

Employment and Wage Level of University Graduates in the Field of Clothing and Fashion

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Abstract

The purpose of this study is 1) to compare the employment status and wage level of "Clothing and Fashion" major (CF major) graduates with those from other majors and 2) to examine factors affecting the employment status and wage level of CF major university graduates. The data were pooled from the 2009–2012 Graduates Occupational Mobility Survey Data, conducted by Korea Employment Information Service. First, when graduates of CF major were compared with other majors in the same academic area—natural science and arts—, the rate of employment was higher for CF majors than that of other majors; on the other hand, there is no difference in the wage levels between those with graduates in CF majors and those with other majors. Second, we examined factors affecting CF major graduates' employment and wage level based on graduates' individual factors, university factor, and job preparation factors. Employment status of graduates in CF major was predicted by respondent's gender and university type, and work experience. The wage level of CF major graduates was significantly predicted by individual factors (e.g., gender and age, university factors (e.g., university type, university program, location), and job preparation factors (e.g., certificates, overseas experience of foreign language training, English test scores). The results of this study would provide a guide to direct university educational program in order to assess the current capabilities in the field of clothing and fashion.

Key words : employment, wage level, job preparation, university graduate, clothing, fashion

I. Introduction

The global economic slowdown is leaving a deep impact in employment for University

graduates and other young generations. The youth employment rate (between the ages of 15 and 29) was 40.5 percent in 2015, which fell 1.2 percentage points from the previous year

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(Statistics Korea, 2015). The employment rate between the age of 25–29, the common age range of college graduates, is 69.7% in 2015. This is due to the still-frozen labor market, as well as the wide gap between employers' demands and college graduates' expectations for the level of their jobs. College graduates in Korea tend to apply only to large companies, while small- and mid-sized companies have few applicants. However, the number of jobs at public organizations or big corporations, which are favored by college graduates, has decreased from 4.12 million in 1995 to 3.72 million in 2008 (Jung, 2011).

In terms of personal aspects, unemployment depreciates the human resources cultivated in educational institutes. Also, there is additional loss due to the absence of opportunity for young people to further develop their career and have more practical experience on top of their college education for graduates, which will, in the end, make it even more difficult for them to settle into the labor market. If the workforce maintains lower levels of job functionality for a prolonged time, the future possibility of job loss may result in a decrease of total income that a person will make in his or her entire lifetime. Unemployment for fresh graduates from universities creates a considerable damage to the national economy, and at the same time, the will and enthusiasm of job applicants will diminish, resulting in a higher rate of social exclusion all over the country.

In order to obtain a job from large companies, some college graduates spend years after graduation looking without actually finding a job. In a survey of university students, which was recently conducted by the Federation of Korean Industries, 59% of respondents indicated that they had taken a break from campus life, or had

postponed or scheduled to postpone their graduation with the aim to prepare for employment or improve their qualifications for employment. In addition, the respondents were found to spend KRW 297,000 monthly on private education, such as language training, etc., and 26% of respondents were found to have undergone language training abroad, having spent more than KRW 14 million on overseas language training (Federation of Korean Industries, 2013). Such an excessive effort to improve their qualifications has led to the problem of unnecessary rising social costs.

On the other hand, college graduates' employment has become an important factor for evaluating university performance. According to Statistics Korea (2015), the college-age population in Korea is projected to fall below the number of those who enrolled in higher education in 2008, and is expected to drastically drop. Due to this demographic trend, The Ministry of Education is seeking ways of restructuring college systems, such as supporting active mergers and acquisitions of poorly managed schools, and even cutting financial support for less competitive private schools (Lee, 2011). One of the major criteria that Korean government uses to evaluate university performance and the level of competitiveness of a program (or a college at a university) is the employment rate of college graduates, and most universities in Korea have devoted all of their efforts to raising their graduates' employment rates (Oh, 2013).

Although great emphasis has been placed on the importance of university graduates' employment, very limited research has examined the topic of the employment of graduates in "clothing and fashion (CF)" field. Thus, the purpose of this study is 1) to compare the

employment status and wage level of CF major graduates with those from other majors; and 2) to determine the factors that would influence the employment rate and wage level of graduates with CF majors. Particularly, this study looked into how the individual background factors of graduates (e.g., gender, age), university characteristics (e.g., location, 2-year vs. 4-year), and graduates' job preparation (e.g., acquisition of certificate, overseas language training, work experience, GPA) would affect the employment status and wage level of graduates with CF majors. With this effort, factors that might affect the employment status and satisfaction level of jobs for these graduates will be examined in order to improve their motivation to maintain their job selection in the field of clothing.

II. Literature Review

1. Factors Affecting Employment

Previous research on employment status has used factors such as the personal background and the efforts expended by the job seeker in analyzing the data. The personal background factor is based on the characteristics of job seekers in personal aspects and includes some of the traditional factors that have been considered in the job market, such as the selection criteria of recruits. The job-seeking effort factor includes the efforts and activities expended by graduate job seekers as they prepare to move on to the professional world after entering the university.

1) Personal and University Factor

According to previous studies, personal background factors, such as gender, education level, and major, and university characteristics influence employment. Gender is known to be one of the most important personal background factors contributing to employment decisions, inside and outside of Korea. The general tendency is that higher preference is given to men over women (Kim, 2003; Park & Ban, 2007). This may be due to the fact that employers in Korea think of women as less productive, interrupting or ending their careers with pregnancy, marriage, and child raising (Park, 2006).

Education is also an important factor in employment. High education levels shorten the time needed to obtain a first job, and people with a higher education levels tend to be hired faster, obtain full-time positions, and receive higher wages (Kim, 2003; Park & Ban, 2007). However, Sung and Kim (2003) found that there are differences with respect to the effects of education level by gender; while education level has significant positive effects on the probability of employment for males, there were no significant effects for females. For re-employment, more educated males have a higher probability of re-employment in a regular occupation and a lower probability of re-employment in an irregular occupation, but more educated females tend to have a lower probability of re-employment, both in regular and irregular occupations.

A job seeker's major also appears to play an important role. As for the problematic symptom of avoiding science and engineering majors in Korea, there have been previous studies focusing on whether graduates with such majors are actually at a disadvantage in the job market, but the results have been inconsistent. Park

(2004) suggested that graduates with science and engineering majors suffer less job stability, social status, and wages compared to graduates with humanities or social sciences majors. On the other hand, the reputation of a university was also found to be a factor affecting employment. In addition, the main factor in Korea affecting successful employment was not how much the job seeker prepared for a position, but rather the name value of the job seeker's university (Chae, 2005).

2) Job Preparation Factors

The unemployment problem of college graduates could be significantly alleviated if young people prepared sufficiently in such a way so as to fulfill the needs of the labor market. However, young people do not have enough information related to what kinds of preparation are useful for employment amidst the persistent joblessness of the younger generation. Therefore, young people have made excessive efforts to improve their qualifications in order to increase their employment chances.

The students' employment preparation activities include the acquisition of certificates, foreign language tests, work experience, vocational and training experience, overseas language training, and grades (GPA: grade point average). The results of studies on such factors have not been consistent. Grades are an important factor as a screening tool for companies (Lee, 1994; Li & Zhang, 2010). In one study, the ratio of employers who responded that education level is important was more than half. Also, SAT scores and college grades appear to be important with respect to performance within the labor market (Lee, 1994), indicating the importance of grades in

successful job-seeking efforts.

Foreign language proficiency and overseas language training experience also appear to play an important role in seeking jobs in Korea. Lee and Kim (2006) found that language proficiency was the most important factor for job searches. Lim and Yang (2006) pointed out that, in terms of language proficiency, practical language skills in making documents or communicating are more important than language test grades. Such a result puts more emphasis on the importance of practical language skills in the globalized era.

Certificates also tend to contribute to higher success in the job market (Ahn, Jung, & Kim, 2013; Kang & Park, 2002; Kim, 2002; Lee & Kwon, 2009); however, the impact of having a certificate differs according to gender; having a certificate has a higher influence when the holder is female. Nevertheless, according to studies by Chae, Choi, Kim, Oh, and Ok (2005), having a certificate does not have any significant influence in increasing employment status, compared to overseas training experience or job training experience after graduation.

2. Employment in the Field of Clothing and Fashion

In terms of fashion students' job search activities, Choi (2011) identified five dimensions of fashion students' job search information. These are information related to 1) judgment of eligibility to apply for the job and company; 2) the work environment; 3) fashion companies in which the students are interested; 4) compensation and job security; and 5) job competencies. In addition, fashion major students experienced diverse anxieties toward making job decisions, including 1) anxiety about adapting to a new job environment and

recruiting process of the fashion company; 2) anxiety about heavy workloads; 3) anxiety about job security and the level of compensation; 4) anxiety about their lack of confidence concerning their ability to do the job; and 5) anxiety about English and a lack of other “specs.”

Knight, Crutsinger, and Kim (2006) examined the impact of the retail work experience, career expectations, and job satisfaction on college students' intentions to pursue retail careers with fashion merchandising major students. They found that work experience and job satisfaction had a significant relationship with career intentions. Emotional satisfaction was the most robust determinant of students' career intentions. Moreover, students' expectations concerning opportunities and success were predictors of career intentions. Wright, Cushman, & Nicholson (2002) examined the impact of retail work experience, career expectation, and job satisfaction on college students' intention to pursue retail careers. Through self-administered survey with 470 students, they found that emotional satisfaction was the most robust determinant of students' career intention. In addition, students' expectation concerning opportunity and success also were predictors of career intention.

Although the importance of employment possibilities and job satisfaction is evident on a personal level, very limited research has thoroughly examined the topic of employment of graduates in CF field. In addition, most previous research related job search or job satisfaction in CF field surveyed college students, not graduates who have a job. Therefore, we examined the current situations regarding the employment status and wage level by comparing CF graduates with those of other majors to find

out the competitiveness of CF field, along with factors affecting CF major graduates' employment status and their wage level.

III. Methods

1. Research Questions

Based on the literature reviews, specific research questions of this study were as the followings:

Research Question 1: To examine whether graduates' employment and wage level are significantly differed between CF and non-CF majors

Research Question 2: To examine predictors of employment and wage level of graduates in CF major, in terms of individual background factors(e.g., gender, age), university factors (e.g., university type, location), and job preparation factors (e.g., acquisition of certificates, overseas language training, work experience, academic grades).

2. Sample and Extracted Dataset

Sample in this study was obtained from the Graduates Occupational Mobility Survey by Korea Employment Information Service. In 2006, this survey first initiated and was conducted on 25,000 persons (approximately 5 % of the population). In 2009, the survey design was modified to a three year longitudinal survey and the sample is composed of 4 percent of all college graduates who graduated from a 2–3 year college or higher education institution, which corresponds to approximately 18,000 persons. Sampling was carried out in accordance with the sample allocation by

graduate's academic major group. Survey includes about 290 questions regarding current economic activities, characteristics of current job (e.g., employment status, types of jobs), job seeking activities, previous job experience, college life (e.g., major, GPA, education satisfaction), work experience during college years including part-time as well as full-time work, obtained certificates related to major, overseas experience of foreign language training and other factors, such as personal background. For data collection, a two-stage survey method is employed. In the initial stage, a telephone interview was conducted to verify the accuracy of the sample list and confirm survey participation. Then in the second stage, an interviewer visited the interviewee's house or workplace and conduct a face-to-face interview.

This survey provides reliable data on supply and demand for the employment market and education, job experience and job training. For this study, data from four years(2009–2012) Graduates Occupational Mobility Survey was used. Since graduates spend some time for job search after graduation, the survey are conducted 18 months after graduation in order to examine graduates' employment information concerning. For example, 2012 Graduates

Occupational Mobility Survey surveyed college graduates who graduated in 2012 and in September, 2013. The 2012 dataset is the latest provided by the Korean Employment Information Service.

The survey data consisted of 18,011 cases in 2009 graduates' data, 18,085 cases in 2010 graduates' data, 18,299 cases in 2011 graduates' data, and 18,250 cases in 2012 graduates' data resulting total of 72,645 cases. The data is categorized into seven academic areas: Liberal Arts, Social Sciences, Education, Engineering, Natural Sciences (NS), Medicine, and Arts. Among these seven areas, "Clothing & Textiles" or "Clothing Studies" majors belong to the "Natural Sciences", while "Fashion Design" or "Costume Design" majors belong to the "Arts" academic area. For this study, we selected and analyzed all cases of the "Natural Sciences" ($n=8,872$) and "Arts" areas ($n=8,607$) from survey data in 2009–2012.

The CF major sample ($n=630$) was drawn from majors related to clothing or fashion (e.g., clothing & textiles, clothing studies, fashion design, costume design, fashion design & textiles, etc). In the CF major sample, there were more females (83.0%) than males (17.0%), with an average age of 25.7; 37.0% were from

Table 1. Sample of Graduates Occupational Mobility Survey Data Used in This Study

Data	Major in Natural Sciences and Arts Areas		Total
	CF	Non-CF	
2009 graduates	184	4,230	4,414
2010 graduates	142	4,079	4,221
2011 graduates	137	4,082	4,219
2012 graduates	167	4,021	4,188
Total	630	16,412	17,042

universities located in Seoul-metro area, and 63.5% were from 4-year university program.

3. Variables and Data Analysis

For data analysis, descriptive statistics and regression analysis were conducted. In this study, employment status and wage level were included as dependent variables. A Probit regression analysis was conducted for predicting employment. As dependent variable, the employment was a nominal variable which was coded as dummy (e.g., “1” for the employed and “0” for the unemployed) Wage level was measured on the amount monthly wage as respondents reported, which are input as dependent variable. The independent variables were major (e.g., CF vs. non-CF), individual backgrounds factors, university factors and job preparation factors. The individual backgrounds included gender and age; university factors included university type (e.g., 2-year college vs. 4-year university), university program (e.g., night vs. regular program), and university location (e.g., Seoul metropolitan city area vs. local areas); and the job preparation factors included obtained certificates related to major, overseas experience of foreign language training, work experience in college years, and academic grades (GPA).

Since we use four-years data, survey year was used as control variable. In addition, since graduates from both August and February

graduation were included in each year data (e.g., 2012 surveyed data includes graduates from August 2011 and February 2012 graduation) and the survey was conducted between October and December each year, this 6 months gap provided more job seeking time for graduates in August, which may affect employment status or wage level. Thus, graduation time (August graduation vs. February graduation) was also used as a control variable in the regression analyses.

IV. Results and Discussions

1. Employment Status in Field of Clothing and Fashion (CF)

Approximately 70.2% ($n = 11,968$) of total data was the employed graduates in the areas of Natural Science and Art ($N = 17,042$). For descriptive statistics, 76.3% of graduates in CF major were employed, while 70.0% of graduates in non-CF major were employed (Table 2). That is, the percentage of employed graduates of CF major was about 6.3% point higher than that of non-CF major.

In particular for the CF major, 84.1% of male (90 out of 107 male CF major graduates) and 74.8% of female (391 out of 523 female CF major graduates) graduated were employed (Table 3). The gap between the percentages of

Table 2. Employment Status by Major

Major	Employment status		Total ($N = 17,042$)
	Emplied ($n = 11,968$)	Unemployed ($n = 5,074$)	
CF	481 (76.3%)	149 (23.7%)	630 (100%)
Non-CF	11,487 (70.0%)	4,925 (30.0%)	16,412 (100%)

Table 3. Employment Rate by Gender

Major	Gender		Total (N=17,042)
	Male (n =7,509)	Female (n =9,533)	
CF (n=630)	84.1%	74.8%	76.3%
Non-CF (n=16,412)	72.5%	67.9%	70.0%
Total (N=17,042)	72.7%	68.3%	70.2%

employed graduates in CF major by gender is 9.3% point, while the gap between the percentages of employed graduates by gender in the non-CF major was about 4.6% point. This finding implies that males majoring in clothing are more likely to have a probability to get a job, compared with females.

2. Graduates' Employment Status and Wage Level: CF and Non-CF majors

1) Graduate's Employment Status

In order to examine major (e.g., CF vs. non-CF) is a significant factor predicting graduates' employment status and wage level, a Probit regression analysis was conducted. In the regression model, employment status served as dependent variable (1=employed, 0=unemployed), and major (1= clothing, 0= non-clothing) and individual backgrounds factors (e.g., gender, age), university factors (e.g., university type, university program, university location) and job preparation factors (e.g., overseas language training, certificate, work experience, English test, and GPA) were served as independent variables.

As shown in Table 4, employment status was significantly predicted by all independent variables.

Compared to non-CF major, CF major tend to have a higher potential to have job opportunities. In terms of individual backgrounds and university factors, employed graduates identified to be male, older, graduated from 2-year colleges, night programs, or universities located in local areas. This finding implies that individuals' backgrounds and university characteristics are basic determinants of employment for university graduates, supporting a notion that personal backgrounds and university characteristics strongly contributed to employment decisions (Kim, 2003; Park & Ban, 2007). In terms of job preparation factors, all variables including overseas language training, certificate, work experience, English score, and GPA were significant predictors. Employed graduates identified to be graduates with overseas language training, certificates and work experience. Interestingly, employed graduates tended to have lower English test scores and GPA. One possible explanation could be the current tendency that college students postpone employment until getting a "perfect job," even if it means rejecting small-sized company's¹⁾ offers and graduating into unemployment. Especially, the graduates with good "spec" may have tendency to apply to large-sized company and wait their employment until finding the "perfect

1) Small sized company in manufacturing business in Korea refers to company whose average annual sales is lower than KRW 150 billion.

Table 4. Probit Regression Results of University Graduates' Employment Status

Variables	Coef.	S.E.	z	p-value
CF major (CF=1, Non-CF=0)	0.257	0.058	4.400	.000***
Gender (Male=1, Female=0)	0.112	0.022	5.010	.000***
Age	0.012	0.003	4.530	.000***
University type1 (2 year=1, 4 year=0)	0.067	0.026	2.590	.010**
University type 2 (Night program=1, Other=0)	0.208	0.052	3.990	.000***
University location (Seoul metro=1, Other=0)	-0.111	0.026	-4.260	.002**
Overseas language training (Yes=1, No=0)	0.106	0.032	3.300	.001***
Certificates (Yes=1, No=0)	0.208	0.021	9.710	.000***
Work experience (Yes=1, No=0)	0.143	0.022	6.450	.000***
English test	-0.424	0.026	-16.580	.000***
GPA	-0.074	0.026	-2.840	.005**
Survey year ^a	0.027	0.009	2.910	.004**
Graduation time ^a (August=1, February=0)	0.111	0.029	3.790	.000***
Pseudo R ² = .0324				

Note. Dependent variable: Employed

^a Control variable

***p<.001, **p<.01

job"(Korn, 2014; "University graduates...", 2014).

2) Graduate's Wage Level

Of a total 16,512 respondents, graduates who indicated that they were employed and reported their wages were selected for the analysis of predicting wage level ($n=11,647$).²⁾ Four hundreds sixty seven graduates in CF major (88 male, 379 female) and 11,180 graduates in non-CF major (5,235 male, 5,945 female) were included for data analysis. Descriptive statistics indicated that average of wage level was lower for females than for males.

The monthly wage of males in CF major was lower compared with that of non-CF major. On the other hand, the monthly wage of female

graduates in CF major was higher than that of female graduates in non-CF major (See Table 5). For male graduates, the average monthly wage of CF major graduates is KRW 1.90 million, while the average monthly wage of non-CF major graduates is KRW 2.08 million. For female graduates, the average monthly wage of CF major graduates is KRW 1.63 million, while the average monthly wage of non-CF major graduates is KRW 1.57 million.

To predict factors influencing the wage level, regression analysis was conducted. The natural logarithm of the monthly wage was used as a dependent variable and major, individual background factors (e.g., age, gender), university factors (e.g., university type, program, and location) and job preparation factors (e.g.,

2) In order to reduce the effect of unreliable outliers, respondents with the monthly income less KRW 100,000 (KRW 0.1 million) were excluded.

Table 5. Wage Level of Clothing and Non-CF majors by Gender (KRW 10,000)

Major	Male (<i>n</i> =5,323)	Female (<i>n</i> =6,325)	Total (<i>n</i> =11,647)
CF (<i>n</i> =467)	190.11	163.12	168.21
Non-CF (<i>n</i> =11,180)	207.74	157.28	180.91
Total (<i>n</i> =11,647)	207.45	157.64	180.40

overseas language training, certificate, work experience, English test, and GPA) were used as the independent variables. As shown in Table 6, the wage level was significantly predicted by individual background factors, including gender, age, and university factors, including university type, university program and location. In addition, the job preparation factors including certificates, overseas experience of foreign language training, and English test. The wage level identified to be higher for employees who are males, older, or graduated from universities with 4 year and day program, and located in the capital area. With respect to employment preparation factors, graduates with overseas language training, certificates and high English test scores tend to have higher wage. Specifically, the major was not a significant predictor of wage level, even when controlling other variables. Interestingly, the English test scores that was negatively affect employment status, was positively affect graduates wage level. GPA was not a significant factor of the wage level. This indicated that there is no difference in the effect of GPA on wage levels between those with CF majors and those with non-CF majors.

3. Factors Affecting Graduates' Employment and Wage Level in CF Major

1) Employment of Graduates in CF Major

The extracted data pertaining to 630 graduates with CF majors were used for the data analyses. Due to the missing response, 605 cases were used for the Probit regression analysis. Graduate's gender, university type, and work experience were significant predictors of the employment of graduates in CF major (See Table 7). The result indicated that males were more likely to be employed than were females after graduation, especially for CF major. This supports a tendency of higher preference given to males in the employment decisions (Park & Ban, 2007) even in the context of CF major. Unlike the result on Table 4, graduates in CR majors from 4-year university were more likely to be employed than were those from 2-year university. Work experience also was found to be a significant factor, indicating that the more CF graduates have work experience in colleges or universities, the more they are employed. As unexpected, the other factors were not significant in predicting employment in CF major. This implies that individual backgrounds or job preparations other than gender or work experience are not predictable for increasing employment in CF major. Therefore, it is noticed that universities need to develop a work experience program for students to take advantage of employment in the area of clothing and fashion.

Table 6. Regression Results of Graduates' Wage Level

Independent variable	Coef.	S.E.	t	p-value
CF major (CF=1, Non-CF=0)	0.020	0.021	0.920	.357
Gender (Male=1, Female=0)	0.233	0.009	26.130	.000***
Age	0.016	0.001	16.060	.000***
University location (Seoul metro=1, Others=0)	0.140	0.011	12.720	.000***
University type (2 year=1, 4year=0)	-0.053	0.010	-5.270	.000***
University program (Night =1, Regular=0)	0.086	0.019	4.660	.000***
Overseas language training (Yes=1, No=0)	0.116	0.013	8.800	.000***
Certificate (Yes=1, No=0)	0.061	0.009	6.930	.000***
Work experience (Yes=1, No=0)	-0.004	0.009	-0.420	.677
English test	0.073	0.011	6.510	.000***
GPA	-0.001	0.010	-0.090	.929
Survey year ^a	0.023	0.004	6.040	.000***
Graduation time ^a (August=1, February=0)	0.059	0.012	5.110	.000***

$$F_{(13,11291)} = 154.63, p < .001, R^2 = .151, \text{ Adjusted } R^2 = .150$$

Note. Dependent variable: Average monthly wage (natural log)

^a Control variable

*** $p < .001$

Table 7. Probit Regression Results of CF major Graduates' Employment Status

Independent variable	Coef.	S.E.	z	p-value
Gender (Male=1, Female=0)	0.429	0.175	2.450	0.014*
Age	-0.005	0.015	-0.330	0.743
University location (Seoul metro=1, Others=0)	-0.065	0.125	-0.520	0.604
University type (2 year=1, 4year=0)	-0.315	0.138	-2.280	0.022*
University program (Night =1, Regular=0)	0.088	0.215	0.410	0.681
Overseas language training (Yes=1, No=0)	0.273	0.166	1.650	0.099
Certificates (Yes=1, No=0)	-0.098	0.117	-0.840	0.400
Work experience (Yes=1, No=0)	0.337	0.125	2.700	0.007**
English test score	-0.184	0.160	-1.150	0.251
GPA	0.141	0.142	0.990	0.322
Survey year ^a	-0.015	0.049	-0.310	0.757
Graduation time ^a (August=1, February=0)	-0.054	0.154	-0.350	0.723
Pseudo $R^2 = .036$				

Note. Dependent variable: Employed.

^a Control variable

* $p < .0$, ** $p < .01$

Table 8. Regression Result of Wage Level for Graduates in CF major

Independent Variables	Coef.	S.E.	<i>t</i>	<i>p</i> -value
Gender (Male=1, Female=0)	0.216	0.059	3.640	0.000***
Age	0.019	0.006	3.150	0.002**
University location (Seoul metro=1, Others=0)	0.122	0.047	2.580	0.010**
University type (2 year=1, 4year=0)	-0.117	0.055	-2.100	0.036*
University program (Night =1, Regular=0)	0.174	0.081	2.160	0.031*
Overseas language training (Yes=1, No=0)	0.115	0.057	2.030	0.044*
Certificate (Yes=1, No=0)	-0.011	0.045	-0.240	0.813
Work experience (Yes=1, No=0)	0.037	0.051	0.710	0.476
English Test	0.126	0.057	2.190	0.029*
GPA	0.043	0.053	0.800	0.422
Survey year ^a	-0.011	0.027	-0.390	0.694
Graduation time ^a (August=1, February=0)	0.181	0.056	3.260	0.001***
$F_{(12, 328)} = 8.98, p < .000, R^2 = .22, \text{ Adjusted } R^2 = .19$				

Note: *Dependent variable: Wage level*

^a Control variable

* $p < .05$, ** $p < .01$, *** $p < .001$

V. Conclusions

2) Wage Level of Graduates in CF Major

To examine factors influencing the wage level, regression analysis was conducted. As presented in Table 8, the wage level was significantly predicted by individual backgrounds, such as gender, age, and university factor, such as university location. That is, the wage level was higher for employees who are males, older, or graduated from night program, and 4-year universities located in the Seoul-metro area. With respect to job preparation factors, English test score and overseas language training were found to have a significant effect on the wage level for CF graduates, while other factors including certificate, work experience or GPA was not significantly related to the wage level of CF major graduates.

This study attempts to explore critical factors in determining the employment and wage level for graduates in CF major. Particularly, this study examined whether CF majors would affect individuals' employment status and wage level through a comparison with individuals of other majors. The results of this study provide a guide to direct university educational program in order to assess the current capabilities of CF major, which supports graduates to make a smooth transition into the job market.

First, we analyzed the effect of CF major on graduate's employment status and wage level to explore its competitiveness in the same academic area (e.g., Natural Science, Art). This study found that CF major had a higher employment status, compared to other majors

within the same academic areas. Also, academic backgrounds, such as university location in local area, night program's university or 2-year college, identified to be significant predictors of employment status for university graduates. This is not consistent with previous finding that suggested a role of university's name value in a successful employment (Chae, 2005). Overall, graduate's individual background factors, including gender and age were significantly related to wage level. Particularly, it is issued that gender inequality of wage level for university graduates' employment.

In CF major, although gender gap on wage has declined over time in Korea, it is still important to determine the wage level. This might be due to gender difference in career experiences, as firms generally are accounted military service for work experience in case of male employees. This is not a new phenomenon, ensuring weakness for female graduates in the labor market, even in female-dominated sector, such as Fashion industry. Therefore, it is necessary that universities should support female students to find quality jobs or higher skilled jobs by reinforcing career development programs.

By considering the factors determining the employment of graduates with CF majors, this study also provides a useful way for practical employment preparation, which might support graduates with bachelor's degrees in the field of clothing. It appears that gender (e.g., male), university type (e.g., 4-year university) and work experience (e.g., with work experience in college/university) had greater effects on graduates' employment in CF area. As an indicator of quality of jobs, wage level was influenced by individual background factors(e.g., male, older), university factors(e.g., night

program, 4-year university, university located in Seoul-metro area), and job preparation factor(e.g., high English score, with overseas language training experience). Although students spends much time and money on obtaining licenses and certificates, the job preparation factors were not significantly related to employment status or the quality of employment in the field of clothing and fashion. The much importance of foreign language on employment may represent the current job market for the globalized fashion business. Therefore, universities need to help students utilize international exchange program more in advance, which improves a global competency, such as communication skill of foreign languages, work experience (e.g., internships) on a global basis.

In addition, individual characteristics (e.g., gender, age) or the university characteristics (e.g., type and location) which are determined at the time of admission to universities, turned out to be important in increasing employment. This calls into a question what students can do for increasing chances to seek a job, which should make it done during their campus lives. There may be other way to foster better outcomes by establishing or expanding university's partnerships with industries. Providing timely information on the fashion fields in which jobs are available, what different competences are required, and the career paths would be helpful for students' job preparations.

Given great recession, drastic restructuring occurred in academic universities, so that government utilized employment rate of graduates as important index to evaluate universities. Thus, it is required to explore factors that can increase the employment rate of graduates or job transfer so as to ensure that the CF major maintains its competitiveness and

development as a major in universities. Our data can be useful in developing career guidance and educational program for students majoring in clothing. It is considered that employment rate and quality of job can be increased so as to help sharpen the competitiveness of the CF major.

The findings of this study should be interpreted with caution due to limited data related to CF majors in 2009 to 2012. Thus, it is necessary that a longitudinal approach into further data is considered to ascertain if this analysis would represent an ongoing tendency over time. In addition, simple status of employment was used to explain employment status in this study. Future research needs to include dependent variables such as the duration of employment, job relevance to the major, retention rate, or the number of jobs held since the first employment, which might provide more insights for quality jobs into both educators and students. It is also recommended that future studies need to undertake a meta-analysis in order to look at changes in the employment outcomes of university graduates from a historical perspective in the context of different majors.

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