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## Conference Paper The growth of creative industries in Korean cities

50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden

#### **Provided in Cooperation with:**

European Regional Science Association (ERSA)

*Suggested Citation:* Kim, Ho Yeon (2010) : The growth of creative industries in Korean cities, 50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at: https://hdl.handle.net/10419/119243

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# The growth of creative industries in Korean cities

A preliminary draft

June 2010

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To be presented at the 13th Uddevalla Symposium, Jonkoping, Sweden, August 19-23, 2010

### Introduction

Recently, the so-called creative industry is gaining attention as a new engine of regional economic growth. Using this new industrial classification, many countries are starting to promote the creative activities with the purpose of seeking out new directions in regional development. New windows of opportunities can also be found by promoting the traditional sectors to the creative industry. This concept is useful not only for large metropolitan areas but also for smaller local cities.

Since capital and human resources are rather limited in these local cities, applying the said concept can exert newfound energy for urban development. In order to reap the full benefit, however, it is needed to tear down the barriers between them, and combine the existing industries, facilities, and support organizations in a more systematic way.

In this report, we explore these aspects by using Korean census data as a case study. We recount the industrial classification of existing census data according to the definition of the creative industry by the UK, adding the hotel industry for tourism. Based on this definition, we can clarify the trends of creative industry at the country level and city level of Korea since 1999. It would reveal the true potential of the creative industry as a long-term facilitator of the regional economy.

#### Data

All data are drawn from the official statistics maintained by *Statistics Korea* through annual surveys on manufacturing and service industries. Various forms of difficulties were encountered in the process of gathering and cleaning the data. Up to 2007, number of manufacturing firms with five or more workers were reported. Starting 2008, however, only the establishments with 10 or more employees are included. On the other hand, service data are comprehensive and represent all firms and individuals. The classification scheme periodically undergoes a major reshuffle to reflect transition to information society, and it seems very difficult to match corresponding sectors exactly. Eventually, survey results on manufacturing and service sectors for 1999-2006 are analyzed and presented in this report.

Table 1 shows the subsectors considered creative. It should be emphasized that the figures are estimates at best. Due to classification scheme, some categories may not adequately capture the genuine creative industry. For example, the apparel sector contains mass-produced clothes as well as designer fashion clothing. At the same time, the data may

underestimate the true size of the creative sector because only firms with five or more employees are included in the national statistics.

Category	Subsectors	
Creative manufacturing industry	Sewn Wearing Apparel & Fur Articles	
	Tanning & Dressing of Leather	
	Publishing, Printing & Reproduction	
Creative service industry	Software Consultancy and Supply	
	Architectural, Engineering Services	
	Advertising	
	Specialized Design Services	
	Motion Picture Industries	
	Broadcasting	
	Performing Arts Industries	
	Library, Archives, Museums and Other Cultural Activities	
	Accommodation	

Table 1. Composition of creative industry in Korea

## Major cities<sup>1)</sup>

Table 2 shows population and regional products for the seven major cities, locations of which are indicated in Figure 1. Brief descriptions for each city are provided below.

City	Population	Gross regional product	Per capita GRP
	(thousand)	(billion won)	(won)
Seoul	10,032	245,582	24,479,864
Busan	3,498	56,384	16,118,925
Daegu	2,457	33,381	13,586,081
Incheon	2,629	48,028	18,268,543
Daejeon	1,496	23,652	15,810,160
Gwangju	1,447	22,458	15,520,387
Ulsan	1,085	52,744	48,611,982

Table 2. Vital statistics for major cities in Korea (2008)

Source: Statistics Korea

<sup>&</sup>lt;sup>1)</sup> This section is based on the Wikipedia contents on Korean cities at following URL:

http://en.wikipedia.org/wiki/List\_of\_cities\_in\_South\_Korea.



Figure 1. Location of major Korean cities

Source: http://commons.wikimedia.org/wiki/File:General\_map\_of\_South\_Korea.png

#### Seoul

Seoul is the capital and largest city of Korea. With a population of over 10 million, it is one of the world's largest cities. The Seoul National Capital Area, which includes the Incheon metropolis and most of Gyeonggi province, has 24.5 million inhabitants, and is the world's second largest metropolitan area. Almost half of South Korea's population live in the Seoul National Capital Area, and nearly a quarter in Seoul itself, making it the country's foremost economic, political, and cultural center.

Seoul's influence in business, international trade, politics, technology, education and entertainment all contribute to its role as a prominent global city. Seoul is the iconic city of the Miracle on the Han River and hosted landmark international events such as the 1988 Summer Olympics and the 2002 FIFA World Cup and will be the host city of the November 2010 G-20 Summit. It is one of the world's top ten financial and commercial centers, home to some of the world's largest conglomerates such as Samsung, LG and Hyundai-Kia. Although it accounts for only 0.6 percent of South Korea's land area, Seoul generates 21 percent of the country's entire GDP. As a major business and financial center, Seoul ranks sixth in the world in the number of transnational companies headquartered there.

#### Busan

Busan is Korea's second largest metropolis after Seoul, with a population of around 3.5 million. It is the largest port city in South Korea. The city is located on the Southeasternmost tip of the Korean Peninsula and faces the Korea Strait. Busan was the host city of the 2002 Asian Games and APEC 2005. Busan is home to the world's largest department store, and is pursuing a large number of multi-skyscraper projects, including the 110-floor, 510m-supertall Lotte Super Tower, which is slated to become the world's third tallest building in 2013.

Busan is the fifth busiest seaport in the world, with transportation and shipping among the most high profile aspects of the local economy. The Busan-Jinhae Free Economic Zone Authority, one of two such administrations (the other in the harbor of Incheon), was created to reassert Busan's status as a traditional international trading center. The port attracts ships from all over the globe and the surrounding area aspires to become a regional financial center.

### Incheon

Incheon is Korea's third largest metropolis. As the largest seaport on the west coast and home to the country's largest airport, Incheon is South Korea's most important transport hub. In the 21st century, Incheon has transformed into a global business hub centered around the high-tech and futuristic Songdo International City, which is home to South Korea's tallest building, the 305m supertall Northeast Asia Trade Tower. Incheon is regarded as part of the greater Seoul metropolitan area due to part of it bordering the capital, and the fact that the Seoul Metropolitan Subway and the Incheon Subway systems are linked. Incheon is, however, a major city in its own right and is a separate jurisdiction from Seoul.

In modern times Incheon became important because its location on an estuary made it a good harbor; when the port was founded in 1883, the city had a population of only 4,700. Incheon is now home to over 2.5 million people and under the control of one of the two free economic zone authorities in Korea, aimed at attracting foreign investment.

The Incheon Free Economic Zone consists of the three regions of Songdo, Cheongna, and the island of Yeongjong, and has a total area of 51,739 acres. The goal of IFEZ is to transform these three areas into hubs for logistics, international business, leisure, and tourism for the Northeast Asian region. The term 'Free Economic Zone' applies to the development in these three areas with the aim of improving the business environment for foreign-invested enterprises and the living conditions for foreigners. Incheon's Free Economic Zone, the first in Korea, was officially designated by the Korean government in August 2003. IFEZ is planned to be a self-contained living and business district featuring air and sea transportation, a logistics complex, an international business center, financial services, residences, schools and hospitals, and shopping and entertainment centers.

#### Daegu

As the fourth largest city in Korea, Daegu is the city of the manufacturing industry. The major industries are textiles, metals and machinery. Numerous factories are located in the industrial complexes. The city is the economic and industrial core of the Daegu-Gyeongbuk region. It accounted for as many as 94 percent of Korea's trade surplus in 2006. The electronics industries in Gumi and the steel industries in Pohang rendered great services to that surplus. The world's remarkable manufacturing factories like Samsung and POSCO's main factories are located near the city. The city and its neighboring cities were designated

for the Daegu-Gyeongbuk Free Economic Zone by the central government in 2008. It is specialized in knowledge-based service and manufacturing industries.

Beginning in the late 1990s, the city is actively making efforts to promote fashion industry based on its textile and clothing manufacturing industries under the 'Daegu: Fashion City'. The city opens many exhibitions related to the fashion and textile industries including the Daegu Fashion Fair and Preview in Daegu annually or semiannually, and invites national institutes. A large new town specialized in the textile-fashion industries is under construction in northeastern Daegu. The district, officially named Esiapolis, takes aim at the fashion hub of East Asia. Textile complexes, textile-fashion institutions, an international school, fashion malls as well as residential areas plan to be developed in the district.

#### Daejeon

Daejeon is located in the center of Korea at the crossroads of major Expressways. It is the fifth largest city in the country. Within the city limits lies Daedeok Science Town, an area with more than 200 research institutions. The new central business district is where the effort has manifested itself. Newer apartment complexes, albeit structurally similar to that of the rest of the city, sprung up around the new government structures being constructed concurrently in just a few short years starting from the mid-1990s. The result is a several square mile neighborhood full of restaurants, standard Korean western-type bars and coffee shops. The area is a place for the workers of the new Daejeon to live close to their offices, most able to walk to work, and dine and shop in a new urban environment.

Being known as the Silicon Valley of Korea, Daejeon is home of various private and public research institutes, centers and science parks. The Korea Advanced Institute of Science and Technology is an institution of higher education focused on research in science and technology, and was ranked as the best Asian science and technology school by Asiaweek in 2000. Daejeon features a technology cluster known as Daedeok Innopolis defined by the national Universities and surrounded by government research institutes, government-invested corporate research institutes, corporate research centers and venture companies. The mutual stimulation and cooperation between these communities produce remarkable innovation and commercialization of available technologies.

Daedeok Innopolis derives its power from its ability to effectively innovate, an organic and fluid ecosystem for creativity. The research institutes and universities in Daedeok

Valley have spun off multiple start-ups and continue to do so at a remarkable pace. Korea has invested heavily in building up both the research expertise for over thirty years, creating long-term research programs of scale and depth. The engine driving Daedeok is the organic circulation of ideas about technology and business between policy makers, researchers and businessmen working in the fields of telecommunications, nanofabrication, biotechnology, nuclear and hydro power, nuclear fusion, design, mechanical engineering, fuel cells, aeronautics, new materials, robotics, new drugs and environmental technologies.

#### Gwangju

Gwangju is the sixth largest city in South Korea. It is a designated metropolitan city under the direct control of the central government's Home Minister. The city was also the capital of South Jeolla Province until the provincial office moved to the southern village of Namak in Muan County in 2005. Areas of exquisite scenery along the outskirts of the city gave birth to a form of Korean classical poetry. Located in the heart of the agricultural Jeolla region, the city is also famous for its rich and diverse cuisine.

#### Ulsan

Ulsan is Korea's seventh largest metropolis with a population of over 1.1 million. It is located in the southeast of the country, neighboring Busan to the south. Ulsan is the industrial powerhouse of South Korea, forming the heart of the Ulsan Industrial District, which is home to the world's largest automobile assembly plant operated by Hyundai Motor, the world's largest shipyard operated by Hyundai Heavy Industries and the world's largest oil refinery owned by SK Energy. In 2008, Ulsan had a GDP per capita of \$63,817, the highest by far in South Korea. It would have been the world's third wealthiest economy if ranked, being richer than Norway, Singapore, United States, Hong Kong and Switzerland.

As the center of the Ulsan Industrial District, the city is the corporate base of the multinational Hyundai conglomerate. Up to 1962, Ulsan operated as a fishing port and market center. As part of Korea's first five-year economic plan, Ulsan became an open port. Additionally, major industrial plants and factories were developed, including in particular an oil refinery, fertilizer plants, automobile production and heavy industries.

#### **Major Findings**

In this section, major findings gleaned from the data are provided. As mentioned earlier, small firms with less than five workers are not included in our data. As such, it is not very sensible to add manufacturing and service workers to grasp the scale of the creative industry, and their trends are reported under separate heading. Detailed information on the growth of each subsector can be found from the tables in the Appendix.

#### Creative manufacturing

The country as a whole witnessed an increase in the number of creative manufacturers, while workforce dwindled compared to 1999. As of 2006, there were 16,555 firms employing 242,080 people. In 1999, the numbers were 14,938 and 280,979, respectively. The value of shipment and value added increased by about 40% in the same period. It implies that these industries are evolving from labor-intensive manufacturing to knowledge-intensive and agile enterprises. This is especially true for apparel industry. On the other hand, publishing industry grew by almost 30%, while leather industry has been rapidly shrinking. Figures 2 and 3 show that both number of firms and employees peaked in 2002 and plateaued after 2004.

As the nation's capital, Seoul is also the creative capital of Korea, leading the pack in ushering in the era of creativity. In 2006, Seoul had 58% of the country's workers in creative manufacturing. Its growth in creative industries resembles that of the country as a whole, but it retains the number of workers employed. Figures 4 and 5 indicate the local industry's transition to more labor-saving structure. Busan, on the other hand, suffered greatly except for publishing business. As shown in Figures 6 and 7, the number of workers became only half while a quarter of establishments closed down.

Daegu is traditionally strong in textile and leather. Although apparel industry fared relatively well there, all but 20 leather firms went out of business. In Incheon, major restructuring took place in which existing firms greatly reduced workforce in apparel and leather. As in other cities, publishing business is booming. Gwangju, Daejeon and Ulsan have only small number of creative firms but they nonetheless show a growing trend for publishing industry. A close look at the recent changes taking place in the seven cities indicate that publishing industry is clearly the winner and leather business is losing its glory.

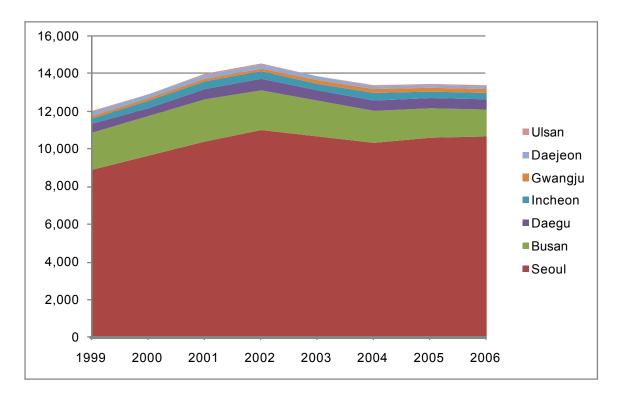


Figure 2. Growth of creative manufacturing firms by city

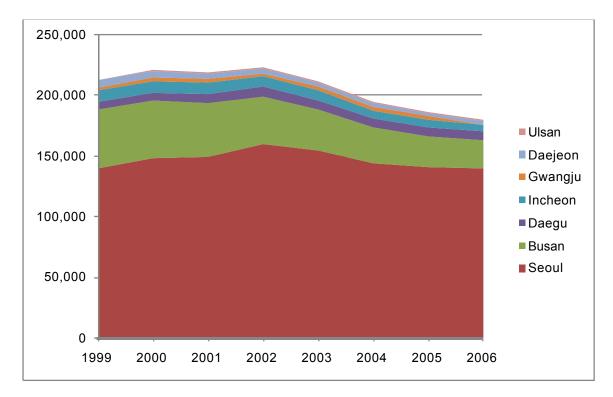


Figure 3. Growth of creative manufacturing workers by city

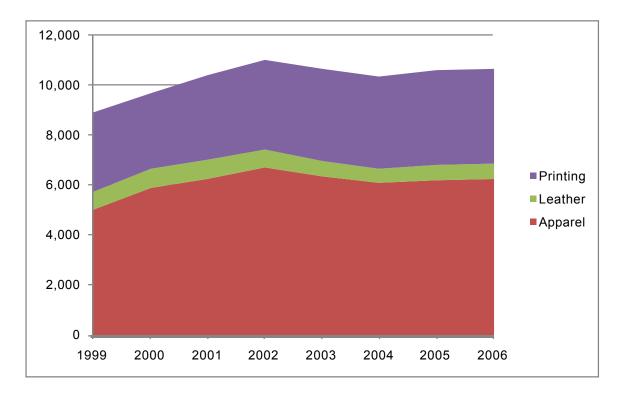


Figure 4. Growth of creative manufacturing firms in Seoul by subsector

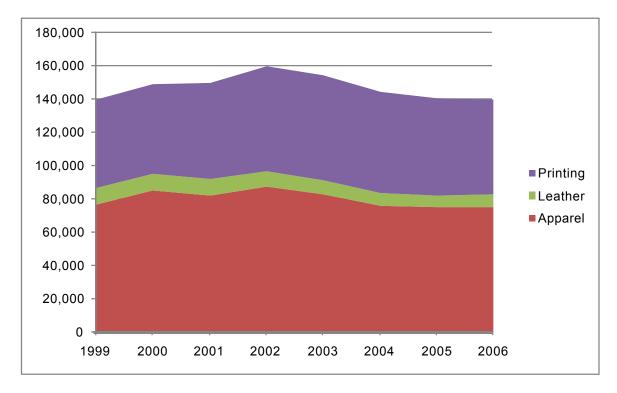


Figure 5. Growth of creative manufacturing workers in Seoul by subsector

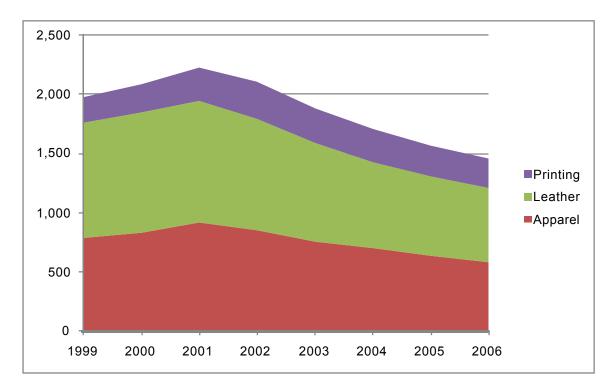


Figure 6. Growth of creative manufacturing firms in Busan by subsector

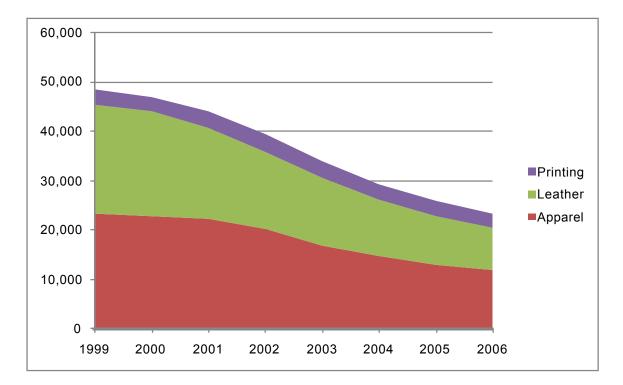


Figure 7. Growth of creative manufacturing workers in Busan by subsector

#### Creative services

Korea as a whole saw a striking growth in creative service activities. The change was led by software industry. It suffered a temporary setback when IT bubble bursted in 2001, but it soon recovered. Architecture, advertising and performing arts also did very well. Figures 8 and 9 together show that, unlike creative manufacturing, average service firm size is growing larger.

Seoul has had healthy growth in all branches of creative service, the engine of growth being the software sector, as shown in Figures 10 and 11. The number of firms doubled and the number of workers increased by whopping 160%. Busan also exhibits a similar picture (Figures 12 and 13), except that overall recovery is slower than in Seoul and that hotel industry there is dwindling.

In Daegu, design, films and hotel businesses are shrinking while software, performing arts and library & museums are growing bigger. Results are rather mixed in other smaller cities. Some sectors are doing well at the expense of others, but the sample size is not big enough for us to draw a meaningful conclusion. Nonetheless, one can safely say that, compared to manufacturing, creative service industry in general has shown better performance and it is poised for robust growth in the future.

#### Conclusion

In this report, we attempted to identify the recent trend in selected Korean cities for industries based on individual creativity and talent. They seem to play a very important role in economic growth of the cities by acting as both high value-adding producers and active employers for skilled workforce. Seoul is clearly leading the rest of the country in the process. More resources and government support are needed to ensure further growth of the creative industries, given their vulnerability in times of economic recessions. In order to draw meaningful policy implications, a more detailed analysis should follow to precisely assess the role and contribution made by each sector in terms of output, employment and value-added.

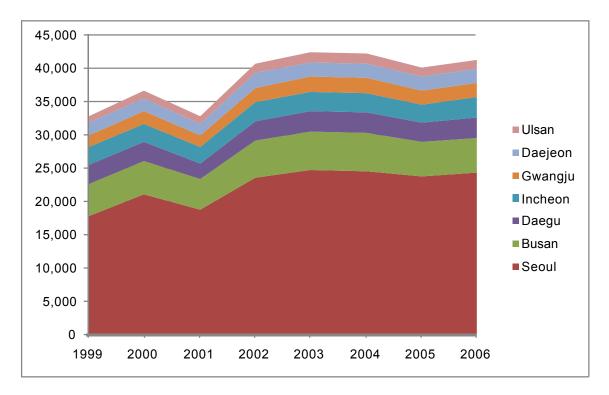


Figure 8. Growth of creative service firms by city

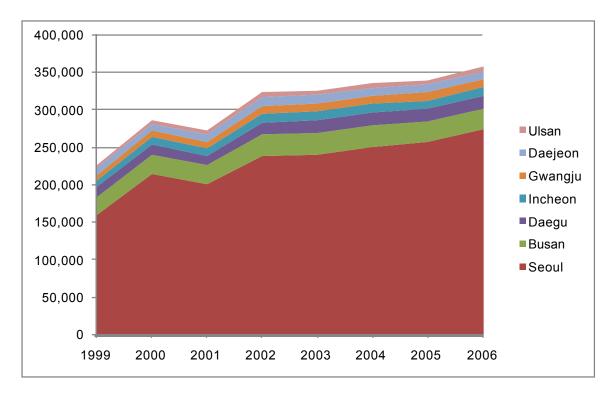


Figure 9. Growth of creative service workers by city

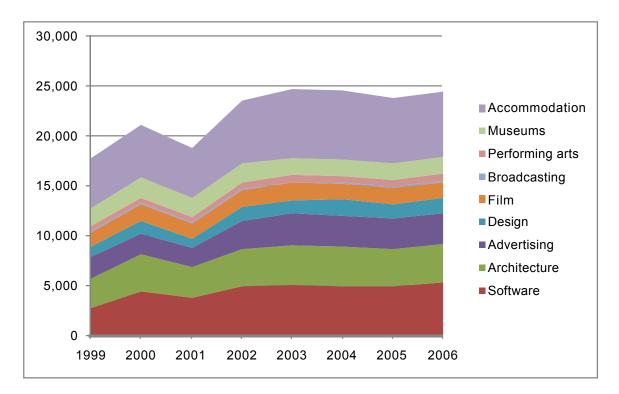


Figure 10. Growth of creative service firms in Seoul by subsector

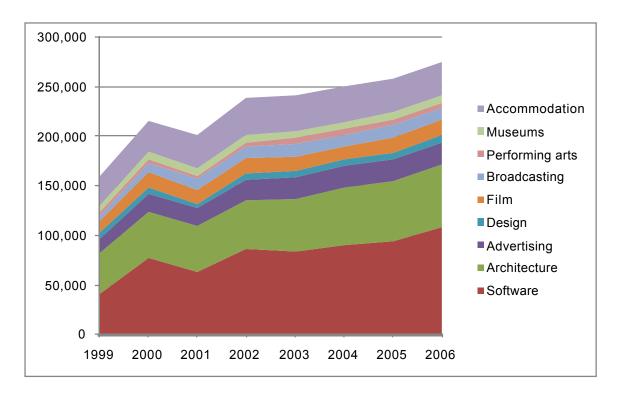


Figure 11. Growth of creative service workers in Seoul by subsector

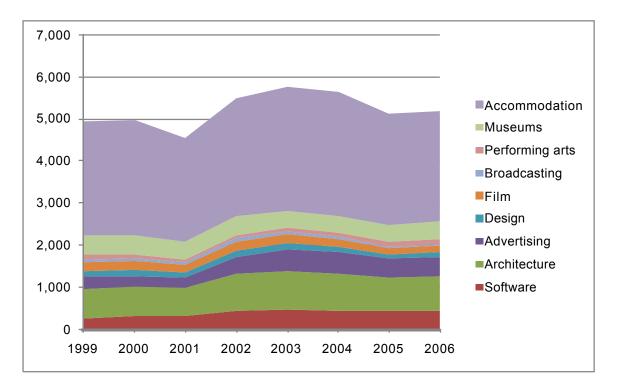


Figure 12. Growth of creative service firms in Busan by subsector

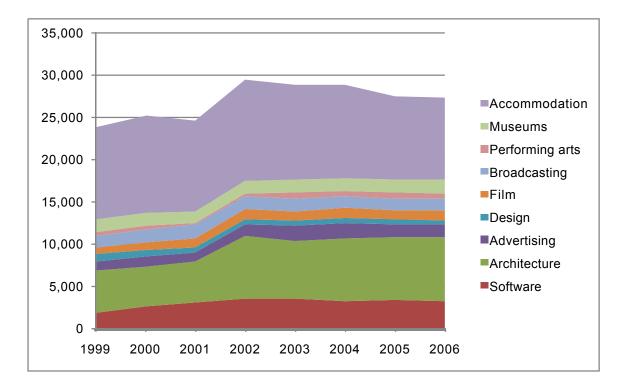


Figure 13. Growth of creative service workers in Busan by subsector