Does Type of Degree Explain Taiwan's Gender Gap?

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ABSTRACT

Research in the U.S. shows that differences between the sexes in college major explain a substantial portion of the gender gap in wages, and that shifts toward a more equal sex composition in choice of major have led to a decrease in the gap. In this paper, I examine whether a similar phenomenon has occurred in Taiwan. From the 1960's through the 1980's, the government of Taiwan attempted to increase the proportion of vocational/technical degrees as a percentage of all degrees held by its citizens. Using data from Taiwan's annual Manpower Utilization Survey, I find that the government was quite successful in encouraging people to pursue vocational education. In addition, I find that the type of degree a person receives may be as important to his or her earnings as his or her education level. However, the importance of degree type varies by gender, having a more substantial impact on earnings for men than for women. Consistent with the U.S. literature, I find that degree type does little to explain the overall gender gap in earnings in Taiwan, but may explain a substantial portion of the gap in a sample limited to university graduates.

PART I: INTRODUCTION

Studies in the U.S. have found that women, as a group, tend to choose different college majors than men (Fuller and Shoenberger 1991; Turner and Bowen 1999). This sex difference in choice of degree-type appears to have a substantial impact on the gender gap in wages. The majors traditionally favored by men tend to be more technical in nature, and are associated with higher subsequent wages than those favored by women.

In a 1996 paper, Brown and Corcoran conclude that about one-third of the "unexplained" male-female wage gap among college graduates can be accounted for by differences in field of highest degree (Brown and Corcoran 1996). They also find that women who pursue traditionally male majors are not rewarded with as high a premium as their male counterparts,[1] and that field of specialization does little to explain the gender gap for those with less than a university education. Eide (1994) finds that there was a convergence of degree-types between the sexes during the 1970's and 1980's in the U.S., as both men and women, but women more quickly, shifted away from "less-skilled" majors, toward "high-skill" fields such as engineering and business. He further finds that this convergence of skills, as measured by type of degree, contributed toward the shrinking of the gender gap in the U.S. (Eide 1994). Other work suggests that college major explains a substantial portion of the gender gap in starting salaries, because there are only small male-

[1] As Brown and Corcoran note, this can be stated alternatively as: men who pursue traditionally female majors are penalized more heavily than women in those fields.

female differences within majors, but substantial differences in the distribution of majors by sex (Paglin and Rufolo 1990). Several other authors find that college major accounts for a large percentage of the observed gender gap in earnings, and that the decline in the gender wage gap in the United States was at least partly attributable to the convergence in college majors between men and women (Eide 1994; Loury 1997; Weinberger 1998).

In this paper, I examine the possibility that a push by the government of Taiwan toward more technical "high-skill" degrees for students may have affected the gender gap in Taiwan. For much of the 1960's, 1970's, and early 1980's, the government of Taiwan considered growth of the manufacturing sector to be a key component of economic growth and development. To ensure that Taiwan's manufacturing industry had a steady supply of appropriately trained workers, the government intentionally set out to raise the average education level of the workforce, and to shift the educational composition of the workforce toward vocational and technical training.

In previous work, I have described the rapid increase in average educational attainment over the past few decades in Taiwan. I have also determined that while the cross-sectional measured return to education has been quite steady, the return to higher levels of education (above middle school) has declined for younger cohorts, the same cohorts for whom the prevalence of higher education is widespread

(Baraka 1999a). In addition, I have found that the gap in earnings between men and women in Taiwan has been remarkably steady over time. However, the portion of the gender gap that cannot be explained by traditional human capital variables, such as education level and potential experience, has actually been increasing (Baraka 1999b).

Concomitant with the increase in average education levels, there has been a shift from academic general-curriculum education into vocational training. The Taiwanese government's goals for the composition of the workforce are laid out in its published multi-year Manpower Development Plans (MDP's). These MDP's set specific numeric targets for growth in enrollment rates for different types of education.

In this paper, I make use of a series of annual cross-sectional household surveys of the non-institutionalized population of Taiwan, for the years 1979-95. The data includes basic demographic characteristics and earnings information for all persons ages 15 and older in each sample household. Unless otherwise noted, I use information on persons between the ages of 15 and 64, inclusive. Each person is asked about his or her education, which is coded as a series of eight education levels. The top three levels are vocational high school, junior college, and university education. If a person has one of these three education levels, he or she is asked which of ten types of degree he or she holds (see Baraka 1999a or 1999b

for a complete description of the data). The degree types range from literature and law to medicine and engineering (Table 1 includes a list of degree types). Each of the ten degree types occurs within each of these three education levels.

I use these data to examine three questions. First, has the percentage of students pursuing vocational and technical education in Taiwan increased over time? Second, how does degree type affect individual earnings? And third, can differences in degree type by gender explain the difference in real earnings between men and women with otherwise similar productive characteristics in Taiwan?

In Part II, I provide some background on the educational system in Taiwan. In Part III, I describe changes in the composition of the workforce in Taiwan by the type of degree received. In Part IV, I look at the return to education by degree type. Part V presents an examination of the impact of degree type on the gender gap. Part VI continues this examination within education levels, and discusses the possible impact of the link between degree type and occupation on the gender gap. I conclude in Part VII.

PART II: TAIWAN'S EDUCATIONAL SYSTEM

Taiwan's educational system is composed of four levels: primary school (six years), middle school (three years), high school (three years), and college or university (usually 4 years) (see Figure 1). Since 1968, the first nine years of

schooling have been mandatory and free of charge to the student (Smith 1991).[2] The three years of high school are optional, but also free. After middle school, a student may pursue either academic high school or vocational high school, enter a 5-year junior college, or stop school entirely.

All three types of secondary schools are separate institutions, with separate faculty and curricula. Entrance to all three is by examination, with academic high school being both harder to enter and more prestigious than the others. Upon completion of vocational school, students may choose to enter a 2-year junior college for continued vocational training, or to enter the workforce. Upon completion of academic high school, students sit the Joint University Entrance Examination (JUEE) in the hopes of qualifying for a university education.

Today, nearly all children complete the mandatory nine years of schooling, and 90% of these continue to some type of secondary education. In 1994, for example, 23% of those completing middle school continued on to academic high schools, 40% went to vocational high schools, and slightly over 10% went directly to 5-year junior colleges, while 10% did not continue their education (Taiwan Government Information Office 1997).

Traditionally in Taiwan, "academic" schooling, as opposed to vocational or technical training, has been considered the most prestigious. The desire for

[2] Prior to 1968, only the first 6 years of schooling were mandatory.

academic achievement is deeply ingrained in Taiwanese students, stemming, as it does, from a thousands-year-old tradition of education in mainland China (Smith 1991; Woo 1991). Hence the government's plan to shift people toward vocational/technical education runs counter to the desires of most individuals.

Entrance to university[3] in Taiwan is highly competitive. Over 100,000 students take the JUEE every year. In recent years, approximately half of the applicants each year do not pass the JUEE. Of those not passing, around 30% succeed after one or two more tries (Epstein and Kuo 1991). Only those students with the highest scores matriculate into the prestigious 4-year public universities. At least anecdotally, students who attend these universities are richly rewarded by significantly higher lifetime pay, in addition to the prestige that accrues both to them and to their families (Smith 1991). As I find in Part IV, however, this anecdotal wisdom may be inaccurate.

PART III: CHANGES IN EDUCATIONAL COMPOSITION

This section addresses the types of degree that students in Taiwan pursue. I look at the composition of the non-institutionalized population by degree type, and examine how the composition has changed over time. I do this separately for men and women.

The Taiwanese government's push toward vocational education had two aspects. First, throughout the 1970's, and into the 1980's, the government was concerned with limiting enrollment in traditional "academic" high school, and promoting vocational education at the high school level. Second, the government attempted to limit the number of students enrolling in university, and to shift the distribution of university degrees toward more technical fields.

The most dramatic evidence of this shift out of academic and into vocational training was the shift from academic to vocational high school during the 1970's and 1980's. In 1963, the ratio of vocational to academic (general curriculum) senior high school students was approximately 40:60. The first MDP, in 1966, set a target ratio of 60:40. By 1980, the target ratio was 70% vocational and 30% academic, and the actual ratio was 66:34. By 1986, the actual ratio was 72:28. The push toward vocational high schools was clearly quite successful (Woo 1991).

However, the push toward vocational education has involved more than a change in the types of high schools in which students enroll. At all levels for which degree type is reported, there have been shifts toward an increased percentage of technical degrees. The TMUS data list ten types of degree, which are reported for persons with a vocational high school, junior college, or university level education. Table 1 shows the distribution of degree types for each year, by sex. Table 1a shows that,

[3] Universities and four-year colleges may be public or private. For brevity, I will refer to all of these institutions simply as universities, to distinguish them from junior colleges. The most prestigious

for male degree holders, engineering degrees greatly outnumber other types of degrees in every year. In 1979, 45% of male degree holders have engineering degrees ("Engineer" column); fewer than 20% have commercial or business administration degrees ("Commerce" column), which is the next largest category. The percentage of male engineering degree holders is not only large, but increases almost monotonically over time. By 1995, nearly 60% of male degree holders have engineering degrees. Notably, the overall (male and female combined) percentage of university students who are pursuing engineering or commercial degrees in Taiwan is higher than in either South Korea or Japan (Epstein and Kuo 1991).

The distribution of degree types among women is quite different. As shown in Table 1b, an overwhelming 69% of female degree holders in 1979 held degrees in commercial and business administration ("Commerce" column). This number declined slightly to end the period around 64%. In contrast to the case for men, less than 4% of female degree holders in 1979 had engineering degrees. However, this number did increase steadily over the period, reaching nearly 10% by 1995, and accounting for the second-largest number of female degree holders over the period. The third most common degree type for women is literature, which accounts for 6-8% of female degree holders over the period.

Looking at the distribution of degree types over time within education levels is also informative. To simplify the analysis, I separate degrees into two types:

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institutions are the 4-year public universities.

"technical" and "non-technical." I categorize science, engineering and medicine as technical degrees. All others are non-technical.

Table 2 provides a breakdown of technical versus non-technical degrees by education-level and sex. Consistent with Table 1, the data in this table show that men hold the large preponderance of technical degrees (mainly engineering degrees). This is true across education levels. In addition, men with vocational high school education are far more likely to hold technical degrees than are men with junior college or university education. Men with vocational high school diplomas are approximately eight percentage points more likely than male junior college graduates, and 20-30 percentage points more likely than male university graduates, to hold technical degrees. Female graduates of junior colleges are more likely than their vocational high school or university counterparts to hold technical degrees, though the numbers for women are quite a bit smaller than for men.

The government of Taiwan appears to have been successful in encouraging growth in the technical sectors of education. Among all persons with at least a vocational high school education, technical degrees as a percentage of all degrees rose from 36% in 1979, to 43% in 1995. Younger persons are more concentrated in technical fields than their elders. For persons between the ages of 25 and 30 in each calendar year, the percentage of technical degrees rose from 47% to 50% over the period.

The percentage of young men with technical degrees went from 62% to 72% over the period, and the analogous figures for young women were 10% to 20%.

PART IV: RETURNS TO DEGREE TYPES

The government of Taiwan has been quite successful in encouraging students to pursue technical education. In this section, I examine the return to different degree types, and look for changes in this return that might have been caused by the increasingly technical workforce.[4] Specifically, I examine whether type of degree affects earnings *within* a given education level.[5]

There are several reasons why the type of degree received by a student might be important to future wages. First, it is possible that certain majors provide useful, job-related skills, while others are less applicable to future work. Second, students may choose different majors based on differences in ability or preferences, and these same factors may be correlated with wages. Differences in motivation and background may also contribute to both choice of major and future job earnings. Most likely, the measured return to degree type will include effects from all of these factors (Altonji 1995).

[4]Since the stated goal of the government of Taiwan in encouraging people to pursue vocational degrees was to meet the needs of industrial employers, we might assume that the Taiwanese government was predicting a steady increase in demand for this type of employee. If this is the case, the increased supply of technical workers might not have driven down their wages, relative to non-technical workers. However, it is difficult to credit that the Taiwanese government could have perfectly predicted industrial labor needs years in advance, as would have to be the case in order to have the right numbers of people graduating from the right types of schools at the right time. Hence, it seems likely that these shifts in degree type would affect relative wages.

Both Sexes

For this part of the analysis only, I restrict my sample to those between the ages of 25 and 55, inclusive. I also limit the sample to private sector employees; that is, I exclude the self-employed, employers, and government workers. I further exclude persons who work less than 40 hours per week due to housework or homework responsibilities.[6] The purpose of these restrictions is to choose a sample of people who are strongly attached to the labor force, and whose earnings do not reflect returns to (non-human) capital or legislated government pay scales.

In order to get some insight into the effect of degree type on earnings, I estimate the following equation separately for each of my 17 years of data:

$$(1) \qquad \ln y_{it} = \sum_{e=1}^{5} a_t E_{it}^{e} + \sum_{e=6}^{8} b_t E_{it}^{e} \left(\sum_{d=1}^{10} D_{it}^{d} \right) + \sum_{k=1}^{n} g_t^{k} X_{it}^{k} + e_{it}.$$

The dependent variable in this equation is the natural logarithm of real average monthly earnings. The E_{it}^{e} terms represent each of the eight different education levels that are measured in my data, and the D_{it}^{d} terms represent each of the ten degree categories. I include education level indicator variables for levels up to academic high school, with middle school being the omitted education category. The degree dummies are separately interacted with indicators for vocational high

[5] Estimates show that the main effects of degree type are largely insignificant.

school, junior college, and university. Other covariates include a quadratic in potential experience, and indicator variables for female, married, and the interaction of the two.

Figure 2a shows a graph of the coefficients on each degree type[7] over time for vocational high school graduates. Figures 2b and 2c show similar graphs for junior college and university graduates. Note that the returns graphed in these figures are all relative to the earnings of a middle school graduate, so the figures can be directly compared to each other. (See Appendix A, Tables 1-3 for coefficients and standard errors corresponding to these graphs.)

The figures tell several stories. First, while its significance is clearest for junior college and university graduates, degree type clearly matters for all three education levels. In fact, the type of degree can be as important a predictor of earnings as education level. The return to different degree types within education level varies by more than 40 percentage points in some years. This dispersion is large relative to the cross-sectional return to university education (compared to middle school) when degree types are omitted, which ranges from 38% to 54% over the period covered by these data. Hence, the differences in earnings by type of degree may be as large as the differences in earnings based on education level. For example,

[6] Persons in these data who work fewer than 40 hours per week are asked why. Excluding persons who work fewer than 40 hours per week due to housework or homework makes no noticeable difference in the estimation results.

[7] Plots for literature, law, and science degrees are omitted due to small sample sizes.

holders of education degrees from junior colleges earn as much, on average, as most university graduates, while holders of degrees in agriculture or policing from junior colleges earn little more than the average vocational high school graduate.

This result is interesting in light of the great prestige of obtaining a university education in Taiwan. Every student who is able to gain admittance to university pursues it. Yet students with certain types of degrees are financially better off with junior college diplomas than are most university graduates. As previously mentioned, the measured return to degree types in this analysis must be viewed as a joint effect of ability, background and motivation. However, this is especially interesting if one thinks in terms of the possibility for "ability bias" in the results of a return-to-education regression. The university entrance examination system in Taiwan makes certain that the most "able" people, academically speaking, attend university, rather than junior college. Hence, if work ability and academic ability are positively correlated, the high measured return to junior college relative to university education cannot be due to higher ability of the junior college graduates. However, the high return could certainly be due to self-selection. If individuals choose the career in which they have a comparative advantage, and choose their level of education and type of degree accordingly, one might see this pattern of returns to degree type.

Second, there is remarkable consistency across years in which types of degrees command the highest earnings in Taiwan. University graduates with medical degrees do substantially better than holders of other types of degrees in every year for which I have data,[8] and the differences are significant in all but three years. Holders of policing degrees do substantially and (usually) significantly worse than other university graduates in every year. The ranking of the return to degree type within a given education level changes very little over the entire time-period. There is little evidence in these data that shifts in educational composition have affected the return to degree type.

Third, engineering degrees are not associated with higher earnings within an education level. The return to an engineering degree at the university level is no higher than the average return to a university degree; the return to engineering at the junior college and vocational high school levels is approximately average for those education levels during the early part of the time period, and below the average for those education levels in the latter part of the time period. This decline in the relative return to an engineering degree is consistent with a story where increased relative supply and stable demand have pushed down the "price" paid for engineering degrees in the labor market. However, the decline in the relative return to engineering is slight.

[8] The only exception is the "other" degree type category in the year 1983.

More broadly, technical degrees do not appear to be more lucrative than non-technical degrees. While holders of medical degrees do better than average at all three education levels, only at the university level do they enjoy a substantial earnings premium. Holders of science degrees are compensated much like engineers: about average within an education-level group.

There is a clear hierarchy of prestige for different degree types in Taiwan. Medical degrees (at the university level) are by far the most prestigious, with engineering degrees being second (Epstein and Kuo 1991). These are the two most sought-after types of education. As with all estimates of returns to education, one must be conscious in this work of the effects of ability bias. As previously mentioned, entrance to university in Taiwan is by competitive examination. Specific departments within universities have specific cutoffs for acceptance in any given year. Only those people with the highest scores on the university entrance examination, and presumably the highest ability level, are able to pursue medical or engineering degrees. Therefore, the high return to medical degrees at the university level may well be due to the high innate ability of those people who are able to pass the entrance requirements for medical training.

However, engineering degree holders are the second most select group of graduates. If selection on ability were the only process driving the differing return to degree type, we would expect the return to engineering degrees to lie below that

of medical degrees, but above other types of degrees. Since this is not the case, we can conclude with some degree of confidence that the estimated returns to degree type are indeed measuring something about the causal effects of a specific degree type on earnings, though self-selection may still be an issue.

Because changes in labor market rewards for certain types of education may be felt by recent graduates more quickly than by experienced workers, I repeat the above analyses on a sample restricted to include only those persons thirty years of age or less in each year. The results (not shown) for this younger sample are entirely consistent with the overall results. University graduates in the younger sample who hold medical degrees do consistently and significantly better in terms of earnings than any other segment of the population. The ranking of degree types by their return holds steady across years. Junior college graduates in the younger group who have education degrees do as well as the average university graduate in the younger group (though not as well as the average university graduate in the general population, for whom the return to university education is higher than among the younger group). Also, engineering degree-holders do no better than average at any education level.

Separately by Sex

All of the above analysis involves pooled data on both men and women. We have already seen that the distribution of degree types varies significantly by sex. Therefore, I repeat the analysis for each sex, separately.

Figures 3 and 4 show the estimated return to degree type (relative to middle school) for university-level education, for females and males, respectively. (See Appendices B and C for coefficients and standard errors for these graphs, and results for vocational high school and junior college graduates, by sex.) Not surprisingly, the results are noisier in this analysis, due to the decreased sample sizes. However, a couple of points are clear when men and women are examined separately. First, as seen in my previous work, the return to education is higher for women in Taiwan than for men (Baraka 1999a). Second, the relative ranking over time of the returns to different degree types is no longer as clear, especially for women.

Finally, the overall dispersion in earnings by degree type is much greater for men than for women at the university level. The graph for male university graduates (Figure 4) strongly resembles the graph for both sexes combined (Figure 2c) but with even more dispersion in some years. For men at the university level, degree type makes a difference of up to 50 percentage points in their return to education.

For women, the differential between the best- and the worst-paid degree types rarely gets above 30 percentage points.

The difference in return to medical degrees at the university level makes this point clearly. Medical degrees for male university graduates are associated with a significant and very substantial premium in earnings, as much as 30 percentage points over the next best-paid degree type. For women, however, while medicine tends to be toward the top of the chart in most years, there is no clear premium to medical degrees. The type of degree that a male university graduate in Taiwan earns appears to be a far more important predictor of earnings than the type of degree earned by a female. The returns to different degree types at the university level are much more clustered for women.

PART V: DEGREE TYPE AND THE GENDER GAP

While Taiwan has experienced an overall shift toward more technical education over the past few decades, the distribution of degree types in the workforce is dramatically different by gender. Unlike the U.S., where choice of majors has become fairly even across sexes (Eide 1994), male degree holders are highly and increasingly concentrated in engineering, while females hold predominately commercial degrees (refer to Table 1 for details). Though there has been some shift by women toward the traditionally male fields of medicine and engineering, it seems unlikely, based on these results, that differences in degree type by gender

will go far in explaining the gender gap in earnings. However, since work in the U.S. has shown degree type to be important in explaining the gap, in this section I examine whether the same is true in Taiwan.

The gender gap refers to the difference in real monthly earnings between men and women. The gap is often measured as either the simple difference in the natural logarithm of real monthly earnings, or as the ratio of female to male earnings. A large literature in the U.S. (and other countries) is concerned with the decomposition of the gender gap into portions which are "explained" by measured human capital covariates, and portions which are "unexplained," and thus due to unmeasured gender-specific factors, or discrimination.

In previous work, I have discussed the remarkable persistence of the Taiwanese gender gap over time. I find that the portion of the gender gap which is "unexplained" in a traditional decomposition analysis has been growing over time, even when I control for a wide variety of human capital covariates, as well as industry and occupation (Baraka 1999b). In this section, I further my previous analysis in two ways. First, I examine whether the gender gap varies meaningfully among persons with the same level of education, but different types of degree. Second, I continue my decomposition analysis, by controlling for degree type within education level, and examining whether these controls significantly impact the percentage of the gender gap that is explained.

Gender Gap by Education Level

In Table 3, I show the ratio of female to male real monthly earnings, broken down by education level and technical or non-technical degree. The table shows that for vocational high school graduates, the gender gap is significantly wider (the female/male earnings ratio lower) for non-technical degree holders than for technical degree holders in every year. One possible reason for this is that the "non-technical" rubric encompasses seven different degrees, whereas "technical" encompasses only three. A wider gender gap for non-technical degree holders might occur if men and women tend to choose different degree types within the non-technical basket, and the degree types chosen by women are associated with lower earnings.

However, the pattern is not as clear for either junior college or university graduates. Within these two education levels, females benefit relatively less than males from a technical degree during the period from 1979 until the mid-1980's. That is, the ratio of female to male earnings over the period is higher for non-technical degree holders than for technical degree holders, though not always significantly. After that, the gender ratios in real earnings become remarkably similar for technical and non-technical degree holders at the junior college and university levels. I conclude that having a technical education is advantageous for women at the vocational high

school level. However, there is not much relative advantage or disadvantage in recent years, for women holding technical degrees at higher education levels.

Figure 5 graphs the information in Table 3. It shows the ratio of female to male earnings by education level, separately for technical and non-technical degree holders. Interestingly, the differences in the gender gap by education level are more pronounced for non-technical degree holders. For those with non-technical backgrounds, women holding junior college degrees tend to do the best relative to their male counterparts, and women with vocational high school degrees the worst, with the differences being highly significant. Among technical degree holders, the gender gap is largely indistinguishable by education level. Though the differences are statistically significant, they are quite small in magnitude. Whatever is driving the gender earnings differential, it seems to be more consistent across education categories for those with technical education.[9]

An examination of the gap by degree type for each of the ten different degrees (not shown) indicates that there appears to be a substantial gender gap in earnings within every major. While work in the U.S. that found little gender difference in

[9] Looking across all education levels, and ignoring the breakdown by degree type, the gender gap is widest in every year among those with primary schooling or less. Among degree holders (vocational high school and above), the gap is consistently widest for vocational high school graduates, and narrowest for junior college graduates, mirroring the results for non-technical degree holders.

earnings within majors has focused on starting salaries (Paglin and Rufolo 1990), this indicates that the two countries may be dissimilar in this respect.

Decomposition Analysis

I proceed with a decomposition analysis of the gender gap in real earnings. The standard methodology for cross-sectional decomposition of the gender gap in real earnings into explained and residual portions has a long history in the literature (Blinder 1973; Oaxaca 1973). In brief, I write a standard log-earnings function as:

$$y_{it} = X_{it} b_{it} + e_{it}. \tag{2}$$

The left-hand-side is the natural logarithm of real monthly earnings, and ε_{it} is independently and identically distributed. Allowing y_{mt} and y_{ft} to represent average male and female log-earnings, respectively, and $\overline{X}_{mt}$ and $\overline{X}_{ft}$ to represent average characteristics by gender, we can write the gender gap as:

$$G_t \equiv y_{mt} - y_{ft} = \left(\overline{X}_{mt} b_{mt} - \overline{X}_{ft} b_{ft}\right) \tag{3}$$

or

$$G_t = \left(\overline{X}_{mt} - \overline{X}_{ft}\right) b_{mt} + \overline{X}_{ft}\left(b_{mt} - b_{ft}\right). \tag{4}$$

Equation 4 shows worker attributes in terms of "male prices." The first term on the right hand side of this equation is the portion of the total log-earnings differential that is explained by differences in measured productive characteristics, such as education and experience. This is the "explained gap." The second term, called the "residual gap" or "unexplained gap," represents the portion of the gap that is

explained by different rates of compensation for measured characteristics across gender groups. The residual gap may be due to unmeasured productive characteristics that differ systematically between the sexes, or it may be due to discrimination in which one sex is systematically paid less than the other for equal work. When the decomposition is done at the means of the log-earnings distributions, the (mean) error terms will equal zero, and hence are generally ignored.

In Table 4, I present the results of my cross-sectional decomposition of the gender gap in Taiwan. The decomposition is done separately for each year. Based on the outcome of my previous work, I have chosen a parsimonious specification for my log-earnings regressions (Baraka 1999b). I include as covariates a quadratic in age and seven indicator variables for education level, with middle school being the omitted category. Panel A shows the results of this decomposition using only these covariates. As discussed in my previous work, the log-earnings gap between the sexes in Taiwan has decreased slightly. However, the percentage of this gap that can be explained by the standard human capital variables has declined precipitously over the period, from around 32% in 1979 to only 11% in 1995. We see that education level does very little to explain the gender gap. In fact, the gap should have shrunk more than it did, based on changes in gender distribution of education levels.

In Panel B, I provide the results for an augmented decomposition in which degree type is included as an explanatory variable. Specifically, I interact each of the indicator variables for vocational high school, junior college, and university with each of the ten degree-type indicator variables. I include these thirty interaction terms on the right-hand side of my log-earnings regressions.

The results show the same general pattern as with the previous decomposition. The right-hand side variables explain about one third of the gap in log-earnings in 1979, but that percentage declines steadily and nearly monotonically over the period in question. However, in each of the seventeen years for which I have data, including information on degree type actually *decreases* the percentage of the gender gap that is explained. The magnitude of this decrease is not especially large, averaging slightly more than two percentage points across years, with the largest decrease in explanatory power occurring in 1991 (3.8 percentage points). However, it clearly indicates that, were men and women compensated equivalently for degree type, the gender gap would have declined more than it did. These results are consistent with my earlier work on the gender gap in Taiwan, where I found that including additional covariates such as industry, occupation, and tenure also decreased the explained portion of the gender gap.

I next repeat the decomposition analysis for a sample which includes only persons age thirty or younger in each calendar year. Table 5 shows these results. As in

Table 4, Panel A shows the decomposition when only a quadratic in age and seven education-level indicator variables are included as covariates; Panel B shows the decomposition when degree-type interaction terms are also included. One notable difference between the results for this younger sample and those shown in Table 4 is that the explained portion of the gender gap is much larger for the younger sample. For instance, in 1979 nearly 42% of the gender gap in earnings for persons under 31 was explained by differences in age and education level, compared to 32% for the entire population. Observed covariates seem to do a better job at predicting differences in earnings for younger persons than they do for older ones.

However, Table 5 shows the same trend over time in the explained portion of the gap: the explained portion declines precipitously. From 42% of the gender gap being explained in 1979, we see that only around 15% is explained by the end of the period. In addition, including controls for degree type within education level once again *decreases* the amount of the gap that is explained in most years. Women should be doing better relative to men, based on the composition of degree types.

Comparing Panels A and B, we see that the exceptions to this statement are in later years. In 1992 and later, controlling for degree type accounts for as much as 5% of the unexplained gender gap in earnings. This indicates that younger cohorts may be experiencing the beginnings of a trend where earnings are better predicted by

observed characteristics, and less well predicted by sex of the individual. Only the analysis of later years of survey data will tell whether this is a real trend which will lead to a reduction of the unexplained portion of the gender gap.

In addition, the fact that a larger portion of the gender gap is explained by observables in younger cohorts suggests that part of the overall gap may be due to differences in real labor market experience. Assuming that young women are less likely than women in the general population to have experienced interrupted work histories (such as those due to the birth of children), then the larger "explained" portion of the gender gap for young persons could be due to the fact that potential experience is a better measure of true experience for younger persons. However, while this explanation works for differences between older and younger populations in levels of the "explained" portion, it does not work for the time trend in the explained portion. If differences in true labor market experience were driving the gender gap, we would expect the portion of the gap which is explained to increase over time, as younger women, who are more attached to the labor force, become a bigger percentage of the working population. Also, my previous work shows that controlling for job tenure and recent labor force entrance, which are related to experience, does not help explain Taiwan's gender gap (Baraka 1999b).

PART VI: DECOMPOSITION BY EDUCATION LEVEL

As stated in the introduction, the U.S. literature has shown that college major helps explain the gender gap for college graduates, but suggests that field of study is not an important determinant of the gap for those with less than a college degree. In the U.S., questions about school content below the college level have often been addressed using data on high school coursework. The fact that the TMUS data includes information on degree types for vocational high school graduates allows me to explore this issue of differences in effect of field of study by education level. Table 6 shows the results of separate decomposition analyses for university and vocational high school graduates. I estimate the decompositions using four different sets of covariates: a quadratic in age; age and degree type; age and industry; and age, industry, and degree type.

The results for the sample of university graduates look considerably closer to what one sees in the U.S., though the large standard errors make the results suggestive only. Specifically, the inclusion of degree type in the decomposition for university graduates substantially increases the percentage of the gender gap that is explained. The percent increase in the explained portion ranges from 21% to 49% in different years, which compares favorably with the analogous one-third increase in the U.S. However, consistent with the Taiwanese results for the overall population, including degree type in the decomposition actually decreases the amount of the

gap which is explained for vocational high school graduates, who comprise more than half of all degree holders in Taiwan.[10]

Interestingly, the results of including industry dummies in the decomposition also differ between the university and vocational high school samples. My previous work showed that including industry as an explanatory variable slightly decreased the explained portion of the gender gap (Baraka 1999b). However, the results for the sample that is restricted only to university graduates suggest that including industry dummies increases the explained portion of the gap for this group. The increase in the explained portion is similar in magnitude to the one achieved by including degree type as a covariate. In fact, including degree type and including industry have approximately the same effect (in terms of magnitude) on the explained portion of the gender gap. Again, these results should be viewed only as suggestive, since the smaller sample size for the university-only sample leads to a great deal of imprecision in the estimates. However, they do indicate that the link between degree type and industry may be stronger at the university level than at lower levels of education, and that this may be why degree type lends explanatory power in a sample limited to university graduates.

Links Between Degree and Occupation

The decomposition results for university graduates in Taiwan look similar to the results for U.S. college graduates. However, the results for vocational high school

[10] The results for junior college graduates are similar to those for vocational high school graduates.

graduates look quite different. In the U.S., including industry and coursework covariates increases the explained portion of the gender gap for high school graduates, while adding similar covariates to a decomposition in Taiwan decreases (slightly) the explained portion.

In this section, I explore one way in which vocational high school graduates in Taiwan might be different from both Taiwanese university graduates, and from high school graduates in the U.S.: the relationship between type of degree and subsequent occupation. Brown and Corcoran's work shows that half of the effect of degree type on the gender gap disappears with the addition of variables measuring occupational characteristics (Brown and Corcoran 1996). Hence, if there is a relatively weak link between degree and occupation for women at the high school level in Taiwan, this might explain why degree type explains less of the gender gap at this level of education.

To examine this issue, I categorize each of the occupations listed in the TMUS data as either technical or non-technical. For comparison, I make a similar categorization of occupations in the U.S. using the National Longitudinal Survey of Youth (NLSY).[11] Broadly, technical occupations include engineering, medical, and

[11] The NLSY is a panel data set whose respondents were all between the ages of 14 and 22 in 1979, the first year of the survey. Respondents are asked a variety of questions about their labor market histories. I use the 1990 data in order to have a sample of people who will nearly all have finished their schooling and entered into their working years (ages 25-33). Unlike many surveys, the NLSY includes information on the type of degree a person received if they attended college.

scientific professions. Because these types of jobs are generally "high skill," the proportion of university graduates in these occupations is much higher than the proportion of high school graduates in them, in both countries. I use my previous breakdown of technical and non-technical degrees, applied to both data sets, and define a person who receives a technical degree, and subsequently works in a technical occupation, as a "progressor." I compare the proportion of progressors in various groups.

The results show that 52% of male and 53% of female technical degree holders (college graduates) in the NLSY pursue professions that are classified as technical; the difference between the sexes is not significant. Pooling all years[12] of the TMUS data, the analogous numbers for university graduates in Taiwan are 35% and 26%, with the difference being significant at the one percent level. The fact that the overall proportion of progressors appears lower in Taiwan may be due to the fact that the occupation codes in the two data sets are not directly comparable. However, the link between degree type and occupation appears to be weaker for women relative to men in Taiwan. The percentage of female progressors at the university level in Taiwan is only 75% of that for men, while in the U.S. the percentage of progressors is statistically equal across sexes.

The link between degree type and occupation is much weaker for those with less than a university degree in Taiwan. Among vocational high school graduates, 15%

of male and 8% of female technical degree holders continue on to technical occupations. The ratio of female to male progressors is even lower than among university graduates; proportionally, just over half as many women as men with technical degrees from vocational high schools progress to technical occupations, and this difference is highly significant. This relatively weak link between degree type and occupation type for women may explain why degree type does *not* explain the gender gap at the vocational high school level. Evidently, women are less likely than men to pursue professions that correlate strongly with the type of degree they receive.

Because degree type is not available for persons with high school diplomas in the U.S., I cannot make exact comparisons. However, one can gain some insight by comparing academic high school graduates from the TMUS data with high school graduates in the U.S. data used by Brown and Corcoran (the Survey of Income and Program Participation). I perform a decomposition analysis for academic high school graduates using a quadratic in experience, then adding industry-level dummies. I next use the coefficients from the underlying regressions and the published means from Brown and Corcoran's data to decompose the U.S. gap, using rates of compensation equivalent to those in Taiwan. I find that in both samples, experience explains about one-third of the gender gap. However, adding industry dummies once again decreases the percentage explained for Taiwan (to around 26%), where it increases it in the U.S. (to around 36%). While I cannot

[12] I include only the years 1979 through 1992, as the occupational codes changed after that time.

calculate the correlation between industry and educational content in the U.S. data, this result is consistent with the idea that field of study, through it's links with occupation, is more important at the high school level in the U.S. than in Taiwan. An analogous procedure for university graduates in both samples shows that the decompositions are quite similar across countries, as would be expected from the previous results.

PART VII: CONCLUSION

In this paper, I have examined the impact of the Taiwanese government policy of encouraging vocational and technical education. I examine the distribution of degree types in the working age population, and find that the government was apparently successful in steering people toward these types of education. However, the lack of a valid counterfactual prevents me from conclusively determining how much of the changing composition of the workforce was due to government effort, and how much due to changing choices on the parts of individuals. A more thorough study would involve examining the mechanism by which the government shifted people toward vocational and technical education, including examination of budgets devoted to teaching and facilities for different types of education, and controls at the enrollment (entrance examination) level for different types of institutions. Even without this deeper institutional knowledge, however, it is clear that a major shift in type of education took place over the period in question.

In addition, I have found that the type of degree that a student earns matters greatly for his or her future earnings. I use a standard human capital framework to examine the effects of degree type for those persons with vocational high school, junior college, or university level education. The effects of degree type are the most substantial at the junior college and university levels. In fact, the right type of degree more than makes up the difference between two adjacent levels of education. However, the effects of degree type on earnings are more substantial for men than for women, especially at the university level.

The shift into vocational and technical training has been much larger for men than for women. This difference in impact by gender motivated me to examine how degree type influences the gender gap in earnings in Taiwan. I found that controlling for type of degree actually decreased the percentage of the log-earnings gap that can be explained in a standard decomposition analysis, when looking at the entire sample. However, consistent with the U.S. literature, separate decompositions by education level indicate that differences in the types of degrees pursued by men and women explain a substantial portion of the gender gap for university graduates. In Taiwan, the addition of degree type to a decomposition analysis for university graduates increases the portion explained by an average of 30 percent across years. However, in contrast to the U.S. literature, the addition of degree type to decompositions for levels below university actually decreases the

portion explained. Also in contrast to the U.S., adding covariates representing industry of work decreases the explained portion of the gap.

I explore the possibility that the link between type of degree and eventual occupation is weaker for vocational high school graduates than for university graduates. The TMUS data support this contention, and also show that the link is relatively weaker for women at lower education levels. Previous work in the U.S. has suggested that as much as half of the effect of degree type on the gender gap is explained by choice of occupation. Therefore, it is consistent that a weaker link between degree and occupation would coincide with degree type being unable to explain the gender gap among high school graduates in Taiwan.

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Table 1a
Composition of Degrees for Males, by Year

	Literature	Law	Commerce	Science	Engineering	Agriculture	Medicine	Police	Education	Other
1979	3.64	2.28	19.41	2.79	45.25	8.22	3.22	9.95	3.98	1.27
1980	4.05	2.08	18.59	2.78	46.24	7.92	2.97	10.49	3.73	1.14
1981	4.52	1.59	18.97	2.24	47.88	7.31	3.37	9.91	3.40	0.80
1982	4.04	1.73	17.80	2.37	49.06	7.53	3.85	8.79	3.25	1.58
1983	3.68	1.88	18.17	2.21	50.67	7.08	3.25	8.42	3.06	1.57
1984	3.96	1.88	17.47	1.89	52.40	7.28	2.86	7.85	2.89	1.52
1985	3.25	1.76	15.92	1.77	54.28	7.94	3.02	7.73	3.12	1.20
1986	3.13	1.71	16.45	1.50	54.69	6.64	3.39	8.44	3.14	0.91
1987	3.49	1.30	14.77	1.62	57.02	5.81	3.30	8.60	2.89	1.20
1988	2.99	1.23	15.01	1.94	57.59	5.57	3.53	8.01	3.08	1.06
1989	3.08	1.31	15.24	2.06	58.52	5.76	3.07	7.08	2.82	1.06
1990	2.97	1.66	14.98	1.87	57.73	5.82	3.24	7.71	2.68	1.35
1991	3.01	1.43	15.23	1.99	58.50	5.71	3.26	7.29	2.26	1.32
1992	3.23	1.69	15.43	2.35	57.76	5.77	3.06	7.01	2.66	1.04
1993	3.06	1.38	15.42	2.12	59.23	5.47	2.93	6.70	2.56	1.14
1994	2.85	1.40	15.83	1.81	59.93	4.92	2.85	6.71	2.77	0.92
1995	2.53	1.51	16.69	1.85	58.97	5.36	2.83	6.51	2.57	1.18

The table shows the percentage of degree holders (persons with vocational high school, junior college, or university-level education) with the given degree-type.

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Table 1b
Composition of Degrees for Females, by Year

	Literature	Law	Commerce	Science	Engineering	Agriculture	Medicine	Police	Education	Other
1979	8.16	1.30	68.53	0.77	3.76	2.23	5.76	0.13	5.52	3.85
1980	7.61	0.78	68.99	1.07	4.31	2.43	5.74	0.29	4.77	3.99
1981	7.51	0.76	68.62	1.15	4.66	1.79	6.33	0.21	5.06	3.91
1982	7.27	0.88	68.65	0.87	5.24	1.88	6.46	0.28	4.21	4.26
1983	7.39	1.00	68.61	0.95	5.55	1.92	5.47	0.31	4.05	4.75
1984	6.72	0.90	69.26	0.72	6.16	2.21	5.16	0.23	4.41	4.23
1985	5.67	1.01	69.55	0.47	6.89	1.97	5.72	0.11	3.93	4.69
1986	6.60	0.79	68.76	0.75	7.03	2.11	5.46	0.12	3.86	4.51
1987	7.01	0.88	66.55	0.73	7.30	1.88	6.16	0.22	4.19	5.08
1988	5.93	0.69	66.01	0.73	8.31	2.07	6.78	0.25	4.28	4.96
1989	6.50	0.83	65.49	0.74	8.97	2.11	5.62	0.19	4.26	5.28
1990	6.85	1.14	64.48	0.90	9.44	2.07	6.04	0.20	3.87	5.02
1991	6.69	0.84	64.73	1.11	9.81	1.69	5.80	0.17	3.50	5.65
1992	5.75	1.19	64.88	1.10	9.11	1.95	6.42	0.13	4.15	5.33
1993	6.29	1.12	64.24	1.01	9.41	2.27	6.23	0.16	3.49	5.78
1994	5.65	1.12	63.92	0.98	9.56	2.22	6.26	0.20	3.73	6.36
1995	5.65	1.09	63.69	0.74	9.41	2.30	6.75	0.20	3.69	6.48

The table shows the percentage of degree holders (persons with vocational high school, junior college, or university-level education) with the given degree-type.

Table 2
Percentage Technical Degrees by Education Level and Sex

	Total		Voc HS		Jr College		University	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
1979	0.513	0.103	0.580	0.082	0.506	0.167	0.397	0.112
1980	0.520	0.111	0.590	0.087	0.510	0.173	0.402	0.136
1981	0.535	0.121	0.615	0.090	0.507	0.191	0.404	0.166
1982	0.553	0.126	0.629	0.104	0.512	0.178	0.431	0.152
1983	0.561	0.120	0.635	0.105	0.534	0.166	0.419	0.130
1984	0.572	0.120	0.656	0.101	0.550	0.193	0.396	0.119
1985	0.591	0.131	0.658	0.112	0.588	0.206	0.426	0.123
1986	0.596	0.132	0.675	0.114	0.580	0.202	0.425	0.130
1987	0.619	0.142	0.699	0.123	0.596	0.215	0.454	0.128
1988	0.631	0.158	0.709	0.137	0.615	0.237	0.458	0.149
1989	0.636	0.153	0.714	0.129	0.636	0.241	0.450	0.148
1990	0.628	0.164	0.712	0.140	0.603	0.244	0.459	0.156
1991	0.637	0.167	0.718	0.144	0.625	0.250	0.455	0.151
1992	0.632	0.166	0.718	0.138	0.638	0.254	0.421	0.156
1993	0.643	0.166	0.726	0.137	0.637	0.269	0.457	0.140
1994	0.646	0.168	0.727	0.135	0.633	0.269	0.471	0.156
1995	0.636	0.169	0.724	0.131	0.633	0.286	0.444	0.147

The numbers in the table represent the fraction of degree holders of the given category who hold engineering, medical, or science degrees.

Table 3
Ratio of Female to Male Real Earnings
By Education Level and Degree Type

(standard errors in parentheses)

	Non-Tech	Technical		Non-Tech	Technical
1979			**1984**		
Voc HS	0.663	0.760	**Voc HS**	0.683	0.719
	(0.001)	(0.008)		(0.000)	(0.004)
Jr College	0.803	0.810	**Jr College**	0.858	0.795
	(0.001)	(0.007)		(0.000)	(0.003)
University	0.736	0.746	**University**	0.786	0.708
	(0.001)	(0.010)		(0.001)	(0.007)
1980			**1985**		
Voc HS	0.654	0.750	**Voc HS**	0.689	0.726
	(0.002)	(0.018)		(0.000)	(0.003)
Jr College	0.807	0.722	**Jr College**	0.836	0.771
	(0.003)	(0.003)		(0.001)	(0.003)
University	0.769	0.735	**University**	0.806	0.813
	(0.002)	(0.024)		(0.001)	(0.008)
1981			**1986**		
Voc HS	0.610	0.838	**Voc HS**	0.683	0.725
	(0.002)	(0.005)		(0.000)	(0.002)
Jr College	0.943	0.745	**Jr College**	0.831	0.757
	(0.003)	(0.006)		(0.001)	(0.003)
University	0.778	0.692	**University**	0.767	0.960
	(0.001)	(0.007)		(0.001)	(0.008)
1982			**1987**		
Voc HS	0.665	0.739	**Voc HS**	0.671	0.735
	(0.000)	(0.004)		(0.000)	(0.002)
Jr College	0.818	0.815	**Jr College**	0.810	0.776
	(0.001)	(0.004)		(0.000)	(0.002)
University	0.776	0.657	**University**	0.724	0.713
	(0.001)	(0.008)		(0.001)	(0.008)
1983			**1988**		
Voc HS	0.669	0.768	**Voc HS**	0.649	0.747
	(0.000)	(0.005)		(0.000)	(0.001)
Jr College	0.803	0.738	**Jr College**	0.762	0.796
	(0.000)	(0.005)		(0.000)	(0.001)
University	0.736	0.713	**University**	0.696	0.712
	(0.001)	(0.005)		(0.000)	(0.005)

Continued Next Page

Table 3 (Continued)

	Non-Tech	Technical
1989		
Voc HS	0.634	0.726
	(0.000)	(0.001)
Jr College	0.772	0.776
	(0.000)	(0.001)
University	0.747	0.831
	(0.000)	(0.004)
1990		
Voc HS	0.647	0.729
	(0.000)	(0.001)
Jr College	0.795	0.755
	(0.000)	(0.001)
University	0.761	0.744
	(0.000)	(0.003)
1991		
Voc HS	0.660	0.716
	(0.000)	(0.001)
Jr College	0.791	0.735
	(0.000)	(0.001)
University	0.798	0.810
	(0.001)	(0.002)
1992		
Voc HS	0.665	0.759
	(0.000)	(0.001)
Jr College	0.780	0.787
	(0.000)	(0.001)
University	0.801	0.791
	(0.000)	(0.005)
1993		
Voc HS	0.675	0.746
	(0.000)	(0.001)
Jr College	0.740	0.756
	(0.002)	(0.001)
University	0.767	0.767
	(0.001)	(0.003)
1994		
Voc HS	0.663	0.719
	(0.000)	(0.001)
Jr College	0.790	0.771
	(0.000)	(0.001)
University	0.778	0.769
	(0.000)	(0.004)
1995		
Voc HS	0.677	0.758
	(0.000)	(0.001)
Jr College	0.759	0.759
	(0.000)	(0.001)
University	0.786	0.751
	(0.000)	(0.015)

Technical Degrees include Engineering, Science, and Medicine.

Table 4
Cross-Sectional Decomposition of Gender Gap

		Panel A: Controls for Education Level and Quadratic in Age					Panel B: Also Controls for Degree Type Within Education Level		
		Explained							
Year	LnGap	Education	Age	Total	Residual	Pct Expl.	Explained	Residual	Pct Expl.
1979	0.448	0.000	0.143	0.143	0.306	31.8%	0.138	0.310	30.8%
1980	0.437	-0.002	0.122	0.120	0.317	27.5%	0.115	0.322	26.3%
1981	0.437	-0.006	0.125	0.119	0.317	27.3%	0.110	0.327	25.2%
1982	0.438	-0.010	0.125	0.114	0.323	26.1%	0.103	0.334	23.6%
1983	0.447	-0.003	0.126	0.123	0.324	27.6%	0.111	0.336	24.9%
1984	0.418	-0.003	0.103	0.100	0.319	23.8%	0.091	0.327	21.7%
1985	0.404	-0.004	0.092	0.088	0.316	21.9%	0.075	0.329	18.6%
1986	0.436	-0.004	0.102	0.098	0.338	22.5%	0.089	0.347	20.4%
1987	0.430	-0.004	0.086	0.082	0.348	19.2%	0.074	0.356	17.3%
1988	0.435	-0.005	0.083	0.079	0.356	18.1%	0.070	0.365	16.1%
1989	0.462	0.002	0.068	0.070	0.391	15.2%	0.065	0.397	14.0%
1990	0.435	-0.007	0.069	0.063	0.372	14.4%	0.051	0.384	11.6%
1991	0.420	-0.008	0.064	0.056	0.364	13.3%	0.040	0.380	9.5%
1992	0.401	-0.004	0.059	0.055	0.346	13.7%	0.047	0.354	11.7%
1993	0.420	-0.008	0.058	0.050	0.370	11.9%	0.037	0.382	8.9%
1994	0.396	-0.010	0.046	0.036	0.360	9.1%	0.031	0.365	7.8%
1995	0.363	-0.012	0.051	0.039	0.324	10.9%	0.032	0.331	8.8%

Table 5
Cross-Sectional Decomposition of Gender Gap
Persons 30 Years Old and Younger

		Controls for Education Level and Quadratic in Age			Also Controls for Degree Type Within Education Level		
Year	**LnGap**	**Explained**	**Residual**	**Pct Expl.**	**Explained**	**Residual**	**Pct Expl.**
1979	0.329	0.137	0.192	41.7%	0.136	0.193	41.3%
1980	0.334	0.133	0.201	39.9%	0.129	0.205	38.5%
1981	0.350	0.137	0.213	39.1%	0.135	0.214	38.7%
1982	0.356	0.129	0.227	36.2%	0.110	0.246	30.8%
1983	0.348	0.134	0.213	38.7%	0.127	0.221	36.4%
1984	0.328	0.116	0.212	35.4%	0.120	0.208	36.5%
1985	0.332	0.108	0.224	32.6%	0.102	0.230	30.8%
1986	0.322	0.101	0.221	31.5%	0.097	0.226	30.0%
1987	0.329	0.089	0.240	27.1%	0.074	0.255	22.6%
1988	0.335	0.078	0.257	23.4%	0.082	0.253	24.4%
1989	0.353	0.066	0.287	18.6%	0.073	0.281	20.6%
1990	0.340	0.072	0.268	21.2%	0.071	0.269	20.8%
1991	0.330	0.059	0.271	17.9%	0.053	0.277	16.2%
1992	0.303	0.051	0.253	16.7%	0.055	0.249	18.0%
1993	0.325	0.056	0.269	17.1%	0.061	0.264	18.9%
1994	0.303	0.044	0.259	14.5%	0.058	0.245	19.1%
1995	0.258	0.038	0.220	14.7%	0.045	0.212	17.6%

Table 6
Decomposition of Gender Gap by Education Level
(standard errors in parentheses)

Vocational High School Graduates

		Explained Portion (1.00=100%)			
	LnGap	Age Only	Age+Deg	Age+Ind	Age/Ind/Deg
1979	0.479	0.517	0.456	0.516	0.492
		(0.205)	(0.214)	(0.199)	(0.207)
1980	0.459	0.504	0.512	0.510	0.525
		(0.194)	(0.205)	(0.188)	(0.199)
1981	0.481	0.503	0.447	0.466	0.448
		(0.167)	(0.175)	(0.164)	(0.172)
1982	0.457	0.481	0.408	0.439	0.416
		(0.218)	(0.234)	(0.212)	(0.227)
1983	0.426	0.519	0.435	0.475	0.431
		(0.152)	(0.160)	(0.146)	(0.153)
1984	0.433	0.475	0.451	0.452	0.456
		(0.144)	(0.156)	(0.136)	(0.147)
1985	0.445	0.442	0.376	0.417	0.388
		(0.136)	(0.141)	(0.132)	(0.136)
1986	0.467	0.464	0.418	0.428	0.408
		(0.122)	(0.132)	(0.117)	(0.127)
1987	0.451	0.442	0.439	0.434	0.464
		(0.131)	(0.136)	(0.127)	(0.132)
1988	0.479	0.402	0.398	0.374	0.388
		(0.101)	(0.105)	(0.096)	(0.100)
1989	0.477	0.330	0.302	0.304	0.312
		(0.089)	(0.096)	(0.085)	(0.092)
1990	0.458	0.305	0.242	0.284	0.252
		(0.086)	(0.088)	(0.082)	(0.084)
1991	0.427	0.307	0.208	0.277	0.207
		(0.098)	(0.103)	(0.093)	(0.098)
1992	0.419	0.304	0.265	0.273	0.259
		(0.099)	(0.106)	(0.093)	(0.100)
1993	0.437	0.282	0.225	0.294	0.229
		(0.089)	(0.094)	(0.083)	(0.088)
1994	0.437	0.262	0.224	0.250	0.222
		(0.078)	(0.086)	(0.075)	(0.082)
1995	0.386	0.242	0.236	0.209	0.206
		(0.079)	(0.082)	(0.074)	(0.078)

University Graduates

		Explained Portion (1.00=100%)			
	LnGap	Age Only	Age+Deg	Age+Ind	Age/Ind/Deg
1979	0.409	0.390	0.580	0.432	0.582
		(0.432)	(0.433)	(0.415)	(0.418)
1980	0.383	0.415	0.497	0.520	0.580
		(0.464)	(0.458)	(0.458)	(0.450)
1981	0.369	0.440	0.549	0.474	0.603
		(0.477)	(0.465)	(0.478)	(0.467)
1982	0.372	0.402	0.493	0.381	0.529
		(0.526)	(0.494)	(0.521)	(0.492)
1983	0.368	0.400	0.537	0.454	0.565
		(0.399)	(0.396)	(0.403)	(0.400)
1984	0.348	0.452	0.607	0.544	0.687
		(0.398)	(0.389)	(0.406)	(0.396)
1985	0.320	0.477	0.597	0.451	0.586
		(0.475)	(0.466)	(0.477)	(0.467)
1986	0.352	0.524	0.636	0.503	0.646
		(0.438)	(0.428)	(0.440)	(0.428)
1987	0.406	0.354	0.511	0.339	0.519
		(0.381)	(0.370)	(0.389)	(0.377)
1988	0.400	0.420	0.591	0.415	0.613
		(0.426)	(0.419)	(0.436)	(0.430)
1989	0.375	0.374	0.566	0.363	0.581
		(0.309)	(0.297)	(0.316)	(0.303)
1990	0.362	0.462	0.591	0.459	0.610
		(0.316)	(0.314)	(0.324)	(0.323)
1991	0.327	0.368	0.448	0.359	0.450
		(0.362)	(0.363)	(0.377)	(0.378)
1992	0.299	0.493	0.631	0.517	0.658
		(0.369)	(0.364)	(0.381)	(0.375)
1993	0.329	0.466	0.573	0.451	0.567
		(0.310)	(0.308)	(0.317)	(0.315)
1994	0.326	0.515	0.637	0.518	0.661
		(0.313)	(0.321)	(0.323)	(0.331)
1995	0.303	0.476	0.581	0.491	0.598
		(0.328)	(0.332)	(0.336)	(0.339)

The table shows the percentage of the gender gap within the given education group which is explained by the covariates in each column.

Figure 1
Education Levels in Taiwan

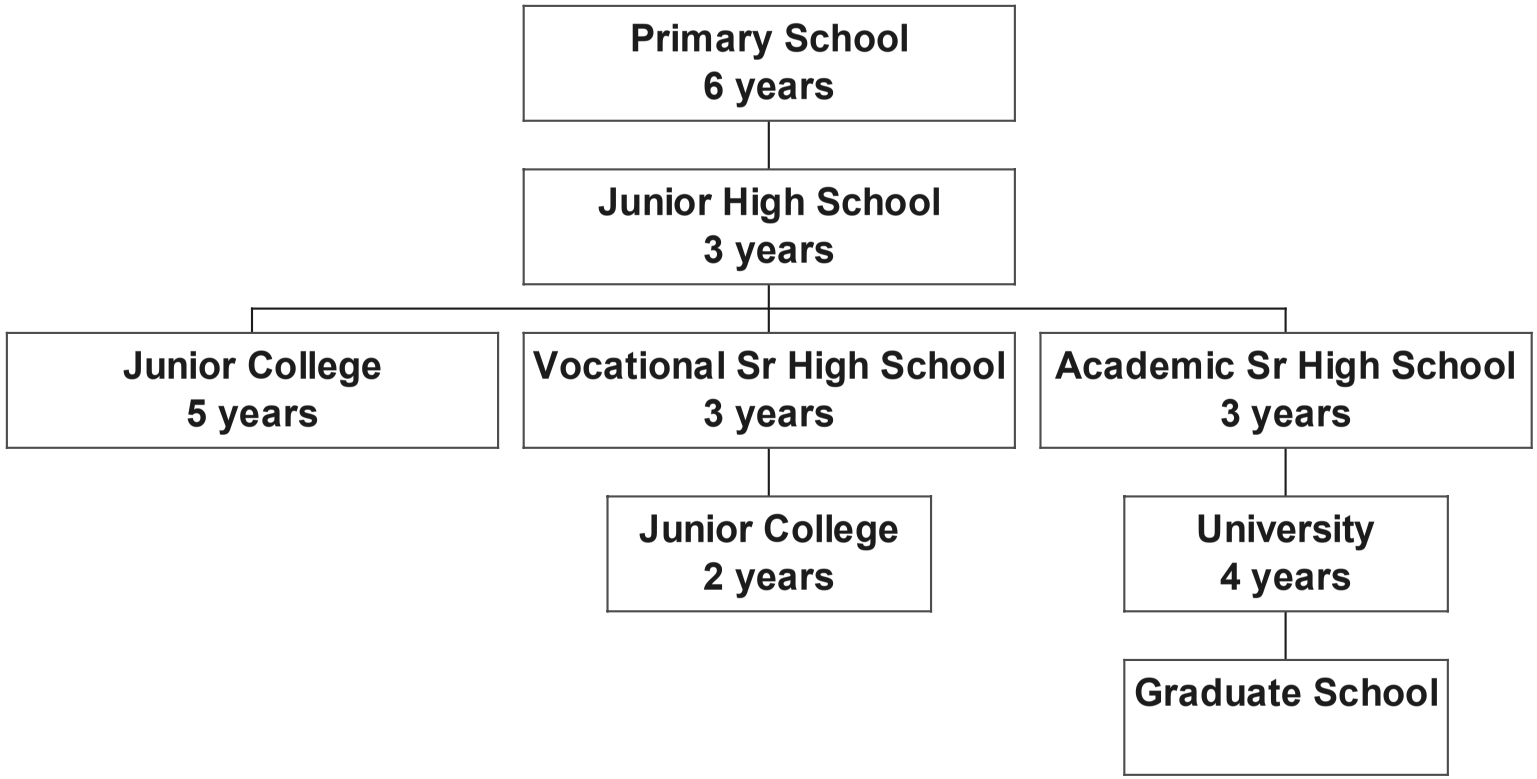


Figure 2a:
Degree Effects for Vocational High School Graduates
Both Sexes

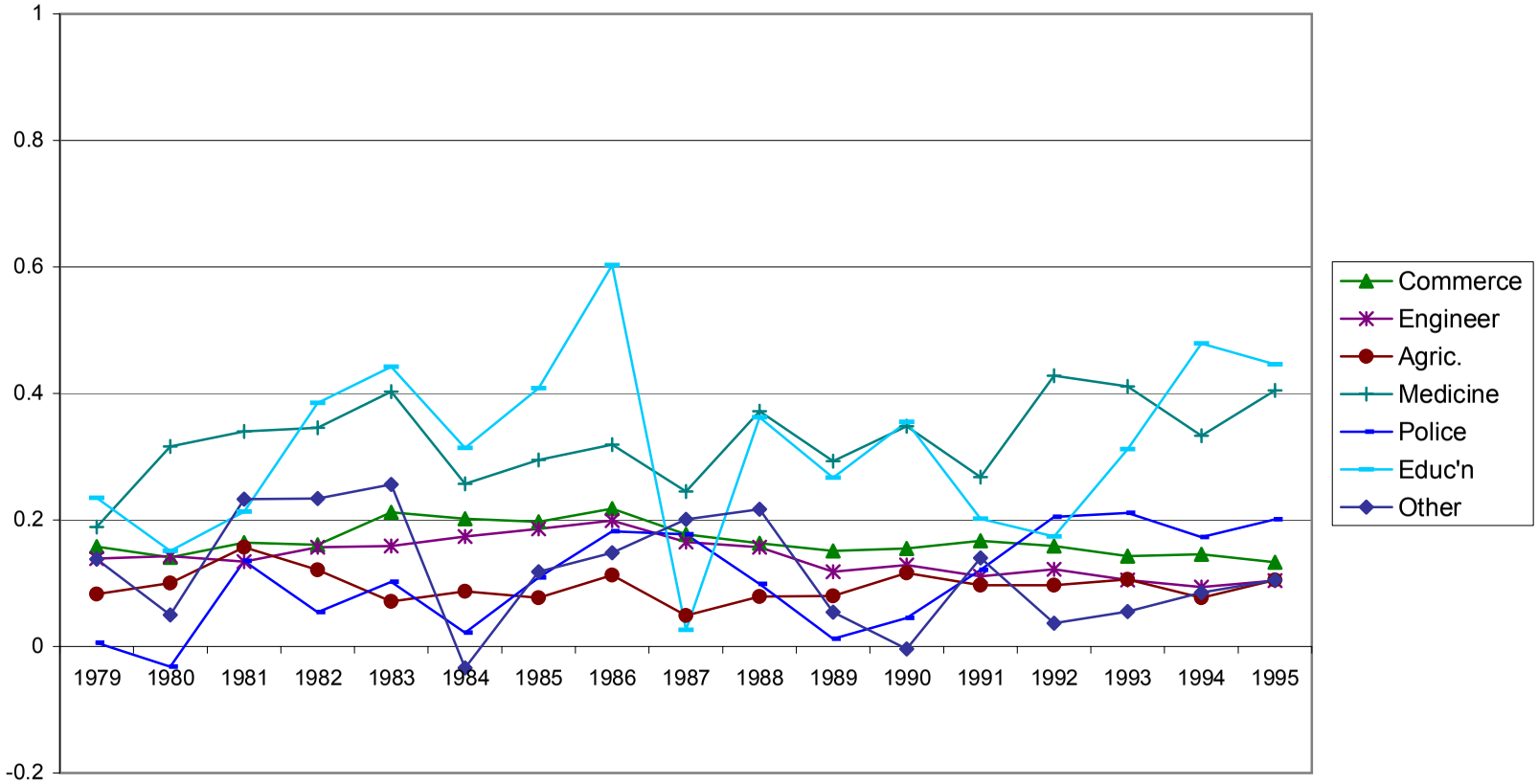


Figure2b:
Degree Effects for Junior College Graduates
Both Sexes

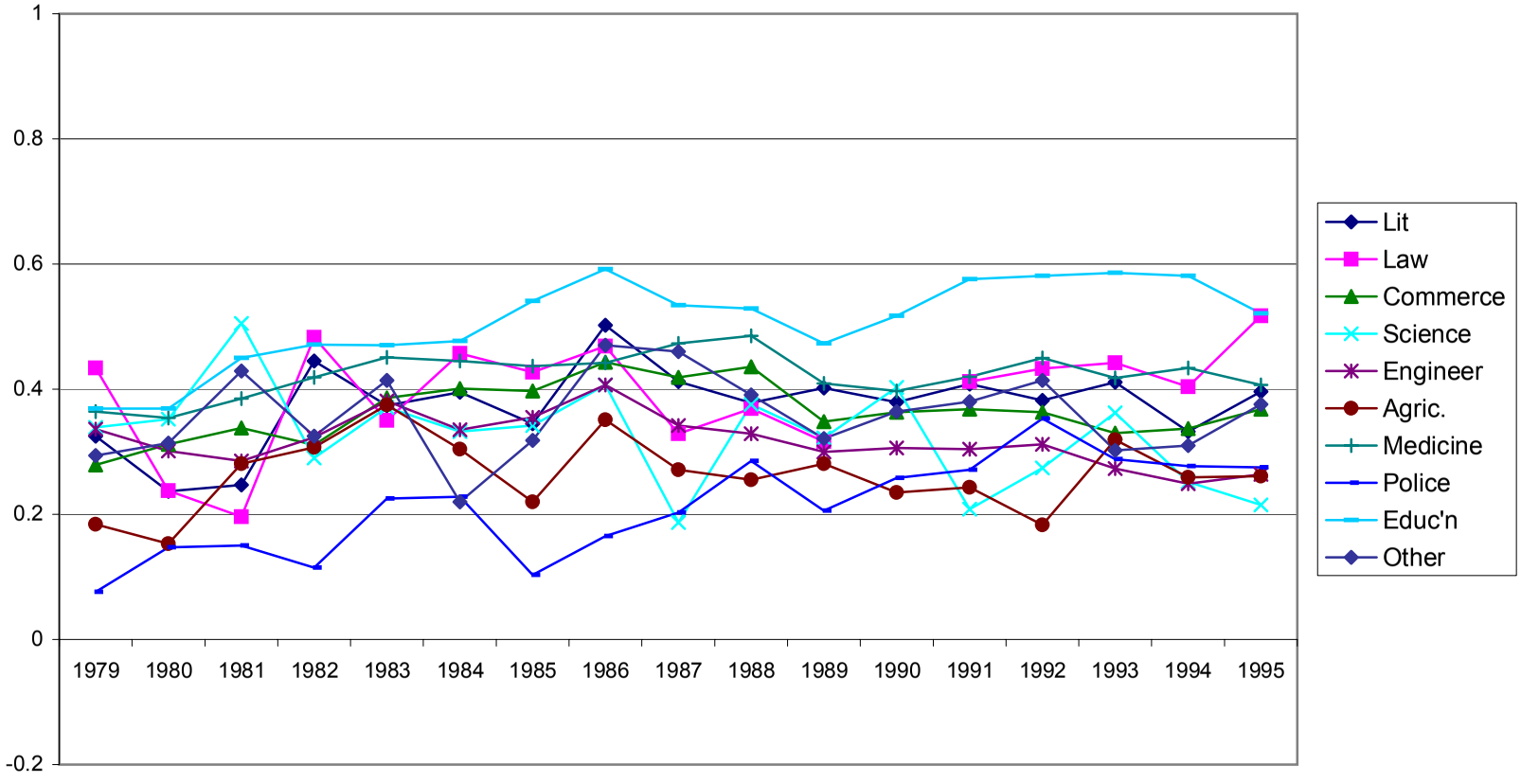


Figure 2c:
Degree Effects for University Graduates
Both Sexes

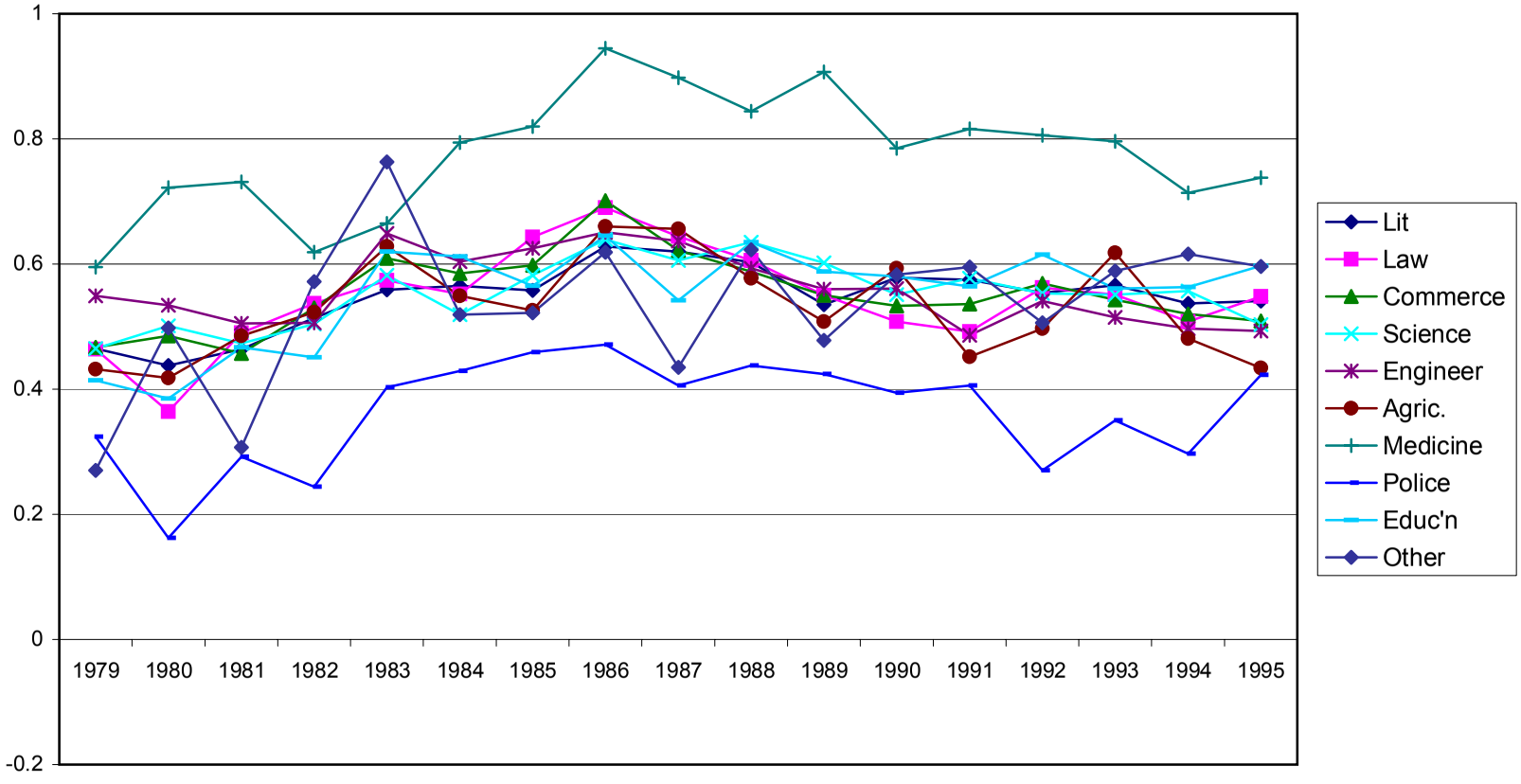


Figure 3:
Degree Effects for University Graduates
Females Only

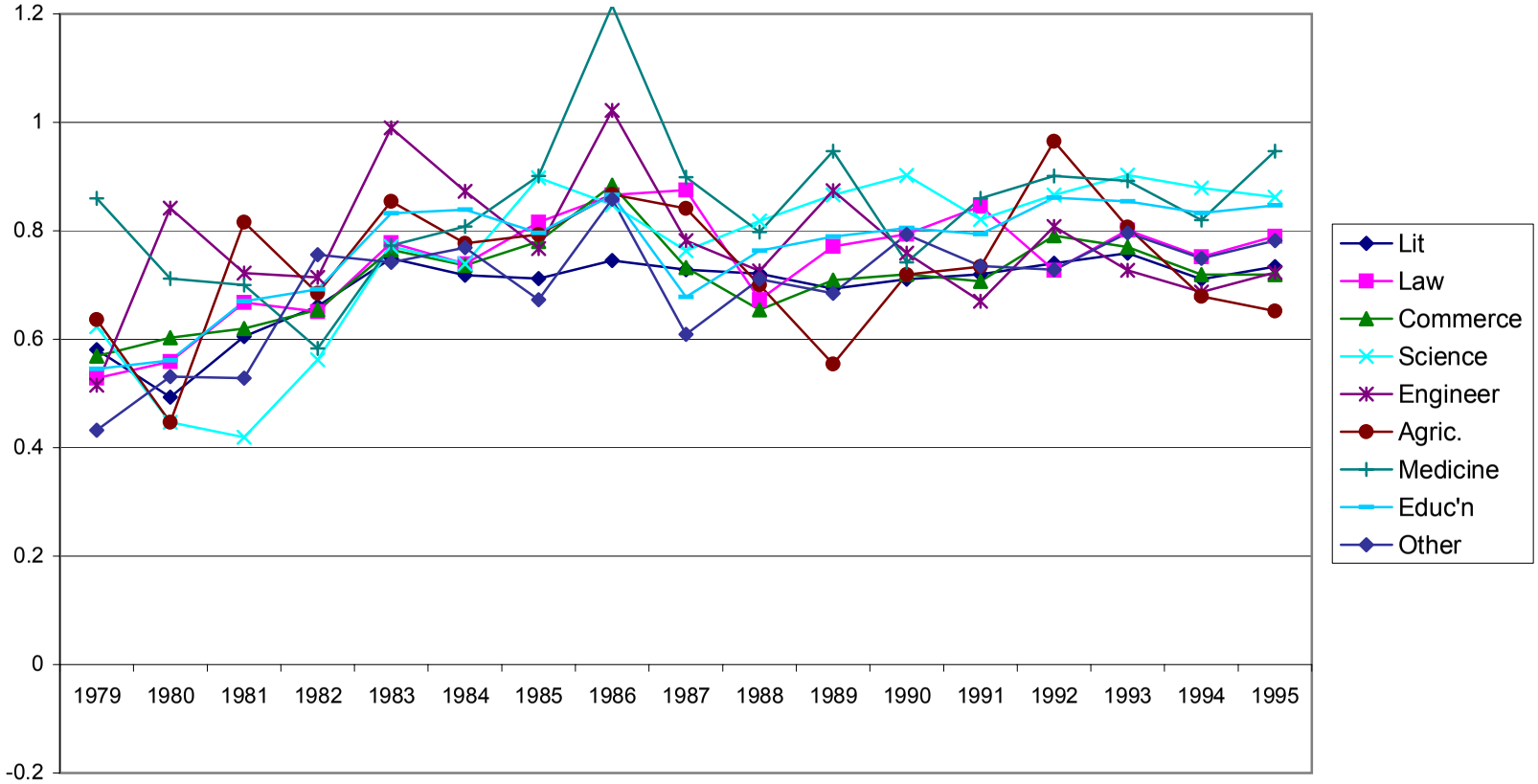


Figure 4:
Degree Effects for University Graduates
Males Only

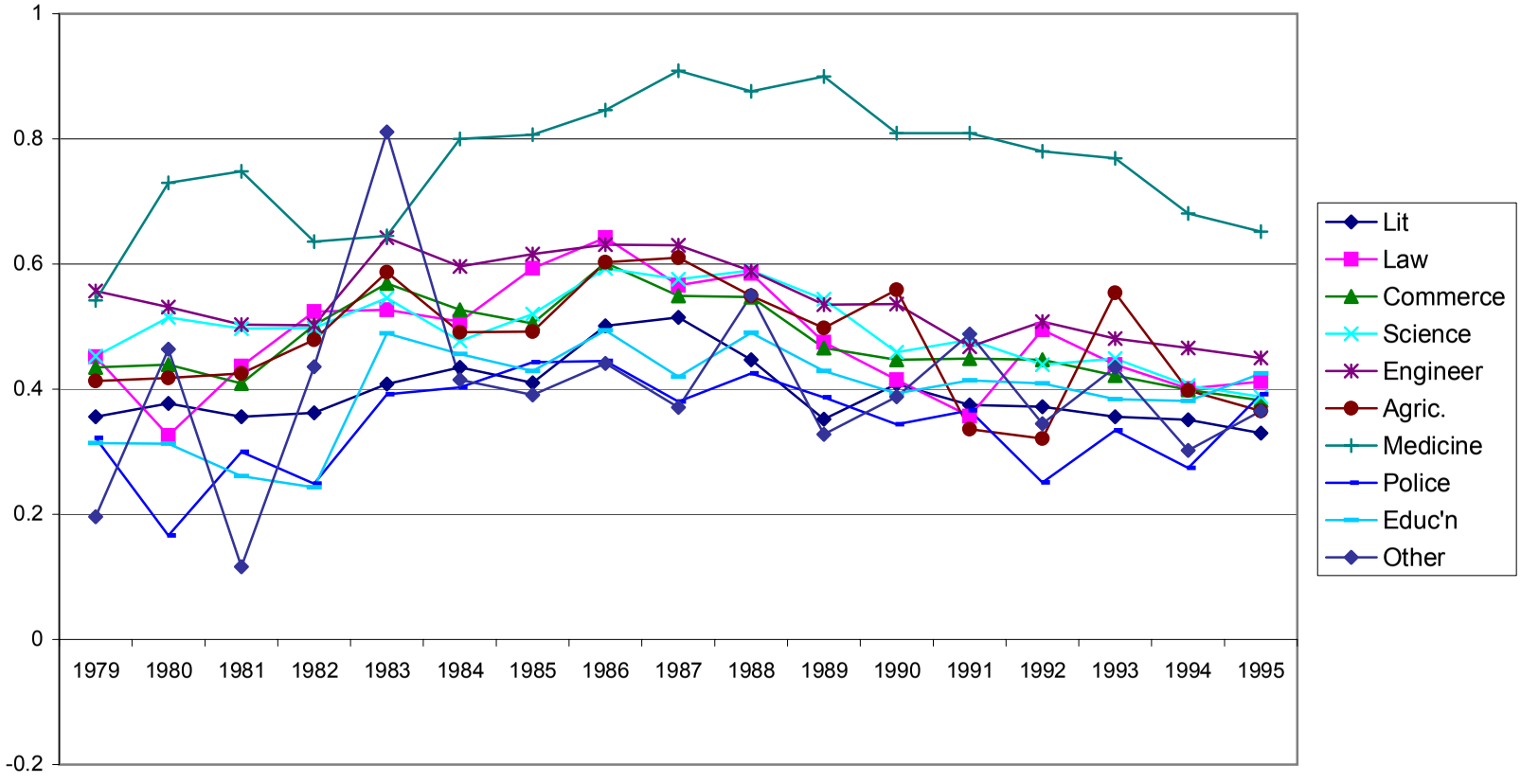
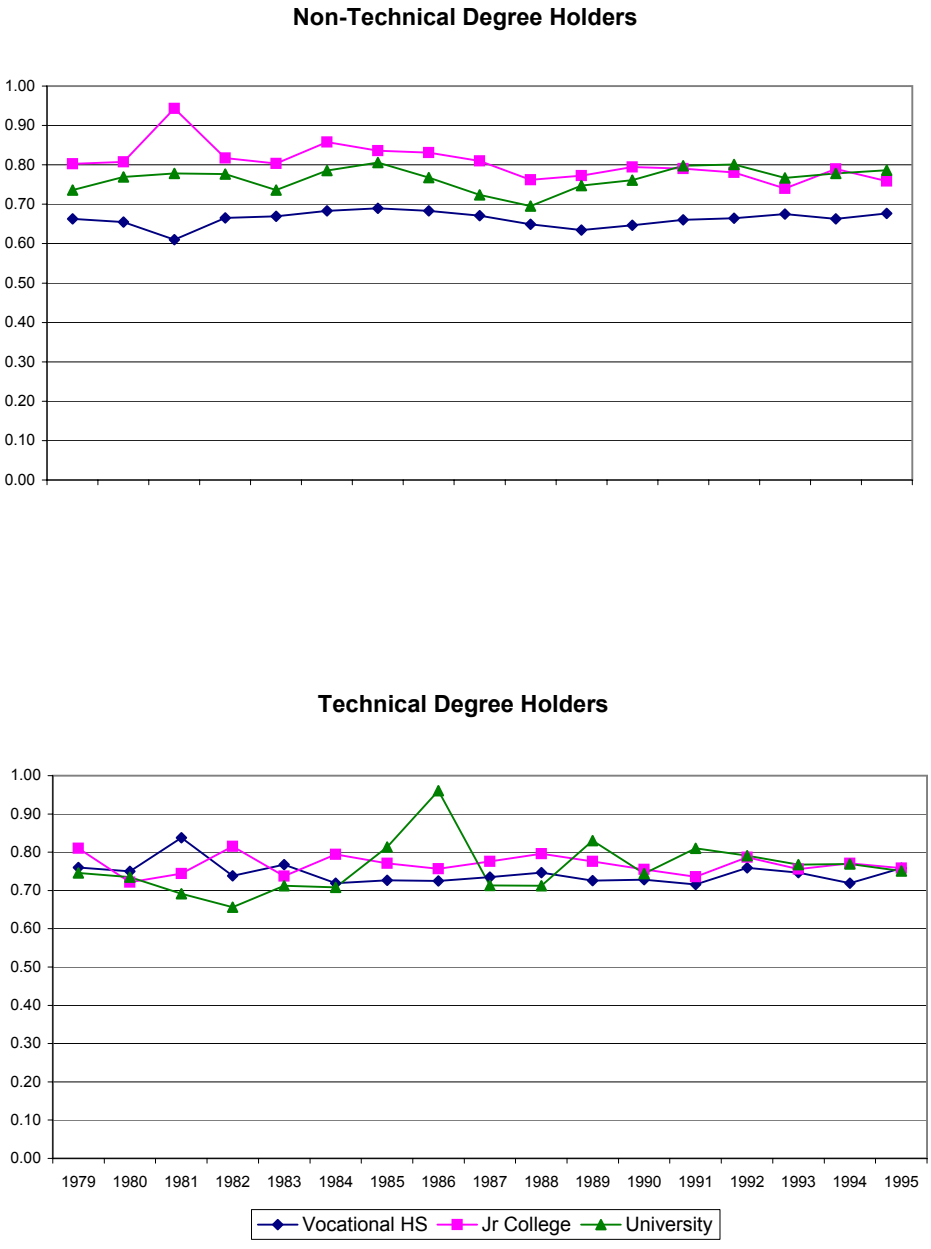


Figure 5
Ratio of Female to Male Real Earnings by Education Level and Degree Type



Appendix A: Table 1
Coefficients on Interactions of Vocational High School and Listed Degree Type, By Year
Both Sexes
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	-0.068*	0.463*	0.507*	-0.019	-0.435	0.339	0.339	0.090	-0.610*	0.301	0.547*	0.384*	0.173*	0.288*	0.000*	-0.175*	-0.015
	(0.011)	(0.057)	(0.017)	(0.013)	(0.314)	(0.199)	(0.199)	(0.246)	(0.188)	(0.168)	(0.008)	(0.136)	(0.011)	(0.244)	(0.000)	(0.052)	(0.122)
Law	0.045*		-0.281*			0.069*	0.069*	-0.359*	0.201*		0.579*	0.133~		-0.281*			0.268*
	(0.013)		(0.011)			(0.013)	(0.013)	(0.013)	(0.008)		(0.044)	(0.059)		(0.011)			(0.148)
Commerce	0.158*	0.141*	0.164*	0.161*	0.212*	0.202*	0.197*	0.218*	0.177*	0.163*	0.151*	0.155*	0.167*	0.159*	0.143*	0.146*	0.133*
	(0.017)	(0.018)	(0.020)	(0.017)	(0.016)	(0.015)	(0.015)	(0.015)	(0.014)	(0.013)	(0.012)	(0.012)	(0.013)	(0.012)	(0.011)	(0.011)	(0.011)
Science		0.339	0.000	0.200	0.103	0.061*	0.061*	0.382*	0.629*	0.261*	-0.199~	-0.130	0.317*	0.385*	0.231*	-0.184*	0.461*
		(0.344)	(0.000)	(0.133)	(0.062)	(0.008)	(0.008)	(0.051)	(0.011)	(0.008)	(0.084)	(0.168)	(0.106)	(0.058)	(0.063)	(0.008)	(0.101)
Engineer	0.139*	0.143*	0.134*	0.157*	0.159*	0.174*	0.186*	0.199*	0.165*	0.157*	0.118*	0.129*	0.111*	0.122*	0.105*	0.094*	0.104*
	(0.019)	(0.018)	(0.016)	(0.016)	(0.015)	(0.014)	(0.013)	(0.012)	(0.012)	(0.011)	(0.010)	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)
Agriculture	0.083~	0.10*	0.157*	0.121*	0.071*	0.087*	0.077*	0.113*	0.049~	0.079*	0.080*	0.116*	0.097*	0.097*	0.106*	0.077*	0.105*
	(0.033)	(0.036)	(0.033)	(0.023)	(0.027)	(0.024)	(0.022)	(0.022)	(0.024)	(0.022)	(0.020)	(0.020)	(0.021)	(0.022)	(0.018)	(0.020)	(0.021)
Medicine	0.189*	0.316*	0.340*	0.346*	0.403*	0.257*	0.295*	0.319*	0.245*	0.372*	0.293*	0.348*	0.268*	0.428*	0.411*	0.333*	0.405*
	(0.065)	(0.079)	(0.075)	(0.067)	(0.043)	(0.070)	(0.049)	(0.072)	(0.070)	(0.041)	(0.041)	(0.033)	(0.050)	(0.027)	(0.042)	(0.029)	(0.031)
Police	0.006	-0.032	0.135	0.054	0.102	0.022	0.109*	0.182*	0.177*	0.099~	0.012	0.045	0.121~	0.205*	0.211*	0.173*	0.201*
	(0.030)	(0.040)	(0.082)	(0.059)	(0.062)	(0.046)	(0.035)	(0.046)	(0.039)	(0.042)	(0.038)	(0.041)	(0.050)	(0.041)	(0.048)	(0.040)	(0.039)
Education	0.235*	0.151~	0.213*	0.385*	0.442*	0.314*	0.408*	0.603*	0.026	0.362	0.267	0.355~	0.202~	0.174*	0.312*	0.479*	0.446*
	(0.069)	(0.071)	(0.047)	(0.087)	(0.065)	(0.100)	(0.103)	(0.126)	(0.211)	(0.196)	(0.144)	(0.150)	(0.139)	(0.154)	(0.160)	(0.125)	(0.120)
Other	0.138	0.050	0.233~	0.234~	0.256*	-0.034	0.118	0.148~	0.201~	0.217*	0.054	-0.004	0.140~	0.037~	0.055~	0.085~	0.105*
	(0.115)	(0.095)	(0.102)	(0.105)	(0.080)	(0.117)	(0.065)	(0.062)	(0.084)	(0.045)	(0.050)	(0.072)	(0.054)	(0.039)	(0.056)	(0.043)	(0.035)

See text for complete description of regression specification.

Appendix A: Table 2
Coefficients on Interactions of Junior College and Listed Degree Type, By Year
Both Sexes
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.325*	0.237*	0.247*	0.445*	0.374*	0.395*	0.345*	0.502*	0.412*	0.378*	0.402*	0.379*	0.408*	0.382*	0.411*	0.332*	0.396*
	(0.037)	(0.040)	(0.052)	(0.050)	(0.037)	(0.034)	(0.037)	(0.037)	(0.034)	(0.043)	(0.034)	(0.034)	(0.038)	(0.029)	(0.038)	(0.032)	(0.044)
Law	0.434	0.238	0.196*	0.483*	0.350*	0.457*	0.427*	0.469*	0.329*	0.369*	0.316*	-0.460	0.412*	0.433*	0.442*	0.404*	0.517*
	(0.342)	(0.182)	(0.016)	(0.133)	(0.085)	(0.121)	(0.071)	(0.066)	(0.070)	(0.078)	(0.111)	(0.742)	(0.057)	(0.093)	(0.060)	(0.078)	(0.080)
Commerce	0.279*	0.312*	0.338*	0.311*	0.386*	0.401*	0.397*	0.443*	0.419*	0.436*	0.348*	0.363*	0.368*	0.363*	0.330*	0.337*	0.368*
	(0.029)	(0.027)	(0.023)	(0.045)	(0.020)	(0.022)	(0.021)	(0.021)	(0.020)	(0.018)	(0.017)	(0.018)	(0.017)	(0.016)	(0.016)	(0.014)	(0.015)
Science	0.339*	0.352*	0.505*	0.290*	0.371*	0.332*	0.342*	0.407*	0.187*	0.376*	0.322*	0.403*	0.208*	0.274*	0.362*	0.252*	0.215*
	(0.081)	(0.098)	(0.165)	(0.063)	(0.072)	(0.086)	(0.068)	(0.086)	(0.072)	(0.099)	(0.071)	(0.103)	(0.061)	(0.056)	(0.054)	(0.095)	(0.068)
Engineer	0.336*	0.301*	0.285*	0.323*	0.381*	0.335*	0.355*	0.407*	0.342*	0.329*	0.30*	0.306*	0.304*	0.312*	0.273*	0.249*	0.264*
	(0.026)	(0.021)	(0.022)	(0.021)	(0.020)	(0.020)	(0.018)	(0.016)	(0.015)	(0.014)	(0.013)	(0.014)	(0.013)	(0.013)	(0.012)	(0.011)	(0.011)
Agriculture	0.184*	0.153*	0.281*	0.307*	0.375*	0.304*	0.220*	0.351*	0.271*	0.255*	0.281*	0.235*	0.243*	0.183~	0.319*	0.259*	0.261*
	(0.061)	(0.037)	(0.058)	(0.062)	(0.066)	(0.046)	(0.045)	(0.041)	(0.043)	(0.040)	(0.044)	(0.044)	(0.039)	(0.083)	(0.036)	(0.044)	(0.026)
Medicine	0.364*	0.354*	0.385*	0.419*	0.451*	0.445*	0.437*	0.442*	0.473*	0.485*	0.409*	0.397*	0.420*	0.450*	0.418*	0.434*	0.407*
	(0.047)	(0.044)	(0.055)	(0.042)	(0.043)	(0.035)	(0.034)	(0.052)	(0.035)	(0.032)	(0.027)	(0.030)	(0.042)	(0.032)	(0.024)	(0.025)	(0.026)
Police	0.076~	0.147*	0.150*	0.115~	0.225*	0.228*	0.103~	0.165*	0.203*	0.285*	0.206*	0.258*	0.271*	0.353*	0.288*	0.277*	0.275*
	(0.033)	(0.048)	(0.032)	(0.047)	(0.048)	(0.038)	(0.047)	(0.059)	(0.044)	(0.041)	(0.030)	(0.035)	(0.046)	(0.026)	(0.027)	(0.029)	(0.032)
Education	0.369*	0.369*	0.450*	0.471*	0.470*	0.477*	0.541*	0.592*	0.534*	0.529*	0.473*	0.517*	0.576*	0.581*	0.586*	0.581*	0.521*
	(0.025)	(0.031)	(0.029)	(0.024)	(0.025)	(0.023)	(0.020)	(0.020)	(0.021)	(0.019)	(0.021)	(0.021)	(0.024)	(0.023)	(0.026)	(0.023)	(0.025)
Other	0.294*	0.314*	0.429*	0.325*	0.414*	0.220*	0.318*	0.470*	0.460*	0.391*	0.321*	0.364*	0.380*	0.414*	0.302*	0.310*	0.376*
	(0.072)	(0.074)	(0.101)	(0.054)	(0.051)	(0.050)	(0.056)	(0.049)	(0.062)	(0.048)	(0.047)	(0.049)	(0.053)	(0.057)	(0.050)	(0.045)	(0.043)

See text for complete description of regression specification.

Appendix A: Table 3
Coefficients on Interactions of University and Listed Degree Type, By Year
Both Sexes
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.465*	0.438*	0.464*	0.514*	0.559*	0.565*	0.558*	0.628*	0.620*	0.603*	0.535*	0.578*	0.575*	0.554*	0.566*	0.537*	0.541*
	(0.033)	(0.043)	(0.026)	(0.026)	(0.023)	(0.022)	(0.024)	(0.023)	(0.020)	(0.021)	(0.022)	(0.023)	(0.022)	(0.021)	(0.020)	(0.019)	(0.020)
Law	0.464*	0.364*	0.490*	0.537*	0.574*	0.552*	0.643*	0.690*	0.644*	0.606*	0.550*	0.508*	0.492*	0.562*	0.551*	0.508*	0.548*
	(0.053)	(0.046)	(0.058)	(0.039)	(0.039)	(0.039)	(0.036)	(0.039)	(0.038)	(0.039)	(0.037)	(0.038)	(0.061)	(0.034)	(0.034)	(0.037)	(0.036)
Commerce	0.467*	0.485*	0.457*	0.530*	0.609*	0.585*	0.598*	0.701*	0.622*	0.588*	0.550*	0.533*	0.536*	0.569*	0.543*	0.520*	0.509*
	(0.026)	(0.025)	(0.029)	(0.024)	(0.022)	(0.021)	(0.020)	(0.021)	(0.022)	(0.018)	(0.018)	(0.018)	(0.020)	(0.016)	(0.016)	(0.018)	(0.016)
Science	0.465*	0.501*	0.473*	0.504*	0.582*	0.519*	0.582*	0.639*	0.606*	0.635*	0.602*	0.551*	0.577*	0.553*	0.551*	0.557*	0.503*
	(0.034)	(0.045)	(0.049)	(0.054)	(0.036)	(0.032)	(0.039)	(0.045)	(0.041)	(0.037)	(0.035)	(0.041)	(0.029)	(0.032)	(0.031)	(0.037)	(0.029)
Engineer	0.549*	0.534*	0.505*	0.506*	0.649*	0.604*	0.625*	0.651*	0.637*	0.593*	0.560*	0.561*	0.486*	0.541*	0.515*	0.497*	0.493*
	(0.030)	(0.033)	(0.030)	(0.027)	(0.027)	(0.024)	(0.023)	(0.024)	(0.024)	(0.022)	(0.020)	(0.020)	(0.021)	(0.018)	(0.017)	(0.018)	(0.020)
Agriculture	0.432*	0.418*	0.485*	0.523*	0.628*	0.549*	0.526*	0.660*	0.656*	0.577*	0.508*	0.593*	0.452*	0.497*	0.618*	0.481*	0.434*
	(0.046)	(0.064)	(0.056)	(0.055)	(0.061)	(0.049)	(0.069)	(0.069)	(0.088)	(0.049)	(0.042)	(0.044)	(0.061)	(0.065)	(0.051)	(0.053)	(0.043)
Medicine	0.595*	0.722*	0.731*	0.619*	0.665*	0.794*	0.820*	0.945*	0.898*	0.844*	0.907*	0.785*	0.816*	0.806*	0.796*	0.714*	0.738*
	(0.072)	(0.078)	(0.053)	(0.062)	(0.053)	(0.062)	(0.067)	(0.064)	(0.073)	(0.049)	(0.050)	(0.052)	(0.054)	(0.054)	(0.048)	(0.041)	(0.044)
Police	0.324*	0.162*	0.292*	0.244*	0.403*	0.429*	0.459*	0.471*	0.406*	0.438*	0.424*	0.394*	0.406*	0.270*	0.350*	0.297*	0.423*
	(0.094)	(0.059)	(0.049)	(0.051)	(0.041)	(0.070)	(0.060)	(0.048)	(0.064)	(0.081)	(0.088)	(0.072)	(0.052)	(0.049)	(0.063)	(0.062)	(0.051)
Education	0.414*	0.385*	0.467*	0.451*	0.620*	0.612*	0.565*	0.645*	0.542*	0.635*	0.588*	0.580*	0.564*	0.615*	0.561*	0.563*	0.597*
	(0.031)	(0.038)	(0.061)	(0.071)	(0.039)	(0.041)	(0.032)	(0.037)	(0.046)	(0.025)	(0.027)	(0.026)	(0.029)	(0.025)	(0.024)	(0.026)	(0.022)
Other	0.270*	0.498*	0.307*	0.572*	0.763*	0.519*	0.522*	0.619*	0.435*	0.623*	0.478*	0.583*	0.595*	0.506*	0.589*	0.616*	0.596*
	(0.093)	(0.069)	(0.085)	(0.074)	(0.079)	(0.069)	(0.061)	(0.069)	(0.088)	(0.100)	(0.069)	(0.056)	(0.050)	(0.057)	(0.060)	(0.063)	(0.048)

See text for complete description of regression specification.

Appendix B: Table 1
Coefficients on Interactions of Vocational High School and Listed Degree Type, By Year
Females Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.384*	0.452*	0.403*	0.000*	-0.003*	-0.070*	-0.070*	0.000*	-0.845*	0.313	0.000*	0.40~	0.209*	0.967*	0.000*	-0.197*	0.402*
	(0.136)	(0.068)	(0.040)	(0.000)	(0.023)	(0.020)	(0.020)	(0.000)	(0.016)	(0.169)	(0.000)	(0.167)	(0.018)	(0.018)	(0.000)	(0.014)	(0.015)
Law	0.133~		-0.281*			0.000*	0.000*	-0.296*	0.000*		0.527*	0.263*		-0.281*			0.508*
	(0.059)		(0.011)			0.000	0.000	(0.019)	0.000		(0.018)	(0.016)		(0.011)			(0.013)
Commerce	0.194*	0.153*	0.160*	0.187*	0.245*	0.245*	0.243*	0.277*	0.223*	0.183*	0.191*	0.203*	0.227*	0.254*	0.242*	0.230*	0.241*
	(0.037)	(0.039)	(0.040)	(0.030)	(0.028)	(0.026)	(0.024)	(0.025)	(0.023)	(0.020)	(0.020)	(0.018)	(0.019)	(0.018)	(0.018)	(0.016)	(0.016)
Science	-0.130	0.000*	0.385*	0.000*	0.167*	0.000*	0.000*	0.497*	0.655*	0.000*	-0.052*	0.342*	0.538*	0.516*	0.148*	0.000*	0.000*
	(0.168)	(0.000)	(0.058)	(0.000)	(0.042)	(0.000)	(0.000)	(0.022)	(0.020)	(0.000)	(0.017)	(0.014)	(0.015)	(0.051)	(0.016)	(0.000)	(0.000)
Engineer	0.308*	0.191~	0.150*	0.121*	0.049*	0.146*	0.180*	0.175*	0.245*	0.152~	0.179*	0.153*	0.181*	0.209*	0.205*	0.164*	0.255*
	(0.075)	(0.088)	(0.094)	(0.074)	(0.101)	(0.079)	(0.066)	(0.052)	(0.046)	(0.061)	(0.034)	(0.043)	(0.042)	(0.035)	(0.031)	(0.038)	(0.029)
Agriculture	-0.096*	-0.008*	0.150*	0.041*	0.034*	0.063*	0.079*	0.251~	-0.072~	-0.126*	-0.070*	0.179*	0.177*	0.241*	0.223*	0.134~	0.253*
	(0.132)	(0.056)	(0.098)	(0.079)	(0.089)	(0.142)	(0.146)	(0.128)	(0.126)	(0.132)	(0.101)	(0.068)	(0.099)	(0.079)	(0.067)	(0.060)	(0.073)
Medicine	0.314*	0.402*	0.406*	0.386*	0.464*	0.351*	0.429*	0.380*	0.284*	0.425*	0.411*	0.450*	0.367*	0.523*	0.526*	0.451*	0.531*
	(0.072)	(0.082)	(0.081)	(0.072)	(0.047)	(0.084)	(0.044)	(0.085)	(0.081)	(0.043)	(0.037)	(0.036)	(0.057)	(0.030)	(0.043)	(0.032)	(0.032)
Police	0.045	0.000*	0.357*	0.502*	0.000*	0.158*	0.000*	0.804*	0.712*	0.000*	0.000*	0.298*	0.000*	0.000*	0.000*	0.000*	0.000*
	(0.041)	(0.000)	(0.036)	(0.084)	(0.000)	(0.024)	(0.000)	(0.053)	(0.032)	(0.000)	(0.000)	(0.014)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	0.499*	0.305~	0.247*	0.701*	0.672*	0.462*	0.597*	0.671*	0.187	0.332	0.167	0.487*	0.237~	0.257*	0.388*	0.549*	0.513*
	(0.059)	(0.141)	(0.167)	(0.057)	(0.040)	(0.110)	(0.134)	(0.154)	(0.254)	(0.228)	(0.191)	(0.160)	(0.165)	(0.152)	(0.211)	(0.157)	(0.131)
Other	0.039	0.016~	0.206~	0.150~	0.207*	0.014*	0.147~	0.172~	0.225~	0.184*	0.078	0.025	0.194*	0.10~	0.079~	0.184*	0.213*
	(0.097)	(0.099)	(0.121)	(0.069)	(0.080)	(0.138)	(0.074)	(0.067)	(0.105)	(0.067)	(0.054)	(0.101)	(0.060)	(0.048)	(0.070)	(0.049)	(0.042)

See text for complete description of regression specification.

Appendix B: Table 2
Coefficients on Interactions of Junior College and Listed Degree Type, By Year
Females Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.445*	0.418*	0.373*	0.613*	0.432*	0.550*	0.581*	0.694*	0.558*	0.501*	0.544*	0.538*	0.606*	0.560*	0.590*	0.485*	0.554*
	(0.062)	(0.063)	(0.093)	(0.080)	(0.065)	(0.044)	(0.047)	(0.066)	(0.054)	(0.090)	(0.049)	(0.046)	(0.057)	(0.045)	(0.050)	(0.058)	(0.053)
Law	-0.460	0.000*	0.433*	0.278*	0.570*	0.599*	0.696*	0.962*	0.491*	0.503*	0.522*	0.499*	0.60*	0.526*	0.644*	0.552*	0.684*
	(0.742)	(0.000)	(0.093)	(0.034)	(0.101)	(0.217)	(0.072)	(0.019)	(0.106)	(0.129)	(0.119)	(0.066)	(0.064)	(0.081)	(0.100)	(0.097)	(0.081)
Commerce	0.344*	0.342*	0.401*	0.408*	0.480*	0.526*	0.523*	0.576*	0.504*	0.482*	0.435*	0.479*	0.475*	0.492*	0.456*	0.476*	0.515*
	(0.050)	(0.048)	(0.045)	(0.037)	(0.034)	(0.034)	(0.030)	(0.033)	(0.027)	(0.026)	(0.027)	(0.026)	(0.025)	(0.023)	(0.022)	(0.021)	(0.021)
Science	0.403*	0.546*	0.274*	0.740*	0.229*	0.535*	0.000*	0.000*	0.000*	0.883*	0.605*	0.718*	0.472*	0.478*	0.632*	0.691*	0.421*
	(0.103)	(0.029)	(0.056)	(0.029)	(0.168)	(0.108)	(0.000)	(0.000)	(0.000)	(0.136)	(0.017)	(0.129)	(0.110)	(0.131)	(0.018)	(0.125)	(0.064)
Engineer	0.506*	0.343~	0.356*	0.566*	0.295*	0.466*	0.487*	0.498*	0.545*	0.505*	0.488*	0.445*	0.409*	0.472*	0.496*	0.471*	0.449*
	(0.154)	(0.134)	(0.128)	(0.147)	(0.157)	(0.130)	(0.078)	(0.061)	(0.083)	(0.065)	(0.060)	(0.057)	(0.044)	(0.047)	(0.043)	(0.033)	(0.030)
Agriculture	-0.428*	0.662*	0.762*	0.458*	0.185*	0.077*	0.265~	0.678*	0.294*	0.480*	0.535*	0.459*	0.320*	0.205*	0.624*	0.636*	0.524*
	(0.033)	(0.034)	(0.034)	(0.114)	(0.321)	(0.340)	(0.119)	(0.132)	(0.200)	(0.074)	(0.052)	(0.096)	(0.080)	(0.259)	(0.099)	(0.087)	(0.067)
Medicine	0.486*	0.395*	0.407*	0.440*	0.535*	0.505*	0.548*	0.567*	0.544*	0.544*	0.506*	0.491*	0.545*	0.609*	0.531*	0.556*	0.571*
	(0.064)	(0.059)	(0.070)	(0.056)	(0.052)	(0.039)	(0.038)	(0.067)	(0.044)	(0.034)	(0.029)	(0.039)	(0.049)	(0.038)	(0.028)	(0.028)	(0.029)
Police	0.258*	0.453*	0.411*	0.000*	0.000*	0.470*	0.855*	0.000*	0.762*	0.586*	0.332*	0.383*	0.537*	0.760*	0.922*	0.285*	0.771*
	(0.035)	(0.029)	(0.035)	(0.000)	(0.000)	(0.024)	(0.023)	(0.000)	(0.059)	(0.175)	(0.017)	(0.196)	(0.025)	(0.101)	(0.128)	(0.313)	(0.083)
Education	0.560*	0.564*	0.601*	0.664*	0.673*	0.637*	0.693*	0.764*	0.710*	0.687*	0.626*	0.692*	0.751*	0.778*	0.813*	0.772*	0.697*
	(0.039)	(0.039)	(0.055)	(0.032)	(0.030)	(0.026)	(0.025)	(0.027)	(0.026)	(0.027)	(0.029)	(0.026)	(0.027)	(0.028)	(0.033)	(0.028)	(0.034)
Other	0.378*	0.391*	0.50*	0.361*	0.473*	0.258*	0.416*	0.568*	0.472*	0.447*	0.403*	0.456*	0.550*	0.510*	0.399*	0.452*	0.535*
	(0.090)	(0.085)	(0.138)	(0.084)	(0.068)	(0.084)	(0.070)	(0.060)	(0.083)	(0.061)	(0.062)	(0.055)	(0.058)	(0.077)	(0.063)	(0.052)	(0.048)

See text for complete description of regression specification.

Appendix B: Table 3
Coefficients on Interactions of University and Listed Degree Type, By Year
Females Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.581*	0.493*	0.605*	0.661*	0.749*	0.718*	0.712*	0.745*	0.728*	0.721*	0.693*	0.711*	0.720*	0.740*	0.759*	0.711*	0.734*
	(0.058)	(0.083)	(0.047)	(0.040)	(0.037)	(0.035)	(0.032)	(0.034)	(0.030)	(0.028)	(0.030)	(0.030)	(0.030)	(0.030)	(0.024)	(0.026)	(0.026)
Law	0.528*	0.559*	0.668*	0.651*	0.778*	0.739*	0.816*	0.866*	0.875*	0.673*	0.771*	0.794*	0.845*	0.727*	0.801*	0.752*	0.790*
	(0.160)	(0.162)	(0.078)	(0.059)	(0.051)	(0.088)	(0.078)	(0.116)	(0.070)	(0.088)	(0.064)	(0.060)	(0.085)	(0.063)	(0.050)	(0.074)	(0.055)
Commerce	0.569*	0.603*	0.620*	0.654*	0.765*	0.736*	0.780*	0.884*	0.732*	0.654*	0.709*	0.720*	0.707*	0.791*	0.770*	0.719*	0.719*
	(0.053)	(0.051)	(0.057)	(0.054)	(0.043)	(0.037)	(0.034)	(0.038)	(0.033)	(0.030)	(0.029)	(0.029)	(0.035)	(0.028)	(0.026)	(0.027)	(0.024)
Science	0.623*	0.447*	0.419*	0.562*	0.771*	0.739*	0.898*	0.848*	0.763*	0.818*	0.866*	0.902*	0.821*	0.866*	0.903*	0.879*	0.862*
	(0.048)	(0.111)	(0.109)	(0.086)	(0.052)	(0.067)	(0.064)	(0.074)	(0.085)	(0.043)	(0.084)	(0.064)	(0.051)	(0.052)	(0.059)	(0.058)	(0.043)
Engineer	0.515*	0.842*	0.722*	0.714*	0.990*	0.873*	0.767*	1.022*	0.782*	0.726*	0.874*	0.759*	0.670*	0.808*	0.727*	0.687*	0.723*
	(0.107)	(0.071)	(0.058)	(0.110)	(0.109)	(0.119)	(0.082)	(0.072)	(0.065)	(0.065)	(0.063)	(0.063)	(0.141)	(0.076)	(0.073)	(0.045)	(0.047)
Agriculture	0.636*	0.447*	0.816*	0.685*	0.854*	0.777*	0.793*	0.867*	0.841*	0.700*	0.554*	0.719*	0.734*	0.965*	0.807*	0.679*	0.652*
	(0.038)	(0.046)	(0.096)	(0.085)	(0.112)	(0.107)	(0.067)	(0.156)	(0.192)	(0.118)	(0.076)	(0.096)	(0.148)	(0.060)	(0.121)	(0.102)	(0.048)
Medicine	0.860*	0.712*	0.700*	0.583*	0.773*	0.808*	0.901*	1.215*	0.899*	0.798*	0.947*	0.742*	0.860*	0.901*	0.892*	0.820*	0.947*
	(0.112)	(0.193)	(0.125)	(0.108)	(0.052)	(0.078)	(0.163)	(0.127)	(0.121)	(0.069)	(0.080)	(0.082)	(0.095)	(0.065)	(0.063)	(0.068)	(0.063)
Police	0.394*	0.087~	0.372*	0.000*	0.907*	0.740*	0.741*	1.172*	0.737*	0.682~	0.865*	0.876*	0.757*	0.089*	-0.112*	0.000*	0.000*
	(0.072)	(0.042)	(0.037)	0.000	(0.032)	(0.066)	(0.103)	(0.031)	(0.106)	(0.273)	(0.234)	(0.141)	(0.227)	(0.015)	(0.015)	(0.000)	(0.000)
Education	0.545*	0.561*	0.670*	0.692*	0.832*	0.839*	0.796*	0.866*	0.678*	0.763*	0.789*	0.805*	0.794*	0.861*	0.854*	0.833*	0.847*
	(0.052)	(0.061)	(0.053)	(0.060)	(0.053)	(0.053)	(0.033)	(0.033)	(0.081)	(0.031)	(0.035)	(0.028)	(0.045)	(0.029)	(0.031)	(0.039)	(0.032)
Other	0.432~	0.531*	0.528*	0.756*	0.742*	0.769*	0.673*	0.858*	0.609*	0.711*	0.685*	0.793*	0.735*	0.728*	0.796*	0.749*	0.782*
	(0.213)	(0.060)	(0.084)	(0.071)	(0.085)	(0.067)	(0.088)	(0.086)	(0.116)	(0.086)	(0.128)	(0.049)	(0.063)	(0.078)	(0.074)	(0.068)	(0.056)

See text for complete description of regression specification.

Appendix C: Table 1
Coefficients on Interactions of Vocational High School and Listed Degree Type, By Year
Males Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	-0.067*	0.000*	0.000*	-0.015*	-0.878*	0.551*	0.551*	0.076*	-0.354*	0.000*	0.538*	0.419*	0.177*	-0.026*	0.000*	-0.129*	-0.196*
	(0.011)	(0.000)	(0.000)	(0.013)	(0.013)	(0.141)	(0.141)	(0.244)	(0.009)	(0.000)	(0.009)	(0.008)	(0.010)	(0.098)	(0.000)	(0.007)	(0.022)
Law	0.050*		-0.274*			0.066*	0.066*	0.000*	0.185*		0.622*	0.101*		-0.274*			0.156*
	(0.013)		(0.011)			(0.013)	(0.013)	(0.000)	(0.009)		(0.010)	(0.071)		(0.011)			(0.201)
Commerce	0.148*	0.130*	0.165*	0.135*	0.198*	0.176*	0.179*	0.186*	0.148*	0.151*	0.135*	0.137*	0.124*	0.093*	0.075*	0.101*	0.062*
	(0.022)	(0.021)	(0.025)	(0.022)	(0.022)	(0.020)	(0.023)	(0.021)	(0.021)	(0.019)	(0.019)	(0.018)	(0.022)	(0.018)	(0.018)	(0.018)	(0.018)
Science	0.342*	0.341*	0.000*	0.206*	0.094*	0.054*	0.054*	0.293*	0.000*	0.258*	-0.249~	-0.290~	0.216*	0.275*	0.265*	-0.209*	0.435*
	(0.014)	(0.345)	(0.000)	(0.132)	(0.079)	(0.009)	(0.009)	(0.009)	(0.000)	(0.008)	(0.108)	(0.146)	(0.118)	(0.088)	(0.042)	(0.009)	(0.100)
Engineer	0.136*	0.146*	0.142*	0.164*	0.162*	0.171*	0.180*	0.191*	0.156*	0.157*	0.109*	0.118*	0.096*	0.096*	0.077*	0.071*	0.069*
	(0.020)	(0.019)	(0.017)	(0.017)	(0.016)	(0.014)	(0.014)	(0.013)	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.009)	(0.010)
Agriculture	0.096*	0.110*	0.164*	0.131*	0.076*	0.087*	0.073*	0.095*	0.051~	0.094*	0.093*	0.104*	0.078*	0.066*	0.074*	0.057*	0.068*
	(0.034)	(0.038)	(0.035)	(0.024)	(0.029)	(0.023)	(0.022)	(0.022)	(0.024)	(0.021)	(0.019)	(0.021)	(0.022)	(0.023)	(0.019)	(0.021)	(0.022)
Medicine	0.098*	0.064*	0.029*	-0.010*	0.206~	0.071*	0.092*	0.206*	0.220~	0.030*	-0.061*	0.050*	0.009*	0.271*	0.142*	0.110*	0.101*
	(0.093)	(0.130)	(0.081)	(0.093)	(0.096)	(0.129)	(0.088)	(0.054)	(0.110)	(0.088)	(0.086)	(0.041)	(0.051)	(0.096)	(0.149)	(0.039)	(0.084)
Police	0.007*	-0.028*	0.140*	0.038*	0.105*	0.020*	0.103*	0.151*	0.151*	0.097~	0.003*	0.028*	0.105~	0.178*	0.183*	0.149*	0.171*
	(0.030)	(0.041)	(0.083)	(0.060)	(0.062)	(0.047)	(0.035)	(0.045)	(0.038)	(0.042)	(0.038)	(0.041)	(0.051)	(0.041)	(0.048)	(0.040)	(0.039)
Education	0.076*	0.077~	0.207*	0.215~	0.260*	0.101*	0.310~	0.512*	(0.147)	0.518*	0.485*	0.084*	0.277*	0.000*	0.297*	0.483*	0.547*
	(0.089)	(0.072)	(0.045)	(0.093)	(0.058)	(0.140)	(0.128)	(0.197)	(0.332)	(0.012)	(0.078)	(0.258)	(0.010)	0.000	(0.045)	(0.070)	(0.012)
Other	0.549	0.117*	0.248~	0.360~	0.493~	-0.176*	0.161~	0.308*	0.217~	0.278*	0.100	0.024	0.141*	0.092~	0.227*	-0.034~	0.054~
	(0.312)	(0.218)	(0.205)	(0.244)	(0.205)	(0.125)	(0.078)	(0.110)	(0.107)	(0.052)	(0.120)	(0.057)	(0.134)	(0.062)	(0.068)	(0.091)	(0.051)

See text for complete description of regression specification.

Appendix C: Table 2
Coefficients on Interactions of Junior College and Listed Degree Type, By Year
Males Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.265*	0.165*	0.171*	0.330*	0.345*	0.278*	0.226*	0.403*	0.324*	0.306*	0.281*	0.238*	0.260*	0.279*	0.280*	0.251*	0.319*
	(0.044)	(0.041)	(0.057)	(0.051)	(0.043)	(0.045)	(0.043)	(0.040)	(0.041)	(0.036)	(0.041)	(0.042)	(0.040)	(0.036)	(0.054)	(0.030)	(0.066)
Law	0.435*	0.243*	0.212*	0.617*	0.170*	0.427*	0.299*	0.406*	0.261*	0.302*	0.249*	-1.131*	0.257*	0.395~	0.281*	0.220~	0.172*
	(0.343)	(0.182)	(0.017)	(0.186)	(0.097)	(0.141)	(0.069)	(0.051)	(0.082)	(0.092)	(0.135)	(1.212)	(0.066)	(0.156)	(0.029)	(0.102)	(0.110)
Commerce	0.239*	0.286*	0.279*	0.231*	0.317*	0.281*	0.281*	0.320*	0.306*	0.379*	0.259*	0.235*	0.253*	0.236*	0.220*	0.193*	0.245*
	(0.038)	(0.038)	(0.028)	(0.082)	(0.024)	(0.028)	(0.029)	(0.028)	(0.032)	(0.029)	(0.022)	(0.023)	(0.021)	(0.024)	(0.029)	(0.019)	(0.024)
Science	0.343*	0.331*	0.516*	0.267*	0.417*	0.241~	0.335*	0.401*	0.179~	0.291*	0.272*	0.190~	0.157~	0.201*	0.299*	0.090*	0.157*
	(0.081)	(0.106)	(0.164)	(0.059)	(0.074)	(0.098)	(0.068)	(0.086)	(0.075)	(0.092)	(0.069)	(0.074)	(0.066)	(0.054)	(0.062)	(0.081)	(0.083)
Engineer	0.335*	0.306*	0.293*	0.324*	0.384*	0.330*	0.346*	0.397*	0.331*	0.325*	0.282*	0.289*	0.289*	0.280*	0.237*	0.212*	0.224*
	(0.026)	(0.022)	(0.022)	(0.021)	(0.021)	(0.020)	(0.019)	(0.016)	(0.015)	(0.014)	(0.013)	(0.014)	(0.014)	(0.014)	(0.012)	(0.011)	(0.012)
Agriculture	0.206*	0.141*	0.269*	0.285*	0.40*	0.311*	0.214*	0.306*	0.263*	0.229*	0.236*	0.159*	0.221*	0.174~	0.237*	0.149*	0.193*
	(0.059)	(0.034)	(0.056)	(0.069)	(0.062)	(0.045)	(0.049)	(0.040)	(0.044)	(0.043)	(0.048)	(0.045)	(0.044)	(0.078)	(0.032)	(0.043)	(0.026)
Medicine	0.202*	0.273*	0.289*	0.406*	0.354*	0.369*	0.281*	0.261*	0.388*	0.373*	0.240*	0.275*	0.229*	0.243*	0.303*	0.264*	0.192*
	(0.060)	(0.076)	(0.098)	(0.066)	(0.077)	(0.082)	(0.066)	(0.071)	(0.060)	(0.071)	(0.058)	(0.039)	(0.077)	(0.054)	(0.059)	(0.061)	(0.054)
Police	0.078~	0.145*	0.154*	0.120~	0.228*	0.219*	0.074*	0.154*	0.171*	0.275*	0.196*	0.242*	0.250*	0.321*	0.251*	0.254*	0.229*
	(0.033)	(0.049)	(0.033)	(0.047)	(0.048)	(0.038)	(0.045)	(0.059)	(0.044)	(0.042)	(0.031)	(0.035)	(0.048)	(0.026)	(0.027)	(0.029)	(0.033)
Education	0.215*	0.199*	0.285*	0.30*	0.287*	0.279*	0.358*	0.408*	0.289*	0.335*	0.277*	0.315*	0.343*	0.318*	0.302*	0.345*	0.342*
	(0.032)	(0.042)	(0.021)	(0.029)	(0.031)	(0.033)	(0.025)	(0.017)	(0.020)	(0.016)	(0.023)	(0.022)	(0.032)	(0.025)	(0.023)	(0.022)	(0.025)
Other	0.238~	0.267~	0.269~	0.305*	0.340*	0.216*	0.194~	0.399*	0.487*	0.308*	0.211*	0.256*	0.072~	0.343*	0.257*	0.060*	0.181~
	(0.110)	(0.107)	(0.107)	(0.069)	(0.069)	(0.061)	(0.089)	(0.080)	(0.091)	(0.074)	(0.057)	(0.090)	(0.069)	(0.062)	(0.077)	(0.053)	(0.079)

See text for complete description of regression specification.

Appendix C: Table 3
Coefficients on Interactions of University and Listed Degree Type, By Year
Males Only
(robust standard errors in parentheses, with p<0.05=~, p<0.01=*)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Literature	0.356*	0.377*	0.355*	0.362*	0.408*	0.435*	0.410*	0.501*	0.515*	0.447*	0.352*	0.408*	0.375*	0.372*	0.356*	0.351*	0.330*
	(0.043)	(0.046)	(0.030)	(0.033)	(0.027)	(0.028)	(0.033)	(0.031)	(0.026)	(0.031)	(0.031)	(0.034)	(0.030)	(0.026)	(0.033)	(0.023)	(0.030)
Law	0.452*	0.326*	0.437*	0.524*	0.527*	0.508*	0.593*	0.642*	0.566*	0.585*	0.475*	0.415*	0.357*	0.495*	0.439*	0.401*	0.412*
	(0.053)	(0.041)	(0.070)	(0.045)	(0.046)	(0.041)	(0.039)	(0.036)	(0.040)	(0.042)	(0.042)	(0.042)	(0.070)	(0.039)	(0.040)	(0.036)	(0.044)
Commerce	0.435*	0.439*	0.409*	0.502*	0.569*	0.527*	0.505*	0.602*	0.549*	0.547*	0.466*	0.447*	0.449*	0.447*	0.422*	0.399*	0.382*
	(0.031)	(0.029)	(0.034)	(0.026)	(0.025)	(0.026)	(0.024)	(0.023)	(0.030)	(0.024)	(0.022)	(0.022)	(0.024)	(0.019)	(0.020)	(0.023)	(0.021)
Science	0.453*	0.515*	0.497*	0.498*	0.546*	0.477*	0.520*	0.593*	0.576*	0.590*	0.544*	0.459*	0.479*	0.439*	0.449*	0.406*	0.388*
	(0.037)	(0.048)	(0.055)	(0.065)	(0.042)	(0.035)	(0.042)	(0.051)	(0.046)	(0.044)	(0.036)	(0.045)	(0.030)	(0.034)	(0.032)	(0.039)	(0.030)
Engineer	0.557*	0.531*	0.503*	0.502*	0.642*	0.596*	0.616*	0.631*	0.630*	0.589*	0.535*	0.536*	0.468*	0.508*	0.481*	0.466*	0.450*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Agriculture	0.413*	0.418*	0.425*	0.479*	0.587*	0.491*	0.492*	0.603*	0.610*	0.549*	0.498*	0.559*	0.336*	0.321*	0.554*	0.398*	0.365*
	(0.05)	(0.07)	(0.05)	(0.06)	(0.07)	(0.05)	(0.08)	(0.07)	(0.10)	(0.05)	(0.05)	(0.05)	(0.05)	(0.08)	(0.05)	(0.06)	(0.05)
Medicine	0.542*	0.730*	0.748*	0.636*	0.645*	0.80*	0.807*	0.846*	0.909*	0.876*	0.90*	0.809*	0.809*	0.780*	0.769*	0.681*	0.652*
	(0.08)	(0.08)	(0.06)	(0.08)	(0.07)	(0.08)	(0.07)	(0.07)	(0.09)	(0.06)	(0.06)	(0.06)	(0.07)	(0.08)	(0.06)	(0.05)	(0.06)
Police	0.322*	0.166*	0.30*	0.249*	0.392*	0.403*	0.443*	0.445*	0.380*	0.425*	0.387*	0.344*	0.366*	0.251*	0.334*	0.274*	0.392*
	(0.09)	(0.06)	(0.05)	(0.05)	(0.04)	(0.08)	(0.06)	(0.05)	(0.07)	(0.08)	(0.09)	(0.07)	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)
Education	0.314*	0.313*	0.261*	0.243~	0.489*	0.456*	0.429*	0.494*	0.420*	0.490*	0.429*	0.393*	0.414*	0.409*	0.384*	0.381*	0.425*
	(0.03)	(0.04)	(0.10)	(0.11)	(0.04)	(0.05)	(0.04)	(0.06)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)
Other	0.196~	0.464*	0.116*	0.436*	0.811*	0.415*	0.391*	0.441*	0.371*	0.550*	0.328*	0.388*	0.488*	0.345*	0.435*	0.302*	0.365*
	(0.08)	(0.13)	(0.12)	(0.12)	(0.13)	(0.09)	(0.06)	(0.07)	(0.11)	(0.18)	(0.05)	(0.09)	(0.08)	(0.06)	(0.09)	(0.07)	(0.05)

See text for complete description of regression specification.