

# THE ECONOMIC CONTRIBUTION OF COPYRIGHT-BASED INDUSTRIES IN PANAMA

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## Executive Summary

### 1. Level of Protection

Panama has the legal framework and the public institutions to implement the Intellectual Property laws. The Intellectual Property Interdisciplinary Commission was created by means of Law 23 of 1996 in order to integrate the efforts of these institutions.

The laws which have been created since 1994 in all the fields of intellectual property have been applied by the competent authorities. The efforts carried out by the Republic of Panama to strengthen intellectual property rights have improved its image. This fact has promoted economic activities related to intellectual property.

### 2. Study Methodology

The methodology employed in this study is suggested by the World Intellectual Property Organization (WIPO<sup>1</sup>) to measure the contribution of the copyright-based industries to the gross domestic product (GDP) in Panama. The years 2002 and 2006 are taken as reference years, as the available information for these years is consistent.

In the case of Panama, the activities for the four categories proposed by WIPO were considered, and the International Classification of the Industrial Activities and Services (ISIC) was used. The information used in the study corresponds to the 2002 and 2006 Business Directory, elaborated by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. This information was filtered and classified in accordance with the following four categories, proposed by WIPO, within which the types of industries which strictly apply for the case of Panama were included:

- **Core copyright industries:** In this group the following industries are considered: press and publishing; music, theater and opera productions; films and video; radio and television; photography; software and database programs; visual and graphic arts; advertisement services; and copyright collecting societies.
- **Interdependent copyright industries:** Producers of television sets and radio appliances; computers and equipment; photography and cinematography instruments; blank recording material; and paper.
- **Partial copyright industries:** Activities related to apparel, textiles and shoe design; jewelry and coins; handicrafts; household goods, porcelain and glass; tapestry, paper and carpets; toys and games; architecture, engineering and land surveying; and interior design.
- **Non-dedicated support industries:** Activities related to transport in general; telephony and the Internet.

### 3. Contribution of the Copyright-Based Industries to Employment

In 2002 the copyright-based industries generated 30,637 employments, which represented 2.92% of the economically active population (EAP) of 1,049,525 persons. In 2006, this participation rate rose to 3.17%, totaling 40,990 employments, which meant that, in the national economy, 10,363 new employments had been generated in the copyright-based industries.

With regard to the individual contribution of the copyright-based industries, during the latest analyzed year (2006), the core industries generated 19,714 employments, which represented 1.52% of the economically active population, while interdependent industries generated 1.20%, partial industries generated 0.31%, and non-dedicated support industries generated 0.13%. These figures are represented in the following chart:

<sup>1</sup> "The WIPO Guide on Surveying the Economic Contribution of the Copyright Industries", World Intellectual Property Organization, WIPO, Geneva, 2003.



**Table 1: Participation of the Copyright-based Industries in the Total Employment, according to Industry Category in the Republic of Panama**

Year: 2002 and 2006

Indicator	2002	Participation	2006	Participation
Employed Economically Active Population	1,049,525	100	1,294,937	100
Population Employed by Copyright-Based Industries	30,627	2.92	40,990	3.17
Core Copyright Industries	15,867	1.51	19,714	1.52
Interdependent Copyright Industries	9,694	0.92	15,584	1.2
Partial Copyright Industries	3,825	0.36	3,960	0.31
Non-Dedicated Support Industries	1,241	0.12	1,732	0.13

Source: Own Preparation based on data provided by the Home Poll 2002 – 2008 of the General Comptroller’s Office of the Republic.

The results show that the copyright-based industries generated more employment than some other subsectors; for instance, in 2006, the copyright-based industries generated 40,990 employments, while some activities of the primary sector of the Panamanian economy, such as fishing and exploitation of mines and stone pits, jointly generated about 17,500 employments in the same year. Likewise, the copyright-based industries generated more employment than some of the activities of the secondary and tertiary sectors, such as electricity, gas and water supply services and financial intermediation activities, which generated about 35,000 employments in 2006.

The employment generated by the copyright-based industries is comparable to the activities of social and health services – that include private health services and cultural, sport and recreation activities at a private level – which generated 49,200 employments in 2006. Taking into account that Panama showed an unemployment rate of 8.68% in 2006, we may consider that the contribution of the copyright-based industries to employment is relatively low. On the other hand, if we consider just formal employment, the contribution rate of the copyright-based industries would double the above-mentioned rate, as formal employment represents about 50% of the total employment generated in the country.

#### 4. Contribution of the Copyright-Based Industries to the Value Added

The contribution of the copyright-based industries to the GDP in 2002 and 2006 has been measured in thousands of US Dollars at 1996 prices. It is expected that the participation of these industries will increase during the next few years as long as new industries are incorporated into the market. The results are an approximation of the real GDP as a consequence of the level of disaggregation used by the General Office of Statistics and Census of the General Comptroller’s Office to assess the corresponding activities.

**Table 2: Contribution of the Copyright-based Industries in Panama to the Gross Domestic Product, according to Category. Year : 2002 and 2006**

(in thousand dollars of 1996)

Category of Industries	YEARS	
	2002	2006
Total	812,057.30	967,697.10
Core Copyright Industries	708,049.70	823,477.90
Partial Copyright Industries	6,595.60	7,662.70
Non-Dedicated Support Industries	87,762.00	128,156.50
GDP – PANAMA	11,691,100	15,238,600
Percentage contribution to the GDP	6.95	6.35

Source: Own Preparation based on data provided by the General Comptroller’s Office of the Republic.

The copyright-based industries in Panama make a significant contribution to the GDP of, on average, about 6.5%. This represents a positive participation to the economy year after year, since it impacts on employment and on foreign trade. The core copyright industries make the most important contribution of the four categories of copyright industries suggested by WIPO.

## 5. Contribution of the Copyright-Based Industries to Foreign Trade

For many years, the performance of foreign trade in Panama has been linked to the performance of the services sector, in the sense that the sector contributes to a significant percentage if compared with the other two sectors of the economy. From the statistical data selected for this research, we observe that the largest category is that of the interdependent industries. This group contributed 37.1% of the copyright-based industries' imports in 2002 and 34.5% in 2006. In the case of exports, this sector contributed 28.6% in 2002 and 40.1% in 2006. Within the interdependent industries, the activity which generated most of this trade was paper (5149).

The total foreign trade generated (exports + imports) is significant, as, in 2002, a total of US\$ 443,816,625 was traded in this sector. In 2006, this amount rose to US\$ 504,167,164. We also found that net exports in 2002<sup>2</sup> showed a negative balance of US\$ -406,982,491; in 2006, this figure grew to US\$ -462,086,946. This represents an increase of 13.54% between 2002 and 2006.

**Table 3: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama: 2002 and 2006**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
Total	18,417,067	21,040,109	425,399,558	483,127,055
Core Copyright Industries	360,215	458,206	113,757,444	181,663,994
Interdependent Copyright Industries	7,539,607	9,121,838	173,008,924	185,055,234
Partial Copyright Industries	3,331,053	2,788,749	63,778,966	85,218,990
Non-Dedicated Support Industries	6,800	7,683	15,602,744	27,797,597

Source: Own elaboration based on data provided by the General Comptroller's Office of the Republic.

<sup>2</sup>Exports minus imports.

## 1. Introduction

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In 2007, Panama had 3,339,781 inhabitants, 62.2% of whom were located in urban areas, and 37.8% in rural areas. These characteristics are important in order to determine the cultural pattern of the country, taking into account the integration and globalization process in society. Panama is geographically part of Central America, belongs culturally to the Caribbean region, is historically part of South America –between 1821 and 1903 it was part of Colombia – and is commercially linked to the United States.

Among its specificities, the Panamanian economy has a limited primary sector, as in 2007 it only contributed 9.4% to the GDP. On the other hand, the secondary sector generated 18.3%, and it is considered that it had a late development after the Second World War. Historically, the tertiary sector has been the most important in our economy, determining the accumulation dynamic of the economic system. In the same year, it generated 72% of the GDP. The majority of the cultural activities of the country are within this sector. The tertiary sector is characterized by the existence of the Panama Canal, the Colón Free Trade Zone, the banking center and a complex port and communication system, which is sustained by these main activities. The existence of ports has been so important in our economy that a prominent historian has defined Panama as a port economy. These characteristics related to transportation generate not only an open economy but also a strong cultural penetration which, by employing this entire infrastructure, provides our consumer markets with contraband trade. We are not asserting that we are a contraband trade economy, but such contraband trade is a practice which has been carried out in our country since colonial times, in our role as a transit route.

Given the cultural characteristics of the economy, measuring the contribution of the copyright industries is a complex issue due to the importance of the informal sector, which, like money-laundering practices, is not reflected in the national accounts. The copyright-based industries involve activities that are developed in accordance with the expression of original literary and artistic ideas which are subject to copyright and which constitute a sector of economic activity worldwide, in addition to the traditional sectors, which are necessary for the development of the country.

In Panamanian society, trade has been a very important activity since pre-Columbian times. There is archeological evidence of the commercial exchange among indigenous populations prior to the arrival of the Spaniards and, with them, the development of Portobelo fairs. Later on, with the development of capitalism, the main economic activities continued to be related to trade.

In parallel to the trade that was regulated by the Spaniards, contraband trade existed. It is asserted that the main traders that supported the Independence of Panama from Spain in 1821 accumulated their fortunes from the practice of illegal trade. From this point onwards, contraband trade and piracy developed almost in a public way and without much moral questioning by the Panamanian society. The fact of obtaining something by smuggling has been seen as a purchaser's ability more than as an illegal act, or as immoral.

The importance of the copyright industries can be approached from two points of view: the cultural and the economic. The first is centered on the promotion and maintenance of cultural diversity and on securing democratic access to culture. From the economic perspective, these industries add economic and social value to nations and individuals; consequently, they constitute a source of knowledge which contributes to employment generation and prosperity.

The above-mentioned facts allow the consideration of creativity as a factor in boosting the innovation of production and trade processes and enable its participation in the economy in terms of employment generation and contribution to the gross domestic product (GDP). GDP is, undoubtedly, the most important macroeconomic measure to assess the productive capacity of the economy of any country, as it represents the total monetary value of the production of goods and services of a country during a year. Nevertheless, there are sectors or productive units whose contributions are not registered as official figures, such as unpaid domestic work, illegal economic activities, the negative value caused by the exploitation of environmental goods and services.

As a consequence, the creative sector has acquired great economic importance to Panama for three reasons: its contribution to the national wealth creation; its contribution to the generation of employment; and the competitive advantages it gives to the country in terms of its commercial interactions with the rest of the

world. This is the reason why this study was carried out. The study allowed the qualitative and quantitative measurement of the economic and social impact generated by the development of copyright-based economic activities.

In accordance with the terms of reference and with guidance from the World Intellectual Property Organization (WIPO), this study was divided into four parts: the first part comprises the introduction and presentation of the employed methodology; the second part includes a description of the copyright-based industries in Panama and the level of protection of copyright, as well as the industries protected by copyright; the third part analyzes the economic contribution of the copyright-based industries in Panama from the point of view of the indicators selected in the study (value added, employment generation, and foreign trade); and, finally, the fourth part presents the conclusions of the study.

We expect the study to be considered as an input to the development of subsequent studies where some of the issues can be deepened, such as the weighting factors to be applied to some categories of copyright-based industries, and where the existing information systems are improved in order to allow the improvement of the required analysis. This shall allow the improvement of the functioning of these industries, as it provides evidence on the economic function performed by copyright protection. It will also make it easier to identify and elaborate adequate policies to boost the creative industries and activities related to copyright in Panama.

## 1.1 Conceptual Framework

### 1.1.1 *Problem*

The bibliographical search carried out found that in Panama there is no economic evaluation regarding the importance of the copyright-based industries and activities protected by related rights, in spite of the existence of laws which regulate the operation of these industries. As a result, there is a lack of monitoring of the development of this activity and a lack of awareness of their economic contribution to the gross domestic product.

### 1.1.2 *Objectives*

#### 1.1.2.1 *General Objective*

Estimate on a quantitative basis the economic contribution of copyright-based industries, and activities protected by related rights, in Panama.

#### 1.1.2.2 *Specific Objectives*

This research represents an economic analysis applied to the copyright-based industries. The main contributions of this study can be considered in terms of the following specific objectives:

- To define and select the categories of copyright-based industries.
- To describe the level of protection granted by copyright in Panama.
- To determine the contribution of the copyright-based industries to the GDP of Panama.
- To evaluate the contribution of the copyright-based industries to employment generation in the Panamanian economy.
- To assess the balance of foreign trade of goods of the copyright-based industries.

These objectives, in turn, are converted into structural economic indicators which we consider as most appropriate and which can furnish more information to determine the development, importance and weight of the activities related to the copyright-based industries in the Panamanian economy.

### 1.1.3 *General Background*

In 2002, the World Intellectual Property Organization (WIPO), in collaboration with the government of Finland, put together a work group comprising well-known economists specializing in the preparation of studies on industries whose activities are protected by copyright. This group, comprising specialists from

Australia, Brazil, Egypt, Finland, the Netherlands, Spain, and the United States of America, established the basis of the WIPO guide, which helps countries to measure the economic contribution of copyright-based industries and to assess the effect of copyright on their economy.

Since 2002, a number of countries, including Colombia, Mexico, Brazil, Singapore, Canada, Hungary, and Australia, among others, have carried out and finished their studies. Based on the conclusions of these studies, it can be seen that the sector is very dynamic; likewise, it has been found that its direct and indirect contribution to the economy is very significant and has many favorable effects which require clear and stable operating conditions, as well as conditions which help its development.

#### **1.1.4 *Justification***

The above-mentioned studies have shown that activities related to copyright make a significant contribution to GDP, employ a relatively high number of people, and energize the foreign trade of goods. For that reason, there are high expectations regarding the economic importance of these industries in a specific country. Based on the above-mentioned facts, we attempted to identify the economic value of the contribution made by the copyright-based industries and activities protected by related rights in Panama, and discovered that this issue has not been analyzed in our country. As a consequence, using the recommendations and under the auspices of WIPO, we started this research.

In Panama, the impact generated by the copyright-based industries in terms of economic variables such as value added, employment level and foreign trade was unknown prior to this study; that is why this research will help introduce the quantification of economic contribution of the copyright sector as an essential indicator of the importance of copyright-based industries for the national economy. Although in Panama there is a body of laws which secure the protection of these rights, which are hereinafter described at Chapter III, their application is rather limited.

## 2. Methodology of the Study

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The WIPO guide sets out the ways of measuring the economic impact of the copyright-based industries, which include:

- Measurement based on previous studies carried out by the public or private sectors (non-existent in Panama);
- Measurement based on previous censuses;
- Measurement based on input-output analysis; and
- Measurement based on statistics of the national account system (foreign trade).

The input-output tables detail both the input materials utilized and the products obtained by each industry. However, these tables cannot be used in the case of Panama due to the non-existence of conclusive data. Therefore, two options remained, namely:

- To carry out an analysis based on an informed assessment of the sectors of the whole economy which may be considered as representative of the copyright-based industries.
- To carry out studies for this special purpose, using a valid statistical sample, which requires more time and investment.

In this study we will employ the first option, which is the result of census and statistical data coming from the national accounts system provided by the General Comptroller's Office of the Republic, which is the official entity in charge of statistical information in Panama. It is important to highlight that the analysis of the level of participation of the copyright-based industries in the Panamanian economy was primarily focused on the employment generated by copyright-based industries. This is due to the fact that the statistical information available from the official sources is duly disaggregated for the employment variable; this is not the case for information relating to the contribution made by copyright-based industries to value added and to foreign trade.

### 2.1 Definition and Identification of the Copyright-Based Industries

In accordance with the methodology developed by WIPO<sup>3</sup>, intellectual property rights as a group, including patents, shall not be taken into account. Copyrights shall only be taken into account as part of the operation system of a country's different economic agents. The more the copyrights are complied with, the more the transactional costs diminish and the incentives to develop further and improve economic activities increase.

According to WIPO, cultural industries are defined as those involving products with a significant cultural content which are reproduced on an industrial scale. In general, there is an understanding to apply this term to those industries which combine creation, production and trade of intangible and cultural contents. Such content is normally copyright-protected and may take the form of goods or services.<sup>4</sup>

The copyright-protected activities in most of the countries already studied are very similar to those industries protected in Panama, and include:

- **Literary works:** Books in all their varieties and forms, such as novels, poems, educational books, etc. This also includes magazines, newspapers, and other printed works, such as translations.
- **Musical works:** Songs, theatrical productions, operas.
- **Artistic works:** Includes two-dimensional (paintings, drawings, lithographs, etc.) and three-dimensional works (sculptures of various materials).
- **Photographic works:** Includes all kinds of photographs, from landscapes to portraits, in order to illustrate newspapers and magazines.
- **Television and cinematography:** Includes documentaries, movies, television programs, cartoons, etc., regardless of their duration and format.
- **Technical drawings:** Includes architectonic maps, maps of facilities, cartographic maps, instructions, etc.

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<sup>3</sup> "The WIPO Guide on Surveying the Economic Contribution of the Copyright Industries", World Intellectual Property Organization, WIPO, Geneva, 2003.

<sup>4</sup> Op. Cit Page 13.

### 2.1.1 Definition

In Panama, copyright has been defined as “the recognition granted by the State in favor of any creator of literary and artistic works by virtue of which it grants protection so that the author enjoys exclusive personal and patrimonial prerogatives and rights. The main objective of this protection is to grant incentives to creation and thus continue promoting the production of them and, at the same time, the persons’ creativity”.

### 2.1.2 Identification

Based on international methodological practices, and following the WIPO guide for measuring the contribution of the copyright-based industries, the industries to be considered shall be grouped as follows:

- Core industries
- Interdependent industries
- Partial industries
- Non-dedicated support industries

These characteristics will be considered in accordance with the statistical classification described below:

- **Core industries:** Industries engaged in the creation, production, manufacturing, broadcasting, communication, exhibition, and distribution of copyright-protected material.<sup>5</sup> The following industries are included in this category:
  - **Press and literature:** Authors, writers, translators, newspapers, news agencies and similar agencies, magazines, publication of books, cards and maps, directories and other published material, printing of books, magazines, and newspapers, advertising, wholesale and retail of press and literature, and bookshops;
  - **Music, theater production, operas:** Composers, arrangers, choreographers, directors, artists and personnel, printing and publication of music, production and manufacture of recorded music, wholesale and retail of recorded music (sale and rental), creation of artistic and literary works, performance of artistic and literary works, operation of ticket sale agencies and related services;
  - **Films and videos:** Writers, directors, actors, authors and composers, production and distribution of films and videos, film exhibition, video sale and rental and related services;
  - **Radio and television:** National radio and television broadcasting enterprises, other broadcasting enterprises, independent producers, cable television (systems and channels), satellite television and related services;
  - **Photography:** Studios and commercial photography and photographic agencies;
  - **Graphic and Visual Arts:** Artists, art galleries, picture framing and graphic design;
  - **Software and databases**
  - **Advertising services:** Includes only the agencies and acquisition services (advertising costs are not included);
  - **Copyright Collective Management Societies** (without including the total billing).
  - **Interdependent Industries:** Industries engaged in the production, manufacture and sale of equipment which facilitates the creation, production, and use of copyright-protected material.<sup>6</sup> We can include here: television sets and radio appliances; VCRs; CD players; DVD players; tape recorders; video games appliances and other similar devices; computers and equipment; musical instruments; photographic instruments and cinematography; photocopiers and equipment; photographic and cinematographic instruments; copying machines and paper.
  - **Partial industries<sup>7</sup>:** Industries in which some of the activities are related to copyright-protected works, which may involve the creation, production, manufacture, operation, broadcasting, communication, exhibition, distribution, and sale of copyright-protected works. They include: garments, textiles, and shoes; jewelry; other kinds of art; furniture design; copyright collection related to music in nightclubs and discotheques; design of household goods; porcelain; glassware; copyright collection related to music in bars and restaurants; tapestry; design of carpets and rugs; design of toys and games; architecture and engineering; opinion polls’ services; interior design; and museums.

<sup>5</sup>Op. Cit Page 8.

<sup>6</sup>Op. Cit Page 8.

<sup>7</sup>Ibidem.

- **Non-dedicated support industries<sup>8</sup>:** Industries with a portion of the activities are related to facilitating the broadcasting, distribution, or sale of copyright-protected works. Those industries are: wholesale and retail; transport in general; and telephony and the Internet.

This study considered the activities related to the four categories proposed by WIPO and used the International Standard Industrial Classification (ISIC).

The information used was based on the 2002 and 2006 Business Directory provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. This information was filtered and classified in accordance with the four above-mentioned categories, within which the types of industries which strictly apply to the case of Panama were included.

### 2.1.3 Categorization

The codes of the International Standard Industrial Classification (ISIC) of the United Nations which correspond to the copyright-based industries allow us to classify the enterprises within each industry in Panama, which will enable the analysis of the indicators to carry out this research. The chart below provides the classification of enterprises in accordance with the industry they belong to and the economic activity they are engaged in, classified by the ISIC code. It is important to highlight that those enterprises that do not appear are not listed in the 2002 and 2006 Business Directory:

**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations**

Economic Activity	ISIC Code Rev.3.1.	Description
<b>1. Core Copyright Industries:</b>		
<i>a. Press and publishing:</i>		
Authors, writers, translators	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	7499	Class: 7499 – Other commercial activities not elsewhere classified (n.e.c.) (translation and interpretation cases)
Newspapers	2212	Class: 2212 – Publication of newspapers, magazines and periodic publications.
News agencies and current events news agencies	9220	Class: 9220 – Activities of news agencies.
Magazines / periodic publications	2212	Class: 2212 – Publication of newspapers, magazines and periodic publications.
Editions of books	2211	Class: 2211 – Publication of books, booklets and other publications.
Cards, maps, guides and other printed materials	2219	Class: 2219 – Other publications.
Pre-printed publications, printing and postprinting of books, magazines, newspapers, advertisement materials	2221	Class: 2221 – Printing.
	2222	Class: 2222 – Activities regarding printing-related services.
Libraries	9231	Class: 9231 – Library activities and archive.
<i>b. Music, theater production, opera:</i>		
Composers, songwriters, arrangers, choreographers, writers, directors, artists, interpreters or performers and other personnel	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	9219	Class: 9219 – Other entertainment activities n.e.c.
	9249	Class: 9249 – Other entertaining activities.
Printing and publication of music	2213	Class: 2213 – Publication of music.
Production / manufacturing of recorded music	2230	Class: 2230 – Reproduction of sound recordings.

<sup>8</sup>Ibidem.



**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations (continued)**

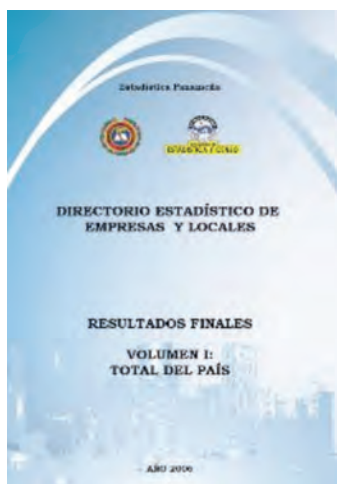
Artistic and literary creation and interpretation	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Shows and connected agencies (contract agencies, ticket sale agencies, etc.)	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
<i>c. Cinematographic films and videos:</i>		
Writers, directors, actors	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Production and distribution of films and videos	9211	Class: 9211 – Production and distribution of films and videos.
Exhibition of films	9212	Class: 9212 – Film projection.
Sale and rental of videotapes	9211	Class: 9211 – Production and distribution of films and videos.
Related Services	2230	Class: 2230 – Reproduction of sound recordings.
<i>d. Radio and television:</i>		
National radio and television broadcasting enterprises	9213	Class: 9213 – Radio and television activities.
Other radio and television broadcasts	9213	Class: 9213 – Radio and television activities.
Independent producers	7499	Class: 7499 – Other commercial activities.
Cable television (systems and channels)	6420	Class: 6420 – Telecommunications.
Satellite television	6420	Class: 6420 – Telecommunications.
Related Services	9213	Class: 9213 – Radio and television activities.
<i>e. Photography:</i>		
Studios and commercial photography	7494	Class: 7494 – Photographic activities.
Photography agencies and libraries	2222	Class: 2222 – Activities of services related to printing.
	7499	Class: 7499 – Other commercial activities.
	9231	Class: 9231 – Library activities and archive.
<i>f. Software and Databases:</i>		
Preparation and publication of databases	7240	Class: 7240 – Activities of databases and online distribution of electronic contents
	7230	Class: 7230 – Data preparation.
<i>g. Visual and Graphic Arts:</i>		
Artists	9214	Activities of authors, music composers and other independent artists n.e.c.
Art galleries and other wholesale and retail sale business	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
Picture framing and other related services	7494	Class: 7494 – Photographic activities.
Graphic design	9214	Class: 9214 – Dramatic arts, music and other artistic activities.
	7499	Class: 7499 – Other commercial activities not elsewhere classified (n.e.c.) (translation and interpretation cases).
<i>h. Advertising Services:</i>		
Advertising agency, acquisition service	7430	Class: 7430 – Advertising.
<i>i. Copyright Collecting Societies:</i>		
Copyright Collecting Societies	9112	Class: 9112 – Activities of professional organizations

**Table 4: Classification of Copyright-based Industries in Panama, in accordance with the Industrial Classification Codes of the United Nations (continued)**

<b>2. Interdependent Copyright Industries:</b>		
Television sets, radios, magnetoscopes, CD recorders, DVD recorders, cassette recorders, electronic games equipment and other similar equipment	3230	Class: 3230 – Manufacture of television sets and audio receivers, sound or video recorders or recorders and related items.
Computers and equipment	7123	Class: 7123 – Office machines and equipment rental (including computers).
Photographic and cinematographic instruments	3320	Class: 3320 – Manufacture of optical instruments and photographic equipment.
	7129	Class: 7129 – Other machines and equipment rental n.e.c.
Blank recording material	2429	Class: 2429 – Manufacture of other products.
Paper	2101	Class: 2101 – Manufacture of paper pulp, paper and cardboard.
<b>3. Partial Copyright Industries:</b>		
Garments, textiles and shoes	1721	Class: 1721 – Manufacture of items made with textiles.
Jewelry and coins	3691	Class: 3691 – Manufacture of jewelry and related items.
Other handicrafts	9199	Class: 9199 – Activities of other associations n.e.c.
Household goods, porcelain and glass items	2610	Class: 2610 – Manufacture of glass and glass products.
	2029	Class: 2029 – Manufacture of other wooden products.
	2899	Class: 2899 – Manufacture of other metal products n.e.c.
Tapestry paper and carpets	2109	Class: 2109 – Manufacture of other paper articles and cardboard.
Toys and games	3694	Class: 3694 – Manufacture of toys and games.
Architecture, engineering, land surveying	7421	Class: 7421 – Activities of architecture and engineering and related services of technical assessment.
Interior design	7499	Class: 7499 – Other commercial activities.
Museums	9232	Class 9232 – Activities of museums and preservation of historical sites and buildings.
<b>4. Non-Dedicated Support Industries:</b>		
Transportation in general	630	Class: 630 – Transport supporting and auxiliary activities.
		6301 – Handling of cargo.
		6302 – Storage and deposits.
		6303 – Other transport supporting activities.
		6309 – Activities of other transport agencies.
		6411 – National mailing activities.
Telephony and the Internet	6420	Class: Telecommunications.
		7240

## 2.2 Statistical Data Used to Calculate Economic Indicators for the Copyright-Based Industries

### 2.2.1 Contribution of the Copyright-Based Industries to Employment



The analysis of the employment generated by the copyright-based industries in Chapter 4 of this study was carried out based on the latest two databases of the Statistical Directory of Businesses and Premises<sup>9</sup>, provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic, corresponding to 2002 and 2006.

In addition, a comparative analysis of the employment generated in this sector was carried out in relation to the employment generated in other traditional sectors of the Panamanian economy, taking into consideration the definitions and concepts provided by the Continuous Households Survey of the General Comptroller's Office of the Republic<sup>10</sup> in order to determine the Panamanian population's activity condition. The population's classification according to activity condition allows a distinction to be made between the two basic groups that provide information on the participation of their different components in the economy of the country: economically active population and non-economically active population.

### 2.2.2 Value Added and its Contribution to the Economy

The following indicators measure the contribution of the different production factors to the economy. The following definitions are taken from the National Accounts of the Republic of Panama:

- **Production value at current prices:** The value of the production or other magnitude of national accounts, in general terms, based on amounts corresponding to the year under study, valued at the price of the same year of compilation. In terms of services, it corresponds to the nominal value of the variable.
- **Production value at constant prices:** The value of the production or other magnitude of national accounts, in general terms, based on amounts corresponding to the year under study, valued at the price of only one year of reference or base year. In terms of services, it corresponds to the nominal value deflated with a price index corresponding or associable to the variable.

<sup>9</sup>The General Comptroller's Office of the Republic of Panama through the General Office of Statistics and Census executes the National Statistical program developing the updating of the Business Directory and Premises at a national level. The Directory offers data and information on enterprises and premises existing in the Republic of Panama, with reference to their economic, general and organizational characteristics, according to their economic activity. Such data correspond to the number of premises, employees, remunerations paid and total income. The results of the last updating of the Directory of Businesses and Premises of each one of the economic activities correspond to 2006. The results are presented according to geographic localization area, level of Category, Division, Group and Class of economic activities in accordance with the International Standard Industrial Classification (ISIC) of all economic activities (Revision 3) and the Codification of the Political Division of the Republic of Panama of 2005. The coverage of the Directory excludes institutions and enterprises of the public sector, the primary sector, and the indigenous districts, as well as some areas of difficult access. The updating of this information is a responsibility of the administrative unit of the Statistical Directory of Enterprises and Premises, which provides information to be used by consultants or private investors to carry out several studies and researches and by the government to take decisions.

<sup>10</sup>General Comptroller's Office of the Republic, Continuous Households Survey: Labor Statistics, Volume 1, March 2008.

- **Gross Value Added or Gross Domestic Product (GDP):** The additional value created by the production process. It consists of the production value minus the intermediate consumption value.

As we can observe, the gross domestic product represents the final result of the productive activity of the resident production units. In Panama, it is calculated from the following methodologies:

- The sum of the gross value added of all the resident production units (institutional and industrial) plus the part of taxes, minus the subventions, divided into the products which are not included in the valuation of the production.
- The sum of the final utilizations of goods and services (all uses, except intermediate consumption), measured at buyer prices, minus the value of the imports of goods and services.
- The sum of the primary incomes distributed into the resident production units. The net domestic product (NDP) is obtained by subtracting the consumption of fixed capital from the GDP.

### 2.2.3 Foreign Trade



We used the volume of exports and imports from the 2002 and 2006 Foreign Trade Yearbook of the General Office of Statistics and Census of the General Comptroller's Office of the Republic of Panama. This yearbook shows statistical information relating to exports and imports, containing detailed annual figures, tax section, way and place of load, destination country and type of merchandise. Merchandise imported and exported by means of the Preferential and Free Trade Agreements is also included.

In order to use the information correctly, only those figures which coincided with the ISIC that each item identifies in accordance with the categories requested by the research on copyright in Panama were used.

The foreign trade balance is an important item, mainly in open market economies such as our economy, to determine the GDP on the side of expenses. For that reason, the study aimed to measure the contribution of foreign trade to the gross domestic product. For this purpose, we will work with the following variables, defined by the General Comptroller's Office of the Republic:

- **Export of goods:** Comprises all national or nationalized goods, new or used, which, for good or valuable consideration, definitely go out from the economic territory of the country to the rest of the world.
- **Export of services:** Comprises all services, transportation, insurance and other services rendered by resident units to non-resident units.
- **Export of goods and services:** Includes all goods ownership transferences from resident people of a country to non-resident people, and services provided by resident producers of a country to non-resident people.
- **Import of goods and services:** Includes all goods ownership transferences and services from non-resident people of a country to resident people, and services provided by non-resident producers to resident people of a country.

### 2.3 Determination of Copyright Factor

An adjustment (copyright factor) to the data obtained from the national statistics has to be made to calculate the contribution of the copyright-based industries in order not to overestimate the contribution of the partial and non-dedicated support industries. Such adjustment may have a value between 0 and 1, if considered as a proportion, or between 0 and 100, if considered as a percentage.

The amount generated by the copyright-based industries can be obtained from the official institutions in Panama. However, given that the contribution to the GDP of each industry category depends on each category's position in the value chain, it is necessary to determine, in an approximate way, the contribution of the copyright-based industries; otherwise, the contribution of these industries to the GDP may be overestimated. For that reason, it is necessary to establish weighting factors which allow the specific contribution of the copyright-based industries to the GDP to be measured.

In accordance with the suggested methodology (WIPO 2003), the copyright-based industries may be classified as core industries, interdependent industries, partial industries, and non-dedicated support industries.

By analyzing the activities carried out by the industries in each group, the team reached the conclusion that the core copyright industries and the interdependent copyright industries do not require an adjustment factor when measuring their contribution to value added, employment, or foreign trade, as it was considered that their activities are 100% related to copyright, because they produce creative goods and works and other materials which must be directly protected.

However, the activities of the partial copyright industries and the non-dedicated support industries may not be considered with a 100% copyright factor when determining their contribution to value added, employment, or foreign trade, as it was considered that a significant part of the goods and services produced by these categories of industries is not copyright-related. Therefore, they require an adjustment (copyright factor) when measuring their contribution to each of the three indicators of the study.

Taking into account that an estimation of the copyright factor must be carried out for each of the categories into which the type of activity per industry is classified, and that such estimation requires a specific methodology beyond the scope of this study (lack of time and resources), the team considered that it would be convenient to use the adjustment factors used by the Colombian study. In the said study, the adjustment factors applied by the Hungarian study are utilized, specifically for the industries classified as partial industries, while our own weighting factors of copyright were elaborated for the activities of the non-dedicated support industries.

In this study, the research team decided to utilize the weighting factors of the Colombian study, taking into consideration the economic characteristics of Colombia, which are similar to the Panamanian economic characteristics in a number of ways. These characteristics include the fact that the services sector is the strongest sector of the economy; that the agroindustrial sector's contribution to the GDP has fallen during recent years; that GDP has grown steadily since 2003; and that the construction subsector has strengthened during the same period (see annex).

Table 5.A shows the weighting factors of the core copyright industries and the interdependent copyright industries, for which the research team considered the methodology suggested by WIPO 2003, which establishes a 100% weighting to the activities of these industries, as they are industries whose activities must be totally protected by copyright.

Table 5.B presents the weighting factors used to adjust the figures of the contributions made by the activities carried out by the partial copyright industries and the non-dedicated support industries to the three indicators employed in this study. As mentioned before, in order to adjust these weightings, factors applied by the Colombian study were used with some own adjustments in terms of specific characteristics of the value chain of the sub-categories of the Panamanian economy.

**Table 5A: Adjustment Factors to the Contributions of the Copyright-based industries in Panama: 2006**

Total	Factor
<b>1. Core Copyright Industries</b>	<b>1.00</b>
1.1. Press and publishing	1.00
1.2. Music, theater production, opera	1.00
1.3. Cinematographic films and videos	1.00
1.4. Radio and television	1.00
1.5. Photography	1.00
1.6. Software and databases	1.00
1.7. Visual and graphic arts	1.00
1.8. Advertising services	1.00
1.9. Copyright collecting societies	1.00
<b>2. Interdependent Copyright Industries</b>	<b>1.00</b>
2.1. Television sets, radios, players and similar equipment	1.00
2.2. Computers and equipment	1.00
2.3. Musical instruments	1.00
2.4. Photographic and cinematographic instruments	1.00
2.6. Blank recording material	1.00
2.6. Paper	1.00

Source: Own preparation based on the research team's assessment.

**Table 5B: Adjustment Factors to the Contributions of the Copyright-based Industries in Panama: 2006**

Total	Factor
<b>3. Partial Copyright Industries</b>	<b>0.22</b>
3.1 Garments, textiles and shoes	0.25
3.2 Jewelry and coins	0.30
3.3 Other handicrafts	0.04
3.4 Furniture	0.05
3.5 Household goods, porcelain and glass items	0.05
3.6 Tapestry paper and carpets	0.02
3.7 Toys and games	0.40
3.8 Architecture, engineering and land surveying	0.30
3.10 Interior design	0.10
3.11 Museums	0.50
<b>4. Non-dedicated Support Industries</b>	<b>0.05</b>
4.1 Wholesale and retail trade in general	0.04
4.2 Transportation in general	0.05
4.3 Telephony and the Internet	0.05

Source: Own preparation based on the research team's assessment.

This is the case for the garments, textiles and shoes category, the weighting of which is 0.25 rather than 0.05, which was utilized by the Colombian study. This is because, in Panama, the production at textile level mainly comprises branded goods. This means that the employed technology is, in many cases, the technology recommended by the industry which owns the brand. This also includes the raw materials used to manufacture the product.

An analysis of twenty-four garment factories duly registered prior to 2009 was carried out; of these, one is in the process of closing and seven produce tailor-made clothes and do not use a brand. Of the remaining

sixteen which are garment factories, seven manufacture several well-known brands, which are advertised in the media, and the other nine manufacture several designs of lesser-known brands.

Furthermore, the designs manufactured by the indigenous population – the value of which is better quoted on the textile market than the average, although the production volume is low – are protected by Law 20 of 2000, which provides a special copyright regime for the indigenous people's collective rights, in order to protect and defend their cultural identity and their traditional knowledge; other similar provisions are also set forth. These facts reaffirm this study's weighting of 0.25 for the production of garments, textiles and shoes.

In connection with other handicrafts, in Panama, the existing way of organization of these industries is not duly developed; the research team was cautious by assigning a weighting of 0.04 instead of the 0.40 assigned by the Colombian study.

In Panama, architecture, engineering and land surveying have developed strongly in relation to the construction sector. In accordance with law, 10% of the construction maps and 1% of the design of the work is copyright-protected. In addition, raw materials, labor force and materials utilized are mostly branded or quality products, which implies great content of copyright, as international standards are followed (ISO 9000 and 12000) in the employment of these products.

In addition, we carried out a consultation with prominent Panamanian architects, who pointed out that the finishings of a construction represent about 40% of the value of such construction. A finishing implies the setting up of tiles, bathrooms, windows, doors, lamps, and false ceilings, among other products. All these products are sold by brands and there are even specialized stores selling these products and promoting brands and countries of origin.

If maps and designs represent 11%, only another 19% would be needed to justify the assignment of 30% used to measure the contribution made by architecture, engineering and land surveying to the value added. If we also take into account that the construction is concentrated in the rural region and that houses, most of them luxurious houses, have an average value of US\$ 80,000, we consider that copyright is undoubtedly important in the construction industry. For these reasons, the research team assigned a weighting of 0.30 to the copyright adjustment factor for this activity, unlike the weighting of 0.10 assigned by the Colombian study.

## 2.4 Application of the Copyright Factor to the Variables

Once the weighting factors to be utilized to measure the contributions made by the partial copyright industries and the non-dedicated support industries had been defined, they were applied to the statistical information obtained from the official entities for each of the activities carried out by the copyright-based industries in relation to each indicator (value added, employment level and foreign trade) considered in this study; this allowed a better approximation of the contribution of the copyright-based industries.

In the case of employment, it was possible to fully apply the factors, as the available statistical data from the official source was sufficiently disaggregated. However, to measure the contribution of the copyright-based industries to the value added, they were only adjusted for those activities with available statistical evidence, which are shown in Table 6, marked with an asterisk. Finally, in the case of foreign trade, the factors were also applied for those activities with statistical evidence (see Table 27 in the Annexes); the information varied for each of the variables (imports and exports).

**Table 6: Adjustment Factors Applied to Measure Value Added in Panama: 2006**

Total	Factor
<b>3. Partial Copyright Industries</b>	<b>0.22</b>
3.1 Garments, textiles and shoes	0.25
3.2 Jewelry and coins	0.30
3.3 Other handicrafts	0.04
3.4 Furniture	0.05
3.5 Household goods, porcelain and glass items *	0.05
3.6 Tapestry paper and carpets	0.02
3.7 Toys and games	0.40
3.8 Architecture, engineering and land surveying *	0.30
3.10 Interior design *	0.10
3.11 Museums	0.50
<b>4. Non-Dedicated Support Industries</b>	<b>0.05</b>
4.1 Wholesale and retail trade in general *	0.04
4.2 Transportation in general *	0.05
4.3 Telephony and the Internet *	0.05

(\*): Refers to activities where there is statistical evidence.

Source: Own preparation based on the research team's assessment.



## 3. Copyright Protection Level

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### 3.1 General Background

Law 15 of August 8<sup>th</sup>, 1994, and Decree 261 of October 1995 marked the beginning of a new age for copyright in Panama. Although some general provisions had been in place, in Book IV Title V of the Administrative Code, since 1917, the content of these provisions was taken from earlier legislation adopted in 1826 and was therefore outdated.

Before the adoption of legislation in the field of copyright in Panama, there had been no culture of respect towards works created by the human intellect in general. Moreover, the production contents of the cultural industries were not clearly identified and an inventory of the different markets related to copyright and related rights did not exist.

Once the law was created, the State started to comply with the commitment undertaken through the ratification of a series of international agreements, recognizing, for instance, the mandate set forth by article 27.2 of the Universal Declaration of Human Rights, which provides that human beings have the right to have not only their moral rights but also their patrimonial rights protected, meaning the rights of authors of certain works.

This protection, due to its importance, goes beyond frontiers and is recognized by the political constitutions<sup>11</sup> of many countries and broadened by the national regulations which acknowledge the international agreements and treaties on the subject, such as the Bern Convention, the Rome Convention, the Geneva Convention on Phonograms, the Brussels Convention on Satellites, Annex I C of the WTO Treaty (Trade-related Aspects of Intellectual Property Rights Agreement, by means of which copyright is added to the international commercial law). For this reason, our country is committed to creating rules which globally deal with the copyright subject, including civil, procedural, criminal, and administrative rules which secure effective copyright protection and compliance with the ratified agreements.

### 3.2 The Legal Framework of Copyright in Panama

At the international level, the copyright system contains a wide variety of rights which have constituted the minimum conventional base and which are transposed in the relevant national legislations. The analysis of different organizations in charge of compliance with copyright protection shows that several institutions have competencies to fight against piracy and to protect the industry at both national and international levels. Panama has subscribed to several international agreements related to copyright and related rights, such as:

- Universal Copyright Convention, Geneva, 1952, ratified by Panama by means of Law 35 of January 31<sup>st</sup>, 1962;
- Bern Convention for the Protection of Literary and Artistic Works, 1971, ratified by Panama by means of Law No. 3 of January 3<sup>rd</sup>, 1996;
- Universal Copyright Convention, as revised at Paris, 1971, ratified by Panama by means of Law 8 of October 24<sup>th</sup>, 1974;
- International Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms, Geneva, 1971, ratified by Panama by means of Law 5 of November 8<sup>th</sup>, 1973;
- Treaty of the World Trade Organization, ratified by Panama by means of Law 23 of July 15<sup>th</sup>, 1997;
- Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, Rome, 1961, ratified by Panama by means of Law 4 of November 9<sup>th</sup>, 1982;
- Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (Brussels, 1974), ratified by Panama by means of Law 6 of November 9<sup>th</sup>, 1982;
- Washington Convention on Copyright, 1946, ratified by Panama by means of Law No. 5 of December 30<sup>th</sup>, 1982;

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<sup>11</sup>In the case of Panama, article 53 of the Political Constitution provides that any author, artist, or inventor enjoys the exclusive ownership of their work or invention during the time and manner set forth by the law.

- WIPO Copyright Treaty, ratified by Panama by means of Law 92 of December 15<sup>th</sup>, 1998; and
- WIPO Performances and Phonograms Treaty, ratified by Panama by means of Law 93 of December 15<sup>th</sup>, 1998.<sup>12</sup>

At national level, our country adopted Law No. 15 of August 8<sup>th</sup>, 1994, which approved the Copyright and Related Rights law. The regulation of this law was established in Decree No. 261 of October 3<sup>rd</sup>, 1995. The two instruments comprise the legislation in force and the law that applies in the field of copyright and related rights. Rules relating to compliance with copyright and defense of competence are set forth in Law 29 of January 1<sup>st</sup>, 1996, which provides for civil actions under this legislation. In addition, the Criminal Code provides criminal sanctions on intellectual property and the Judicial Code regulates both civil and criminal procedures.

### 3.3 Concept of Copyright

Several theories try to explain the copyright related to a specific work. Thus, it is possible to point out the following: "The name copyright designates the group of prerogatives recognized and granted by law to the creators of intellectual works expressed by means of writing, printing, oral word, music, drawing, painting, sculpture, engraving, photocopy, cinematography, broadcasting, television, disc, cassette, videocassette and by any other communication means".<sup>13</sup>

Copyright is also a collection of rules and principles which regulate the moral and patrimonial rights granted by law to authors for creating a work. Such rights, according to law 15 of 1994, are independent of the material support containing the work; this means that authors are not transferring their rights when selling the material carrier.

According to Raymond Guillien, copyright is a prerogative granted to the author of an artistic or literary work, which implies a pecuniary and a moral right. It is important to bear in mind that, unlike the patent law, copyright protects the expression of an idea, not the idea itself.

In the legal field, the intention is to protect the rightholder against any person who may copy or modify the work; therefore, the main subject of copyright is work resulting from intellectual creation. In Panama, this encompasses literary, didactic, scientific, or artistic works, and also protects related rights, such as those of performers, phonogram producers, and broadcasting organizations. For instance, our legislation defines copyright in article 3 of Law No. 15 of 1994, in the following way: "The author is the original holder of the moral and patrimonial rights in the work, recognized by this law". That is to say, the author of a work is the one who appears as such on the work by his/her name, signature or sign identifying authorship.

The Panamanian law recognizes several rights of the author of a work following its creation. Those rights can include written works, software, conference speeches, lectures and works consisting of orally expressed words, musical compositions with or without a script, dramatic works and dramatic-musical works, choreographic and audiovisual works, pantomimes, photographs, sculptures, engravings, lithographs, map illustrations, topography, audiovisual and geographical works, software, architectural works, plastic works, journalistic articles – in short, any literary, artistic, didactic, or scientific work or production susceptible to being disclosed or published by any means or procedures.

In other words, we can conclude that copyright protects any production susceptible to being copied or reproduced without its legitimate creator's approval, to whom such protection is offered against the possible non-authorized use of such work. In addition, linked to copyright, we should note the co-author issue, relating to people who, together with the author, are the copyright's rightholders.

### 3.4 Types of Works Protected by the Panamanian Legislation

The group of works protected by Panamanian laws is grounded on the Bern Convention, which protects literary and artistic works. In this sense, the national laws have set forth a legal and conceptual framework, as

<sup>12</sup>It is important to mention that the Republic of Panama, although having ratified the so-called Internet Agreements, as of this date has not fully implemented them; consequently, the incorporation of the protection and observance of works in the digital field is still a pending issue in Panama.

<sup>13</sup>Medina Rangel: Copyright Mexican Federal Law in Official Gazette of the Federation, of December 24<sup>th</sup>, 1996, articles 11 and 13.

well as compliance with and/or the application of the law, which strengthens the national copyright system. As we pointed out before, Panamanian law protects the following works or creations:

**Table 7: Types of Works Protected by the Panamanian Legislation**

Type of Work	Description	Articles
<b>Literary works</b>	Written, scientific, didactic texts, software, databases, conferences, speeches, lectures, journalistic articles, translations, adaptations, transformations, folk work arrangements, anthologies and compilations of diverse works.	Articles 7, 17, 18, 23, 24, 25, 26, 27, and 28 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Musical works</b>	Musical compositions, with or without a script, dramatic works and dramatic-musical works, choreographic works, pantomimes.	Articles 7, 8, 85, 86, 87, 88, and 89 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Artistic works</b>	Architectural works, plastic works, fine art works, including paintings, drawings, sculptures, engravings, lithographs, applied works of art.	Articles 19, 20, 21, and 22 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Maps and technical drawings</b>	Map illustrations, diagrams and sketches and works related to geography, topography, architecture or sciences.	Article 7 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Photographic works</b>	Photographic works and those works made under similar procedures.	Article 7 of Law No. 15 of August 8 <sup>th</sup> , 1994.
<b>Films or cinematographic works</b>	Audiovisual works, regardless of the material support or procedure employed.	Articles 7, 10, 11, 12, 13, 14, and 15 of Law No. 15 of August 8 <sup>th</sup> , 1994.

### 3.5 Exclusive Rights

The fact of being the author of a work entails exclusive economic rights (such as exploitation, reproduction, assignment, etc.) and exclusive rights of a moral nature (such as the decision of publishing a work or not, the fact of being recognized as the author by means of mentioning the name or a pseudonym, modifying the work or preventing the modification or destruction of the work).

The economic right comprises, in particular, the rights to modification, public communication, reproduction and distribution. These rights are independent of each other. It is important to point out that article 14 of Regulation 261 of Law 15 on copyright stipulates that the exploitation modalities set forth by law are just enunciative. Among the exclusive patrimonial rights set forth by the national law, we can mention:

#### 3.5.1 *Reproduction Right*

The exclusive right of the rightholder, by means of which he has the power and freedom to decide the material fixation of the work by any system or procedure and to prevent the work from being copied, published, or edited by a third party, without his authorization. This right is set forth by article 36 of Law No. 15 of August 8<sup>th</sup>, 1994.

#### 3.5.2 *Translation Right*

Law No. 15 of August 8<sup>th</sup>, 1994, grants exclusive rights to make or authorize translations of a work, but limits such rights to the original work, which has an own or natural right conferred to the author. In addition, the reproduction or publication of a translation by a third party is allowed, provided the authorization of the original work's author, as well as the authorization of the adaptation or translation's copyright rightholder, has been given.

#### 3.5.3 *Adaptation, Arrangement, and Other Alteration Rights*

Likewise, Law 15 of 1998 protects the author or creator of a work by providing that works may be adapted or edited; however, the author of a work keeps his rights in relation to the original work. Furthermore, here, duality of rights is also created by granting protection to the person or persons who

arrange or adapt a work, although these rights are not as exclusive as the author's right, since the exclusivity is kept by the original author, the creator; the person who modifies a work has exclusivity only in respect to their own modifications, that is their adaptation of the work.

In addition, other persons are allowed to adapt or modify the original work. This innovation is very common nowadays due to technological advances, by means of which written works may be captured on databases and redesigned to obtain a better illustration with an advanced technique which did not exist before. Likewise, modifications to folklore compositions belonging to a collective, which are transmitted from generation to generation, from parents to descendants, are allowed; these cannot be considered exclusive, as the author of them is not unique, for they belong to an ethnic group or other group or collective.

Consequently, arrangements, adaptations or modifications to them do have an exclusive right because they mean a new work or creation which changes or modifies the original. In these cases, the law requires that the author just indicates the ethnic group or region to which the modified, redesigned, or arranged work belongs.

#### **3.5.4 Public Performance Right**

Comprises the performance of the created work, whether by means of theater performance, documentary or film – for example, using electronic devices so that the public may appreciate the work, or exhibiting it or performing it by actors. Here, some variants may be appreciated; the author or creator of the work has the original right which is granted for being the author or creator of the work itself, but, in addition, other co-authors are going to have exclusive rights upon its creation too.

For example, in a film or work, we can mention the director or producer, the author of the plot, the author of the adaptation, the author of the script and dialogues, the author of the music composed for the film, the author of the drawings designed for the work, especially if they are animated cartoons. The law protects not only creators but co-authors too, in an individualized way, as authors of a specific branch, but with some limits. The director or producer will have the exclusive right of performance before the public and before the law to enforce the rights of the audiovisual work already performed; of course the law grants the right to each author on his own creation, on his individual work, and grants exclusivity upon this part and the right of not being damaged. On the other hand, in the event a co-author cannot finish their creation, they cannot prevent the work from being performed. Furthermore, the law grants exclusive rights upon their part, upon their own creation, but to be used in different spheres.

#### **3.5.5 Broadcasting Right**

Comprises broadcasting through wireless networks for the public reception of sounds, television, and television cable networks, among others. The broadcasting right or works made by means of television programs, news programs, and radio programs, whether news, miscellany, entertaining, etc, are protected by law under the same terms as audiovisual works.

#### **3.5.6 Public Communication Right**

Encompasses any activity carried out so that a work is received by attendees, foreign to the members of the author's family. It refers, among others, to scenic representations, recitals, lectures, and public performances of works; projection of audiovisual works; and presentation or exhibition of works of art or their reproductions. These rights may be transferred by mandate or legal provision, *inter vivos* or *mortis causa*. The assigned rights, terms, and territorial sphere are limited to the provisions of the contract.

#### **3.5.7 Distribution Right**

The distribution right encompasses the author of the work's right to authorize or not to authorize the availability of the issues of the work to the public, whether by means of sale, leasing, or any other means of distribution. The distribution right is the creator of the work's right to authorize or not to authorize the publication of their work. It is granted to guarantee that the basic reproduction right is respected.

### 3.5.8 *Rental Right*

This is granted mainly to contents of compact discs containing music played by both national and foreign musicians, audiovisual works, and software. This right protects the content of CDs from being copied any time music is leased by stores, restaurants or broadcasting agencies, etc., which receive revenues in their stores or which are destined to attract the public in order to sell their goods.

Likewise, audiovisual works and software are protected against illegal copies. It is important to mention that music listened to at home or at family parties, which does not involve the collection of money and which is just listened to for amusement and recreational purposes, is exempted from the protection.

### 3.5.9 *Moral Rights*

Moral rights encompass the author of the work's exclusive rights – that is to say, the author's right to publish or distribute their work, authorship right, right to integrity, right to access, and right to revoke or withdraw the work from commerce. It is the right to be recognized as the author of the work, and the right of the author's work not to be modified or altered. It is important to mention that moral rights include the transferring of rights upon the author's death to the author's heirs, who receive the rights recognized by the law to the author of the work.

## 3.6 **Limitations to Copyright**

The Panamanian legislation states that certain works, in order to be protected, must be fixed in a tangible format. There are also some limitations to the author's or rightholder's rights in some situations in which the exploitation of the works does not require any authorization.

As we have been mentioning, the scope of the rights is determined by other people's rights – that is to say, there are limitations to the copyright in order to guarantee other rights or the access to works in specific situations. Hereinafter, we analyze the limitations provided by the Panamanian law. To begin with, we can mention communications within the family; in this situation, communications are considered legal and without any right to receive an authorship payment:

- Communications during official events or religious ceremonies.
- Communications for didactic purposes in academic institutions.
- Communications for the blind.
- Communications inside commercial premises for demonstrative purposes to clients through receivers, recorders or similar devices, or for selling sound or audiovisual supports containing works.
- Communications during judicial or administrative procedures as part of a judicial or administrative process.

All these communications are considered legal, provided a profit-earning interest is not sought with the execution thereof, and they constitute limitations to the copyright of the creator. Legally distributed works: in connection with the works distributed, published and on sale to the general public, we can point out that they may constitute limits to the copyright in the following cases:

- The person who acquires the work has the right to reproduce a copy of such work for personal use or for avoiding its deterioration, which constitutes a limitation to the copyright.
- The person who acquires the work has the right to make photomechanical reproductions such as photocopy or microfilm, provided such reproduction is made in small numbers and for personal use.
- Reproduction by means of reprography of articles, and extracts of works, legally published for didactic purposes to prepare exams.
- Individual reproduction to a library, whether the issue is at the permanent collection thereof, or because the work is lost, or for preservation or replacement purposes.
- Reproduction of a work for judicial or administrative purposes.
- Reproduction of a work of art when it is exhibited to the public on streets, in squares or in other similar public places, provided such reproduction is made with a technique different from the original one.
- Software is allowed to be reproduced in one backup copy.
- Adding software to the memory of a computer by the user who bought it.

Such group of rights or guarantees is acquired by those persons who legally buy a work, limited, in turn, by the justification of use and by not seeking a profit-earning interest with the reproduction of it. Likewise, we can include here the right of any person, when consulting a book in a library or purchasing a work, to quote any work, provided they include the name of the author, publishing house and full name of the consulted work.

In the same way, the publication and distribution of articles published in newspapers regarding financial, political, social, artistic, and religious current affairs is allowed, provided they are not of a confidential nature. The distribution by sound or audiovisual means of current affairs – and of images or sounds of works seen or watched during said affairs – is also legal, provided they comply with the right of information.

In the case of speeches, lectures, presentations, sermons, and works of a similar nature given in public, the distribution is allowed. Furthermore, broadcasting entities are allowed to record works employing their own equipment and without any authorization, provided they have broadcasting rights and with the restriction of destroying the record in a term of six months; if the work has documentary content, it can be kept. Likewise, a broadcasting entity, without the author's authorization, may transmit or broadcast the work which was broadcast without alterations.

Regarding software, a user may legally make a software adjustment for their own exclusive use. It is important to point out that legal texts, laws, decrees, and all texts related to judicial, administrative, and commercial processes and procedures in general can be reproduced, any time a general and full distribution is needed, with the consequently public knowledge of the laws issued by the government and the easy compliance with them.

### 3.7 Duration of Copyright Protection

The law is clear when it establishes that the protection of the economic right lasts the life of the author and fifty years from the date of their death. We can find many cases in which it is important to know when this protection starts. For example, in the case of works made in collaboration, the fifty *mortis causa* years will start from the death of the last of the collaborators; in the cases of anonymous and pseudonymous works, the protection lasts fifty years from the year of the distribution thereof (in the case that the author became known, it would last the life of the author plus fifty years); in the case of collective works, software, and audiovisual works, the right is exhausted fifty years after the first publication thereof. All these terms come into force as from the first day of the month of January of the year following the death of the author or publication of the work.<sup>14</sup>

### 3.8 Related Rights

Related rights are the rights which protect persons other than the author, such as performers, phonogram producers, and broadcasting organizations. The objective of these rights is to protect certain artistic or technical-corporative activities, the result of which is not the creation of a work but auxiliary activities for the diffusion of protected creations. These rights correspond to performers, phonogram producers, and broadcasting organizations.

The recognized protection of the related rights does not affect in any way the protection of the copyright upon scientific, artistic, or literary works; therefore, none of the provisions connected to the related rights may be construed to the detriment of such protection (the "hardship" clause of the Rome Convention). When authorization is required both from the author of a work established in a phonogram and from the artist, performer, or executor of the phonogram, the requirement of the author's authorization does not exempt the artist, performer, or executor's authorization, and vice versa.

Author's moral rights are more substantial than related rights. Author's moral rights are not applicable in the case of rightholders of related rights, because in the latter case the rights protect organizational and technical-corporative activities and not activities of a personal nature.

<sup>14</sup>The difference between a work in collaboration and a collective work is that the first is a work jointly or interdependently created by two or more natural persons; the second is a work created by several authors under the responsibility of one (1) natural or legal person who publishes it under his or her own name, and which, by the number of contributions of the participating authors or by the indirect character of the contributions, are merged in the whole work in such a way that it is impossible to identify the different contributions of the participating authors involved in its creation.

On the other hand, economic rights are those attributed by law to each one of the related rights categories. These are applicable to all the intellectual rights protected by law, for example rights of equitable compensation for private copy, presumption of illegality of activities carried out without the consent of the respective rightholders of rights, joint responsibility of those who authorize or support the performance of illegal acts, actions or procedures destined to defend the powers recognized by law, and limitations and restrictions to exclusive rights. Among them we can include the following rights:

### 3.8.1 Performers' Rights

The performers have the exclusive right to authorize or not to authorize the fixation, reproduction, or public communication, by any means or procedure, of their interpretations or performances.

They may not oppose communication when such communication has been made with their prior approval, and has been published for commercial purposes. They have also the moral right to link their name or pseudonym to the performance and to prevent any deformation of the work which may endanger their reputation or integrity.

### 3.8.2 Rights of Phonogram Producers

Phonogram producers have the exclusivity to authorize or not to authorize the reproduction of their phonograms, as well as the right to receive remuneration for the communication of the phonogram to the public. This right grants protection for fifty years.

### 3.8.3 Broadcasting Rights

It is the right of broadcasting organizations to authorize or prohibit the retransmission or reproduction of broadcasts. It has the same term of protection of fifty years starting from January 1<sup>st</sup> following the broadcasting.

## 3.9 Copyright Markets

The various rights described above constitute the legal framework in which the economic transactions of the cultural industries take place. Copyright and related rights have economic functions of great importance in our economy. Economic transactions involve many rights, the values of which are determined by different market factors.

**Table 8: Copyright and Scope of Respective Markets**

RIGHTS	SCOPE OF THE MARKET
Reproduction right	Reproduction of works, both materially and immaterially. It also involves the adaptation, arrangement, and transformation of works.
Distribution rights	Distribution of material copies, resale, sale and leasing, and loan of copies of musical works included in phonograms, audiovisual works, software.
Communication to the public	Transmission by cable TV, retransmission of works by means of telecommunication or interactive communications, or digital networks.
Public performance	Live representations of works to the public including phonograms and recordings.
Broadcasting	Transmission of works by wireless or non-interactive means to be received by the public. It includes satellite transmission.

It is important to mention that the interrelation of rights protected by national legislations encompasses an entire field of business. In other words, it involves several economic activities which generate wealth and employment. It is possible to establish a calculation methodology to measure the contribution made by the cultural industries to the economic activity of Panama, and the employment generated by these industries, as long as it is possible to measure and/or quantify their real contribution to the national economy.

### 3.10 Compliance Measures

Compliance measures play an important role in the safeguarding of the economic interests of authors and rightholders, by having an effective system of civil, criminal, and administrative sanctions which helps cultural industries to grow. This creates a proper framework to attract investments, which has a positive impact on the economic and social indicators of our economy.

The effective application of the copyright laws which have come into force in our country in the field of copyright and intellectual property has contributed to significant development of the entities in charge of the implementation of copyright law and related rights. Both executive and judicial entities have been involved in executing copyright law, thus protecting copyright and reducing fraudulent use of original works.

In accordance with the reports of the Ministry of Commerce and Industries, the legal system has the aim of enforcing intellectual property rights. The national government has been making a constant, effective, and consistent effort during recent years to protect intellectual property rights, a fact that has been recognized by the member states of the World Trade Organization. This is evidenced by the fact that, by means of Resolution No. 13 of March 9<sup>th</sup>, 2006, the National Attorney General's Office established that the Superior Public Prosecutor's Office would specialize in crimes against intellectual property and would exclusively deal with denunciations and claims as well as commence summary proceedings for crimes "against copyright and related rights" and "against intellectual property rights" committed in the whole territory of the Republic of Panama.

In 2006, 47,918 formats, comprising 33,065 videograms and 14,927 phonograms, were apprehended. The estimation of the damage which would have been caused in the event that the above-mentioned illegal material had not been apprehended is calculated at US\$ 661,300.00 in the case of the videograms and US\$ 223,905.00 in the case of the phonograms. In the same way, during 2006, the customs authority had twenty-seven cases regarding the retention of presumably counterfeit merchandise in the Panamanian territory.

During 2006, the Intellectual Property Department of the Colón Free Trade Zone carried out forty-five inspections, of which thirty-one were ex officio, twelve were by means of a lodged complaint and two were registered by exercise of the Competent Judicial Authority. From said procedures, twenty retentions of merchandise were carried out, since they were presumably violating rights protected by intellectual property law. In those cases of merchandise retention, the due process of law was respected in each of the administrative procedures, seeking the continuity of the commercial activities within the free zone.

The laws created since 1994 in all copyright fields have been applied by the competent authorities on a daily basis. The efforts of the Republic of Panama to strengthen intellectual property rights have improved the country's image in the eyes of investors, which has boosted domestic and foreign investment and services related to intellectual property.

In order that there is real compliance in the copyright field, it is important to keep an interrelation through permanent networks for cooperation in such a way that the copyright protection is real and effective. In fact, the Ministry of Education, by means of the National Office of Copyright, hears on offenses against Law 15 of 1994 on copyright and related rights and has powers to fine offenders in the range of one-thousand US Dollars (US\$ 1,000.00) to twenty-thousand US Dollars (US\$ 20,000.00).

Likewise, this Office may practice preventive measures in order to try to stop the violation of intellectual rights; it may investigate and sanction behaviors which, despite not constituting crimes in themselves, may damage copyright and related rights; it may control the functioning of collective management corporations; it may foster the diffusion of intellectual creations and the protection thereof; and it may act as mediator in the case of conflicts and differences.

The Public Ministry of Justice, through the Superior Specialized Public Prosecutor's Office, has the ability to commence summary procedures, whether ex officio (when the crime is heard through institutions in charge of apprehending) or by means of complaints which may be lodged by any citizen or by means of complaints lodged by the affected party. The Ministry of Government and Justice, through the Specialized Division of the Office of Legal Investigation of the National Police Department, investigates and is in charge of the surveillance in the country.



The Judicial Body – through the criminal circuit courts, the criminal superior courts, and the civil circuit courts, which are specialized courts with civil jurisdiction, created by Law 29 of February 1<sup>st</sup>, 1996 – is in charge of examining the summary proceedings and constructing and applying the laws.

The Ministry of Economy and Finance, through the Intellectual Property Department of the General Office of Customs, who apply the “border measures”, may carry out inspections and retain merchandise, whether ex officio, upon request of an interested party, or by order of authority.

Executive Decree 79 of 1<sup>st</sup> August, 1997, which regulates Articles 177 and 178 of Law 35 of 10<sup>th</sup> May, 1996, created the Intellectual Property Department of the Colón Free Trade Zone. This department has inspection and retention capabilities, whether ex officio, upon request of an interested party, or by order of authority.

Finally, the Presidency of the Republic created, by Law 23 of 1996, the Intellectual Property Interdisciplinary Commission, with the aim of ensuring better coordination and application of intellectual property laws. In this sense, representatives of the different entities, bodies and institutions with competence and application in the intellectual property system were appointed<sup>15</sup>.

<sup>15</sup>The Intellectual Property Interdisciplinary Commission (or CIPI, for its Spanish acronym) comprises the following institutions: National Office of International Trade Negotiations, National Office of Copyright, General Office of Intellectual Property Registration, Superior Public Prosecutor's Office of Intellectual Property, Intellectual Property Department of the General Office of Customs, and Intellectual Property Department of the Colón Free Zone General Administration. In the future, it is expected to include institutions such as The Office of Judicial Investigation (or DIJ, for its Spanish acronym) and the National Environmental Authority (or ANAM, for its Spanish acronym).

## 4. Assessment of the Contribution of the Copyright-Based Industries in Panama: 2002–2006

### 4.1 General Performance of the Panamanian Economy

The period 2002–2006 can be characterized as a period of economic growth which started with a 2.2% growth rate of the GDP in 2002, and continued growing in the subsequent years, reaching a rate of 8.6% in 2006. Such growth continued up to 2007, when the GDP reached the highest growth rate of 11.2% and later grew at a rate of 8.5%. In the period 2002–2006 the average growth rate was 9.2%. The main economic indicators show that between 2002 and 2006 the Panamanian economy showed positive signs of economic development. The GDP growth rate increased 6.3% and the inflation rate increased 1.9% due to the greater demand for goods and services; however, the increment is low considering the terms being compared.

The unemployment rate decreased by 5.4%, going from a 2-digit rate to a 1-digit rate, which indicates that the governmental employment policies had been positive in some way. This fact had an influence on the per capita income (measured at 1986 prices) which increased by B/. 816, going from US\$3,821 in 2002 to US\$4,640 in 2006. Table 9 shows the changes experienced by these indicators.

**Table 9: Main Macroeconomic Indicators of Panama**

INDICATOR	YEAR		DIFFERENCE
	2002	2006	
Growth rate of the GDP	2.2	8.5	6.3
Inflation Rate	1	2.9	1.9
Unemployment Rate	13.8	8.7	-5.4
Per Capita Income (In US\$ of 1986)	3,821.00	4,640.00	816

Source: The author, based on data provided by the General Comptroller's Office of the Republic.

### 4.2 Sectorial Performance of the Panamanian Economy

The tertiary sector is the largest sector of the national economy; it represented, in 2002, 86.4 per cent of the GDP and a similar proportion in 2006. The main economic activities of the country are included in this sector, such as the Panama Canal, the Colón Free Trade Zone, the banking center, telecommunications, port activities, and tourism.

The primary sector has a tendency to reduce its relative share in the GDP. Traditional products such as banana, marine products, and sugar cane exports tend to lose market share and agricultural exports do not achieve a steady growth. That is the reason why this sector only represented 8.9% of the GDP in 2002 and 7.8% in 2006.

Within the secondary sector, the manufacturing industry has not been a major sector in the national economy. Manufacturing is in practice replaced with assembly. Beverage, paper, and metal industries, in fact, import semi-manufactured products which are later assembled here. The dairy industry, for example, imports more than 50% of its raw material, powdered milk. Electricity, gas, and water supply, together with construction, contributed about 40% to the GDP of the secondary sector in 2002 and a little bit more than 50% in 2006. The secondary sector's contribution to the economy was 14.8% in 2002, and 14.4% in 2006.

These structural characteristics generate an open economy with a foreign trade that results in an increasing commercial deficit. In 2002, the commercial deficit of exports in relation to imports was US\$ -2,275,682; in 2006, this deficit had grown to US\$ -3,809,084.

In 2002, the economically active population was 1,250,874 persons, 62.7 % of the population, of which about 14% were unemployed. In 2006, the unemployment rate had fallen to 8.7%. Although these figures do not reflect the real state of unemployment, if we include informal labor, they do reflect a correct diminishing tendency before the economic growth. In 2006, the employed population was 1,294,937 persons, 62% of whom were concentrated in the tertiary sector. In turn, this sector tends to be concentrated in urban areas, where 63.5% of the population is concentrated; 57% of the population of the country is located in the Province of Panama and Colón, where the Trans-Isthmian Route is located.

## 4.3 Contribution of the Copyright-Based Industries to Employment

### 4.3.1 Methodology Used

#### 4.3.1.1 Information Sources

As mentioned in Chapter 2, the information used for the analysis of the employment generated by the copyright-based industries corresponds to the last two databases of the Business Directory (2002 and 2006), taken and provided by the General Office of Statistics and Census of the General Comptroller's Office of the Republic. The Business Directory is a statistical publication prepared by this official statistical institution of Panama, in accordance with the national legal regime, which is published every five years.

To carry out a comparative analysis of the employment generated in this sector and the employment generated by other traditional sectors in the Panamanian economy, the definitions and concepts provided by the above-mentioned Continuous Home Poll of the General Comptroller's Office of the Republic to determine the condition of the Panamanian population's activity were taken into consideration. In this sense, the population can be classified, according to condition of activity, into two basic groups which provide information on the participation of their different components in the economy of the country:

- **Economically Active Population (EAP):** Comprises people of fifteen years of age and above, who provide the available labor force for producing goods and services in the country, classified as employed and unemployed.
  - **Employed Population:** This group includes persons who:
    - had an occupation or paid job, in money or in kind.
    - regularly worked for a company belonging to a member of their own family, even when they did not receive payment or salary.
    - had a fixed, paid job but did not work at all during the reference period due to a transitory circumstance.
    - did not work during the entire period under consideration, but they work for fixed terms.
  - **Unemployed Population:** This group includes:
    - **Population with open unemployment:** This group comprises persons who, during the term of reference:
      - did not have a job, but were looking for one.
      - did not look for a job because they had got a job which would start at a later date.
      - had never worked and were looking for their first job.
      - looked for a job during the last four weeks.
    - **Population with hidden unemployment:** This group comprises persons who, during the term of reference:
      - got tired of looking for a job.
      - looked for a job but did not take specific actions to get it.
      - looked for a job, took specific actions to get it, but were not available to take the specific job.
      - were not looking for a job, but had been looking for one before and were waiting for some news.

- **Non-Economically Active Population (NEAP):** Comprises housewives and other categories, such as students, persons who do not work and do not look for a job, retired persons, pensioners, and renters. Two inactive population groups can be identified within this category:
  - **Pure inactive persons:** Non-economically active persons who reported on the poll that they were “Not looking for a job during the last four weeks”, or that they did not have the intention of “looking for a job in the six subsequent months” after the date of the poll.
  - **Potentially active persons:** Non-economically active persons who reported that they “have the intention of looking for a job in the six subsequent months” after the date of the poll.

#### 4.3.1.2 *Handling of Information*

The used databases have differences in relation to the rank or interval size of the scales utilized to present the final results. The 2002 database uses shorter intervals in the levels of generated employment than those used in the 2006 database. The 2002 database showed more disaggregated information in at least 20 ranks in the employment level, so it showed ranks of five employees each; however, the 2006 database showed larger ranks and summarized just seven ranks of at least 40 employees each. In order to correct this difference and to obtain comparable results, the ranks which most affected the results were validated, that is to say, the ranks corresponding to levels of between one and ten employees, those being the most frequent for enterprises related to copyright.

In connection with the handling of available information, in a first analysis, general aspects of the Panamanian labor market are described for the years under study, that is to say, 2002 and 2006. Regarding the labor market analysis referring to 2002 and 2006, some data for 2008 are herein highlighted as well. Later on, in an internal analysis of the structure of the copyright-based industries, the general participation in the employment generation of the enterprises within each industry category is calculated; the rank established for the levels of generated employment is averaged; and, afterwards, the volume of employment generated by each category for each year is calculated, applying the relevant copyright factor to each obtained result. Finally, in a third analysis, the results obtained from the copyright-based industries regarding employment at a national level are compared to measure the impact on the national economy through this indicator.

#### 4.3.2 *General Aspects of the Panamanian Labor Market*

According to the Continuous Home Poll carried out by the General Comptroller’s Office of the Republic, in 2002 Panama had an EAP of 1,250,874 people, of whom 13.8% (170,351) were unemployed. For the following year (2003), the unemployment rate decreased to 13.0% and continued decreasing to end in 2006 to a rate of 8.68%, as shown in Chart 02 and Graphic 01. Currently (2008), this rate corresponds to 5.56% of the EAP, which is the lowest rate historically registered in the country.

It is necessary to highlight that the period 2005–2008 was characterized by a rapid reduction in levels of unemployment, as, in 2008, there were 1,506,104 economically active persons, 1,422,309 of whom were employed, which corresponds to 85,336 more employed persons than the previous year. However, 44% of the population is informally employed, mainly in the commercial sector, private workers, and self-employed.

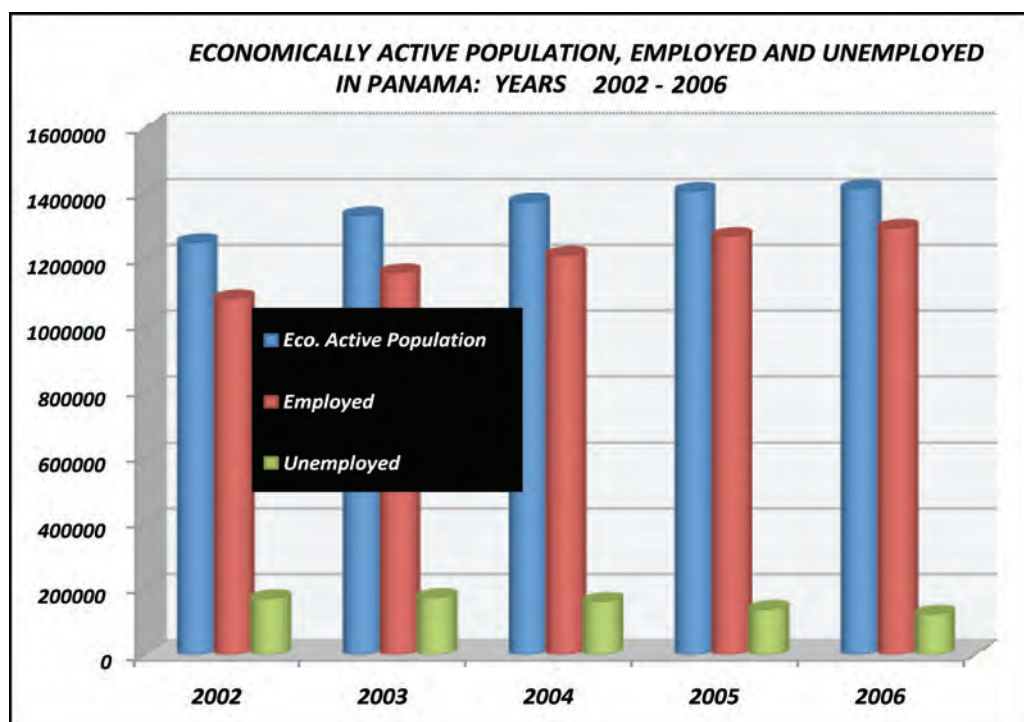
**Table 10: Population of 15-year-olds and Older in the Republic of Panama, according to Economic Activity Condition**

Years: 2002-2006

Indicator	2002	2003	2004	2005	2006
Population of 15-year-olds	1,992,844	2,121,904	2,169,184	2,216,195	2,260,342
Economically Active Population	1,250,874	1,333,000	1,374,148	1,407,458	1,415,080
Employed	1,080,523	1,159,155	1,212,705	1,269,885	1,294,937
Unemployed	170,351	173,845	161,443	137,663	122,799
Open	141,781	144,689	126,409	107,084	95,140
Hidden	28,570	29,156	35,034	30,579	27,659
Unemployment Rate	13.80%	13.04%	11.75%	9.78%	8.68%
Formal Employment	42.5	47.4	50.25	53.1	53.47
Informal Employment	57.5	52.6	49.75	46.9	46.6
Not Economically Active Population	741,970	788,904	795,036	808,737	845,262

Source: Own Preparation based on data provided by the Continuous House Poll Survey of the General Comptroller's Office of the Republic.

**Figure 1: Economically Active Population, Employed and Unemployed in Panama**



Source: Own Preparation Based on Chart 02.

In 2006, 62.5% of the employed persons (809,849) worked in the tertiary sector. Of these, 322,454 were employed in the wholesale and retail, commercial, transportation, storage, and communication sectors. The rest of the employed population – that is to say, 37.5% (485,088) – were employed in the primary and secondary sectors, as shown in Table 11.

**Table 11: Employed Population of 15 years and Older, according to Sector and Economic Activity in the Republic of Panama. Years: 2002 -2006**

Sector and economic activity	2002	2003	2004	2005	2006
<b>Total EAP</b>	<b>1,333,000</b>	<b>1,333,000</b>	<b>1,374,148</b>	<b>1,407,458</b>	<b>1,415,080</b>
<b>Employed EAP</b>	<b>1,159,155</b>	<b>1,159,155</b>	<b>1,212,705</b>	<b>1,269,795</b>	<b>1,294,937</b>
Primary Sector	242,101	244,430	233,916	244,655	252,857
Agriculture, cattle raising	230,224	232,553	219,816	230,224	237,811
Fishing	11,877	11,877	14,100	14,431	15,046
Exploitation of Mines and Pits	1,032	1,032	698	1,038	2,310
Secondary Sector	196,883	196,883	214,506	216,305	232,231
Manufacturing Industries	107,349	107,349	114,871	115,793	118,277
Supply of electricity, gas and water	8,834	8,834	8,434	7,728	8,583
Construction	80,700	80,700	91,201	91,746	103,061
Tertiary Sector	715,906	715,906	735,862	808,835	809,849
Retail / wholesale trade	198,342	198,342	212,055	230,151	231,405
Rest. and hotels	53,930	53,930	61,289	70,281	64,599
Transportation, storage and communications	86,791	86,791	89,802	92,627	91,049
Financial interm.	21,719	21,719	24,956	24,305	26,384
Real estate act.	44,897	44,897	54,092	61,793	62,767
Public administration and defense	75,067	75,067	74,557	70,055	71,207
Education	65,833	65,833	68,468	67,366	67,249
Social services and health	38,645	38,645	44,200	48,022	49,200
Other social and personal act.	66,385	66,385	36,792	73,381	69,731
Home / Domestic services	64,297	64,297	69,651	70,282	75,434
Extraterritorial Org.	925	1,004	723	572	824

Source: Own preparation based on data bank of the General Comptroller's Office of the Republic, House Poll Survey

### 4.3.3 Contribution of the Copyright-Based Industries to Employment

#### 4.3.3.1 Total Employment

Theoretically, it is alleged that the higher the value added rates are, the higher the employment generated will be; however, in Panama, such relation, although being direct, is not proportional due to the productivity problem. Thus, there is great development of tertiary activities linked to the provision of services which, added to the introduction of new technologies, eliminate a great part of the labor force; for this reason, the growth of the employment generated is not proportionally direct to the growth of the value added, considering that the Panamanian economy is basically sustained by the service sectors.

In a first analysis, it is evident that most of the copyright-based industries, both in 2002 and in 2006, generated between one (1) and five (5) employments; thus, from the 3,756 enterprises which in total belonged to the copyright-based industries category, 81.12% showed an average level of 1 to 5 workers in 2002. A similar performance was observed in 2006, when they represented more than 82.49%. Conversely, enterprises generating more than 200 employments represented only 0.29% of the total employment generated by the copyright-based industries in 2002; in 2006, this figure had fallen to 0.24%. The information shown in Tables 12 and 13 and their respective graphics lead us to conclude that the copyright-based industries are

not generators of employment in large units; on the contrary, in 2006, only 27 enterprises generated more than 200 employments.

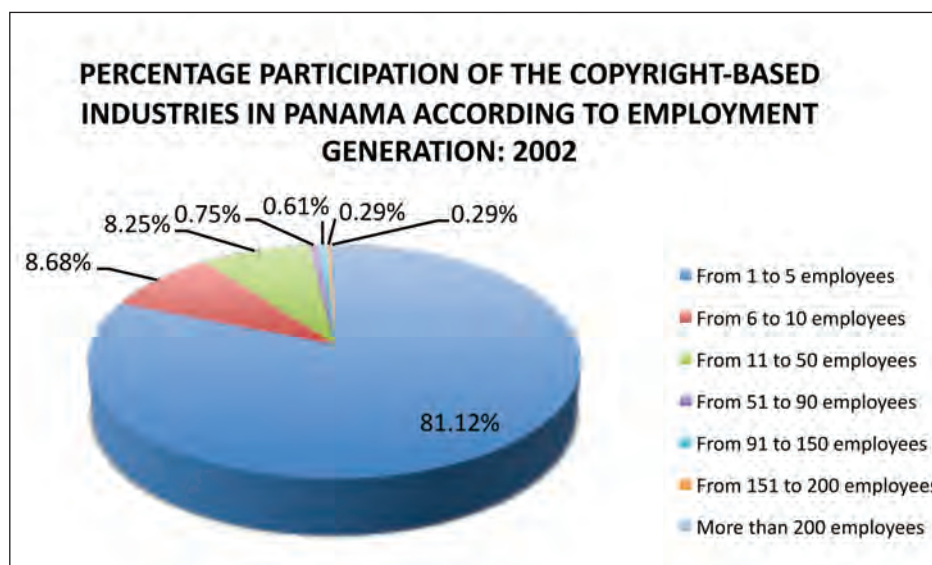
**Table 12: Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees**

Year 2002

Number of Enterprises	Proportion	Average Level	Level of Employees	Employment Generated
11	0.29%	250	201-300	2,750
11	0.29%	175.5	151-200	1,931
23	0.61%	120.5	91-150	2,772
28	0.75%	70.5	51-90	2,772
310	8.25%	30.5	11-50	1,974
326	8.68%	8	6-10	2,608
3,047	81.12%	3	1-5	9,141
3,756	100.00%			30,627

Source: Managerial Directory , General Offices of Statistics and Census, General Comptroller's Office of the Republic.

**Figure 2: Percentage Participation of the Copyright-based Industries in Panama according to Employment Generation**



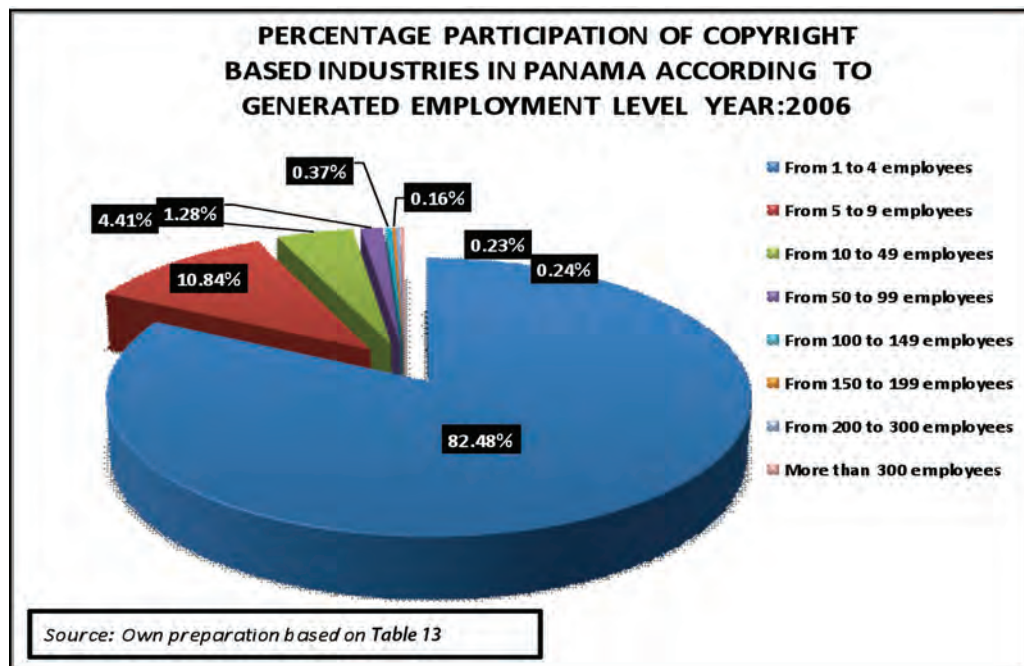
**Table 13: Employment Generated by the Copyright-based Industries in Panama according to the Number of Enterprises and the Level of Employees: Year 2006**

Number of Enterprises	Proportion	Average Level	Level of Employees	Employment Generated
14	0.24%	352	301-349	4,550
13	0.23%	250	200 to 300	3,250
9	0.16%	174.5	150 to 199	1,571
21	0.37%	124.5	100 to 149	2,615
73	1.28%	74.5	50 to 99	5,439
252	4.41%	29.5	10 to 49	7,434
620	10.84%	7	5 to 9	4,340
4,717	82.49%	2.5	1 to 4	11,793
<b>5,718</b>	<b>100.00%</b>			<b>40,990</b>

Source: Managerial Directory , General Offices of Statistics and Census, General Comptroller's Office of the Republic.

In general, it is possible to assert that for the period under analysis the industries which provided the greatest number of enterprises and had more participation in employment generation were the core copyright industries, which increased in number during the period, from 1,563 enterprises in 2002 to 2,170 enterprises in 2006.

**Figure 3: Percentage Participation of Copyright-based Industries in Panama according to Generated Employment Level**



In the same way, the core copyright industries showed continuous growth in the number of employments generated, from 15,867 employments in 2002 to 19,714 employments in 2006. Such figures can be observed in a general way in Table 14 and Figure 4. Results also show that industries of lower impact with regard to employment generation are non-dedicated support industries, which in 2006 contributed 1,241 employments, divided between 200 enterprises in total.

According to the above-mentioned facts, the core copyright industries accounted in 2002 for about 51.8% of the employment generated by the entire copyright-based industries sector; such participation continued to be significant in 2006, when it represented 48.1% of the total. Likewise, but under better conditions,



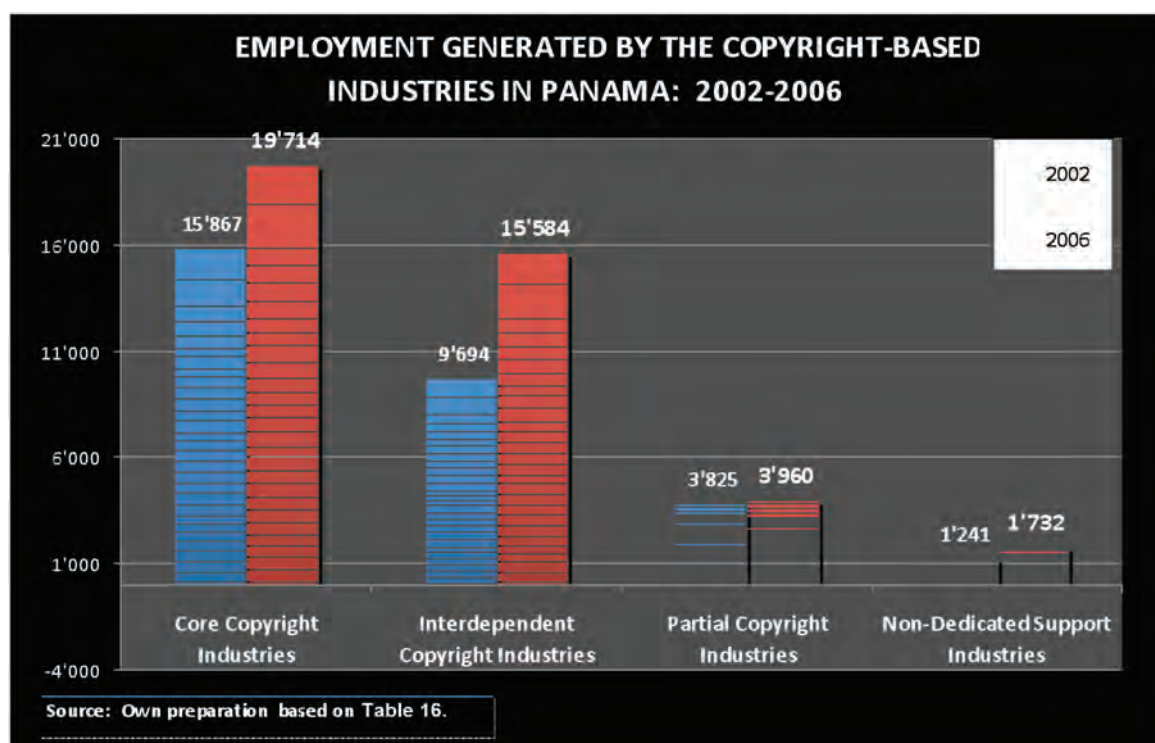
interdependent copyright industries made a significant contribution in terms of both the number of industries within the category and the generation of employment. Interdependent industries accounted for 31.7% of the employment generated in 2002 and about 38.0% of the total in 2006.

**Table 14: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category in the Republic of Panama**

Category of Industries	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
Total	3,756	30,627	100%	5,718	40,999	100%
Core Copyright Industries	1,563	15,867	51.81%	2,170	19,714	48.1%
Interdependent Copyright Industries	1,481	9,694	31.17%	2,546	15,584	38.0%
Partial Copyright Industries	512	3,825	15.5%	624	3,960	9.7%
Non-Dedicated Support Industries	200	1,241	4.1%	378	1,732	4.2%

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 4: Employment Generated by the Copyright-based Industries in Panama**



The general results for each activity can also be broken down and divided into the number of employments generated by enterprises in each specific copyright industry. The summary table below (Table 15) presents the results for each industry, which are explained in sections 4.3.2, 4.4.3.3, 4.4.3.4 and 4.4.3.5. The results reflect the individual performance of each category and subcategory of copyright-based industries in relation to the employment variable.

**Table 15: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Industries and categories	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>	<b>3,756</b>	<b>30,627</b>	<b>100</b>	<b>5,718</b>	<b>40,99</b>	<b>100</b>
<b>1. Core Copyright Industries</b>	<b>1,563</b>	<b>15,867</b>	<b>51.81</b>	<b>2,17</b>	<b>19,714</b>	<b>48.09</b>
1.1 Press and publications:	735	7,300	46.01	840	7,841	39.77
1.2 Music, theater production and opera:	156	1,513	9.54	549	4,603	23.35
1.3 Cinematographic films and videos	26	353	2.22	34	554	2.81
1.4 Radio and television	190	2,220	13.99	172	3,063	15.54
1.5 Photography	168	1,644	10.36	161	662	3.36
1.6 Software and Databases	30	63	0.4	41	316	1.6
1.7 Visual and Graphic Arts	133	1,809	11.4	252	1,150	5.83
1.8. Advertising Services	124	910	5.73	120	1,524	7.73
1.9 Copyright collecting societies	1	56	0.35	1	3	0.02
<b>2. Interdependent Copyright Industries</b>	<b>1,481</b>	<b>9,694</b>	<b>31.65</b>	<b>2,546</b>	<b>15,584</b>	<b>38.02</b>
2.1 Television sets, radios, recorders and similar equipment	321	1,951	20.12	329	3,158	20.26
2.2 Computers and equipment	282	1,234	12.73	468	1,436	9.21
2.3 Musical Instruments	132	1,101	11.36	243	3,037	19.49
2.4 Photographic and cinematographic instruments	687	5,019	51.77	1,393	7,020	45.04
2.5 Blank recording material	11	116	1.19	24	139	0.89
2.6 Paper	48	275	2.83	89	795	5.1
<b>3. Partial Copyright Industries</b>	<b>512</b>	<b>3,825</b>	<b>12.49</b>	<b>624</b>	<b>3,960</b>	<b>9.66</b>
3.1 Garments, textiles and shoes	277	2,010	52.55	221	2,059	51.99
3.2 Jewelry and coins	76	547	14.3	133	362	9.13
3.3 Other handicrafts	3	27	0.71	5	34	0.87
3.4 Furniture	89	683	17.84	168	753	19.01
3.5 Household goods, porcelain and glass items	6	38	1	3	32	0.8
3.6 Tapestry paper and carpets	0	1	0.03	0	9	0.22
3.7 Toys and games	25	173	4.53	35	198	5.01

**Table 15: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

3.8 Architecture, Engineering and Land Surveying	35	325	8.49	54	494	12.48
3.10 Interior design	1	20	0.51	4	15	0.39
3.11 Museums	1	2	0.04	2	4	0.09
<b>4. Non-Dedicated Support Industries</b>	<b>200</b>	<b>1,241</b>	<b>4.05</b>	<b>378</b>	<b>1,732</b>	<b>4.23</b>
4.1 Whole and Retail Trade in general	125	914	73.63	300	835	48.2
4.2 Transportation in general	72	315	25.37	68	701	40.45
4.3 Telephony and Internet	2	12	1	9	197	11.35

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory

#### 4.3.3.2 Core Copyright Industries

Of the subcategories that make up the core copyright industries, the activities related to press and publishing are the most prominent, employing 7,300 people in 2002 and 7,841 in 2006; this sector comprises activities related to publication of newspapers, magazines and periodic publications; activities of news agencies; editions of books, booklets and other publications; activities of printing; services related to printing; retail sale of materials, books and newspapers; and activities of libraries and archives.

The activity which showed the highest participation, both in 2002 and 2006, was printing and books; this activity comprised more than 200 enterprises, which contributed about 32% of core copyright industry employments within the national territory in both years, as shown in Table 16.

The subcategory of press and publishing, together with the subcategory of music, theater and opera productions, produced in 2006 more than 63% of the employments of the core industries, as shown in the above-mentioned chart.

In 2006, the outstanding subcategory was that of radio and television, which increased its participation from 14% in 2002 to about 16% in 2006. The reason for this, according to the Census of Population and Housing of the General Comptroller's Office of the Republic, which is carried out every 10 years, is that 77% of houses have access to television sets and to television programs, which represents a high percentage of incidence of this communication means at a national level. Similarly, the subcategory of advertising services generated not less than 1,500 employments, strengthening its participation from 5.7% in 2002 to 7.7% in 2006.

The performance in the music, theater and opera productions subcategory is notable, for it represented in 2002 only 9.5% of the total employment generated by the core industries in 2002; however, in 2006, it represented 23.3%, mainly due to the emergence of more than 300 enterprises devoted to the sale of furniture and domestic appliances, used in the production of both music and theater activities.

The subcategories with lower performance in terms of employment generation included software and databases, which contributed 1.6% of the employment generated by the core industries in 2006. Here, we have to take into account that Panama is not a software-producing country; most software is imported from the United States, Mexico, Spain, Singapore, etc., and databases are made in each company or institution.

**Table 16: Nominal and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>		<b>1,563</b>	<b>15,867</b>	<b>100</b>	<b>2,17</b>	<b>19,714</b>	<b>100</b>
<b>1. 1. Press and publications</b>		<b>735</b>	<b>7,300</b>	<b>46.01</b>	<b>840</b>	<b>7,841</b>	<b>39.77</b>
7499	Other managerial activities, n.e.c. (Photocopies, collection, decoration)	84	655	8.97	263	1,476	18.82
2212	Publication of newspapers, magazines and periodic publications.	13	59	0.81	19	403	5.14
9220	Activities of news agencies	2	6	0.08	1	7	0.09
2211	Publication of books, booklets, scores and other publications.	4	17	0.23	4	13	0.17
2219	Other publication works, graphic arts.	32	156	2.14	49	229	2.92
2221	Printing activities, dutigrafía, notebooks	206	2,273	31.14	208	2,487	31.72
2222	Service activities related to printing and bookbinding	3	77	1.05	4	34	0.43
51392	Wholesale of books, newspapers, magazines and stationery.	29	605	8.28	44	845	10.77
52391	Retail sale of office material and equipment	243	2,857	39.13	187	1,990	25.38
52392	Retail sale of books, newspapers, magazines and stationery.	118	594	8.14	58	352	4.49
9231	Library activities and archives	1	3	0.04	3	6	0.08
<b>1. 2. Music, theater and opera production</b>		<b>156</b>	<b>1,513</b>	<b>9.54</b>	<b>549</b>	<b>4,603</b>	<b>23.35</b>
9214	Theatrical and musical activities and other artistic activities	8	80	5.29	13	58	1.26
9249	Other entertaining activities (parks, cockpits, moving discos)	6	111	7.3	14	66	1.43

**Table 16: Final and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama (continued)**

	2213	Editions of recorded materials	1	3	0.2	2	7	0.15
	2230	Reproduction of recorded materials	1	3	0.2	-	-	0
	52331	Retail sale of furniture and domestic appliances	9	27	1.78	327	3,153	68.5
	52333	Retail sale of musical instruments, image and sound reproducers and related items, except for photographic equipment	92	824	54.43	112	860	18.69
	52339	Retail sale of domestic appliances, equipment and devices, n.e.c., household	39	466	30.8	81	459	9.97
<b>1.3 Cinematographic films and videos</b>			<b>26</b>	<b>353</b>	<b>2.22</b>	<b>34</b>	<b>554</b>	<b>2.81</b>
	9211	Production and distribution of films and videos	6	258	73.09	18	92	16.61
	9212	Exhibition of films and videos	20	95	26.91	16	462	83.39
<b>1.4 Radio and television</b>			<b>190</b>	<b>2,220</b>	<b>13.99</b>	<b>172</b>	<b>3,063</b>	<b>15.54</b>
	9213	Telecommunications	89	882	39.73	123	1,335	43.59
	6420	Telecommunications	101	1,338	60.27	49	1,728	56.41
<b>1.5 Photography</b>			<b>168</b>	<b>1,664</b>	<b>10.36</b>	<b>161</b>	<b>662</b>	<b>3.36</b>
	7494	Photography activities	100	780	47.45	107	426	64.4
	52393	Retail sale of photographic, optical and precision material and equipment	68	864	52.55	54	236	35.6
<b>1.6 Software and Databases</b>			<b>30</b>	<b>63</b>	<b>0.4</b>	<b>41</b>	<b>316</b>	<b>1.6</b>
	7240	Activities related with databases	1	3	4.76	4	109	34.55
	7230	Data processing	29	60	95.24	37	207	65.45
<b>1.7 Visual and Graphic Arts</b>			<b>133</b>	<b>1,809</b>	<b>11.4</b>	<b>252</b>	<b>1,150</b>	<b>5.83</b>
	7499	Other managerial activities, n.e.c.(Photocopies, collection, decoration)	105	1,435	79.33	224	776	67.48
	52399	Retail sale at specialized stores n.e.c.	28	374	20.67	28	374	32.52

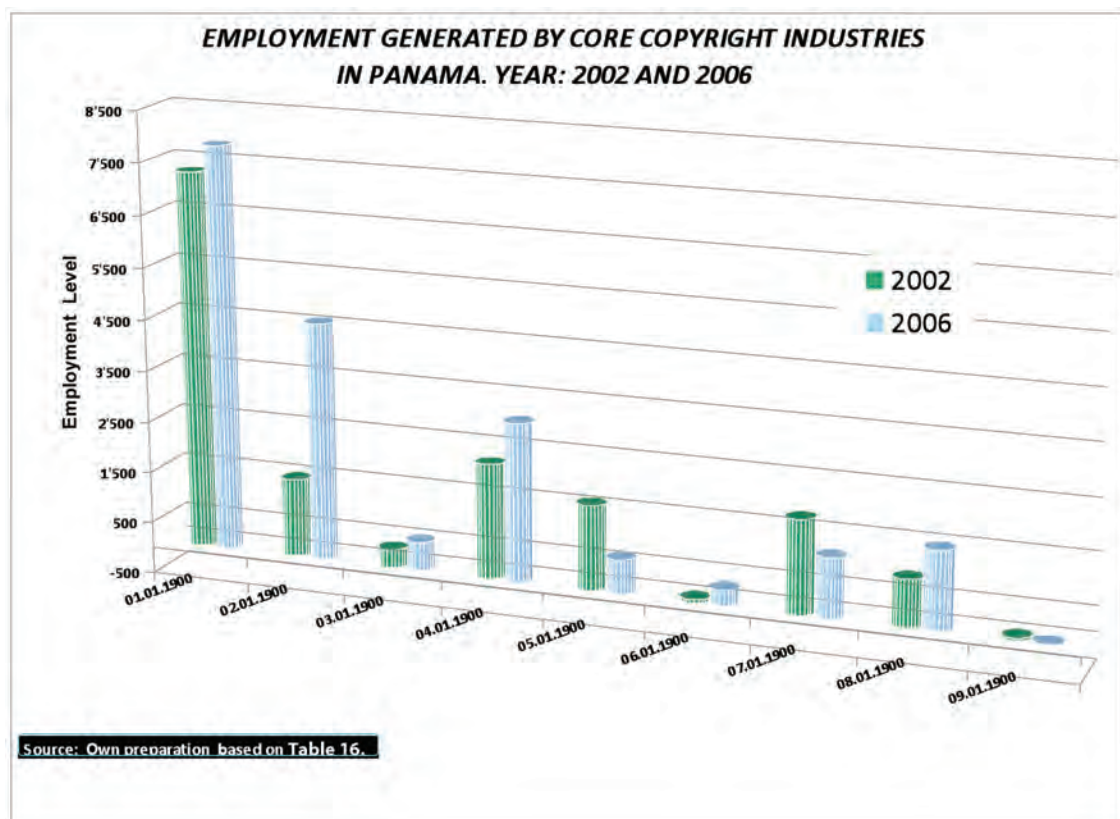
**Table 16:** Final and Percentage Value of the Contribution of the Core Copyright Industries to Total Employment, according to Sub-category and Economic Activity in the Republic of Panama (continued)

<b>1.8. Advertising Services</b>		<b>124</b>	<b>910</b>	<b>5.73</b>	<b>120</b>	<b>1,524</b>	<b>7.73</b>
7430	Advertisement	124	910	100	120	1,524	100
<b>1.9 Copyright collecting societies</b>		<b>1</b>	<b>56</b>	<b>0.35</b>	<b>1</b>	<b>3</b>	<b>0.02</b>
9112	Activities of professional organizations	1	56	100	1	3	100

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

Interestingly, one of the activities which declined between 2002 and 2006 was visual and graphic arts and photography; although in 2002 fewer enterprises (133) existed than in 2006 (252), this category generated more employments in 2002 (1,809) than in 2006 (1,150). The decline in the number of employments is due mainly to the size of said enterprises; for example, in 2006, four enterprises which generated between 151 and more than 200 employments did not report operations, while enterprises generating between 1 and 10 employments increased.

**Figure 5:** Employment Generated by Core Copyright Industries in Panama



#### 4.3.3.3 Interdependent Copyright Industries

Within the subcategories that make up the interdependent industries, the activities linked to photographic and cinematographic instruments can be emphasized; in 2002, they contributed about 51.8% of the employment generated by the interdependent industries, and in 2006 their contribution had increased to 72.41%, going from 5,019 employments in 2002 to 7,020 in 2006. This subcategory comprises activities such as manufacturing of optical instruments and photographic equipment, wholesale of specialized stores, and leasing of several kinds of machinery and equipment. See Table 17 and its corresponding Graphic 06.

A similar performance is observed for the subcategories of television sets, radios, players and similar equipment and musical instruments, which in 2006 contributed 3,158 and 3,037 employments, respectively. Combined, the subcategories of photographic instruments and television sets and musical instruments stand for more than 63.9% of the employments generated by the interdependent industries.

Other activities are noteworthy within the interdependent industries category, such as leasing of computers and equipment, which in 2002 comprised 282 enterprises generating 1,234 employments, and in 2006 had increased to 1,436 employments. This is explained by the proliferation of cybercafés, computer centers used by the public, as barely one in ten Panamanians owns a computer, a fact that determined the leasing of this equipment.

**Table 17: Nominal and Percentage Value of the Contribution of the Interdependent Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>TOTAL</b>		<b>1,481</b>	<b>9,694</b>	<b>100</b>	<b>2,522</b>	<b>15,445</b>	<b>100</b>
<b>2.1 Television sets, radios, players and similar equipment</b>		<b>321</b>	<b>1,951</b>	<b>20.12</b>	<b>329</b>	<b>3,158</b>	<b>32.57</b>
3230	Manufacturing and repair of radio receptors and television sets and related products to the consumer, electronics	11	68	3.49	2	5	0.26
52331	Retail sale of furniture and domestic appliances	310	1,883	96.51	327	3,153	161.63
<b>2.2 Computers and equipment</b>		<b>282</b>	<b>1,234</b>	<b>12.73</b>	<b>468</b>	<b>1,436</b>	<b>14.81</b>
7123	Office machines and equipment rental (including computers)	282	1,234	100	468	1,436	116.38
<b>2.3 Musical Instruments</b>		<b>132</b>	<b>1,101</b>	<b>11.36</b>	<b>243</b>	<b>3,037</b>	<b>31.33</b>
52333	Retail sale of musical instruments, image and sound reproducers and related items, except for photographic equipment	3	54	4.9	73	466	42.33

**Table 17: Nominal and Percentage Value of the Contribution of the Interdependent Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

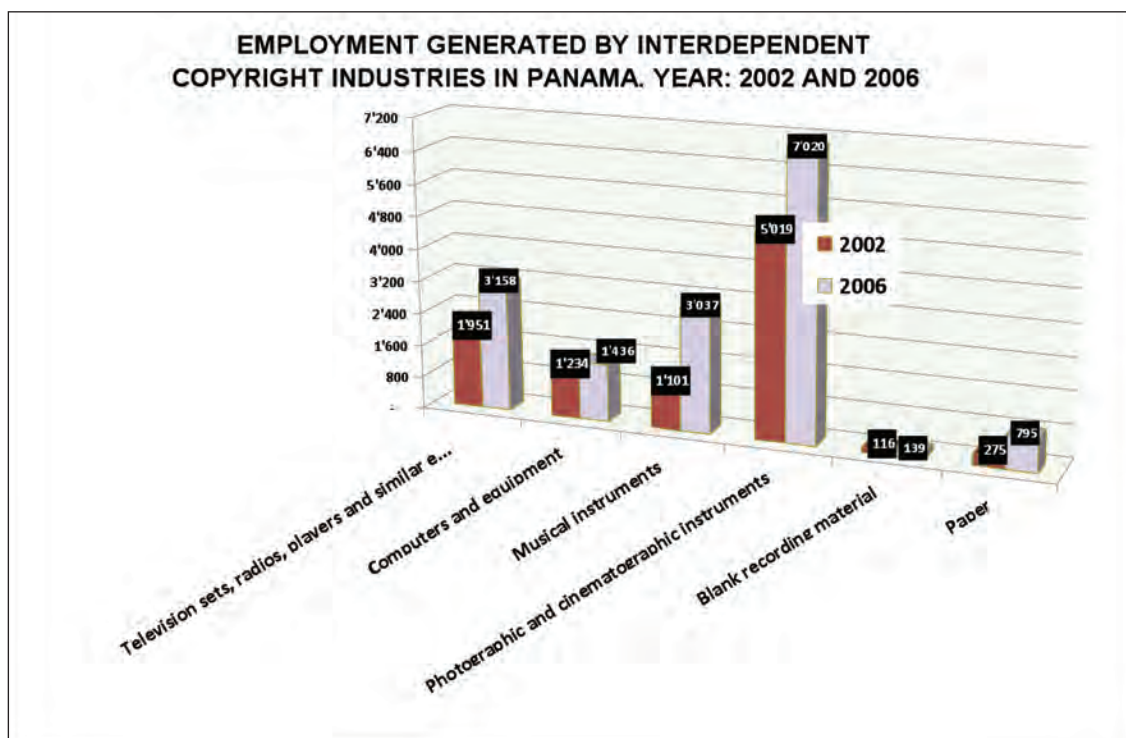
51399	Wholesale of personal items and several products for the consumer, n.e.c.	129	1,047	95.1	170	2,571	233.51
<b>2.4 Photographic and cinematographic instruments</b>		<b>687</b>	<b>5,019</b>	<b>51.77</b>	<b>1,393</b>	<b>7,020</b>	<b>72.41</b>
3320	Manufacturing of optical instruments and photographic equipment	5	20	0.21	11	108	1.11
52399	Retail sale at specialized stores n.e.c.	671	4,741	48.9	1,366	6,710	69.22
7129	Other kind of machines and equipment rental n.e.c.	11	258	2.66	16	202	2.08
<b>2.5 Blank recording material</b>		<b>11</b>	<b>116</b>	<b>1.19</b>	<b>24</b>	<b>139</b>	<b>1.43</b>
2429	Manufacturing of other chemical products, n.e.c.; Pyrotechnical	11	116	100	24	139	120.35
<b>2.6 Paper</b>		<b>48</b>	<b>275</b>	<b>2.83</b>	<b>89</b>	<b>795</b>	<b>8.2</b>
5149	Wholesale of other intermediate products, wastes and remains, sale of plastic	42	249	90.53	85	442	161.02
2101	Manufacturing of paper pulp, paper and cardboard	6	26	9.47	4	353	128.6

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.





**Figure 6: Employment Generated by Interdependent Copyright Industries in Panama**



In the interdependent industries, the manufacturing of television sets and radio receivers, recorders, sound and video players and connected products provides for only an average of 0.05% of the employments generated by this category of industries for the full term; the same happens in segments devoted to the manufacturing of photographic and cinematographic devices and recording material, the contribution of which reaches 1.1%.

#### 4.3.3.4 Partial Copyright Industries

About 64.8% of the employments generated by the partial copyright industries are generated by the subcategory of garments, textiles and shoes, closely followed by the subcategory of architecture, engineering and land surveying, which contributed 8.5% of employments in this category in 2002 and 9.2% in 2006 (Table 18). In connection with the activity of handicrafts and manufacturing of glass, wood and metal products, it is important to mention that Panama, as of 2002, has had a special regime in intellectual property regarding the collective rights of the indigenous population for the protection and safeguarding of its cultural identity and its traditional knowledge<sup>16</sup>.

On the other hand, the contribution to employment of activities such as museums and preservation of historic sites, which was low (0.001) in 2002, did not show significant increases in 2006. It contributed 0.1% of the employment generated by the partial copyright industries, registering only 4 employments (see Figure 7).

#### 4.3.3.5 Non-Dedicated Support Industries

Lastly, between 2002 and 2006, the non-dedicated support industries, according to the Business Directory, increased their participation in the total employment generated by copyright-based industries from 4.1% to 4.2%. This can mainly be explained by the subcategory of transportation in general, which in 2002 contributed about 315 employments and in 2006 contributed 701 employments.

<sup>16</sup>Official Gazette of the Republic of Panama, No. 24,083 of June 27<sup>th</sup>, 2000, which enacts Law No. 20 of June 26<sup>th</sup>, 2000, regulated by Executive Decree No. 12 of March 20<sup>th</sup>, 2001.

New communication technologies have changed preferences and demands; this fact is demonstrated by telecommunication activities, which increased participation in employment from 0.01% to 0.5%, resulting in 185 new employments being generated by 2006, as shown in Table 19 and Figure 8.

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>TOTAL</b>		<b>512</b>	<b>3,824</b>	<b>100.00</b>	<b>723</b>	<b>5,352</b>	<b>100.00</b>
<b>3.1 Garments, textiles and shoes</b>		<b>276.5</b>	<b>2,010.1</b>	<b>52.57</b>	<b>324</b>	<b>3,466</b>	<b>64.76</b>
1721	Manufacturing of items made with textile materials, except for garments, cushions, pillows and bags	4.3	17.8	0.88	2	7	0.35
51311	Wholesale of textile products	2.0	8.5	0.42	1	42	2.02
51312	Wholesale of garments and accessories, except for shoes	9.5	136.0	6.77	5	142	6.90
51313	Wholesale of shoes	3.8	13.8	0.68	2	4	0.18
51319	Wholesale of textile products, garments and shoes, n.e.c.	2.5	11.3	0.56	2	26	1.26
51321	Retail sale of textile products	8.0	47.8	2.38	13	50	2.43
51322	Retail sale of garments and accessories, except for shoes	177.3	1,322.4	65.79	133	1,265	61.44
51323	Retail sale of shoes	44.0	270.8	13.47	40	337	16.36
51324	Retail sale of leather items	7.8	50.1	2.49	8	30	1.46
51325	Retail sale of textile (fabrics)	17.5	131.9	6.56	16	157	7.62
51329	Retail sale of textile products, garments and shoes, leather items, n.c.p., boutique	100.3	820.8	40.83	103	1,407	68.32
<b>3.2 Jewelry and coins</b>		<b>75.9</b>	<b>547.2</b>	<b>14.31</b>	<b>133</b>	<b>362</b>	<b>6.76</b>
51393	Wholesale of watches and jewelry products	3.3	15.9	2.91	50	12	3.44
51394	Retail sale of watches and jewelry products and novelty jewelry	69.9	523.2	95.61	80	325	89.80
3691	Manufacturing of jewelry and related items.	2.7	8.1	1.48	3	24	6.76

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama (continued)**

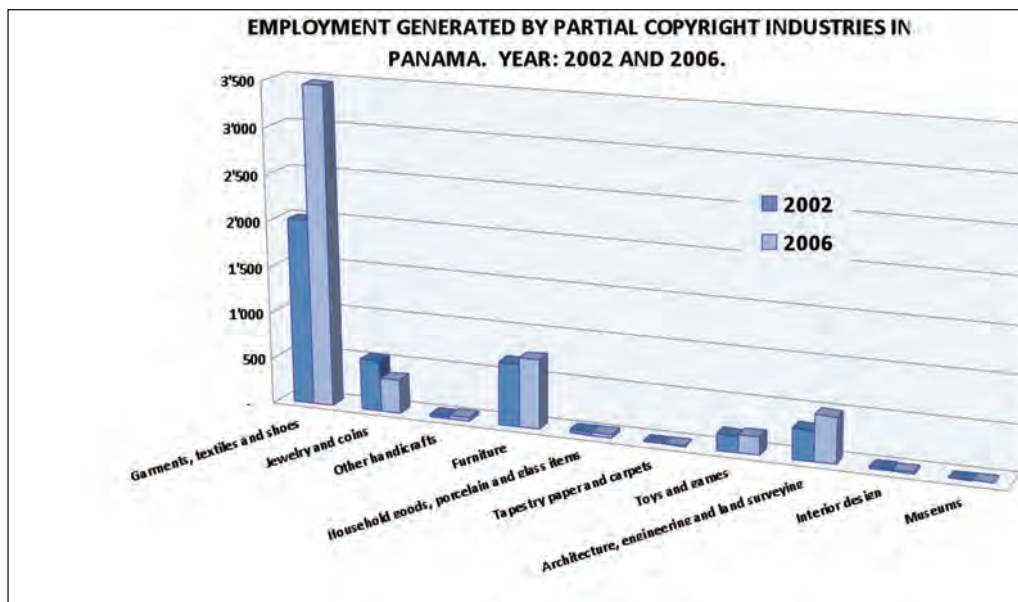
<b>3.3 Other handicrafts</b>		<b>3.2</b>	<b>27.0</b>	<b>0.71</b>	<b>5</b>	<b>34</b>	<b>0.64</b>
9199	Activities of other associations n.e.c. club, support to communal services	3.2	27.0	100.00	5	34	100.00
<b>3.4 Furniture</b>		<b>89.0</b>	<b>682.5</b>	<b>17.85</b>	<b>168</b>	<b>753</b>	<b>14.07</b>
3611	Manufacturing of wood furniture, tapestry	89.0	682.5	100.00	168	753	100.00
<b>3.5 Household goods, porcelain and glass items</b>		<b>6.3</b>	<b>38.3</b>	<b>1.00</b>	<b>3</b>	<b>32</b>	<b>0.59</b>
2610	Manufacturing of glass and glass products	0.5	2.0	5.23	1	24	74.13
2029	Manufacturing of other wood products; manufacturing of cork and straw products and materials able to be interlaced	0.5	2.3	5.88	1	3	10.09
2899	Manufacturing of other products made of metal, n.c.p., turnery, wires	5.2	33.6	87.72	1	5	15.38
173	Manufacturing of fabric, knitting, and crochet articles	0.2	0.5	1.18	0	0	0.39
<b>3.6 Tapestry paper and carpets</b>		<b>0.2</b>	<b>1.0</b>	<b>0.03</b>	<b>0</b>	<b>9</b>	<b>0.16</b>
2109	Manufacturing of other paper articles and cardboard	0.2	1.0	100.00	0	9	100.00
<b>3.7 Toys and games</b>		<b>24.8</b>	<b>173.4</b>	<b>4.53</b>	<b>35</b>	<b>198</b>	<b>3.71</b>
3694	Manufacturing of toys and games	1.2	5.6	3.23	0	12	5.95
52395	Retail sale of sport items (bicycles)	23.6	167.8	96.77	35	187	94.05

**Table 18: Nominal and Percentage Value of the Contribution of the Partial Copyright Industries to Total Employment, according to Category and Economic Cctivity in the Republic of Panama (continued)**

<b>3.8 Architecture, engineering and land surveying</b>			<b>34.8</b>	<b>324.9</b>	<b>8.50</b>	<b>54</b>	<b>494</b>	<b>9.24</b>
7421	Activities of architecture and engineering and related services of technical assessment.		34.8	324.9	100.00	54	494	100.00
<b>3.10 Interior design</b>			<b>1.1</b>	<b>19.6</b>	<b>0.51</b>	<b>4</b>	<b>15</b>	<b>0.29</b>
7499	Other managerial activities, n.e.c. (Photocopies, collection, decoration)		1.1	19.6	100.00	4	15	100.00
<b>3.11 Museums</b>			<b>0.5</b>	<b>1.5</b>	<b>0.04</b>	<b>2</b>	<b>4</b>	<b>0.07</b>
9232	Activities of museums and preservation of historical sites and buildings		0.5	1.5	100.00	2	4	100.00

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 7: Employment Generated by Partial Copyright Industries in Panama**

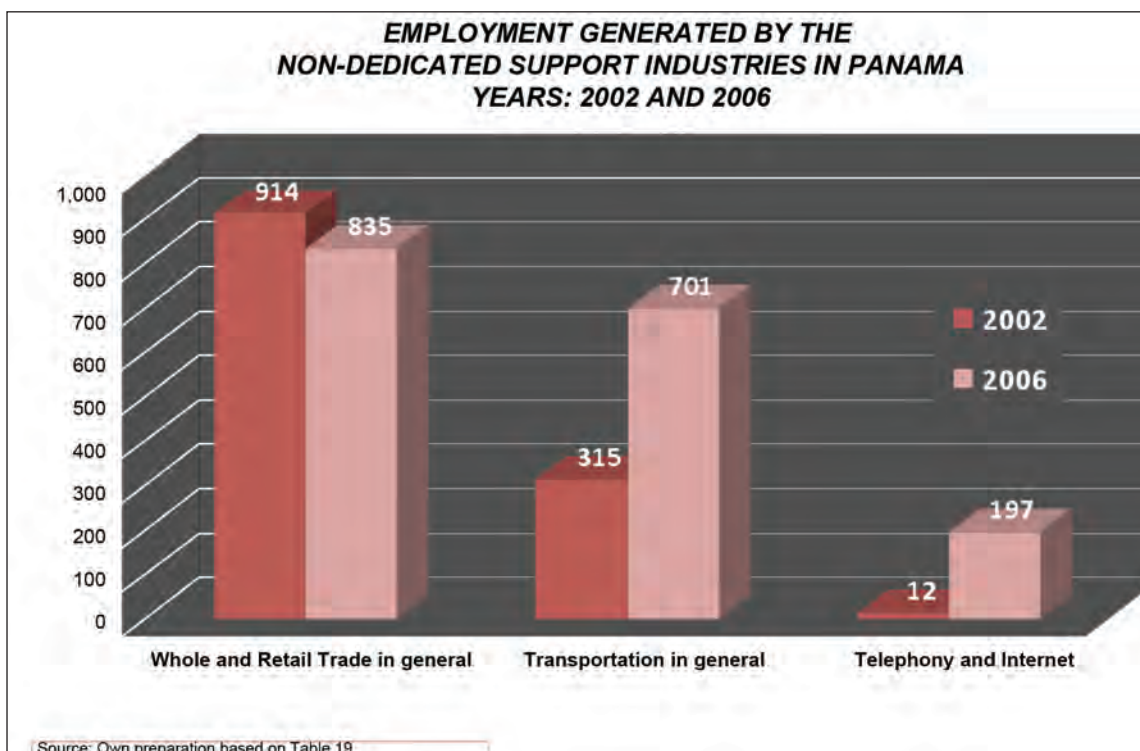


**Table 19: Nominal and Percentage Value of the Contribution of the Non-dedicated Support Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Sub-categories and activities		2002			2006		
		Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>		<b>199.51</b>	<b>1241.13</b>	<b>100</b>	<b>378.14</b>	<b>1732.485</b>	<b>100.00</b>
<b>4.1 General wholesale and retail trade</b>		<b>125</b>	<b>914</b>	<b>2.98</b>	<b>300</b>	<b>835</b>	<b>2.04</b>
51101	Import and/or export agencies, commissioners	4	12	1.33	5	65	7.84
51900	Wholesale of other products	1	9	0.97	3	33	3.94
52111	Retail sale of groceries	102	737	80.66	268	675	80.83
52520	Retail sale at sale stalls and markets	19	156	17.05	24	62	7.38
<b>4.2 Transportation in general</b>		<b>72</b>	<b>315</b>	<b>1.03</b>	<b>68</b>	<b>701</b>	<b>1.71</b>
6010	Railway transportation	0	0	0.10	0	0	0.02
602	Other kind of regular passenger transportation by land	23	132	41.99	30	299	42.69
630	Activities of other transportation agencies; custom brokers and transport inspectors	46	166	52.84	34	350	49.93
6411	National post mail activities	0	0	0.05	0	0	0.04
6412	Post mail activities other than national post mail activities, courier	3	16	5.03	4	51	7.33
<b>4.3 Telephony and Internet</b>		<b>2</b>	<b>12</b>	<b>0.04</b>	<b>9</b>	<b>197</b>	<b>0.48</b>
6420	Telecommunications	2	12	100.00	9	197	100.00

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory.

**Figure 8: Employment Generated by the Non-dedicated Support Industries in Panama**



#### 4.3.4 Contribution of the Copyright-Based Industries to the Total Employment of Panama

Regarding the employment generated by the copyright-based industries as a proportion of the total employment of the country, it is necessary to point out that some data relating to the employment generated by the copyright-based industries were assessed based on the growth rate of industries, in accordance with each category and the different terms, 2002 and 2006. Based upon this, the participation of the copyright-based industries in the total employment at national level is analyzed from two approaches: according to the population status, and according to the industry category.

##### 4.3.4.1 According to the Population Status

As mentioned before, in the case of the total employment at national level, there is complete information available. Once the estimates of the copyright-based industries had been obtained, we could observe that the participation of the copyright-based industries in the national employment was 2.92% in 2002 and 3.17% in 2006 – an increase of 0.25% in 4 years, as shown in Table 20.

The contribution of the copyright-based industries to employment among the total EAP is slightly lower; when considering the EAP, as opposed to the employed EAP, the participation drops to 2.51% in 2002 and to 2.90% in 2006.

**Table 20: Contribution of the Copyright-based Industries in the Economically Active Population in the Republic, according to Population's Condition**

Indicator	2002	2006
Population of 15-year-olds and older	1,949,717	2,260,342
Economically Active Population (EAP)	1,221,914	1,415,080
Employed EAP	1,049,525	1,294,937
Unemployed EAP	172,389	122,799
Unemployment Rate	14.1%	8.7%
Employed population at Copyright-based industries	30,627	40,990
Contribution of the EAP	2.51%	2.90%
Contribution of the Employed EAP	2.92%	3.17%

Source: Own Preparation based on data provided by the Continuous Home Poll of the General Comptroller's Office of the Republic.

Despite increasing slightly, the copyright-based industries stayed at practically the same level, as the total number of Panamanians in employment has increased at a greater pace than the population employed by the copyright-based industries. This can be explained mainly by the fact that this industry does not pick up intensive labor work, due to the fact that there is a tendency to use more capital factors than human resources in the copyright-based industries, evidenced by the fact that more than 80% of these enterprises generated between one and four employments.

#### 4.3.4.2 According to Industry Category

In 2006, the core copyright industries comprised 48.09% of the copyright-based industries' total contribution of 3.17% in the EAP, representing a contribution by the core industries of 1.52% to the employed EAP. This implied that activities such as press and publishing, music, theater and opera productions, cinematographic films and videos, radio and television, photography, software and databases, visual and graphic arts, advertising services, and copyright collecting societies were the most significant activities within the copyright-based industries, as they made the most significant contribution to the national EAP. This data is shown in Table 21.

While the participation of interdependent industries in 2006 was 38.02%, the production of television sets and radios, computers, photographic and cinematographic instruments, blank recording material, and paper generated 15,445 employments out of a total employed EAP of 1,294,937.

The individual performance of each of the industry categories showed a fairly good contribution in general terms, with the exception of the non-dedicated support industries, which increased their participation only slightly, from 0.12% in 2002 to 0.13% in 2006, mainly because in Panama this category just includes transportation activities in general, and telephony and the Internet, while the other activities, related to facilitating the diffusion, distribution or sale of copyright-protected works, such as libraries, were carried out with public funding.

**Table 21: Participation of the Copyright-based Industries in Total Employment in the Republic of Panama, according to Category of Industry.**

Indicator	2002			2006		
	Population	Participation in total employment	Copyright Based Industries Participation	Population	Participation in total employment	Copyright Based Industries Participation
Employed Economically Active Population	1,049,525	100.00	–	1,294,937	100.00	–
Population Employed by Copyright-Based Industries	30,627	2.92	100.00	40,990	3.17	100.00
Core Copyright Industries	15,867	1.51	51.81	19,714	1.52	48.09
Interdependent Copyright Industries	9,694	0.92	61.09	15,584	1.20	79.05
Partial Copyright Industries	3,825	0.36	39.46	3,960	0.31	25.41
Non-Dedicated Support Industries	1,241	0.12	32.44	1,732	0.13	43.75

Source: Own Preparation based on data provided by the Continuous Household Survey 2002 – 2006 of the General Comptroller's Office of the Republic.

#### 4.4 VALUE ADDED GENERATED BY THE COPYRIGHT-BASED INDUSTRIES

The years 2002 and 2006 have been used by this study as periods of reference for measuring the value added. The value added in gross terms is represented, in accordance with WIPO, by the difference between values of gross products and values of inputs of other industries or intermediate consumption and represents a contribution measure to the GDP (gross domestic product) of a single product, industry or sector.

In this way, when the so-called GDP is conceptualized, we are referring to the sum of market values of final goods which are produced during a determined term, generally of one year, by resources owned by the country.

The value added calculated for the aforementioned years represents to each of the activities hereby mentioned the effort, capital, work, and technology of the producer units, which, when properly combined, generate such value added.

##### 4.4.1 Methodology Used

###### 4.4.1.1 Definition of the Copyright-Based Industries

The Business and Service Directories corresponding to 2002 and 2006 were utilized to identify the industries categorized in accordance with WIPO (2000), obtaining the copyright-based industries which carried out productive activities in Panama. As mentioned in section 2.3, the adjustment factor has only been applied for those activities with respect to which there were statistical data.

###### 4.4.1.2 Information Sources

The information on value added in the case of Panama comes from only one source. The statistics of macroeconomic accounts are centralized and carried out by the General Office of Statistics and Census, currently the National Institute of Statistics and Census<sup>17</sup>, through its Department of Economic Studies, National Income Section.

<sup>17</sup>The National Institute of Statistics and Census (INEC, for its Spanish acronym) was created by means of Law 10 of January 22<sup>nd</sup>, 2009, to replace the General Office of Statistics and Census of the General Comptroller's Office of the Republic.



#### **4.4.1.3 Limitations of the Information for Estimating the Value Added**

All matters regarding the calculation of the gross value added (GDP) are carried out by the National Income Section. It is limited by the fact that the Business Directory does not currently request information on the production value or on the intermediate consumption; therefore, this information is not entirely appropriate for calculation of the value added of the copyright-based industries.

In consultation with Tilcia Chu, Esq., Director of the National Income Section, and Dimas Quiel, Esq. Director of Statistics and Census of the General Comptroller's Office of the Republic, we were informed that the National Income Section does not calculate in a specific way the value added to the copyright activities at disaggregation levels as it appears in the WIPO list (4 and 5 digits ISIC). Some activities appear at a 3-digit ISIC level mixed with other components. For that reason, it was requested by the technical body of the National Income Section to work in the disaggregation of activities as much as possible, resulting in the subsequent charts. Because of that, the estimations herein considered shall be taken as approximations of the values which would be obtained at the proper disaggregation levels. The technical body tried to avoid double counting in those activities susceptible to such double counting.

#### **4.4.1.4 Methodology Utilized to Estimate the Approximated Value Added**

The technical body of the National Income Section of the General Office of Statistics and Census reviewed the copyright-related economic activities for which it had information. Some of these activities were included at a 3-digit ISIC level and it was possible to separate them at a 4-digit level and in a few cases at a 5-digit level; therefore, the value added is elaborated for these activities based on the methodologies already mentioned.

The value added calculation at those levels of activities faced many limitations, as the information is usually available at highly aggregated levels (2 and 3 digits ISIC). In the future, field information will need to be obtained at a higher disaggregation level in order to obtain the required results for a greater number of economic activities. For such purposes, the Annual Business Survey shall be utilized.

The methodology used for the calculation of the copyright activities is similar to that used for the calculation of the value added of other activities in Panama. In Panama, the value added (GDP) is calculated on the basis of the methodology used by the National Income Section of the General Office of Statistics and Census. The following methodologies are used:

- a. The sum of the gross value added of all resident production units (institutional or industries), plus taxes, minus subsidies on products not included in the production estimation.
- b. The sum of the final use of goods and services (all uses, except intermediate consumption), measured at purchase prices, minus the value of the imports of goods and services.
- c. The sum of the primary incomes distributed into the resident production units. The net domestic product (NDP) is obtained by subtracting the consumption of fixed capital from the GDP.

For example, in the case of judicial activities (7411), a weighted index of quantum is elaborated from the main indicators and with this quantum the gross production value (GPV) of the base year is extrapolated; to this gross production value, the coefficient IC/GPV of the base year is applied to obtain the intermediate consumption (IC) and the value added by difference.

In the case of the value added (VA) for the copyright-based industries, the total value added results from the sum of each of the components or categories considered in this study (core, interdependent, partial, and non-dedicated support industries). In turn, the value added of each category results from the sum of the activities considered within each of them.

#### **4.4.2 Value Added Generated by the Copyright-Based Industries**

The calculation of the contribution made by the copyright-based industries to the gross domestic product (GDP) is the ratio between the VA of the copyright-based industries and the GDP of the country, both measured in thousands of US dollars at 1996 prices. The information comes from the statistical data of the Panamanian National Accounts, elaborated by the National Income Section of the General Office of Statistics and Census of the Comptroller's Office of the Republic.

As previously noted, in Panama, the value added is not calculated in a specific way for the copyright-based industries; therefore a proxy<sup>18</sup> is estimated. Based on the available information, this study has made a first attempt to estimate the contribution made by the copyright-based industries to value added in Panama.

The contribution of the copyright-based industries to the GDP for the years under consideration, 2002 and 2006, has been measured in thousands of United States dollars at 1996 prices. It is expected that the participation of these industries will increase over the next few years, as long as new industries are incorporated into the market.

In the Panamanian case, the copyright-based industries represent a significant contribution to the GDP of about 6.4% in 2006 (see Table 22). This means a positive economic contribution, because of the impact on employment and foreign trade. The core industries make the most significant contribution of the four categories suggested by WIPO, as shown in graphic 09.

**Table 22: Contribution of the Copyright-based Industries to the Gross Domestic Product in Panama, according to Category of Industry**

Category of Industries	YEARS	
	2002	2006
<b>Total</b>	<b>812,057.30</b>	<b>967,697.10</b>
Core Copyright Industries	708,049.70	823,477.90
Interdependent Copyright Industries	9,650.00	8,400.00
Partial Copyright Industries	6,595.60	7,662.70
Non-Dedicated Support Industries	87,762.00	128,156.50
GDP – PANAMA	11,691,100	15,238,600
<b>PERCENTAGE CONTRIBUTION TO THE GDP</b>	<b>6.95</b>	<b>6.35</b>

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic.

The weighting factors obtained by the research team to measure the contributions to employment made by each of the four copyright-based industry categories were applied to the estimated value added corresponding to each category. The underlying information for establishing weighting factors, as well as the weighting factors themselves, appear in detail on page 241 of this report.

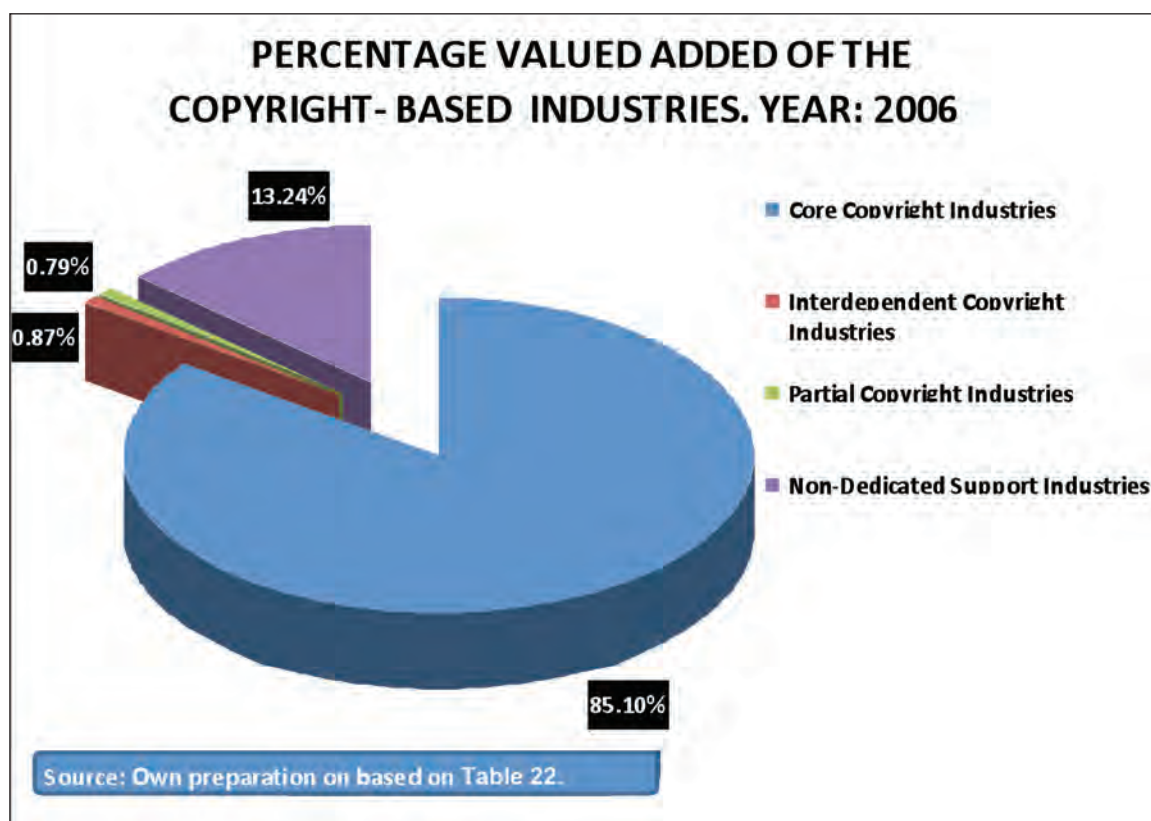
As mentioned previously, for the interdependent, partial, and non-dedicated support industries, measurements of the value added at the disaggregation level required to carry out this study did not exist. Thus, the measurements had to be elaborated from the available information at a 3-digit and 2-digit ISIC level. In this way, the disaggregation required for the main copyright activities in Panama was achieved for the three above-mentioned categories.

Some of the copyright activities in the interdependent, partial, and non-dedicated support industries could not be analyzed, because the information did not exist directly in Panama. These figures come from the estimates carried out for each activity by the team of the National Income Section of the General Office of Statistics and Census, which, as mentioned before, is in charge of elaborating the National Accounts of the country.

The core industries contributed about 85.1% of the value added generated by these industries, followed by the non-dedicated support industries, with 13.2%; the interdependent and partial industries made lower contributions. Within the core industries, some outstanding activities are worth mentioning in terms of their contributions; these can be seen in Table 23.

<sup>18</sup>Maddala, (1985), *Econometrics*. McGraw-Hill Publishing House, Mexico. According to Maddala, it frequently occurs that the variables measured are replacements of the variables which in fact are intended to be measured. It is very common to call the variables measured "proxy" variables, which are an approximation of the real variable.

**Figure 9: Percentage Valued Added of the Copyright-based Industries**



In 2006, activities of press and publishing (28.4%) were the activities with the greatest contribution to the value added, followed by activities related to software and databases (9.1%) and activities related to radio and television (8.2%), as shown in Table 23.

Other notable contributions were made by activities related to cinematographic films and videos (7.2%), visual and graphic arts (6.9%), advertising services (6.7%), and music, theater and opera productions (6.4%). The copyright collecting societies made a contribution of 7.2% in 2006.

**Table 23: Value Added of the Core Copyright Industries according to Main Activity**

Category and activity of Industries	YEARS			
	2002	%	2006	%
<b>Total</b>	<b>812,057</b>	<b>100.00</b>	<b>967,697</b>	<b>100.00</b>
<b>Core Copyright Industries</b>	<b>708,050</b>	<b>87.19</b>	<b>823,478</b>	<b>85.10</b>
1.1 Press and publications	247,782	30.51	275,293	28.45
1.2 Music, theater and opera productions	57,236	7.05	62,459	6.45
1.3 Cinematographic films and videos	58,229	7.17	69,404	7.17
1.4 Radio and television	69,817	8.60	79,683	8.23
1.5 Photography	60,000	7.39	47,950	4.96
1.6 Informatic programs and databases	57,196	7.04	87,530	9.05
1.7 Visual and graphic arts	57,391	7.07	66,990	6.92
1.8 Advertising services	46,717	5.75	64,765	6.69
1.9 Copyright collecting societies	53,683	6.61	69,404	7.17

Source: Own preparation based on data furnished by General Office of Statistics and Census, National Income Section and Panama in figures

Tables 27 and 28, which can be found in the annexes, show the details of the calculation of the contribution to the value added of the four categories. In general terms, we can assert that copyright activities as a whole significantly contribute to the gross domestic product.

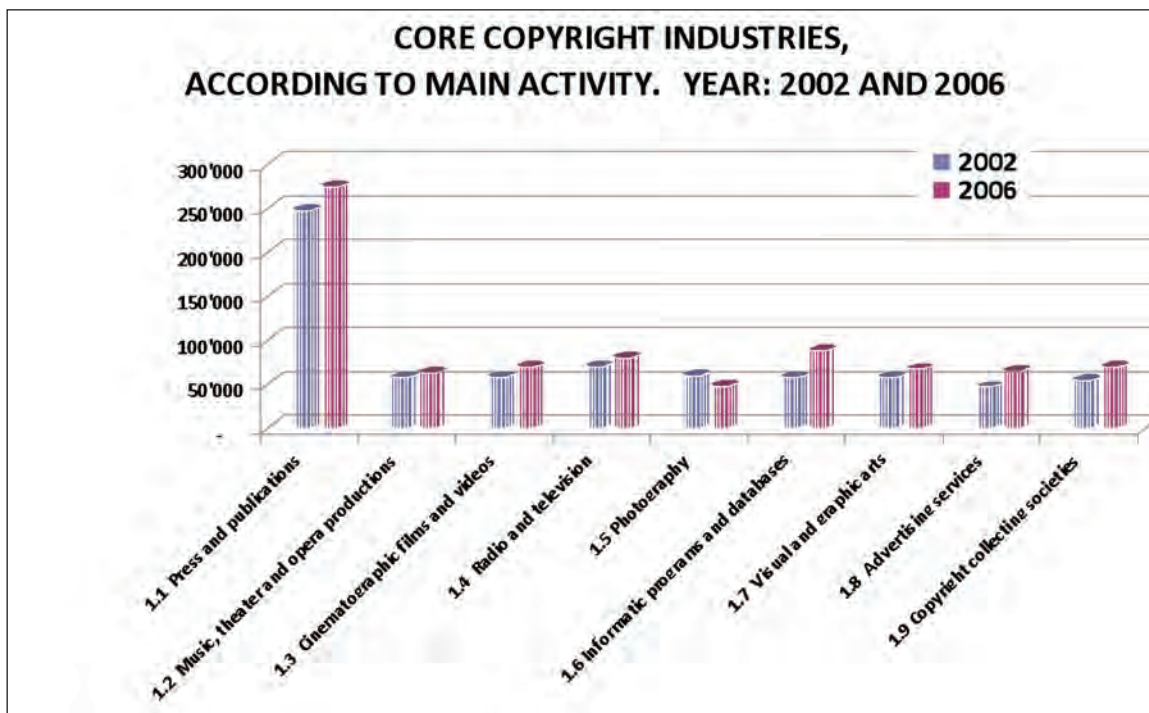
The participation of the copyright-based industries as components of the GDP for the years considered is about 6.6%, which, compared with other sectors of the economy, could be considered as important. Moreover, the comparison with the analyzed countries to elaborate the study shows that the participation of the copyright-based industries in the case of Panama is of an acceptable level.

## 4.5 Foreign Trade Generated by the Copyright-Based Industries

### 4.5.1 Methodology Used

#### 4.5.1.1 Information Sources

**Figure 10: Core Copyright Industries according to Main Activity**



To measure the foreign trade balance in Panama we mainly used information from the General Comptroller's Office of the Republic of Panama. The General Comptroller's Office of the Republic of Panama is the official institution in charge of elaborating the statistical reports available to the Panamanian society. Other information sources used were elaborated by the Ministry of Commerce and Industries of Panama. Said Ministry provided us with annual reports of the work they carry out, but not figures of the performance of imports and exports in Panama. In addition, we used information provided by the Economic Commission for Latin America and the Caribbean (ECLAC), specifically the "International Statistical Classification included in the ECLAC Foreign Trade Data Bank for Latin America and the Caribbean, Revision 1".<sup>19</sup>

Through exchanges between the General Comptroller's Office of the Republic of Panama and the School of Economics of the University of Panama, figures corresponding to the required terms to be used in this research (2002 and 2006) were obtained.

<sup>19</sup>ECLAC Statistical Workbooks: [www.eclac.cl/deype/cuadernos36/esp/index.htm](http://www.eclac.cl/deype/cuadernos36/esp/index.htm).

#### 4.5.1.2 Handling of Information

By checking the figures obtained at the General Comptroller's Office of the Republic of Panama we found that the Tariff Code used by the Office did not match the ISIC proposed by the WIPO guidelines. For this reason, we located the ECLAC documentation using the "International Statistical Classification included in the ECLAC Foreign Trade Data Bank for Latin America and the Caribbean #36".

In this document, some of the correspondence items between the ISIC and the Tariff Code are identified. However, the Tariff Code of Panama, for the most part, does not classify the items in the same way as ECLAC. In Panama, the register is made by larger sectors and, within each sector, some items are located which are considered to be included in accordance with some nomenclatures already defined. In view of the above-mentioned facts, the ECLAC statistical report was not very useful for this work.

Therefore, in order to identify the copyright-based industries in relation to foreign trade, the documents of the Tariff Code of Panama and the ISIC proposed by WIPO were used in accordance with the following procedure:

- The foreign trade statistical data were selected for years 2002 and 2006, respectively.
- The data were classified in two large items: exports and imports.
- The Tariff Code of Panama was revised chapter by chapter to locate those accounts which matched the ISIC proposed by the research.
- This classification was carried out with exports and imports.
- A tabulation by categories was made, as, in many cases, there are crossings of tariff items which had to be located in other chapters of the Tariff Code of Panama.
- Only the items which effectively matched the copyright criteria were identified.
- In the whole Tariff Code of Panama, there are no classifications of said international transactions which match the requests. We are referring to services related to travels, royalties and license rights, private services or other services.
- It is not possible to identify those classifications recognized at international level for any kind of research of this nature. We mean the classifications identified by the World Bank or the World Trade Organization and much less the classifications proposed by the International Monetary Fund.
- Once the items for the research had been identified, the research team applied weighting factors to the values for each category. The two main categories did not have weighting factors applied to them. An average of 0.23 and 0.045 was applied to the third and fourth categories, respectively.

#### 4.5.2 General Aspects of Foreign Trade in Panama

The performance of foreign trade in Panama has for a long time been connected with the performance of the service sector, which contributes about 70% to the GDP, while the other two sectors together contribute about 30%.

#### 4.5.3 Foreign Trade Generated by the Copyright-Based Industries

From the statistical data of the records selected for this research, we observe that, of the four categories into which copyright-based industries were divided, and for the selected terms, the largest category was that of the core copyright industries. The contribution of this category of industries was 37.1% of imports in 2002 and 34.5% in 2006. This sector contributed 28.6% of the exports in 2002 and 40.1% in 2006. Within the interdependent industries, the activity which generates most of the exports is paper (5,149).

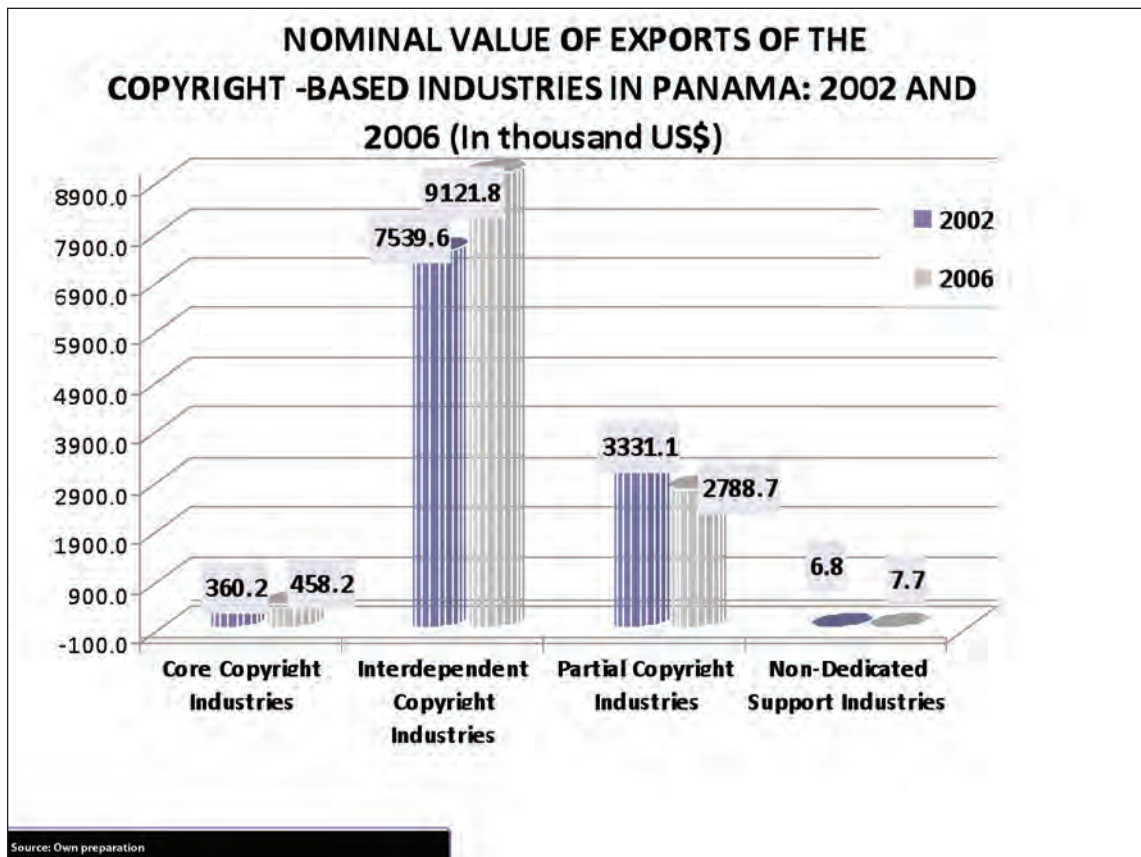
With regard to the contribution to foreign trade, exports and imports totaled US\$ 443,816,625 in 2002; in 2006 this amount was US\$ 504,167,164. We also observed that net exports (XN) in 2002 showed a negative balance of US\$ -406,982,491; in 2006 this figure amounted to US\$ -462,086,946. If we compare both terms, we observe an increase of 13.54% between 2002 and 2006 (see Table 24 and Figures 11 and 12).

**Table 24: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
<b>Total</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>425,399,558</b>	<b>483,127,055</b>
Core Copyright Industries	360,215	458,206	113,757,444	181,663,994
Interdependent Copyright Industries	7,539,607	9,121,838	173,008,924	185,055,234
Partial Copyright Industries	3,331,053	2,788,749	63,778,966	85,218,990
Non Dedicated Support Industries	6,800	7,683	15,602,744	27,797,597

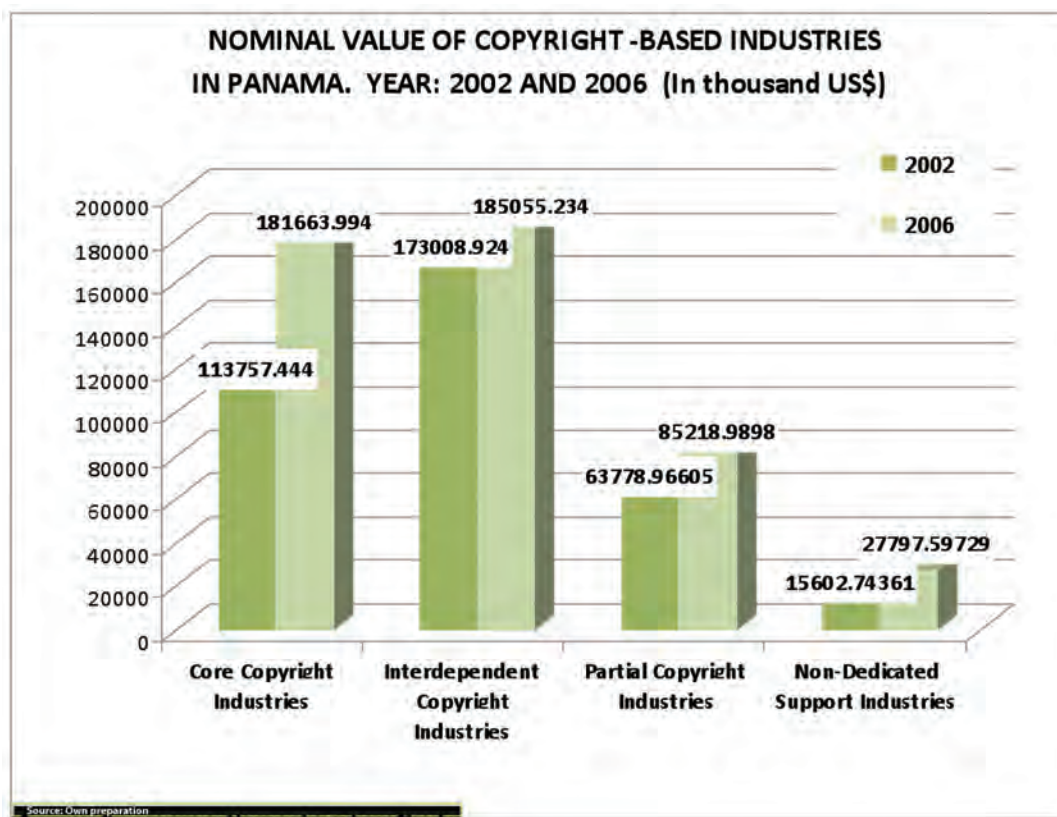
Source: Own preparation based on data provided by the General Comptroller's Office of the Republic.

**Figure 11: Nominal Value of Exports of the Copyright-based Industries in Panama**





**Figure 12: Nominal Value of Copyright Interdependent Industries Imports in Panama**



#### 4.5.3.1 Core Copyright Industries

The core copyright industries in Panama have had a slight impact on exports for many decades. Chart 16 shows that the exports of this category of industries totaled US\$ 360,215 in 2002, while imports totaled US\$ 113,757,444, an enormous difference. Within the core industries, the subcategories which had some kind of operating capacity in 2002 were press and publishing, and music, theater and opera productions. The core industries showed an increase of 27.2% between 2002 and 2006. The press and publishing subcategories increased by 39.7%, while the music, theater and opera productions subcategory decreased by 8.2%, with exports for this subcategory falling from US\$ 93,705 in 2002 to US\$ 85,998 in 2006.

In 2002, the imports of the subcategory of visual and graphic arts totaled US\$ 73,624,383, which represented 70.0% of the total imports for this category. In 2006, the participation of this subcategory amounted to US\$ 127,222,158, an increase of 72.8%.

#### 4.5.3.2 Interdependent Copyright Industries

In 2002, the exports of the interdependent copyright industries totaled US\$ 7,539,607; item 5149 (paper) was the most dynamic subcategory. These exports increased by 21.0% between 2002 and 2006. In 2002, no other subcategories or itemized activities experienced any kind of export operations. Between 2002 and 2006, the imports for this category of industries increased by US\$ 12,146,310. It is important to mention that, within this category, the subcategories of musical instruments and paper both had a good dynamic (see Table 25).

**Table 25: Nominal Value of the Contribution of the Copyright-based Industries to Foreign Trade, according to Category and Economic Activity in the Republic of Panama**

Category of Industries	EXPORTS		IMPORTS	
	2002	2006	2002	2006
<b>Total</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>425,399,558</b>	<b>483,127,055</b>
<b>1. Core Copyright Industries</b>	<b>360,215</b>	<b>458,206</b>	<b>113,757,444</b>	<b>181,663,994</b>
1.1 Press and publications	266,510	372,208	37,750,094	48,225,211
1.2 Music, theater and opera productions	93,705	85,998	2,382,967	6,216,625
1.3 Cinematographic films and videos	–	–	–	–
1.4 Radio and television	–	–	–	–
1.5 Photography	–	–	–	–
1.6 Informatic programs and databases	–	–	–	–
1.7 Visual and graphic arts	–	–	73,624,383	127,222,158
1.8 Advertising services	–	–	–	–
1.9 Copyright collecting societies	–	–	–	–
<b>2. Interdependent Copyright Industries</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>173,008,924</b>	<b>185,055,234</b>
2.1 TVs, radios, players	–	–	–	–
2.2 Computers and equipment	–	–	–	–
2.3 Musical instruments	–	–	159,201,907	166,850,939
2.4 Photographic and cinematographic	–	–	2,860	175
2.5 Blank recording material	–	–	44,040	53,702
2.6 Paper	7,539,607	9,121,838	13,760,117	18,150,418
<b>3. Partial Copyright Industries</b>	<b>3,331,053</b>	<b>2,788,749</b>	<b>63,778,966</b>	<b>85,218,990</b>
3.1 Garments, textiles and shoes	2,701,835	1,698,265	38,671,934	49,494,537
3.2 Jewelry	405,424	386,622	6,344,266	7,764,764
3.3 Other handicrafts	–	–	–	–
3.4 Furniture	–	–	1,357,671	2,070,416
3.5 Household goods, porcelain and glass items	223,793	703,863	5,048,652	7,737,663
3.6 Tapestry paper and carpets	–	–	–	–
3.7 Toys and games	–	–	13,372,515	19,539,933
3.8 Architecture, engineering and Land Surveying	–	–	5,367	89,974
3.10 Interior design	–	–	–	–
3.11 Museums	–	–	336,233	592,120
<b>4. Non-Dedicated Support Industries</b>	<b>6,800</b>	<b>7,683</b>	<b>15,602,744</b>	<b>27,797,597</b>
4.1 Wholesale and retail trade in general	–	–	–	–
4.2 Transportation in general	7,286	8,232	14,404,140	26,410,883
4.3 Telephony and Internet	–	–	2,313,085	3,372,257

Source: Own preparation based on data provided by the General Comptroller's Office of the Republic.



#### 4.5.3.3 *Partial Copyright Industries*

The largest subcategory of this group of industries was garments, textiles and shoes. In 2002, exports for this subcategory totaled US\$ 5,403,670; in 2006, this figure had increased to US\$ 3,396,530. Exports for this category as a whole fell by 37.1%. Imports had an opposite performance. In 2002, imports for this category of industries totaled US\$ 105,494,997, a figure that reached US\$ 139,125,585 in 2006 (31.9% more than in 2002). The subcategory with the greatest contribution to imports in both 2002 and 2006 was, again, garments, textiles and shoes (see Table 25.).

#### 4.5.3.4 *Non-Dedicated Support Industries*

This sector contributed to exports during 2002 and 2006 as follows: In 2002, exports in the general transportation activity totaled US\$ 6,558. In 2006, such exports totaled US\$ 7,409 (13.0% more than in 2002). In connection with imports, we can observe that in 2002 imports totaled US\$ 15,045,503; in 2006, this figure had risen to US\$ 26,804,826. It is important to highlight that, within this sector, transportation activities in general made the most significant contribution, which rose from US\$ 14,404,140 in 2002 to US\$ 26,410,883 in 2006, an increase of 83.4%, as shown in Chart 17.

### 4.6 Comparison of Results at an International Level

Many studies have been carried out worldwide to determine the contributions of the copyright-based industries to the respective country's economic activity. As these studies have used the methodology suggested by WIPO, the results of this study can easily be compared with those of other countries. Such uniformity in the methodology used is very important, as it enables comparisons to be made with other countries of the region, or others worldwide, in terms of the copyright-based industries' contribution to selected indicators, such as GDP, employment, and foreign trade. The international comparison helps in raising the awareness among public and private institutions involved in copyright on the economic importance of this sector, which was not fully appreciated until recently.

Countries such as Colombia, Mexico, Singapore, Canada, the United States, Hungary, Australia, the Philippines, Latvia, Ukraine, Croatia, the Netherlands, and Jamaica, among others, with very few variations in the application of the WIPO methodology, have finished their studies on the contribution made by the copyright-based industries to their country's economy.

The main methodological variation among countries is that not all of them assign the same weighting factor or economic importance to the activities by the industries belonging to each industry category, as it depends on the specific chain value of the industries of each country. This meant that any of the studies to be compared with this research needed to be carefully checked in order to obtain the best possible comparison.

In general terms, previous studies have reached a common conclusion: a substantial growth in the contribution of this sector to the economic activity through the years, whereby the number of persons employed within this sector has increased, with corresponding contributions in the fiscal and social security fields. The main variables included to assess the studies which were carried out are the following: value added as a measure of the contribution to the GDP; employment as a percentage contribution to the national total; and foreign trade balance as a measure of the balance between exports and imports.

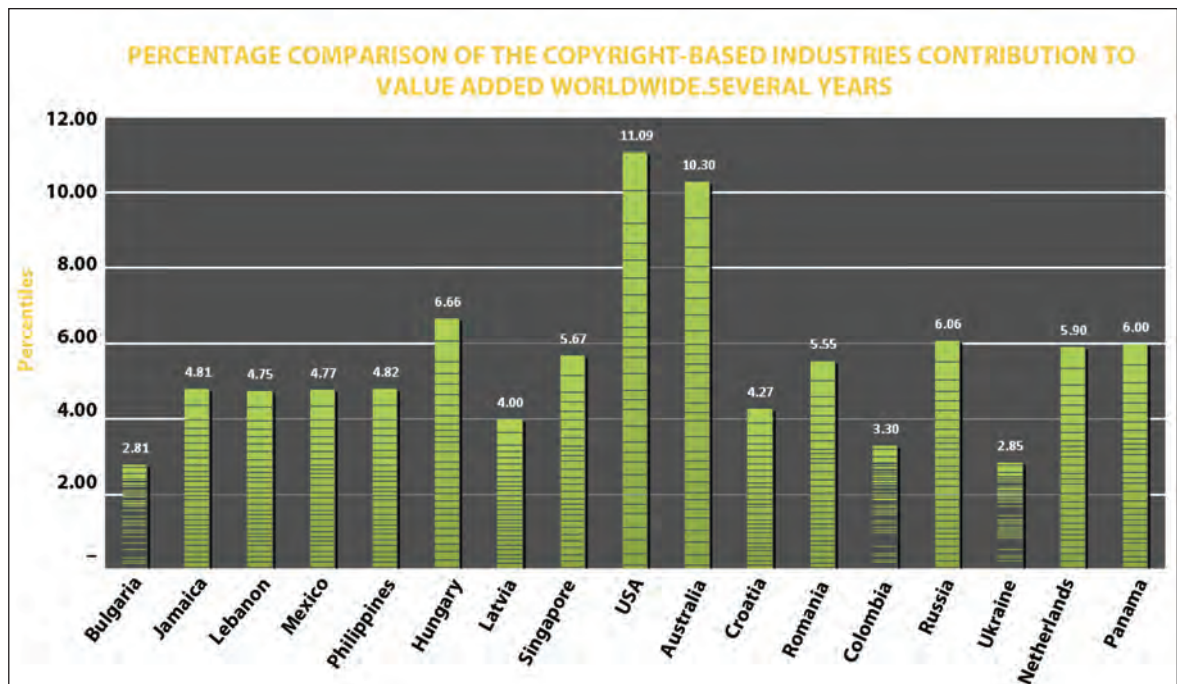
Among the main international studies mentioned above, it is important to mention the annual measurement studies of the contribution of the copyright-based industries to the gross domestic product carried out by the United States, which have allowed this country greater precision in measurement. In Panama, even though the copyright-based industries analyzed cannot be presented with as much precision as in the United States, the results found constitute an approximation which can be improved in later studies based on the experience acquired in this study.

The results show that the contribution made by the copyright-based industries to the GDP in Panama in 2006 was 6.30%. This is larger than the contribution made by copyright-based industries in other countries of the region, such as Mexico (4.80%) and Colombia (3.40%). This shows good performance in terms of the contribution to the GDP. This could be considered a positive fact, since the regulation of copyright in Panama is still growing and developing as an industry, and has not yet been granted the importance reflected in its

contribution to the GDP and to employment generation. The core copyright industries made the greatest contribution to the GDP in Panama – 86% of the total contribution made by the copyright-based industries. The same category of industries contributed 33% in Mexico and 57% in Colombia. Such differences between countries mainly occur because of the chain value of the industries of each country.

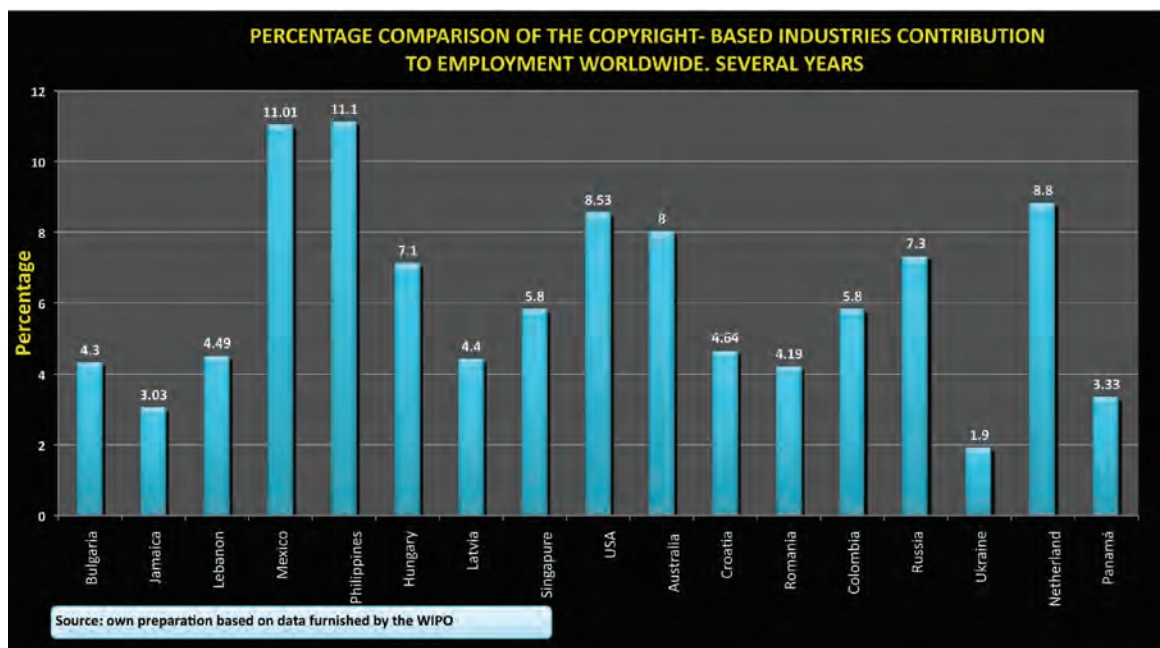
Finally, comparing the contribution to the GDP of countries worldwide which have carried out the study applying the WIPO methodology, we can observe that the contribution level to the GDP of such countries, regardless of their economic development, varies from 11.09% (the United States) to 2.80% (Bulgaria). The United States (11.09%) and Australia (10.30%) are the countries which show the greatest contribution levels. After them, we can find Hungary and Russia, with contributions of 6.60% and 6.10%, respectively. The average contribution to the GDP for all countries that have undertaken studies is 4.85%. In accordance with the method of value added used to calculate the contribution made by the copyright-based industries to the GDP in Panama, this figure was 6.29% in 2006, which places us above the regional and worldwide average. Figure 13 shows the performance of the contribution of the copyright-based industries in Panama compared with countries in the same region and other countries worldwide.

**Figure 13: Percentage Comparison of the Copyright-based Industries Contribution to Value Added Worldwide**



In terms of employment, the contribution of 3.17% by the copyright-based industries in Panama places us just above countries such as Jamaica (3.03%) and Ukraine (1.90%). However, it places us under the regional average of 6.10%. This indicates that the copyright-based industries in Panama are less intensive in terms of employment generation than those of the majority of countries studied in the same region. As mentioned previously, this could be a consequence of the fact that in Panama the participation of the copyright-based industries in the economic activity is mostly through the commerce of goods and services which are identified by a specific brand, and not by the creation of goods and services which allow significant levels of employment to be generated. The employment performance at a regional and a worldwide level can be observed in Figure 14.

**Figure 14: Percentage Comparison of the Copyright-based Industries Contribution to Employment Worldwide**



## 5. Conclusions and Recommendations for Further Studies

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- The study shows that the economic contribution of the copyright-based industries is important to the Panamanian economy in terms of value added, employment and foreign trade.
- Regarding the value added, the average contribution made by the copyright-based industries to the gross domestic product is 6.65% (6.95% in 2002 and 6.35% in 2006).
- The copyright-based industries contributed 3.17% of the employment of the economically active population in 2006. By comparing this result with the value added contribution to the GDP, we can conclude that the copyright-based industries in Panama are not intensive in their use of labor. This is mainly due to the fact that the copyright-based industries in Panama are linked more with the use of brands than with the creation of goods and services. Nevertheless, their contribution to employment generation is significant, since in 2006 copyright-based industries generated 43,166 employments.
- Within the category of core copyright industries, press and publishing is the subcategory which contributed the most to the economic growth of Panama. This subcategory contributed about 40% of the employment and the value added of this category of industries to the gross domestic product.
- The foreign trade balance of the copyright-based industries in 2006 was a negative balance of US\$ 186,205,788, due to the fact that imports were superior to exports. Nevertheless, this had a positive effect on the internal Panamanian economy, as it generated a marginal value added as a consequence of the transformation required by some imported goods.
- We can observe a constant negative trade balance in copyrighted goods, which leads us to conclude that the greatest value added of this activity will continue in the industrialized countries. This is verified by the comparative analysis of the statistical data regarding the value added of the industry, where the United States and Australia show the greatest contributions to the GDP of 11.08% and 10.30%, respectively.
- Regarding the copyright factor, after evaluating the researches carried out by Mexico, Singapore, Canada, Hungary, Latvia, and Colombia, among others, we concluded that the factors which would best apply to the research in Panama were those factors applied by Colombia, due to the similarity of the socioeconomic context and the characteristics of the copyright-based industries in the two countries.
- Panama has a legal framework and public institutions to implement the copyright laws. The Copyright Interdisciplinary Commission was created by means of Law 23 of 1996 in order to coordinate the efforts of these institutions.
- The laws created since 1994 in all the copyright fields have been rigorously applied by the competent authorities. The efforts made by the Republic of Panama to strengthen intellectual property rights have improved their image, a fact that has promoted the economic activity linked to intellectual property.
- The study reveals that it is necessary to have a better disaggregation of the activities corresponding to copyright, as the current information sources do not allow that. This means that, taking into account the way in which the available information at the General Office of Statistics and Census, currently the National Institute of Statistics and Census, is currently recorded, information must be extended to meet the particular requirements of copyright activities.
- Currently, the Business Directory does not properly disaggregate the contribution of the industry according to economic activity related to copyright, as the majority of activities are coded at 3 and 4 digits; these should be extended to 5 or even 6 digits (ISIC).
- With the objective of improving the quality of information, it is currently required that the Business Directory includes within its information the production gross value and the intermediate consumption, or, failing that, information on salaries and benefits, for the purpose of obtaining a more appropriate way of calculating the value added.

- The information contained in this directory for the purposes of calculating the employment contribution to the economy must have a greater disaggregation regarding the ranks of employment levels shown on the databases, since the greater the disaggregation, the better the approximation of the assessment.
- Based upon the above-mentioned facts, it is required that the National Institute of Statistics and Census coordinates with the National Office of Copyright of the Ministry of Education in order to include in the research instrument which supports the database of the Business Directory the necessary information to measure the contribution of the copyright-based industries to the economy in relation to value added, employment, and foreign trade indicators. Thereby, it will be possible to obtain greater precision in the calculation of the economic impact of the copyright-based industries in Panama.

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## 7. ANNEXES

**Table 26: Nominal and Percentage Value of the Contribution of the Copyright-based Industries to Total Employment, according to Category and Economic Activity in the Republic of Panama**

Year: 2002 and 2006

Industries and categories	2002			2006		
	Number of Enterprises	Employment	Percentage Participation	Number of Enterprises	Employment	Percentage Participation
<b>Total</b>	<b>3,756</b>	<b>30,627</b>	<b>100</b>	<b>5,718</b>	<b>40.99</b>	<b>100</b>
<b>1. Core Copyright Industries</b>	<b>1,563</b>	<b>15,867</b>	<b>51.81</b>	<b>2,17</b>	<b>19,714</b>	<b>48.09</b>
1.1 Press and publications:	735	7,300	46.01	840	7,841	39.77
1.2 Music, theater production and opera:	156	1,513	9.54	549	4,603	23.35
1.3 Cinematographic films and videos	26	353	2.22	34	554	2.81
1.4 Radio and television	190	2,220	13.99	172	3,063	15.54
1.5 Photography	168	1,644	10.36	161	662	3.36
1.6 Software and Databases	30	63	0.4	41	316	1.6
1.7 Visual and Graphic Arts	133	1,809	11.4	252	1,150	5.83
1.8. Advertising Services	124	910	5.73	120	1,524	7.73
1.9 Copyright collecting societies	1	56	0.35	1	3	0.02
<b>2. Interdependent Copyright Industries</b>	<b>1,481</b>	<b>9,694</b>	<b>31.65</b>	<b>2,546</b>	<b>15,584</b>	<b>38.02</b>
2.1 Television sets, radios, recorders and similar equipment	321	1,951	20.12	329	3,158	20.26
2.2 Computers and equipment	282	1,234	12.73	468	1,436	9.21
2.3 Musical Instruments	132	1,101	11.36	243	3,037	19.49
2.4 Photographic and cinematographic instruments	687	5,019	51.77	1,393	7,020	45.04
2.5 Blank recording material	11	116	1.19	24	139	0.89
2.6 Paper	48	275	2.83	89	795	5.1
<b>3. Partial Copyright Industries</b>	<b>512</b>	<b>3,825</b>	<b>12.49</b>	<b>624</b>	<b>3,960</b>	<b>9.66</b>
3.1 Garments, textiles and shoes	277	2,010	52.55	221	2,059	51.99
3.2 Jewelry and coins	76	547	14.3	133	362	9.13
3.3 Other handicrafts	3	27	0.71	5	34	0.87
3.4 Furniture	89	683	17.84	168	753	19.01
3.5 Household goods, porcelain and glass items	6	38	1	3	32	0.8
3.6 Tapestry paper and carpets	0	1	0.03	0	9	0.22
3.7 Toys and games	25	173	4.53	35	198	5.01
3.8 Architecture, Engineering and Land Surveying	35	325	8.49	54	494	12.48
3.10 Interior design	1	20	0.51	4	15	0.39
3.11 Museums	1	2	0.04	2	4	0.09



**Table 26: Nominal and percentage value of the contribution of the copyright-based industries to total employment, according to category and economic activity in the republic of Panama (continued)**

<b>4. Non-Dedicated Support Industries</b>	<b>200</b>	<b>1,241</b>	<b>4.05</b>	<b>378</b>	<b>1,732</b>	<b>4.23</b>
4.1 Whole and Retail Trade in general	125	914	73.63	300	835	48.2
4.2 Transportation in general	72	315	25.37	68	701	40.45
4.3 Telephony and Internet	2	12	1	9	197	11.35

Source: Own Preparation based on data provided by the General Comptroller's Office of the Republic, Managerial Directory

**Table 27: Nominal and Adjusted Value According to Copyright Factor of the Contribution of Copyright-based Industries to Total Employment, Value Added and Foreign Trade according to Industry Category in the Republic of Panama**

Years 2002 and 2006. In US\$

Industry Categories	Employment				Value Added				Foreign Trade							
	Real		Adjusted		Real		Adjusted		Exports				Imports			
	2002	2006	2002	2006	2002	2006	2002	2006	Real	Adjusted	Real	Adjusted	Real	Adjusted	Real	Adjusted
<b>Total</b>	<b>71,433</b>	<b>91,270</b>	<b>30,627</b>	<b>40,990</b>	<b>2,797,521</b>	<b>3,884,247</b>	<b>812,057</b>	<b>967,697</b>	<b>24,680,167</b>	<b>31,903,746</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>938,411,199</b>	<b>1,401,682,039</b>	<b>425,399,558</b>	<b>483,127,055</b>
<b>1. Core Copyright Industries</b>	<b>15,867</b>	<b>19,714</b>	<b>15,867</b>	<b>19,714</b>	<b>708,050</b>	<b>823,478</b>	<b>708,050</b>	<b>823,478</b>	<b>360,215</b>	<b>458,206</b>	<b>360,215</b>	<b>458,206</b>	<b>113,757,444</b>	<b>181,663,994</b>	<b>113,757,444</b>	<b>181,663,994</b>
1.1 Press and publications	7,300	7,841	7,300	7,841	247,782	275,293	247,782	275,293	266,510	372,208	266,510	372,208	37,750,094	48,225,211	37,750,094	48,225,211
1.2 Music, theater and opera productions	1,513	4,603	1,513	4,603	57,236	62,459	57,236	62,459	93,705	85,998	93,705	85,998	2,382,967	6,216,625	2,382,967	6,216,625
1.3 Cinematographic films and videos	353	554	353	554	58,229	69,404	58,229	69,404	-	-	-	-	-	-	-	-
1.4 Radio and television	2,220	3,063	2,220	3,063	69,817	79,683	69,817	79,683	-	-	-	-	-	-	-	-
1.5 Photography	1,644	662	1,644	662	60,000	47,950	60,000	47,950	-	-	-	-	-	-	-	-
1.6 programs and data bases	63	316	63	316	57,196	87,530	57,196	87,530	-	-	-	-	-	-	-	-
1.7 Visual and graphic arts	1,809	1,150	1,809	1,150	57,391	66,990	57,391	66,990	-	-	-	-	73,624,383	127,222,158	73,624,383	127,222,158
1.8 Advertising services	910	1,524	910	1,524	46,717	64,765	46,717	64,765	-	-	-	-	-	-	-	-
1.9 Copyright collection societies.	56	3	56	3	53,683	69,404	53,683	69,404	-	-	-	-	-	-	-	-
<b>2. Interdependent Copyright Industries</b>	<b>9,694</b>	<b>15,445</b>	<b>9,694</b>	<b>15,584</b>	<b>9,650</b>	<b>8,400</b>	<b>9,650</b>	<b>8,400</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>7,539,607</b>	<b>9,121,838</b>	<b>173,008,924</b>	<b>185,055,234</b>	<b>173,008,924</b>	<b>185,055,234</b>
2.1 TVs, radios, players	1,951	3,158	1,951	3,158	-	-	-	-	-	-	-	-	-	-	-	-
2.2 Computers and equipment	1,234	1,436	1,234	1,436	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Musical instruments	1,101	3,037	1,101	3,037	-	-	-	-	-	-	-	-	159,201,907	166,850,939	159,201,907	166,850,939
2.4 Photographic and cinematographic	5,019	7,020	5,019	7,020	-	-	-	-	-	-	-	-	2,860	175	2,860	175
2.6 Blank recording material	116	139	116	139	-	-	-	-	-	-	-	-	44,040	53,702	44,040	53,702
2.6 Paper	275	795	275	795	9,650	8,400	9,650	8,400	7,539,607	9,121,838	7,539,607	9,121,838	13,760,117	18,150,418	13,760,117	18,150,418

**Table 28: Nominal and Adjusted Value according to Copyright Factor of the Copyright-based Industries Contribution to Total Employment, Value Added and Foreign Trade, according to Industry Category in Panama**

Year: 2002 and 2006.

Industry categories	Employment						Value Added						Foreign Trade					
	Real		Adjusted		Real		Adjusted		Real		Adjusted		Exports		Imports			
	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006	2002	2006		
<b>Total</b>	<b>71,433</b>	<b>91,270</b>	<b>30,627</b>	<b>40,990</b>	<b>2,797,521</b>	<b>3,884,247</b>	<b>812,057</b>	<b>967,697</b>	<b>24,680,167</b>	<b>31,903,746</b>	<b>18,417,067</b>	<b>21,040,109</b>	<b>938,411,199</b>	<b>1,401,682,039</b>	<b>425,399,558</b>	<b>483,127,055</b>		
<b>3. Partial Copyright Industries</b>	<b>16,480</b>	<b>17,287</b>	<b>3,825</b>	<b>3,960</b>	<b>64,121</b>	<b>73,369</b>	<b>6,596</b>	<b>7,663</b>	<b>16,634,621</b>	<b>22,159,058</b>	<b>3,331,053</b>	<b>2,788,749</b>	<b>317,718,325</b>	<b>439,300,012</b>	<b>63,778,966</b>	<b>85,218,990</b>		
3.1 Clothes, textiles and footwear	8,041	8,237	2,010	2,059	-	-	-	-	10,807,340	6,793,059	2,701,835	1,698,265	154,687,734	197,978,146	38,671,934	49,494,537		
3.2 Jewelry and coins	1,824	1,206	547	362	-	-	-	-	1,351,414	1,288,739	405,424	386,622	21,147,552	25,882,546	6,344,266	7,764,764		
3.3 Other crafts	675	860	27	34	-	-	-	-	-	-	-	-	-	-	-	-		
3.4 Furniture	3,413	3,765	683	753	-	-	-	-	-	-	-	-	6,788,353	10,352,082	1,357,671	2,070,416		
3.5 Household goods, porcelain and glass articles	766	634	38	32	3,850	3,800	193	190	-	-	22,379	703,863	100,973,043	154,753,252	5,048,652	7,737,663		
3.6 Wallpapers and carpets	51	435	1	9	-	-	-	-	-	-	-	-	-	-	-	-		
3.7 Toys and games	434	496	173	198	-	-	-	-	-	-	-	-	33,431,287	48,849,833	13,372,515	19,539,933		
3.8 Architecture, engineering and surveying	1,083	1,648	325	494	1,880	2,579	-	-	-	-	-	-	17,890	299,914	5,367	89,974		
3.10 Interior design	196	154	20	15	58,391	66,990	5,839	6,699	-	-	-	-	-	-	-	-		
3.11 Museums	-	8	2	4	-	-	-	-	-	-	-	-	672,466	1,184,239	336,233	592,120		
<b>4. Non-Dedicated Support Industries</b>	<b>29,392</b>	<b>38,825</b>	<b>1,241</b>	<b>1,732</b>	<b>2,015,700</b>	<b>2,979,000</b>	<b>877,62</b>	<b>1,281,57</b>	<b>145,724</b>	<b>164,644</b>	<b>6800</b>	<b>7683</b>	<b>334,344,506</b>	<b>595,662,799</b>	<b>15,602,744</b>	<b>27,797,597</b>		
4.1 Wholesale and retail trade in general	22,847	20,877	914	835	868,200	983,900	30,387	34,437	-	-	-	-	-	-	-	-		
4.2 Transportation in general	6,298	14,015	315	701	607,350	1,126,600	30,368	56,330	145,724	164,644	7286	8232	288,082,799	528,217,651	14,404,140	26,410,883		
4.3 Telephony and Internet	248	3,934	12	197	540,150	868,500	27,008	37,390	-	-	-	-	46,261,707	67,445,148	2,313,085	3,372,257		

(-) Non-available information

Source: Own preparation based on data furnished by the General Comptroller's Office of the Republic.

## SURVEY QUESTIONNAIRE TO COPYRIGHT ENTERPRISES

### *PART A: CHARACTERISTICS OF THE COMPANY*

Year of incorporation: \_\_\_\_\_

Number of years on copyright activities: \_\_\_\_\_

Main business activity: \_\_\_\_\_

Ownership (please, mark only one):

Totally local  Mostly local

Totally foreign  Mostly foreign

Name of the person to be contacted: \_\_\_\_\_ Telephone number: \_\_\_\_\_

#### *A. 1. Amount/Sales of the year (please circle one of the options) in accordance with the AMPYME classification:*

Up to B/.150,000 \_\_\_\_\_

From B/.150,001 to B/.1,000,000 \_\_\_\_\_

From B/.1,000,001 to B/.2,500,000 \_\_\_\_\_

More than B/.2,500,000 \_\_\_\_\_

#### *A. 2. Labor work (including Management)*

Number of full-time employees: \_\_\_\_\_ persons

Number of part-time employees: \_\_\_\_\_ persons

**PART B: ASSESSMENT OF COPYRIGHT ACTIVITIES OF THE COMPANY**

**B 1. How important is copyright in the daily operations of your company? (Please circle one of the options.)**

very significant  significant  hardly significant  insignificant

**B 2. Does your company pay or receive in any way payments for using intellectual property as royalties, patents or other payments of licences in the functioning of its business?**

Yes  No (go to question B5)

**B 3. On average, what percentage of the total annual expenses does your company assign to the payment of royalties, patents or other licence payments?**

\_\_\_\_\_

**B 4. In your opinion, what percentage of the amount generated by your company is attributable to copyright or creative activities?**

\_\_\_\_\_

**B 5. What percentage of the labor force in your company is related to creative activities? Creative activities include the creation of products/services and development. For example "a craft jeweler drawing the designs of jewels".**

Number of full-time employees: \_\_\_\_\_ persons

Number of part-time employees: \_\_\_\_\_ persons