Cross-National Gender Gaps in Educational and Occupational Expectations: A Study of Patterns and Causes

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Abstract

This paper examines gender differences in educational and occupational expectations across 30 industrialized countries using data from the Program for International Student Assessment (PISA) and the Third International Math and Science Study (TIMSS). We examine similarities in gender gaps in expectations across countries, and find that in the majority of countries studied, girls have significantly higher educational and occupational expectations than boys. Examining this trend over time, we find that from 1995 to 2003, female's higher expectations have grown, giving girls higher expectations than boys in a growing number of countries. We examine the evidence for two previous theories used to explain gender differences in expectations; sex role socialization and educational egalitarianism, but find limited support for these arguments. We argue that girls' growing educational and occupational expectations may be due to the diffusion of egalitarian attitudes that have rapidly spread across industrialized countries.

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The status of women is changing across a broad range of industrialized countries, particularly in the realms of education and the labor market, as women are surpassing men in tertiary enrollment and attainment (Freeman 2004; OECD 2006), female labor market participation rates are increasing (Brewster and Rindfuss 2000), and egalitarian ideas are spreading across societies (Charles and Grusky 2004). These changes have and continue to cause shifts in the status of women throughout the world, but what is most striking about these changes is that they are not restricted to certain groups of countries, but are widespread, across almost all industrialized societies. The increasingly upward shift in women's status will no doubt cause further transformations in society, and have large implications for gender stratification.

Research on gender stratification has begun to focus on gaps between men and women in tertiary education (Buchmann and DiPrete 2006, DiPrete and Buchmann 2006) and their outcomes and participation in the labor market (van der Lippe and van Dijk 2002) but researchers understand little about how processes earlier in the life course can shape gender gaps in outcomes. This paper attempts to understand patterns in gender gaps in achievement and attainment processes, through the study of boys' and girls' expectations across a variety of industrialized countries, and shed light on similarities and differences in mechanisms that affect gender differences in expectations cross-nationally. The similarities across countries in expectations are remarkable. Using data from the Program for International Student Assessment (PISA), a standardized, comparative dataset containing information on 15 year-olds' achievement and attitudes, conducted in 2003, we find that of the 30 member-nations of the Organization for Economic Co-operation and Development (OECD), on average, girls'

educational expectations surpass boys' in all countries except Germany and Korea, and girls have similar expectations to boys in Austria and Switzerland (see Figure 1). In the 26 remaining countries, girls' expectations far exceed those of boys'. Girls also have higher mean occupational expectations than boys in all countries with available data except Korea, where boys expectations are higher, and Mexico where boys and girls have similar expectations (see Figure 2).

FIGURE 1 ABOUT HERE

FIGURE 2 ABOUT HERE

The pervasiveness of these gender gaps in adolescents' expectations about their future suggest that the female advantage in educational achievement and attainment found in many industrialized countries will continue to grow. At the same time the widespread nature of the the female favorable gap in expectations begs the question: why are girls expecting to achieve higher rates of educational and occupational success than boys? Previous research does not indicate the persistence of these trends or when they began. In addition, we do not fully understand what causes these trends to be similar across societies, as well as what causes differences in boys' and girls' formation of expectations. The goal of this paper is to illuminate trends in gender gaps in expectations, and explore several mechanisms that may lead to gender differences in expectations, focusing both on similarities across countries, and differences that shape individuals' outcomes, using data from PISA and the Third International Math and Science Study (TIMSS). Understanding these gender differences in expectations is key to understanding later life outcomes of men and women, recognizing factors that lead to gender differences that occur prior to entry into education or labor market systems, as well as projecting the future of gender stratification.

PRIOR RESEARCH

Educational and Occupational Expectations

A large body of literature beginning with the Wisconsin model of status attainment in the 1960s demonstrates that individuals' expectations play an important role in determining subsequent achievement and attainment (Sewell, Haller, and Portes 1969; Woelfel and Haller 1971). Given the importance of expectations for social mobility, researchers have also examined how adolescents' expectations are shaped through individual (Spenner and Featherman 1978; Marini and Greenberger 1978) and institutional (Buchmann and Dalton 2002; Buchmann and Park 2006) factors. Family background plays a pivotal role in the formation of adolescents' expectations. Evidence shows that the largest predictor of educational and occupational expectations is socioeconomic status (Morgan 1998; Marini and Greenberger 1971; Hanson 1994; Fan and Marini 2000). Number of siblings also affects expectations. As family size increases, expectations decrease, suggesting that strains on family resources and time with parents has negative outcomes for children (Downey 1995; Hill and Stafford 1974). Significant others, such as parents, peers, and teachers, have an important impact on the formation of expectations in some societies. Sewell, Haller, and Portes (1969) outlined a path model of educational attainment, in which significant others mediate the relationship between individual's socioeconomic background, ability, and expectations. Significant others' opinions and attitudes towards an adolescent's future shape expectations (Woelfel and Haller 1971). Additionally, institutional factors affect expectations. Spencer (1976) found that in Bolivia structural factors associated with living in rural or urban areas impacts expectations, and significant others mediate this relationship. Buchmann and Dalton's (2002) comparative study of aspiration formation in 12 countries

found the level of differentiation in the education system affects the impact of significant others on educational expectations. In highly differentiated systems that have clearly demarcated educational trajectories at the secondary level, the influence of significant others is diminished since students' futures are largely decided by their educational track. Furthermore, Buchmann and Park (2006) find that students in highly differentiated systems have more realistic expectations than those in undifferentiated systems, suggesting that the type of education system can affect students' expectations.

While we have a good understanding of how expectations develop in adolescents, two main gaps emerge in the literature: first, little research, beyond the previously cited studies, examines youths' expectations with a comparative focus. Second, little research has examined differences in expectations by gender. Comparative research can be especially useful for examining how both similar and different processes can shape expectations across a variety of contexts.

Gender and Expectations

With a few exceptions (Marini and Greenberger 1978; Shu and Marini 1998), little research has focused on gender differences in expectations or their formation. As the status of women is changing across societies, research on gender differences in expectations could provide a valuable angle from which to understand these changes. Some research suggests that gender differences in expectations exist, and that males and females take different approaches in developing their expectations. In the 1950s and 1960s, boys had higher educational and occupational expectations than girls in the United States (Marini and Greenberger 1978) and girls adjusted their expectations downward over their life course, as they entered their marriage and childbearing years (Marini 1984). However, since the 1980s,

evidence indicates that in the U.S. (Shu and Marini 1998) and some other industrialized countries (Buchmann and Dalton 2002) girls report higher educational expectations than boys. While prior research finds gender differences in expectations, it fails to examine the reasons for these gaps.

Diffusion of Egalitarianism

Neo-institutionalist theorists argue that the world is no longer made up of individual countries and cultures. Instead nation-states comprise a worldwide institution through which the diffusion of ideas, norms, and practices spread. The world system, known as the world polity, embeds all nation-states, and enforces ideas, that are mainly Western in origin (Meyer 1987). The ideas of the world polity are pervasive and spread rapidly through all countries (Strang and Meyer 1993). This diffusion is a type of social change that spreads among channels over time in a society. For example, Bradley and Ramirez (1996) found that women's increasing share of higher education is the result of the diffusion of policies and norms of egalitarianism beginning in the 1960s. These policies and norms are able to create change because nation-states adopt them in order to appear modern and gain respect in the world. Ramirez, Soysal and Shanahan (1997) found support for this process in the study of the expansion of women's suffrage. As women's suffrage became a universal value, it spread rapidly to both developed and developing nation-states. The influence of world polity goes beyond women's rights. Similar processes have been studied regarding the expansion of mass education (Meyer, Ramirez and Soysal 1992) and the impact of science on economies (Schofer, Ramirez, and Meyer 2000).

It is possible that given the pervasiveness of the world polity, the norms of gender egalitarianism are permeating all industrialized societies, giving young girls the perception

that they can and should have high educational and occupational expectations. However, research to date fails to explore how the world polity can influence individuals' so early in the life course. It is plausible to think that young girls and boys recognize and experience the influence of the world polity as adults do, and they actively shape their future expectations not only based on their personal experiences and their own families, but also in the context of the world polity. Therefore, as norms of gender egalitarianism increase, girls' may increase their expectations of the future accordingly. We expect that girls' high expectations are relatively new phenomena. By examining changes in gender differences in expectations over time, we hope to assess if girls' expectations have risen over time, to the point where they now surpass boys', which could be due to the diffusion of egalitarianism.

Sex Role Socialization

In addition to the trend of girls' expectations rising over time, we examine some common hypotheses of how gender differences in expectations form to help explain how differences in girls' and boys' expectations occur. Sex role socialization arguments propose that society socializes boys and girls according to their gender, which affects their perception of self and achievement (Mickelson 1989). Young boys and girls are taught to expect and desire different life outcomes. For example, males tend to expect to occupations with extrinsic rewards like high prestige or income, while females expect to occupations with intrinsic, altruistic rewards, such as helping or nurturing others (Fan and Marini 2000; Marini et al. 1996). The degree to which boys and girls internalize traditional gender stereotypes could predict their differing expectations, especially expectations regarding future occupations. Sex roles also affect how boys and girls choose their role models, which are important for adolescents as they develop their expectations (Mickelson 1989; Dryler 1998).

Sex role socialization arguments maintain that girls look to their mothers while boys look to their fathers when developing expectations (Rosen and Aneshensel 1978; Downey and Powell 1993; Powell and Downey 1997). Differing role models likely cause boys and girls to have different views about their futures, since their mothers and fathers likely hold unequal positions in society.

The sex role socialization hypothesis seems intuitive, yet has problems. For example, it is hard pressed to explain why girls, on average, now have higher educational and occupational expectations than boys across the majority of industrialized countries. While higher educational expectations might be expected due to the high percentage of women enrolling in and completing tertiary degrees, high occupational expectations for women are less expected, since women have not reached parity with men in the labor market. If girls are referencing their gender and their mothers' accomplishments, then it appears they are overestimating their future success. Sex role socialization cannot fully explain girls' high expectations, but may explain differences in individual expectations of boys and girls as well as expectations across countries. Sex role socialization and the importance of role models could impact how girls and boys develop their expectations differently.

Following the sex role socialization hypothesis, one could imagine that girls and boys will experience greater influence from their same-sex parents' educational and occupational status. To explore this idea, we look to how mother's and father's education and occupation increases their daughters and sons expectations, respectively. Mothers with higher levels of education and more prestigious occupations should have daughters with higher educational and occupational expectations, and according to the sex role socialization hypothesis, this should be true in all countries. Also, mother's education and occupation should matter more

for girls' expectations than boys' expectations. The reverse should be true for boys, as they reference their father's success when developing their expectations.

Educational Egalitarianism

An alternative hypothesis of how girls and boys develop expectations is educational egalitarianism. Educational egalitarianism suggests that families with higher socioeconomic backgrounds and highly educated parents benefit girls. Highly educated parents have more egalitarian gender-role attitudes that they reflect onto their children, as parents attempt to provide equal opportunities for educational success for both sons and daughters (Thornton, Alwin, and Camburn 1983; Buchmann and DiPrete 2006). Within families in the United States with highly educated parents, girls have achieved parity with boys in educational attainment (Buchmann and DiPrete 2006), and gender related changes in expectations are greater among families with highly educated parents (Shu and Marini 1998).

As with the sex role socialization argument, the gap in educational and occupational expectations that currently favors females is problematic for the educational egalitarianism hypothesis. Educational egalitarianism argues that highly educated parents desire equal opportunities and success for their children, which would suggest that daughters and sons of highly educated parents should have similar expectations, not that girls have higher expectations than boys. Despite this shortcoming, the educational egalitarianism hypothesis may be useful to shed light on differences in individual expectations, and variations in the gaps in expectations across countries. One can imagine that across countries, if the educational egalitarianism argument is correct, that parents with higher levels of education should have children with higher expectations.

CURRENT STUDY

Prior research explains how expectations form for adolescents, but primarily within the United States, and limited research points to the trend of girls' expectations surpassing boys'. We know little about the state of gender differences in expectations, how these differences look cross-nationally, and what shapes gender differences in expectations in various countries. The narrow focus of previous expectation research needs to expand to examine gender differences in expectations cross-nationally, which are now of particular importance as we see shifts in women's status across many countries. Understanding young men and women's expectations may provide insights into how expectations are currently being shape and may hint at the future of gender stratification.

This paper will explore gender differences in expectations by examining the following ideas: first, that gender differences in expectations take on similar patterns across all industrialized countries, which is possibly due to the diffusion of egalitarian attitudes through the world polity. We expect evidence for the diffusion of egalitarian to show a growing trend of high female expectations throughout countries over time. Second, we examine how theories of sex role socialization and educational egalitarianism shape individuals' expectations across countries, which could lead to differences in boys' and girls' expectations. We expect evidence for sex role socialization theories to be in the form of individual boys' and girls' experiencing a greater influence from the current occupational and educational status of their same-sex parent. In other words, girls' expectations should receive a greater influence from their mothers' education and occupation, while the reverse should be true for boys. Evidence for theories of educational egalitarianism would suggest that parents with higher levels of education should increase the expectations of their children, regardless of

gender, more than parents with lower levels of education. Again, by inspecting these ideas with a cross-national lens, focusing on both the similarities and differences in the patterns and formation of gender differences in expectations, we hope to illuminate how factors early in the life course begin to shape the future expectations of boys and girls.

DATA AND METHODS

This study uses PISA 2003, which assess the achievement and attitudes of 15 year-olds who are nearing the end of compulsory education in 41 industrialized and developing countries. The student population selected for PISA is representative of the full population of 15 year-olds in each participating country attending both public and private schools. For each country, a minimum of 150 schools and 4,500 students was required. First, a stratified systematic sample of schools was attained including five stratification variables: grade span of school, school type, region of country, type of location relative to population of area, and minority status. Within each school, 35 students were randomly selected between the ages of 15 years 3 months and 16 years 2 months (if a school had less than 25 students between these ages, all students were included in the sample). PISA is a unique and useful dataset that improves over previous international student datasets because of the breadth of information and diversity of countries included. We limit the countries in the analysis to 30 member nations of OECD in order to test hypotheses across industrialized countries. Except for limitations due to missing data, include as many countries in each analysis as possible in order to look at both the generalizability of the theories we are testing, as well as diversity that may occur across countries.

Variables

Educational expectations and occupational expectations are the dependent variables in this analysis. Research on status attainment and educational aspirations and expectations notes the difference between expectations (what a student expects to achieve) and aspirations (what a student hopes to achieve) (Kerckhoff 1976; Hanson 1994). Due to the wording in the PISA 2003 questionnaire ("which of the following do you expect to complete") it is more appropriate for this study to measure and discuss educational and occupational expectations. Descriptive statistics for the dependent variables, as well as all other variables are presented in Table 1.

TABLE 1 ABOUT HERE

Students in all countries were asked about the highest level of education they expected to complete. Responses were coded according to the International Standard Classification of Education (ISCED), an instrument designed by UNESCO which is used for reporting education statistics. PISA includes six general ISCED categories: ISCED 1 is primary education, ISCED 2 is lower secondary education, ISCED 3B or 3C is vocational upper secondary education, ISCED 3A or 4 is academic upper secondary education, ISCED 5B is vocational tertiary education and ISCED 5A or 6 is academic tertiary education or higher. We recode educational expectations into a dummy variable to represent whether a student has high expectations or not (1=expects ISCED 5a or 6) in order to assess if girls' expect higher levels of education than boys'. In 18 of the 30 countries included in this study[1], students were asked what occupation they expected to attain by the age of 30 in an open-ended question, which was later coded into a continuous variable using the International Socio-Economic

[1] Data available in Austria, Australia, Belgium, Czech Republic, France, Germany, Greece, Hungary, Ireland, Iceland, Italy, Korea, Poland, Portugal, Slovakia, United Kingdom and United States.

Index of Occupational Status (ISEI), to measure the socioeconomic status of an occupation (Ganzeboom, DeGraff and Treiman 1992). Occupational expectations are measured as continuous variable, ranging in score from 16 to 90, with more prestigious occupations coded with a higher number. Table 1 shows that the vast majority of students expect to complete academic tertiary education (49%), or ISCED 5a or 6, and work relatively high scoring occupations (58.44 with a standard deviation of 17.92). However, examining the averages by gender suggests that boys and girls do have differing expectations.

Fifty-three percent of girls expect to complete academic tertiary education, compared to 48% of boys and girls, on average, expect to have occupations that score almost 6 points higher than boys on the ISEI scale. These statistics suggest girls do have higher expectations than boys. As shown in Figures 1 and 2, similar patterns are occurring across almost all industrialized countries.

To study the sex role socialization hypotheses, we will use mother's and father's education and occupation, and create interaction males and father's education and occupation (for example, male x father's education), and females and mother's education and occupation. Mother's and father's education is measured as the highest education level attained by each parent according to the six ISCED levels mentioned above. Additionally, a category of "no education" is included. Mother's and father's occupation is measured by each parent's current or previous job according to the ISEI index. To test the educational egalitarianism hypothesis, we include a measure of parent's education, which is derived from the parent with the highest educational level in years.

Sex (coded 1 if female), parent's occupation, home possessions and academic ability are additional independent variables included in this analysis. Parent's occupation is derived

from the parent with the highest occupational level. An index of home possessions is used to estimate the amount of wealth of the family and used as a proxy for socioeconomic status. While a measure of SES is included in PISA, it is a composite of parent's education, parent's occupation, and home possessions, and was therefore too highly correlated with variables of interest of this analysis (such as parent's education) to be included. The home possession index is calculated from a list of cultural and educational items in the home (such as books, poetry, calculators, computers, the Internet, etc), and is standardized to have a mean of 0 and standard deviation of 1 across students in all countries so it can be used for cross-national comparisons (OECD 2005). Since one's actual ability may influence their expectations, a measure of academic ability is included in the analysis. PISA administers standardized achievement tests for all students in the subjects of mathematics, reading, and science. Scores from the science test are used to represent a student's academic ability. Since females tend to score higher on reading tests, and males tend to score higher on math tests, we use science scores in an attempt to eliminate these biases (Nowell and Hedges 1998). In the PISA data, science scores show less variation by gender than reading or math scores.[2] Table 2 presents the correlations for all variables.

TABLE 2 ABOUT HERE

Correlations are as expected. Being female has a slight positive association with educational and occupational expectations and has a slight negative association with science achievement. Parents' higher occupational and educational status has a positive association with expectations, as do home possessions.

[2] Achievement score gaps advantage females by 32 points in reading and advantage males by 10 points in math and 5 points in science. While no tests of achievement show no gender gap in scores, science scores have the smallest gap.

RESULTS

First, models are estimated for each country that examine gender differences in educational and occupational expectations. Table 3 presents the unstandardized logit coefficients for educational expectations, controlling for science ability, parent's education and occupation, and home possessions. In all countries, except for Korea, girls have significantly higher educational expectations than boys. Only in Japan do boys have significantly higher educational expectations than girls. Marked variation occurs across countries. For example, in Portugal, girls are 3.3 times more likely to have higher educational expectations than boys, while in Austria, girls are only 1.2 times more likely to have higher educational expectations than boys. Despite this variation, the trend is still striking. Table 4 presents the unstandardized OLS regression coefficients for student's occupational expectations, and shows a similar female advantage. Girls have significantly higher occupational expectations in all countries except France and Mexico where boys and girls expectations do not differ significantly. Only in Korea do boys have significantly higher occupational expectations than girls. Again, variation in the size of the unstandardized coefficient occurs across countries. For example, in Poland, being female increases individuals' occupational expectation score by 7.45 points, while in other countries, being female does not provide such a large advantage; in Germany and Great Britain, being female increases one's occupational expectation score by about 2.5 points. Regardless of these variations, the pervasive nature of these patterns in educational and occupational expectations is striking in light of the vastly different cultures and contexts of each of these countries.

TABLE 3 ABOUT HERE

TABLE 4 ABOUT HERE

Trends Over Time: The Diffusion of Egalitarianism?

To further understand the persistent female advantage in expectations in most OECD countries, we look at trends over time, and argue that girls' expectations have surpassed boys' expectations only recently. Could this recent gender reversal in expectations be due to the diffusion of egalitarian attitudes? To study trends over time, we use TIMSS 1995, a comparative, representative, international dataset conducted eight years prior to PISA 2003 by the International Association for the Evaluation of Educational Achievement (IEA). We compare the extent of the female advantage in expectations. TIMSS includes information on student's backgrounds, attitudes, and math and science achievement in 42 countries, sampled through a two-stage stratified cluster sample with a minimum of 150 schools per country. TIMSS was collected for students in primary, middle, and secondary school, but we utilize only the middle school population of which students are in grades 7 or 8, or around the age of 13 because it is most similar to the PISA population. We will limit the sample to OECD countries, as we did with PISA, but because data were not collected in Finland, Italy, Japan, Luxembourg, Mexico, New Zealand, Poland, or Turkey, the TIMSS analysis consists of 22 industrialized countries.

For comparability, we attempt to construct similar models with the TIMSS and PISA data however, we are limited to examining only educational expectations, as TIMSS did not collect information on occupational expectations. Educational expectations were measured by students responding to the question, "How far do you expect to go in school?" Students choose between six categories, similar to ISCED levels: finish primary school, some secondary school, finish secondary school, some vocational or technical school, some university, or finish university. As with previous analyses, we recode expectations as a

dummy variable indicating whether a student expects to finish university (or ISCED 5a or 6 in PISA) or not.

Control variables in TIMSS include science achievement, parent's education, and home possessions. Information on parent's occupation was not collected in TIMSS so we will not include the measure of parent's occupation in the corresponding PISA model.[3] Science achievement is measured as a student's score on a standardized and comparable science test. Parent's education is measured as the highest educational level attained by either parent with the same six response options as educational expectations. Home possessions is a cumulative measure of whether an individual's home had up to 16 different household items, similar to the items questioned in PISA.

Table 5 presents the unstandardized logit coefficients for the regressions on educational expectations with the TIMSS data, in 1995, and PISA, in 2003. The female coefficient is significant and positive in the majority of the countries in 1995, but the trend is not as prevalent as in 2003. In 1995, boys' and girls' educational expectations did not significantly differ in Austria, Denmark, Germany, the Netherlands, or Norway, but by 2003, girls had significant advantages in expectations over boys in all of these countries, suggesting that in the span of 8 years, girls' expectations rose to surpass those of boys' in 5 additional countries. In 1995, boys' expectations were significantly higher than girls' in Switzerland, but this reversed such that by 2003, girls' expectations were significantly higher than the expectations of boys. Interestingly, girls' educational expectations exceeded those of boys' in Korea in 1995, but by 2003, girls' and boys' expectations were not significantly different. These results show that while girls had higher expectations than boys in a large number of

[3] Models were tested with and without parent's occupation as a control variable, and results did not vary.

countries in 1995, this trend continued to encompass a greater number of countries between 1995 and 2003.

TABLE 5 ABOUT HERE

Sex Role Socialization

Table 6 presents the results of the two models that whether mother's educational and occupational achievement has a greater influence on girls' educational and occupational expectations than boys', and whether father's educational and occupational achievement has a greater influence on boys' educational and occupational expectations, using interaction terms, as well as the results of the two models that test the impact of mother's and father's occupational achievement on their same-sex child's occupational expectations. Model 1 finds little support for the interaction between mother's education and girl's expectations. Only in Hungary and Luxembourg does mother's education significantly influence girls' educational expectations more than boys. In New Zealand, there is negative, significant interaction between mother's education and being female, suggesting that mother's education influences boys' expectations more than girls'. The interaction between boys' educational expectations and father's education provides slightly more support for the sex role socialization hypothesis. Significant, positive interactions exist in Australia, Canada, Iceland, Italy, and the Netherlands, suggesting that father's education influences boys' expectations more than it influences girls' expectations. However, these findings provide little support for the idea that that adolescents shape their expectations by their same-sex parent's educational achievement.

TABLE 6 ABOUT HERE

In no country is there a significant, positive interaction between mother's occupation and girls' occupational expectations. In fact, in Italy and Poland, mother's occupation has a

more negative impact on girls' expectations than on boys' expectations. Boys' occupational expectations seem to align more with sex role socialization arguments, as father's occupational achievement has a more significant influence on boys' expectations than girls' in Australia, Belgium, the Czech Republic, Ireland, Italy, Poland, and the United States. This suggests that for boys, the impact of their father's occupation on shaping their expectations is more important than for girls, yet girls do not experience the same, positive interaction from their mothers.

The following results provide partial support for the sex role socialization hypotheses, but only for boys. While in some countries, it seems that boys do mirror their expectations after their father's educational and occupational status, girls do not shape their expectations in the same way. One possible explanation for this is that mothers' educational and occupational achievements were likely limited by opportunities allowed to women during their adolescence and young adult life, and do not match the opportunities currently available to their daughters. Therefore, young girls may have to look elsewhere in forming their expectations. However, for boys this is not the case, as their fathers likely had advantages that allowed them to reach higher levels of educational and occupational success, and boys' opportunities have not changed much since their father's generation. These results suggest that previous theories concerning the impact of sex role socialization on adolescent's expectations are no longer applicable in the majority of industrialized countries for girls, and are only applicable for a boys in a select amount of countries.

Educational Egalitarianism

Table 7 presents the results of the two models that test the influence of parent's high educational status on adolescents' occupational and educational expectations. Model 1 shows

that higher levels of parent's education significantly increases educational expectations in all countries, and lower levels are parent's education are associated with lower educational expectations. Model 2 shows that a higher level of parent's education increases adolescent's occupational expectations in most countries. Only in Mexico, Poland, Germany, and France parent's educational level has no effect on occupational expectations. The strength of relationship across all countries provides support for educational egalitarian arguments, but it does not explain why girls have higher expectations than boys. According to this theory, the gap between girls and boys expectations should decrease as parent's education increases, but girls maintain their advantage in educational and occupational expectations. While highly educated parents may be treating their male and female children equally, and hold egalitarian attitudes that advocate for the success of boys and girls, it seems that girls are gaining advantages elsewhere in shaping their future expectations that causes them to surpass boys.

TABLE 7 ABOUT HERE

SUMMARY

Limited research focuses on gender difference in expectations, or on cross-national differences in expectations but given the rapidly changing position of women in society, it becomes imperative to study how young men and women envision their future educational and occupational success. While the majority of research on cross-national gender differences focuses on later education or labor market inequalities, looking earlier in the life course, while students are in school and still shaping their future expectations, is important for understanding the processes that will affect later gender differences in outcomes.

This paper documents the striking pattern that occurs across almost all countries, of girls' expectations exceeding those of boys. From 1995 to 2003, the pervasiveness of this

trend grew to include more countries. These findings are important, as they suggest the female advantage in educational and occupational expectations is growing. We argue that the diffusion of egalitarian ideas throughout countries contributes to this growth and the similarities in female's high expectations across such a diverse range of countries.

We also examine whether individual explanations for differences in expectations are affecting the growing trend of female's high expectations. Ideas of sex role socialization, popular in previous research to explain differences in boys' and girls' expectations, do not seem to hold true today. While in some countries, it appears boys look to their father's success to shape their expectations, girls do not appear to look to their mothers in the same way. However, it makes sense that girls are not looking to their mother's success in shaping their expectations, as their mother's generation had such limited educational and occupational opportunities compared to their current opportunities. This generation of young women must look elsewhere in shaping their expectations. Finally, we examine the idea of educational egalitarianism, or that parent's with higher levels of education hold more egalitarian attitudes, which will raise the expectations of their children. While we find that in almost all countries, parent's high educational attainment does increase their children's educational and occupational expectations, this finding cannot explain girls' higher expectations. Perhaps, again, girls' are looking elsewhere in shaping their expectations. Further research needs to explore other mechanisms that could explain girls' growing expectations, as recognizing these trends and explanations could provide important insights on the changing status of women and the future of gender stratification.

References

Buchmann, Claudia and Benjamin W. Dalton. 2002. “Interpersonal Influences and Educational Aspirations in Twelve Countries: The Importance of Institutional Context.” *Sociology of Education* 75: 99-122.

Buchmann, Claudia and Thomas DiPrete. 2006. “The Growing Female Advantage in College Completion: The Role of Family Background and Academic Achievement.” *American Sociological Review* 71:515-541.

Buchmann, Claudia and Hyunjoon Park. 2006. “Stratification and the Formation of Expectations in Highly-Differentiated Educational Systems.” The Ohio State University, Working Paper.

Bradley, Karen and Francisco O. Ramirez. 1996. “World Polity and Gender Parity: Women’s Share of Higher Education, 1965-1985.” *Research in Sociology of Education and Socialization* 11: 63-91.

Brewster, Karin L., and Ronald R. Rindfuss. 2000. “Fertility and Women’s Employment in Industrialized Nations.” *Annual Review of Sociology* 26:271-296.

Charles, Maria, and David B. Grusky. 2004. *Occupational Ghettos: The Worldwide Segregation of Women and Men.* Stanford, CA: Stanford University Press.

DiPrete, Thomas, and Claudia Buchmann. 2006. “The Growing Female Advantage in College Completion: The Role of Parental Resources and Academic Achievement.” *American Sociological Review* 71: 515-541.

Downey, Douglas B. 1995. “When Bigger is Not Better: Number of Siblings, Parental Resources, and Educational Performance.” *American Sociological Review* 60: 746-761.

Downey, Douglas and Brian Powell. 1993. "Do Children in Single-Parent Households Fare Better Living with Same-Sex Parents?" *Journal of Marriage and the Family* 55: 55-71.

Dryler, Helen. 1998. "Parental Role Models, Gender and Educational Choice." *The British Journal of Sociology* 49: 375-398.

Fan, Pi-Ling, and Margaret Mooney Marini. 2000. “Influences on Gender-Role Attitudes during the Transition to Adulthood.” *Social Science Research* 29 (2): 258-283.

Freeman, C. E. 2004. *Trends in the Educational Equity of Girls and Women: 2004.* Washington, DC: National Center for Education Statistics.

Ganzeboom, Harry B.G., Paul M. DeGraff, and Donald J. Treiman. 1992. “A Standard International Socio-Economic Index of Occupational Status.” *Social Science Research* 21: 1-56.

Hanson, Sandra L. 1994. “Lost Talent: Unrealized Educational Aspirations and Expectations among U.S. Youths.” *Sociology of Education* 67: 159-183.

Hill, C. Russell, and Frank P. Stafford. 1974. “Allocation of Time to Preschool Children and Educational Opportunity.” *The Journal of Human Resources* 9: 323-341.

Kerckhoff, Alan. 1976. “The Status Attachment Process: Socialization or Allocation?” *Social Forces* 55: 368-381.

Marini, Margaret Mooney. 1984. “Age and Sequencing Norms in the Transition to Adulthood.” *Social Forces* 63: 229-244.

Marini, Margaret Mooney, Pi-Ling Fan, Erica Finley and Ann Beutel. 1996. “Gender and Job Values.” *Sociology of Education* 69 (1): 49-65.

Marini, Margaret Mooney, and Ellen Greenberger. 1978. “Sex Differences in Educational Aspirations and Expectations.” *American Educational Research Journal* 15 (1): 67-79.

Meyer, John W. 1987. “The World Polity and the Authority of the Nation-State.” In *Institutional Structure: Constituting State, Society, and the Individual* edited by George M Thomas, John W. Meyer, Francisco O. Ramirez, and John Boli. Sage Publications

Meyer, John W., Francisco O. Ramirez, and Yasemin Nuhoglo Soysal. 1992. “World Expansion of Mass Education, 1870-1980.” *Sociology of Education* 65: 128-149.

Mickelson, Roslyn Arlin. 1989. "Why Does Jane Read and Write so Well? The Anomaly of Women's Achievement." *Sociology of Education* 62: 47-63.

Morgan, Stephen L. 1998. “Adolescent Educational Expectations: Rationalized, Fantasized, or Both? *Rationality and Society* 10:131-62.

Nowell, Amy and Larry V. Hedges. 1998. "Trends in Gender Differences in Academic Achievement from 1960 to 1994: An Analysis of Differences in Mean, Variance, and Extreme Score.” *Sex Roles* 39: 21-43.

Organization for Economic Co-operation and Development. 2005. *PISA 2003 Data Analysis Manual.* Paris: OECD.

------ 2006. *Education at a Glance*. Paris: OECD.

Powell, Brian and Douglas Downey. 1997. “Living in Single-Parent Households: An Investigation of the Same-Sex Hypothesis.” *American Sociological Review* 62:521-539.

Ramirez, Francisco O., Yasemin Soysal, and Suzanne Shanahan. 1997. “The Changing Logic of Political Citizenship: Cross-National Acquisition of Women’s Suffrage Rights, 1890-1990.” *American Sociological Review* 62: 735-745.

Rosen, Bernard, and Carol Aneshensel. 1978. “Sex Differences in the Educational-Occupational Expectation Process.” *Social Forces* 57 (1): 164-186.

Sewell, William H, Archibald O. Haller, and Alejandro Portes. 1969. "The Educational and Early Occupational Attainment Process." *American Sociological Review* 34: 82-92.

Schofer, Evan, Francisco O. Ramirez, and John W. Meyer. 2000. "The Effects of Science on National Economic Development, 1970-1990." *American Sociological Review* 65(6):866-887.

Shu, Xiaoling, and Margaret Mooney Marini. 1998. "Gender-Related Change in Occupational Aspirations." *Sociology of Education* 71 (1): 43-67.

Spencer, William. 1976. "Interpersonal Influences on Educational Aspirations: A Cross-Cultural Analysis." *Sociology of Education* 49: 41-46.

Spenner, Kenneth I., and David L. Featherman. 1978. "Achievement Ambitions" *Annual Review of Sociology* 4: 373-420.

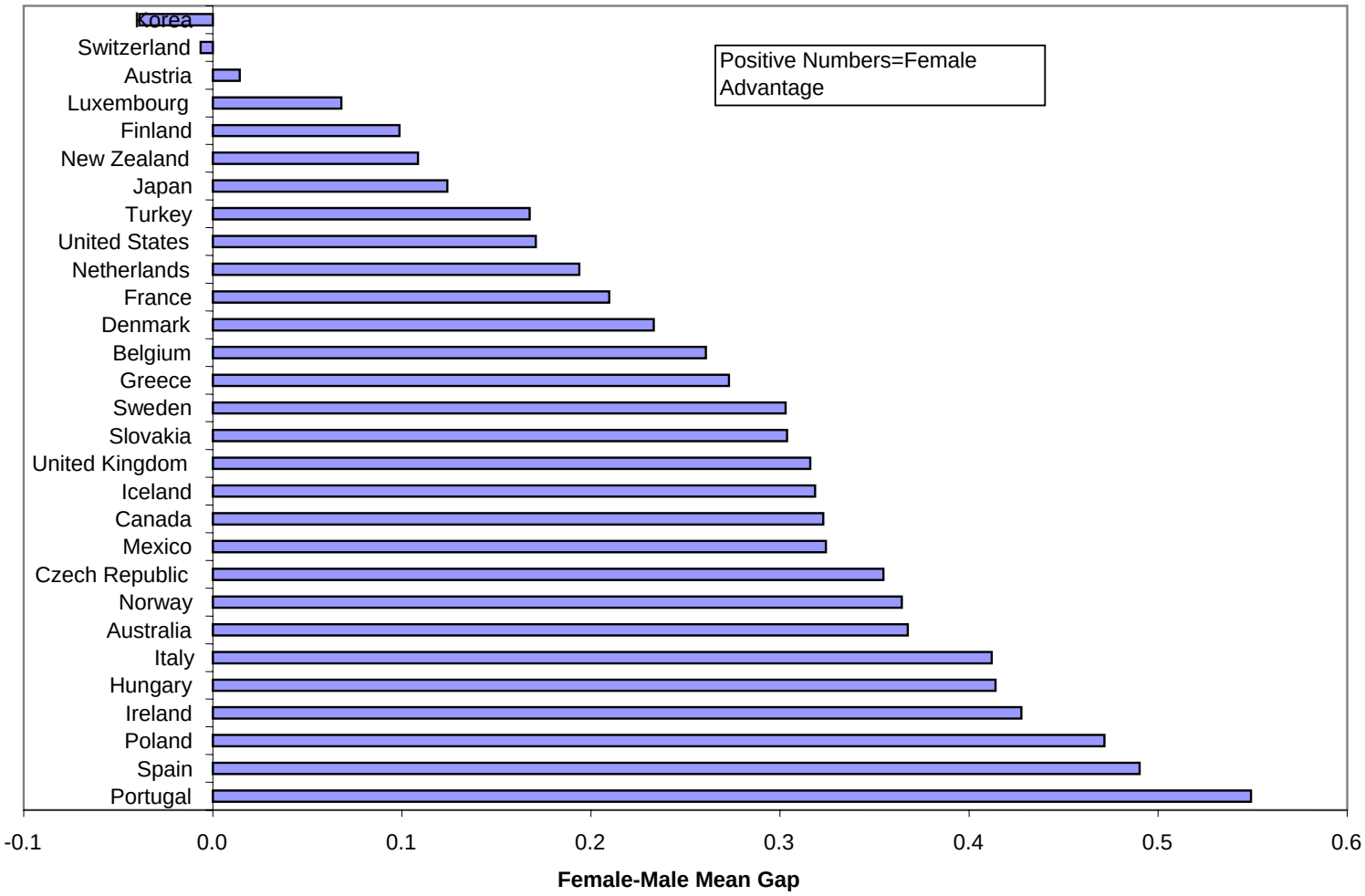
Strang, David, and John W. Meyer. 1993. "Institutional Conditions for Diffusion." *Theory and Society* 22: 487-511.

Thornton, Arland, Duane F. Alwin, and Donald Camburn. 1983. "Causes and Consequences of Sex-Role Attitudes and Attitude Change." *American Sociological Review* 48:211-227.

Woefel, Joseph and A.O. Haller. 1971. "Significant Others, the Self-Reflexive Act and the Attitude Formation Process." *American Sociological Review* 36:74-87.

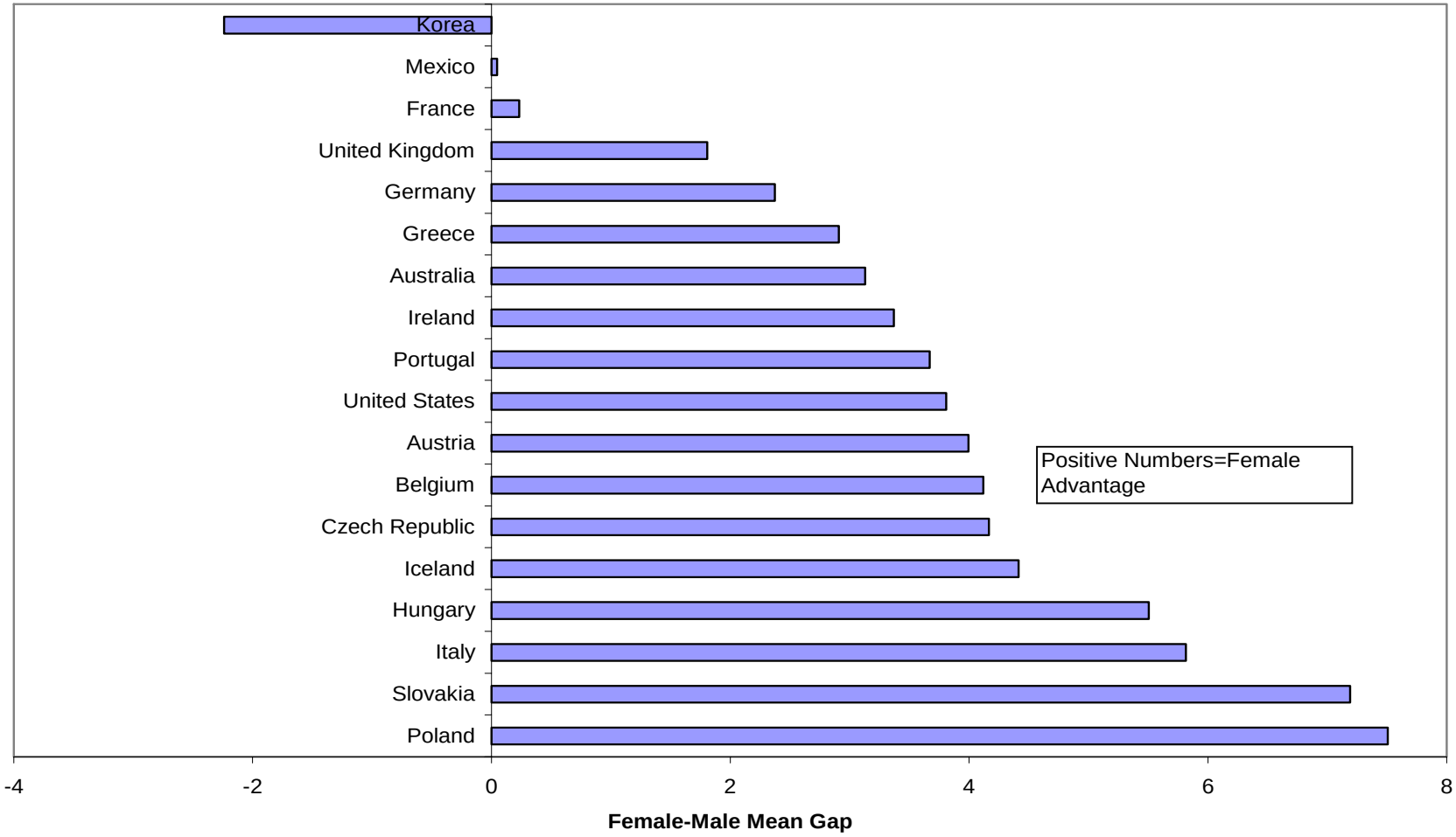
van der Lippe, Tanja, and Liset van Dijk. 2002. "Comparative Research on Women's Employment." *Annual Review of Sociology* 28:221-241.

Figure 1: Female-Male Mean Gap in Educational Expectations



Note: Gap is calculated by subtracting the mean expected ISCED level for males from the mean expected ISCED level for females in each country. Germany (gap= -1.5) is not included because it is an outlier. ISCED levels are measured as a categorical variable with values ranging from 0-5.

Figure 2: Female-Male Mean Gap in Occupational Expecatations



Note: Gap is calculated by subtracting the mean expected occupational level for males from the mean occupational level for females. Occupational expectations are measured on a scale that ranges from 16-90.

Table 1: Descriptive Statistics for All Variables

Expected Level of Education (%)			
	Female	Male	Total
Isced 1 or 2	4.29	6.00	5.13
Isced 3b/3c	8.87	13.09	10.97
Isced 3a or 4	20.16	24.47	22.3
Isced 5b	13.11	12.94	13.02
Isced 5a or 6	53.57	43.49	48.57
Expected Occupation Level*			
Female	60.03	(17.95)	
Male	56.81	(17.74)	
Total	58.44	(17.92)	
Female (%)	50.22		
Science Score	495.62	(98.12)	
Parent's Education			
	Mother's	Father's	Total
None	4.82	4.17	2.59
Isced 1 or 2	23.52	23.11	16.7
Isced 3b/3c	9.29	10.41	7.91
Isced 3a or 4	30.22	28.30	29.1
Isced 5b	14.34	12.97	16.38
Isced 5a or 6	17.81	21.04	27.32
Parent's Occupation			
Mother's	43.73	(16.50)	
Father's	43.37	(16.93)	
Total	48.26	(16.83)	
Home Possessions	0.12	(.98)	

***Range for Occupation Status or Expectations is 16-90; for Science Score -169-912, for Home Possessions 0-1

Note: Standard Deviations are in parentheses. Data are weighted.

Table 2: Correlations for All Variables

	1	2	3	4	5	6	7	8	9
Female (1)	1.0000								
Education Expectations (2)	0.1327	1.0000							
Occupation Expectations (3)	0.0983	0.4726	1.0000						
Science Achievement (4)	-0.0498	0.3736	0.2808	1.0000					
Mother's Education (5)	-0.0392	0.2266	0.1447	0.2657	1.0000				
Father's Education (6)	-0.0359	0.2366	0.1621	0.2703	0.5819	1.0000			
Mother's Occupation (7)	-0.0080	0.2528	0.2032	0.2804	0.4840	0.3600	1.0000		
Father's Occupation (8)	-0.0063	0.2487	0.2259	0.2848	0.3411	0.5017	0.3941	1.0000	
Home Possessions (9)	0.0044	0.2418	0.1687	0.4345	0.3658	0.3702	0.3367	0.3470	1.0000

Table 3: Unstandardized Coefficients for the Logisitic Regression of Educational Expectations

	AUS	AUT	BEL	CAN	CZE	DNK	FIN	FRA	DEU	GRC	HUN	ISL	IRL	ITA	JPN
Female	.72**	.20*	.46**	.77**	.77**	.30**	.13*	.62**	.39**	1.1**	1.1**	.60**	.85**	.97**	-.04**
	(.05)	(.09)	(.06)	(.05)	(.07)	(.08)	(.00)	(.08)	(.09)	(.09)	(.08)	(.08)	(.08)	(.06)	(.08)
Parent's	.12**	.17**	.14**	.15**	.17**	.10**	.10**	.06*	.06*	.08**	.18**	.17**	.08**	.06**	.21**
Education	(.02)	(.02)	(.02)	(.01)	(.02)	(.03)	(.01)	(.01)	(.03)	(.01)	(.02)	(.02)	(.02)	(.01)	(.02)
Parent's	.01**	.01**	.01**	.01**	.02**	.01**	.01**	.01**	.02**	.02**	.02**	.01**	.00	.02**	.02**
Occupation	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Home	.39**	.50**	.46**	.43**	.38**	.40**	.29**	.32**	.39**	.77**	.68**	.31**	.49**	.50**	.55**
Possessions	(.03)	(.06)	(.04)	(.03)	(.06)	(.06)	(.04)	(.06)	(.07)	(.07)	(.07)	(.06)	(.06)	(.04)	(.06)
Science	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**	.01**
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Constant	-6.68**	-10.91**	-9.88**	-6.32**	-11.89**	-7.04**	-4.94**	-8.04**	-10.89**	-7.53**	-10.43**	-8.85**	-5.97**	-4.96**	-9.48**
	(.24)	(.49)	(.37)	(.22)	(.41)	(.48)	(.30)	(.40)	(.52)	(.35)	(.40)	(.41)	(.34)	(.23)	(.41)
N	11,662	4,370	7,845	25,653	5,930	3,967	5,664	3,675	4,019	4,349	4,480	3,245	3,688	11,343	4,173

	KOR	LUX	MEX	NLD	NZL	NOR	POL	PRT	SVK	ESP	SWE	CHE	TUR	GBR	USA
Female	.14	.23**	.82**	.35**	.27**	.52**	1.04**	1.19**	.98**	1.05**	.49**	.27**	.55**	.52**	.31**
	(.08)	(.08)	(.07)	(.09)	(.08)	(.08)	(.09)	(.09)	(.08)	(.07)	(.07)	(.09)	(.10)	(.08)	(.07)
Parent's	.10**	.02	.05**	.03	.05**	.21**	.09**	.03**	.12**	.07**	.13**	.27**	.02	.14**	.15**
Education	(.01)	(.01)	(.01)	(.00)	(.02)	(.04)	(.03)	(.01)	(.02)	(.01)	(.02)	(.04)	(.01)	(.02)	(.02)
Parent's	.01**	.02**	.01**	.01**	.01**	.02**	.02**	.01**	.02**	.02**	.01**	.01**	.01*	.00	.00
Occupation	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Home	.56**	.42**	.42**	.32**	.37**	.33**	.68**	.56**	.72**	.40**	.27**	.44**	.32**	.30**	.41**
Possessions	(.06)	(.06)	(.05)	(.07)	(.05)	(.06)	(.06)	(.06)	(.07)	(.05)	(.05)	(.07)	(.07)	(.05)	(.04)
Science	.01**	.01**	.01**	.02**	.01**	.01**	.01**	.02**	.02**	.01**	.01**	.01**	.01**	.01**	.01**
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Constant	-6.33**	-6.72**	-4.16**	-9.72**	-5.45**	-8.94**	-8.86**	-8.53**	-10.71**	-9.05**	-6.04**	-12.06**	-4.66**	-9.29**	-4.43**
	(.32)	(.31)	(.26)	(.48)	(.35)	(.58)	(.45)	(.36)	(.40)	(.30)	(.40)	(0.61)	(.39)	(.40)	(.33)
N	5,262	3,305	28,475	3,578	3,354	3,809	4,281	4,405	7,033	9,960	4,306	7,948	4,250	8,509	5,063

Note: Standard errors are in parentheses.

*p< .05, **p<.01

Table 4: Unstandardized Coefficients for the OLS Regression of Occupational Expectations

	AUS	AUT	BEL	CZE	DEU	FRA	GBR	GRC	HUN
Female	3.54**	3.73**	4.05**	4.47**	2.49**	.42	2.41**	4.39**	5.32**
	(.36)	(.56)	(.41)	(.47)	(.59)	(.57)	(.66)	(.48)	(.52)
Parent's	.53**	.21**	.31**	.56**	-.19*	-.11	.17	.34**	.46**
Education	(.09)	(.12)	(.84)	(.16)	(.10)	(.12)	(.12)	(.09)	(.14)
Parent's	.04**	.17**	.13**	.14**	.18**	.14**	.09**	.11**	.13**
Occupation	(.01)	(.02)	(.08)	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)
Home	1.12**	2.18**	2.21**	1.99**	1.76**	2.31**	2.14**	2.45**	3.60**
Possessions	(.23)	(.43)	(.29)	(.33)	(.42)	(.42)	(.05)	(.33)	(.42)
Science	.06**	.07**	.08**	.09**	.07**	.07**	.08**	.05**	.08**
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Constant	14.291**	4.39*	.05	-6.82**	9.39**	14.94**	7.13**	22.74**	-2.26
	(1.14)	(2.11)	(1.50)	(2.05)	(1.82)	(2.07)	(2.49)	(1.75)	(2.01)
N	9,836	3,151	6,026	4,618	2,806	3,153	2,060	3,853	3,625

	IRL	ISL	ITA	KOR	MEX	POL	PRT	SVK	USA
Female	3.39**	4.08**	7.68**	-1.31**	-.85	7.45**	4.89**	7.99**	4.01**
	(.57)	(.74)	(.47)	(.40)	(.64)	(.54)	(.55)	(.53)	(.56)
Parent's	.31*	.69**	.18*	.41**	.12	-.10	.24**	.42**	.44**
Education	(.13)	(.15)	(.08)	(.07)	(.09)	(.17)	(.07)	(.14)	(.01)
Parent's	.07**	.21**	.18**	.03*	.04*	.09**	.03	.19**	.03
Occupation	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)
Home	2.10**	.85	3.05**	1.61**	.60	3.54**	1.13**	3.43**	1.06**
Possessions	(.38)	(.49)	(.30)	(.26)	(.43)	(.40)	(.40)	(.42)	(.34)
Science	.08**	.05**	.04**	.05**	.02**	.07**	.06**	.07**	.03**
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Constant	6.83**	7.64**	25.56**	26.83**	54.07**	14.41**	25.54**	1.11	36.18**
	(2.22)	(2.54)	(1.53)	(1.46)	(2.59)	(2.11)	(1.92)	(2.18)	(2.23)
N	3,083	2,550	9,242	4,944	21,014	3,203	3,543	4,994	4,368

Note: Standard errors are in parentheses.

*p>.05 **p>.01

Table 5: Unstandardized Female Coefficient on Educational Expectations for TIMSS and PISA[+]

	TIMSS 1995		PISA 2003	
	Coef.	s.e.	Coef.	s.e.
Australia	.86**	(.06)	.72**	(.09)
Austria	.13	(.09)	.19*	(.08)
Belgium	.62**	(.07)	.44**	(.06)
Canada	.78**	(.07)	.71**	(.05)
Czech Republic	.47**	(.08)	.76**	(.08)
Denmark	-.06	(.12)	.28**	(.08)
France	.84**	(.10)	.64**	(.08)
Germany	.14	(.13)	.41**	(.09)
Greece	.89**	(.08)	1.07**	(.08)
Hungary	.86**	(.09)	1.11**	(.08)
Iceland	.28*	(.11)	.59**	(.08)
Ireland	.78**	(.07)	.84**	(.08)
Korea	.55**	(.08)	.14	(.08)
Netherlands	-.03	(.12)	.37**	(.09)
New Zealand	.52**	(.07)	.24**	(.07)
Norway	.15	(.09)	.52**	(.08)
Portugal	.96**	(.08)	1.20**	(.09)
Slovakia	.82**	(.07)	.97**	(.08)
Spain	.88**	(.07)	1.02**	(.07)
Sweden	.41**	(.08)	.47**	(.07)
Switzerland	-.22*	(.09)	.30**	(.09)
United States	.32**	(.06)	.33**	(.07)

*p< .05, **p<.01

+Controlling for parent's education, home possessions and science ability

Table 6: Unstandardized Interaction Coefficients on Educational and Occupational Expectations[+]

	Model 1				Model 2			
	Mother's Education x Female		Mother's Occupation x Female		Father's Education x Male		Father's Occupation x Male	
	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.
Australia	-.06	(.03)	.03	(.02)	.07*	(.03)	.05*	(.02)
Austria	.05	(.08)	-.01	(.04)	.13	(.07)	.03	(.04)
Belgium	.07	(.05)	.01	(.03)	.04	(.05)	.07**	(.03)
Canada	-.09*	(.04)			.11**	(.04)		
Czech Republic	.00	(.08)	-.02	(.03)	.07	(.07)	.11**	(.04)
Denmark	.05	(.08)			-.01	(.07)		
Finland	-.03	(.05)			.03	(.04)		
France	-.05	(.06)	-.02	(.04)	.05	(.06)	.03	(.04)
Germany	.03	(.08)	.04	(.04)	.08	(.07)	.03	(.04)
Greece	.04	(.05)	.05	(.04)	-.01	(.05)	-.05	(.03)
Hungary	-.15	(.08)	-.01	(.04)	.16	(.08)	.03	(.04)
Iceland	-.11*	(.06)	-.03	(.05)	.13*	(.06)	.00	(.04)
Ireland	.00	(.06)	-.06	(.04)	.09*	(.05)	.15**	(.04)
Italy	-.05	(.04)	-.01*	(.03)	.11**	(.04)	.11**	(.03)
Japan	-.06	(.07)			.00	(.05)		
Korea	-.03	(.05)	-.01	(.04)	.03	(.05)	.01	(.04)
Luxembourg	-.17*	(.05)			.09	(.06)		
Mexico	-.04	(.04)	-.05	(.05)	.05	(.03)	.06	(.04)
Netherlands	-.06	(.06)			.12*	(.06)		
New Zealand	.14*	(.07)			.02	(.07)		
Norway	-.07	(.11)			.04	(.08)		
Poland	.02	(.09)	-.07	(.04)	-.06	(.08)	.11**	(.04)
Portugal	.01	(.04)	.01	(.03)	-.03	(.05)	.04	(.04)
Slovakia	-.09	(.08)	.03	(.03)	.00	(.07)	.02	(.03)
Spain	-.05	(.38)			.06	(.04)		
Sweden	.05	(.06)			.10	(.05)		
Switzerland	-.07	(.08)			.07	(.07)		
Turkey	.00	(.07)			-.01	(.06)		
United Kingdom	-.05	(.07)	.03	(.05)	.02	(.06)	.00	(.04)
United States	-.09	(.06)	.07	(.04)	.07	(.06)	.08**	(.03)

+ Controlling for mother's and father's education and occupation, home possessions and science ability

Note: Interaction between parent's education x same-sex child on educational expectations,

and interaction between parent's occupation x same-sex child on occupational expectations

*p< .05, **p<.01

Table 7: Unstandardized Parent's Education Coefficients on Educational and Occupational Expectations[+]

	Parent's Education on Education Expectations		Parent's Education on Occupation Expectations	
	Coef.	s.e.	Coef.	s.e.
Australia	.01**	(.00)	.53**	(.09)
Austria	.01**	(.00)	.21**	(.12)
Belgium	.01**	(.00)	.31**	(.84)
Canada	.01**	(.00)		
Czech Republic	.02**	(.00)	.56**	(.16)
Denmark	.01**	(.00)		
Finland	.01**	(.00)		
France	.01**	(.00)	-.11	(.12)
Germany	.02**	(.00)	-.19*	(.10)
Greece	.02**	(.00)	.34**	(.09)
Hungary	.02**	(.00)	.46**	(.14)
Iceland	.01**	(.00)	.31*	(.13)
Ireland	.00	(.00)	.69**	(.15)
Italy	.02**	(.00)	.18*	(.08)
Japan	.02**	(.00)		
Korea	.10**	(.01)	.41**	(.07)
Luxembourg	.02	(.01)		
Mexico	.05**	(.01)	.12	(.09)
Netherlands	.03	(.00)		
New Zealand	.05**	(.02)		
Norway	.21**	(.04)		
Poland	.09**	(.03)	-.10	(.17)
Portugal	.03**	(.01)	.24**	(.07)
Slovakia	.12**	(.02)	.42**	(.14)
Spain	.07**	(.01)		
Sweden	.13**	(.02)		
Switzerland	.27**	(.04)		
Turkey	.02	(.01)		
United Kingdom	.14**	(.02)	.17	(.12)
United States	.15**	(.02)	.44**	(.01)

*p< .05, **p<.01

+Controlling for parent's occupation, home possessions, and science ability