Go to Graduate School or Go to Work: What Factors Determining College Students' Selections?

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ABSTRACT This paper analyzes the factors that determine whether a graduate finds a job or entering graduate school. An econometrical model is used to detect multi-objectives, covering college graduates' employment, unemployment and graduate study affected by three factors: college prestige, undergraduate discipline, and gender. This paper indicates that the research university graduates find jobs faster and are more likely to study in graduate school, and the substitution effect exists between going to graduate school and going to work. In addition, graduates with engineering and business degrees find jobs more easily and the lower probabilities to go to graduate school. Agricultural graduates have the higher probabilities to go to graduate school, but the lower probabilities to work. There is a complementary impact between going to graduate school and working. Other discipline shows the weak substitution and complementary effects. Finally, female graduates find jobs more easily than males, and they are more likely to go to graduate school. A substitution effect exists between their selections.

INTRODUCTION

Some college graduates go to graduate school, and others go to labor market after the completion of undergraduate study. The object of this study is to use a multinomial probit model to analyze the impact of factors that determine which graduates continue learning at graduate school and which find employment in the market. Hence, three factors, including college prestige, study discipline, and gender, are considered in the current analysis. Other elements will not be involved in the study because of insufficient observed samples.

Wolpin (1987) and Eckstein and Wolpin (1995) revealed the trend in the US and that, although there was a higher level of education and an attended elite college, a higher reservation wage might lead to a longer unemployment spell. They have the advantages of choice not only on continuously studying but also on working. Bratberg and Nilsen (1998) pointed out that the U.S. high unemployment is mainly due to the lack of adequate education. Bjorklund and Eriksson (1996) found the same result by studying the case of Nordic countries. In addition, Bradley and Nguyen (2004) pointed out that the quality of schools had a greater impact on finding jobs than academic performance in the United Kingdom. They also found that it was more difficult for male graduates from high-quality schools to find a job than female graduates. However, Ghazala

et al. (2006) showed that in Europe, male graduates find jobs more easily than their female counterparts. Stavros (2006) indicated that in Greece, women, unmarried persons and young people are more likely to be unemployed than men and married people, and college graduates are more likely to be employed than high school graduates.

Hershbein (2012) presented that women, but not men, who graduate high school in an adverse labor market are less likely to be in the workforce for the next four years, but longer-term effects are minimal. Further, while men increase their enrollment as a short-run response to weak labor demand, women do not; instead, they appear temporarily to substitute into home production. Johnson (2013) found that graduate school enrollment is counter cyclical for females and acyclical for males, and poor labor market conditions lead to a substitution from full-time enrollment to part-time enrollment for both genders.

About the discipline affecting post-graduate studies, Daymont and Andrisani (1984) who find that engineering, science, or mathematics professionals have better income than their humanities and social sciences counterparts by as much as 12 percent to 27 percent. Montgomery (2000) used a nested logit model to indicate that the prestige or ranking of an undergraduate college, the average GMAT, Graduate Management Admission Test, and GPA, Grade Point Average, have a positive impact on the probability of post-

graduate study. Berger and Kostal (2002) pointed out that in the United States, the state's average educational level and the popularity of university that graduates attended had a significant impact on the graduate admissions. Finnie and Frenette (2003) show the differences in earnings according to discipline among Canadian college graduates. The fields with the highest earnings are health, engineering, commerce, and mathematics/physics; those with the lowest earnings are liberal arts and humanities, agricultural/biological sciences, and other social sciences; and education and economics are generally in the middle of the earnings distribution. Perna (2004) found that women and men had different modes with respect to high education in the United States. She used the National Center for Education Statistics Survey from 1992 to 1993 and 1994 to 1997, and found that the proportion of master education for women was more than men (23% vs. 16 %), but the proportions of doctoral education and first-professional program for women were lower than that of men (2% vs. 4%), and (5% vs. 10%), respectively. Bedard and Herman (2008) indicated that in the United States, the higher grade point average individuals are more likely to enter the advanced degree program regardless of gender. In addition, graduate students are more likely to join the Ph.D. program from natural sciences. Walker and Zhu (2011) show that high average returns for women do not differ by major. For men, they find very large returns for law, economics and management but not for other subjects. Stevenson (2013) showed that women are less likely than men to earn degrees from high quality post-baccalaureate programs. He pointed out, aside from the biomedical sciences; this cannot be explained by changes in the type of program where women tend to earn degrees. Instead, sorting by quality within degree program is the main contributor to the growing gap.

This paper argues that, compared with college graduates, research university graduates and university graduates go to labor market more easily. Meanwhile, they are also more likely than college graduates to enter graduate school at first. Going to graduate school has a substitution effect with going to labor market. Secondly, engineering and business graduates find jobs more easily than other graduates. Law and science graduates have a higher risk of unemployment. The arts and social science graduates

range between these two extremes. In addition, the probability that agricultural graduates enter graduate school to study is higher than other graduates, and the probability that business graduates enter graduate school to study is lower than other professional graduates. For disciplines, going to graduate school has a complementary effect with going to labor market. Finally, the female graduates go to labor market more easily than the males, and they are more likely to enter graduate school to study. For gender, going to graduate school has a substitution effect with going to labor market.

This paper is presented as following structures: Section 1 is the introduction. Section 2 is data description and summary statistics. Section 3 describes the empirical model and estimation. The final section presents a conclusion and discussion.

MATERIAL AND METHODS

The dataset is supplied by MyCos that is an education consulting company. MyCos started the survey of college graduates over China in 2006. The survey "Chinese College Graduates Employment and Skills Yearly Survey," which is designed to provide information about college graduates' job search and employment status, builds up the national college graduates follow-up database posted on the China Survey Center. Peking University and the University of Michigan set up the China Survey Center in November, 2008. The survey population includes three types of university, with the status of graduates' employment half a year after graduation in 2007.

This study uses the variables including college prestige, undergraduate majors, and gender. Different types of colleges are used to define the college prestige. There are research university, university, and college. Research university, university, and college represent college prestige. The classification of college is listed by Ministry of Education in China annually in terms of a comprehensive index including scientific research achievement, professional settings, teaching effects, professor/student ratio, employment rate of graduates, and numbers of graduate students etc. Furthermore, major fields can be divided into seven groups.

The 28 undergraduate sub-disciplines can be combined into seven categories. Table 1 shows the seven categories of broad disciplines includ-

Table 1: Classifications of discipline

Discipline	Sub-discipline
Arts and Social Science	philosophy, economics, education, literature, history, tourism, human services, culture and education, and arts and communication
Law	law, public security, and jurisprudence
Science	natural science, meteorology, and computer science
Engineering	engineering, transportation, civil engineering, water conservancy, textile, garment and food industries
Agriculture	agronomy, forestry and fishery
Medicine	medical science, biochemistry and medicine, and hygiene
Business	management, and finance

Note: The classification of discipline is listed according to the regulation of Educational Ministry, China.

ing different sub-disciplines which are arts and social science, law, science, engineering, agriculture, medicine, and business, respectively. To combine the excessive major field types, the necessary adjustment had to be done. First, The college discipline category is classified by the regulation of the Education Ministry in China. Second, the operation changes categorical variables into numeric variables because they are all categorical variables in the original dataset of the statistical software format.

Table 2 provides descriptive statistics regarding college prestige, discipline, and gender affects employment and post-graduate study. The numbers of employment and graduate studies are 7,619 and 703 respectively, and the total number is 8,915 including 593 of unemployment. Moreover, the graduates of research universities reach 4,406 in employment, 351 in unemployment and 548 in graduate study, accounting for 83.05 percent, 6.62 percent, and 10.32 percent of

Table 2: Numbers of employment, unemployment and graduate study

Variable	No. of employ-ment	No. of unemploy-ment	No. of graduate study
Research university	4,406	351	548
University	2,763	189	145
College	450	53	10
Arts and social science	2,034	154	155
Law	562	81	82
Science	586	82	89
Engineering	2,220	131	215
Agriculture	93	7	45
Medicine	72	8	8
Business	2,052	130	109
Female graduates	3,899	284	413
Male graduates	3,720	309	290
Total	7,619	593	703

the total number 5,305 for research university. The shares of employment, unemployment and graduate studies are 89.22 percent, 6.10 percent, and 4.68 percent for university and 87.72 percent, 10.33 percent, and 1.95 percent for colleges respectively. These ratios show that the graduates of university find jobs in a higher probability, and the graduates of research universities are more likely to enter graduate school to study.

Furthermore, most graduates employed are from arts and social sciences, engineering and business; the numbers of finding jobs are 2,034, 2,220 and 2,052 respectively. The business graduate employment rate is 89.57 percent, which is the highest percentage. On the contrary, the lowest rate of graduate employment is only 64.14 percent in agriculture, but they have the highest proportion of graduate study, reaching 31.03 percent.

Lastly, there are 3,899 female graduates employed, slightly higher than the number of male graduates with 3,720. The proportion of unemployed and the ratio of graduate study for female graduates are 6.18 percent and 8.96 percent, while these proportions for male graduates reach 7.15 percent and 6.71 percent respectively.

RESULTS

Empirical Model

The Multinomial Probit Model (MNP) is the most common model that is used to model a relationship between multiple dependent variables and multiple independent variables. The multiple dependent variables are discrete variables that represent different choices. A MNP model has some advantages. First, MNP model requires a normal distribution that better matches the dataset in this study. Second, MNP model does not impose the independence of irrelevant alternatives assumption. This study uses different

choices including employment, unemployment, and graduate study. These choices are not strict independent. For example, some computer-major graduate students start their own company or work for other companies. They enter graduate school to study and are self-employed or employed at same time. This phenomenon is common not only in China but also in other countries. Therefore, this paper uses a multinomial probit model to analyze the impact of the reputation of college, majors and gender on graduate employment, unemployment, and graduate study.

$$MNP(D) = Pr(D) = \alpha + \alpha_i X_i + \varepsilon_i$$

D stands for the category of employment, unemployment and graduate study, α is the constant, stand for the explanatory variables including reputation of college, majors and gender, β_i is coefficient of the explanatory variables, and ε_i is a random variable with mean zero.

Estimation Results

The model estimates impacts of college prestige, disciplines, and gender on employment, unemployment and graduate study in Table 3. In a

Table 3: MNP regression results

Variables	Coefficient	Std. err.	z
Employment (base)			
Unemployment			
Research			
university	-.232635	.1127577	-2.06
College	-.3256814	.1183214	-2.75
Arts and social			
Science	.2176798	.0829237	2.63
Law	.6666329	.1035309	6.44
Science	.5902441	.1013735	5.82
Agriculture	.3319494	.2443376	1.36
Medicine	.4109304	.2666339	1.54
Business	.0605398	.0836886	0.72
Male	-.0901261	.0592031	-1.52
Constant	-1.907092	.1170885	-16.29
Post-graduate			
Study			
Research			
university	.9674971	.1786841	5.41
College	.4671949	.1845242	2.53
Arts and social			
science	-.1571196	.0790241	-1.99
Law	.2360332	.1002417	2.35
Science	.321909	.0969843	3.32
Agriculture	1.069968	.1629711	6.57
Medicine	.0223085	.2629162	0.08
Business	-.3648938	.0827133	-4.41
Male	.2981037	.0584148	5.10
Constant	-2.802533	.1804457	-15.53

MNP regression, employment is the base category, while colleges, engineering discipline and male graduate are treated as comparison variables.

First, the research university graduates and the university graduates find jobs more easily than the college graduates. Through the marginal impact analysis in Table 4, the probability of unemployment for the former two is reduced by 3.57 percent and 3.56 percent at the 1 percent significant level. However, there is no significant difference between the research university and the university in unemployment. If the university is used as the comparison group, the unemployment probabilities for college graduates increases by 4.29 percent at the 1 percent significant level.

Moreover, the arts and social sciences, law, and science graduates are more likely to be unemployed than engineering graduates. Their unemployment probabilities increase 2.42 percent, 7.92 percent and 6.50 percent respectively at the 1 percent significant level. Meanwhile, law, and science graduates are more likely to be unemployed than business graduates. Their unemployment probabilities increases 5.94 percent and 4.58 percent at the 1 percent significant level respectively. Compared with arts and social science graduates, the probability of unemployment for business graduates decreases 1.15 percent at the 10 percent significant level. There is no significant difference between engineering and business graduates for unemployment because the researcher cannot reject the hypothesis that engineering equals business according to the F test. In addition, law and science graduates are more likely to be unemployed than the graduates of the arts and social sciences; their probability of unemployment increases by 4.33 percent and 3.12 percent at the 1 percent significant level. There is no significant difference between law and science graduates because the researcher cannot reject the hypothesis that law equals science according to the F test. The unemployment probability for agriculture graduates decreases 3.73 percent at the 1 percent significant level and 3.18 percent at the 5 percent significant level compared with law graduates and science graduates. However, there is no significant difference between agriculture and other majors, except between law and science. The researcher cannot reject the hypothesis that the effect of agriculture major equals those of arts and social science, engineering, medicine, and business majors respectively in terms of the F test. Therefore, the probability of unemployment for majors ranks from big to small as follows: law or sci-

Table 4: Marginal effects of unemployment in MNP regression

Comparison variable	Research university	Univer sity	College	Arts and social science	Law	Science	Engineering	Agriculture	Medicine	Business	Female
Research university	-	-	.0354* .(.0137)	-	-	-	-	-	-	-	-
University	-	-	.0429* (.0152)	-	-	-	-	-	-	-	
College	-.0357* (.0111)	-.0356* (.0097)	-	-	-	-	-	-	-	-	-
Arts and social science	-	-	-	-	.0433* .(.0131)	.0312* (.0123)	-.0217* (.0069)	-	-	-.0115* (.0070)	-
Law	-	-	-	-.0334* (.0076)	-	-	-.0518* (.0072)	-.0373* (.0124)	-	-.0428* (.0072)	-
Science	-	-	-	-.0265* (.0080)	-	-	-.0453* (.0073)	-.0318* (.0142)	-	-.0364* (.0075)	-
Engineering	-	-	-	.0242* (.0087)	.0792* (.0159)	.0650* (.0146)	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-	-	-	-
Medicine	-	-	-	-	-	-	-	-	-	-	-
Business	-	-	-	-	.0594** (.0147)	.0458* (.0137)	-	-	-	-	-
Male	-	-	-	-	-	-	-	-	-	-	-.0128** (.0055)

Note: The numbers in parenthesis show standard error, and * is the significant mark.

Table 5: Marginal effects of graduate study in MN P regression

Comparison variable	Research university	Univer sity	College	Arts and social science	Law	Science	Engineering	Agriculture	Medicine	Business	Female
Research university	-	-.0446* (.0054)	-.0611** -. (.0055)	-	-	-	-	-	-	-	-
University	.0461* (.0057)	-	-.0402*** (.0103)	-	-	-	-	-	-	-	-
College	.0918* (.0150)	.0550* (.0212)	-	-	-	-	-	-	-	-	-
Arts and social science	-	-	-	-	.0365* (.0130)	.0501* (.0140)	.0193* (.0083)	.2067* (.0388)	-	-.0174* (.0074)	-
Law	-	-	-	-.0300* (.0083)	-	-	-	.1290* (.0344)	-	-.0447 (.0077)	-
Science	-	-	-	-.0378* (.0079)	-	-	-.0226* (.0083)	.1112* (.0324)	-	-.0517* (.0073)	-
Engineering	-	-	-	-.0180* (.0069)	-	.0238* (.0114)	-	.1633* (.0352)	-	-.0336* (.0065)	-
Agriculture	-	-	-	-.0905* (.0095)	-.0587*** (.0070)	-.0547* (.0077)	-.0818* (.0106)	-	-.0585* (.0072)	-.0998* (.0090)	-
Medicine	-	-	-	-	-	-	-	.1697* (.0658)	-	-	-
Business	-	-	-	.0191* . (.0090)	.0614* (.0155)	.0772* (.0164)	.0403* (.0094)	.2543* (.0422)	-	-	-
Male	-	-	-	-	-	-	-	-	-	-	.0307* (.0056)

Note: The numbers in parenthesis show standard error, and * is the significant mark.

ence, arts and social sciences or agriculture, and business or engineering or agriculture. Meanwhile, there is no significant difference between medicine and above majors according to the F test. In addition, the marginal analysis shows that the unemployment probability for female graduates declines 1.28 percent more than male graduates at the 5 percent significance level.

Second, the research university graduates and the university graduates are more likely to enter graduate school to study compared to the college graduates. Table 5 indicates that the probabilities of the research university graduates and university graduates entering graduate schools increase 9.18 percent at the 1 percent significant and 5.50 percent at the 10 percent significant level respectively compared with college graduates. Meanwhile, the probability of post-graduate study for the graduates of research universities is 4.61 percent at the 1 percent significant level more than the graduates of colleges. Furthermore, compared with engineering, arts and social sciences, agriculture, and business majors in the post-graduate studies have a significant effect at the 1 percent level. The probabilities of post-graduate study for the arts and social sciences, and business graduates are 1.80 percent and 3.36 percent less than engineering graduates. The probabilities for science graduates and agriculture graduates increase 2.38 percent at the 5 percent significant level and 16.33 percent at the 1 percent significant level compared to engineering graduates. There is no significant difference between engineering and law or between engineering and medicine because the researcher cannot reject the hypothesis that engineering equals law, and engineering equals

medicine according to the F test. If the arts and social science is the omitted variable, the probabilities that law, science, engineering, and agriculture graduates study further increase by 3.65 percent, 5.01 percent, 1.93 percent and 20.67 percent at the 1 percent significance level respectively. In addition, the probability of business graduates entering graduate school falls 1.74 percent at the 5 percent significance level. If law is the omitted variable, the probabilities of arts and social science and business graduates attending graduate school decrease by 3.00 percent and 4.47 percent at the 1 percent significant level, and the probability for agriculture graduates increase by 12.90 percent at the 1 percent significant level. The researcher cannot reject the hypothesis that law equals science in terms of the F test. If science is the omitted variable, the probabilities of arts and social science, engineering, and business graduates entering graduate school decrease by 3.78 percent, 2.26 percent and 5.17 percent at the 1 percent significant level and the probability of agriculture graduates increases by 11.12 percent at the 1 percent significant level. If business is the omitted variable, the probabilities of arts and social, science, law, science, engineering, and agriculture graduates becoming graduate students increase by 1.91 percent at the 5 percent significant level and 6.14 percent, 7.72 percent, 4.03 percent and 25.43 percent at the 1 percent significance level. The probability of agriculture graduates increases by 16.97 percent at the 1 percent significant level when medicine is the omitted variables. The probability of medicine graduates entering graduate school decreases 5.85 percent at the 1 percent significant level compared to agriculture gradu-

Table 6: The hardness and effects between going to work and going to graduate school

Factors/Variables	The hardness of employment	The hardness of graduate school enrollment	Relations between going to work and going to graduate school
Research university	Very easy	Very easy	Substitution
University	Easy	Easy	Weak substitution
College	Difficult	Difficult	No relation
Arts and socialscience	Not easy	Not easy	No relation
Law	Difficult	Easy	Weak complementation
Science	Difficult	Easy	Weak complementation
Engineering	Very easy	Easy	Weak substitution
Agriculture	Not easy	Very easy	Weak complementation
Medicine	No identification	Easy/not easy/difficult	No identification
Business	Very easy	Difficult	complementation
Male	Not easy	Not easy	No relation
Female	Easy	Easy	Substitution

ates. There is no significant difference between medicine and other majors except for agriculture.

Therefore, the probability of post-graduate study in descending order according to majors ranking is as follows: agriculture; law, science, engineering or medicine; arts and social sciences or medicine; and business or medicine. Furthermore, female graduates are more likely to enter graduate school than male graduates. The probability of them entering graduate school increases 3.07 percent at the 1 percent significant level.

DISCUSSION

The paper mainly analyzes two objects. The first object emphasizes on the factors affecting the graduates' selections which are going to graduate school or going to work. College prestige, discipline, and gender are focused on the extent of impacts. The results show that the high reputed college graduates have the advantages on employment in China. This is different form the view from Wolpin (1987). Of course, more studies support the conclusion such as Bradley and Nguyen (2004) and Ghazala et al. (2006). The results also verify the correctness of human capital theory, and are consistent to the employment status in China. Generally, the employer believes that college prestige stands for a higher education quality and ability. They are willing to recruit the fresh reputed college graduates. Meanwhile, these graduates have more chances to pursue their high degrees because they may acquire the better educations and advanced knowledge in an elite school. Furthermore, engineering and business graduates find jobs more easily, reflecting the construction industry prosperity and rapid economic growth in China. These graduates are attracted by high wages in labor market. Therefore, it is lower possibilities for them to go to the graduate school. The conclusion is aligned with the previous studies (Daymont and Andrisani 1984; Finnie and Frenette 2003). Agricultural graduates have a higher probability of entering graduate school than other majors, and business graduates have a lower probability of entering graduate school. This partially verifies that the employment hardness may lead to the higher enrollment in graduate school. However, law graduates searching jobs very tough in China is totally different from Walker and Zhu's result (2011) because many economic problems are solved by the way of administration and negoti-

ation. Hence, the demand of lawsuit is relatively less than that of western countries. Female graduates are more likely than male graduates both to enter graduate school and go to work. This is a different situation from the US mentioned by Perna (2004).

The second object aims to identify relations between labor market and graduate school enrollment. Few previous studies analyze this issue. The results show clearly that there are substitution effect, complementary effect, and no relations among the factors determining going to work or going to graduate school in Table 6. There are substitution effects regarding research university graduates and female graduates who enjoy both going to graduate school and going to work. Their advantages reflects the higher human capital accumulation. The university graduates and engineering graduates own the weak substitutions in the selections mainly due to the relatively high human capital and demand of labor market. Law, science, and agriculture graduates have to go to graduate school facing the tough demand of labor market. Other factors do not exist obvious relations or identification. All in all, substitution and complementary effects demonstrate the structure and demand and supply of labor market in China.

CONCLUSION

This paper analyzes the effects of college prestige, undergraduate discipline, and gender on graduates' employment, unemployment, and postgraduate learning. The results are first, that research university graduates and university graduates find jobs more easily compared to college graduates. Meanwhile, research university graduates have a higher probability of entering graduate school to study than university and college graduates. Hence, for graduates' selections, going to graduate school is as easy as going to labor market. Postgraduate study has a substitution effect with working in labor market.

Second, engineering and business graduates find work more easily than other graduates. Law and science graduates have a greater likelihood of unemployment. Arts and social sciences graduates range between them regarding probability of unemployment. Their probabilities are 3.34 percent and 2.65 percent lower than those of law and science, but 2.42 percent higher than engineering. Meanwhile, business graduates have a

lower probability of unemployment than arts and social science graduates by 1.15 percent. Agriculture graduates have lower probabilities of unemployment than law and science graduates by 3.73 percent and 3.18 percent, and no significant difference with other major graduates. Furthermore, medicine graduates have no significant difference from other major graduates in probability of unemployment. In addition, agricultural graduates have a higher probability of entering graduate school than other majors, and business graduates have a lower probability of entering graduate school than other majors except for medicine graduates. Law, science, and engineering graduates are more likely to enter graduate school than are arts and social sciences graduates, but there is no significant difference among law, science, engineering, and medicine graduates. Furthermore, there is no significant difference between medicine and arts and social science. In this regard, for undergraduate discipline, going to graduate school has a complementary effect with going to labor market.

Finally, female graduates find jobs more easily than male graduates. In addition, female graduates are more likely than male graduates to enter graduate school. Therefore, for gender identity, going to graduate school has a substitution effect with going to labor market.

RECOMMENDATIONS

According to the basic conclusion, some suggestions are given for university, graduates, and government. firstly, university should adjust the professional setting, and compress student numbers in the disciplines of law and science because market demand for these majors is not great. Secondly, the separate employment assistance of university may be more effective for different major and gender in terms of characteristics of graduates. Furthermore, for college graduates have disadvantages both of going to graduate school and going to work compared to research university graduates and university graduates. They should reduce the expected wages and search for work actively using the different searching channels before graduation particularly in order to increase the chances of employment. Finally, government may set up a public employment consulting organization to avoid the information asymmetry and enact the anti-discrimination laws in the malfunctioned labor market.

REFERENCES

Bedard K, Herman DA 2008. Who goes to graduate/professional school? The importance of economic fluctuations, undergraduate field, and ability. *Economics of Education Review*, 27: 197-210.
Berger MC, Kostal T 2002. Financial resources, regulation, and enrolment in US Public Higher Education. *Economics of Education Review*, 21: 101–110.
Bjorklund A, Eriksson T 1996. Unemployment in the Nordic countries-Introduction and Summary. In: Eskil Wadensjo (Ed.): *Unemployment in the Nordic Countries. The Nordic Labour Markets in the 1990's.* Amsterdam: Elsevier, pp. 3-17.
Bradley S, Nguyen AN 2004. *The School-to-Work Transition, International Handbook of Education Economics*. Cheltenham: Edward Elgar.
Bratberg E, Nilsen, OA 1998. Transitions from School to Work: Search Time and Job Duration. *Discussing Paper, No. 27.* Bergen: Institute for the Study of Labor.
Daymont T, Andrisani P 1984. Job preference, college major, and the gender gap in earnings. *Journal of Human Resources,* 19(3): 408-428.
Eckstein Z, Wolpin KI 1995. Duration to first job and the return to schooling: estimates from a search-matching model. *Review of Economic Studies*, 62(2): 263-286.
Finnie R, Frenette M 2003. Earning differences by major field of study: Evidence from three cohorts of recent Canadian graduates. *Economics of Education Review,* 22(2): 179-192.
Ghazala A, Maia G, Manning A 2006. Gender gaps in unemployment rates in OECD countries. *Journal of Labor Economics*, 24(1): 12-32.
Johnson MT 2013. The impact of business cycle fluctuations on graduate school enrollment. *Economics of Education Review*, 34(C): 122-134.
Hershbein B 2012. Graduating high school in a recession: Work, education, and home production. *The B.E. Journal of Economic Analysis and Policy*, 12(1): 1-32.
Montgomery M 2000. A nested Logit Model of the choice of a graduate business school. *Economics of Education Review*, 21: 471-480.
Perna L 2004. Understanding the decision to enroll in graduate school: Sex and racial/ethnic group differences. *The Journal of Higher Education*, 75: 487-527.
Stavros R 2006. Econometric Analysis of the LFS Micro-data: Exploring the Risk of Unemployment in Three Southern Greek Regions during the CSF-1. *European Regional Science Association in its Series ERSA Conference Papers,* 6: 940-956.
Stevenson A 2013. The male–female gap in post-baccalaureate school quality. *Economics of Education Review*, 36 (C): 153-165.
Walker I, Zhu Y 2011. Differences by degree: Evidence of the net financial rates of return to undergraduate study for England and Wales. *Economics of Education Review,* 30(6): 1177-1186.
Wolpin KI 1987. Estimating a structural search model: The transition from school to work. *Econometrica*, 55(4): 801-817.