

Gender, Family Background, and Academic Aspirations:

A Study on Inequality in Access to University in Japan

Yuri NAKAJIMA

Global COE Program

“Science of Human Development for Restructuring the ‘Gap-Widening Society’”

Ochanomizu University

Gender, Family Background, and Academic Aspirations: A Study on Inequality in Access to University in Japan

Yuri NAKAJIMA

State University of New York at Buffalo

Abstract

As of 2006, more than 75% of both women and men in Japan go on to higher education immediately after graduation from high school. Yet, this does not mean that the expansion of the higher education system leads to equality of access to higher education; there is a hierarchy of higher education institutions that is associated, for the most part, with gender and social class. Although the ways in which social class and gender affect the attainment of higher education in Japan may be studied separately, this study addresses and examines these issues in a combined form. This paper analyzes data gathered from third-year high school students in a northeastern region of Japan through the Japanese Education Longitudinal Study 2006, part of the G-COE Program. This study shows that 45.1% of female high school students aspire to go to four-year universities, while 51.6% of men do. Compared with a survey done by the Japanese Ministry of Education, more female students aspire to go to universities in that region than the average of female students in Japan. In order to analyze the effect of students' academic performance and family backgrounds on their academic aspirations—in particular, their university aspirations—I analyze data using logistic regression. In this analysis, I use the following independent variables for each respondent: parents' university attainment; father's professional, technical, or managerial job; academic performance in middle school; and the status of each student's current school in a high school tracking system. I found that their father's educational background has a significant impact on female students' academic aspirations, while male students' aspirations were only affected by their academic ability and high school tracking system.

Key words: School-to-work transition, higher education, gender, academic aspirations, family background

Introduction

As of 2006 in Japan, more than 75% of women and men go on to higher education immediately after graduating from high school; however, this does not mean that the expansion of the higher education system leads to equality of access to higher education. On the contrary, there is a hierarchy of higher education institutions that is associated, for the most part, with gender and social class (Ishida, 1998, 2007; Nagasawa, 2005; Nozaki, Fix Dominguez, & Nakajima, 2008). Generally, four-year universities (hereafter called universities) are more prestigious; two-year colleges (hereafter called junior colleges) and colleges of technology are situated below universities; and specialized training colleges are at the bottom of the hierarchy (Ishida, 2007). We must consider who goes to universities, junior colleges, colleges of technology, and specialized training colleges in higher education system, which is characterized stratification (Ishida, 1998).

Educational attainments in Japan are different among the social classes (e.g., Ishida, 1993, 2007) and between the genders (e.g., Amano, 1988, 1997; Fujimura-Fanselow, 1985; Ishida, 2007). As far as social class, according to Ishida (1993), educational attainment in Japan is affected by family background such as fathers' jobs, academic backgrounds, and income. Also, in his later work, Ishida (2007) concludes that the expansion of the higher educational system does not reduce the inequality of access to higher education by social origin. Rather, his study shows that attainment of a university degree is dependent on parental education in recent cohorts (Ishida, 2007).

Regarding gender, historically speaking, women and men have attended different types of higher education institutions (e.g., Amano, 1988; Fujimura-Fanselow, 1985). Most men choose universities, while many women choose junior colleges as well as universities. According to Japanese Ministry of Education, Culture, Sports, Science, and Technology (hereafter called the

Japanese Ministry of Education), while 51% of men chose universities in 2005, only 37% of women did (Japanese Ministry of Education, n.d.). Junior colleges are in general recognized as colleges for women. In fact, over 90% of junior college students are women (Amano, 1997; Ishida, 1998). On the other hand, the rate of advancement to universities for women has been increasing every year, while that to junior colleges has been decreasing. Because of the increased number of female students attending universities, Ishida (2007) points out that the gender inequality in attendance at higher education institutions had been substantially reduced, especially during the late 1980s to 1990s, when the university sector expanded rapidly. Nevertheless, gender inequalities still persist. Men are more likely to receive BA degrees than women, and men still have a clear advantage in attaining a university education (Ishida, 2007).

It is worth remembering the complex effects of gender and social class on educational attainment. Although the ways in which these two variables affect the attainment of higher education in Japan may be studied separately, this study will address and examine them in a combined form, since the impact of gender might be stronger in a particular social class and vice versa. Ishida (2007) examines the effects of both gender and social class on educational attainment in the same way, studying the completion of a high school education and a postsecondary education, the attendance and completion of university or junior college, and the attainment of a BA degree across four cohorts, all born between 1942 and 1980. According to Ishida's findings (2007), the chances that women born after 1968 would attain a higher education were not affected by their fathers' social class. There is still need for the analysis of gender by social class in their relation to university attendance.

This paper will analyze data gathered from third-year high school students in a northeastern region of Japan. This work is different from Ishida's work because data used in this study was collected and investigated by our project, called the Japanese Education Longitudinal Study [JELS]. This study attempts to examine the issue of educational attainment and equality with constantly updated data in order to convey valid and reliable measures that will help us understand and hence resolve some of these issues in Japanese higher education.

Data and Variables

This study is part of JELS, which has been conducted by the Ochanomizu University sociology of education research group since 2003. JELS was launched in 2002

as a part of the 21st Century COE Program, which was supported by the Ministry of Education. The purpose of JELS is to track target students from elementary school to their first job every three years. In order to fulfill this purpose, we surveyed the third and sixth grades in elementary schools, the third year in middle schools, and the third year in high schools in four regions: one metropolitan area, two northeastern regions, and the schools affiliated with Ochanomizu University. Our study also included surveys of students' parents or guardians and surveys of elementary, middle, and high school teachers. In addition, we interviewed two teachers in each high school who were in charge of career guidance and academic affairs for the third year students. As of 2008, the first wave (JELS 2003) and the second wave (JELS 2006) had been completed.

Since the respondents were still in high school, I analyzed their academic aspirations instead of their actual educational attainments. As for factors that measured social class, I used respondents' parents' educational attainment and fathers' jobs, both of which are effective for measuring social class or family background. The parents' educational attainment represents the cultural capital in the family, and the father's job represents the economic and social capital (Bourdieu & Passeron, 1977; Ishida, 1993). Those factors are essential to an analysis of family backgrounds in the Japanese context.

Results

Our study shows that 45.1% of female high school students aspire to go to four-year universities, while 51.6% of men do (see Table 1). Compared with the survey by the Japanese Ministry of Education, more female students aspire to go to universities in this area than the average of female students in Japan.

Moreover, many more women aspire to attend specialized training colleges and miscellaneous schools than do men. According to the Japanese Ministry of Educa-

Table 1 Students' Academic Aspirations

	Male	Female
High School	31.0	23.0
Specialized Training College or Miscellaneous School	8.5	20.4
Junior College	1.7	8.4
University or Graduate School	51.6	45.1
Others	5.0	1.6
N. A.	2.2	1.4
Total	100.0	100.0
N	461	486

(JELS 2006)

Table 2 Students' Academic Aspiration by Father's Education

		Below High School University/ Graduate School	Junior College/ pecialized Training College/Miscella- neous School	University/ Graduate School
Male Students' Aspirations	High School	34.1	32.4	17.9
	Junior College/Specialized Training College/ Miscellaneous School	11.2	14.7	6.3
	University/Graduate School	49.1	52.9	71.6
	Others	5.6	0.0	4.2
	Total	100.0	100.0	100.0
	N	232	34	95
Female Students' Aspirations	High School	30.5	17.0	7.9
	Junior College/Specialized Training College/ Miscellaneous School	30.5	36.2	15.8
	University/Graduate School	37.9	46.8	71.9
	Others	1.2	0.0	4.4
	Total	100.0	100.0	100.0
	N	256	47	114

(JELS 2006)

Table 3 Students' Academic Aspiration by Mother's Education

		Below High School University/ Graduate School	Junior College/ pecialized Training College/Miscella- neous School	University/ Graduate School
Male Students' Aspirations	High School	33.0	27.8	16.4
	Junior College/Specialized Training College/ Miscellaneous School	11.9	13.3	1.8
	University/Graduate School	49.8	56.7	76.4
	Others	5.3	2.2	5.5
	Total	100.0	100.0	100.0
	N	227	90	55
Female Students' Aspirations	High School	30.1	11.0	5.4
	Junior College/Specialized Training College/ Miscellaneous School	29.1	28.8	13.5
	University/Graduate School	39.4	57.6	81.1
	Others	1.4	2.5	0.0
	Total	100.0	100.0	100.0
	N	292	118	37

(JELS 2006)

tion, the enrollment rates at specialized training colleges and miscellaneous schools are 24% of women and 17% of men who are enrolled in higher education. As this shows, fewer men in this region desire to attend those colleges and schools.

Next, I consider the factor of students' family backgrounds in addition to gender (See Tables 2 and 3). For both genders, parents' educational backgrounds seem to be related to students' academic aspirations. Data

shows that 70% of men and women aspire to attend universities if their fathers graduated from universities, while if the fathers' educational attainments are below high school, only 49.1% of men and 37.9% of women wish to attend. If the students' mothers graduated from universities, 76.4% of men and 81.1% of women expect to attend one; however, if mothers merely graduated from middle and/or high school, only 49.3% of males and 38.9% of females aspire to attend universities. It is encouraging to observe that more than 80% of

women whose mothers graduated from universities sought to go to university, but that number fluctuates when we take into account the fact that only a very small number of mothers surveyed have university degrees.

In order to analyze the effect of students' academic performance and family background on students' academic aspirations-particularly their university aspirations-I then analyzed data using logistic regression. In this analysis, I used the following independent variables: father's and mother's university attainment; father's professional, technical, or managerial job; respondents' academic performance in middle school; and the status of each respondent's current school in a high school tracking system (see Table 4). Regarding family background, I employed as dummy variables father's and mother's university attainments and father's professional, technical, or managerial job. Dummy variables are assigned the value 1 if the respondent's father or mother has a university degree and 0 otherwise. Also, if the respondent's father has a pro-

fessional, technical, or managerial job, the value 1 is assigned while 0 is assigned otherwise.

Besides family background, I included two other measures that might affect students' academic aspirations: their academic performance in middle school and the status of their current schools in a high school tracking system. I particularly chose middle school academic performance as an indicator of students' academic ability; since the high school system in Japan is stratified based on an entrance examination and students' middle school academic performance, we cannot use high school academic performance as a common indicator beyond high schools. For this reason, I rated academic performance in middle school on a scale of one to five points. For example, if students achieved the highest academic record in middle school, I gave them five points, while if students achieved the lowest record, I gave them one point. Regarding a high school track, in this study, I labeled high schools at which more than 70% of students expressed a desire to go on to universities as "competitive academic high schools."

Table 4 Descriptive Statistics of Independent Variables by Gender

	Male	Female
Father's University Attainment	20.6%	23.5%
Mother's University Attainment	11.9%	7.6%
Father's Professional Technical/ Managerial Jobs	29.7%	26.7%
The Scores of Academic Performance in Middle School		
1	11.8%	8.0%
2	11.5%	17.5%
3	25.9%	21.9%
4	21.4%	26.2%
5	29.4%	26.4%
Competitive Academic High School	39.7%	45.9%

(JELS 2006)

Table 5 shows that academic performance in middle schools and competitive academic high schools both have significant effects on students' university aspirations for both genders. On the other hand, for women, the father's university attainment also significantly affects university aspirations. This means that the academic aspirations of male students are based only on meritocratic factors, while those of female students are affected by social class as well as meritocratic factors. Fathers' educational background had a significant effect, but mothers' university attainment and father's professional, technical, or managerial job did not have a significant impact on students' university aspirations.

Table 5 Logistic Regressions on Family Backgrounds of Academic Aspirations by Gender

	Male		Female	
	B	Exp (B)	B	Exp (B)
Father's University Attainment	0.050	1.052	0.858	2.359**
Mother's University Attainment	0.729	2.074	0.458	1.581
Father's Professional Technical/Managerial Job	-0.322	0.725	0.474	1.606
Academic Performance in Middle School	0.523	1.687***	0.280	1.323**
Competitive Academic High School	2.522	12.451***	2.281	9.789***
Intercept	-2.530	0.080***	-2.645	0.071***
Cox & Snell R square	0.393		0.373	
Nagelkerke R square	0.525		0.499	
-2 log likelihood	406.295		441.212	
Chi-square	229.385		226.579	
		***		***

*** p < 0.01; ** p < 0.05

(JELS 2006)

Concluding Thoughts

In this study, I examined the effect of family background on students' academic aspirations and found that fathers' educational background has a significant effect on women's academic aspirations, while men's aspirations were only affected by academic ability and the high school tracking system. This finding is consistent with Ishida's studies (2007) as mentioned above.

In concluding this paper, I will point out three ideas regarding the reasons for which family background affects only women's aspirations. First, the results shown in Table 5 might depend on the possession or lack of specific knowledge about gender and higher education. This might be based on the characteristics of the city that we surveyed. It is in the northeastern region of Japan and has a small population (about 90,000). We generally think that people in metropolitan areas such as Tokyo have more liberal outlooks, while people in rural areas are more conservative. In terms of the knowledge regarding gender and higher education, people in this area might have a negative image of women attending more prestigious higher education institutions than men do, since, as mentioned above, women have hitherto been expected to attend junior colleges rather than universities.

Second, because of the expansion of higher education for men, whether or not they attend universities might be a choice that they alone make based on their academic ability. Although Japan's entrance examination for universities is known to be highly competitive, entrance into non-privileged private universities is, in fact, much less competitive, because of the decreasing number of children. If the name or prestige of the university does not matter, men can still access tertiary education in many other less prestigious institutions of higher education. In this respect, if we consider the hierarchy of universities, we may find a significant effect of social class on the prestige of universities attended.

Another aspect of difference in terms of gender and higher education attainment is related to the push factor. It may be necessary for women to have another push factor besides their own choices based on academic ability to attend universities. In that case, their fathers' educational background would be such a push factor. According to the findings, which conclude that fathers' university attainment affects their daughters' university aspirations, it seems that women whose fathers have had a higher education have more chance of going to university than women whose fathers have had less education. This may be due to the fact that the

more higher education one has had, the more liberal he or she may be. In this sense, fathers seem to have acquired the liberal thinking necessary to send their daughters to university from their own university education. We may go further and surmise that it is only fathers who have university degrees themselves who can encourage their daughters to attend universities.

References

- Amano, M. (1988). 'Sei (jenda) to kyoiku' kenkyu no gendaiteki kadai: Kakusareta 'ryoiki' no jizoku [Contemporary issues in the study of gender and education: Persistence of hidden fields]. *Shakaigaku Hyoron*, 39(3), 266-283.
- Amano, M. (1997). 'Women in higher education'. *Higher Education*, 34, 215-235.
- Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society and culture* (R. Nice, Trans.). London: Sage Publication.
- Fujimura-Fanselow, K. (1985). 'Women's participation in higher education in Japan'. *Comparative Education Review*, 29(4), 471-489.
- Ishida, H. (1993). *Social mobility in contemporary Japan: Educational credentials, class and the labor market in a cross-national perspective*. Stanford, CA: Stanford University Press.
- Ishida, H. (1998). 'Educational credentials and labour-market entry outcomes in Japan'. In Y. Shavit, & W. Muller (Eds.), *From school to work: A comparative study of educational qualifications and occupational destinations* (pp. 287-309). Oxford, England: Clarendon Press.
- Ishida, H. (2007). 'Japan: Educational expansion and inequality in access to higher education'. In Y. Shavit, R. Arum, & A. Gamoran (Eds.), *Stratification in higher education: A comparative study* (pp. 63-86). Stanford, CA: Stanford University Press.
- Japanese Ministry of Education, Culture, Sports, Science, and Technology. (n. d.). *Enrollment and advancement rate, 1948 to 2005 (Continued)*. Retrieved October 26, 2008, from http://www.mext.go.jp/english/statist/index_01.htm
- Nagasawa, M. (2005, Summer). 'Gender stratification in Japanese private higher education'. *International Higher Education*, 40. Retrieved October 26, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/Number_40/p_10_Nagasawa.htm
- Nozaki, Y., Fix Dominguez, R., & Nakajima, Y. (2008). 'Gender parity, the reverse gap, and higher education: Key issues from Japan and the United States'. In Y. Nozaki, & R. Fix Dominguez (Eds.), *Gender equality and higher education in the Asia and beyond* (pp. 8-21). Buffalo, NY: State University of New York at Buffalo Graduate School of Education & State University of New York Press.

Acknowledgement

This is a part of the results of the Japan Education Longitudinal Study (JELS).

This paper is a revised version of a paper prepared for presentation at the Conference of the Asia Pacific Educational Research Association in Singapore, November 2008.

PROCEEDINGS 05

March 2009

Author Note

Yuri NAKAJIMA

PhD Student, Dept. of Educational Leadership and Policy, The
State University of New York at Buffalo.

E-mail: jelsocha@cc.ocha.ac.jp

URL: [http://www.li.ocha.ac.jp/hss/edusci/mimizuka/JELS_](http://www.li.ocha.ac.jp/hss/edusci/mimizuka/JELS_HP/index.htm)
[HP/index.htm](http://www.li.ocha.ac.jp/hss/edusci/mimizuka/JELS_HP/index.htm)