

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)

© 2006 Economists Incorporated

All rights reserved. Material in this report is protected by copyright. It may, however, be reproduced for non-commercial purposes or quoted with appropriate attribution to Stephen E. Siwek of Economists Incorporated and the International Intellectual Property Alliance.

Citation format: Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2006 Report*, prepared for the International Intellectual Property Alliance (IIPA), November 2006, available at www.iipa.com.

International Intellectual Property Alliance® is a registered service mark of the International Intellectual Property Alliance.

IIPA® is a registered service mark of the International Intellectual Property Alliance.

Cover design and layout by Elizabeth M. Holland of Design Paradigm, Berkeley, California

ISBN 978-0-9634708-7-4

Printed in the United States of America

TABLE OF CONTENTS

Foreword	1
Executive Summary	2
I. Introduction	6
II. The Copyright Industries: Description	7
III. Value Added by the Copyright Industries	8
IV. Employment in the Copyright Industries	11
V. U.S. Copyrighted Materials in World Markets	12
VI. Conclusion	14
Appendix A: Table of Statistics	15
Appendix B: Current and Constant Dollar Value Added by Industry	18
Appendix C: Measuring Contributions to Real Annual Growth in U.S. GDP	20
Appendix D: List of References	21

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.

ACKNOWLEDGEMENTS

Economists Incorporated is grateful for the support and assistance of the International Intellectual Property Alliance (IIPA) and its seven member associations. In particular, we would like to thank the staff of the IIPA, including Eric H. Smith and Maria Strong, for their comments. We and the IIPA are also particularly grateful to the Universal Music Group, Time Warner, NBC Universal and McGraw Hill for their financial contributions that helped make this report possible.

The author thanks EI's research associate, Bijan Pajoohi, who performed much of the underlying research and computer work that was used throughout this 2006 report.

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.