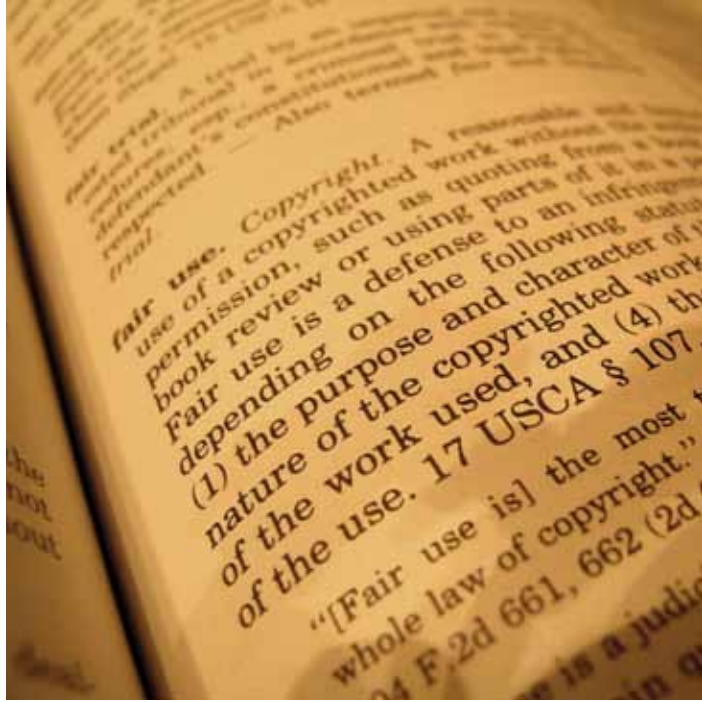


FAIR USE IN THE U.S. ECONOMY



2010

Economic Contribution of Industries Relying on Fair Use

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Industry Association

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Preface

As policy makers focus on how to promote innovation and economic growth, the subject of intellectual property (IP) is frequently raised. While IP is not the only—nor necessarily the best—means to promote innovation in any given case, its expansion is a means frequently urged upon Congress. But at what cost? How much is the economy affected by where the boundaries of intellectual property are drawn?

This report employs the latest data available to answer a very important question: what contribution is made to our economy by industries that depend on the limitations to copyright protection when engaged in commerce? As this report shows, such industries make a huge contribution.

In an era of highly competitive markets for information goods and services, changes to the boundaries of copyright protection will alter the economic landscape. Broader regulation of economic activity by copyright might encourage additional creativity, but it will deter certain types of technology innovation, and may undermine competition and free expression. Our information policy must therefore balance the incentives that IP regulation creates against the disincentives that result. For 300 years, copyright law has recognized this fragile balance.

“We are only beginning to fully understand in the 21st century that what copyright leaves unregulated—the ‘fair use economy’—is as economically significant as what it regulates.”

However, we are only beginning to fully understand in the 21st century that what copyright leaves unregulated—the ‘fair use economy’—is as economically significant as what it regulates.

This report attempts to help advance that understanding by utilizing the methodological guidelines established by the World Intellectual Property Organization (WIPO) for calculating economic activities related to copyright. This update of the earlier 2007 report offers the latest economic data on this important policy issue.

We must be careful that any attempt to alter our intellectual property laws not overlook any crucial sectors of the economy. To do so would only risk impoverishing important industry sectors and impeding economic growth. We must therefore safeguard the fair use economy from the unintended consequences of overbroad copyright regulation in order to ensure that technology innovators can maximize their contribution to our nation’s economic health.

ED BLACK

President & CEO

Computer & Communications Industry Association

Executive Summary

The 2010 “Fair Use in the U.S. Economy” presents the most up-to-date data on the economic contribution of industries relying on fair use and related exceptions to copyright law.

This report incorporates full year data for 2007 and demonstrates that the fair use economy grew significantly in 2007:

- Revenue increased by more than five percent from 2006 to 2007.*
- Fair use companies employed an additional 100,000 workers.*
- U.S. exports by fair use industries expanded by nearly 12 percent to \$281 billion.*

This report updates a 2007 report prepared by Capital Trade, Inc. that was the first comprehensive study quantifying the U.S. economic contribution of industries relying on fair use. The original report showed that fair use industries grew rapidly from 2002 to 2006 and played a large role in overall national economic welfare, generating an estimated \$4.4 trillion in revenue, accounting for one sixth of total U.S. gross domestic product, and employing more than 17 million workers.



While policy makers devote significant attention to copyright infringement, exceptions to copyright protection also promote innovation and are a major catalyst of U.S. economic growth.

Specific exceptions to copyright protection under U.S. and international law, classified here under the broad heading of “fair use,” are vital to many industries and stimulate growth across the economy. Companies benefiting from fair use generate substantial revenue, employ millions of workers, and represent one-sixth of total U.S. GDP.

Under guidelines published by the World Intellectual Property Organization (WIPO), economic activity associated with copyrights has been studied extensively. Until the 2007 publication of *Fair Use in the U.S. Economy*, however, the economic contribution of industries dependent on fair use had not been quantified. This update continues to fill the gap and provides a comprehensive assessment of the economic contribution generated by companies benefiting from fair use.

Fair use is an important restriction to the rights conferred on original works by the U.S. Copyright Act of 1976: “The fair use of a copyrighted work ... is not an infringement of copyright.”¹ The fair use doctrine, and other limitations and exceptions, have grown in importance with the rise of the digital economy, as fair use permits a range of activities that are critical to many high technology businesses and are an important foundation of the Internet economy.

The beneficiaries of fair use encompass a broad range of companies, particularly those whose business activities involve the Internet. The ubiquity of the Internet means that the economic growth fostered by fair use is widespread and generates significant consumer benefits.

Examples of industries that depend on or benefit from fair use include:

- manufacturers of consumer devices that allow individual copying of copyrighted programming;
- educational institutions;
- software developers; and
- Internet search and web hosting providers.

1. 17 U.S.C. § 107.

These industries and others that depend upon fair use and related limitations and exceptions are referred to here as “fair use industries.” As summarized in the following report, the courts have held in favor of fair use in situations that are integral to many industries. The courts have established, for example, that fair use permits the main service provided by search engines, that software development depends on making temporary copies to facilitate the programming of interoperability, and that consumers can make copies of television and radio programming for personal use.

Industries benefiting from fair use have grown dramatically within the past 20 years, and their growth has had a profound impact on the U.S. economy. The report contains detailed data by industry and summarizes activity and growth in five areas:

Revenue — In 2007, fair use industries generated revenue of \$4.7 trillion, a 36 percent increase over 2002 revenue of \$3.4 trillion. In percentage terms, the most significant growth over this five year period occurred in internet publishing and broadcasting and web search portals, electronic shopping and electronic auctions, and other financial investment activity.

Value Added — Fair use-related industry value added in 2007 was \$2.2 trillion, 16.2 percent of total U.S. current dollar GDP. Value added equals a firm’s total output minus its purchases of intermediate inputs and is the best measurement of an industry’s economic contribution to national GDP.

Fair use industries also grew at a faster pace than the overall economy. From 2002 to 2007, the fair use industries accounted for 23 percent of U.S. real economic growth.

Employment — Employment in industries benefiting from fair use increased from 16.9 million in 2002 to 17.5 million in 2007. About one out of every eight workers in the United States is employed in an industry that benefits from the protection afforded by fair use.

Further illustrating the rapid growth of fair use industries, total payrolls expanded rapidly, rising from \$895 billion in 2002 to \$1.2 trillion in 2007.

Productivity — Productivity, the amount of goods and services that can be produced with a given number of inputs, is the foundation for rising living standards. From 2002 to 2007, the productivity of U.S. fair use industries increased to nearly \$128,000 per employee, far exceeding economy-wide average productivity of \$100,000 per employee. Numerous researchers have determined that companies dependent on fair use, such as information technology companies, have stimulated U.S. productivity growth.

Exports — Exports of goods and services related to fair use industries increased by 41 percent from \$179 billion in 2002 to an estimated \$252 billion in 2006 and then increased by an additional \$29 billion to \$281 billion in 2007. Within this overall increase, exports of trade-related services, including Internet or online services, were the fastest growing segment, increasing nearly ten-fold from \$578 million in 2002 to \$5.2 billion in 2007.

By any measure, the growth rate of fair use industries has outpaced overall economic growth in recent years, fueled productivity gains, and helped the overall economy sustain continued strong growth rates.

Through the information technology revolution and the related growth of the Internet, the U.S. economy has benefited from the creation and rapid expansion of new industries, and a revival of productivity growth that supports higher living standards.

The research indicates that the industries benefiting from fair use—and other limitations and exceptions—make a large and growing contribution to the U.S. economy. The fair use economy in 2007 accounted for \$4.7 trillion in revenues and \$2.2 trillion in value added, roughly one-sixth of total U.S. GDP. It employed more than 17 million people and supported a payroll of \$1.2 trillion. Fair use companies generated \$281 billion in exports and rapid productivity growth.

The protection afforded by fair use and other limitations and exceptions has been a major contributing factor to these economic gains, and will continue to support growth as the U.S. economy becomes even more dependent on information industries.

Economic Contribution Of Fair Use And Information Technology Dependent Industries To The U.S. Economy

I. INTRODUCTION

In 2003, the World Intellectual Property Organization (WIPO) produced a guide on surveying the economic contribution of copyright-based industries.² Even before the guide was completed, several countries had produced reports assessing and promoting the role of copyright-based industries.³ In contrast, the large and growing economic contribution of industries that depend on and/or benefit from limitations and exceptions to copyrights, including the fair use of copyrighted materials, has not been studied extensively. As with the original study, the objective of this update is to fill the gap and, based on a comprehensive review of available data, estimate the economic activity and scope of industries benefiting from balanced copyright.

Fair use in the strict sense is an important statutory restriction on the rights conferred on original works by the U.S. Copyright Act of 1976:⁴ According to Sec. 107, “[t]he fair use of a copyrighted work for ... purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research is not an infringement of copyright.”⁵ The fair use doctrine, and other limitations and exceptions to copyright,⁶ have grown in importance with

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2. Guide on Surveying the Economic Contribution of the Copyright-Based Industries, WIPO, Geneva 2003 (“WIPO Guide”).
 3. Id. Table 1.1 in the WIPO Guide lists 13 separate national studies of copyright industries. See also Stephen E. Siwek, *Copyright Industries in the U.S. Economy: The 2006 Report, prepared for the International Intellectual Property Alliance (IIPA)*, Nov 2006, available at www.iipa.com
 4. Michael A. Einhorn, *Media, Technology and Copyright: Integrating Law and Economics* (Edward Elgar Publishing, 2004) at 1.
 5. 17 U.S.C. § 107. See Einhorn at 1 and 8, *fn.* 5.
 6. The complete set of limitations and exceptions studied herein are listed in Part II and described further in the Glossary.

the rise of the digital economy, as fair use permits a range of activities that are critical to many high technology businesses, including search portals and web hosting.⁷ In the discussion that follows, the term “fair use” sometimes will be used as a shorthand expression referring to the full range of limitations and exceptions in U.S. copyright law.

Industries benefiting from fair use have grown dramatically within the past 20 years, and their growth has had a profound impact on the U.S. economy.⁸ The development and spread of the Internet as a medium for both business and personal use has been creative and transformative. The creation of new businesses (e.g., Google and Amazon) and business activities has in turn fueled demand from other sectors of the U.S. economy (e.g., fiber optics, routers and consumer electronics) and transformed a host of business processes (e.g., communications and procurement).

The advent of the Internet and networking technology also has been widely credited with reviving U.S. productivity growth after two-decades of below-trend productivity.⁹ As higher productivity is an important source of income to labor and capital resources, the “new economy” has helped spur overall growth and offset structural declines in other sectors of the economy.

7. See, for example, Jonathan Band, “Fair Use: Its Effects on Consumers and Industry,” Testimony before the Committee on Energy and Commerce, Subcommittee on Commerce, Trade, and Consumer Protection (Nov 16, 2005).

8. For a literature review and discussion of the impact of the “new economy” on official U.S. economic statistics, see, J. Stephen Landefeld and Barbara M. Fraumeni, “Measuring the New Economy,” *Survey of Current Business* (Mar 2001).

9. For a survey of the productivity-related literature, see Landefeld and Fraumeni at 27–8.

Fair use of copyrighted material and other limitations and exceptions are an important foundation of the Internet economy. For example, one force driving the expansion of the Internet as a tool for commerce and education is the user's ability to locate useful information with widely available search engines.¹⁰ The courts have held that the main service provided by search engines is fair use.¹¹ Absent the exceptions to copyright law provided by the fair use doctrine, search engine firms and others would face uncertain liability for infringement, a significant deterrent to providing this valuable service. Such an outcome would thwart the educational purposes and growing commerce facilitated by Internet search engines, thereby reducing the economic contribution of the Internet.

Other important activities made possible by fair use include software development, which in many cases requires the making of temporary copies of existing programs to facilitate the programming of interoperability, and web hosting, which could be liable for any infringement by users but for limitations and exceptions.¹³ The fair use doctrine also permits end users of copyrighted material to make digital copies of

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10. Search engine software copies vast quantities of information from publicly accessible websites onto the search engine's database. Users then access the search engine's database for relevant information, retrieving links to the original site as well as to the "cache" copy of the website stored in the database.
 11. The Ninth Circuit in *Kelly v. Arriba Soft*, 336 F.3d 811 (9th Cir. 2003) found that the caching of reduced-sized images copied from websites, and the display of these images in response to search queries, constituted a fair use. It reaffirmed that proposition in *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007). Similarly, the district court in *Field v. Google*, 412 F. Supp. 2d 1106 (D. Nev. 2006) excused Google's display of text cached in its search database as a fair use.
 12. See *Sega v. Accolade*, 977 F.2d 1510 (9th Cir. 1992); *Atari v. Nintendo*, 975 F.2d 832 (Fed. Cir. 1992); *Sony v. Connectix*, 203 F.3d 596 (9th Cir. 2000). (Fair use permits the copying that occurs during the course of software reverse engineering.)
 13. Section 512(c) of the Digital Millennium Copyright Act (DMCA) provides safe harbors for the entities hosting user content.

programming for personal use. Thus, because of fair use, consumers can enjoy copyrighted programming at a later time (“time-shifting”),¹⁴ transfer the material from one device to another (“space shifting”),¹⁵ and make temporary cache copies of websites on the random access memory of their computers.¹⁶ The utility derived from these activities has spawned consumer purchases of a broad range of products such as digital video recorders and MP3 players, stimulating additional economic activity in the United States and in all of the countries where the machines used for these activities are manufactured.

Certainly, copyright protection provides an incentive for the production of creative works and these works have a positive impact on the U.S. economy. The positive aspects of copyright protection should not, however, obscure that fair use is also a vital economic driver in the digital age. The recognition of the economic benefits of the digital economy made possible by fair use specifically, and the limitations and exceptions to copyright law in general, have led to a spirited debate on the role of copyright law in the digital age.¹⁷

To contribute to the debate, this report presents a comprehensive quantification of the growing economic significance of industries benefiting from fair use. The methodology used in the report defines a set of “core industries” that either would not exist, or would be much smaller, but for the limitations and exceptions to copyright law. In turn, similar to the WIPO methodology, we also evaluate the secondary sectors or

14. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 423–24 (1984).

15. *Recording Industry Ass’n of America v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999).

16. *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007).

17. For an explanation of both views, see Joseph Ferrell and Carl Shapiro, “Intellectual Property, Competition, and Information Technology,” in Hal Varian, Joseph Ferrell, and Carl Shapiro, ed., *The Economics of Information Technology* (Cambridge University Press, Banca Intessa, 2004) at 58–61.

non-core industries that benefit from fair use.¹⁸ The present endeavor is by no means the final word on the subject, but we hope that it will serve as a stimulus to further refinement and better understanding of the digital economy and the important role and economic contribution made by fair use in the digital age.

II. DESCRIPTION OF FAIR-USE BENEFITS AND INDUSTRIES

A. The Benefits Of Fair Use And Other Limitations And Exceptions To Copyright Law

Many industries benefit from provisions of U.S. copyright law that fall under the broad heading of fair use.¹⁹ For example, the Other Information Services industry, which includes the Internet Publishing and Broadcasting and Web Search Portals industry, relies on the following fair use-related provisions:

Statutory Provision	Description
17 U.S.C. § 102(a)	non-copyrightability of facts
17 U.S.C. § 102(b)	idea/expression dichotomy
17 U.S.C. § 105	no copyright in U.S. government works
17 U.S.C. § 107	fair use: criticism; comment; news reporting; browser, cache copies; teaching; scholarship; research
17 U.S.C. § 108	library uses
17 U.S.C. § 109	first-sale doctrine
17 U.S.C. § 302-304	copyright term
17 U.S.C. § 512	ISP safe harbors

18. The WIPO framework for evaluating copyright-based industries suggests 4 categories: core, interdependent, partial, and non-dedicated support industries. WIPO Guide at 27–35. As discussed in Section II, this report adopts a similar but more streamlined definition of core and non-core industries.

19. This section of the report was prepared with the assistance of Professor Peter Jaszi of American University Washington College of Law.

Appendix I consists of a table that illustrates how individual provisions apply to and benefit core and non-core industries. The table represents, by 2007 NAICS category and description, those industries that depend on fair use.²⁰ Each NAICS code is followed by citations to statutory provisions and principles of law embodying the limitations and exceptions upon which the described industry depends. The accompanying Glossary on page 94 supplements the discussion of each fair use provision and identifies relevant court decisions.

The fourth column in the Appendix I table also summarizes and highlights the extended impact of fair use across numerous sectors as the cross-references to other NAICS codes identify interdependent industries. For example, for the Other Information Services industry, the table lists five interdependent industries: 3341 (computer and peripheral equipment manufacturing); 5112 (software publishers); 5415 (computer system design and related services); 334413 (semiconductors and related device manufacturing); and 3346 (manufacturing and reproducing magnetic and optical media).

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- 20.** This report uses the 2007 version of the North American Industry Classification System (2007 NAICS). The 1997 NAICS replaced the old SIC standard. In the NAICS convention, a two-digit number refers to an industry sector. For example, code 51 refers to the Information sector. Three, four and five-digit codes refer to an industry subsector, an industry group, and industry, respectively. Codes of six or more digits are also considered industries in their own right even though they are part of a larger industry. This study incorporates data mostly at the three and four-digit industry group level, and, as appropriate, at the five-or-more-digit industry level, without double counting. For ease of reference, the table in Appendix I lists the NAICS 2007 codes and official descriptions of the industries and industry groups considered.
- 21.** See WIPO at 32. As noted by WIPO, the “definition and identification of ‘non-core’ industries has been characterized by blur [sic] borders and frequent changes across borders.”

B. Fair Use Industries, Core and Non-Core

This study adopts the guidelines suggested by WIPO, and used in other studies, to evaluate the economic contribution of fair use.²¹ However, instead of defining four distinct groups of industries as suggested in the WIPO guidelines, the study employs a simpler classification into core and non-core industries that depend on or benefit from fair use. Core industries are defined as industries that produce goods and services whose activities depend in large measure on the existence of limitations and exceptions provided in U.S. copyright law. As shown in Appendix I, the core covers a broad range of industries whose output is driven increasingly by activities made possible by fair use including many that depend extensively on the Internet.²² Due to the nature of the Internet—in particular the intensive use of temporary copies—all of the Internet-based industry groups and industries are classified in the fair-use core.

Other information industries depend on fair use exceptions for their ability to engage in basic activities. Additional core sectors, such as the education industry, benefit from the non-copyrightability of facts and other fair use freedoms.²³

In addition to these core industries, non-core sectors also benefit significantly from fair use. Non-core industries included in this study consist of industries whose activities or output facilitate the output

22. For example, recent advances in processing speed and software functionality are being used to take advantage of the richer multi-media experience now available from the web. Thus, purchases of new computers and software increasingly are driven by the desire to maximize the Internet experience, rather than to increase word processing and spreadsheet performance.

23. See, for example, Kurt Larsen and Stéphan Vincent-Larsen, “The Impact of ITC on Tertiary Education,” in Brian Kahin and Dominique Foray, ed., *Advancing Knowledge and the Knowledge Economy* (MIT Press, 2006) at 151–168.

of the fair use core. Companies in these sectors derive a significant amount of their current business from the demand generated by fair use and the Internet, and are interdependent with the core industries.²⁴

The Internet economy is dynamic and, as it expands, influences a growing range of sectors. The industry classification scheme used for this study follows a conservative approach and limits the core and non-core industries to the sectors listed in Appendix I. Subsequent studies, benefiting from additional data sources and available information, may show a far greater scope of core and non-core activity derived from fair use.²⁵

III. METHODOLOGY AND DATA SOURCES

This study quantifies the economic contribution of core and non-core industries in 2007 based on five economic measures: revenue, value added, employment, payroll, and exports.²⁶ The original report presented data for 2002 and 2006, but many of the data points for 2006 had to be estimated due to lags in data availability and other limitations. As of early 2010, complete data for 2006 are available and the U.S. Census Bureau is releasing the results of the 2007 Economic Census on a rolling basis. Issued every five years, the Economic Census provides a detailed portrait of the U.S. economy from the national to

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24. WIPO advocates the inclusion of such “interdependent copyright industries” as part of copyright-based industries. WIPO defines interdependent industries as “industries that are engaged in production, manufacture, and sale of equipment whose function is wholly or primarily to facilitate the creation, production, or use of works and other protected subject matter. See World Intellectual Property Organization (WIPO), *Guide on Surveying the Economic Contribution of the Copyright-Based Industries* (Geneva, 2003) at 33 (available at http://www.wipo.org/copyright/en/publications/pdf/copyright_pub_893.pdf).
 25. As the Internet economy grows, it is likely that the U.S. Department of Commerce and other agencies will expand and refine their data collection efforts to track this growth.
 26. This approach is consistent with the WIPO Guide which suggests measuring the size of the industries as a percentage of GDP, employment and foreign trade. WIPO Guide at 36.

the local level, and these results are used to refine and revise the government's existing data collection programs.²⁷ As a result, most of the 2007 data points for revenues and payroll do not have to be estimated, but can be drawn directly from the Economic Census.²⁸

A detailed discussion of the methodology and sources used to compile the data presented in this update is provided in Appendix II. Data for the key economic measures listed below—revenue, value added, payroll and employment—are segregated into core and non-core industries according to the structure developed by Professor Peter Jaszi, as described above and detailed in Appendix I. Summary tables are provided in Appendices III through VII. Data for these industries were compiled by NAICS code and organized in a database. When data from the primary source was unavailable, either due to publication lags or disclosure constraints, other official sources were consulted to estimate the missing data points. As noted above, data for both 2002 and 2006 were updated to reflect revised government statistics.

IV. ECONOMIC CONTRIBUTION OF FAIR USE INDUSTRIES

Using the data sources and methodologies described in Appendix II, this section presents estimates of the revenues, value added, payroll, employment levels, productivity, and trade of the core and non-core industries benefiting from fair use.

27. See U.S. Census Bureau, *2007 Economic Census User Guide* (Mar 24, 2009) at 4 and 14.

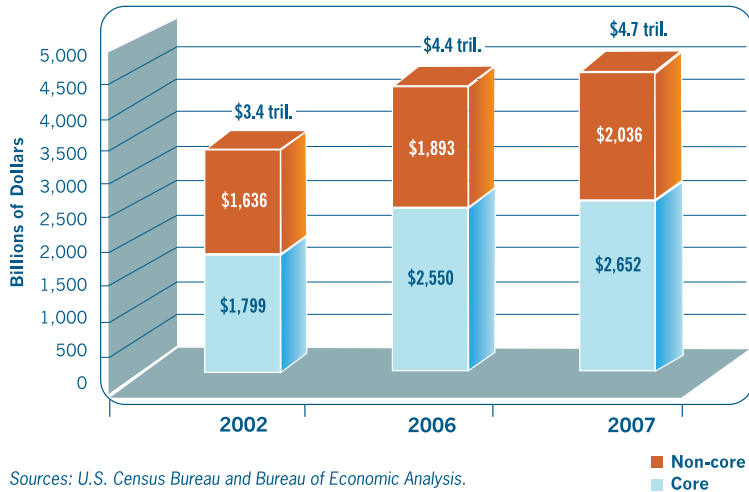
28. However, the economic census data will be revised in future releases, which will likely lead to generally minor revisions to 2007 data in future fair use reports.

A. Revenue

Chart 1 illustrates the estimated revenues for the fair use related core and non-core industries for 2002, 2006 and 2007. The data indicate that the core group of fair use industries accounted for \$1.8 trillion in revenue, approximately 52 percent of the total fair use industry revenue of \$3.4 trillion in 2002.

Chart 1. Revenues of Fair Use Industries

Total Revenue = \$4.7 trillion in 2007



By 2007, the revenue generated by fair use industries had increased by 36 percent to \$4.7 trillion. Over the same period, the core industries had become a much larger component of the fair use economy, increasing to \$2.7 trillion, and 57 percent of the fair use total. Thus, from 2002 to 2007, core fair use revenues expanded by 47 percent, while non-core revenues expanded by 24 percent.²⁹

²⁹ Appendix III contains tables detailing revenue for each core and non-core industry.

The strong revenue growth by the core industries has been driven by growth in several industries. In percentage terms, the most significant growth occurred in internet publishing and broadcasting, web search portals, electronic shopping and electronic auctions, and other financial investment activity.

B. Value Added

Value added measures the contribution of each industry's labor and capital to its gross output and to GDP. Industry value added equals an industry's gross output minus its purchased intermediate inputs. Value added is an important tool to measure economic growth because it does not include value added by another industry or double count own-industry value added.

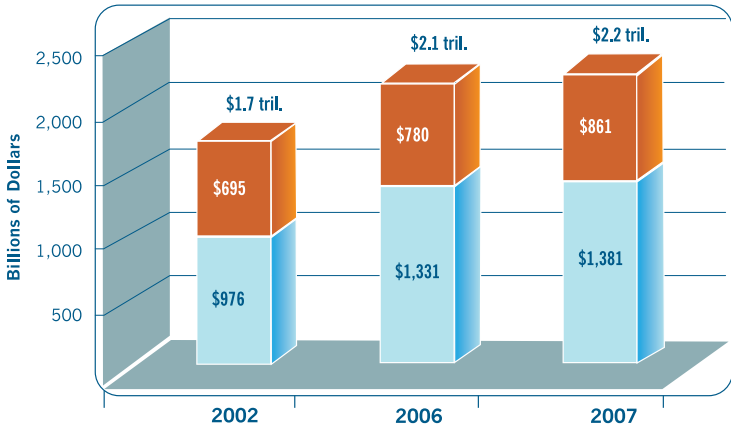
Value added in 2002 for the fair use industries defined in this report are shown in Chart 2. Total value added was an estimated \$1.7 trillion in 2002, with the core industries accounting for nearly \$1 trillion, and non-core industries accounting for nearly \$700 billion. Although the fair use industry value added is significantly less than core and non-core revenue, the value added data show that these industries represented nearly one-sixth of current dollar U.S. GDP in 2002.³⁰ The core share of GDP was 9.3 percent, while the non-core share of GDP was 6.6 percent. By 2007, fair use-related industry value added increased 34 percent to an estimated \$2.2 trillion. As with revenue, the growth rate for core fair use industries outpaced growth in the non-core sectors. Core value added increased by 41 percent compared to non-core growth of 24 percent.³¹

30. U.S. GDP in current dollars was \$10.5 trillion in 2002 and \$13.8 trillion in 2008. For a time series of U.S. current dollar and real GDP, see <http://www.bea.gov/national/xls/gdplev.xls> and http://www.bea.gov/industry/gdppyind_data.htm. The GDP estimates in this study are based on the latter.

31. Appendix IV contains tables detailing value added for core and non-core industries.

Chart 2. Value Added of Fair Use Industries

Total Value Added = \$2.2 trillion in 2007



Sources: U.S. Census Bureau and Bureau of Economic Analysis.

■ Non-core
■ Core

In total, fair use industries accounted for 16.2 percent of U.S. current dollar (i.e., nominal) GDP in 2007. In all, the core and non-core fair use industries contributed \$571 billion to U.S. GDP growth during the 2002 to 2007 period, accounting for 17 percent of U.S. current dollar economic growth.

In contrast to *nominal* GDP, *real* GDP controls for inflation, and is therefore a better indicator of a country's true economic growth. In many of the fair use industries, prices declined during the 2002 to 2007 period, meaning that the real growth of value added was even larger than implied by the current dollar growth of value added. When inflation is taken into account, the growth contribution of the core industries to U.S. output growth during 2002 to 2007 was 23.2 percent.³²

32. The estimation procedure for the core contribution to real GDP growth is shown in Appendix V.

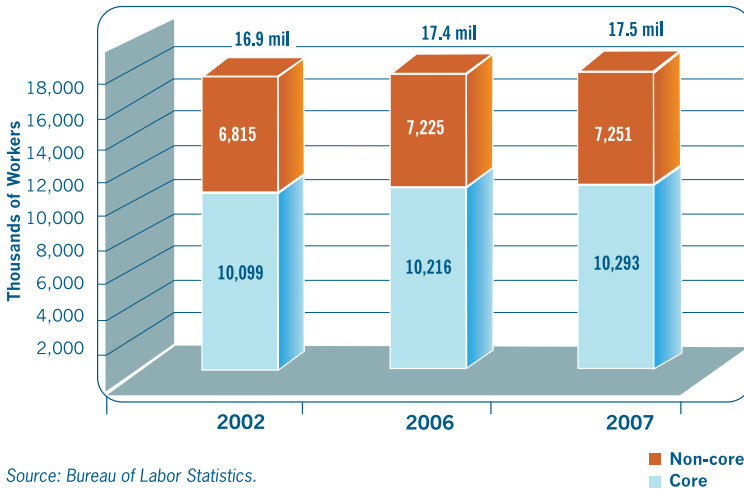
C. Employment and Payroll

The fair use-related industries measured in this report are major employers in the U.S. economy. Chart 3 below shows the number of employees for 2002, 2006 and 2007. The exhibits indicate that employment related to fair use increased from 16.9 million in 2002 to 17.5 million in 2007.

Employment in the core industries increased from 10.1 million employees in 2002 to 10.3 million in 2007. Employment in the non-core industries expanded from 6.8 million employees in 2002 to 7.3 million workers in 2007.³³ In 2007, employment in fair use industries accounted for almost 13 percent of total non-farm employment in the United States.³⁴ That is, about one out of every eight workers in the United States is employed in an industry that benefits from the protection afforded by fair use.

Chart 3. Employment of Fair Use Industries

Total Employment = 17.5 million workers in 2007



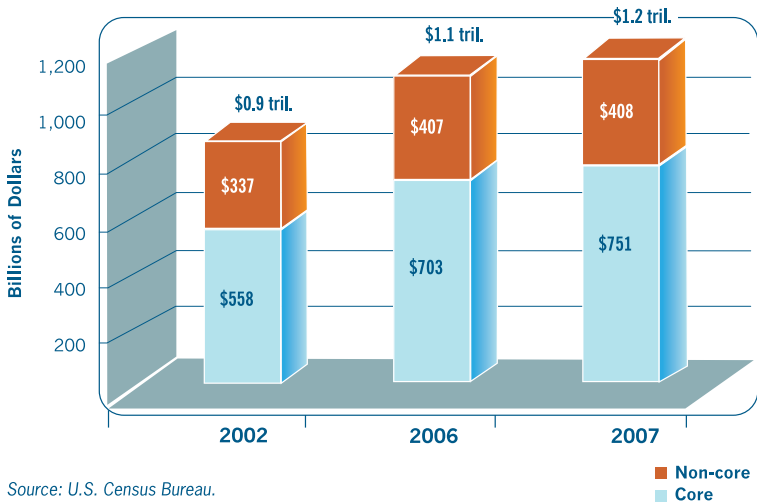
33. Appendix VI contains tables detailing employment for each core and non-core industry.

34. Data on employment by industry are available at <http://www.bls.gov/ces/home.htm#data>

While employment levels have been relatively stable, total fair use industry payroll has been expanding. Chart 4 indicates that total fair use industry payroll increased by 29 percent from approximately \$900 billion in 2002 to \$1.2 trillion in 2007. In 2002, core industry payroll was \$558 billion, accounting for 62 percent of total fair use payrolls. In 2007, core industry payroll was \$751 billion, accounting for 65 percent of total fair use payroll. From 2002 to 2007, the payroll of core industries grew by 34 percent, while the payroll of non-core industries grew by 21 percent.³⁵ In real terms, the payroll of core fair use industries increased by 17 percent from 2002 to 2007, while the payroll of non-core industries grew by five percent.³⁶

Chart 4. Payroll of Fair Use Industries

Total Payroll = \$1.2 trillion in 2007



35. Appendix VII contains tables detailing payroll for each core and non-core industry.

36. Payroll values were deflated by the consumer price index for urban consumers (series ID CUUR0000SA0,CUUS0000SA0).

The combination of stable employment levels and increasing payrolls has produced a sizeable increase in payroll per employee at fair use related firms. Table 1 below indicates that payroll per employee expanded from approximately \$53,000 per year in 2002 to \$66,000 in 2007. For the core industries over the same period, payroll per employee expanded from \$55,000 to \$73,000.³⁷

Table 1. Payroll Per Employee

	Dollars per employee		
	2002	2006	2007
Core	55,288	68,814	72,946
Non-core	49,751	56,756	56,593
Total	52,919	63,664	66,030

Sources: Authors' estimates based on data from the U.S. Census Bureau and Bureau of Labor Statistics.

D. Productivity

On the supply side, a country's economic growth depends overwhelmingly on two factors: changes in the level of productive inputs such as labor and capital and the productivity with which those inputs are used. In other words, an economy experiences economic growth if it adds inputs (e.g., more workers and more machines), increases the output associated with a given level of inputs, or does both.

In order to improve the earnings for labor, by increasing real hourly wages, for example, it is necessary to increase productivity.³⁸ Rising productivity is therefore the key to long-term improvements in living standards.

37. Because the Census data do not include payroll data for NAICS 5251 (insurance and employee benefit funds), this industry was excluded from the calculations.

38. For example, if growth is achieved solely by adding workers without increasing productivity, then wages will not rise in the long term.

A large body of work attributes the higher productivity growth during and after the late 1990s to Information Technology (IT) producing sectors serving the new economy, and recent work indicates that IT-using industries, not just IT-producing industries, are increasing productivity as well.³⁹

Value added per employee is a common indicator used to measure labor productivity. Table 2 contains estimates of labor productivity for the core and non-core fair use industries.

Table 2. Value Added Per Employee

Dollars per employee			
	2002	2006	2007
Core	96,681	130,272	134,211
Non-core	102,665	108,616	119,558
Total	98,806	121,003	127,824

Sources: Authors' estimates based on data from the U.S. Census Bureau and Bureau of Labor Statistics.

The data show that there has been strong productivity growth in both the core and non-core industries. Further, fair use industries have led U.S. growth as productivity in the fair use economy of \$128,000 per employee greatly exceeds economy-wide productivity, which was approximately \$100,000 per employee in 2007.⁴⁰

39. See, for example, Erik Brynjolfsson and Lorin M. Hitt, "Computing Productivity: Firm-Level Evidence" (June 2003); MIT Sloan Working Paper No. 4210-01. Dale W. Jorgenson and Kevin J. Stiroh, *Raising the Speed Limit: U.S. Economic Growth in the Information Age* (May 1, 2000); Tarek M. Harchaoui, Faouzi Tarkhani & Bilkis Khanam, "Information Technology and Economic Growth in the Canadian and U.S. Private Economies," in Jorgenson, ed., *Economic Growth in Canada and the United States in the Information Age* (2004); *Economic Report of the President: 2002* (GPO: Feb 2002) at 58-60; and J. Steven Landenfled and Barbara M. Fraumeni, "Measuring the New Economy," *Survey of Current Business* (Mar 2001) at 23-39.

40. The national total is based on current dollar GDP divided by the annual average of seasonally adjusted monthly nonfarm employment levels reported by BLS (series ID CEU0000000001).

The fair use-related industries not only achieve higher than average productivity levels, but they have experienced strong productivity growth during the past five years.

E. Trade

The globalization of the U.S. economy has been one of the primary economic trends in recent decades. U.S. trade in goods and services now accounts for nearly 29 percent of U.S. GDP.⁴¹ While the United States runs a large deficit in merchandise trade, it traditionally has run a surplus in services trade, and is believed to hold a comparative advantage in many service sectors. In 2007, the United States surplus in services trade was \$140 billion.⁴²

Exports are an increasingly important source of sales for firms benefiting from fair use.⁴³ U.S. manufacturers have a long history in foreign markets, but many Internet firms are relatively new exporters. Due to cross-country differences in copyright law and the importance of the Internet to the U.S. economy, U.S. trade officials have incorporated certain ISP safe harbors into free trade agreements. Officials have been urged to incorporate the fair use limitations covered in this report into trade accords as well. Such provisions are necessary for U.S. Internet service exporters, such as ISPs and search engines, to fully exercise their comparative advantages in foreign markets.

41. See Bureau of Economic Analysis, Gross Domestic Product: Table 1.1.5 (Dec 29, 2009). Net exports of goods and services in 2007 were \$1,656 billion, imports were \$2,370 billion, and U.S. current dollar GDP was \$14,078 billion.

42. Bureau of Economic Analysis, US International Services, Table 1 (Oct 30, 2009). U.S. private service exports in 2007 totaled \$478.1 billion, while service imports totaled \$338.2 billion.

43. Though the revenue from the goods and services exports of fair use industries is included in the revenues and value added already measured above, exports are also reported separately in order to highlight the growing importance of trade to those industries.

Chart 5. Exports of Fair Use Industries

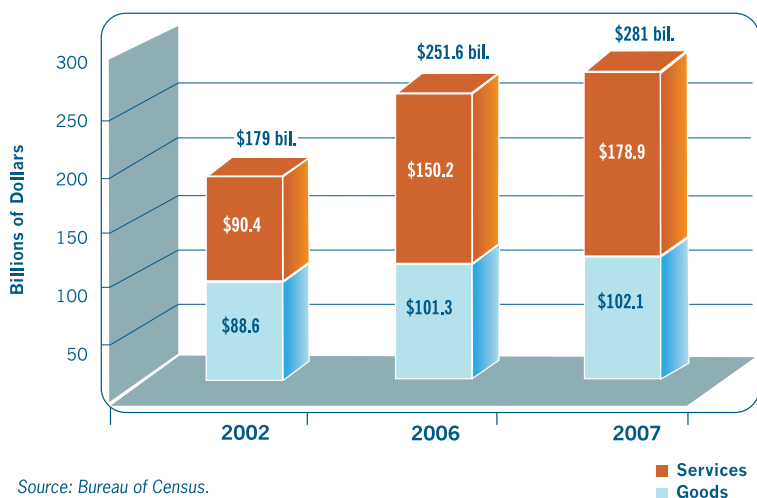


Chart 5 shows that estimated fair-use industry exports increased by 57 percent from \$179 billion in 2002 to \$281 billion in 2007.⁴⁴ Due to the high level of aggregation of services trade data, it is not practical to distinguish between core and non-core exports. Instead, Chart 5 breaks down exports into goods and services.

Unlike overall exports, which are dominated by merchandise, fair use industry exports are oriented toward services. Financial services constitute the largest portion of fair use service exports, accounting for nearly one third of total services exports. Other leading categories with significant export growth include management and consulting services, R&D and technical services, and education. Emblematic of the dramatic growth of the Internet as a business tool, exports of trade-related services (including Internet or online services) rose from \$578 million in 2002 to an estimated \$5.2 billion in 2005, representing an annual growth rate of 55 percent, the most rapid growth among all the industries represented. On the goods side, semiconductors, computers and communications equipment accounted for more than eighty percent of fair use industry exports.

44. Appendix VIII contains tables detailing fair use exports of goods and services by category.

V. CONCLUSIONS

The U.S. economy is an increasingly knowledge-based economy that benefits from the dynamic diversity of core and non-core fair use industries. These knowledge-based industries in turn spur production of additional goods and services that further fuel economic growth.

The information technology revolution and the Internet have transformed how information is transmitted and used.⁴⁵ As a result, the U.S. economy has benefited from the creation and rapid expansion of new industries, and a revival of productivity growth that supports higher living standards.

The growth of the Internet did not occur, of course, in a vacuum. In addition to technological advancements, enlightened limitations and exceptions to U.S. copyright law have nurtured Internet industries by providing space for them to develop and expand their service offerings to meet the needs of consumers and businesses. This transformation has led to a surge in Internet usage, and spurred purchases of Internet infrastructure and computers, the development of new Internet applications, and an explosion of Internet-based transactions that benefit consumers and a broad range of businesses.

This report has sought to measure the footprint of fair use on the U.S. economy. It has considered not only the core fair use industries, but also the suppliers of goods and services to the fair use core and major users.

The research indicates that the industries benefiting from fair use and other limitations and exceptions make a large and growing contribution to the U.S. economy. The fair use economy in 2007 accounted for \$4.7 trillion in revenues and \$2.2 billion in value added, roughly 16.2 percent of U.S. GDP. It employed more than 17 million people and supported a payroll of \$1.2 trillion. It generated \$281 billion in exports and rapid productivity growth.

The protection afforded by fair use has been a major contributing factor to these economic gains, and will continue to support growth as the U.S. economy becomes even more dependent on information industries.

45. Brian Kahin and Dominique Foray, eds., *Advancing Knowledge and the Knowledge Economy* (MIT Press, 2006) at ix.

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APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Photographic and photocopying equipment mfg.</p> <p>333315</p>	<p>This U.S. industry comprises establishments primarily engaged in manufacturing photographic and photocopying equipment, such as cameras (except television, video and digital) projectors, film developing equipment, photocopying equipment, and microfilm equipment.</p>	<p>107 (fair use copying); Sony principle</p>
<p>Computer and peripheral equipment manufacturing</p> <p>3341</p>	<p>This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following: (1) store the processing program or programs and the data immediately necessary for the execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run. Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.</p>	<p>102(b) (non-copyrightability of interface specifications); 107 (fair use: browser copies; buffer copies; time and space shifting; reverse engineering); 117(a) (backup, essential step copies); Sony principle; see also exceptions listed under NAICS 5112, 5171, 5179, 5182, 519, 3341, 334413</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Audio and video equipment manufacturing</p> <p>3343</p>	<p>This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.</p>	<p>107 (fair use: buffer copies, time and space shifting); Sony principle; see also exceptions listed under NAICS 3346, 334413</p>
<p>Semiconductors and related device manufacturing</p> <p>334413</p>	<p>This U.S. industry comprises establishments primarily engaged in manufacturing semiconductors and related solid state devices. Examples of products made by these establishments are integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells and other optoelectronic devices.</p>	<p>107 (fair use: reverse engineering); Sony principle; see NAICS 3341</p>
<p>Manufacturing and reproducing magnetic and optical media</p> <p>3346</p>	<p>This industry comprises establishments primarily engaged in (1) manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or (2) mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.</p>	<p>107 (fair use: time and space shifting; browser, cache copies); Sony principle; see also exceptions listed under NAICS 3341, 3343; 3342</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Electronic shopping</p> <p>454111</p>	<p>This U.S. Industry comprises establishments engaged in retailing all types of merchandise using the Internet.</p>	<p>107 (fair use: browser copies; search); 109(a) (first sale); 512 (ISP safe harbors); Sony principle; see also exceptions listed under NAICS 5171, 5179, 5182, 519, 3341, 5112, 5415, 33413, 3346</p>
<p>Electronic auctions</p> <p>454112</p>	<p>This U.S. Industry comprises establishments engaged in providing sites for and facilitating consumer-to-consumer or business-to-consumer trade in new and used goods, on an auction basis, using the Internet. Establishments in this industry provide the electronic location for retail auctions, but do not take title to the goods being sold.</p>	<p>107 (fair use: browser copies; search); 109(a) (first sale); 512 (ISP safe harbors); Sony principle; see also exceptions listed under NAICS 5171, 5179, 519, 5182, 3341, 5112, 5415, 33413, 3346</p>
<p>Newspaper publishers</p> <p>51111</p>	<p>This industry comprises establishments known as newspaper publishers. Establishments in this industry carry out operations necessary for producing and distributing newspapers, including gathering news; writing news columns, feature stories, and editorials; and selling and preparing advertisements. These establishments may publish newspapers in print or electronic form.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, news reporting); 105 (no copyright in U.S. government works)</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Directory, mailing list and other publishers</p> <p>51114</p>	<p>This industry comprises establishments known as newspaper publishers. Establishments in this industry carry out operations necessary for producing and distributing newspapers, including gathering news; writing news columns, feature stories, and editorials; and selling and preparing advertisements. These establishments may publish newspapers in print or electronic form.</p>	<p>102(a) (non-copyrightability of facts); 105 (no copyright in U.S. government works)</p>
<p>Other publishers</p> <p>51119</p>	<p>This industry comprises establishments known as publishers (except newspaper, magazine, book, directory, mailing list, and music publishers). These establishments may publish works in print or electronic form.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: scholarship, research, teaching); 302-304 (copyright term); 105 (no copyright in U.S. government works).</p>
<p>Software publishers</p> <p>5112</p>	<p>This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only.</p>	<p>102(b) (non-copyrightability of interface specifications); 107 (fair use: reverse engineering); 117(a) (back up, essential step copies); Sony principle; see also exceptions listed under NAICS 5171, 5179, 519, 5182, 3341, 5415, 334413, 3346</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Motion picture and video Industries</p> <p>5121</p>	<p>This industry group comprises establishments primarily engaged in the production and/or distribution of motion pictures, videos, television programs, or commercials; in the exhibition of motion pictures; or in the provision of postproduction and related services.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, parody, research); 302-304 (copyright term); 105 (no copyright in U.S. government works) see also exceptions listed under NAICS 3342</p>
<p>Sound recording industries</p> <p>5122</p>	<p>This industry group comprises establishments primarily engaged in producing and distributing musical recordings, in publishing music, or in providing sound recording and related services.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, parody, research); 302-304 (copyright term) see also exceptions listed under 3343</p>
<p>Data processing, hosting and related services</p> <p>5182</p>	<p>This industry comprises establishments primarily engaged in providing infrastructure for hosting or data processing services. These establishments may provide specialized hosting activities, such as web hosting, streaming services or application hosting, provide application service provisioning, or may provide general time-share mainframe facilities to clients. Data processing establishments provide complete processing and specialized reports from data supplied by clients or provide automated data processing and data entry services.</p>	<p>107 (fair use: browser copies); 512 (ISP safe harbors); Sony principle; see also exceptions listed under NAICS 3341, 5112, 5415, 334413, 5171, 5179, 519, 3346</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Other information services</p> <p>519</p>	<p>Industries in the Other Information Services subsector group establishments supplying information, storing and providing access to information, searching and retrieving information, operating Web sites that use search engines to allow for searching information on the Internet, or publishing and/or broadcasting content exclusively on the Internet. The main components of the subsector are news syndicates, libraries, archives, exclusive Internet publishing and/or broadcasting, and Web Search Portals.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy, non-copyrightability of interface specifications); 107 (fair use: criticism; comment; news reporting; browser, cache copies; teaching; scholarship; research); 108 (library uses); 109 (first sale doctrine); 512 (ISP safe harbors); Sony principle; 302-304 (copyright term); 105 (no copyright in U.S. government works); see also exceptions listed under NAICS 3341, 5112, 5415, 334413, 3346</p>
<p>Securities, commodity contracts and investments</p> <p>5231</p>	<p>This industry group comprises establishments primarily engaged in putting capital at risk in the process of underwriting securities issues or in making markets for securities and commodities; and those acting as agents and/or brokers between buyers and sellers of securities and commodities, usually charging a commission.</p>	<p>102(a) (non-copyrightability of facts); 107 (fair use: research); see also exceptions listed under NAICS 3341, 5182, 5415, 5171</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Other financial investment activities</p> <p>5239</p>	<p>This industry group comprises establishments primarily engaged in one of the following: (1) acting as principals in buying or selling financial contracts (except investment bankers, securities dealers, and commodity contracts dealers); (2) acting as agents (i.e., brokers) (except securities brokerages and commodity contracts brokerages) in buying or selling financial contracts; or (3) providing other investment services (except securities and commodity exchanges), such as portfolio management; investment advice; and trust, fiduciary, and custody services.</p>	<p>102(a) (non-copyrightability of facts); 107 (fair use: research); see also exceptions listed under NAICS 3341, 5171, 5182, 5415</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Insurance carriers</p> <p>5241</p>	<p>This industry group comprises establishments primarily engaged in underwriting (assuming the risk, assigning premiums, and so forth) annuities and insurance policies and investing premiums to build up a portfolio of financial assets to be used against future claims. Direct insurance carriers are establishments that are primarily engaged in initially underwriting and assuming the risk of annuities and insurance policies. Reinsurance carriers are establishments that are primarily engaged in assuming all or part of the risk associated with an existing insurance policy (or set of policies) originally underwritten by another insurance carrier. Industries are defined in terms of the type of risk being insured against, such as death, loss of employment because of age or disability, and/or property damage. Contributions and premiums are set on the basis of actuarial calculations of probable payouts based on risk factors from experience tables and expected investment returns on reserves.</p>	<p>102(a) (non-copyrightability of facts); 107 (fair use: research); see also exceptions listed under NAICS 3341, 5171, 5182, 5415</p>
<p>Other investment pools and funds</p> <p>5259</p>	<p>This industry group comprises legal entities (i.e., investment pools and/or funds) organized to pool securities or other assets (except insurance and employee-benefit funds) on behalf of shareholders, unitholders, or beneficiaries.</p>	<p>102(a) (non-copyrightability of facts); 107 (fair use: research); see also exceptions listed under NAICS 3341, 5171, 5179, 519, 5415</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Video tape and disc rental</p> <p>53223</p>	<p>This industry comprises establishments primarily engaged in renting prerecorded video tapes and discs for home electronic equipment.</p>	<p>109(a) (first sale); see also exceptions listed under NAICS 3343, 3346</p>
<p>Legal services</p> <p>5411</p>	<p>This industry comprises offices of legal practitioners known as lawyers or attorneys (i.e., counselors-at-law) primarily engaged in the practice of law. Establishments in this industry may provide expertise in a range or in specific areas of law, such as criminal law, corporate law, family and estate law, patent law, real estate law, or tax law.</p>	<p>102(b) (idea/expression dichotomy); 105 (no copyright in U.S. government works); 107 (fair use: research); see also exceptions listed under NAICS 3341, 5171, 5172, 5174, 5179, 519, 5415</p>
<p>Architectural, engineering and related services</p> <p>5413</p>	<p>This industry comprises establishments primarily engaged in planning and designing residential, institutional, leisure, commercial, and industrial buildings and structures by applying knowledge of design, construction procedures, zoning regulations, building codes, and building materials.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, parody, research); 302-304 (copyright term); 105 (no copyright in U.S. government works)</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Graphic design services</p> <p>54143</p>	<p>This industry comprises establishments primarily engaged in planning, designing, and managing the production of visual communication in order to convey specific messages or concepts, clarify complex information, or project visual identities. These services can include the design of printed materials, packaging, advertising, signage systems, and corporate identification (logos). This industry also includes commercial artists engaged exclusively in generating drawings and illustrations requiring technical accuracy or interpretative skills.</p>	<p>102(b) (non-copyrightability of interface specifications); 107 (fair use: comment, parody, research, search; browser, cache copies); 302-304 (copyright term); 105 (no copyright in U.S. government works); 117(a) (backup, essential step copies)</p>
<p>Scientific research and development services</p> <p>5417</p>	<p>This industry group comprises establishments engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: scholarship, research, comment, criticism); see NAICS 3341, 5171, 5179, 5112, 5171, 5172, 519, 5415, 333315, 334413</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Core

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Education services (pt.)</p> <p>6111, 6112, 6113</p>	<p>Industries in the Educational Services subsector provide instruction and training in a wide variety of subjects. The instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. The subsector is structured according to level and type of educational services. Elementary and secondary schools, junior colleges and colleges, universities, and professional schools correspond to a recognized series of formal levels of education designated by diplomas, associate degrees (including equivalent certificates), and degrees. The remaining industry groups are based more on the type of instruction or training offered and the levels are not always as formally defined. The establishments are often highly specialized, many offering instruction in a very limited subject matter, for example ski lessons or one specific computer software package. Within the sector, the level and types of training that are required of the instructors and teachers vary depending on the industry. Establishments that manage schools and other educational establishments on a contractual basis are classified in this subsector if they both manage the operation and provide the operating staff. Such establishments are classified in the educational services subsector based on the type of facility managed and operated.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, teaching, scholarship, research); 110(1), 110(2) (displays and performances in educational contexts); see also exceptions listed under NAICS 3341, 5112, 5415, 5171, 5172, 5179, 519, 333315, 334413</p>

Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Performing arts companies</p> <p>7111</p>	<p>This industry group comprises establishments primarily engaged in producing live presentations involving the performances of actors and actresses, singers, dancers, musical groups and artists, and other performing artists.</p>	<p>102(b) (idea/ expression dichotomy); 107 (fair use: criticism, comment, parody, research); 302-304 (copyright term);</p>
<p>Independent artists, writers and performers</p> <p>7115</p>	<p>This industry comprises independent (i.e., freelance) individuals primarily engaged in performing in artistic productions, in creating artistic and cultural works or productions, or in providing technical expertise necessary for these productions. This industry also includes athletes and other celebrities exclusively engaged in endorsing products and making speeches or public appearances for which they receive a fee.</p>	<p>102(b) (idea/ expression dichotomy); 107 (fair use: criticism, comment, parody, research); 302-304 (copyright term);</p>
<p>Computer and office machine repair and maintenance</p> <p>811212</p>	<p>This industry comprises establishments primarily engaged in repairing and maintaining computers and office machines without retailing new computers and office machines, such as photocopying machines; and computer terminals, storage devices, printers; and CD-ROM drives.</p>	<p>117(c) (machine maintenance or repair); see also exceptions listed under NAICS 3341</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Printing and related support activities</p> <p>3231</p>	<p>Industries in the Printing and Related Support Activities subsector print products, such as newspapers, books, labels, business cards, stationery, business forms, and other materials, and perform support activities, such as data imaging, platemaking services, and bookbinding. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations. Processes used in printing include a variety of methods used to transfer an image from a plate, screen, film, or computer file to some medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods is to transfer the image from a plate or screen to the medium (lithographic, gravure, screen, and flexographic printing). A rapidly growing new technology uses a computer file to directly “drive” the printing mechanism to create the image and new electrostatic and other types of equipment (digital or nonimpact printing).</p>	<p>See exceptions listed under NAICS 51111, 51114, 51119</p>

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
Communications equipment manufacturing 3342	This industry group comprises establishments primarily engaged in one or more of the following manufacturing activities: telephone equipment; radio and television broadcasting and wireless communications equipment; and other communications equipment.	102(b) (non-copyrightability of interface specifications); 107 (fair use: browser copies, reverse engineering); Sony principle; see NAICS 3341, 3346, 5112, 5415, 5171, 5172, 5174, 5175, 5179, 5152, 515120
Communication and energy wire and cable manufacturing 335920	This industry comprises establishments insulating fiber-optic cable, and manufacturing insulated nonferrous wire and cable from nonferrous wire drawn in other establishments.	See exceptions listed under NAICS 3342
Computer and peripheral equip. merchant wholesalers 4234301	This industry comprises establishments primarily engaged in the merchant wholesale distribution of new and used computer hardware and computer peripheral equipment.	See exceptions listed under NAICS 3341
Computer software (packaged) merchant wholesalers 4234302	This industry comprises establishments primarily engaged in the merchant wholesale distribution of packaged computer software primarily for end use.	See exceptions listed under NAICS 5112

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Electric appliance, TV and radio merchant wholesalers</p> <p>42362</p>	<p>This industry comprises establishments primarily engaged in the merchant wholesale distribution of household-type electrical appliances, room air-conditioners, gas and electric clothes dryers, and/or household-type audio or video equipment.</p>	<p>See exceptions listed under NAICS 3343</p>
<p>Communications equipment and supp merchant wholesalers</p> <p>4236901</p>	<p>This industry comprises establishments primarily engaged in the merchant wholesale distribution of household-type electrical appliances, room air-conditioners, gas and electric clothes dryers, and/or household-type audio or video equipment.</p>	<p>See exceptions listed under NAICS 3342</p>
<p>Business to business electronic markets</p> <p>42511</p>	<p>This industry comprises business-to-business electronic markets bringing together buyers and sellers of goods using the Internet or other electronic means and generally receiving a commission or fee for the service. Business-to-business electronic markets for durable and nondurable goods are included in this industry.</p>	<p>See exceptions listed under NAICS 5171, 5179, 5182, 519, 3341, 5112, 5415, 334413, 3346</p>

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Electrical and electronic goods agents and brokers</p> <p>42512036</p>	<p>This industry (425120) comprises wholesale trade agents and brokers acting on behalf of buyers or sellers in the wholesale distribution of goods. Agents and brokers do not take title to the goods being sold but rather receive a commission or fee for their service. Agents and brokers for all durable and nondurable goods are included in this industry. Electrical & electronic goods agents & brokers are a subset of this industry and are classified under NAICS 42512036.</p>	<p>See exceptions listed under NAICS 3341, 5112, 3343</p>
<p>Radio, television and other electronics stores</p> <p>443112</p>	<p>This U.S. industry comprises: (1) establishments known as consumer electronics stores primarily engaged in retailing a general line of new consumer-type electronic products; (2) establishments specializing in retailing a single line of consumer-type electronic products (except computers); or (3) establishments primarily engaged in retailing these new electronic products in combination with repair services.</p>	<p>See exceptions listed under NAICS 3343</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Computer and software stores</p> <p>44312</p>	<p>This U.S. industry comprises: (1) establishments known as consumer electronics stores primarily engaged in retailing a general line of new consumer-type electronic products; (2) establishments specializing in retailing a single line of consumer-type electronic products (except computers); or (3) establishments primarily engaged in retailing these new electronic products in combination with repair services.</p>	<p>See exceptions listed under NAICS 3341, 5112, 334413</p>
<p>Book, Periodical and Music Stores</p> <p>4512</p>	<p>This industry group comprises establishments primarily engaged in retailing new books, newspapers, magazines, and prerecorded audio and video media.</p>	<p>109(a) (first sale); see also exceptions listed under NAICS 5111, 5121, 5122</p>
<p>Radio and television broadcasting</p> <p>5151</p>	<p>This industry comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studio, from an affiliated network, or from external sources.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, news reporting, parody); 112 (ephemeral recordings); 114(a) (exception to sound recording performance right); see also exceptions listed under NAICS 3343, 3342</p>

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Cable networks</p> <p>5152</p>	<p>This industry group comprises establishments primarily engaged in operating broadcast studios and facilities for over-the-air or satellite delivery of radio and television programs. These establishments are often engaged in the production or purchase of programs or generate revenues from the sale of air time to advertisers, from donations and subsidies, or from the sale of programs.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: criticism, comment, news reporting, parody); 114(a) (exception to sound recording performance right); see also exceptions listed under NAICS 3343, 3342</p>
<p>Wired telecommunications carriers</p> <p>5171</p>	<p>This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.</p>	<p>See exceptions listed under NAICS 3341, 5112, 5415, 5182, 334413, 3346, 3342</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Wireless telecommunications carriers (except satellite)</p> <p>5172</p>	<p>This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access and wireless video services.</p>	<p>See exceptions listed under NAICS 3341, 5112, 5415, 5182, 334413, 3346, 3342</p>
<p>Satellite telecommunications</p> <p>5174</p>	<p>This industry comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.</p>	<p>See exceptions listed under NAICS 3341, 5112, 5415, 5182, 334413, 3346, 3342</p>

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Other telecommunications</p> <p>5179</p>	<p>This industry comprises establishments primarily engaged in (1) purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households; (2) providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation; (3) providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems; or (4) providing Internet access services or Voice over Internet protocol (VoIP) services via client-supplied telecommunications connections. Establishments in this industry do not operate as telecommunications carriers. Mobile virtual network operators (MVNO) are included in this industry.</p>	<p>See exceptions listed under NAICS 3341, 5112, 5415, 5182, 3342</p>
<p>Securities and commodity exchanges</p> <p>5232</p>	<p>This industry comprises establishments primarily engaged in furnishing physical or electronic marketplaces for the purpose of facilitating the buying and selling of stocks, stock options, bonds, or commodity contracts.</p>	<p>See exceptions listed under NAICS 5231, 5182, 5415, 5171, 5411</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Agencies, brokerages and other insurance related activities</p> <p>5242</p>	<p>This industry group comprises establishments primarily engaged in (1) acting as agents (i.e., brokers) in selling annuities and insurance policies or (2) providing other employee benefits and insurance related services, such as claims adjustment and third party administration.</p>	<p>See exceptions listed under NAICS 5231, 5239, 5241, 5415</p>
<p>Insurance and employee benefit funds</p> <p>5251</p>	<p>This industry group comprises legal entities (i.e., funds, plans, and/or programs) organized to provide insurance and employee benefits exclusively for the sponsor, firm, or its employees or members.</p>	<p>See exceptions listed under NAICS 5231, 5239, 5241</p>
<p>Computer system design and related services</p> <p>5415</p>	<p>This industry comprises establishments primarily engaged in providing expertise in the field of information technologies through one or more of the following activities: (1) writing, modifying, testing, and supporting software to meet the needs of a particular customer; (2) planning and designing computer systems that integrate computer hardware, software, and communication technologies; (3) on-site management and operation of clients' computer systems and/or data processing facilities; and (4) other professional and technical computer-related advice and services.</p>	<p>See exceptions listed under NAICS 5171, 5179, 519, 5182, 3341, 5112, 454111, 454112, 42511, 334413, 3346</p>

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Management, scientific and technical consulting services</p> <p>5416</p>	<p>The industry NAICS 54161 comprises establishments primarily engaged in providing advice and assistance to businesses and other organizations on management issues, such as strategic and organizational planning; financial planning and budgeting; marketing objectives and policies; human resource policies, practices, and planning; production scheduling; and control planning. Establishments providing sanitation or site remediation consulting services are included in this industry.</p>	<p>102(a) (non-copyrightability of facts); 102(b) (idea/expression dichotomy); 107 (fair use: scholarship, research, comment, criticism); see also exceptions listed under NAICS 3341, 5112, 5415, 5171, 5172, 5179, 519, 333315, 334413</p>
<p>Education services (pt.)</p> <p>6114, 6115, 6116, 6117</p>	<p>See description of education services listed under core industry NAICS 6111, 6112, 6113.</p>	<p>See exceptions listed under NAICS 6111, 6112, 6113</p>

APPENDIX I: FAIR USE INDUSTRY DEFINITIONS, Non-Core

Non-Core Industry/ NAICS Codes	Detailed NAICS Description	Reliance on Fair Use
<p>Promoters of performing arts, sports and similar events</p> <p>7113</p>	<p>This industry comprises establishments primarily engaged in (1) organizing, promoting, and/or managing live performing arts productions, sports events, and similar events, such as state fairs, county fairs, agricultural fairs, concerts, and festivals, held in facilities that they manage and operate and/or (2) managing and providing the staff to operate arenas, stadiums, theaters, or other related facilities for rent to other promoters. It also comprises promoters primarily engaged in organizing, promoting, and/or managing live performing arts productions, sports events, and similar events, such as state fairs, county fairs, agricultural fairs, concerts, and festivals, in facilities that are managed and operated by others. Theatrical (except motion picture) booking agencies are included in this industry.</p>	<p>See exceptions listed under NAICS 5121, 7111, 7115</p>
<p>Agents and managers for artists, athletes, entertainers and other public figures</p> <p>7114</p>	<p>This industry comprises establishments of agents and managers primarily engaged in representing and/or managing creative and performing artists, sports figures, entertainers, and other public figures. The representation and management includes activities, such as representing clients in contract negotiations; managing or organizing client's financial affairs; and generally promoting the careers of their clients.</p>	<p>See exceptions listed under NAICS 5121, 7111, 7115</p>

APPENDIX II: METHODOLOGY AND DATA SOURCES

I. REVENUE

The revenue data for the core and non-core industries were based on statistics issued by the U.S. Census Bureau of the Department of Commerce. The underlying revenue data for each industry appear in Appendix III. The economic census data were used for 2002 and 2007. However, many data points for 2006 were revised, using primarily two sources. For manufacturing industries, the total value of shipments was sourced from the Annual Survey of Manufactures: Statistics for Industry Groups and Industries for 2006.¹ For most services industries, information from the Service Annual Survey was used.² The revenue data from this publication are benchmarked to the 2002 Census. Rather than relying on the survey revenues benchmarked to 2002, the 2006 data estimates are computed by applying the growth rate from 2006 to 2007 published in the Services Annual Survey to the 2007 data from the Census Bureau.

II. VALUE ADDED

Revenue data are an important measurement of company growth, but value added data are a better indicator of the contribution of an industry to overall economic growth. The reason is simple. Revenues include the values of intermediate inputs purchased from other industries and from within the same industry. In contrast, value added excludes intermediate purchases, and thereby captures the value that is added by the labor and capital resources within each industry. Industry value added is analogous to GDP, and can be used to assess the contribution of an industry or industries to U.S. economic growth.

1. Data from the Annual Survey of Manufactures can be accessed at <http://www.census.gov/manufacturing/asm/index.html>

2. See, for example, U.S. Census Bureau, *Service Annual Survey 2007: Current Business Reports* (Mar 2008).

APPENDIX II: METHODOLOGY AND DATA SOURCES

The Economic Census and Annual Survey of Manufactures provide value added data for fair use industries in manufacturing. However, neither report provides value added data for services. To estimate value added data for fair use service industries, this report applies the value-added-to-gross-output ratio to industry revenues for 2002, 2006 and 2007, the same methodology used in the inaugural fair use report.³ For retail and wholesale industries, revenues from the economic census include the value of the products being sold. To eliminate this distortion, the value added for these industries is adjusted by the ratio of gross output to census revenue.

III. PAYROLL

Detailed payroll data are available for 2002 and 2007 from each year's Economic Census. For 2006, two sources were consulted. The Annual Survey of Manufactures: Statistics for Industry Groups and Industries for 2006 was used for manufacturing industries. Service industries' payroll information was drawn from the U.S. Census Bureau's County Business Patterns database.⁴

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3. In many instances, the value added and gross output data for services, published by the Bureau of Economic Analysis (BEA), are at higher levels of aggregation than the various fair use industries. The BEA industries offering the best match for each core or non-core industry were used.
 4. Data from the County Business Patterns database can be accessed at <http://www.census.gov/econ/cbp/index.html>. In a small number of cases when Economic Census or other industry data were not available, this database, which is current through 2007, was also used to estimate revenues and employment for 2006 and 2007.

IV. EMPLOYMENT

The Bureau of Labor Statistics (BLS) publishes data on employment by industry. These data were used for all three years. However, employment levels for some fair use industries are not available at a detailed level. For these industries, information on employment levels from alternative sources, such as the Economic Census, the Annual Survey of Manufactures, and County Business Patterns database, was used instead.

V. TRADE

The U.S. Government publishes detailed merchandise trade data on the basis of the Harmonized Tariff System. The government also converts these data to a NAICS basis and makes them available on the web site of the U.S. International Trade Commission.⁵ Data on services trade are reported at a relatively high level of aggregation by the Bureau of Economic Analysis.⁶ As a result, the export data shown in the tables do not distinguish between core and non-core exports. As an alternative, the export data are reported separately between exports of fair use goods and exports of fair use services.

5. Merchandise trade data from the U.S. International Trade Commission can be accessed at <http://dataweb.usitc.gov>

6. Services trade data from the Bureau of Economic Analysis can be accessed at <http://www.bea.gov/international/intlserv.htm> (see Table 1).

APPENDIX III: REVENUE DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
333315	Photographic and Photocopying Equipment Manufacturing	2,139	2,281	2,192
3341	Computer and Peripheral Equipment Manufacturing	73,562	67,403	64,414
3343	Audio and Video Equipment Manufacturing	8,522	9,588	7,331
334413	Semiconductor and Related Device Manufacturing	61,471	70,213	72,398
3346	Manufacturing and Reproducing Magnetic and Optical Media	7,550	6,945	6,237
454111	Electronic Shopping ¹	32,143	72,262	85,505
454112	Electronic Auctions ¹	1,208	2,881	3,410
51111	Newspaper Publishers	46,179	49,113	47,016

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
51114, 51119	Directory, mailing list, and other publishers	24,422	25,102	26,193
5112	Software Publishers	103,597	118,000	128,938
5121	Motion Picture and Video Industries	62,951	75,711	79,842
5122	Sound recording industries	15,338	15,987	15,350
5182	Data Processing, Hosting, and Related Services	57,706	66,124	68,489
519	Other information services (inc. internet publishing and broadcasting and web search portals)	32,982	32,950	37,674
5231	Securities and Commodity Contracts Intermediation and Brokerage	212,236	403,867	388,220
5239	Other Financial Investment Activities	102,809	208,843	234,229

APPENDIX III: REVENUE DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5241	Insurance Carriers	332,460	519,381	513,924
5259	Other Investment Pools and Funds	22,874	32,120	36,514
53223	Video Tape and Disc Rental	9,364	10,288	9,242
5411	Legal Services	182,098	238,654	254,611
5413	Architectural, Engineering, and Related Services	158,366	235,812	256,612
54143	Graphic Design Services	8,096	8,147	8,378
5417	Scientific Research and Development Services	93,082	88,160	96,595
6111, 6112, 6113	Elementary & Secondary Schools, Junior Colleges, Colleges, Universities, and Professional Schools	121,300	156,066	162,647

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7111	Performing Arts Companies	10,864	14,049	13,753
7115	Independent Artists, Writers, and Performers	9,338	12,375	12,726
811212	Computer and Office Machine Repair and Maintenance	6,380	7,202	7,948
	Core Industries Subtotal	1,799,037	2,549,525	2,640,384
	Estimated ISP Revenues²			11,933
	Core Industries Total			2,652,317

1. The 2002 data for electronic shopping and electronic auction revenues were revised to include data for nonemployers using information from the Annual Retail Trade Survey.

2. In the 2007 NAICS, the revenues of Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been added to the core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; Annual Retail Trade Survey; Service Annual Survey, various issues.

APPENDIX III: REVENUE DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
3231	Printing and Related Support Activities	95,592	99,800	103,217
3342	Communications Equipment Manufacturing	66,143	70,195	64,510
33592	Communication and Energy Wire and Cable Manufacturing	11,360	16,041	15,793
4234301	Computer and peripheral equip merchant wholesalers	217,790	249,764	252,876
4234302	Computer software (packaged) merchant wholesalers	14,730	249,764	252,876
42362	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers	59,830	63,223	87,043
4236901	Communications equipment merchant wholesalers	78,309	103,000	100,750
42511	Business to Business Electronic Markets	2,843	5,110	5,447

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
42512036	Electrical and electronic goods agents and brokers	50,618	76,913	78,896
443112	Radio, Television, and Other Electronics Stores	48,451	62,820	67,599
44312	Computer and Software Stores	16,696	18,575	20,064
4512	Book, Periodical and Music Stores	23,096	20,850	21,227
5151	Radio and television broadcasting	48,873	53,629	54,085
5152	Cable and Other Subscription Programming	25,375	42,364	45,608
5171	Wired Telecommunications Carriers (inc. ISP)	241,948	199,344	294,377
5172	Wireless Telecommunications Carriers (except Satellite) (inc. ISP)	99,158	151,953	167,720
5175	Cable and other program distribution ¹	57,706	91,865	

APPENDIX III: REVENUE DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5174 5179	Satellite and other communications	17,096	22,254	30,043
5232	Securities and Commodity Exchanges			8,947
5242	Agencies, Brokerages and Other Insurance Related Activities	126,406	160,325	154,220
5251	Insurance and Employee Benefit Funds	Not covered	Not covered	Not covered
5415	Computer Systems Design and Related Services	173,480	198,441	273,513
5416	Management, Scientific and Technical Consulting Services	105,452	119,776	132,156
6114, 6115, 6116, 6117	Business Schools and Computer and Management Training, Technical and Trade Schools, Other Schools and Instruction and Educational Support Services	39,312	47,794	49,109

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7113	Promoters of Performing Arts, Sports and Similar Events	11,698	14,726	16,133
7114	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures	4,073	4,479	5,075
	Non-Core Industries Subtotal			2,048,409
	Estimated ISP Revenues²			11,933
	Non-Core Industries Total			2,036,476

1. Code 5175 is not included in the 2007 NAICS. Data from this 2002 NAICS code are distributed in NAICS 5171 in 2007.

2. In the 2007 NAICS, the revenues of Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been subtracted from the non-core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; Annual Retail Trade Survey; Service Annual Survey, various issues

APPENDIX IV: VALUE ADDED DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
333315	Photographic and Photocopying Equipment Manufacturing	861	1,229	1,250
3341	Computer and Peripheral Equipment Manufacturing	25,955	35,049	33,647
3343	Audio and Video Equipment Manufacturing	3,007	3,278	3,456
334413	Semiconductor and Related Device Manufacturing	21,690	54,476	52,621
3346	Manufacturing and Reproducing Magnetic and Optical Media	2,664	3,260	2,992
454111	Electronic Shopping ¹	5,353	16,247	19,409
454112	Electronic Auctions ¹	201	648	774
51111	Newspaper Publishers	22,787	23,424	21,535

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
51114, 51119	Directory, mailing list, and other publishers	12,051	11,972	8,720
5112	Software Publishers	51,120	56,278	59,057
5121	Motion Picture and Video Industries	29,200	34,528	34,927
5122	Sound recording industries	7,115	7,291	6,715
5182	Data Processing, Hosting, and Related Services	27,100	26,516	22,801
519	Other information services (inc. internet publishing and broadcasting and web search portals)	15,489	13,213	17,255
5231	Securities and Commodity Contracts Intermediation and Brokerage	132,963	198,520	197,193
5239	Other Financial Investment Activities	71,142	102,656	118,974
5241	Insurance Carriers	172,031	257,796	255,742

APPENDIX IV: VALUE ADDED DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5259	Other Investment Pools and Funds	6,128	5,933	5,461
53223	Video Tape and Disc Rental	4,879	4,845	4,305
5411	Legal Services	130,992	169,688	180,612
5413	Architectural, Engineering, and Related Services	89,695	135,092	149,263
54143	Graphic Design Services	4,585	4,667	4,873
5417	Scientific Research and Development Services	52,720	50,505	56,186
6111, 6112, 6113	Elementary & Secondary Schools, Junior Colleges, Colleges, Universities, and Professional Schools	70,439	93,075	97,869

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7111	Performing Arts Companies	6,814	8,991	8,571
7115	Independent Artists, Writers, and Performers	5,858	7,920	7,931
811212	Computer and Office Machine Repair and Maintenance	3,500	3,771	4,182
	Core Industries Subtotal	976,339	1,330,867	1,376,321
	Estimated ISP Value Added²			5,128
	Core Industries Total			1,381,448

1. The 2002 data for electronic shopping and electronic auction value added were revised to include data for nonemployers using information from the Annual Retail Trade Survey.

2. In the 2007 NAICS, the data for Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been added to the core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; Annual Retail Trade Survey; Service Annual Survey, various issues.

APPENDIX IV: VALUE ADDED DATA FOR FAIR USE INDUSTRIES

(MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
3231	Printing and Related Support Activities	45,865	60,357	63,643
3342	Communications Equipment Manufacturing	23,338	36,906	35,037
33592	Communication and Energy Wire and Cable Manufacturing	5,505	5,631	4,921
4234301	Computer & peripheral equip merchant wholesalers	28,916	33,978	33,720
4234302	Computer software (packaged) merchant wholesalers	1,956	33,978	33,720
42362	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers	7,944	8,601	11,607
4236901	Communications equipment merchant wholesalers	10,397	14,012	13,435
42511	Business to Business Electronic Markets	378	695	726

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
42512036	Electrical & electronic goods agents & brokers	6,721	10,463	10,521
443112	Radio, Television, and Other Electronics Stores	10,780	14,124	15,344
44312	Computer and Software Stores	3,715	4,176	4,554
4512	Book, Periodical, and Music Stores	5,139	4,688	4,818
5151	Radio & television broadcasting	23,160	23,044	23,146
5152	Cable and Other Subscription Programming	12,025	18,203	19,518
5171	Wired Telecommunications Carriers (inc. ISP)	114,654	85,656	125,980
5172	Wireless Telecommunications Carriers (except Satellite) (inc. ISP)	46,989	65,293	71,776
5175	Cable and other program distribution ¹	27,346	39,474	
5174, 5179	Satellite and other communications	8,101	9,562	12,857

APPENDIX IV: VALUE ADDED DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5232	Securities and Commodity Exchanges			4,545
5242	Agencies, Brokerages and Other Insurance Related Activities	65,408	79,578	76,744
5251	Insurance and Employee Benefit Funds			
5415	Computer Systems Design and Related Services	134,075	155,705	213,752
5416	Management, Scientific and Technical Consulting Services	79,653	68,617	76,871
6114, 6115, 6116, 6117	Business Schools and Computer and Management Training, Technical and Trade Schools, Other Schools and Instruction and Educational Support Services	22,829	28,503	29,550

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7113	Promoters of Performing Arts, Sports and Similar Events	7,338	9,424	10,055
7114	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures	2,555	2,867	3,163
	Non-Core Industries Subtotal	694,787	779,556	866,284
	Estimated ISP Revenues²			5,128
	Non-Core Industries Total			861,157

1. Code 5175 is not included in the 2007 NAICS. Data from this 2002 NAICS code are distributed in NAICS 5171 in 2007.

2. In the 2007 NAICS, the revenues of Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been subtracted from the non-core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; Annual Retail Trade Survey; Service Annual Survey, various issues.

APPENDIX V: ESTIMATED CONTRIBUTION OF CORE INDUSTRY VALUE ADDED TO GDP

2007 NAICS Codes	Description
333315	Photographic and Photocopying Equipment Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3343	Audio and Video Equipment Manufacturing
334413	Semiconductor and Related Device Manufacturing
3346	Manufacturing and Reproducing Magnetic and Optical Media
454111	Electronic Shopping
454112	Electronic Auctions
51111	Newspaper Publishers
51114, 51119	Directory, mailing list and other publishers
5112	Software Publishers
5121	Motion Picture and Video Industries
5122	Sound recording industries
5182	Data Processing, Hosting and Related Services
519	Other information services (inc. internet publishing and broadcasting and web search portals)
5231	Securities and Commodity Contracts Intermediation and Brokerage
5239	Other Financial Investment Activities

Chain-type quantity index			Real value added ²		Contribution to change in GDP 2005=100
2002	2005 ¹	2007	2002	2007	
100	127	145	848	1,225	0.02%
100	178	270	17,064	46,086	1.74%
100	165	239	1,977	4,733	0.17%
100	259	505	14,259	72,075	3.47%
100	163	234	1,751	4,098	0.14%
100	217	347	5,333	18,484	0.79%
100	225	368	200	737	0.03%
100	104	101	21,109	21,402	0.02%
100	88	109	11,320	12,294	0.06%
100	118	124	47,355	58,693	0.68%
100	101	110	32,173	35,498	0.20%
100	88	87	7,839	6,825	-0.06%
100	96	126	25,456	32,146	0.40%
100	133	217	14,550	31,557	1.02%
100	136	159	124,293	197,946	4.42%
100	146	180	66,503	119,429	3.17%

APPENDIX V: ESTIMATED CONTRIBUTION OF CORE INDUSTRY VALUE ADDED TO GDP

2007 NAICS Codes	Description
5241	Insurance Carriers
5259	Other Investment Pools and Funds
53223	Video Tape and Disc Rental
5411	Legal Services
5413	Architectural, Engineering and Related Services
54143	Graphic Design Services
5417	Scientific Research and Development Services
6111, 6112, 6113	Elementary & Secondary Schools, Junior Colleges, Colleges, Universities and Professional Schools
7111	Performing Arts Companies
7115	Independent Artists, Writers and Performers
811212	Computer and Office Machine Repair and Maintenance

Chain-type quantity index			Real value added ²		Contribution to change in GDP 2005=100
2002	2005 ¹	2007	2002	2007	
100	106	120	205,930	246,885	2.46%
100	109	101	5,239	5,277	0.00%
100	82	74	5,540	4,121	-0.09%
100	104	103	152,936	158,278	0.32%
100	135	164	90,365	148,252	3.47%
100	103	105	4,620	4,840	0.01%
100	103	105	53,113	55,806	0.16%
100	105	111	81,456	90,154	0.52%
100	102	103	7,685	7,879	0.01%
100	106	110	6,606	7,290	0.04%
100	102	100	3,826	3,809	0.00%
TOTAL CORE					23.18%

1. Estimated by applying the compound average growth rate from 2002 to 2007 for each industry.

2. Represents the dollar-denominated level of output when the chain-type index ratios (2002 to 2005 and 2007 to 2005) are applied to estimated nominal industry output for 2005.

Sources: APPENDIX 4; Bureau of Economic Analysis (http://www.bea.gov/industry/gdpbyind_data.htm); J. Steven Landefeld and Robert P. Parker, "BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth," Survey of Current Business (May 1997) at 63.

APPENDIX VI: EMPLOYMENT DATA FOR FAIR USE INDUSTRIES (THOUSANDS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
333315	Photographic and Photocopying Equipment Manufacturing	22	6	6
3341	Computer and Peripheral Equipment Manufacturing	250	196	186
3343	Audio and Video Equipment Manufacturing	42	31	30
334413	Semiconductor and Related Device Manufacturing	252	229	218
3346	Manufacturing and Reproducing Magnetic and Optical Media	55	42	38
454111	Electronic Shopping	54	74	83
454112	Electronic Auctions			
51111	Newspaper Publishers	389	360	347
51114, 51119	Directory, mailing list and other publishers	84	72	73
5112	Software Publishers	253	244	255

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5121	Motion Picture and Video Industries	361	354	359
5122	Sound recording industries	27	21	22
5182	Data Processing, Hosting and Related Services	304	263	268
519	Other information sevice (inc. internet publishing and broadcasting and web search portals)	218	121	126
5231	Securities and Commodity Contracts Intermediation and Brokerage	528	511	519
5239	Other Financial Investment Activities	261	308	330
5241	Insurance Carriers	1,413	1,413	1,397
5259	Other Investment Pools and Funds	38	40	40
53223	Video Tape and Disc Rental	157	131	118
5411	Legal Services	1,115	1,173	1,175

APPENDIX VI: EMPLOYMENT DATA FOR FAIR USE INDUSTRIES (THOUSANDS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5413	Architectural, Engineering and Related Services	1,246	1,386	1,432
54143	Graphic Design Services	71	70	74
5417	Scientific Research and Development Services	538	592	602
6111, 6112, 6113	Elementary & Secondary Schools, Junior Colleges, Colleges, Universities, and Professional Schools	2,213	2,369	2,386
7111	Performing Arts Companies	121	119	118
7115	Independent Artists, Writers and Performers	40	48	49
811212	Computer and Office Machine Repair and Maintenance	48	44	42
	Core Industries Subtotal	10,099	10,216	10,293

Sources: Bureau of Labor Statistics and Annual Survey of Manufacturers.

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
3231	Printing and Related Support Activities	707	634	622
3342	Communications Equipment Manufacturing	186	136	128
33592	Communication and Energy Wire and Cable Manufacturing	25	34	34
4234301	Computer and peripheral equip merchant wholesalers	268	247	248
4234302	Computer software (packaged) merchant wholesalers			
42362	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers	218	198	199
4236901	Communications equipment merchant wholesalers			
42511	Business to Business Electronic Markets	81	57	54
42512036	Electrical and electronic goods agents and brokers	26	23	24
443112	Radio, Television and Other Electronics Stores	245	310	325

APPENDIX VI: EMPLOYMENT DATA FOR FAIR USE INDUSTRIES (THOUSANDS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
44312	Computer and Software Stores	155	136	134
4512	Book, Periodical and Music Stores	227	187	181
5151	Radio and television broadcasting	130	238	237
5152	Cable and Other Subscription Programming	93	90	89
5171	Wired Telecommunications Carriers (inc. ISP)	651	669	665
5172	Wireless Telecommunications Carriers (except Satellite) (inc. ISP)	197	200	203
5175	Cable and other program distribution ¹	130	144	
5174 and 5179	Satellite and other communications	208	178	163
5232	Securities and Commodity Exchanges			
5242	Agencies, Brokerages and Other Insurance Related Activities	820	891	910

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5251	Insurance and Employee Benefit Funds	47	48	49
5415	Computer Systems Design and Related Services	1,153	1,285	1,372
5416	Management, Scientific and Technical Consulting Services	734	886	953
7113	Promoters of Performing Arts, Sports and Similar Events	83	101	107
7114	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures			
6114, 6115, 6116, 6117	Business Schools and Computer and Management Training, Technical and Trade Schools, Other Schools and Instruction and Educational Support Services	430	532	555
	Non-Core Industries Subtotal	6,815	7,225	7,251

1. Code 5175 is not included in the 2007 NAICS. Data from this 2002 NAICS code are distributed in NAICS 5171 in 2007.

Sources: Bureau of Labor Statistics and Annual Survey of Manufacturers.

APPENDIX VII: ANNUAL PAYROLL DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
333315	Photographic and Photocopying Equipment Manufacturing	401	1,229	277
3341	Computer and Peripheral Equipment Manufacturing	8,284	5,809	5,117
3343	Audio and Video Equipment Manufacturing	927	832	736
334413	Semiconductor and Related Device Manufacturing	9,808	9,281	11,100
3346	Manufacturing and Reproducing Magnetic and Optical Media	1,367	1,310	1,356
454111	Electronic Shopping	1,673	3,561	4,934
454112	Electronic Auctions	469	3,561	764
51111	Newspaper Publishers	13,752	14,401	13,976
51114, 51119	Directory, mailing list, and other publishers	3,704	4,576	4,454
5112	Software Publishers	34,966	37,793	43,596

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5121	Motion Picture and Video Industries	10,402	13,450	15,604
5122	Sound recording industries	2,251	1,813	2,203
5182	Data Processing, Hosting, and Related Services	21,398	24,116	27,017
519	Other information services (inc. internet publishing and broadcasting and web search portals)	8,759	13,247	10,455
5231	Securities and Commodity Contracts Intermediation and Brokerage	69,048	89,924	92,331
5239	Other Financial Investment Activities	30,047	57,777	69,804
5241	Insurance Carriers	83,555	97,137	103,765
5259	Other Investment Pools and Funds	1,283	1,737	1,847
53223	Video Tape and Disc Rental	1,666	1,713	1,743
5411	Legal Services	69,875	85,125	88,554

APPENDIX VII: ANNUAL PAYROLL DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5413	Architectural, Engineering and Related Services	66,709	91,335	99,845
54143	Graphic Design Services	2,769	3,065	2,813
5417	Scientific Research and Development Services	43,699	58,862	55,455
6111, 6112, 6113	Elementary & Secondary Schools, Junior Colleges, Colleges, Universities and Professional Schools ¹	61,678	73,557	78,876
7111	Performing Arts Companies	3,267	3,913	4,037

Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7115	Independent Artists, Writers and Performers	4,324	5,846	5,021
811212	Computer and Office Machine Repair and Maintenance	2,252	2,548	2,412
	Core Industries Subtotal	558,333	703,958	748,090
	Estimated ISP Value Added²			2,747
	Core Industries Total			750,837

1. The 2002 data for certain education services were revised based on data for County Business Patterns (2002). The Economic Census does not include data for all types of education services.

2. In the 2007 NAICS, the annual payroll data of Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been subtracted from the non-core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; County Business Patterns; Annual Survey of Manufactures.

APPENDIX VII: ANNUAL PAYROLL DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
3231	Printing and Related Support Activities	25,626	25,110	25,682
3342	Communications Equipment Manufacturing	10,693	8,336	9,263
33592	Communication and Energy Wire and Cable Manufacturing	1,715	1,514	1,515
4234301	Computer and peripheral equip merchant wholesalers	19,649	23,088	25,904
4234302	Computer software (packaged) merchant wholesalers	2,528	2,970	
42362	Electrical and Electronic Appliance, Television and Radio Set Merchant Wholesalers	2,202	2,652	2,754
4236901	Communications equipment merchant wholesalers	9,944	12,859	11,935
42511	Business to Business Electronic Markets	62	353	379

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
42512036	Electrical and electronic goods agents and brokers	1,464	2,187	2,386
443112	Radio, Television and Other Electronics Stores	5,287	7,639	6,569
44312	Computer and Software Stores	1,832	2,791	2,182
4512	Book, Periodical and Music Stores	2,617	2,727	2,384
5151	Radio and television broadcasting	11,655	14,516	14,165
5152	Cable and Other Subscription Programming	2,849	3,664	3,811
5171	Wired Telecommunications Carriers (inc. ISP)	47,805	41,102	54,143
5172	Wireless Telecommunications Carriers (except Satellite) (inc. ISP)	13,117	13,578	15,639
5175	Cable and other program distribution ¹	8,553	11,586	

APPENDIX VII: ANNUAL PAYROLL DATA FOR FAIR USE INDUSTRIES (MILLIONS OF DOLLARS)

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
5174 and 5179	Satellite and other communications	2,932	1,764	5,029
5232	Securities and Commodity Exchanges		1,020	1,384
5242	Agencies, Brokerages and Other Insurance Related Activities	37,076	49,281	50,822
5251	Insurance and Employee Benefit Funds			
5415	Computer Systems Design and Related Services	72,399	90,808	102,255
5416	Management, Scientific and Technical Consulting Services	43,089	67,861	52,311
6114, 6115, 6116, 6117	Business Schools and Computer and Management Training, Technical and Trade Schools, Other Schools and Instruction and Educational Support Services	10,164	15,060	15,048

Non-Core Industries

2007 NAICS Codes	Description	2002	2006	2007
7113	Promoters of Performing Arts, Sports and Similar Events	2,020	2,665	2,973
7114	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures	1,415	1,579	1,743
	Core Industries Subtotal	336,693	406,711	410,276
	Estimated ISP Value Added²			2,747
	Core Industries Total			407,529

1. Code 5175 is not included in the 2007 NAICS. Data from this 2002 NAICS code are distributed in NAICS 5171 in 2007.

2. In the 2007 NAICS, the annual payroll data of Internet service providers are no longer included in NAICS 518, but are instead included in NAICS 5171 and 5179, which this report treats as non-core. Estimated ISP revenues have been subtracted from the non-core revenues of 2007 in order to maintain comparability with prior years' estimates.

Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; County Business Patterns; Annual Survey of Manufactures.

APPENDIX VIII: U.S. EXPORTS FOR FAIR USE INDUSTRIES, Goods (MILLIONS OF DOLLARS)

Goods	2002	2006	2007
Printed matter and related products, NESOI	4,509	5,798	6,278
Photographic and photocopying equipment	1,187	1,185	1,101
Computer equipment	29,150	29,780	28,908
Communications equipment	12,262	14,995	17,514
Audio and video equipment	3,986	4,232	4,320
Semiconductors and related devices	31,605	37,327	36,384
Magnetic and optical media	1,226	1,298	630
Communication and energy wires and cables	2,320	3,710	4,095
Software, NESOI	312	1,007	901
Core Industries Subtotal	336,693	406,711	410,276
<p>Sources: U.S. Census Bureau: 2002 Economic Census; 2007 Economic Census; County Business Patterns; Annual Survey of Manufactures.</p>			

Services (MILLIONS OF DOLLARS)

Sector	2002	2006	2007	2008
Financial services	24,496	47,882	61,393	60,190
Insurance services	4,415	9,445	10,184	10,756
Telecommunications	3,890	7,105	8,043	9,163
Education Services	12,626	14,647	15,956	17,796
Computer and information services	7,079	10,079	11,638	12,599
Management and consulting services	14,339	21,421	25,331	26,942
Research, development, and testing	8,678	12,810	14,293	17,139
Tape rentals	9,350	12,823	14,422	13,598
Architectural, engineering, and other technical services	1,679	4,702	5,338	5,918
Legal services	3,099	5,256	6,409	7,269
Sports and performing arts	170	431	635	755
Trade-related services ¹	578	3,611	5,216	6,112
Total	90,400	150,212	178,858	188,239

1. Includes Internet or online services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Balance of Payments Division at <http://www.bea.gov/international/intlserv.htm>, tab1a; Bureau of the Census, FT900: U.S. International Trade in Goods and Services: (Oct 30, 2009).

GLOSSARY OF FAIR USE PROVISIONS

17 U.S.C. § 102(a) (non-copyrightability of facts)

The fact/expression dichotomy is a limitation on the scope of copyright that renders facts non-copyrightable. This principle limits severely the scope of protection in fact-based works. The result of Section 102(a)'s requirement of originality is that raw facts may be copied at will. See *Feist Publ'ns, Inc. v Rural Tel. Serv. Co.*, 499 U.S. 340, 350 (1991).

17 U.S.C. § 102(b) (idea/expression dichotomy)

Articulated in *Baker v. Selden*, 101 U.S. 99, 102-04 (1879) the idea/expression dichotomy represents the principle that copyright may extend to the expression of an idea, but not the idea itself. Section 102(b) explicitly withholds protection from “any idea, procedure, process, system, method of operation, concept, principle, or discovery...” This principle is the source of the merger doctrine, which limits copyright when the number of possible variations for expressing an idea are externally limited. In such case, the limited possibilities of expression merge with the ‘idea’ and become non-copyrightable.

17 U.S.C. § 102(b) (non-protectability of interface specifications)

An application of the idea/expression dichotomy, the non-protectability of interface specifications has been established in a line of U.S. copyright cases, notably *Lotus Dev. v. Borland Int'l*, 49 F.3d 807 (1995) and *Computer Assocs. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992). These courts ruled that interface specifications are not copyrightable, either because they are unprotectable “methods of operation” or because elements dictated by efficiency or necessity lose protection under the merger doctrine.

17 U.S.C. § 105 (no copyright in U.S. government works)

The Copyright Act prohibits the Federal Government from taking copyright in the works that it authors. As a result, all works authored by the Federal Government employees immediately enter the public domain and become freely available for public use.

17 U.S.C. § 107 (fair use: criticism, comment, news reporting, teaching, scholarship, research, etc.)

Section 107 of the Copyright Act explicitly protects the fair use of a copyrighted work for purposes including but not limited to criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. Such use is not an infringement of copyright.

17 U.S.C. § 107 (fair use: reverse engineering)

Under the fair use doctrine, a person may disassemble a computer program in order to gain an understanding of the unprotected functional elements of the program, where there is a legitimate reason for doing so and no other means of access to the unprotected elements exists. *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992); *Atari v. Nintendo*, 975 F.2d 832 (Fed. Cir. 1992).

17 U.S.C. § 107 (fair use: browser copies)

Under the fair use doctrine, local cache reproductions of copyrighted works by the web browsers of individual users are fair use, as they are noncommercial, transformative, necessary for essential Internet functions, and do not supersede copyright holders' exploitation of their works. *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007).

17 U.S.C. § 107 (fair use: search engine cache copies)

Under the fair use doctrine, search engines' reproduction in their search databases of images and text they crawled on the World Wide Web, and subsequent display of these materials in search results, are permitted because of their significant social utility. *Kelly v. Arriba Soft*, 336 F.3d 811 (9th Cir. 2003); *Field v. Google*, 412 F. Supp. 2d 1106 (D. Nev. 2006); *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007).

GLOSSARY (continued)

17 U.S.C. § 107 (fair use: time and space shifting)

Under the fair use doctrine, users may utilize technological devices to shift the context in which they view copyrighted works, i.e., to tape a program for later viewing on the same or different device. Such use has been held to be paradigmatic noncommercial personal use entirely consistent with the purposes of the Copyright Act. See *Sony Corp. of Am v. Universal City Studios*, 464 U.S. 417 (1984); *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys.*, 180 F.3d 1072, 1079 (9th Cir. 1999).

17 U.S.C. § 108 (library uses)

The Copyright Act permits libraries and archives to make reproductions for purposes of preservation, replacement of damaged copies, and inter-library loans.

17 U.S.C. § 109(a) (first sale doctrine)

The Copyright Act permits the owner of a lawfully made copy to sell or lend that copy to others.

17 U.S.C. §§ 110(1)–110(2) (displays and performances in educational contexts)

The Copyright Act permits the performance and display of copyrighted works in the course of face-to-face teaching activities as well as distance education.

17 U.S.C. § 112 (ephemeral recordings)

Under the Copyright Act, a radio station may make ephemeral copies of sound recordings for use in its own transmissions in its local service area.

17 U.S.C. § 114(a) (exception to sound recording performance right)

Under the Copyright Act, there is no performance right in sound recordings, except for performances by digital audio transmission, e.g., webcasting.

17 U.S.C. § 117(a) (backup, essential step copies)

The Copyright Act permits the owner of a copy of a computer program to make a copy of that program: as an essential step in the utilization of the program in conjunction with a computer; or for archival purposes.

17 U.S.C. § 117(c) (machine maintenance or repair)

The Copyright Act permits the owner or lessee of a computer, for purposes of maintaining or repairing that computer, to make or authorize the making of a copy of a computer program which is made solely by virtue of activating the computer.

17 U.S.C. §§ 302–304 (copyright term)

Consistent with the Constitution's mandate that Congress may provide authors with exclusive rights for "limited times," copyrights expire after a statutory period and enter the public domain. *Eldred v. Ashcroft*, 537 U.S. 186 (2003).

17 U.S.C. § 512 (service provider safe harbors)

Section 512 of Title 17, which originated in the Digital Millennium Copyright Act, limits the copyright remedies available against online service providers engaged in the following activities: transitory communications, system caching, storage of information on systems or networks at direction of users, and information location tools.

Sony principle

Under *Sony Corp. of Am v. Universal City Studios*, 464 U.S. 417 (1984), the sale of an article of commerce that may be used for both infringing and non-infringing uses will not lead to secondary infringement if the product is capable of substantial noninfringing use.



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