copyright products generally fail to accurately measure the value of American copyright works sold abroad. We do note 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



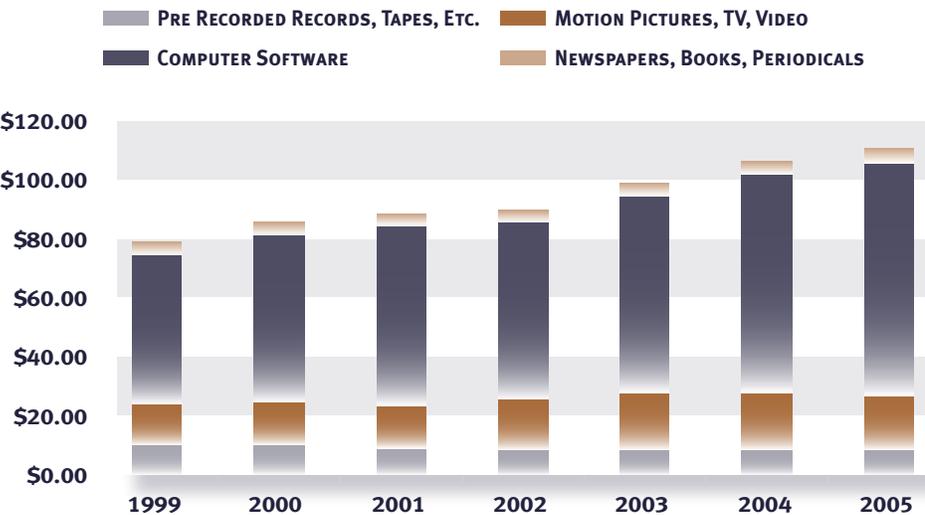
and the sound recording industry. However, these statistics are dwarfed by the actual foreign market sales figures that the industries themselves record.

As in past reports, we again provide estimates of foreign sales and exports for four selected core copyright industries during the years 2003, 2004 and 2005. These core industries are: the sound recording industry, the motion picture 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 \$98.92 billion in 2003, \$106.23 billion in 2004 and \$110.82 billion in 2005. In Chart 8, these estimates are combined with the foreign sales estimates that were reported in earlier Copyright Industry reports.

The underlying figures by industry are also provided in Appendix A, Table A.5.

These foreign sales figures shown in Chart 8 represent an annual increase of 7.5% in 2004 and 4.3% in 2005. The core copyright industries foreign sales and exports remain larger than the exports of other major industry sectors as shown in Chart 8. In 2004, the actual revenue generated from foreign sales by the U.S. core copyright industries was at least \$106.2 billion. By 2005, we estimate that foreign sales of the core industries had increased to at least \$110.8 billion. The magnitude of the core copyright industries’ foreign sales exceeds or is comparable to the U.S. Commerce Department’s International Trade Administration’s export estimates of several other major industry sectors (see Table 8 in the Executive Summary).

Chart 8: ESTIMATED REVENUES GENERATED BY FOREIGN SALES/EXPORTS OF SELECTED U.S. CORE COPYRIGHT INDUSTRIES (BILLIONS OF DOLLARS)



APPENDICES

APPENDIX A: TABLES OF STATISTICS

Table A.1

CORE COPYRIGHT VALUE ADDED AND CONTRIBUTION TO GROWTH IN U.S. GDP (BILLIONS OF DOLLARS)

| Nominal Value Added | 2002 | 2003 | 2004 | Estimated 2005 |
|---------------------|-------------|-------------|-------------|----------------|
| Core | \$668.67 | \$701.91 | \$760.49 | \$819.06 |
| U.S. GDP | \$10,469.60 | \$10,971.20 | \$11,734.30 | \$12,487.10 |
| Share | 6.39% | 6.40% | 6.48% | 6.56% |

| Real Value Added | 2002 | 2003 | 2004 | Estimated 2005 |
|------------------|-------------|-------------|-------------|----------------|
| Core | \$662.02 | \$701.61 | \$765.09 | \$818.11 |
| U.S. GDP | \$10,048.80 | \$10,320.60 | \$10,755.20 | \$11,134.80 |

| Real Annual Growth Rate | 2002 | 2003 | 2004 | Estimated 2005 |
|-------------------------|------|-------|-------|----------------|
| Core | N/A | 5.98% | 9.05% | 6.93% |
| U.S. GDP | N/A | 2.70% | 4.21% | 3.53% |

| Contribution to Real U.S. Annual Growth | 2002 | 2003 | 2004 | Estimated 2005 |
|---|------|--------|--------|----------------|
| Contribution | N/A | 14.12% | 13.75% | 12.96% |
| Ratio to Share | N/A | 2.21 | 2.12 | 2.00 |

| Real Annual Growth by Period | 2002-04 | 2002-05 | 2003-05 |
|------------------------------|---------|---------|---------|
| Core | 7.50% | 7.31% | 7.98% |
| U.S. GDP | 3.46% | 3.48% | 3.87% |

Table A.2

TOTAL COPYRIGHT VALUE ADDED AND CONTRIBUTION TO GROWTH IN U.S. GDP (BILLIONS OF DOLLARS)

| Nominal Value Added | 2002 | 2003 | 2004 | Estimated 2005 |
|---------------------|-------------|-------------|-------------|----------------|
| Total Copyright | \$1,457.91 | \$1,201.92 | \$1,300.77 | \$1,388.13 |
| U.S. GDP | \$10,469.60 | \$10,971.20 | \$11,734.30 | \$12,487.10 |
| Share | 11.06% | 10.96% | 11.09% | 11.12% |

| Real Value Added | 2002 | 2003 | 2004 | Estimated 2005 |
|------------------|-------------|-------------|-------------|----------------|
| Total Copyright | \$1,195.59 | \$1,263.66 | \$1,386.82 | \$1,491.84 |
| U.S. GDP | \$10,048.80 | \$10,320.60 | \$10,755.20 | \$11,134.80 |

| Real Annual Growth Rate | 2002 | 2003 | 2004 | Estimated 2005 |
|-------------------------|------|-------|-------|----------------|
| Total Copyright | N/A | 5.69% | 9.75% | 7.57% |
| U.S. GDP | N/A | 2.70% | 4.21% | 3.53% |

| Contribution to Real U.S. Annual Growth | 2002 | 2003 | 2004 | Estimated 2005 |
|---|------|--------|--------|----------------|
| Contribution | N/A | 23.28% | 25.36% | 23.78% |
| Ratio to Share | N/A | 2.12 | 2.29 | 2.14 |

| Real Annual Growth by Period | 2002-04 | 2002-05 | 2003-05 |
|------------------------------|---------|---------|---------|
| Total Copyright | 7.70% | 7.66% | 8.65% |
| U.S. GDP | 3.46% | 3.48% | 3.87% |

Table A.3.

U.S. COPYRIGHT INDUSTRY EMPLOYMENT

| Core Copyright | 2002 | 2003 | 2004 | 2005 |
|--|---------|---------|---------|---------|
| Core Copyright Employment (in Thousands) | 5,503.4 | 5,356.6 | 5,344.0 | 5,380.4 |
| Total U.S. Employment (in Thousands) | 130,341 | 129,999 | 131,435 | 133,463 |
| Total Private U.S. Employment (in Thousands) | 108,828 | 108,416 | 109,814 | 111,660 |
| Core Copyright Share of U.S. | 4.22% | 4.12% | 4.07% | 4.03% |
| Core Copyright Share of Private U.S. | 5.06% | 4.94% | 4.87% | 4.82% |

| Total Copyright | 2002 | 2003 | 2004 | 2005 |
|--|----------|----------|----------|----------|
| Total Copyright Employment (in Thousands) | 11,547.6 | 11,205.7 | 11,206.6 | 11,325.7 |
| Total U.S. Employment (in Thousands) | 130,341 | 129,999 | 131,435 | 133,463 |
| Total Private U.S. Employment (in Thousands) | 108,828 | 108,416 | 109,814 | 111,660 |
| Total Copyright Share of U.S. | 8.86% | 8.62% | 8.53% | 8.49% |
| Total Copyright Share of Private U.S. | 10.61% | 10.34% | 10.21% | 10.14% |

Table A.4.

U.S. COPYRIGHT INDUSTRY COMPENSATION PER EMPLOYEE

| Core Copyright | 2002 | 2003 | 2004 | 2005 |
|--|----------|----------|----------|----------|
| Core Copyright Compensation (per Employee) | \$62,085 | \$63,496 | \$66,997 | \$69,839 |
| Total U.S. Compensation (per Employee) | \$44,200 | \$45,969 | \$48,136 | \$49,828 |
| Total Private U.S. Compensation (per Employee) | \$43,436 | \$45,012 | \$47,106 | \$48,638 |
| Ratio: Core Copyright Compensation to U.S. | 1.40 | 1.38 | 1.39 | 1.40 |
| Ratio: Core Copyright Compensation to Private U.S. | 1.43 | 1.41 | 1.42 | 1.44 |

| Total Copyright | 2002 | 2003 | 2004 | 2005 |
|---|----------|----------|----------|----------|
| Total Copyright Compensation (per Employee) | \$56,003 | \$57,679 | \$60,621 | \$62,727 |
| Total U.S. Compensation (per Employee) | \$44,200 | \$45,969 | \$48,136 | \$49,828 |
| Total Private U.S. Compensation (per Employee) | \$43,436 | \$45,012 | \$47,106 | \$48,638 |
| Ratio: Total Copyright Compensation to U.S. | 1.27 | 1.25 | 1.26 | 1.26 |
| Ratio: Total Copyright Compensation to Private U.S. | 1.29 | 1.28 | 1.29 | 1.29 |

**1991-2005 ESTIMATED REVENUES GENERATED BY FOREIGN
SALES/EXPORTS OF SELECTED U.S. CORE COPYRIGHT INDUSTRIES
(BILLIONS OF DOLLARS)**

Table A.5

| Industry | Pre Recorded Records, Tapes, Etc. | Motion Pictures, TV, Video | Computer Software | Newspapers, Books, Periodicals | Total for Selected Industries |
|--|--------------------------------------|-------------------------------|-------------------|-----------------------------------|----------------------------------|
| 1991 estimate | \$6.15 | \$7.02 | \$19.65 | \$3.36 | \$36.19 |
| 1996 estimate | \$9.83 | \$11.58 | \$34.81 | \$3.96 | \$60.18 |
| 1999 estimate | \$10.27 | \$13.70 | \$50.65 | \$4.15 | \$78.77 |
| 2000 estimate | \$9.76 | \$14.50 | \$56.88 | \$4.21 | \$85.34 |
| 2001 estimate | \$8.91 | \$14.69 | \$60.74 | \$3.93 | \$88.28 |
| 2002 estimate | \$8.47 | \$17.00 | \$59.97 | \$3.82 | \$89.26 |
| 2003 estimate | \$8.42 | \$19.12 | \$66.82 | \$4.47 | \$98.82 |
| 2004 estimate | \$8.47 | \$19.35 | \$73.66 | \$4.74 | \$106.23 |
| 2005 estimate | \$8.26 | \$18.45 | \$79.10 | \$5.00 | \$110.82 |
| Average Annual % Change (1991-2004) | 2.50% | 8.11% | 10.70% | 2.68% | 8.64% |
| Average Annual % Change (1991-2005) | 2.13% | 7.15% | 10.46% | 2.88% | 8.32% |

Table B.1

COPYRIGHT VALUE ADDED BY MAJOR SECTOR 2004
(BILLIONS OF U.S. DOLLARS)

| NAICS | Description | Total Sector Current Dollar Values 2004 | Total Sector Real Dollar Value Added 2004 | Total Sector Real Dollar Value Added 2004 |
|----------------|-----------------------------|---|---|---|
| 213 | Support Activities Mining | \$26.10 | \$9.10 | 34.9% |
| 313,314 | Textile Products | \$23.30 | \$23.20 | 99.6% |
| 315,316 | Apparel, Leather and Allied | \$18.90 | \$19.70 | 104.2% |
| 321 | Wood Products | \$39.20 | \$32.40 | 82.7% |
| 322 | Paper Products | \$48.90 | \$53.50 | 109.4% |
| 323 | Printing | \$45.90 | \$44.40 | 96.7% |
| 327 | Nonmetallic Mineral Prod. | \$49.00 | \$49.00 | 100.0% |
| 331 | Primary Metal Prod. | \$50.90 | \$46.50 | 91.4% |
| 332 | Fabricated Metal Prod. | \$115.40 | \$110.70 | 95.9% |
| 333 | Machinery | \$100.20 | \$100.70 | 100.5% |
| 334 | Computer Manufacturing | \$132.60 | \$260.30 | 196.3% |
| 337 | Furniture and Related | \$31.40 | \$31.00 | 98.7% |
| 339 | Misc. Manufacturing | \$69.40 | \$66.30 | 95.5% |
| 42 | Wholesale | \$694.70 | \$683.70 | 98.4% |
| 44-45 | Retail | \$790.40 | \$797.70 | 100.9% |
| 48,49 | Transportation | \$332.90 | \$323.80 | 97.3% |
| 51 | Information | \$538.70 | \$563.80 | 104.7% |
| 532 | Rental Services | \$110.80 | \$103.30 | 93.2% |
| 5412-4, 5416-9 | Misc. Professional Services | \$487.20 | \$458.80 | 94.2% |
| 5415 | Computer Sys. Design | \$133.10 | \$139.70 | 105.0% |
| 561 | Administrative Svcs. | \$316.30 | \$307.50 | 97.2% |
| 61 | Education | \$106.30 | \$82.70 | 77.8% |
| 711-2 | Performing Arts etc. | \$50.20 | \$42.70 | 85.1% |
| 713 | Amusements - Theme Prks. | \$61.30 | \$54.70 | 89.2% |
| 81 | Other Services | \$277.70 | \$231.40 | 83.3% |



APPENDICES

APPENDIX C: MEASURING CONTRIBUTIONS TO REAL ANNUAL GROWTH IN U.S. GDP

In this report, we introduce, for the first time, estimates of the annual contributions made by the U.S. copyright industries to the actual real growth experienced by the U.S. economy as a whole. These calculations basically attempt to derive the importance of growth in the copyright industries as a contributor to growth in U.S. GDP as a whole. The calculations use current dollar value added shares for the U.S. copyright industries as weighting factors that are applied to the real growth rates achieved by the copyright industries during the same period. We provide an illustrative example below.

Given:

- .0640 = Core Copyright Share of U.S. GDP in 2003
- .0905 = Core Copyright Real Growth Rate in 2003-2004
- .0421 = U.S. Economy Real Growth Rate in 2003-2004

Example:

Contribution = [(Core Copyright Share of U.S. GDP in 2003)*(Core Copyright Real Growth Rate in 2003-2004)] / (U.S. Economy Real Growth Rate in 2003-2004)

$$\begin{aligned} \text{Contribution} &= (.0640) * (.0905) / (.0421) \\ \text{Contribution} &= (.005792) / (.0421) \\ \text{Contribution} &= 13.75\% \end{aligned}$$

In this example, the core copyright industries grew in real terms by 9.05% in 2004. In the same period the real growth rate for U.S. GDP as a whole was only 4.21%. In the calculations, the core copyright growth rate of 9.05% is multiplied by the current dollar share of the core copyright industries at the end of 2003. This value was 6.40%. Weighting the core copyright growth rate (9.05%) by the core copyright share (6.04%) yields a weighted core copyright growth rate of 0.5792%. Dividing 0.5792% by the U.S. growth rate (4.21%) produces a copyright industry growth contribution of 13.75%.





APPENDICES

APPENDIX D: LIST OF REFERENCES

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COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2006 REPORT



INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE®

1747 PENNSYLVANIA AVENUE, NW, SUITE 825

WASHINGTON, DC 20006-4637

UNITED STATES OF AMERICA

TEL 202.833.4198 FAX 202.872.0546

EMAIL: INFO@IIPA.COM WEB: WWW.IIPA.COM

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