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# 2019

| BASED ON 2018 DATA |

## KOREA DESIGN STATISTICAL DATA





## **For the user**

- The baseline for this survey is January 1, 2018 to December 31, 2018.
- Sampling frame is a sample survey of the companies that fall under the design industry classification of the 2017 National Survey.
- The industrial scale presented in this study is a result of parameter estimation.
- All figures in the statistics table are rounded up, so the sum of the details and the sum may not match.
- The sum of percentages of duplicate response items in the statistics table included in the report exceeds 100.0%.
- The sign used in the statistics table is as follows: [0], [0.0]: less than unit
- If the contents of this report are to be reprinted or reversed, it should be written as "reprinted or reversed" on page ○ 2019 Industrial Design Report.

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## 01 Outline of Survey

1. Survey Design
2. Concept and Keyword
3. Characteristics of Respondents





# 01 Survey Design

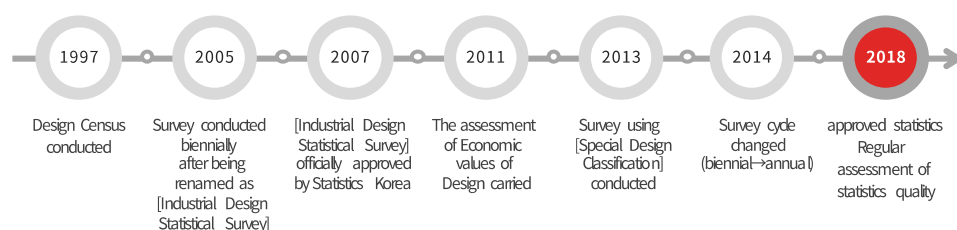
## 1) Purpose of Survey

- The purpose of this survey is to build objective and reliable data that can serve as a basis for evaluation of the current status of the design industry, thereby responding to the demands of the users of the statistics, and to use the data as basic reference materials in the development of design policies and strategies by government, industries and academic circles.

## 2) Basis of Survey

- Clause 3, Article 20, Enforcement Decree of the Industrial Design Promotion Act (Compilation and management of industrial design statistics)
- Official statistics according to Article 18 of the Statistics Act (No. 115026)

## 3) History of Survey



## 4) Period of Survey

- Survey reference period : 2018. 01. 01 ~ 2018. 12. 31
- Fieldwork period : 2019. 09. 04 ~ 2019. 11. 22

## 5) Range and Subject of Survey

Classification	Contents	
Survey Subjects of Actual Conditions	<ul style="list-style-type: none"> <li>■ Utilization or non-utilization of design by companies in general</li> <li>■ Companies that utilize design</li> <li>■ Specialized design companies</li> </ul>	<ul style="list-style-type: none"> <li>■ Central governments (18 ministries, 4 agencies, and 17 offices)</li> <li>■ Local governments (cities/autonomous districts)</li> </ul>
Subjects of Literature Survey	<ul style="list-style-type: none"> <li>■ Status of Freelancers</li> <li>■ Estimation of Economic value of Design Value-added rate by Special Design Classification</li> </ul>	<ul style="list-style-type: none"> <li>■ Status of Design-related Educational Institutions</li> </ul>

## 6) Population and Sample Size

Classification	Population Size	Sample Size	Sampling Fraction(%)
Survey of Utilization of design by companies in general	370,870	10,620	2.9
Survey of Actual conditions	133,216	1,045	0.8
Specialized design companies	5,570	610	10.9
Central and Local governments	282	270	95.7
Total	376,722	11,500	3.1

## 7) Survey Items

Classification	Items	
<b>Utilization/ non-utilization of design by companies</b>	<ul style="list-style-type: none"> <li>Whether designers have been employed as of December 2018</li> <li>Whether a request order for design development has been made to a specialized design company within the recent two years</li> </ul>	
<b>Survey of actual conditions of companies that utilize design</b>	<ul style="list-style-type: none"> <li>General status of company</li> <li>Investment performance of design</li> <li>Status of design and level of contribution</li> <li>Government policies and support</li> </ul>	<ul style="list-style-type: none"> <li>Status of design utilization</li> <li>Level of design utilization</li> <li>Status of design manpower</li> <li>Status of design education</li> </ul>
<b>Survey of actual conditions of specialized design companies</b>	<ul style="list-style-type: none"> <li>General status of company</li> <li>Business performance of design</li> <li>Status of design education</li> </ul>	<ul style="list-style-type: none"> <li>Focusing area of design and Status of design staff</li> <li>International exchanges of design</li> <li>Government policies and support</li> </ul>
<b>Survey of actual conditions of central government agencies and local governments</b>	<ul style="list-style-type: none"> <li>Status of design utilization</li> <li>Design education</li> </ul>	<ul style="list-style-type: none"> <li>Status of request orders for design project</li> </ul>

## 8) Survey Outline of Actual Conditions

Classification	Companies Utilizing Design	Specialized Design Companies	Central and Local Governments
<b>Sampling Method</b>	<ul style="list-style-type: none"> <li>Two-phase Sampling</li> <li>[1st Phase] Survey of utilization/ non-utilization of design - Stratified sampling/ square root transformation proportional distribution</li> <li>[2nd Phase] Survey of actual conditions of companies that utilize design - Stratified sampling/ square root transformation proportional distribution</li> </ul>	<ul style="list-style-type: none"> <li>Stratified sampling</li> <li>square root transformation proportional distribution</li> </ul>	<ul style="list-style-type: none"> <li>Complete enumeration survey</li> </ul>
<b>Target Sample Size</b>	<ul style="list-style-type: none"> <li>[1st Phase] Survey of utilization/ non-utilization of design - 10,000 Companies</li> <li>[2nd Phase] Survey of actual conditions of companies that utilize design - 1,000 Companies</li> </ul>	<ul style="list-style-type: none"> <li>600 Companies</li> </ul>	<ul style="list-style-type: none"> <li>Central Department (18 ministries 4 agencies and 17 offices) - 39 institutions</li> <li>Local government (City/ autonomous districts) - 243 institutions</li> </ul>
<b>Actual Sample Size</b>	<ul style="list-style-type: none"> <li>[1st Phase] urvey of utilization/ non-utilization of design - Completed 10,620 Companies</li> <li>[2nd Phase] Survey of actual conditions of companies that utilize design - Completed 1,045Companies</li> </ul>	<ul style="list-style-type: none"> <li>Completed 610 companies</li> </ul>	<ul style="list-style-type: none"> <li>Central Department - 33 institutions</li> <li>Local Governments (cities/autonomous districts) - 237 institutions</li> </ul>
<b>Survey Subjects</b>	<ul style="list-style-type: none"> <li>Company representatives, department Chiefs or above staffs</li> <li>staffs in charge of design</li> </ul>	<ul style="list-style-type: none"> <li>Company representatives, department Chiefs or above staffs in charge of design</li> </ul>	<ul style="list-style-type: none"> <li>Public officials in charge of design</li> </ul>
<b>Survey Methods</b>	<ul style="list-style-type: none"> <li>Visiting survey and e-mail/or FAX/phone survey</li> </ul>		

## 02 Concept and Keyword

### 1) Confirmation of utilization or non-utilization of design

<b>Step 1</b>	<p>As of December 2018, were there designers working as employees in your company? If it is difficult to verify the status because of the time, are there designers working as employees in your company at present?</p> <p><input checked="" type="checkbox"/> Yes ► Company utilizing design. Should be contacted for the survey. <input checked="" type="checkbox"/> No ► Advance to Step 2</p> <p>※ Designer : Among those who are employed as designers, a person who majors in design-related department, has design-related licenses, or has 2 or more years of business career in design without design-related degrees or licenses</p>
<b>Step 2</b>	<p>Has your company ordered a design development service to a specialized design company for your products and service within the last two years?</p> <p><input checked="" type="checkbox"/> Yes ► Company utilizing design. Should be contacted for the survey. <input checked="" type="checkbox"/> No ► Advance to Step 3</p>
<b>Step 3</b>	<p>Has your company launched a new product or modified the design of an existing product within the last two years?</p> <p><input checked="" type="checkbox"/> Yes ► Advance to Step 4 <input checked="" type="checkbox"/> No ► Company not utilizing design <b>Stop the Survey</b></p>
<b>Step 4</b>	<p>(If the company has launched a new product or modified the design of an existing product) In what way (in-house/outsourcing) did you develop the design of the new product or modify the existing product design?</p> <p><input checked="" type="checkbox"/> Short answers. By using answers of respondents, determine whether the company utilizes design or not, being based on the design utilization criteria below.</p>

### 2) Criteria for Determination of Service Orders for Specialized Design Companies

- Design service related to products and services (products and packaging)
- Brand identity(BI) advertisements, pamphlets, banners, etc. related to the promotion of products
- Production of uniform such as Company Identity(CI) company introduction ads, pamphlets, web pages, interior design etc

### 3) Remark by Business Field

- Construction industry: It is difficult to separate design and construction plans. Establishing of only construction plans relates to the height, form and size of a building not regarded as design outsourcing
- Research institutes: Employees in charge of production work are included as those who prepare the report, but shall not be called designers. Among those in charge of production work, those who majored in design shall be acknowledged as designers.
- Only designs developed originally by designers shall be recognized as designs. If modification of an existing design is made by those who did not major in design, it shall not be regarded as a design.
- Design outsourcing should have been made within the last two years. If products continue to be manufactured using a design developed from an outsource order made more than two years ago, it shall not be recognized as design outsourcing.
- Only outside companies with designers who majored in design are applicable. For example, outsourcing made to a publisher or printing company in which a designer is employed is recognized as design outsourcing.

#### 4) Korean Standard Industrial Classification

- Korean Standard Industrial Classification(KSIC) was developed to secure the accuracy and comparability of industry-related data<sup>1)</sup>
  - The KSIC was based on the International Standard Industrial Classification (ISIC) adopted by the United Nations(UN)
  - The 10th amendment was confirmed and announced in accordance with the notice of Statistics Korea 2017-13 (2017.1.13.), And is effective from July 1, 2017.
  - Industry is a set of producing units that are primarily engaged in industrial activities of similar nature.

Industrial activity is defined as a series of activities in which each production unit inputs 'resources such as labor, capital, raw materials, and other intermediate inputs are combined to produce goods or services.
  - Korea Standard Industrial Classification is a systematic type of industrial activities mainly performed by production units (business units, enterprise units, etc.) according to their similarities, and activities are classified for the collection, statement, and analysis of statistical data by industrial activities. And providing a range.
- KSIC consists of 21 sections, 77 divisions, 232 groups, 495 classes and 1,196 subclasses.

#### 5) Special Design Classification

- Special Design Classification was established in 2013 with the purpose of enhancing the effectiveness of design policy by improving statistical reliability and time series prediction of design industry, which are defined as professional design companies and design utilization companies.
  - In the statistics based on the Korean standard industry classification, data on the design industry is limited to specialized design firms, but is prepared to reflect the necessity of statistical surveys on design utilization companies and the detailed design industry.
  - According to Article 2 of the Industrial Design Promotion Act, industrial design is defined as "creation and improvement activities and outcomes to meet the material and psychological needs of producers and consumers by optimizing the aesthetic, functional and economic values of products and services."
  - Includes technology development activities for creation and improvement, including product design, packaging design, environmental design, visual design, service design, etc.
  - Since its enactment in 2013, it has been used for the 'Industrial Design Statistical Survey', the approval statistics under Article 18 of the Statistics Act.
  - As it is a special purpose classification that subdivided the design industry, large classifications are generally used for survey standards such as industrial design statistics survey
- Special Design classification consist of 8 sections, 42 divisions, 154 groups.

[Product Design] Electrical and electronic product design, multi-purpose machinery and tool design, household/ environmental goods design, transportation design, furniture design, manufacturing company head office design, other product design

[Visual Design] Editorial design, food and medicine packaging design, packaging design for products other than food and medicine, advertising design (printed media), other types of visual design

[Digital/Multi-media Design] Moving image design, web design, game design, other digital/multimedia design

[Space Design] Architectural design, interior decoration design, exhibition and stage design, interior material design, exterior design, landscape and leisure space design, remodeling design, architectural environmental design, civil environmental design, other types of interior design

[Fashion/Textile Design] Fashion design, functional fashion design, textile design, miscellaneous goods design, other fashion/textile design

[Service/Experience Design] Service design, interaction design, other service/experience design

※ Service Design : A field of design that focuses on and applies user-oriented research

in the overall processes of design and delivery of services, so as improve user experience

[Industrial Craft Design] Metal craft, ceramic craft, textile craft, wood craft, other craft

[Design Infrastructure (Design-based Technology)] Design models, design R&D, other design services

## 6) Specialized Design Companies

- Specialized design companies consist of 1 group, 1 class, and 4 subclasses based on KSIC-10.
  - M. Professional, scientific and technical activities (Sector)
  - 73. Other professional, scientific and technical services (Division)
  - 732. Specialized design activities (Group)
  - 7320. Specialized design activities (Class)
  - Specialized design services is defined as the industry in providing specialized design services, except architectural, engineering and computer systems design.
  - 73201. Interior design services, 73202. Products design services, 73203. Graphic design services, 73209. Other specialized design services

## 7) Company types

- Individual Proprietorships
  - Businesses run by individuals and not by corporate bodies; businesses jointly run by different individuals are also included in this category.
  - Authorized agents, special agencies, franchise stores, etc. run independently under the responsibility of private business owners based on sales contracts concerning products, services, etc. with relevant companies.
- Incorporated companies
  - Profit-making corporations established according to the regulations of a commercial law: includes incorporated companies, limited companies, joint stock companies, unlimited partnership companies and foreign companies.
  - Foreign companies are those with branch offices, sales offices, etc. established in Korea with head offices in a foreign country (e.g. the US).
- Non-business corporations
  - These are corporations established based on the regulations of civil law or special laws and include foundations, incorporated associations, incorporated educational institutions, medical corporations, social welfare corporations, public corporations, etc.
- Unincorporated associations
  - Various associations, unions, supporters' associations, cultural organizations, labor organizations, etc. without a corporate entity.

## 8) Business Types

- Unit Business (one business, one office)
  - Individual office-with no head office, branch office, business office, sales office, etc. in another location
- Head offices, main stores (one business, multiple offices)
  - Businesses that supervise the overall business activities of one or more branch offices, business offices or sales offices under the same management
  - Businesses in which overall management operations such as planning, accounting, finance, purchase, advertisement, legal affairs, etc. are carried out
- Branch offices, business offices, sales offices (one business, multiple offices)
  - Branch offices, business offices, sales offices, etc. that receive directions on overall operations from a separate head office, etc. that oversees management

## 9) Employees

- Full-time Employees
  - Those who have concluded employment contracts for one year or longer with the business or those, although without an employment contract for a certain period, who are subjected to the company's personnel management rules or receive various benefits including bonuses from the company
- Temporary or Daily employed Workers
  - Workers with less than one year of employment under contract who receive wages from the company

## 10) Business Results

- Sales : Total earnings from business activities carried out for the year 2018
- Personnel expenses : enefits and charges paid to employees including wages, welfare benefits, retirement allowances, etc. for the year 2018
- R&D costs : Research costs, development costs, ordinary R&D costs
- Business profits : Profits obtained by subtracting operation costs from total sales

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1) Statistics Korea (2016) Korean Standard Industrial Classification 2017, pp. 3-11.

## 11) Design related Investments and Business Expenses

- Personnel expenses for designers
  - Personnel expenses for designers employed for the year 2018
- Design service charges
  - Service charges for specialized design companies, freelancers etc. for the year 2018
  - ※ Service charges of specialized design companies and other service charges separated.
- Design machines/devices and software
  - Expenses for purchase and management of equipment, devices, computer systems and application software for design R&D for the year 2018
- Land/building for design
  - R&D Expenses spent on purchase, major repair, etc. of land and buildings for design R&D for the year 2018
- Other design-related operation costs
  - Other costs for design research such as those spent on materials, printed matters, purchase of fixtures, education and training, business trips, etc. for the year 2018

## 12) Classification of Business Scale

- Classification of medium and small companies is made based on Article 2 of the Framework Act on Small and Medium Enterprises, and the other enterprises are classified as large companies.
- Midsize Enterprises are separated by the list of Midsize Enterprises which High Potential Enterprises(<https://www.hpe.or.kr/>) offers.

	Industry	Medium Company	Small Company
Manu factu ring	Other machinery and equipment manufacturing	120~1,000 billion KRW	less than 120 billion KRW
	Manufacture of metalworking products; Excluding machinery and furniture	120~1,000 billion KRW	less than 120 billion KRW
	Food manufacturing	120~1,000 billion KRW	less than 120 billion KRW
	Automobile and trailer manufacturing	120~1,000 billion KRW	less than 120 billion KRW
	Manufacture of electronic components, computers, video, sound and communication equipment	120~1,000 billion KRW	less than 120 billion KRW
	Manufacture of coke, briquette and oil refining products	120~1,000 billion KRW	less than 120 billion KRW
	Chemical and chemical products manufacturing; Excluding medicines	120~1,000 billion KRW	less than 120 billion KRW
	Manufacture of primary metal	120~1,500 billion KRW	less than 120 billion KRW
	Furniture manufacturing	120~1,500 billion KRW	less than 120 billion KRW
	Manufacture of leather, bags and footwear	120~1,500 billion KRW	less than 120 billion KRW
	Manufacture of apparel, clothing accessories and fur products	120~1,500 billion KRW	less than 120 billion KRW
	Electrical equipment manufacturing	120~1,500 billion KRW	less than 120 billion KRW
	Manufacture of non-metallic mineral products	120~800 billion KRW	less than 120 billion KRW
	Beverage industry	120~800 billion KRW	less than 120 billion KRW
	Manufacture of medical materials and pharmaceuticals	120~800 billion KRW	less than 120 billion KRW
	Manufacture of rubber and plastic products	80~1,000 billion KRW	less than 80 billion KRW
	Other transportation equipment manufacturing	80~1,000 billion KRW	less than 80 billion KRW
	Tobacco industry	80~1,000 billion KRW	less than 80 billion KRW
	Manufacture of wood and wood products; Furniture exclusion	80~1,000 billion KRW	less than 80 billion KRW
	Textile products manufacturing; Except clothing	80~1,000 billion KRW	less than 80 billion KRW
	Manufacture of pulp, paper and paper products	80~1,500 billion KRW	less than 80 billion KRW
	Other product manufacturing	80~800 billion KRW	less than 80 billion KRW
	Medical, precision, optical equipment and watch manufacturing	80~800 billion KRW	less than 80 billion KRW
	Printing and Recording Media Reproduction	80~800 billion KRW	less than 80 billion KRW

	Industry	Medium companies	Small companies
Non-manufacturing	Electricity, gas, steam, and water services	120~1,000 billion KRW	less than 120 billion KRW
	Construction	80~1,000 billion KRW	less than 80 billion KRW
	Mining	80~1,000 billion KRW	less than 80 billion KRW
	Agriculture, forestry and fishing	80~1,000 billion KRW	less than 80 billion KRW
	Transportation	80~800 billion KRW	less than 80 billion KRW
	sewage and waste disposal, raw material recycling	80~800 billion KRW	less than 30 billion KRW
	Financial service and insurance activities	80~400 billion KRW	less than 80 billion KRW
	Wholesale and retail sale	50~1,000 billion KRW	less than 50 billion KRW
	Publishing, video, broadcast communications and information services	50~800 billion KRW	less than 50 billion KRW
	Real estate activities and renting and leasing	30~400 billion KRW	less than 30 billion KRW
	Business facilities and management and business support services	30~600 billion KRW	less than 30 billion KRW
	Arts, sports and recreation related services	30~600 billion KRW	less than 30 billion KRW
	Professional, scientific and technical services	30~600 billion KRW	less than 30 billion KRW
	Health and social work services	10~600 billion KRW	less than 10 billion KRW
	Membership organizations, repair and other personal services	10~600 billion KRW	less than 10 billion KRW
	Education services	10~400 billion KRW	less than 10 billion KRW
	Accommodation and restaurant business	10~400 billion KRW	less than 10 billion KRW
	Public administration, defence and social security administration	50~299 employees	less than 49 employees

※ The public administrations, national defenses, and social security administrations are classified by the number of employees in a conventional manner, because there is no criteria for classification of these kinds of things.

### 13) Standards for designer

- Among those employed as designers, those with design-related degrees or certificates, or those with two or more years of experience in design who do not hold design-related degrees or certificates

### 14) Application for and registration of industrial property rights

- application : Submission of documents required under relevant laws to a government agency for the purpose of registration of industrial property rights
- Registration : Administrative measures by an administrative agency evaluating submitted application materials based on formal and actual conditions required by relevant laws, and authorization of rights when the requirements are satisfied

### 15) Good Design(GD) Mark

- The Good Design (GD) Selection program has been carried out since 1985. Under this program, designs of products currently on sale or those soon to be on sale are evaluated based on form, economic feasibility, convenience, etc. Products selected through the evaluation are authorized by the government as Good Design products and given the GD mark.

## 16) Public Design Classification

### Space

#### Urban Instructure

Parks, playfields, plazas, playgrounds, meeting facilities, sidewalks, spare parks, parking lots, tunnels, roads, railways, bridges, pedestrian overpasses, elevated roads, rivers and streams, sewage treatment plants, industrial complexes, substations, power plants, etc.

#### Architectural and indoor environments

Community halls, police stations, fire stations, post offices, district offices, military facilities, penitentiaries, central or local government buildings, government agency buildings, foreign embassy buildings, civic centers, cultural assets, gyms, stadiums, theaters, national/public welfare facilities, national/public medical facilities, child care centers, memorial halls, museums, galleries rest areas, passenger bus terminals, cargo terminals, railway stations, subway stations, airports, ports, expressway rest areas, national public elementary/middle/high schools, universities, nursery schools, education centers, training centers, research institutes, libraries, training institutes, etc.

### Facilities

#### Walking and transportation facilities

Pedestrian signals, fences, soundproof walls, bollard, guard rails, road markings, escalators, elevators, pedestrian overpasses, bus stops, bicycle posts, pedestrian signal lights, traffic barriers, speed deterrents, parking facilities, parking meters, public institution vehicles, etc.

#### Convenience facilities

Benches, chairs, shelters, outdoor tables, waste bins, drinking fountains, ash trays, rest rooms, washrooms, canteens, unmanned kiosks, vending machines, newsstands, etc.

#### Management facilities

Man holes, utility poles, street lamps, switch signals, power outlets, panel boards, air vents, post boxes, fire hydrants, disaster prevention facilities, crime prevention devices, identification devices, etc.

#### Information facilities

Public phones, weather vanes, clocks, thermo-hygrometers, information booths, local/tourist information facilities, city (province) boundary stones, local government symbol towers, traffic message signs, etc.

#### Administration facilities

Uniforms, furniture, stationery, labels, unmanned civil service machines, etc.

### Images

#### Information media

Sign posts, traffic signs, local/tourist guide maps, bus route maps, direction signs, restriction signs, car license plates, various pictograms, billboards, banners, posters, bulletin boards, signboards, lags, promotional videos

#### Symbolic media

Government symbol systems for the central government, government agencies, local governments and public institutions of various levels (symbol signs, certificates, public documents, book covers, web-pages, etc.), currencies, ID cards, passports, transportation cards, bonds, commemorative coins, postage stamps, etc.

#### Environment facilities

Wall paintings, super graphics, media art, sound scape, light scape, art decorations

#### Urban masterplan/ guidelines

Design development for green belt areas, design development for the promotion of unique city images



## 03 Characteristics of Respondents

1) Companies in general – Survey on utilization or non-utilization of design

▼ Characteristics of respondents on utilization of design

Classification		Survey Sample	
		Number of cases	%
<b>Total</b>		<b>10,620</b>	<b>100.0</b>
<b>Region</b>	Seoul	2,980	28.1
	Gyeonggi	2,762	26.0
	Busan/Ulsan/Gyeongnam	1,395	13.1
	Daejeon/Chungcheong	970	9.1
	Daegu/Gyeongbuk	922	8.7
	Gwangju/Jeolla	792	7.5
	Incheon	476	4.5
	Gangwon/Jeju	323	3.0
<b>Business Type</b>	Product design	2,227	21.0
	Visual design	996	9.4
	Digital/multimedia design	463	4.4
	Space design	2,368	22.3
	Fashion/textile design	604	5.7
	Service/experience design	1,382	13.0
	Industrial craft design	730	6.9
	Design infrastructure (design-based technology)	1,850	17.4
<b>Business Scale</b>	Small companies	6,858	64.6
	Medium companies	2,580	24.3
	Midsized companies	309	2.9
	Large companies	873	8.2

## 2) Companies in general - Survey of companies that utilize design

### ▼ Characteristics of respondents on actual conditions of design utilization

Classification		Survey Sample	
		Number of cases	%
<b>Total</b>		<b>1,045</b>	<b>100.0</b>
<b>Region</b>	Seoul	349	33.4
	Gyeonggi	258	24.7
	Busan/Ulsan/Gyeongnam	121	11.6
	Daejeon/Chungcheong	93	8.9
	Daegu/Gyeongbuk	78	7.5
	Gwangju/Jeolla	73	7.0
	Gangwon/Jeju	40	3.8
	Incheon	33	3.2
<b>Business Type</b>	Product design	581	55.6
	Visual design	126	12.1
	Digital/multimedia design	80	7.7
	Space design	208	19.9
	Fashion/textile design	86	8.2
	Service/experience design	130	12.4
	Industrial craft design	55	5.3
	Design infrastructure (design-based technology)	149	14.3
<b>Business Scale</b>	Small companies	542	51.9
	Medium companies	381	36.5
	Midsized companies	62	5.9
	Large companies	60	5.7
<b>Employment</b>	Designer employment	795	76.1
	Designer non-employment	250	23.9
<b>Outsourcing</b>	Design outsourcing	464	44.4
	Design non-outsourcing	581	55.6

### 3) Specialized design companies

#### ▼ Characteristics of respondents on actual conditions of specialized design companies

Classification		Survey Sample	
		Number of cases	%
<b>Total</b>		<b>610</b>	<b>100.0</b>
<b>Region</b>	Seoul	375	61.5
	Gyeonggi	66	10.8
	Busan/Ulsan/Gyeongnam	47	7.7
	Gwangju/Jeolla	38	6.2
	Daegu/Gyeongbuk	37	6.1
	Daejeon/Chungcheong	29	4.8
	Gangwon/Jeju	10	1.6
	Incheon	8	1.3
<b>Business type</b>	Product design	156	25.6
	Visual design	192	31.5
	Interior design	148	24.3
	Other types of fashion/ textile design	114	18.7
<b>Number of employees</b>	1 person	76	12.5
	2-4 persons	227	37.2
	5~9 persons	169	27.7
	10~19 persons	69	11.3
	20 or more persons	69	11.3
<b>Type</b>	individual proprietorship	334	54.8
	Incorporated company	274	44.9
	Non-business corporation	1	0.2
	Unincorporated association	1	0.2

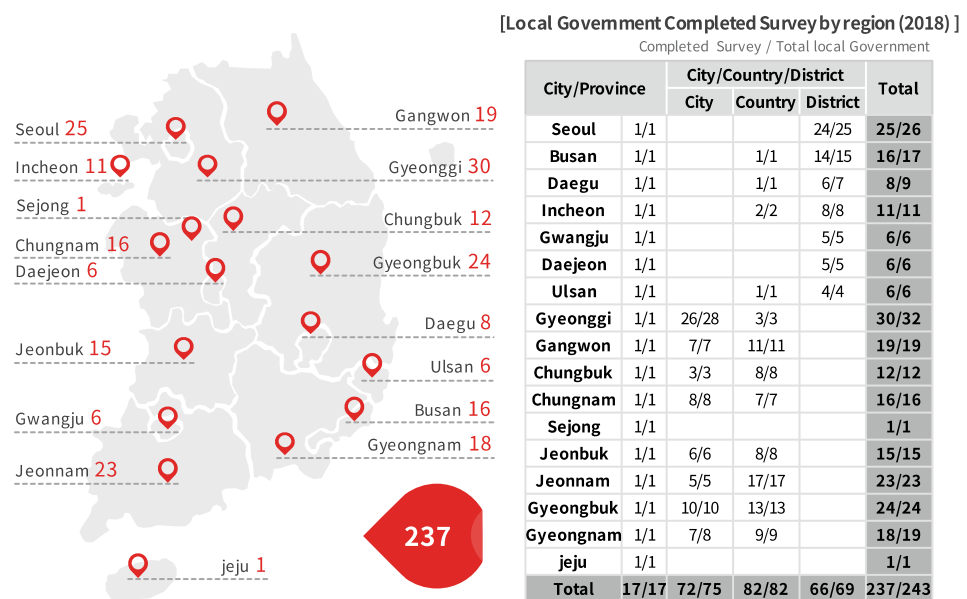
#### 4) Central government agencies

- Enumeration survey of 33 agencies completed, out of a total of 39 agencies<sup>2)</sup>

Classification	중앙부처
<b>18 ministries (15 ministries completed)</b>	Ministry of Employment and Labor; Ministry of Science and ICT; Ministry of Land, Infrastructure and Transport; Ministry of Strategy and Finance; Ministry of Agriculture, Food and Rural Affairs; Ministry of Culture, Sports and Tourism; Ministry of Health and Welfare; Ministry of Trade, Industry and Energy; Ministry of Gender Equality & Family; Ministry of Foreign Affairs; Ministry of Unification; Ministry of Oceans and Fisheries; Ministry of Public Administration and Security; Ministry of Environment
<b>4 agencies (4 agencies completed)</b>	Ministry of Patriots and Veterans Affairs; Ministry of Government Legislation; Ministry of Food and Drug Safety; Ministry of Personnel Management
<b>17 offices (14 offices completed)</b>	the National Police Agency; National Tax Service; Korea Meteorological Administration; Rural Development Administration; Cultural Heritage Administration; Defense Acquisition Program Administration; Military Manpower Administration; Korea Forest Service; Sae-mangeum Development and Investment Agency; National Fire Agency; Statistics Korea; Korean Intellectual Property Office; Korea Coast Guard; Multi-functional Administrative City Construction Agency

#### 5) Local governments

- 1) Enumeration survey of 237 local government agencies completed, out of a total of 243 agencies<sup>3)</sup>



2) Not Responded : Ministry of Education, Ministry of Justice; Korea Customs Service; Public Procurement Service; Supreme Prosecutors' Office; Ministry of SMEs and Startups

3) Not Responded : Gwangjin-gu, Seoul; Dongnae-gu, Busan; Gimhae-si, Gyeongnam; Suseong-gu, Daegu; Gunpo-si, Gyeonggi; Paju-si, Gyeonggi





## 02 Major Statistics

1. Size of Design Industry
2. Changes in the Size of Design Industry
3. Amount of Design Export·Import
4. Economic Value of Design
5. Design Utilization Rate
6. Status of Graduate and Employment  
of Department of Design





# 01 Size of Design Industry

■ In 2018, the total size of Korean design industry is estimated at 17,862.6 billion KRW, The size is estimated by adding up the amount of design investments by companies that utilize design (12,758 billion KRW<sup>4</sup>), sales by specialized design companies (3,624.5 billion KRW<sup>5</sup>), budget for design departments in the public sector (229.2 billion KRW), size of freelancers industry (999.1 billion KRW) and higher education sector (251.7 billion KRW<sup>6</sup>).

■ The amount of design manpower is estimated at 330,411. The amount was estimated by adding up the numbers of designers at companies that utilize design (261,760), employees at specialized design companies(17,566), employees at design departments in the public sector (830), the number of freelancers (47,847) and professors at design-related university departments (2,408).

▼ Size and manpower of design industry in 2018 (Unit: Million KRW, persons)

Classification	2017		2018		YoY	
	Size of design industry	Design Manpower	Size of design industry	Design Manpower	Size of design industry	Design Manpower
Survey of Actual conditions	Companies utilizing design	12,348,980	255,047	12,758,020	261,760	▲ 3.3% ▲ 2.6%
	Specialized design companies	3,524,707	18,645 *(29,480)	3,624,542	17,566 *(27,670)	▲ 2.8% ▼ 5.8%
	Public Sector	234,287 **(42,944)	823	229,214 **(31,998)	830	▼ 2.2% ▲ 0.9%
Subtotal		16,107,975 **(15,916,632)	274,515 *(285,350)	16,611,776 **(16,414,550)	280,156 *(290,260)	▲ 3.1% ▲ 2.1%
Literature	Freelancers	1,189,519	56,004	999,053	47,847	▼16.0% ▼14.6%
	Higher education	247,577	2,524	251,733	2,408	▲ 1.7% ▼ 4.6%
Total		17,545,071 **(17,353,728)	333,042 *(343,878)	17,862,562 **(17,664,336)	330,411 *(340,515)	▲ 1.8% ▼ 1.0%

\* The number of employees in specialized companies including those who are not designers

\*\* Size of industry estimated by deducting service charges of public sector

4) Size of Companies in general : No. of companies utilizing design (Estimates) × Avg. of amount of design investments (Survey Results, Exclude Excludes service fee for specialized design company)

5) Size of specialized design companies industry : Average amount of specialized design companies' sale (Sample Survey Results) × Number of Populations (Designers specialized in 2017 Census on Establishment)

6) Calculated as the sum of the professor's annual salary estimate and research expenses

## ① Size and Manpower of Companies utilizing design

- Average amount of design investment by companies that utilize design is estimated at 95.77 million KRW and the industry size is estimated at 12,758 billion KRW.
- The average amount of design investment by business type is the highest in Product design with 190.17 million KRW, followed by Visual design (162.14 million KRW), Digital/multimedia design (137.81 million KRW), Fashion/textile design (14.19 million KRW), Space design (85.84 million KRW), Service/experience design (83.42 million KRW), Design infrastructure (60.75 million KRW) and Industrial craft design (53.50 million KRW).
- Regarding industry size, Product design (2,756.6 billion KRW) is the highest, followed by Design infrastructure (2,576.5 billion KRW), Service/experience design (2,311.5 billion KRW), Space design (2,023.2 billion KRW) and Visual design (1,641.4 billion KRW).
- By size, the average amount of design investment in large companies is 125.26 million KRW, in Midsize companies is 599.43 million KRW, Medium companies is 106.97 million KRW, Small companies is 71.61 million KRW, which means that the larger size, the higher average amount of design investment.

### ▼ Size of design industry of companies utilizing design in 2018 (Unit: million KRW)

Classification	2017			2018			YoY
	No. of companies that utilize design	Average amount of design investment	Industry Size	No. of companies that utilize design	Average amount of design investment	Industry Size	
Business Type	Product design	12,932	215.81	2,790,891	14,495	190.17	2,756,618 ▼ 1.2%
	Visual design	8,976	167.17	1,500,565	10,123	162.14	1,641,380 ▲ 9.4%
	Digital/multimedia design	4,878	135.40	660,494	4,586	137.81	631,970 ▼ 4.3%
	Space design	22,355	79.74	1,782,625	23,569	85.84	2,023,206 ▲ 13.5%
	Fashion/textile design	5,137	106.86	548,923	5,217	104.19	543,565 ▼ 1.0%
	Service/experience design	24,652	94.29	2,324,543	27,707	83.42	2,311,484 ▼ 0.6%
	Industrial craft design	4,964	52.71	261,664	5,109	53.50	273,333 ▲ 4.5%
	Design infrastructure	41,384	59.91	2,479,275	42,409	60.75	2,576,465 ▲ 3.9%
Business Scale	Small companies	97,157	66.29	6,440,795	96,905	71.61	6,939,326 ▲ 7.7%
	Medium companies	25,797	150.82	3,890,773	33,711	106.97	3,605,964 ▼ 7.3%
	Midsize companies	1,221	815.27	995,404	1,521	599.43	911,908 ▼ 8.4%
	Large companies	1,103	926.99	1,022,008	1,079	1,205.26	1,300,821 ▲ 27.3%
Total		125,278	98.57	12,348,980	133,216	95.77	12,758,020 ▲ 3.3%

- The average number of designers in companies utilizing design is 1.96, which is lower than 2017 (2.04). The average number of designers in companies that hire designers is 2.64 (3.09 in 2017). The number of manpower in companies utilizing design is estimated to be 261,760, which is higher compared to 2017 (255,047).
- The number of manpower in design industry by business type is highest in Design infrastructure(59,275), followed by Space design (54,279).

▼ 2018 Design manpower in companies utilizing design (Unit: Persons)

Classification	2017			2018			YoY
	Avg. no. of designers in companies employing designers	Avg. no. of designers in companies utilizing design	Manpower	Avg. no. of designers in companies employing designers	Avg. no. of designers in companies utilizing design	Manpower	
Business Type	Product design	5.26	3.19	41,317	2.98	2.62	38,047 ▼ 7.9%
	Visual design	2.58	2.35	21,058	2.69	2.52	25,484 ▲21.0%
	Digital/multimedia design	2.57	2.51	12,228	2.92	2.69	12,315 ▲ 0.7%
	Space design	3.03	2.43	54,227	3.56	2.30	54,279 ▲ 0.1%
	Fashion/textile design	3.22	2.56	13,174	3.35	2.46	12,825 ▼ 2.7%
	Service/experience design	7.31	2.07	50,937	3.39	1.88	51,959 ▲ 2.0%
	Industrial craft design	1.81	1.71	8,508	1.80	1.48	7,577 ▼10.9%
	Design infrastructure	1.84	1.30	53,598	1.74	1.40	59,275 ▲10.6%
Business Scale	Small companies	2.26	1.46	141,806	2.14	1.59	154,462 ▲ 8.9%
	Medium companies	4.62	3.41	87,995	3.04	2.29	77,045 ▼12.4%
	Midsized companies	16.19	10.42	12,727	11.95	10.38	15,796 ▲24.1%
	Large companies	14.09	11.36	12,519	42.74	13.40	14,457 ▲15.5%
Total		3.09	2.04	255,047	2.64	1.96	261,760 ▲ 2.6%

## 2 Size and Manpower of Specialized Design Companies

- Average amount of sales in specialized design companies is 650.73 million KRW (640.62 million KRW in 2017), and the size of the specialized design companies is estimated to be 3,624.5 billion KRW. Meanwhile, the number of specialized design companies is 5,570, which shows an increase of 68 (▲1.2%) from 2017.
- Examining the average sales of specialized design industry by business type, Interior design is the highest with 957.43 million KRW. The Industry size is the highest with 1,299.2 billion KRW, as well. The following types were Visual design (959.85 million KRW), Product design (799.14), and Other types of fashion/ textile design (566.32 million KRW).
- Year-on-Year rate of industry scale is the highest in Interior design with 5.4%, followed by Visual design (2.3%), Other types of fashion/ textile design (1.7%), and Product design (0.4%).

▼ 2018 Size of specialized design industry (Unit : Million KRW)

Classification	2017			2018			YoY
	Survey population (no. of companies)	Average sales	Size of industry	Survey population (no. of companies)	Average sales	Size of industry	
Business Type	Product design	1,299	613.02	796,319	1,260	634.24	799,143 ▲ 0.4%
	Visual design	2,068	453.76	938,368	2,105	455.98	959,845 ▲ 2.3%
	Interior design	1,276	966.24	1,232,926	1,357	957.43	1,299,239 ▲ 5.4%
	Other types of fashion/ textile design	859	648.54	557,093	848	667.82	566,315 ▲ 1.7%
Total		5,502	640.62	3,524,707	5,570	650.73	3,624,542 ▲ 2.8%

- Average number of employees in specialized design companies(including designers and other employees) is 4.97 and the overall manpower in the industry is estimated to be 27,670.  
Regarding the number of designers, the average number of designers in a company is 3.15 and the entire number of designers in the industry is 17,566.
- There is the most number of employees in Visual design(9,378), followed by Interior design(8,909), Product design(6,106), and Other types of fashion/textile design(3,277).

▼ 2018 Design manpower in specialized design companies  
(Based on the number of employees)

(Unit : Persons)

Classification	2017			2018			YoY
	Survey Population (No. of companies)	Average No. of employees	Manpower	Survey Population (No. of companies)	Average No. of employees	Manpower	
Business Type	Product design	1,299	5.58	7,251	1,260	4.85	6,106 ▼15.8%
	Visual design	2,068	5.00	10,345	2,105	4.46	9,378 ▼ 9.3%
	Interior design	1,276	6.16	7,856	1,357	6.56	8,909 ▲13.4%
	Other types of fashion/textile design	859	4.69	4,028	848	3.86	3,277 ▼18.7%
Total		5,502	5.36	29,480	5,570	4.97	27,670 ▼ 6.1%

▼ 2018 Design manpower in specialized design companies  
(Based on the number of designers)

(Unit : Persons)

Classification	2017			2018			YoY
	Survey Population (No. of companies)	Average No. of employees	Manpower	Survey Population (No. of companies)	Average No. of employees	Manpower	
Business Type	Product design	1,299	3.73	4,849	1,260	3.46	4,357 ▼10.2%
	Visual design	2,068	3.52	7,288	2,105	3.18	6,690 ▼ 8.2%
	Interior design	1,276	3.27	4,174	1,357	3.26	4,426 ▲ 6.0%
	Other types of fashion/textile design	859	2.72	2,333	848	2.47	2,093 ▼10.3%
Total		5,502	3.39	18,645	5,570	3.15	17,566 ▼ 5.8%

### 3 Size and Manpower of Public Sector

- The survey of the scale of design investment in the central government and local government shows that, with the central government budget for design departments at 69.5 billion KRW, local government budget for design departments at 159.7 billion KRW and the total design investment in the public sector is estimated to be 229.2 billion KRW.
- The number of employees in design departments of the central government is 91, and that of employees in design departments in local governments is 739.  
By adding these figures, the total number of design-related employees in the public sector is estimated to be 830.

▼ Design investment and manpower in public sector

(Unit : Million KRW, Persons)

Classification	2017		2018	
	Total budget for design department	Total number of employees in design departments	Total budget for design department	Total number of employees in design departments
Central government	73,943 *(5,370)	37	69,508 *(6,045)	91
Local government	160,344 *(37,574)	786	159,706 *(25,943)	739
Total	234,287 *(42,944)	823	229,214 *(31,988)	830

※ ( ) : The amount of the budget related to design excluding design service charges

## 4 Size and Manpower of Freelancers

- The number of freelance designers is estimated, based on the result of 2018 Regional Employment Survey<sup>7)</sup> then the size of the freelance designer industry is estimated by multiplying the estimated number of freelance designers times wages for designers.
- The number of freelance designers in 2018 is estimated at 47,847 (56,004 in 2017).

$$\text{No. of freelancers (47,847)} = \{\text{No. of employees in specialized design companies (27,670)} + \text{No. of designers in companies in general (261,760)}\} \times 16.5\%$$

※Designers who are individual proprietors who no employees/Total number of designers=37,789/229,460=16.5%  
The number of freelance designers is estimated by calculating the number of designers who are individual proprietor with no employees, based on the results of the 2018 Regional Employment Survey.

<b>No. of freelancers</b> <b>Equation for estimation</b>	Estimated no. of employees in specialized design companies & Designers in companies in general	×	No. of designers who are individual proprietors with no employees Total number of designers
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### ▼ Designers working as individual proprietors in the 2018 Regional Employment Survey

2018		No. of Persons
<b>Individual proprietors with no employees</b>		37,789
<b>Other Designers</b>	Full-time employees	191,671
	Temporary employees	
	Daily employed workers	
	Individual proprietors with employees	
	Unpaid family workers	
<b>Total</b>		<b>229,460</b>

※ The statistics of workers and self-employed workers corresponding to designers (Code : 285) of the employment status by occupation in the Regional Employment Survey.

<b>Size of freelance designer industry</b> <b>Equation for estimation</b>	Estimated number of Freelance designers	×	Average monthly wage for freelance designers	×	12 months
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- 999 billion KRW =

$$\text{No. of freelance designers 47,847} \times \text{Average monthly wage for freelancer 1,740,000 KRW} \times 12 \text{ months}$$

※ Average monthly wage for freelance designers is estimated by using the result of Regional Employment Survey.

Classification	2017	2018	YoY
<b>Size of freelance designer industry</b>	1,189.5 billion KRW	999 billion KRW	▼16.0%
<b>Number of freelance designers</b>	56,004	47,847	▼14.6%

7) In the second half of 2018, Regional Employment Survey surveyed was designed to estimated the employment and unemployment by 154 municipalities, targeting 231,100 households in the country in October for 15-year-old or older households and surveying their economic activities for 2 weeks.

## 5 Size and Manpower of Educations Sector

- Size of industry in the higher education sector is obtained by adding up the estimated salaries of design faculty in universities and the estimated amount of research funds for design departments. Size of manpower is obtained by adding up the numbers of professors, associate professors, assistant professors and full-time lecture<sup>8)</sup> in design-related departments of junior colleges and four-year universities/colleges.

<b>Education Sector</b> <b>251,733 million KRW</b>	222,068 million KRW (Annual salary of professors)	+	29,665 million KRW (Research funds for design departments)
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- The size of design industry of education is estimated to be 25.17 billion KRW.
- The amount of manpower of education sector is 2,408.

### ▼ 2018 Annual salary of professors of design department 2018 (Unit : Million KRW, Persons)

Classification		2017			2018		
		Average annual salary	No. of design faculty	Estimated annual salary of design faculty	Average annual salary	No. of design faculty	Estimated annual salary of design faculty
Four-year Colleges/ Universities	Professor	108.7	756	82,156	113.5	742	84,182
	Associate professor	90.8	313	28,421	94.8	322	30,524
	Assistant professor	76.2	480	36,593	79.6	424	33,746
	Full-time lecturers	57.1	115	6,558	59.6	121	7,216
	<b>Subtotal</b>	<b>92.38</b>	<b>1,664</b>	<b>153,728</b>	<b>-</b>	<b>1,609</b>	<b>155,669</b>
Junior Colleges	Professor	103.1	222	22,887	107.6	226	24,324
	Associate professor	84.1	271	22,787	87.8	245	21,508
	Assistant professor	68.4	240	16,412	71.4	207	14,778
	Full-time lecturers	46.0	127	5,844	48.0	121	5,789
	<b>Subtotal</b>	<b>79.0</b>	<b>860</b>	<b>67,930</b>	<b>-</b>	<b>799</b>	<b>66,400</b>
<b>Total</b>		<b>79.5</b>	<b>2,524</b>	<b>221,657</b>	<b>83.0</b>	<b>2,408</b>	<b>222,068</b>

※ Estimated annual salary and number of design faculty: Educational Statistics Database, Korean Educational Development Institute (KEDI)

### ▼ Research funds for design department (Unit : Million KRW)

Classification		2017년	2018년	YoY
Four-year Colleges/ Universities	Central government fund	13,336	15,526	▲ 16.4%
	Local government fund	1,233	1,949	▲ 58.1%
	Private fund	5,062	6,259	▲ 23.6%
	Foreign fund	6	33	▲ 450.0%
	Domestic fund	3,936	4,547	▲ 15.5%
<b>Subtotal</b>		<b>23,574</b>	<b>28,314</b>	<b>▲ 20.1%</b>
Junior Colleges	Faculty	2,346	1,351	▼ 42.4%
<b>Total</b>		<b>25,920</b>	<b>29,665</b>	<b>▲ 14.4%</b>

※ 2018 Survey of University Research Activities, Ministry of Education, Science and Technology, National Research Foundation of Korea

8) Full-time faculty included dean, professor, associate professor, assistant professor, and full-time lecturers until 2012. However, since 2013, the 'Full-time Lecturer System' was abolished, Full-time faculty includes Assistant professors include dean, professor, associate professor, assistant professor, excluding full-time lecturers. Non-full-time lecturer includes adjunct professors, visiting professors, part-time lecturers, honorary professors, visiting professors, Honorary Professor, and others. guest professors, and others. The number of full-time lecturers was not provided in the KEDI Educational Statistics Database, and was thus estimated using the rate of change in the number of registered students between 2017 and 2018.

## 02 Changes in the Size of Design Industry

- The size of the design industry is continuously increasing, and the total industry size in 2018 is estimated at 17.86 trillion KRW.
- Of the total size, the industry size of companies utilizing design accounts for the largest share of the industry with more than 70% annually, but the freelance industry is estimated to have grown the most in seven years (1.7 times growth compared to 12 years).

### ▼ Changes in size of design industry from 2012 to 2018

(Unit : Million KRW)

Classification	2012	2013	2014	2015	2016	2017	2018
<b>Companies utilizing design</b>	10,056,779	9,152,954	10,292,018	11,252,597	12,041,094	12,348,980	12,758,020
<b>Specialized Design service</b>	2,499,239	2,745,643	2,990,423	3,059,925	3,357,819	3,524,707	3,624,542
<b>Public Sector</b>	363,045	247,758	138,281 *(17,782)	271,727 *(36,709)	232,050 *(43,120)	234,287 *(42,944)	229,214 *(31,988)
<b>Subtotal</b>	<b>12,919,063</b>	<b>13,067,240</b>	<b>13,420,722</b> *(13,300,223)	<b>14,584,249</b> *(14,349,231)	<b>15,630,964</b> *(15,442,034)	<b>16,107,975</b> *(15,916,632)	<b>16,611,776</b> *(16,414,550)
<b>Freelance Designers</b>	593,268	691,968	715,641	820,990	1,034,235	1,189,519	999,053
<b>Higher Education</b>	222,970	228,917	233,758	246,359	248,517	247,577	251,733
<b>Total</b>	<b>13,735,301</b>	<b>13,067,240</b>	<b>14,370,121</b> *(14,249,622)	<b>15,651,598</b> *(15,416,580)	<b>16,913,716</b> *(16,724,786)	<b>17,545,071</b> *(17,353,728)	<b>17,862,562</b> *(17,665,336)

- ※ From 2012, all companies classified under the Special Design Classification with five or more employees have been included in the estimation.
- ※ From the 2013 estimation of industry size, it is estimated that the size of design industry(design investment), excluding the service charges of specialized design companies.
- ※ (parenthesis) in public sectors is the amount of the size of design industry(budget for design departments) excluding design-related service charges, after 2014.

## 03 Amount of Design Export·Import

- Amount of income by companies utilizing design is estimated at 16.3 billion KRW.

<b>Companies utilizing design</b> <b>Amount of income</b>	No. of companies Utilizing design	×	Ratio of Import companies	×	( Average design investment	×	Ratio of foreign outsourcing for design development	)
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### ▼ Estimated amount of design import

(Unit : Million KRW)

Classification	Estimated No. of companies utilizing design	Ratio of import companies <sup>9)</sup>	Average design investment	Ratio of foreign outsourcing for design development	Estimated amount of import
Design Income	133,216	0.27%	95.77	47.84%	16,347

- Amount of design export by specialized design companies is estimated at 71.1 billion KRW.

<b>Specialized design companies</b> <b>Amount of export</b>	No. of specialized design companies	×	Ratio of export companies	×	( Average sales	×	Ratio of overseas sales	)
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### ▼ Estimated amount of design export

(Unit : Million KRW)

Classification	no. of companies design companies	Ratio of export companies <sup>10)</sup>	Average Sales (Million KRW)	Ratio of foreign clients in sales	Estimated amount of export (million KRW)
Design Export	5,570	6.44%	650.73	30.46%	71,103

### ▼ Changes in design import/export from 2012 to 2018

(Unit : 100 Million)

Classification	2012	2013	2014	2015	2016	2017	2018
Import Amount(A)	260	262	192	70	103	135	163
Export Amount(B)	568	440	456	741	882	807	711
Difference (B-A)	308	178	264	671	779	672	548

9) Ratio of import companies: Companies that appeared to have 1% or higher percentage of foreign company outsourcing for design development in the Industrial Design Statistical Survey

10) Ratio of export companies: Companies that appeared to have 1% or higher percentage of foreign clients in sales composition in the Industrial Design Statistical Survey



## 04 Economic Value of Design

- Economic value of design is estimated at 124.3 trillion KRW.
- By the business type, economic value of Service/experience design is the highest with 41.4 trillion KRW.  
Design infrastructure (38.2 trillion KRW) > Product design (17.9 trillion KRW)  
> Space design(15.4 trillion KRW) > Visual design (5.2 trillion KRW)

### ▼ Calculation status of economic value of design

Classification	Sales (Unit : million KRW)	Contribution rate of design (Unit : %)	Added value ratio (Unit : %)	Economic value of design (Unit : million KRW)
Product design	230,773,802	27.5%	28.2%	17,900,385
Visual design	69,222,043	28.2%	26.9%	5,237,149
Digital/multimedia design	23,334,807	28.2%	49.0%	3,223,211
Space design	120,657,087	29.3%	43.5%	15,381,122
Fashion/textile design	21,775,090	30.3%	20.2%	1,336,516
Service/experience design	246,432,775	26.6%	63.2%	41,425,823
Industrial craft design	22,198,039	24.0%	31.6%	1,682,833
Design infrastructure	289,243,994	23.2%	57.0%	38,152,454
<b>Total</b>	<b>1,023,637,636</b>	<b>-</b>	<b>-</b>	<b>124,339,493</b>

※ Sales: Sales from industries that belong to the Special Design Classification  
× ratio of design utilization × sales increase rate between 2014 and 2018<sup>11)</sup>

※ Contribution rate of design: Results of Design Survey

※ Added value ratio: Data presumed to be from the Bank of Korea<sup>12)</sup>

- Examining the economic value by business type, Digital/multimedia design, Service/experience design and Product design show great increases.

### ▼ 2018 Economic value of design

(Unit : Million KRW)

Special Design Classification	2017	2018	YoY
Product design	15,426,148	17,900,385	▲16.0%
Visual design	5,429,735	5,237,149	▼ 3.5%
Digital/multimedia design	2,689,349	3,223,211	▲19.9%
Space design	15,764,639	15,381,122	▼ 2.4%
Fashion/textile design	1,797,124	1,336,516	▼25.6%
Service/experience design	35,137,850	41,425,823	▲17.9%
Industrial craft design	1,672,852	1,682,833	▲ 0.6%
Design infrastructure	39,472,250	38,152,454	▼ 3.3%
<b>Total</b>	<b>117,389,947</b>	<b>124,339,493</b>	<b>▲ 5.9%</b>

11) We use the sales growth rate data of all industries in the Business Management Analysis Index announced by the Bank of Korea and the results of applying the design utilization ratio to the sum of sales of relevant companies in Special Design Classification in the 2015 Economic Census.

12) We used the ratio of value added in the inter-industry relations table (based on 2017 table) announced by the Bank of Korea. Calculate the ratio of value added of the recent year by the design classification (Sections), matching the product classification I.O. (Input Output) with the design classification and reflecting the business distribution in Groups of design classification.

## 05 Design Utilization Rate

- Among the 370,870 companies in general which are included in the special design classification, the design utilization rate reached 35.9%.
- The design utilization rate increased 1.5%p compared to 2017 (34.4%).

### ▼ Changes in the percentage of companies utilizing design

Classification	2017	2018	YoY
Percentage of companies utilizing design	34.4%	35.9%	▲1.5%p

※ Design utilization of industrywide companies that have five or more employees reached 16.8%.

133,216 (No. of companies utilizing design) / 791,670 (industrywide companies that have five or more employees) = 16.8%

### ▼ Design utilization rate under Special Design Classification (Unit : No. of companies)

Classification		No. of companies			Design utilization rate
		Companies under Special Design Classification (Survey population)	Companies utilizing design (estimation)	Companies not utilizing design (estimation)	
Business Type	Product design	54,176	14,495	39,681	26.8%
	Visual design	20,473	10,123	10,350	49.4%
	Digital/multimedia design	7,536	4,586	2,950	60.9%
	Space design	79,385	23,569	55,816	29.7%
	Fashion/textile design	13,748	5,217	8,531	37.9%
	Service/experience design	72,785	27,707	45,078	38.1%
	Industrial craft design	19,301	5,109	14,192	26.5%
	Design infrastructure (design-based technology)	103,466	42,409	61,057	41.0%
Business Scale	Small companies	305,595	106,925	198,670	35.0%
	Medium companies	53,447	20,723	32,724	38.8%
	Midsized companies	8,857	4,129	4,729	46.6%
	Large companies	2,970	1,439	1,531	48.5%
Total		370,870	133,216	237,654	35.9%

## 06 Status of Graduate and Employment of Department of Design

- The number of graduates from design departments at universities and graduate schools reached 21,975(down 734 on 2017), and the number of the employed among them reached (down 413 on 2017)<sup>13)</sup>.
- Meanwhile, the number of graduates excluding them who are advanced, enlisted, unable to work, excluder and foreign students reached 19,650, down 1,023 year-on-year.

### ▼ Status of graduates and employment of department of design (Unit : Persons)

Classification	Status of Graduates and Employment		
	Graduates	Graduates(A)	Employment(B)
2018	21,975	19,650	13,014
2017	22,709	20,673	13,427
YoY	▼ 734	▼ 1,023	▼ 413

### ▼ Status of graduates and employment of department of design by classification (Unit : Persons)

Classification		Status of Graduates and Employment											
		Graduates				Graduates(A)				Employment(B)			
		bachel or's degree	Master 's degree	Doctor 's degree	Total	bachel or's degree	Master 's degree	Doctor 's degree	Total	bachel or's degree	Master 's degree	Doctor 's degree	Total
Total		21,377	457	141	21,975	19,229	306	115	19,650	12,723	203	88	13,014
Univer -sity type	Junior college	9,636	-	-	9,636	8,331	-	-	8,331	5,634	-	-	5,634
	University	10,706	-	-	10,706	9,930	-	-	9,930	6,349	-	-	6,349
	Industrial college	216	-	-	216	207	-	-	207	145	-	-	145
	University(college)	20	-	-	20	19	-	-	19	14	-	-	14
	Graduate college	-	457	141	598	-	306	115	421	-	203	88	291
	Functional college	799	-	-	799	742	-	-	742	581	-	-	581
Major	General design <sup>14)</sup>	1,468	178	45	1,691	1,271	110	34	1,415	785	78	27	890
	Product design	3,590	56	17	3,663	3,240	34	14	3,288	2,157	27	12	2,196
	Visual design	3,675	22	2	3,699	3,345	11	2	3,358	2,192	8	2	2,202
	Digital/multimedia design	2,789	28	4	2,821	2,516	22	3	2,541	1,581	16	1	1,598
	Space design	3,401	24	6	3,431	3,003	16	6	3,025	2,032	13	6	2,051
	Fashion/textile design	4,518	16	14	4,548	4,111	11	13	4,135	2,788	3	11	2,802
	Service/experience design	384	31	7	422	349	27	1	377	240	16	1	257
	Industrial craft design	922	11	46	979	815	9	42	866	526	3	28	557
	Design infrastructure	630	91	0	721	579	66	0	645	422	39	0	461

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2018

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc.

When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorships, Freelancers

13) During the period, the total number of graduates of nationwide Institutions of higher education is 555,808, the total number of employees is 332,839, and the employment rate is 67.7% (Office of education, 2019)

14) General design is a department whose design majors do not fall into eight major categories and includes design, design engineering, design, and design majors.

- The employment of graduates reached 66.2%, up 1.3%p year-on-year.
- Regarding the rate by degree, bachelor's degree reached 66.2%, master's degree reached 66.3% and doctor's degree reached 76.5%.

▼ Status of graduates and employment of department of design (Unit : Persons)

Classification	Status of Graduates and Employment		
	Graduates(A)	Employed(B)	Employment rate(C=B/A, %)
2018	19,650	13,014	66.2
2017	20,673	13,427	64.9
YoY	▼ 1,023	▼ 413	▲ 1.3%p

▼ Status of graduates and employment of department of design by classification (Unit : Persons)

Classification		Status of Graduates and Employment											
		Graduates(A)				Employed(B)				Employment rate(C=B/A, %)			
		bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total	bachelor's degree	Master's degree	Doctor's degree	Total
Total		19,229	306	115	19,650	12,723	203	88	13,014	66.2	66.3	76.5	66.2
University type	Junior college	8,331	-	-	8,331	5,634	-	-	5,634	67.6	-	-	67.6
	University	9,930	-	-	9,930	6,349	-	-	6,349	63.9	-	-	63.9
	Industrial college	207	-	-	207	145	-	-	145	70.0	-	-	70.0
	University(college)	19	-	-	19	14	-	-	14	73.7	-	-	73.7
	Graduate college	-	306	115	421	-	203	88	291	-	66.3	76.5	69.1
	Functional college	742	-	-	742	581	-	-	581	78.3	-	-	78.3
Major	General design	1,271	110	34	1,415	785	78	27	890	61.8	70.9	79.4	62.9
	Product design	3,240	34	14	3,288	2,157	27	12	2,196	66.6	79.4	85.7	66.8
	Visual design	3,345	11	2	3,358	2,192	8	2	2,202	65.5	72.7	100.0	65.6
	Digital/multimedia design	2,516	22	3	2,541	1,581	16	1	1,598	62.8	72.7	33.3	62.9
	Space design	3,003	16	6	3,025	2,032	13	6	2,051	67.7	81.3	100.0	67.8
	Fashion/textile design	4,111	11	13	4,135	2,788	3	11	2,802	67.8	27.3	84.6	67.8
	Service/experience design	349	27	1	377	240	16	1	257	68.8	59.3	100.0	68.2
	Industrial craft design	815	9	42	866	526	3	28	557	64.5	33.3	66.7	64.3
	Design infrastructure	579	66	0	645	422	39	0	461	72.9	59.1	0.0	71.5

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2018

※ Employment rate: Employed/([Graduates-(Advanced+Enlisted+Unable to work+Excluder+Foreign students)]\*100

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorships, Freelancers





## 03 Survey Results

1. Companies Utilizing Design
2. Specialized Design Companies
3. Public Sector
4. Design-related Institutions of Higher Education





# 01 Companies Utilizing Design

## 1 Status of Design Utilization

### 1) Utilization of design

- The utilization rate of design of companies in general reached 35.9%.
- Gwangju has the highest utilization rate with 43.9%, followed by Seoul (41.3%), Daejeon (39.1%), etc.

#### ▼ Changes in the utilization rate of design by region

(Unit : %)

Classification		2017	2018	YoY
<b>Total</b>		<b>34.4</b>	<b>35.9</b>	<b>▲1.5%p</b>
Region	Seoul	39.3	41.3	▲2.0%p
	Incheon	37.9	31.6	▼6.3%p
	Gyeonggi	34.1	35.1	▲1.0%p
	Busan	30.0	35.1	▲5.1%p
	Ulsan	36.7	32.2	▼4.5%p
	Gyeongnam	30.5	29.0	▼1.5%p
	Daegu	33.9	34.2	▲0.3%p
	Gyeongbuk	30.1	32.6	▲2.5%p
	Gwangju	35.5	43.9	▲8.4%p
	Jeolla	31.4	35.6	▲4.2%p
	Daejeon	29.6	39.1	▲9.5%p
	Chungcheong	30.1	32.7	▲2.6%p
	Gangwon	37.0	31.2	▼5.8%p
	Jeju	23.9	32.6	▲8.7%p

#### ▼ Utilization rate of design by business-type, scale

(Unit : no. of companies, %)

Classification		2017			2018		
		No. of companies		Utilization rate of design	No. of companies		Utilization rate of design
		Special Design Classification	Companies utilizing design		Special Design Classification	Companies utilizing design	
Business Type	Product design	52,913	12,932	34.4	54,176	14,495	26.8
	Visual design	19,683	8,976	24.4	20,473	10,123	49.4
	Digital/multimedia design	7,986	4,878	45.6	7,536	4,586	60.9
	Space design	80,534	22,355	61.1	79,385	23,569	29.7
	Fashion/textile design	13,608	5,137	27.8	13,748	5,217	37.9
	Service/experience design	70,266	24,652	37.7	72,785	27,707	38.1
	Industrial craft design	18,712	4,964	35.1	19,301	5,109	26.5
	Design infrastructure (design-based technology)	100,437	41,384	26.5	103,466	42,409	41.0
Business Scale	Small companies	299,113	99,743	33.3	305,595	106,925	35.0
	Medium companies	54,036	20,999	38.9	53,447	20,723	38.8
	Midsize companies	8,339	3,368	40.4	8,857	4,129	46.6
	Large companies	2,652	1,168	44.1	2,970	1,439	48.5
<b>Total</b>		<b>364,139</b>	<b>125,278</b>	<b>34.4</b>	<b>370,870</b>	<b>133,216</b>	<b>35.9</b>

※ Design utilization of industrywide companies that have five or more employees reached 16.8%.

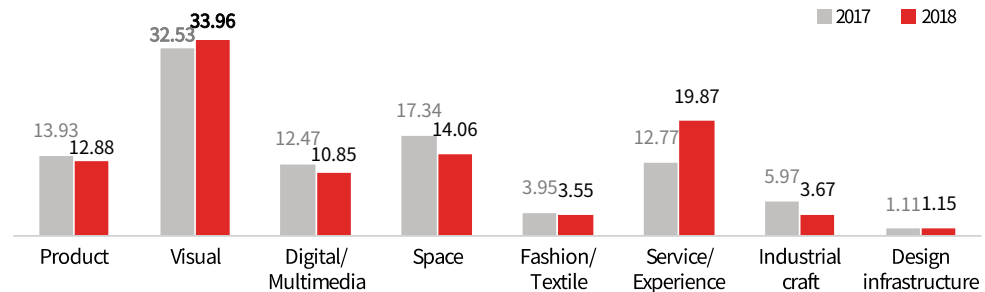
133,216 (No. of companies utilizing design) / 791,670 (industrywide companies that have five or more employees) = 16.8%

## 2) Fields of design utilization

- Among the fields of design mainly used by companies that utilize design (multiple responses allowed), 'Visual design' accounted for the highest proportion with 33.96%, followed by 'Service/experience design' (19.87%), 'Space design'(14.06%), 'Product design'(12.88%), etc.

### ▼ Fields of design utilization

(Unit : %)



### ▼ Fields of design utilization by scale

(Unit : %)

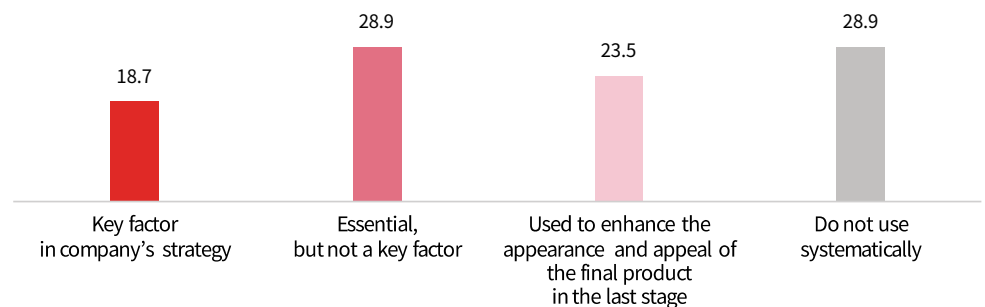
Classification	Product design	Visual design	Digital/multimedia design	Space design	Fashion/textile	Service/experience design	Industrial craft design	Design infrastructure
<b>Total</b>	<b>12.88</b>	<b>33.96</b>	<b>10.85</b>	<b>14.06</b>	<b>3.55</b>	<b>19.87</b>	<b>3.67</b>	<b>1.15</b>
<b>Business Scale</b>								
Small companies	11.96	32.69	12.68	13.51	3.32	20.31	4.54	1.00
Medium companies	15.62	37.40	5.83	15.95	4.41	18.13	1.33	1.33
Midsized companies	14.21	19.63	10.97	3.72	1.66	39.75	2.05	7.99
Large companies	7.92	61.01	2.57	19.29	0.55	7.28	1.38	0.00

## 3) Design utilization stage

- Regarding the design utilization progress of companies utilizing design, 'Essential, but not a key factor'(28.9%) and 'Do not use systematically' (28.9%) show higher proportion.

### ▼ Design utilization stage

(Unit : %)



### ▼ Design utilization stage by scale

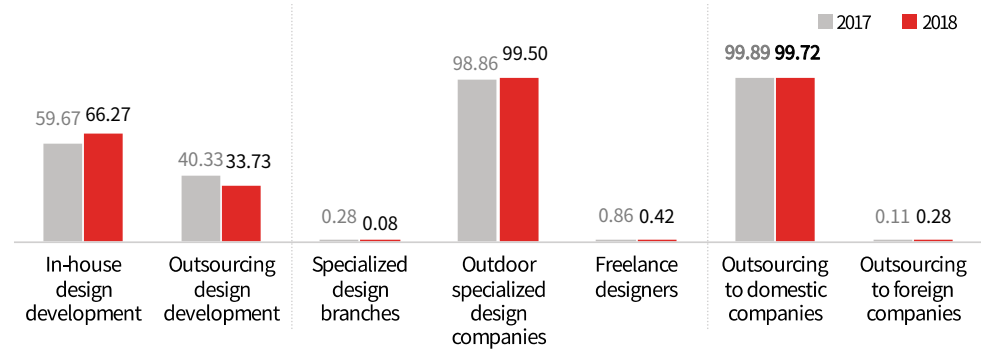
(Unit : %)

Classification	Key factor in company's strategy	Essential, but not a key factor	Used to enhance the appearance and appeal of the final product in the last stage	Do not use systematically
<b>Total</b>	<b>18.7</b>	<b>28.9</b>	<b>23.5</b>	<b>28.9</b>
<b>Business Scale</b>				
Small companies	17.2	34.1	20.0	28.7
Medium companies	22.7	13.7	33.2	30.4
Midsized companies	23.7	39.6	25.0	11.7
Large companies	17.8	19.9	38.9	23.4

#### 4-1) Proportion of in-house/external manpower utilization in design development (in terms of the numbers)

- Looking into the proportion of design development in terms of the numbers, the average percentage of 'in-house design development' is 66.27% and 'outsourcing design development' is 33.73%. In the case of 'outsourcing design development', 'outsourcing to domestic companies' (99.72%) has a high proportion.

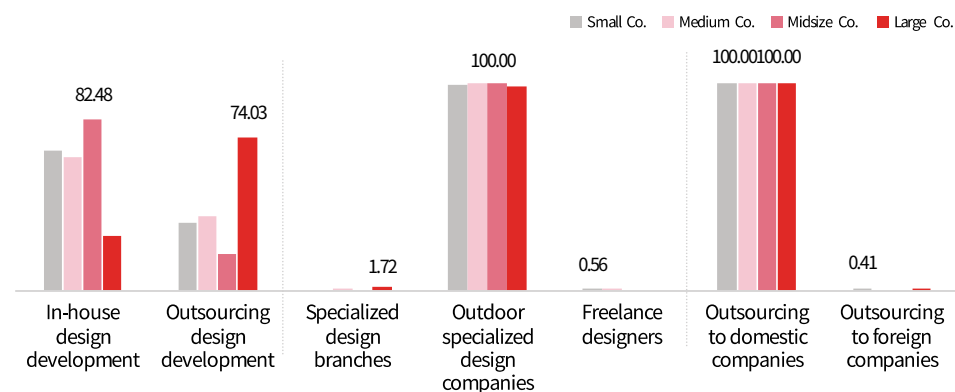
#### ▼ Proportion of in-house/external manpower utilization in design development (Unit : %) (in terms of the numbers)



#### ▼ Proportion of in-house/external manpower utilization in design development by type and scale (Unit : %) (in terms of the numbers)

Classification		In-house/External		Outsourcing type			Domestic/Foreign	
		In-house design development	Outsourcing design development	Specialized design branches	Outdoor specialized design companies	Freelance designer	Outsourcing to domestic companies	Outsourcing to foreign companies
<b>Total</b>		<b>66.27</b>	<b>33.73</b>	<b>0.08</b>	<b>99.50</b>	<b>0.42</b>	<b>99.72</b>	<b>0.28</b>
<b>Business Type</b>	Product design	80.57	19.43	0.39	99.61	0.00	99.98	0.02
	Visual design	78.67	21.33	0.00	99.00	1.00	100.00	0.00
	Digital/multimedia design	85.67	14.33	0.00	93.55	6.45	100.00	0.00
	Space design	59.34	40.66	0.00	99.82	0.18	100.00	0.00
	Fashion/textile design	72.86	27.14	0.00	91.42	8.58	100.00	0.00
	Service/experience design	44.22	55.78	0.00	100.00	0.00	99.15	0.85
	Industrial craft design	80.49	19.51	0.00	100.00	0.00	100.00	0.00
	Design infrastructure	72.04	27.96	0.17	99.83	0.00	100.00	0.00
<b>Business Scale</b>	Small companies	67.10	32.90	1.72	98.28	0.00	99.90	0.10
	Medium companies	64.41	35.59	0.00	100.00	0.00	100.00	0.00
	Midsize companies	82.48	17.52	0.18	99.71	0.12	100.00	0.00
	Large companies	25.97	74.03	0.00	99.44	0.56	99.59	0.41

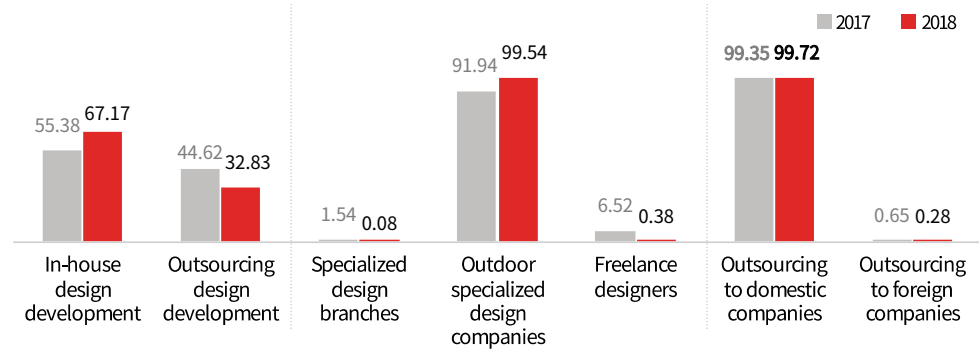
#### ▼ Proportion of in-house/external manpower utilization in design development by scale (Unit : %) (in terms of the numbers)



#### 4-2) Proportion of in-house/external manpower utilization in design development (in terms of cost)

- Looking into the proportion of design development in terms of cost, the average percentage of 'in-house design development' reached 67.17%, and 'outsourcing design development' is 32.83%. In case of 'Outsourcing', 'Outsourcing to domestic companies'(99.72%) account for a large proportion.

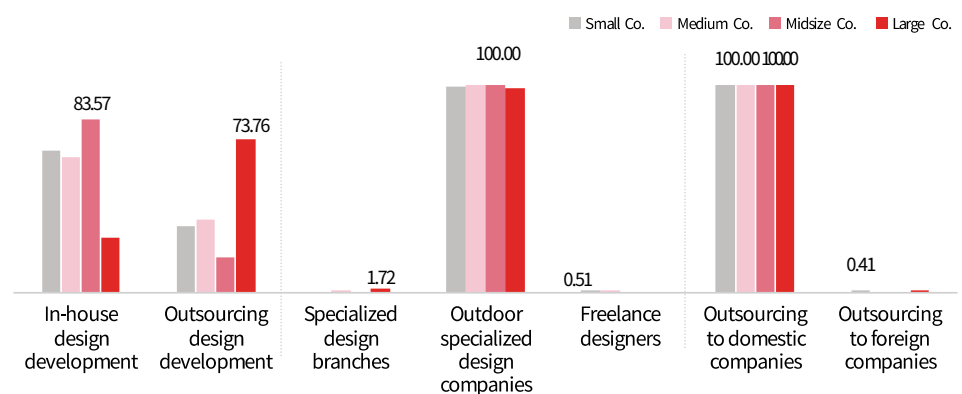
##### ▼ Proportion of in-house/external manpower utilization in design development (Unit : %) (in terms of cost)



##### ▼ Proportion of in-house/external manpower utilization in design development by type and scale (Unit : %) (in terms of cost)

Classification		In-house/External		Outsourcing type			Domestic/Foreign	
		In-house design develop ment	Outsourcing design develop ment	Specialized design branches	Outdoor specialized design companies	Freelance designer	Outsourcing to domestic companies	Outsourcing to foreign companies
Total		67.17	32.83	0.08	99.54	0.38	99.72	0.28
Busi-ness Type	Product design	80.60	19.40	0.39	99.61	0.00	99.98	0.02
	Visual design	81.21	18.79	0.00	99.60	0.40	100.00	0.00
	Digital/multimedia design	86.59	13.41	0.00	93.55	6.45	100.00	0.00
	Space design	60.77	39.23	0.00	99.82	0.18	100.00	0.00
	Fashion/textile design	72.86	27.14	0.00	91.42	8.58	100.00	0.00
	Service/experience design	45.46	54.54	0.00	100.00	0.00	99.15	0.85
	Industrial craft design	81.69	18.31	0.00	100.00	0.00	100.00	0.00
	Design infrastructure	72.42	27.58	0.17	99.83	0.00	100.00	0.00
Busi-ness Scale	Small companies	68.17	31.83	0.00	99.49	0.51	99.59	0.41
	Medium companies	64.87	35.13	0.18	99.71	0.12	100.00	0.00
	Midsize companies	83.57	16.43	0.00	100.00	0.00	100.00	0.00
	Large companies	26.24	73.76	1.72	98.28	0.00	99.90	0.10

##### ▼ Proportion of in-house/external manpower utilization in design development by scale (Unit : %) (in terms of cost)



## 2 Design Investment

### 1) 2018 Status of finance and design investment

- In 2018, the average sales of companies utilizing design reached 24,740.02 million KRW. (21,650.50 million KRW in 2017), the average personnel expenses is 1,802.75 million KRW. (1,894.31 million KRW in 2017), the average R&D expenses is 1,111.62 million KRW (819.53 million KRW in 2017), the average business profit is 2,379.35 million KRW (2,510.81 million KRW in 2017) and the average design investment is 95.77 million KRW (98.57 million KRW in 2017).

#### ▼ Finance and design investment by year

(Unit : Million KRW, %)

Classification	2014	2015	2016	2017	2018	YoY	
						Sum	Proportion
Average sales	35,254	22,183	21,574	21,651	24,740	▲3,089	▲14.3
Average personnel expenses	3,949	1,461	1,097	1,894	1,803	▼ 91	▼ 4.8
Average R&D expenses	2,977	2,049	1,213	820	1,113	▲ 293	▲35.7
Average business profits	3,688	1,384	1,747	2,511	2,379	▼ 132	▼ 5.3
Average design investment	134	131	116	99	96	▼ 3	▼ 3.0

#### ▼ Finance and design investment by business type and scale

(Unit : Million KRW)

Classification	Sales	Personnel expenses	R&D expenses	business profits	Design investment
<b>Total</b>	<b>24,740</b>	<b>1,803</b>	<b>1,113</b>	<b>2,379</b>	<b>96</b>
<b>Busi-ness Type</b>	Product design	126,946	9,372	9,210	19,071
	Visual design	6,082	646	120	440
	Digital/multimedia design	4,556	896	247	246
	Space design	25,234	862	162	552
	Fashion/textile design	5,600	462	188	257
	Service/experience design	13,581	994	109	246
	Industrial craft design	5,995	506	72	316
	Design infrastructure	8,071	963	99	287
<b>Busi-ness Scale</b>	Small companies	3,634	432	57	162
	Medium companies	8,245	1,367	154	409
	Midsized companies	125,907	10,852	1,642	5,775
	Large companies	2,292,376	125,679	125,110	258,230

## 2) Details of design investment

- Concerning the details of design investment, personnel expenses for designers has the largest part with 85.02 million KRW, followed by design service charge with 17.19 million KRW.

### ▼ Details of design investment by business type and scale

(Unit : %)

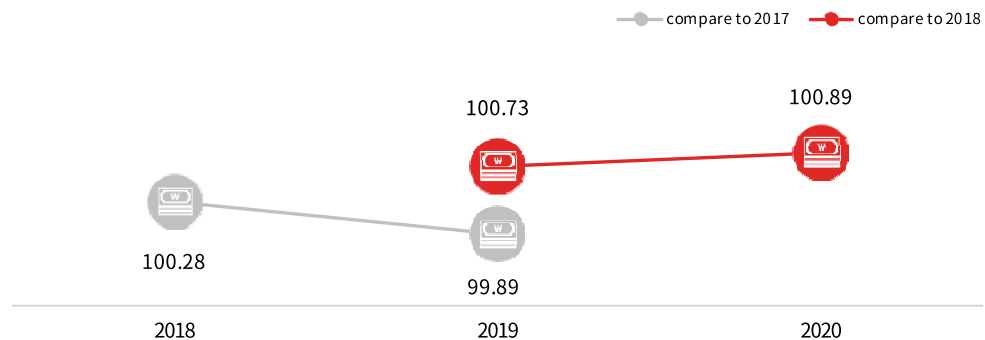
Classification		Personnel expenses for designers	Design service charges			Design machines /devices and software expenses	Expenses for land/bldg for design R&D	Design/ Designer Educational Fee	Expenses for purchase /manage-ment of IPRs in design	Other design -related operating costs
			Total	Specia-lized compa-nies	Others					
Total		85.02	17.19	9.16	8.03	0.84	0.01	0.27	0.01	1.60
Busi-ness Type	Product design	170.28	28.71	12.61	16.10	1.49	0.00	0.37	0.00	1.92
	Visual design	144.12	29.21	16.30	12.91	1.47	0.10	0.42	0.01	3.11
	Digital/multimedia design	123.50	21.09	14.19	6.90	3.31	0.07	0.63	0.00	3.39
	Space design	78.79	11.50	6.87	4.62	0.46	0.00	0.39	0.00	1.58
	Fashion/textile design	96.05	8.07	4.06	4.02	1.08	0.05	0.54	0.00	2.46
	Service/experience design	73.50	20.72	11.61	9.11	0.10	0.00	0.04	0.00	0.67
	Industrial craft design	47.26	12.51	8.30	4.21	0.02	0.00	0.29	0.00	1.73
	Design infrastructure	51.79	12.49	6.14	6.35	0.95	0.00	0.20	0.03	1.43
Busi-ness Scale	Small companies	62.93	14.45	7.73	6.72	0.58	0.00	0.10	0.00	1.28
	Medium companies	93.95	20.80	11.38	9.42	1.21	0.05	0.49	0.00	1.84
	Midsize companies	555.25	37.16	17.80	19.36	7.43	0.00	4.73	0.89	11.77
	Large companies	1,126.77	121.84	56.05	65.79	2.94	0.00	1.60	0.08	8.10

### 3-1) Outlook for design investment

- Compared to 2018, average outlook for 2019 design investment<sup>15)</sup> reached 100.73%, compared to 2018, average outlook for 2020 design investment reached 100.89%.
- 2018 outlook compared to shows more positive outlook than 2017 outlook.

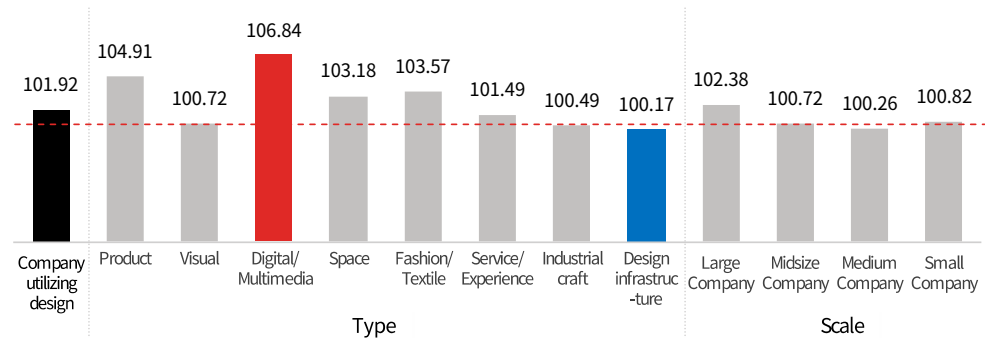
### ▼ Outlook for design investment

(Unit : %)



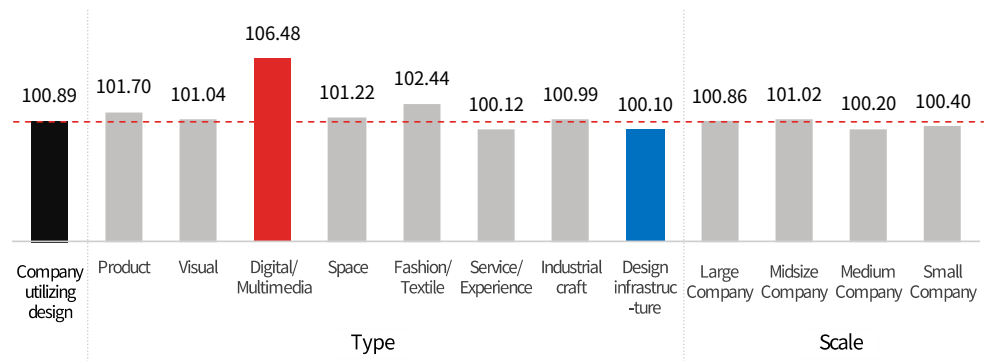
### ▼ Outlook for 2019 design investment by business type and scale

(Unit : %)



<sup>15)</sup> 2019/2020 Outlook : The same amount as 2018 is shown as 100%, while an increase from 2018 is shown as above 100% and decrease from 2018 is shown as less than 100%. For example, if the amount is half that of 2018, it is shown as 50%, and if it is twice as much as that of 2018, it is shown as 200%

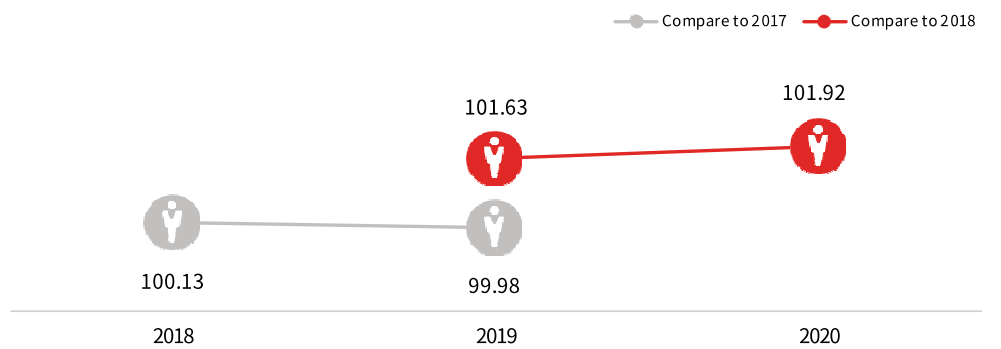
▼ Outlook for 2020 design investment by business type and scale (Unit : %)



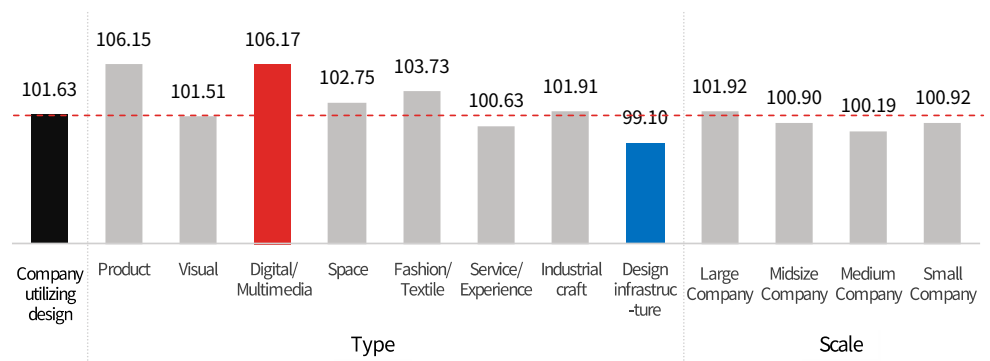
3-2) Outlook for designer employment

- Compared to 2018, average outlook for the 2019 designer employment reached 101.63%,  
Compared to 2018, average outlook for the 2020 designer employment reached 101.92%.

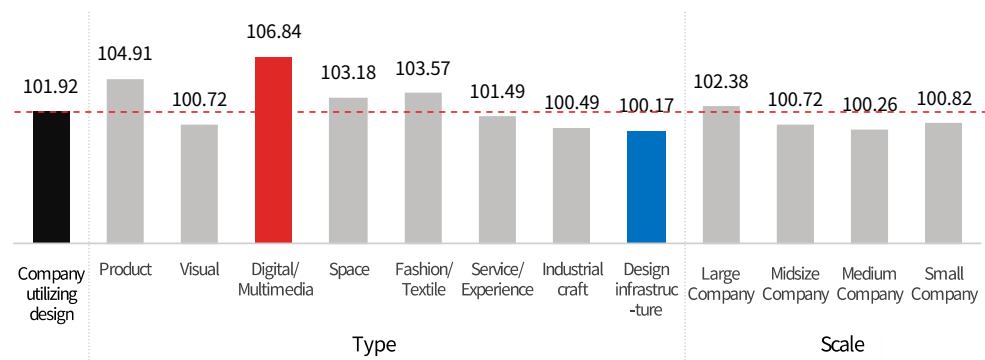
▼ Outlook for designer employment (Unit : %)



▼ Outlook for 2019 designer employment by business type and scale (Unit : %)



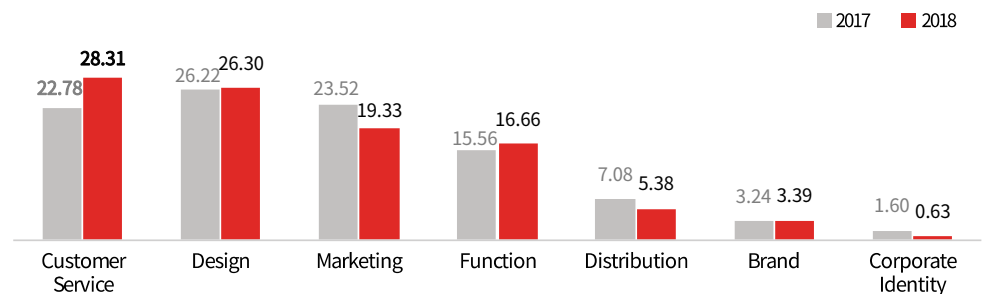
▼ Outlook for 2020 designer employment by business type and scale (Unit : %)



4) Ratio of factors that affect product sales

- Among factors that affect product sales, 'Customer service' has the largest proportion with 28.31%, followed by 'Design' (26.30%), 'Marketing' (19.33%), 'Function' (16.66%), etc.

▼ Ratio of factors that affect product sales (Unit : %)



▼ Ratio of factors that affect product sales by business type and scale (Unit : %)

Classification		Customer Service	Design	Marketing	Function	Distribution	Brand	Corporate Identity
<b>Total</b>		<b>28.31</b>	<b>26.30</b>	<b>19.33</b>	<b>16.66</b>	<b>5.38</b>	<b>3.39</b>	<b>0.63</b>
<b>Business Type</b>	Product design	14.97	27.47	18.83	28.70	6.20	2.95	0.88
	Visual design	18.87	28.16	21.64	18.35	8.91	3.50	0.56
	Digital/multimedia design	27.26	28.20	28.41	11.72	2.13	1.71	0.57
	Space design	19.78	29.31	19.70	25.39	2.46	3.09	0.27
	Fashion/textile design	22.47	30.34	21.87	14.19	7.21	3.89	0.04
	Service/experience design	42.83	26.60	12.98	6.60	3.10	6.28	1.61
	Industrial craft design	21.88	23.97	16.63	26.96	9.35	0.89	0.31
	Design infrastructure	31.99	23.16	21.92	13.46	7.02	2.21	0.25
<b>Business Scale</b>	Small companies	31.02	27.43	19.56	13.15	5.48	2.99	0.37
	Medium companies	20.80	23.05	18.45	26.90	5.14	4.28	1.38
	Midsized companies	26.60	26.31	23.39	9.29	5.84	7.72	0.86
	Large companies	21.71	26.48	20.23	21.86	3.88	5.15	0.69

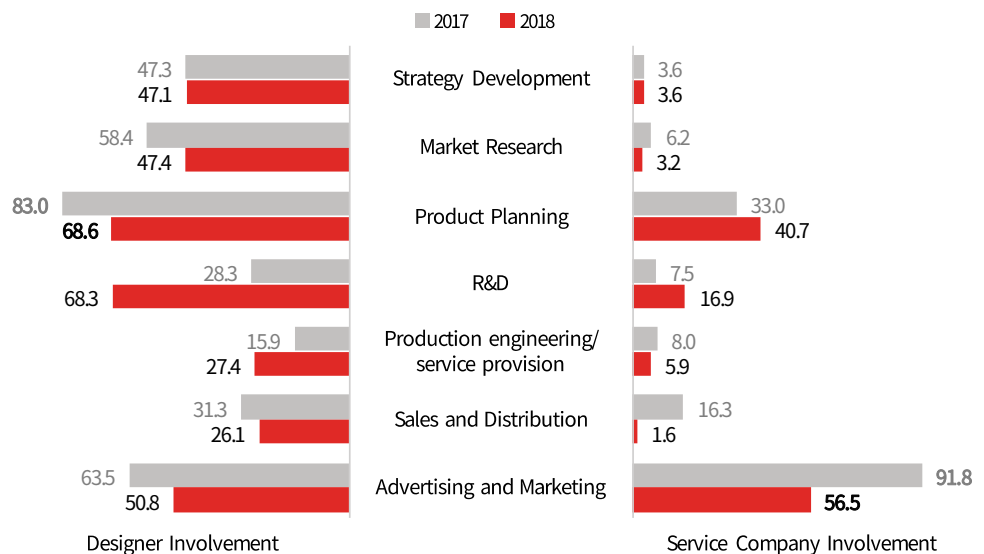


### 3 Design Competency

#### 1) Involvement of designer/service companies in the development process

- In the process of development of new products by companies that utilize design, the stage in which designers got involved (multiple responses allowed) most frequently are 'product planning' (68.6%) and 'R&D' (68.3%), followed by 'Advertising and marketing'(50.8%), 'Market Research' (47.4%), 'Business strategy development' (47.1%), etc.
- In the process of development of new products, the stage in which service companies got involved (multiple responses allowed) most frequently is 'advertising and marketing stage' (56.5%) and 'Product planning' (40.7%).

#### ▼ Involvement of designer/service companies in the development process (Unit : %)



#### ▼ Involvement of designer in the development process by business type and scale (Unit : %)

Classification	Business strategy development	Market research	Product planning	R&D	Production engineering/service provision	Sales and distribution	Advertising and marketing
<b>Total</b>	<b>47.1</b>	<b>47.4</b>	<b>68.6</b>	<b>68.3</b>	<b>27.4</b>	<b>26.1</b>	<b>50.8</b>
<b>Business Type</b>	Product design	57.0	64.5	79.6	84.3	55.8	42.2
	Visual design	69.1	70.8	91.9	56.7	32.2	43.5
	Digital/multimedia design	32.9	35.4	71.3	89.0	20.0	8.2
	Space design	31.8	35.2	54.9	72.6	22.9	13.9
	Fashion/textile design	36.5	44.1	66.2	93.9	27.9	31.1
	Service/experience design	54.0	41.6	56.9	52.1	17.2	11.1
	Industrial craft design	48.3	52.5	61.6	84.0	36.0	46.9
	Design infrastructure	43.7	43.7	70.2	63.5	21.9	26.6
<b>Business Scale</b>	Small companies	39.1	40.8	60.7	69.3	22.6	22.2
	Medium companies	70.1	66.3	90.4	64.4	40.7	37.5
	Midsize companies	35.2	38.9	81.3	86.0	34.7	23.0
	Large companies	60.7	60.6	71.6	79.2	38.8	17.7

▼ Involvement of service companies in the development process by business type and scale (Unit : %)

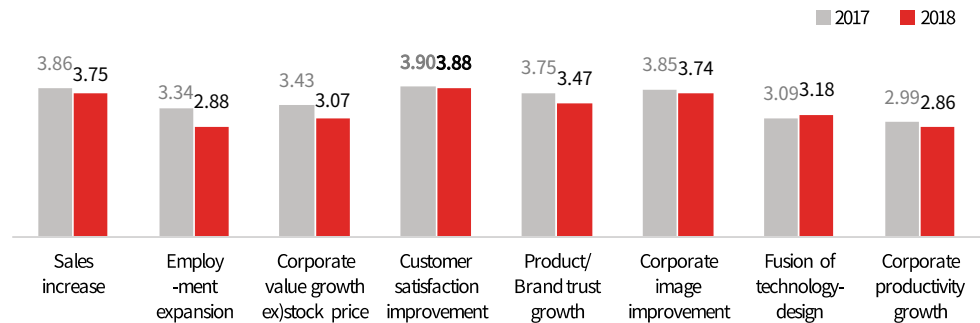
Classification		Business strategy development	Market research	Product planning	R&D	Production engineering/service provision	Sales and distribution	Advertising and marketing
전체		3.6	3.2	40.7	16.9	5.9	1.6	56.5
Business Type	Product design	0.9	2.3	37.7	14.8	6.8	0.0	61.0
	Visual design	4.3	0.0	34.3	15.1	0.4	4.3	62.3
	Digital/multimedia design	5.2	2.8	30.2	3.3	15.3	0.0	63.9
	Space design	0.0	0.4	23.9	19.4	0.0	0.0	67.7
	Fashion/textile design	4.8	5.9	55.5	26.0	8.4	2.1	40.4
	Service/experience design	5.5	0.0	31.9	2.7	1.5	0.0	66.6
	Industrial craft design	6.0	3.3	39.1	29.5	1.7	6.0	59.5
	Design infrastructure	0.0	11.1	48.1	16.0	6.2	0.0	57.0
Business Scale	Small companies	5.7	4.4	66.6	20.9	7.9	0.0	31.5
	Medium companies	0.0	0.0	82.1	51.7	7.4	0.0	13.1
	Midsized companies	6.4	6.4	45.3	22.0	20.2	0.0	32.4
	Large companies	2.3	9.0	48.3	11.0	7.7	0.0	48.0

## 2) Design Investment and Level of Contribution for Utilization

- As a result of looking into the Design Investment and Level of Contribution for Utilization in Companies Utilizing Design(5-point scale), it presented as 'Customer satisfaction improvement' (3.88 points), 'Sales increase' (3.75 points), 'Corporate image improvement' (3.74 points), etc.

▼ Design Investment and Level of Contribution for Utilization

(Unit : Points)



▼ Design Investment and Level of Contribution for Utilization by business type and scale

(Unit : Points)

Classification		Sales increase	Employment expansion	Corporate value growth (ex) stock price	Customer satisfaction improvement	Product/Brand trust growth	Corporate image improvement	Fusion of technology-design	Corporate productivity growth
Total		3.75	2.88	3.07	3.88	3.47	3.74	3.18	2.86
Business Type	Product design	4.14	2.78	3.21	4.06	3.77	3.88	3.50	3.02
	Visual design	4.45	2.93	3.43	4.43	4.06	4.25	3.63	3.13
	Digital/multimedia design	4.21	3.12	3.46	4.30	3.85	4.01	3.72	3.11
	Space design	3.45	2.97	2.99	3.80	3.29	3.68	3.09	2.76
	Fashion/textile design	3.91	3.04	3.17	4.09	3.49	3.92	3.33	3.09
	Service/experience design	3.41	2.72	2.84	3.66	3.14	3.67	2.89	2.66
	Industrial craft design	3.87	2.85	2.92	3.52	3.13	3.38	3.04	2.88
	Design infrastructure	3.74	2.91	3.10	3.86	3.54	3.63	3.13	2.87
Business Scale	Small companies	3.72	2.86	3.08	3.88	3.42	3.67	3.23	2.88
	Medium companies	3.82	2.91	3.05	3.89	3.58	3.93	3.02	2.80
	Midsized companies	3.94	3.19	3.21	4.02	3.79	3.79	3.23	2.97
	Large companies	3.46	3.24	3.18	4.04	3.57	4.01	3.16	2.88

## 4 Status of Manpower

### 1) Status of employees and designers

- The average number of employees in companies utilizing design is 32.54, up 3.58 year-on-year (28.96).
- The average number of designers is 1.96 (2.04 in 2017) and an average of 2.64 people (3.05 people in 2017) work in companies employing designers.

#### ▼ Status of employees and designers

(Unit : Persons)

Classification	2014	2015	2016	2017	2018	YoY
Avg no. of employees	52.08	37.78	34.43	28.96	32.54	▲3.58
Avg no. of companies utilizing design	2.64	2.47	2.16	2.04	1.96	▼0.08
Avg no. of designers companies employing designers	3.74	3.93	3.62	3.05	2.64	▼0.41

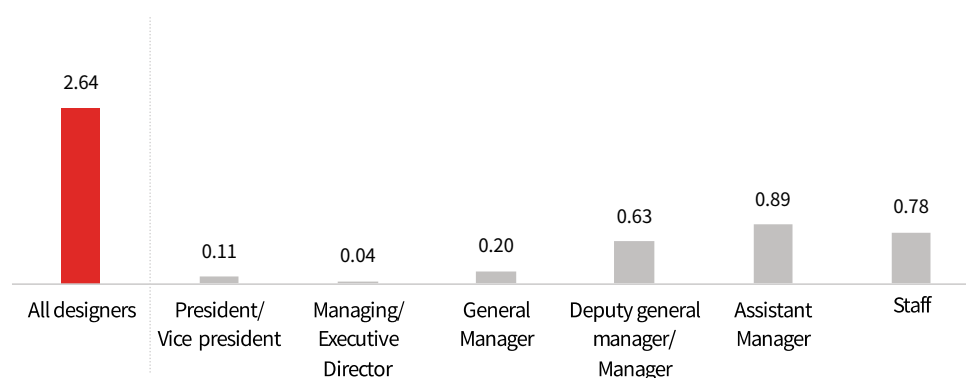
#### ▼ Status of employees and designers by business type and scale

(Unit : Persons)

Classification	Average no. of employees (companies utilizing design)	Average no. of designers (companies utilizing design)	Average no. of designers (companies employing designers)
<b>Total</b>	<b>32.54</b>	<b>1.96</b>	<b>2.64</b>
<b>Business Type</b>			
Product design	110.24	2.62	2.98
Visual design	19.75	2.52	2.69
Digital/multimedia design	22.37	2.69	2.92
Space design	22.57	2.30	3.56
Fashion/textile design	13.40	2.46	3.35
Service/experience design	26.50	1.88	3.39
Industrial craft design	15.03	1.48	1.80
Design infrastructure	24.07	1.40	1.74
<b>Business Scale</b>			
Small companies	11.69	1.59	2.14
Medium companies	34.07	2.29	3.04
Midsized companies	252.26	10.38	11.95
Large companies	1,546.47	13.40	42.74

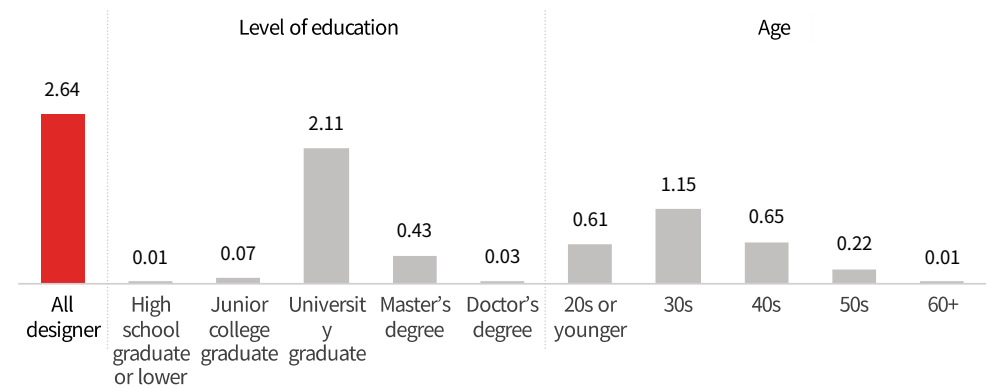
#### ▼ The number of designers by rank

(Unit : Persons)



▼ The number of designers by level of education/age

(Unit : Persons)



▼ The number of designers by business type

(Unit : Persons)

Classification	Product design	Visual design	Digital/media design	Space design	Fashion/textile design	Service/experience design	Industrial craft design	Design infrastructure	Other fields of design
<b>Total</b>	<b>0.42</b>	<b>0.43</b>	<b>0.32</b>	<b>0.52</b>	<b>0.23</b>	<b>0.50</b>	<b>0.02</b>	<b>0.21</b>	<b>0.00</b>
Small companies	0.31	0.35	0.30	0.39	0.13	0.44	0.88	0.26	0.00
Medium companies	0.51	0.61	0.18	0.79	0.31	0.57	0.00	3.02	0.00
Midsized companies	2.40	0.66	2.51	0.51	1.47	1.38	0.02	0.05	0.00
Large companies	8.31	5.33	5.38	8.28	9.70	4.60	0.01	0.21	0.00

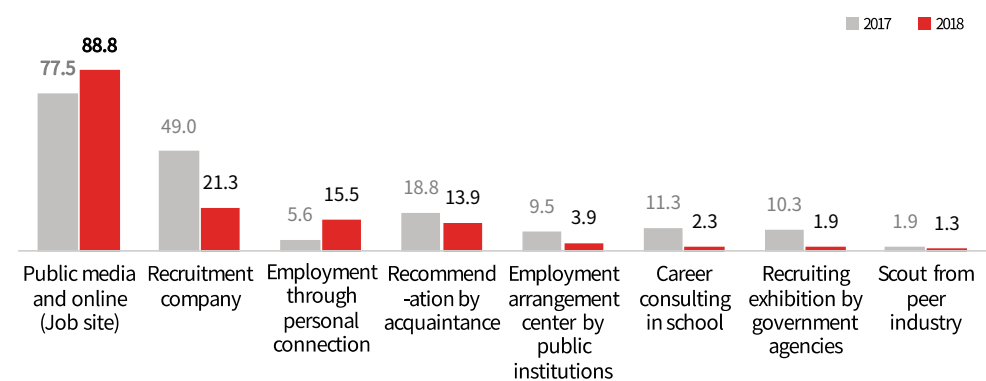
## 5 Others

### 1) Recruitment process of design manpower(Multiple responses)

- Concerning the process of hiring design manpower such as design R&D, it presented as 'Recruitment through public media and online(job site)' (88.8%), 'Recruitment company (including head hunting company)' (21.3%), 'Employment by personal connection'(15.5%), etc.

▼ Recruitment process of design manpower(Multiple responses)

(Unit : %)



▼ Recruitment process of design manpower

(Unit : %)

Classification	Public media and online	Recruitment company	Employment through personal connection	Recommendation by acquaintance	Employment arrangement center by public institutions	Career consulting in school	Recruiting exhibition by government agencies	Scout from peer industry	Others
1st+2nd priority	88.8	21.3	15.5	13.9	3.9	2.3	1.9	1.3	0.0
1st priority	84.4	7.1	1.6	2.4	2.8	1.0	0.7	0.0	0.0

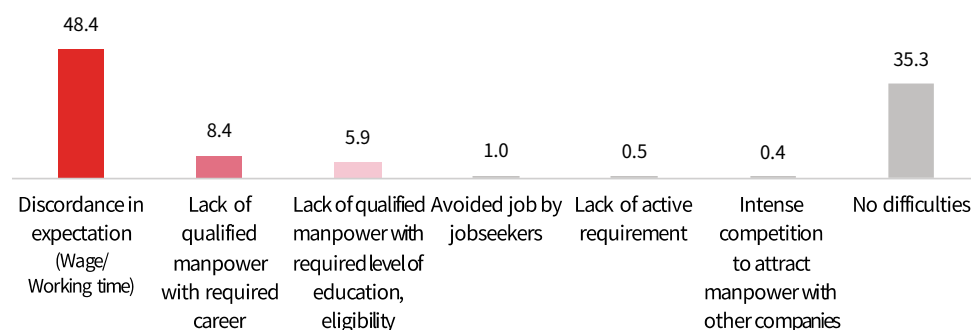
▼ Recruitment process of design manpower by business type and scale(Multiple responses) (Unit : Persons)

Classification	Public media and online	Recruit -ment company	Recommen -dation by acquaintance	Career consulting in school	Employment arrangement center by public institutions	Recruiting exhibition by government agencies	Employment through personal connection	Scout from peer industry
<b>Total</b>	<b>88.8</b>	<b>21.3</b>	<b>15.5</b>	<b>13.9</b>	<b>3.9</b>	<b>2.3</b>	<b>1.9</b>	<b>1.3</b>
<b>Busi -ness Type</b>	Product design	90.6	24.6	8.7	11.8	2.4	2.6	2.2
	Visual design	81.9	27.0	6.6	11.0	7.1	5.5	0.6
	Digital/multimedia design	92.9	23.3	33.3	3.5	1.2	1.0	0.0
	Space design	90.2	14.0	25.1	14.2	3.2	5.7	0.5
	Fashion/textile design	89.6	23.5	22.0	15.3	2.1	4.3	0.0
	Service/experience design	96.1	17.9	9.8	15.2	9.8	0.0	6.4
	Industrial craft design	83.8	0.3	11.7	39.4	0.7	0.3	0.0
	Design infrastructure	86.1	25.4	16.3	12.8	2.1	1.1	1.8
<b>Busi -ness Scale</b>	Small companies	88.0	20.2	19.4	12.8	3.2	1.7	1.5
	Medium companies	90.3	23.1	3.9	18.1	5.9	3.0	3.2
	Midsized companies	98.0	36.2	22.6	0.0	0.3	22.9	0.0
	Large companies	90.7	51.3	12.5	0.0	3.7	9.6	0.0

## 2) Causes of difficulties in hiring design manpower

- Regarding the causes of difficulties in hiring design manpower,  
‘Discordance in expectation (Wage/working time)’ has the largest proportion with 48.4%.  
Meanwhile, ‘No difficulties’ reached 35.3%.
- In Industrial craft design, ‘discordance in expectation(Wage/working time)’ has highest proportion with 64.8%, followed by ‘Avoided job by jobseekers’ (16.2%).

▼ Causes of difficulties in hiring design manpower (Unit : %)



▼ Causes of difficulties in hiring design manpower by business type (Unit : %)

Classification	Discordance in expectation (Wage/Working time)	Lack of qualified manpower with required career	Lack of qualified manpower with required level of education, eligibility	Avoided job by jobseekers	Lack of active requirement	Intense competition to attract manpower with other companies	No difficulties
<b>Total</b>	<b>48.4</b>	<b>8.4</b>	<b>5.9</b>	<b>1.0</b>	<b>0.5</b>	<b>0.4</b>	<b>35.3</b>
<b>Busi -ness Type</b>	Product design	49.5	9.7	11.0	0.0	0.0	29.8
	Visual design	49.8	12.1	8.7	0.0	2.2	27.2
	Digital/multimedia design	51.8	12.7	5.4	0.0	0.0	28.5
	Space design	58.8	2.3	1.7	1.9	1.7	31.2
	Fashion/textile design	52.9	5.5	10.7	0.0	0.0	30.8
	Service/experience design	47.8	4.2	4.5	0.0	0.0	43.5
	Industrial craft design	64.8	1.7	0.7	16.2	0.0	16.6
	Design infrastructure	40.3	12.2	6.0	0.0	0.0	41.5

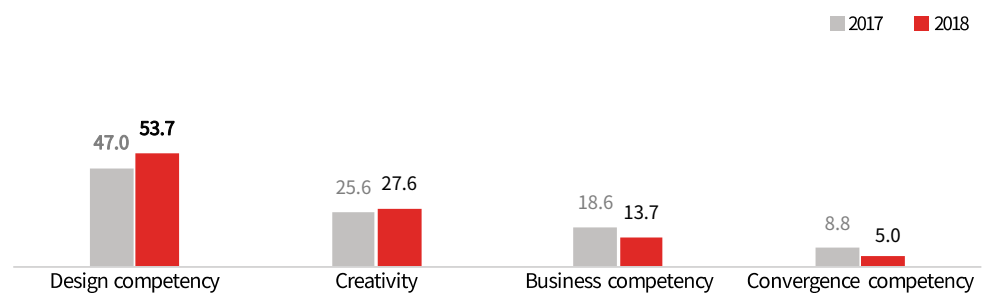
▼ Causes of difficulties in hiring design manpower by business scale (Unit : %)

Classification	Discordance in expectation (Wage/Working time)	Lack of qualified manpower with required career	Lack of qualified manpower with required level of education, eligibility	Avoided job by jobseekers	Lack of active requirement	Intense competition to attract manpower with other companies	No difficulties
<b>Total</b>	<b>48.4</b>	<b>8.4</b>	<b>5.9</b>	<b>1.0</b>	<b>0.5</b>	<b>0.4</b>	<b>35.3</b>
Small companies	46.8	7.1	6.4	1.3	0.5	0.3	37.7
<b>Busi-ness Scale</b> Medium companies	54.8	12.2	4.6	0.2	0.5	0.9	26.8
Midsized companies	17.2	11.0	3.0	0.0	0.0	0.0	68.8
Large companies	28.0	6.6	13.8	0.0	0.0	3.6	48.0

3) The most necessary ability for designers

- Regarding the most necessary ability for designers, 'Design competency' accounts for the largest proportion with 53.7%, followed by 'Creativity'(27.6%), 'Business competency'(13.7%), etc

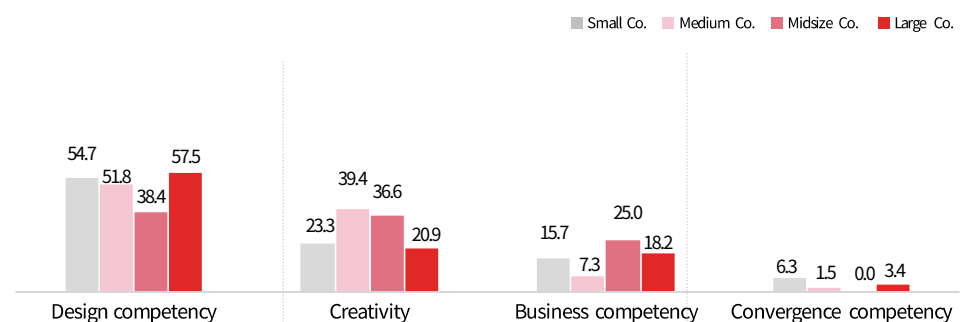
▼ The most necessary ability for designers (Unit : %)



▼ The most necessary ability for designers by business type and scale (Unit : %)

Classification	Design competency	Creativity	Business competency	Convergence competency
<b>Total</b>	<b>53.7</b>	<b>27.6</b>	<b>13.7</b>	<b>5.0</b>
Product design	61.6	21.6	14.5	2.3
Visual design	55.5	38.6	5.9	0.0
Digital/multimedia design	41.9	43.4	12.9	1.8
Space design	70.3	12.7	14.8	2.2
Fashion/textile design	73.8	9.1	13.7	3.4
Service/experience design	40.9	45.6	9.5	3.9
Industrial craft design	31.1	41.1	24.2	3.6
Design infrastructure	50.6	23.8	15.8	9.9
<b>Busi-ness Scale</b> Small companies	54.7	23.3	15.7	6.3
Medium companies	51.8	39.4	7.3	1.5
Midsized companies	38.4	36.6	25.0	0.0
Large companies	57.5	20.9	18.2	3.4

▼ The most necessary ability for designers by business scale (Unit : %)



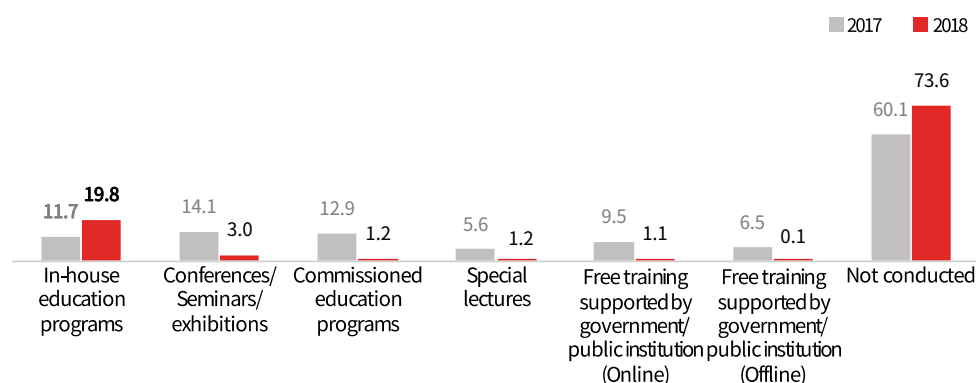
#### 4) Conducted designer education in recent one year

- Regarding conducted designer education in recent one year, 'In-house education programs'(19.8%) accounts for the highest proportion of those.

Meanwhile, 'Not conducted' accounts for 73.6%.

##### ▼ Conducted designer education in recent one year

(Unit : %)



##### ▼ Conducted designer education in recent one year by business type and scale

(Unit : %)

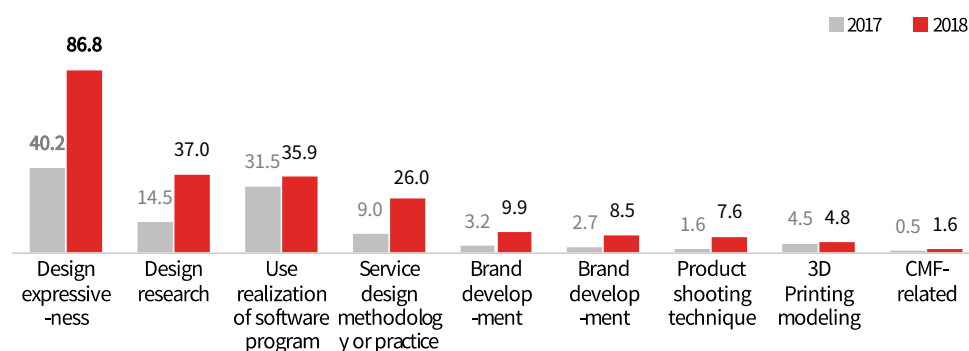
Classification		In-house education programs	Conferences/Seminars/Exhibitions	Commissioned education programs	Special lectures	Free training supported by government/public institution (Online)	Free training supported by government/public institution (Offline)	Not conducted
<b>Total</b>		<b>19.8</b>	<b>3.0</b>	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>0.1</b>	<b>73.6</b>
<b>Business Type</b>	Product design	23.9	2.3	4.2	0.3	2.2	0.0	67.1
	Visual design	45.3	2.8	0.0	1.9	0.0	0.0	50.0
	Digital/multimedia design	28.0	1.6	1.0	2.5	3.7	0.0	63.2
	Space design	21.2	2.9	0.0	2.4	0.0	0.0	73.5
	Fashion/textile design	26.7	1.6	2.0	3.1	0.0	0.0	66.6
	Service/experience design	7.0	2.0	2.0	0.0	2.2	0.0	86.8
	Industrial craft design	21.5	3.6	2.9	0.0	0.0	0.0	72.0
	Design infrastructure	14.4	4.2	0.4	1.0	0.9	0.2	78.9
<b>Business Scale</b>	Small companies	11.4	3.5	0.4	0.5	1.4	0.1	82.7
	Medium companies	42.7	1.3	3.4	1.1	0.2	0.0	51.2
	Midsized companies	40.2	10.7	4.9	29.1	0.0	0.0	15.2
	Large companies	38.8	0.0	4.0	26.2	0.0	0.0	31.0

#### 5-1) Education program required : Design skill·Tool education

- Concerning design skill, tool education program required, 'Design expressiveness' (86.8%) accounts for the highest proportion, up twice year-on-year, followed by 'Design research' (37.0%), 'Use/realization of SW program' (35.9%), 'Service design methodology or practice'(26.0%), etc.

##### ▼ Education program required : Design skill·Tool education

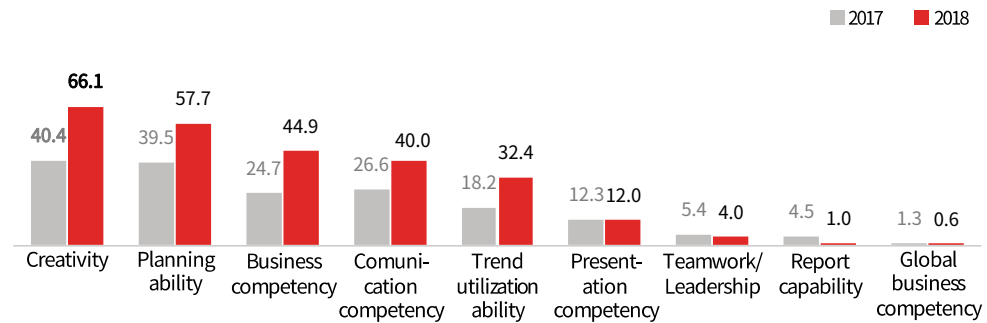
(Unit : %)



## 5-2) Training program required : Competency improvement education

- Regarding competency improvement education, 'Creativity' (66.1%) has the highest proportion, followed by 'Planning ability' (57.7%), 'Business competency' (44.9%), 'Communication competency' (40.0%), 'Trend utilization ability' (32.4%), 'Presentation competency' (12.0%), 'Teamwork/Leadership' (4.0%), 'Report capability' (1.0%), and 'Global business competency' (0.6%), etc.

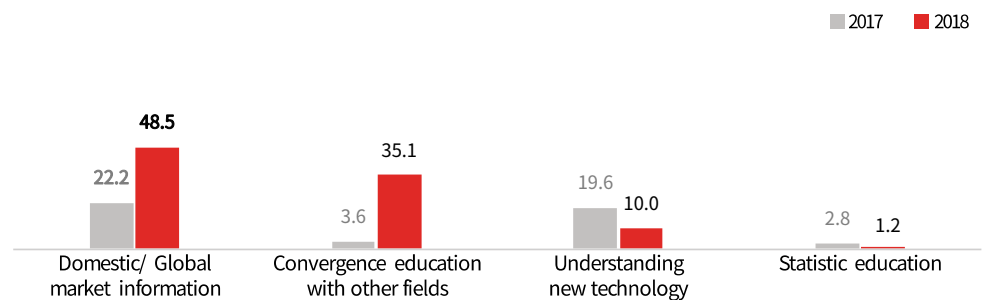
### ▼ Training program required : Competency improvement education (Unit : %)



## 5-3) Training program required : Other educations

- Regarding other required education, 'Domestic/global market information' accounts for the highest proportion with 48.5%, followed by 'Convergence education with other fields' (35.1%).
- 'convergence education with other fields' account for 35.1%, up ten times year-on-year (3.6% in 2017).

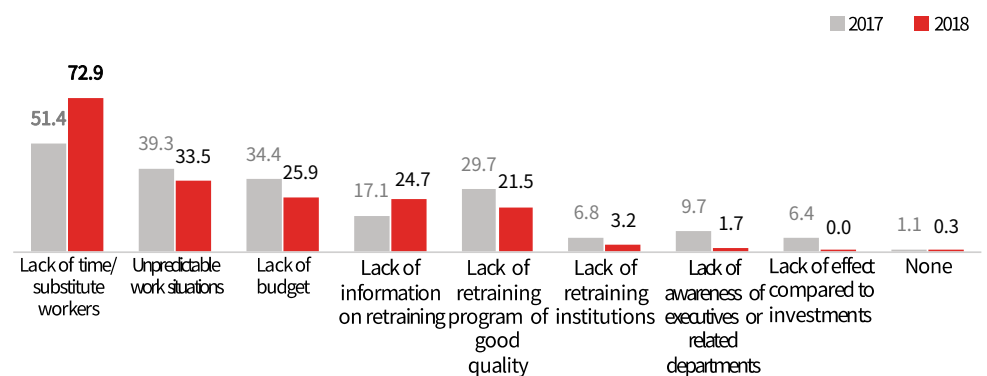
### ▼ Training program required : Other educations (Unit : %)



## 6) Difficulties in retraining designers

- Concerning the biggest difficulties in retraining working designers, 'Lack of time and substitute workers' (72.9%) accounts for the highest proportion, followed by 'Unpredictable work situations' (33.5%), 'Lack of budget' (25.9%), 'Lack of information on retraining' (24.7%), 'Lack of retraining program of good quality' (21.5%), 'Lack of retraining of institutions' (3.2%), 'Lack of awareness of executives or related departments' (1.7%), 'Lack of effect compared to investments' (0.0%), and 'None' (0.3%), etc.

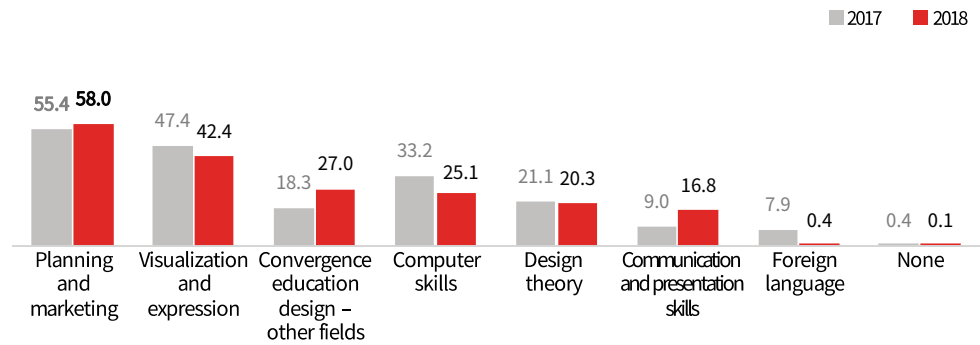
### ▼ Difficulties in retraining designers (Unit : %)





## 7) Design major education that needs reinforcement in university

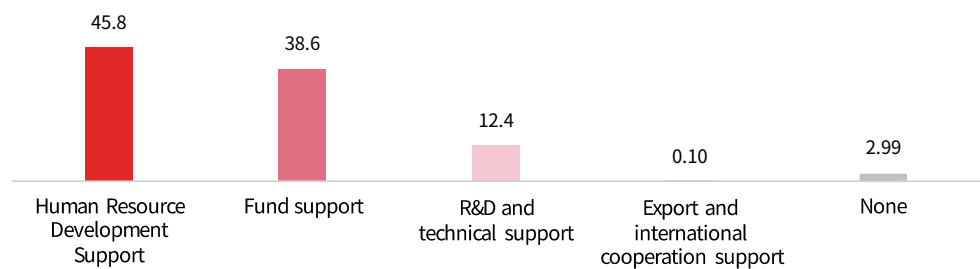
- Regarding design major education that needs reinforcement in university, 'Planning and marketing' (58.0%) accounts for the highest proportion, followed by 'Visualization and expression' (42.4%), 'Convergence education design-other fields' (27.0%), 'Computer skills' (25.1%), 'Design theory' (20.3%), 'Communication and presentation skills' (16.8%), etc.
- 'Convergence education design-other fields' shows the largest increasing, up 8.7%p year-on-year.
- Design major education that needs reinforcement in university (Unit : %)



## 8) Demand for Government Support for Design R & D

- Concerning demand for government support for design R & D, 'Human resource development support' has the highest proportion with 45.8%, followed by 'fund support' (38.6%), 'R&D and technical support' (12.4%), etc.
- Meanwhile, 'None' accounts for 3.0%.

### ▼ Demand for Government support for design R&D (Unit : %)



## 02 Specialized Design Companies

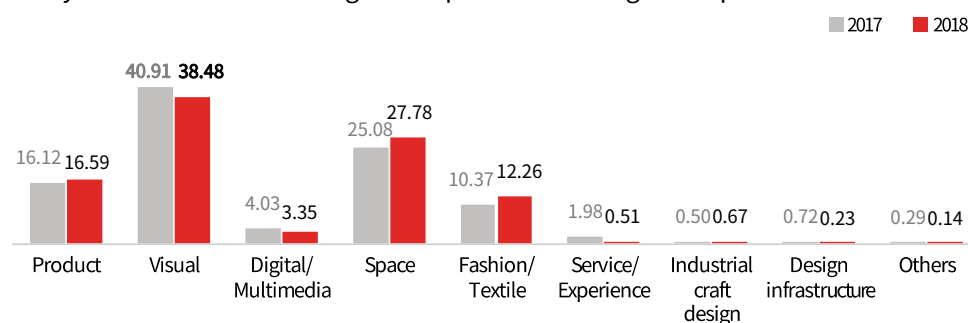
### 1 General Status

#### 1) Key Areas of Service Design for Specialized Design Companies

- Concerning the key areas of service design for specialized design companies (multiple responses allowed), 'Visual design'(38.48%) has the highest proportion, followed by 'Space design'(27.78%), 'Product design'(16.59%), 'Fashion/textile design'(12.26%), etc.

#### ▼ Key areas of service design for specialized design companies

(Unit : %)



#### ▼ Key areas of service design for specialized design companies by business type and scale

(Unit : %)

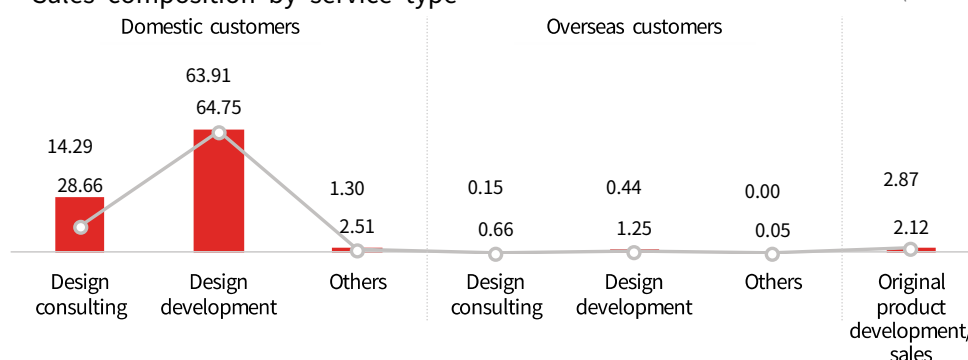
Classification		Product	Visual	Digital/multimedia	Space	Fashion/Textile	Service/Experience	Industrial craft design	Design infrastructure
<b>Total</b>		<b>16.59</b>	<b>38.48</b>	<b>3.35</b>	<b>27.78</b>	<b>12.26</b>	<b>0.51</b>	<b>0.67</b>	<b>0.23</b>
<b>Business Type</b>	Product design	61.73	23.57	3.73	8.65	0.29	0.58	1.06	0.39
	Visual design	3.81	81.07	5.58	8.22	0.27	0.92	0.00	0.11
	Interior design	1.14	5.39	1.20	91.24	0.37	0.00	0.00	0.40
	Other types of fashion/textile design	5.97	7.84	0.69	3.21	78.81	0.23	2.79	0.00
<b>Business Scale</b>	1 persons	10.60	33.12	3.86	28.65	23.17	0.00	0.60	0.00
	2~4 persons	15.97	41.05	2.36	28.34	10.64	0.56	0.83	0.26
	5~9 persons	21.39	40.81	5.61	22.17	8.03	0.95	0.55	0.46
	10~14 persons	27.59	32.92	2.30	26.87	8.37	0.00	0.00	0.00
	15 or more persons	19.66	25.00	6.15	39.35	7.76	0.92	0.00	0.15

#### 2) Sales composition by service type

- Regarding sales composition by service type, 'Design development' (64.75%) has the largest proportion, followed by 'Design consulting' (28.66%).

#### ▼ Sales composition by service type

(Unit : %)

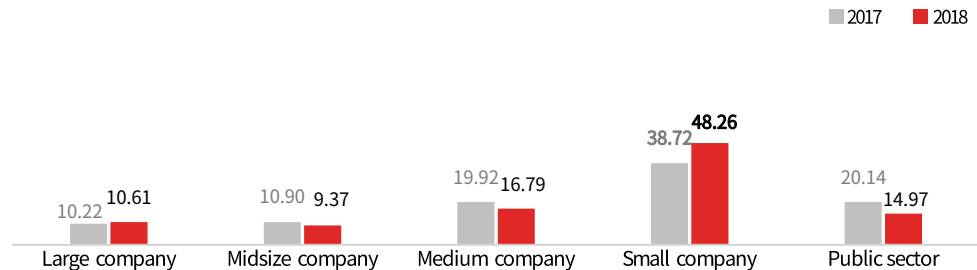


Classification		Domestic			Overseas			Original product development /sales
		Design Consulting	Design development	Others	Design Consulting	Design development	Others	
2018	Composition	28.66%	64.75%	2.51%	0.66%	1.25%	0.05%	2.12%
	Cases	14.29	63.91	1.30	0.15	0.44	0.00	2.87
2017	Composition	31.43%	51.36%	11.41%	0.69%	1.44%	0.04%	3.64%
	Cases	17.90	25.83	18.66	0.07	0.42	0.00	6.50

### 3) Domestic customer composition of design development service

- Concerning the domestic customer composition of design development service, 'Small companies' accounts for the highest proportion with 48.26%, followed by 'Medium companies' (16.79%), 'Public sector'(14.97%), 'Large companies'(10.61%) and 'Midsize companies'(9.37%).

#### ▼ Domestic customer composition of design development service (Unit : %)



#### ▼ Domestic customer composition of design development service by business type and scale (Unit : %)

Classification		Large companies	Midsize companies	Medium companies	Small companies	Public sector
<b>Total</b>		<b>10.61</b>	<b>9.37</b>	<b>16.79</b>	<b>48.26</b>	<b>14.97</b>
<b>Business Type</b>	Product design	11.58	6.76	22.67	46.10	12.88
	Visual design	13.06	12.19	15.75	38.37	20.64
	Interior design	9.83	8.22	15.43	51.82	14.69
	Other types of fashion/textile design	4.32	8.09	12.85	70.29	4.45
<b>Business Scale</b>	1 persons	4.10	5.65	8.16	72.77	9.33
	2~4 persons	9.08	9.19	16.08	51.87	13.78
	5~9 persons	13.77	13.27	24.29	24.55	24.11
	10~14 persons	17.42	15.29	24.03	25.14	18.11
	15 and more persons	37.55	6.15	25.40	15.53	15.37

## 2 Status of Finance and Investment

### 1) 2018 Status of Finance and Investment

- 2018 sales amount of specialized design companies reached an estimated 650.73 million KRW, up year-on-year.  
Average personnel expenses reached 169.71 million KRW (178.28 million KRW in 2017),  
Average R&D expenses reached 24.74 million KRW (24.74 million KRW in 2017),  
Average sales profits reached 64.65 million KRW (65.01 million KRW in 2017).  
Average 2018 design business cost reached 165.27 million KRW(165.60 million KRW).

#### ▼ Changes in the status of finance and investment (Unit : Million KRW, %)

Classification	2014	2015	2016	2017	2018	YoY	
						Sum	%
Sales	659.35	614.94	618.95	640.62	650.73	▲10.11	▲ 1.6
Personnel expenses	123.25	171.26	166.99	178.28	169.71	▼ 8.57	▼ 4.8
R&D expenses	13.46	30.27	24.00	24.73	24.74	▲ 0.01	▲ 0.0
Sales profits	78.33	89.66	65.01	68.70	64.65	▼ 4.05	▼ 5.9
Design investment*	131.6	193.09	169.61	165.60	165.27	▼ 0.33	▼ 0.2

※ From 2015 'design/designer education fee' is added to design investment.

▼ Status of finance and investment by business type and scale (Unit : Million KRW)

Classification		Sales	Personnel expenses	R&D expenses	Business profits	Design investment
<b>Total</b>		<b>650.73</b>	<b>169.71</b>	<b>24.74</b>	<b>64.65</b>	<b>165.27</b>
<b>Business Type</b>	Product design	634.24	179.99	36.18	49.58	182.05
	Visual design	455.98	159.92	31.17	61.20	168.67
	Interior design	957.43	197.43	5.19	85.91	157.66
	Other types of fashion/ textile design	667.82	134.41	23.10	61.58	144.03
<b>Business Scale</b>	1 persons	130.55	53.78	3.27	19.38	60.46
	2~4 persons	353.69	102.40	16.94	45.68	119.25
	5~9 persons	926.20	231.33	34.11	82.08	256.74
	10~14 persons	1,690.51	435.91	75.90	158.19	376.05
	15 or more persons	4,412.78	986.09	123.21	327.21	612.30

2) Design business cost by detail items

- Regarding design business cost by detail items, 'Personnel expenses for designers' reached 18.03 million KRW, which is the highest proportion in the total amount, followed by service charge (design companies : 15.54 million KRW, other design service : 8.54 million KRW).

▼ Design business cost by detail items by business type and scale (Unit : Million KRW)

Classification		Personnel expenses for designers	Design service charges	Design service charges, others	design machines/ devices and software	expenses for land/bldg. for design R&D	ducation expenses for design/ designers	expenses for purchase of IPRs in design	design -related operating costs, average
<b>Total</b>		<b>108.03</b>	<b>15.54</b>	<b>8.54</b>	<b>3.10</b>	<b>12.82</b>	<b>0.38</b>	<b>0.60</b>	<b>16.26</b>
<b>Business Type</b>	Product design	124.89	11.87	9.46	3.75	13.40	0.46	0.88	17.34
	Visual design	116.61	11.73	7.82	3.60	15.83	0.58	0.63	11.87
	Interior design	94.86	31.50	13.10	2.66	8.73	0.23	0.53	6.05
	Other types of fashion/ textile design	82.74	4.90	1.70	1.56	11.01	0.03	0.24	41.85
<b>Business Scale</b>	1 persons	33.99	12.96	2.45	2.83	3.78	0.06	0.00	4.39
	2~4 persons	80.91	13.18	6.89	1.75	7.17	0.39	0.40	8.56
	5~9 persons	169.90	16.26	10.46	5.08	31.87	0.45	1.00	21.71
	10~14 persons	258.85	36.37	14.89	3.20	30.31	0.64	1.54	30.26
	15 or more persons	364.59	31.74	40.59	13.50	31.01	1.02	3.22	126.62

3) Outlook for sales, Business cost, Designer Employment and R&D<sup>16)</sup>

- Concerning outlook for sales, business cost, designer employment and R&D, 'Sales outlook' and 'design investment outlook' shows negative outlooks for 2019 and 2020.
- 'R&D expenses outlook' shows the positive outlook for 2020.

▼ Sales, Business cost, Designer employment and R&D Outlook (Unit : %)

Classification	Compare to 2017		Compare to 2018	
	2018 Outlook	2019 Outlook	2019 Outlook	2020 Outlook
Sales outlook	95.62	101.45	93.36	99.54
Design investment outlook	94.07	98.10	94.24	98.65
Designer employment outlook	108.92	110.74	105.90	107.25
R&D expenses outlook	76.16	78.04	99.88	100.94

16) 2019/2020 Outlook : The same amount as 2018 is shown as 100%, while an increase from 2018 is shown as above 100% and a decrease from 2018 is shown as less than 100%. For example, if the amount is half that of 2018, it is shown as 50%, and if it is twice as much as that of 2018, it is shown as 200%.

- Except 'Designer employment', 2019 outlook for 'Sales', 'Design investment', 'R&D' shows negative outlooks. Regarding outlook for 'Sales', 'Other types of fashion/ textile design(88.67%) and 1 person (81.50%) show negative outlooks. Regarding outlook for 'Design Business cost', Interior design(89.04%) and 1 person company (86.98%) show negative outlooks.

▼ Outlook for sales, business cost, employment, R&D by business type and scale (Unit : %)

Classification		2019 Outlook			
		Sales	Business cost	Designer employment	R&D
<b>Total</b>		<b>93.36</b>	<b>94.24</b>	<b>105.90</b>	<b>99.88</b>
<b>Busi-ness Type</b>	Product design	97.13	95.20	103.02	100.62
	Visual design	93.04	96.63	108.61	100.22
	Interior design	93.28	89.04	103.75	98.71
	Other types of fashion/textile design	88.67	95.20	106.93	99.80
	1 person	81.50	86.98	101.67	100.00
<b>Busi-ness Scale</b>	2~4 persons	95.32	95.81	105.36	99.05
	5~9 persons	97.93	95.18	110.12	101.34
	10~14 persons	98.35	97.37	110.02	100.61
	15 or more persons	95.02	97.50	109.93	103.47

- Except 'Designer employment', 2020 outlook for 'Sales', 'Design investment', 'R&D' shows negative outlooks, as well. Regarding both outlook for 'Sales' and 'Business cost', it's expected negatively in Product design (96.87%, 96.68% each) and Other types of fashion/ textile design(85.24%, 86.53% each).

▼ 2020 Outlook for sales, business cost, employment, R&D by business type and scale (Unit : %)

Classification		2020 Outlook			
		Sales	Business cost	Designer employment	R&D
<b>Total</b>		<b>99.54</b>	<b>98.65</b>	<b>107.25</b>	<b>100.94</b>
<b>Busi-ness Type</b>	Product design	96.87	96.68	109.50	101.88
	Visual design	116.46	108.01	103.58	100.23
	Interior design	105.03	104.12	105.59	100.81
	Other types of fashion/textile design	85.24	86.53	114.59	100.00
	1 person	103.17	103.69	102.93	95.56
<b>Busi-ness Scale</b>	2~4 persons	99.29	101.14	103.88	104.18
	5~9 persons	89.67	87.08	104.65	100.61
	10~14 persons	102.47	101.56	98.94	100.00
	15 or more persons	105.13	102.20	104.19	101.16

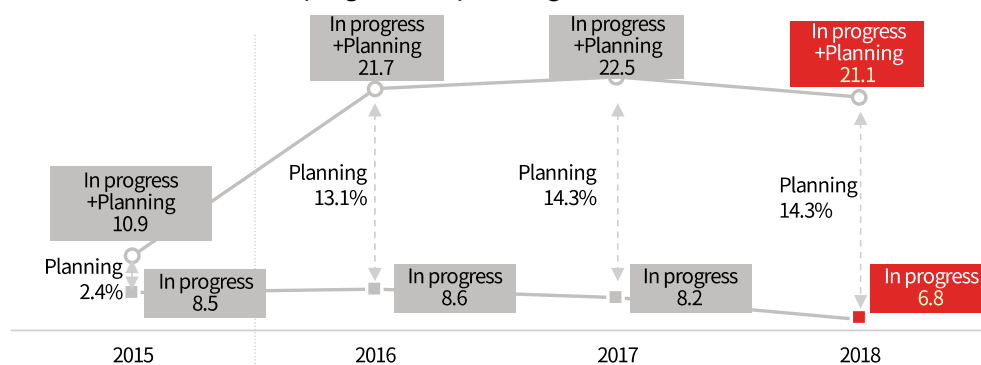
### ③ Overseas Business in Progress of Planning

#### 1) Overseas business in progress or planning

- Among specialized design companies, the percentage of those that have overseas business in progress or planning is 21.1%.
- Overseas business 'in progress' reached 6.8% and 'planning' reached 14.3%.
- Overseas business "in progress" dropped 1.4% p year-on-year

##### ▼ Overseas business in progress or planning

(Unit : %)



##### ▼ Overseas business in progress or planning by business type and scale

(Unit : %)

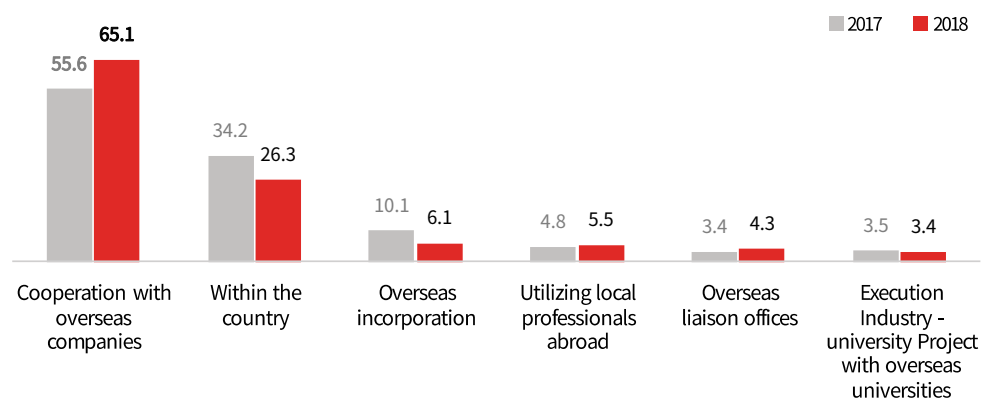
Classification		In progress of overseas business	Planning	In progress + Planning
<b>Total</b>		<b>6.8</b>	<b>14.3</b>	<b>21.1</b>
<b>Business Type</b>	Product design	13.4	25.5	38.9
	Visual design	2.5	15.0	17.5
	Interior design	3.0	5.9	8.9
	Other types of fashion/textile design	13.6	9.4	23.0
<b>Business Scale</b>	1 person	2.0	11.2	13.2
	2~4 persons	7.6	14.4	22.0
	5~9 persons	7.3	19.5	26.8
	10~14 persons	6.1	6.8	12.8
	15 or more persons	15.4	13.2	28.6

#### 2) Means of overseas business

- Regarding the means of overseas business, 'cooperation with overseas companies' (65.1%) has the highest proportion, up 9.5%p year-on-year, followed by 'Within the country' (26.3%).

##### ▼ Means of overseas business

(Unit : %)



▼ Means of overseas business by business type and scale

(Unit : %)

Classification	Cooperation with overseas companies	Within the country	Overseas incorporation	Utilizing local professionals abroad	Overseas liaison offices	Execution Industry - university Project with overseas universities
<b>Total</b>	<b>65.1</b>	<b>26.3</b>	<b>6.1</b>	<b>5.5</b>	<b>4.3</b>	<b>3.4</b>
<b>Busi-ness Type</b>	Product design	60.8	26.6	11.6	12.2	2.5
	Visual design	61.4	31.7	6.9	0.0	0.0
	Interior design	46.9	53.1	0.0	0.0	0.0
	Other types of fashion/textile design	79.4	13.9	0.0	0.0	10.6
<b>Busi-ness Scale</b>	1 person	100.0	0.0	0.0	0.0	0.0
	2~4 persons	57.8	32.9	5.1	5.1	4.2
	5~9 persons	74.0	19.8	0.0	12.5	6.2
	10~14 persons	61.1	53.6	32.6	0.0	14.7
	15 or more persons	77.6	0.0	16.0	0.0	0.0

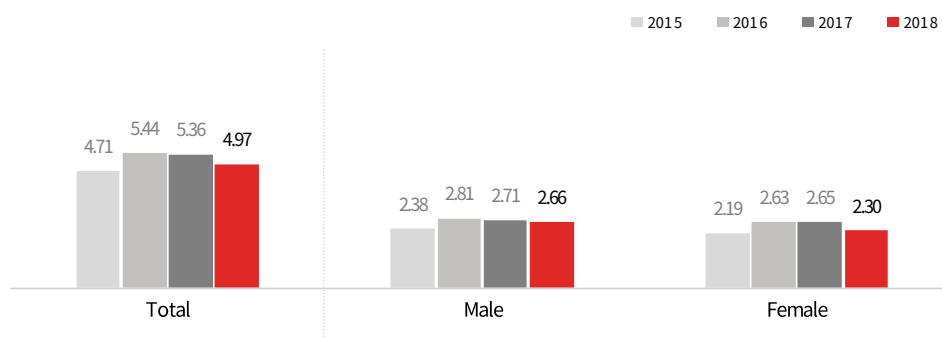
## 4 Status of Manpower

### 1) Status of Manpower

- Average number of manpower of specialized design companies reached 4.97, down slightly year-on-year (5.36 in 2017).  
Total number of manpower of specialized design companies reached an estimated 27,670 (29,480 in 2017).  
Average number of male employees reached 2.66 and female employees is 2.30.

▼ Status of Manpower

(Unit : Persons)



▼ Status of Manpower by business type

(Unit : persons)

Classification	Avg. no. of employees	Avg. no. of male employees	Avg. no. of female employees
<b>Total</b>	<b>4.97</b>	<b>2.66</b>	<b>2.30</b>
<b>Busi-ness Type</b>	Product design	4.85	2.83
	Visual design	4.46	2.04
	Interior design	6.56	4.14
	Other types of fashion/textile design	3.86	1.61

## 2) Status of Designers

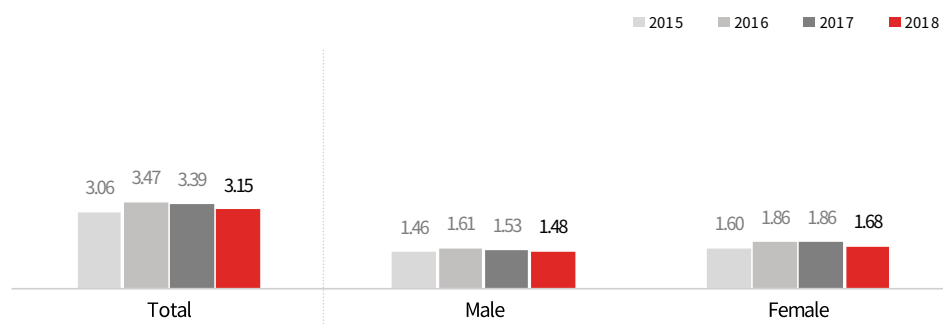
- Average number of designers in specialized design company is 3.15, down slightly year-on-year (3.39 in 2017).

Total number of designers reached an estimated 17,566 (18,645 in 2017)

The number of female designers was 1.68 and the number of male designers was 1.48, which means there are more female designers than male designers.

### ▼ Status of Designers

(Unit : Persons)



### ▼ Status of Designers by business type

(Unit : Persons)

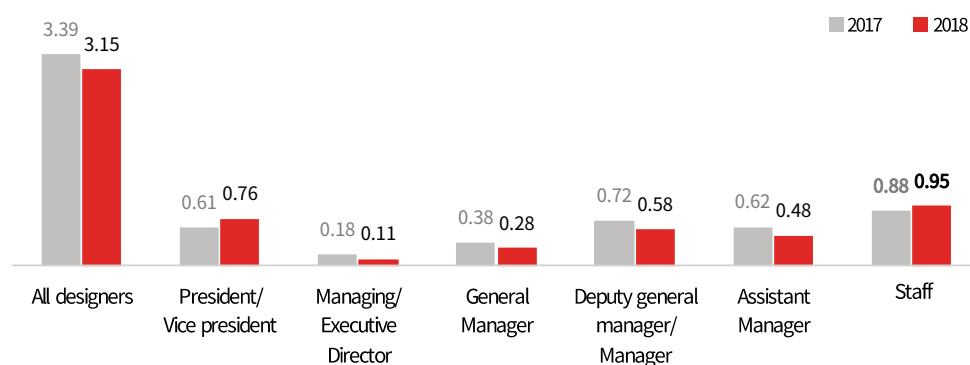
Classification		Avg no. of designers	Avg no. of male designers	Avg. no. of female designers
<b>Total</b>		<b>3.15</b>	<b>1.48</b>	<b>1.68</b>
<b>Business Type</b>	Product design	3.46	1.88	1.58
	Visual design	3.18	1.38	1.80
	Interior design	3.26	1.59	1.67
	Other types of fashion/ textile design	2.47	0.95	1.52

## 3) Number of designers by rank

- Concerning number of designers by rank, 'Staff'(0.95) reached the highest number, followed by 'President/Vice president' (0.76), 'Deputy general manager/manager' (0.58), 'Assistant Manager' (0.48), etc.

### ▼ Number of designers by rank

(Unit : Persons)



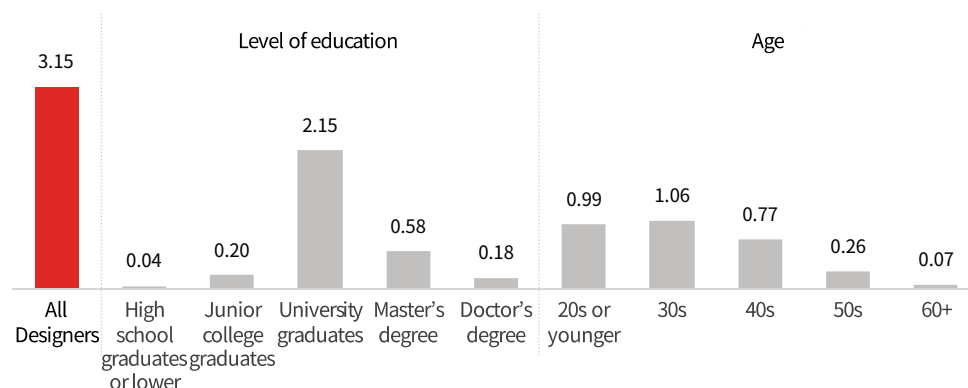


#### 4) Status of designers by level of education/age

- Regarding the number of designers by level of education, 'University graduates' accounts for the highest number with 2.15 and the number of designers by age, '30s' accounts for the highest number with 1.06.

##### ▼ Number of designers by level of education and age

(Unit : Persons)



#### 5) Number of designers by field of design

- Regarding number of designers by field of design, Visual design accounts for the highest number with 1.18, followed by 'Space design' (0.92), 'Product design' (0.57), etc.

##### ▼ Number of designers by field of design

(Unit : Persons)

Classification		Product	Visual	Digital/ multimedia	Space	Fashion / Textile	Service / Experience	Industrial craft design	Design infrastructure	Other
<b>Total</b>		<b>0.57</b>	<b>1.18</b>	<b>0.13</b>	<b>0.92</b>	<b>0.28</b>	<b>0.02</b>	<b>0.01</b>	<b>0.00</b>	<b>0.04</b>
<b>Business Type</b>	Product design	2.15	0.81	0.08	0.33	0.00	0.02	0.03	0.00	0.03
	Visual design	0.14	2.45	0.26	0.26	0.00	0.03	0.00	0.00	0.04
	Interior design	0.04	0.15	0.05	2.98	0.00	0.00	0.00	0.00	0.04
	Other types of fashion/ textile design	0.15	0.20	0.04	0.14	1.81	0.05	0.01	0.00	0.06

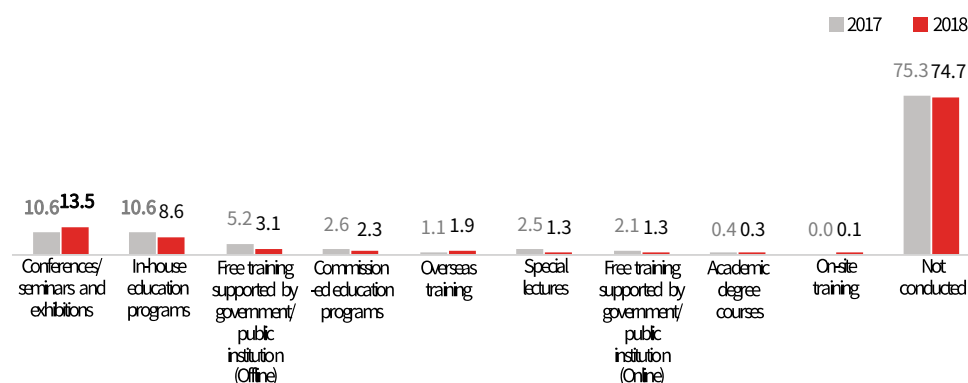
## 5 Designer Retraining

#### 1) Status of Designer Retraining

- Regarding the means of designer retraining carried out in 2018, 'Conference/Seminar and exhibition' (13.5%), followed by 'In-house education program' (8.6%), 'Free training supported by government/public institution' (3.1%), etc.

##### ▼ Status of designer retraining

(Unit : %)



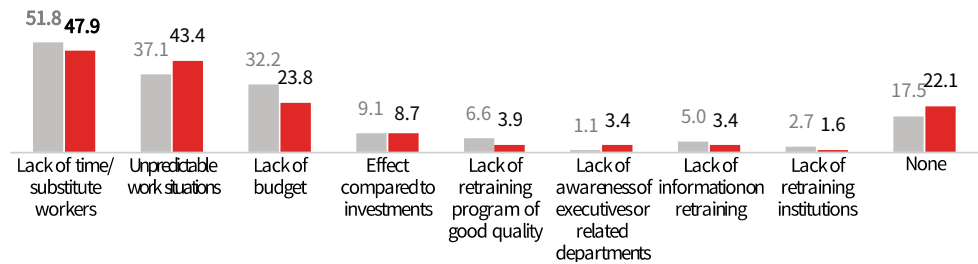
## 2) Difficulties in Retraining

- Concerning difficulties in retraining, most specialized design companies pointed to 'Lack of time and substitute workers'(47.9%), followed by 'Unpredictable work situations'(43.4%), 'Lack of budget' (23.8%), etc.

### ▼ Difficulties in Retraining

(Unit : %)

■ 2017 ■ 2018



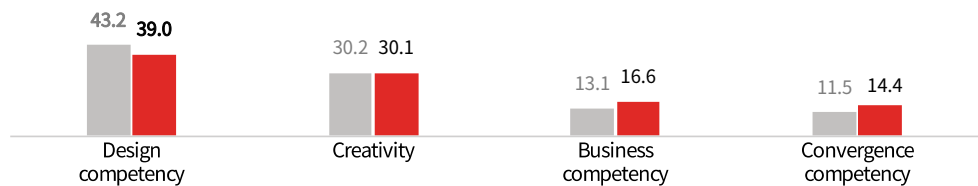
## 3) Necessary Competency for designers

- Regarding necessary competency for designers, 'Design competency'(39.0%) and 'Creativity' (30.1%) accounts for higher proportion.

### ▼ Necessary Competency for designers

(Unit : %)

■ 2017 ■ 2018



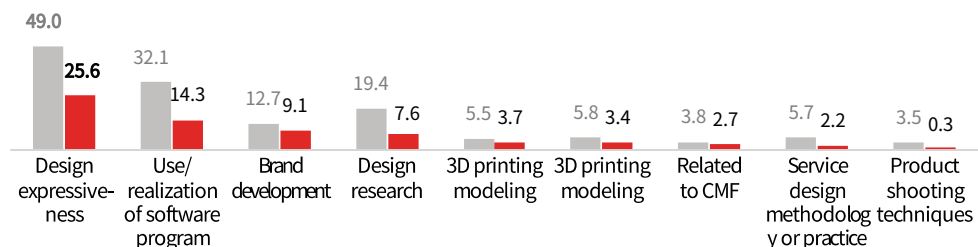
## 4-1) Education program required : Design skill·tool education

- Concerning design skill, tool education program required, 'Design expressiveness' accounts for the highest proportion with 25.6%, followed by 'Use/realization of software program' (14.3%), 'Brand development' (9.1%) and 'Design research' (7.6%), etc.

### ▼ Education program required : Design skill·tool education

(Unit : %)

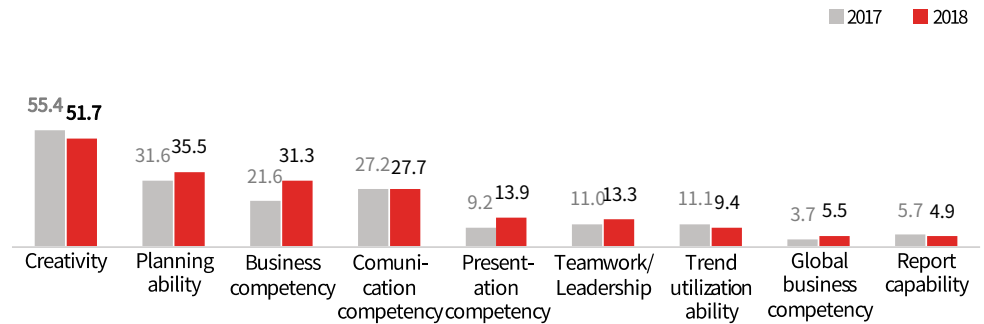
■ 2017 ■ 2018



#### 4-2) Training program required : Competency improvement education

- Regarding competency improvement education, 'Creativity' (51.7%) has the highest proportion, followed by 'Planning ability' (35.5%), 'Business competency' (31.3%), 'Communication competency' (27.7%), etc.

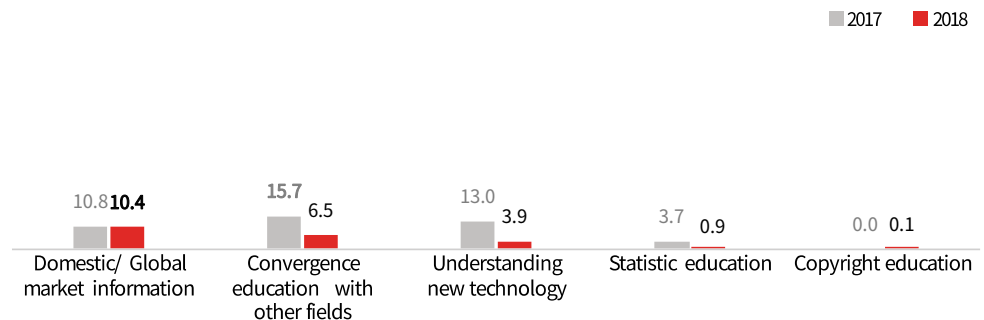
##### ▼ Training program required : Competency improvement education (Unit : %)



#### 4-3) Training program required : Other educations

- Regarding other required education, 'Domestic/global market information' accounts for the highest proportion(10.4%), followed by 'Convergence education with other fields' (6.5%), 'Understanding new technology' (3.9%), etc.

##### ▼ Training program required : Other educations (Unit : %)

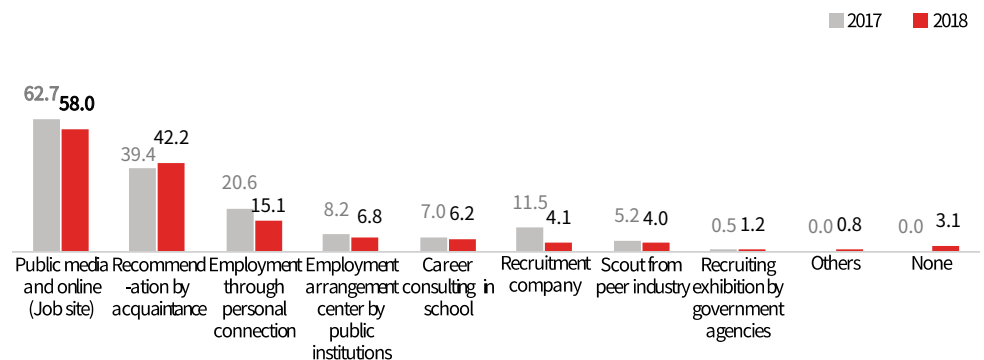


## 6 Manpower in Employment

### 1) Recruitment Process of Design Manpower

- Concerning the process of hiring design manpower (multiple responses allowed), 'Recruitment through public media and online(job site)' (58.0%) has the highest proportion, followed by 'Recommendation by acquaintance' (42.2%), 'employment through personal connection' (15.1%), etc.

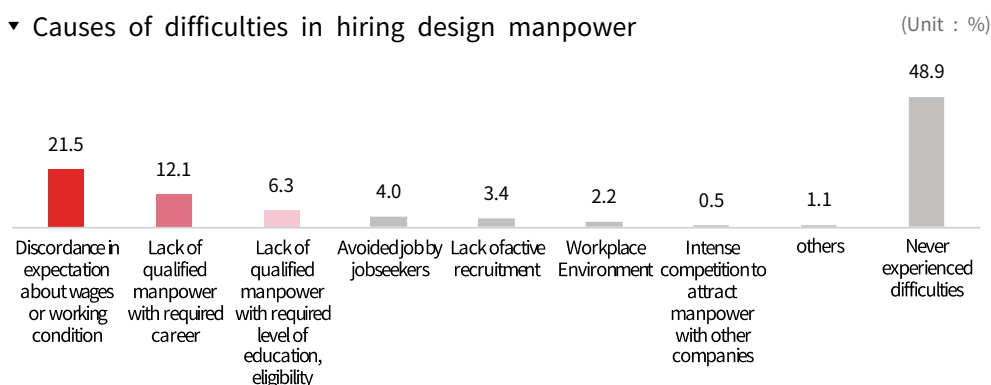
##### ▼ Recruitment Process of Design Manpower (Unit : %)



## 2) Causes of difficulties in hiring design manpower

- Regarding the causes of difficulties in hiring design manpower, 'Discordance in expectation about wages or working condition' (21.5%) accounts for a higher proportion, followed by 'lack of qualified manpower with required careers' (12.1%), 'lack of qualified manpower with required level of education eligibility' (6.3%), etc.
- Meanwhile, 'Never experienced difficulties' accounts for 48.9%.

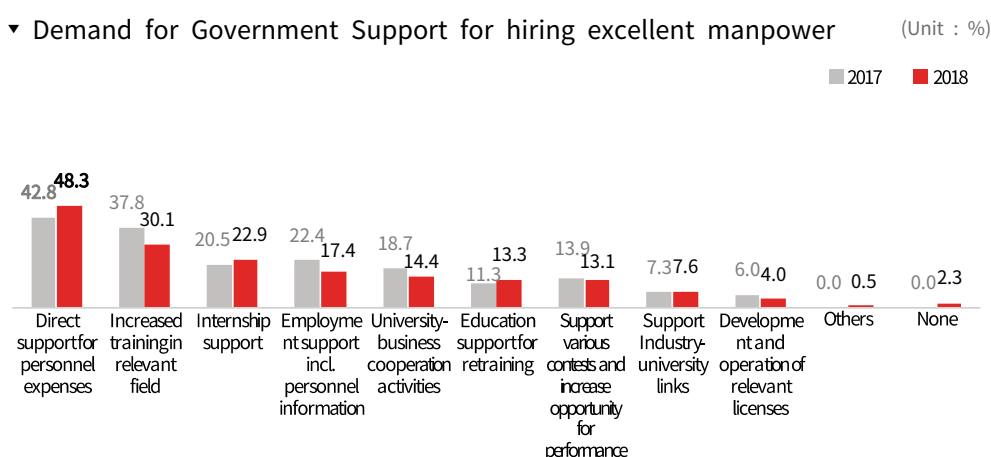
### ▼ Causes of difficulties in hiring design manpower



## 3) Demand for Government Support for hiring excellent manpower

- Concerning demands for government support for hiring excellent manpower, 'Direct support for personnel expenses' has the highest proportion with 48.3%, followed by 'Increased training in relevant field' (30.1%), 'Internship support' (22.9%), 'Employment support including personnel information' (17.4%), 'University-business cooperation activities' (14.4%), etc.

### ▼ Demand for Government Support for hiring excellent manpower

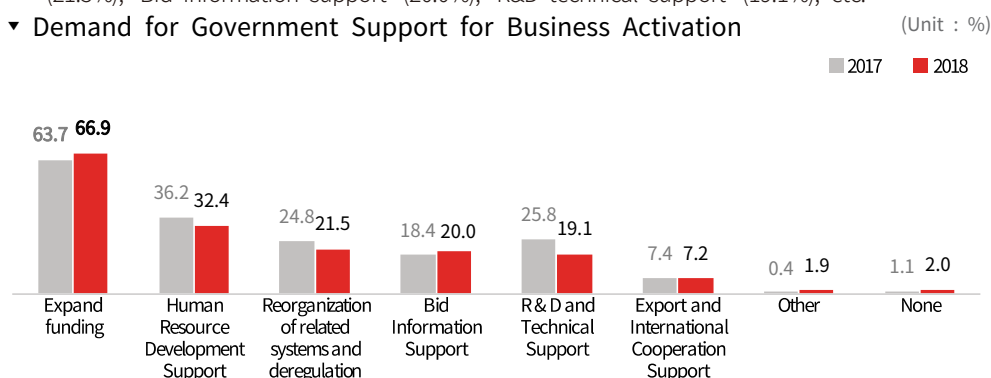


## 7 Others

### 1) Demand for Government Support for Business Activation

- Regarding demand for government support for business activation, 'Expand funding' accounts for the highest proportion with 66.9%, followed by 'Human resource development support' (32.4%), 'Reorganization of related systems and deregulation' (21.5%), 'Bid information support' (20.0%), 'R&D technical support' (19.1%), etc.

### ▼ Demand for Government Support for Business Activation

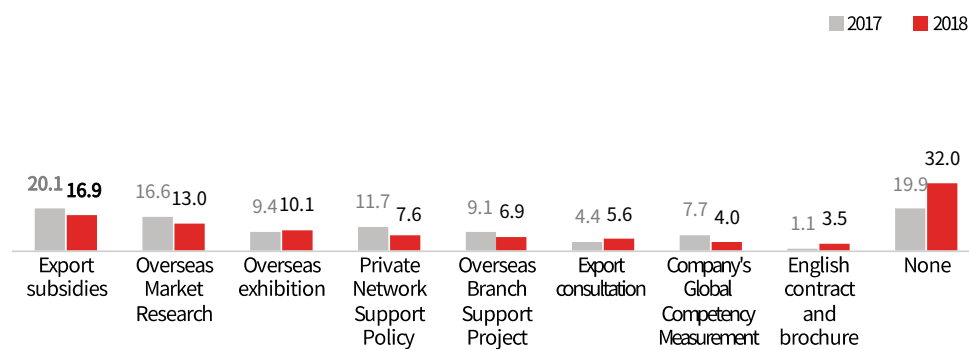


## 2) Demand for Overseas market entry

- Regarding demand for overseas market entry, it is followed by 'Export subsidies' (16.9%), 'Overseas market research' (13.0%), 'Overseas exhibition'(10.1%), etc.
- Meanwhile, it is rather high at 32.0% that there is no government support necessary to enter the overseas market.
- Compared to the previous year's response, 'overseas exhibitions'(10.1%) and 'export consultation meeting' (5.6%) rose.

### ▼ Demand for Overseas market entry

(Unit : %)



## 03 Public Sector

### ① Status of Design Departments

#### 1) Agencies with a Design Department

- Among Central and local government, those 'with a design department' reached 34.8%, down -4.0%p year-on-year (38.8% → 34.8%).
- 'Not having a design department, but having designers' reached 17.8% (17.2% in 2017), which is similar with the last year. 'Having neither design departments nor designers' reached 47.4% (44.0% in 2017), up year-on-year.

#### ▼ Changes in Status of design Department

(Unit : %)

Classification	2014	2015	2016	2017	2018	YoY
Having design departments	47.7	36.6	32.8	38.8	34.8	▼4.0
Not having design departments, but having designers	9.3	15.9	17.3	17.2	17.8	▲0.6
Having neither design departments nor designers	43.0	47.5	49.8	44.0	47.4	▲3.4

#### ▼ Agencies with a design department

(Unit : %)

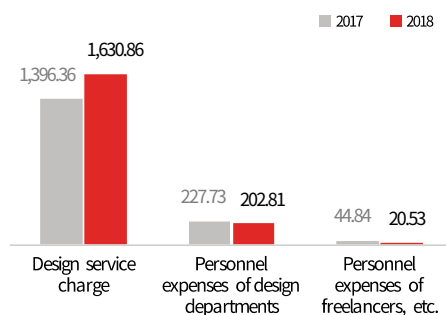
Classification	Having design departments	Not having design departments, but having designers	Having neither design departments nor designers
<b>Total</b>	<b>34.8</b>	<b>17.8</b>	<b>47.4</b>
<b>Type</b>			
Central government	15.2	36.4	48.5
Local government	37.6	15.2	47.3
- City/ province	70.6	5.9	23.5
- City/ country/ district	35.0	15.9	49.1

#### 2) Status of Budget and Manpower of Design Departments

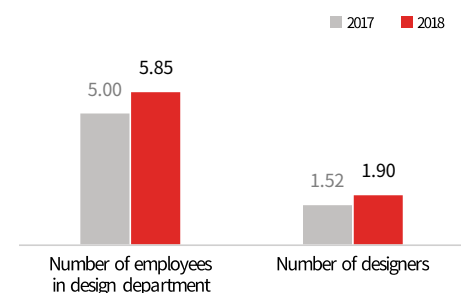
- Concerning the budget of design department, average amount of design service charge reached 1,630.86 million KRW, personnel expenses of design department reached 202.81 million KRW and personnel expenses of freelancers reached 20.53 million KRW. Average number of design department reached 5.85 (5.00 in 2017) and designers reached 1.90 (1.52 in 2017), rose compared to the last year.

#### ▼ Status of budget and manpower of design department

Budget of Design Departments (Unit : Million KRW)



No. of Manpower of Design department (Unit : Persons)



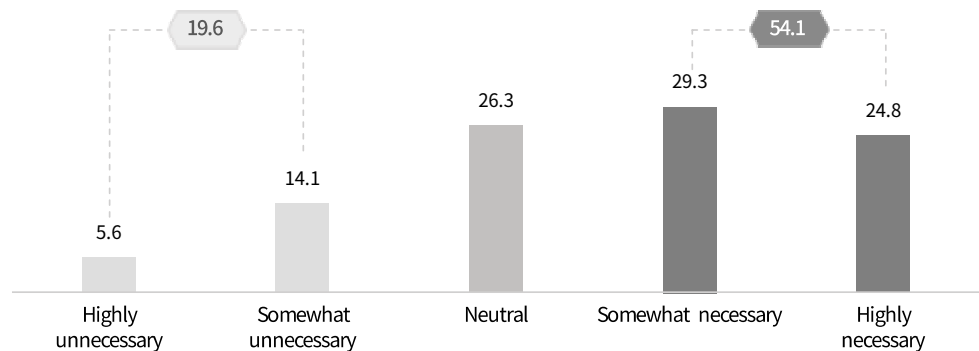
▼ Status of budget and manpower of central and local government

Classification	Average budget of design depart. (Million KRW)			Status of manpower (Persons)	
	Design service charge	Personnel expenses of design departments	Personnel expenses of freelancers, etc	Average no. of employees	Average no. of designers
<b>Total</b>	<b>1,630.86</b>	<b>202.81</b>	<b>20.53</b>	<b>5.85</b>	<b>1.90</b>
Central government	12,282.00	281.60	0.00	5.35	1.53
Local government	1,032.48	198.38	21.69	5.91	1.95
Type - City/ province	4,883.08	249.75	128.50	9.62	3.46
- City/ country/ district	432.39	190.38	5.04	5.48	1.78

3) Necessity for hiring new staff in charge of design

- Necessity for hiring new staff in charge of design reached 3.54 points on a 5-point scale. In specific, the percentage of 'Necessary' reached 54.1% (Highly : 24.8% + Somewhat : 29.3%), 'Unnecessary' reached 19.6% (Highly : 5.6% + Somewhat : 14.1%), 'Neutral' reached 26.3.

▼ Necessity for hiring new staff in charge of design : Avg is 3.54 points (Unit : %)

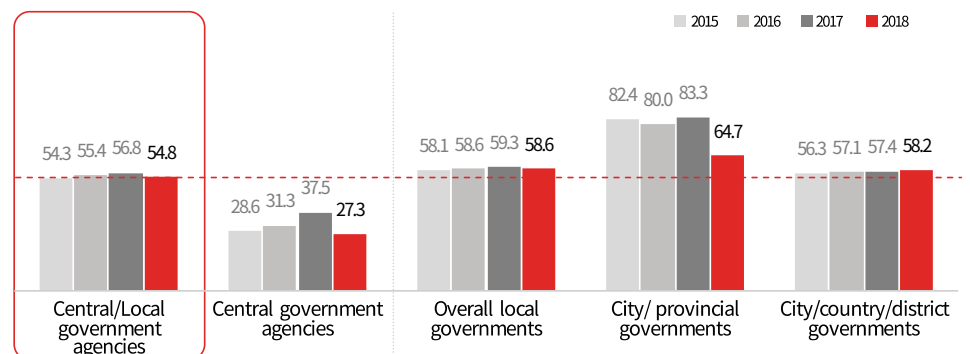


## 2 Status of Design Industry Management

1) Status of Guidelines or Master Plans on Public Design

- Among these government agencies, 54.8% had guidelines or master plans on public design with consideration of its identity. (56.8% in 2017).
- Meanwhile, the percentage of having guidelines of master plans is higher in local governments (58.6%) than central governments (27.3%).

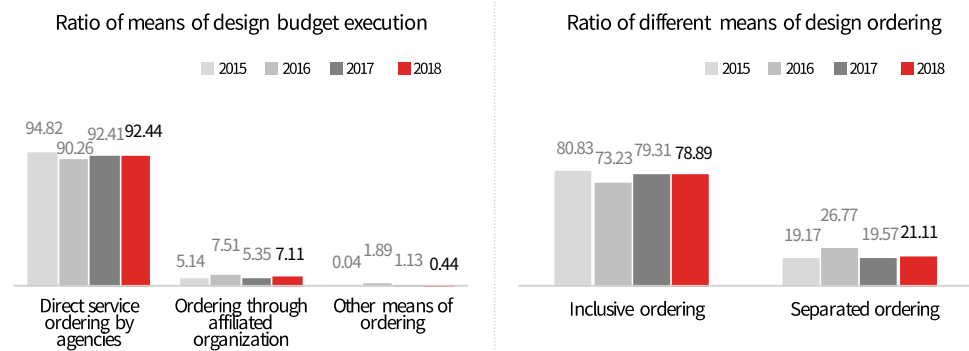
▼ Status of Guidelines or Master Plans on Public Design (Unit : %)



## 2) Proportions of Different Means of Budget Execution and Design Ordering

- Regarding the execution of design related budget, 'Direct service ordering by agencies' reached 92.44%, but 'Ordering through affiliated organization' (7.11%) and 'Other means of ordering' (0.44%) show lower proportion.
- In design service ordering, the percentage of orders that included a design project reached 78.89%, which is similar with the last year (79.31%) and the percentage of separated orders reached 21.11%, rose slightly compared to the last year (19.57%).

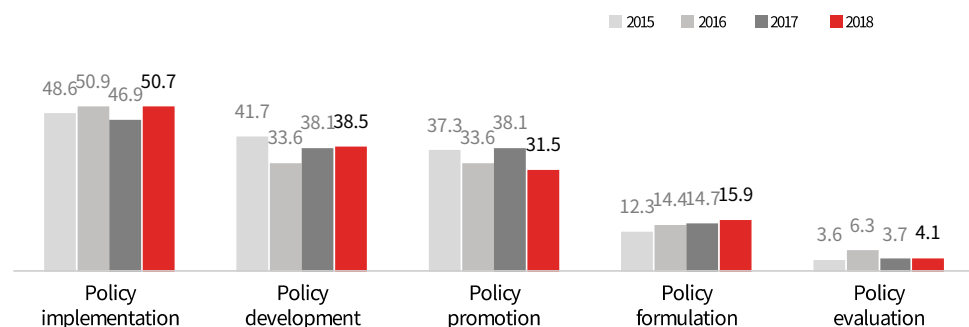
### ■ Proportions of different Means of Budget Execution and Design Ordering (Unit : %)



## 3) Utilization of Design in Public Policy Process

- Regarding utilization of design in public policy process, 'Policy implementation' accounts for the highest proportion with 50.7% (46.9% in 2017), followed by 'Policy development' (38.5%), 'Policy promotion' (31.5%), 'Policy formulation' (15.9%) and 'Policy evaluation' (4.1%).

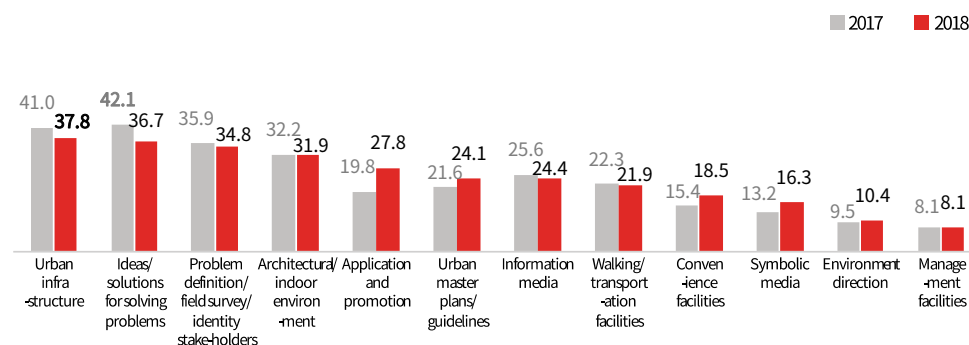
### ▼ Utilization of Design in Public Policy Process (Unit : %)



## 4) Prioritize Policies in Public Design Projects

- Concerning the prioritize policies in public design projects, 'Urban infrastructure' (37.8%) accounts for the highest proportion, followed by 'Ideas/solutions for solving problems' (36.7%), 'Problem definition/field survey/identity stake-holders' (34.8%), 'Architectural/indoor environment' (31.9%), 'Application and promotion' (27.8%), etc.

### ▼ Prioritize Policies in Public Design Projects (Unit : %)



※ Only 5% or more as of 2018. 'Administrative facilities' (' 3.7% in 2017, '4.1% in 18'), 'information facilities' (' 4.0% in 17, '2.6% in 18)

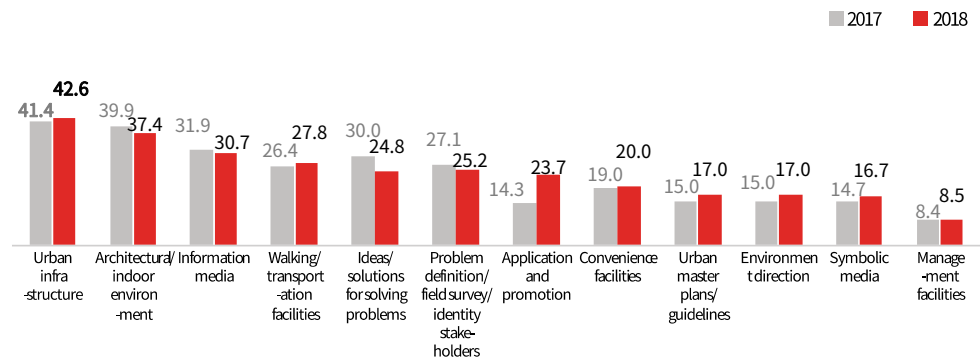


## 5) Most Effective Policies in Public Design Projects

- Regarding the most effective policies in public design projects, 'Urban infrastructure'(42.6%) has the highest proportion, followed by 'Architectural indoor environment' (37.4%), 'Information media' (30.7%), etc.

### ▼ Most Effective Policies in Public Design Projects

(Unit : %)



※ Only 5% or more as of 2018. 'Administrative facilities' (' 2.9% in 2017, '4.4% in 18'), 'information facilities' (' 4.0% in 2017, '2.6% in 18)

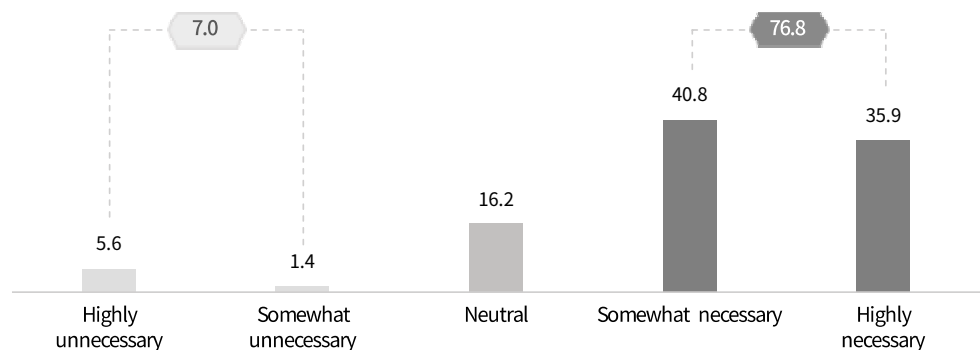
## 3 Designer Education

### 1) Necessity for design education

- Necessity for design education reached 4.00 points (3.93 points in 2017).  
In specific, the percentage of 'Necessary' reached 76.8%(Highly : 35.9% + Somewhat : 40.8%), 'Unnecessary' reached 7.0% (Highly : 5.6% + Somewhat : 1.4%).

### ▼ Necessity for design education : Avg. is 4.00 points

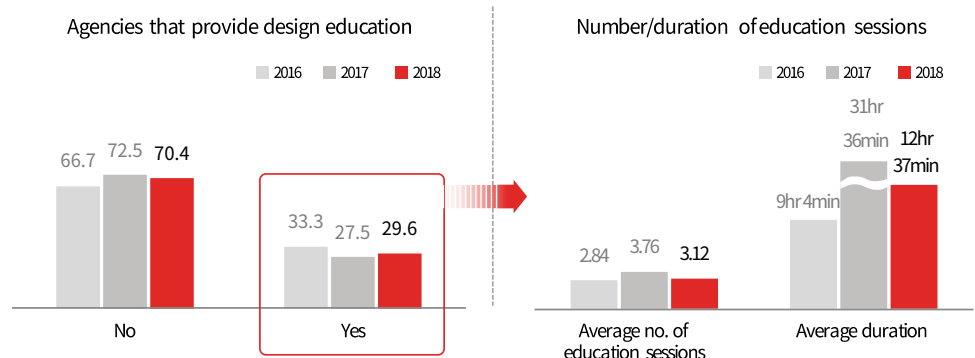
(Unit : %)



### 2) Agencies that Provide Design Education and Average Number/Duration of Education Sessions

- 29.6% of agencies carried out design education programs.
- The average number of education sessions reached 3.12 and the average duration of education sessions reached 12 hours 37 minutes.

### ▼ Agencies that Provide Design Education and Average Number/Duration of Education Sessions

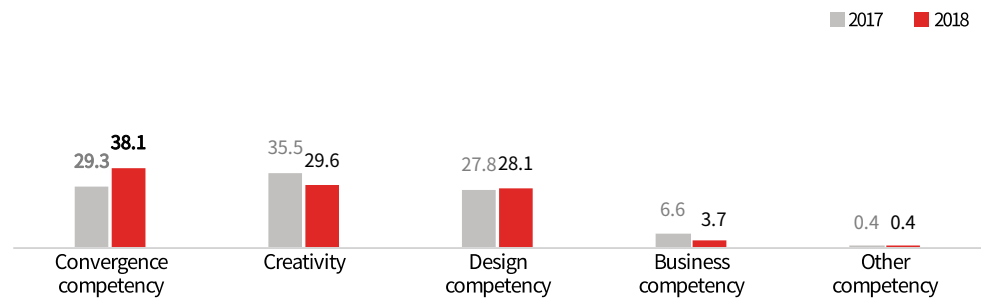


### 3) The most necessary ability for designers

- Regarding the most necessary ability for designers, 'Convergence competency' accounts for the highest proportion with 38.1%, followed by 'Creativity' (29.6%), 'Design competency' (28.1%), etc.

#### ▼ The most necessary ability for designers

(Unit : %)



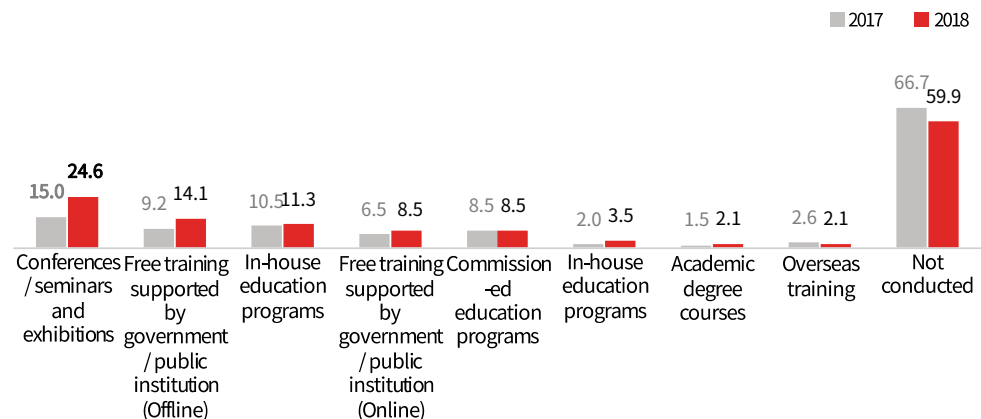
### 4) Major Means of Design Education

- Concerning the means of education carried out in public agencies, 'Conferences, seminars, exhibitions'(24.6%) accounts for the highest proportion, followed by 'Free training supported by government/ public institution (Offline)' (14.1%), 'Commissioned education program' (11.3%), etc.

- Meanwhile, the percentage of 'Not conducted design education' reached 59.9%.

#### ▼ Major Means of Design Education

(Unit : %)

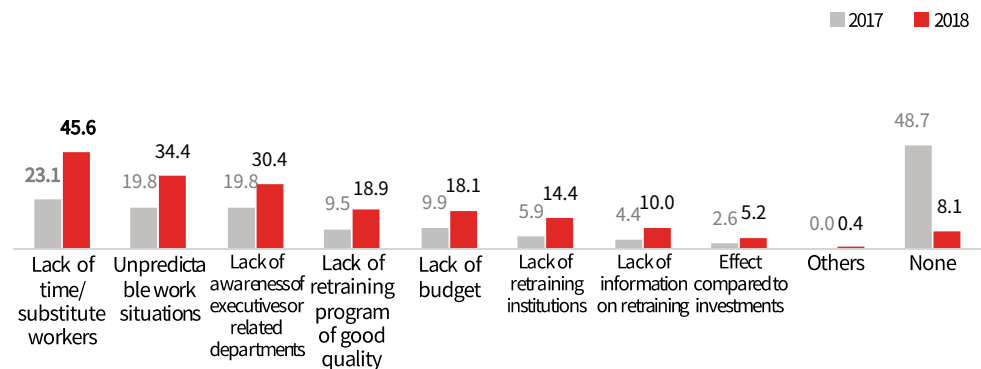


### 5) Difficulties in design education

- Concerning difficulties in retraining working designers, 'lack of time and substitute workers' (45.6%), 'unpredictable work situations' (34.4%), 'lack of awareness of executives and related departments'(30.4%), etc.

#### ▼ Difficulties in design education

(Unit : %)



## 04 Design-related Institutions of Higher Education

### 1 Status of Department of Design

#### 1) 2019 Status of Universities/Graduate Schools with Design Departments

(Unit : Number)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctorate	Total
2019	243	135	57	435
2018	241	134	55	430
YoY	▲ 2	▲ 1	▲ 2	▲ 5

#### ▼ Number of universities/graduate schools with design departments by university type (Unit : Number)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctorate	Total
<b>Total</b>	<b>243</b>	<b>135</b>	<b>57</b>	<b>435</b>
Univ. Type				
Junior college	87	-	-	87
University	129	-	-	129
Industrial college	2	-	-	2
University(college)	1	-	-	1
Graduate college	-	135	57	192
Cyber college	9	-	-	9
Major college <sup>17)</sup>	1	-	-	1
Functional college	14	-	-	14

#### 2) Number of department of design 2019

(Unit : Number)

Classification	No. of department of design			
	Bachelor's degree	Master's degree	Doctorate	Total
2019	863	217	79	1,159
2018	889	231	80	1,200
YoY	▼26	▼14	▼ 1	▼41

#### ▼ Number of department of design by university type (Unit : Number)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctorate	Total
<b>계</b>	<b>863</b>	<b>217</b>	<b>79</b>	<b>1,159</b>
Univ. Type				
Junior college	343	-	-	343
University	465	-	-	465
Industrial college	14	-	-	14
University(college)	1	-	-	1
Graduate college	0	217	79	296
Cyber college	14	-	-	14
Major college	4	-	-	4
Functional college	22	-	-	22

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2019

17) Junior college is a formal higher education institution under the Higher Education Act, which awards professional degrees and bachelor's degrees. Major colleges are accredited by the Ministry of Education, Science and Technology under the Continuing Education Act.

▼ Number of department of design by major

(Unit : Persons)

Classification	No. of universities/graduate schools			
	Bachelor's degree	Master's degree	Doctorate	Total
<b>Total</b>	<b>863</b>	<b>217</b>	<b>79</b>	<b>1,159</b>
General design <sup>18)</sup>	71	50	27	148
Product design	108	33	8	149
Visual design	156	20	7	183
Digital/multimedia design	114	16	5	135
<b>Major</b> Space design	150	23	6	179
Fashion/textile design	173	39	8	220
Service/experience design	24	12	8	44
Industrial craft design	47	17	6	70
Design infrastructure	20	7	4	31

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2019

## 2 Students in the Department of Design

1) Number of students in design departments at Universities/graduate schools

(Unit : Persons)

Classification	No. of students		
	Registered students	Currently enrolled students	Students on leave of absence
<b>2019</b>	104,511	76,535	27,976
<b>2018</b>	108,341	79,192	29,149
<b>YoY</b>	<b>▼3,830</b>	<b>▼2,657</b>	<b>▼1,173</b>

▼ Number of students in design departments at Universities/graduate schools by university type

(Unit  
Persons)

Classification	No. of students											
	Registered students				Currently enrolled students				Students on leave of absence			
	Under-graduate	Master's course	Doctorate	Total	Under-graduate	Master's course	Doctorate	Total	Under-graduate	Master's course	Doctorate	Total
<b>Total</b>	<b>99,407</b>	<b>3,910</b>	<b>1,194</b>	<b>104,511</b>	<b>72,253</b>	<b>3,255</b>	<b>1,027</b>	<b>76,535</b>	<b>27,154</b>	<b>655</b>	<b>167</b>	<b>27,976</b>
Junior college	30,598	-	-	30,598	20,790	-	-	20,790	9,808	-	-	9,808
University	61,766	-	-	61,766	46,327	-	-	46,327	15,439	-	-	15,439
Industrial college	390	-	-	390	259	-	-	259	131	-	-	131
<b>University Type</b> University(college)	146	-	-	146	108	-	-	108	38	-	-	38
Graduate college	-	3,910	1,194	5,104	-	3,255	1,027	4,282	-	655	167	822
Cyber college	3,033	-	-	3,033	2,441	-	-	2,441	592	-	-	592
Major college	1,169	-	-	1,169	833	-	-	833	336	-	-	336
Functional college	2,305	-	-	2,305	1,495	-	-	1,495	810	-	-	810

※ Quoted from Korea Educational Development Institute / Survey Date: April 1, 2019

18) General design is a department whose design major does not fall into eight major categories. It includes design, design major, etc.

### 3 Graduate and Employment

#### 1) Status of Graduates from Design Departments and Employment

▼ Status of graduates and employment of departments of design (Unit : Persons)

Classification	Status of graduates and employment		
	Graduates	Graduates(A)	Employment(B)
2018	21,975	19,650	13,014
2017	22,709	20,673	13,427
YoY	▼ 734	▼ 1,023	▼ 413
YoY (%)	▼ 3.2%	▼ 4.9%	▼ 3.1%

▼ Status of graduates and employment of departments of design by university type and major (Unit : Person)

Classification		Status of graduates and employment											
		Graduates				Graduates(A)				Employment(B)			
		Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total	Bachelor's degree	Master's degree	Doctor's degree	Total
Total		21,377	457	141	21,975	19,229	306	115	19,650	12,723	203	88	13,014
Univ. Type	Junior college	9,636	-	-	9,636	8,331	-	-	8,331	5,634	-	-	5,634
	University	10,706	-	-	10,706	9,930	-	-	9,930	6,349	-	-	6,349
	Industrial college	216	-	-	216	207	-	-	207	145	-	-	145
	University(college)	20	-	-	20	19	-	-	19	14	-	-	14
	Graduate college	-	457	141	598	-	306	115	421	-	203	88	291
	Functional college	799	-	-	799	742	-	-	742	581	-	-	581
Major	General design	1,468	178	45	1,691	1,271	110	34	1,415	785	78	27	890
	Product design	3,590	56	17	3,663	3,240	34	14	3,288	2,157	27	12	2,196
	Visual design	3,675	22	2	3,699	3,345	11	2	3,358	2,192	8	2	2,202
	Digital/multimedia design	2,789	28	4	2,821	2,516	22	3	2,541	1,581	16	1	1,598
	Space design	3,401	24	6	3,431	3,003	16	6	3,025	2,032	13	6	2,051
	Fashion/textile design	4,518	16	14	4,548	4,111	11	13	4,135	2,788	3	11	2,802
	Service/experience design	384	31	7	422	349	27	1	377	240	16	1	257
	Industrial craft design	922	11	46	979	815	9	42	866	526	3	28	557
	Design infrastructure	630	91	0	721	579	66	0	645	422	39	0	461

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base Date: April 1, 2019

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc.

When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorships, Freelancers

## 2) Status of Graduates from Design Departments and Employment Rate

### ▼ Status of Graduates from Design Departments and Employment Rate (Unit : Persons)

Classification	Status of graduates and employment		
	Graduates(A)	Employment(B)	Employment rate(C=B/A, %)
2018년	19,650	13,014	66.2
2017년	20,673	13,427	64.9
YoY	▼ 1,023	▼ 413	▲ 1.3%p
YoY (%)	▼ 4.9%	▼ 3.1%	

### ▼ Status of Graduates from Design Departments and Employment Rate by university type and major (Unit : Persons)

Classification		Status of graduates and employment											
		Graduates				Graduates(A)				Employment(B)			
		Bachel or's degree	Master's degree	Doctor's degree	Total	Bachel or's degree	Master's degree	Doctor's degree	Total	Bachel or's degree	Master's degree	Doctor's degree	Total
Total		19,229	306	115	19,650	12,723	203	88	13,014	66.2	66.3	76.5	66.2
Univ. Type	Junior college	8,331	-	-	8,331	5,634	-	-	5,634	67.6	-	-	67.6
	University	9,930	-	-	9,930	6,349	-	-	6,349	63.9	-	-	63.9
	Industrial college	207	-	-	207	145	-	-	145	70.0	-	-	70.0
	University(college)	19	-	-	19	14	-	-	14	73.7	-	-	73.7
	Graduate college	-	306	115	421	-	203	88	291	-	66.3	76.5	69.1
	Functional college	742	-	-	742	581	-	-	581	78.3	-	-	78.3
Major	General design	1,271	110	34	1,415	785	78	27	890	61.8	70.9	79.4	62.9
	Product design	3,240	34	14	3,288	2,157	27	12	2,196	66.6	79.4	85.7	66.8
	Visual design	3,345	11	2	3,358	2,192	8	2	2,202	65.5	72.7	100.0	65.6
	Digital/multimedia design	2,516	22	3	2,541	1,581	16	1	1,598	62.8	72.7	33.3	62.9
	Space design	3,003	16	6	3,025	2,032	13	6	2,051	67.7	81.3	100.0	67.8
	Fashion/textile design	4,111	11	13	4,135	2,788	3	11	2,802	67.8	27.3	84.6	67.8
	Service/experience design	349	27	1	377	240	16	1	257	68.8	59.3	100.0	68.2
	Industrial craft design	815	9	42	866	526	3	28	557	64.5	33.3	66.7	64.3
	Design infrastructure	579	66	0	645	422	39	0	461	72.9	59.1	0.0	71.5

※ Data provided by Korean Education Development Institute(KEDI)

※ Survey base date : December 31st, 2018

※ Graduates are divided into employment and non-employment and the non-employment is divided into advanced, enlisted, unable to work, excluder, foreign students, etc.

When calculating the employment rate, we use the graduates (A) excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ graduates (A) : Number of graduates excluding advanced, enlisted, unable to work, excluder, foreign students, etc.

※ Employment rate:  $\text{Employed} / (\text{Graduates} - (\text{Advanced} + \text{Enlisted} + \text{Unable to work} + \text{Excluder} + \text{Foreign students})) \times 100$

※ Employed: Employees with health insurance, On-campus employment, Overseas employees, Agriculture and forestry fisheries, Individual creative workers, Individual proprietorships, Freelancers-







## 2019 KOREA DESIGN STATISTICAL DATA

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	조아라	한국디자인진흥원 전략경영본부 기획조정실 주임연구원
	이양숙	한국디자인진흥원 위촉연구원(해외)
발행처	한국디자인진흥원	전략경영본부 기획조정실

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	디자인DB	<a href="http://www.designdb.com">www.designdb.com</a>

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