A Student's Dilemma: Is There a Trade-Off Between a Higher Salary or Higher GPA

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Abstract:

While students typically want to earn high grades in college, they also, and perhaps even more so, want to earn high salaries after graduating college. In this paper, we explore whether there is a relationship between average grades earned in classes and the future salaries earned by graduates with the major associated with that course. Using student level data from a selective private liberal arts college, we find an inverse relationship between grades in courses offered by different departments and the national average mid-career salaries of college graduates from these majors. This suggests students face a trade-off between current grades while in college versus higher expected earnings in the future. Furthermore, students with low Math SAT scores are likely to get much worse grades in majors with higher salaries and students with low Verbal SAT scores are likely to get higher grades in majors with higher salaries, even after controlling for whether the individual is an international student. Finally, the advantage that females have over males in average course grade diminishes significantly in majors with higher salaries.

*Names of authors are arranged in alphabetical order

A22, I21, J31

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1. Introduction

A college student is confronted by an almost overwhelming set of decisions with regard to the major or majors they select and the courses in which to enroll. A student is likely drawn to particular majors and courses based on factors such as potential career opportunities, expected grades in the classes, parental expectations of grades and majors, purely intellectual interest in the subject, and previous knowledge about a course or professor from personal experience or the views of others. In addition, academic departments may compete with one another for students (Achen and Courant, 2009). Departments with less attractive career opportunities or lower enrollments may feel pressure to give higher grades to attract students while departments associated with relatively high expected future earnings or a surplus of students may actively try to discourage potential majors by giving lower grades. This incentive may be particularly strong in gateway courses to the major, which are typically introductory or intermediate level courses.

Using ten academic years of data from a selective liberal arts college, we examine the relationship between median midcareer earnings of graduates by major and the individual student course grades in classes within that major. The data allow us to control for a rich set of determinants of grades such as students' Math and Verbal SAT scores, demographic characteristics, and the course level. In addition, we control for faculty fixed effects and year fixed effects. As a robustness check, we also control for student fixed effects. This allows us to show that even after controlling for observed and unobserved student characteristics, the relationship between individual student grades and the median salary still holds. The results suggest that majors with higher median midcareer salaries are related to students receiving lower grades. The effects are heterogeneous and specifically appear to have a stronger effect on

women. Female students enjoy a large GPA advantage over males in low salary majors, but a very small advantage in majors with high midcareer salaries. The paper proceeds as follows. We first discuss the existing literature on grade determination. We then turn to describing our data, followed by a section discussing our empirical model and the results. Finally, we offer a conclusion.

2. Background and Literature Review

Previous literature has highlighted the importance of expected future earnings for influencing an individual's choice of major in college (Montmarquette et. al., 2002). Some papers have emphasized the importance of initial salary in the choice of major (for example, Freeman, 1975), while other papers such as Berger (1998) showed that future earning potential is more important for the choice of major than the initial starting salary. Berger (1998), using Data from the National Longitude Survey of Young Men, showed that, after controlling for other relevant factors, individuals are more likely to choose a major with greater streams of future earnings rather than majors that offer higher initial earnings. In a similar study, Arcidiacono et. al. (2012) surveyed male students at Duke University about their subjective expectations of earnings in different careers conditional on their own and other majors. Their simulation results suggest that equalizing earnings across majors would increase the number of students who would major in humanities.

Student ability has also been found to play a role in the choice of major. While a significant number of students enter college intending to major in science, many elect to change their majors

subsequently after taking courses and gaining additional information regarding their academic abilities in the subject area (Stinebrickner and Stinebrickner, 2013). Arcidiacono et. al. (2012) report that hypothetically equalizing student abilities would lead to a substantial increase in the number of students majoring in economics and a reduction in the number majoring in humanities.

Montmarquette et. al. (2002) showed that in addition to expected earnings the choice of major also depends on other factors such as gender, the amount of educational loans, the number of siblings in college or having completed college. Males are more like to choose science majors. Educational loans are more likely to make a student choose education or liberal arts instead of business or sciences. The more the number of siblings currently in college and having the oldest sibling complete college increases the likelihood of selecting science and business majors. In addition to the student's own preferences, the preferences of their parents also influence the choice of major (Zafar, 2012).

There is also a large literature which examines determinants of grades for individual students. Many empirical papers have found a positive effect of demonstrated previous academic achievement or academic preparation for college as measured by high school GPA or SAT scores (for example see Cohn et al., 2004; and Bradley, et al., 2004). Other papers have focused on the role of fellow college students such as their roommates (Sacerdote, 2001; Stinebrickner and Stinebrickner, 2006) and peers in their classes (Carrell et. al, 2009; Lyle 2009). Class characteristics such as class size (Bandiera et al., 2010; Diette and Raghav, 2014; Kokkelenberg et al., 2008) and the class' time of day (Dills and Hernandez, 2008) have been found to influence

course grades as well. Student grades increase if they attend class (Cohn and Johnson, 2006) or increase time studying (Stinebrickner and Stinebricker, 2008). In addition, Achen and Courant (2009) propose several hypotheses for reasons for systematic differences in grades by major. These include: (1) required courses have lower grades; (2) courses with subjective material will tend to have higher grades; (3) upper-level courses have higher grades; and finally (4) departments struggling to attract majors will have higher grades.

However, other factors likely influence the decision such as the ease of getting good grades and the perceived difficulty of the major. Academic departments associated with lower salary prospects may feel pressured to attract students to major in their discipline. They may implicitly attempt to try to draw students, by having a more generous grading standard or alternatively be concerned that awarding lower grades would push students out of the major. Students may also attracted to majors where earning higher grades is easier because of the prestige, praise, and approval from peers, honor societies, deans, and parents that come with high GPAs. In addition, these grades can be earned at a lower cost of time and effort; enabling them to have more time to pursue extracurricular and social activities. Furthermore, in some career paths such as becoming a lawyer, getting a high GPA in college is at least as important as the choice of major to get admission to a good law school. So many students may choose majors where they are more likely to get a higher GPA instead of choosing a major, where if they do well, they are more likely to earn higher salaries down the road.

We test an alternative hypothesis in this paper: departments that offer students the prospect of higher earnings will have lower grades. We propose that expected future earnings will influence

grades through the last of the four channels suggested by Achen and Courant (2009). All else equal, majors with higher median midcareer salaries will attract students. Most students are typically aware of national average salary differences across majors before they declare their major. Information regarding expected starting and midcareer salaries is readily available from a variety of sources ranging from anecdotal evidence to free data published by companies such as PayScale and cited in popular press articles on the returns to education.[1] As a result, these majors or departments are more likely to see high demand for their major and have little pressure to increase grades and may face pressure to lower grades to push students away.

3. Data

We obtained data from a selective private liberal arts college on the condition that the school remains anonymous. The data are from the academic years of 1996-97 to 2007-08 and include every individual grade earned by all students enrolled during this time period and a rich set of course, student, and faculty characteristics. The student characteristics are available for students who enroll between 1996 and 2008.[2] Our information about national median salaries of different majors comes from a survey conducted by the website of PayScale and is publicly available on their website. One of the attractive features of this survey is that it includes salaries of people with bachelor's degree only. This allows for a clear comparison of the earning potential of only the bachelor's degree. If we included individuals with graduate degrees then we would be unable to identify what portion of earnings is due to the undergraduate major relative to the graduate

[1] For an example of a popular press article see the following accessed on June 10, 2014: http://online.wsj.com/public/resources/documents/info-Degrees_that_Pay_you_Back-sort.html

[2] Therefore we do not have student characteristics for the students enrolled in the fall of 1996 who were enrolled in previous semesters. As a result, our data contains an oversample of first-year students as the 1996-97 school year only contain student characteristics for the first-year students and any transfer students. The data contain the grades for all students and therefore we are still able to determine class size.

degree. Based on the research by Bergen (2012) suggesting the dominant role of midcareer salaries over starting salaries, we elect to use mid-career salaries in our analysis.[3]

<<INSERT TABLE 1 HERE>>

Table 1 shows the descriptive statistics of the quantitative variables. Grade point is the grade earned by an individual student in an individual course in a semester. Grades at this institution range in point value from 0 for an "F" to 4.33 for an "A+." The average grade points earned on this scale was 3.24 and the median was 3.33. This implies that the distribution of grades was negatively skewed. According to another study (Rojstaczer and Healy, 2012), the average college GPA for private colleges is 3.3. Therefore, the college in this study is quite similar to other private colleges with only a slightly lower average grade. The PayScale national mid-career median salary of each major was matched to major associated with each course in the data. The mid-career median salary has a mean value of 53,892 dollars and median of 50,000 dollars. The maximum of the mid-career salaries is 98,600 dollars and the minimum is 52,000 dollars. The distribution of mid-career median salary is positively skewed.

Math and Verbal SAT scores have the same mean of 675 and median of 680 reflecting the fact that the school is highly selective. As is typical of a liberal arts college, the class sizes are fairly small. The average class size is 20.5 and the median class size is 20 students.

<<INSERT TABLE 2 HERE>>

[3] For a robustness check, we also estimated the models using the initial starting salaries. The results are qualitatively the same.

Table 2 shows frequency distributions of important categorical variables used in this study. Roughly 46 percent of students in our study are females and 97 percent of students are from the United States. The academic calendar at the institution is divided into three unequal semesters. Two semesters are each 12 weeks in length and the third semester is a short semester where students only take one or two courses. In the short semester, students either take on-campus courses or travel to take experiential off-campus courses. To avoid inadvertently identifying the institution, we will use names of first semester, second semester, and short semester for these semesters instead of names used for these semesters at this institution. About 43 percent of student grades used in our study came from the first semester, about 41 percent from the second semester, and approximately 15 percent from the semester. The courses used in our study are designated 100, 200, 300, and 400-level courses. 400-level courses consist mostly of seminars and independent studies. About 52% of observations are from 100-level courses, 26% from 200-level courses, 20% from 300-level courses, and roughly 2% are 400-level courses. We exclude physical education courses, students with missing SAT scores, and courses associated with majors which were not available from PayScale.

4. Empirical Model and Results

The regression equation can be represented by equation (1).

$$(1)\ Grade_{isdft} = \alpha_1 + \beta_1 Major\ Salary_d + B_2 Student_{it} + \beta_3 Section_t + \varphi_f + \rho_t + \mu_{isdft}$$

We estimate variations of the model specified in equation (1) for the grade earned in a class by individual *i* in section *s* in department *d* with faculty member *f* in term *t*. *Major Salary* is the

PayScale national mid-career median salary associated with the major that matches to the course. β_1 is our primary coefficient of interest. In addition, *Student* represents a vector of time invariant student characteristics including gender, whether they are an international student, SAT Math score, and SAT Verbal score as well as the time variant student characteristic of their classification as a freshman, sophomore, junior, or senior. Some specifications include an indicator for Low SAT Math score and Low SAT Verbal score. A student is categorized as having a low SAT math or low SAT verbal if their SAT math or SAT verbal scores were in the bottom quartile of these test scores for all the students enrolled. Given that this is a highly selective college, even the bottom quartile SAT scores of this college are not necessarily low when compared to other colleges and universities. *Section* is a vector of course section characteristics including the semester of the course, the level of course, and the number of students in the class awarded a grade for the class. We include faculty fixed effects, φ_f, to account for different grading standards used by different faculty members and other faculty level idiosyncrasies. Finally, we include year fixed effects, ρ_t, to account for changing norms in the distribution of grades across time, such as grade inflation, as well as events that may occur and influence student grades such as a student death during the school year.

<<INSERT TABLE 3 HERE>>

Table 3 shows regression results from specifications without any interaction terms. All regressions in Table 3 are linear with robust standard errors. The regression generating the coefficient estimates in column (1) include the faculty fixed effects and in column (2) year fixed effects. Both faculty and year fixed effects are included in all subsequent regressions. The

specification in column (3) excludes the indicator variables for Low SAT Math and Low SAT Verbal score and column (4) includes these indicator variables as well as the faculty and year fixed effects. All regression specifications generate a negative and statistically significant coefficient estimate for the median salary variable. Thus the results suggest that departments with higher mid-career median salaries on average give lower grades after controlling for observable student characteristics and faculty fixed effects. The coefficient estimate of -0.002 suggests that moving from the lowest to highest paying major lower a student's grade by approximately 0.09 grade points or 12.2 percent of a standard deviation in grade points.

<<INSERT TABLE 4 HERE>>

The relationship between mid-career salaries and grades may be heterogeneous across observable student or course characteristics. For example, if departments have an incentive to deter students from entering, they may only give low grades introductory or intermediate level classes (100 and 200 level courses in our data). To test whether these marginal effects vary by characteristic, we interact mid-career salaries and selected student and course characteristics in Table 4. Some students may not face a trade-off between higher grades and high mid-career salaries. Regression (1) in Table 4 shows that female students, who far outperform their male counterparts on average, lose some of their advantage in courses associated with higher salaries even after controlling for SAT Math and Verbal scores. One reason could be that many of the majors with higher salaries also have a higher proportion of male students. So it is possible that female students may have a relative disadvantage in peer support from other students in these classes. The results in column (3) suggest that that those with relatively low SAT Math scores

are much more likely to get lower grades in courses offered by departments that have higher mid-career salaries. Given the importance of math aptitude in many majors with higher salaries, this result is rather intuitive. Also, even after controlling for whether or not a student is an international student or not, students with low SAT Verbal scores are likely to do relatively better in majors with higher salaries.

<<INSERT TABLE 5 HERE>>

There is the potential that unobservable student characteristics influence which courses students decide to take. Table 5 provides coefficient estimates from regressions with student fixed effects. All these regressions find that the coefficient of salary is highly statistically significant, has a negative sign, and the magnitude is larger than in the prior specifications. Therefore, the higher the average mid-career salary that students who major from a department can expect to earn, the lower the grade of a student taking a course offered by a faculty member from that department. This shows even after controlling for student fixed effects, there is a negative relationship between the average salaries of majors and the grades they are expected to get in a course.

<<INSERT TABLE 6 HERE>>

In Table 6, we provide predictions for average grade points earned across a range of national median salaries for the major vary from $40,000 to $110,000 under different scenarios. The overall predicted GPA falls from 3.27 for $40,000 to 3.15 for $110,000 based on the estimates from column 5 in Table 4—only a modest association between the grade points and median

midcareer earnings. The change is more dramatic for students with a low SAT score, defined as lying within the bottom quartile of SAT scores of students at this institution. The predicted grade points earned in a specific class falls from 3.42 to 2.98—over half of a standard deviation—as salaries vary from $40,000 to $110,000. For female students only, the drop in predicted GPA is from 3.42 to 3.16.

Conclusion

Academic departments within colleges and universities compete with one another for students and use different methods to influence the number of students in their major. One of the available techniques is to influence students by altering ease of getting a particular grade in courses offered by the department. This study shows that after controlling for other factors such as student SAT Math and Verbal scores, courses offered by departments where students are likely to earn less in their lifetimes are more likely to have higher grades. This may be the result these departments attempting to attract students. Therefore, students appear to face a trade-off between earning higher grades and future career earnings. For students with higher SAT scores—a proxy for high relative ability—the cost of majoring in an area with higher future career earnings appears to be low. On the other hand, students in the bottom quartile of SAT scores face a much larger trade-off.

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Table 1: Summary Statistics of Quantitative Variables

Variables	Mean	Standard Deviation	25th Percentile	Median	75th Percentile	Min	Max	Observations
Grade Point	3.21	0.766	3	3.33	3.67	0	4.33	124947
Median Salary	74.4	14.6	64.7	71	81.2	52	98.6	124947
Math SAT	675	58.7	640	680	710	430	800	124947
Verbal SAT	675	62.6	640	680	720	360	800	124947
Class Size	21.5	11.6	15	20	25	1	112	124947

Note: Median salary is the mid-career salary for the major that offers the course and it is measured in thousands of dollars.

Table 2: Frequency Distribution of Categorical Variables

Variable	Variable Categories	Frequency	Percent
Sex			
	Female	56,937	45.57
	Male	68,010	54.43
	Total	124,947	100
International			
	No	120,856	96.73
	Yes	4,091	3.27
	Total	124,947	100
Academic Standing			
	Freshman	40,966	32.79
	Sophomore	34,844	27.89
	Junior	26,676	21.35
	Senior	22,461	17.98
	Total	124,947	100
Semester			
	First Semester	53,663	42.95
	Second Semester	51,902	41.54
	Short Semester	19,382	15.51
	Total	124,947	100
Course Level			
	100-Level	64,803	51.86
	200-Level	31,826	25.47
	300-Level	25,512	20.42
	400-Level	2,806	2.25
	Total	124,947	100

Table 3:

	(1)	(2)	(3)	(4)
Median Salary	-0.002***	-0.003***	-0.002***	-0.002***
	(0.001)	(0.000)	(0.001)	(0.001)
International Student	0.111***	0.132***	0.109***	0.108***
	(0.013)	(0.013)	(0.013)	(0.013)
Male	-0.150***	-0.156***	-0.148***	-0.148***
	(0.004)	(0.004)	(0.004)	(0.004)
Class Size	-0.004***	-0.004***	-0.004***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.000)
SAT Math	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Low SAT Math	0.001	0.005		0.003
	(0.007)	(0.007)		(0.007)
SAT Verbal	0.002***	0.002***	0.001***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Low SAT Verbal	0.027***	0.032***		0.029***
	(0.007)	(0.007)		(0.007)
Second Semester	0.006	0.022***	0.007	0.007
	(0.004)	(0.005)	(0.004)	(0.004)
Short Semester	0.120***	0.175***	0.120***	0.120***
	(0.006)	(0.006)	(0.006)	(0.006)
Sophomore	0.084***	0.120***	0.078***	0.078***
	(0.006)	(0.006)	(0.006)	(0.006)
Junior	0.108***	0.174***	0.098***	0.098***
	(0.007)	(0.007)	(0.007)	(0.007)
Senior	0.107***	0.187***	0.096***	0.096***
	(0.007)	(0.007)	(0.008)	(0.008)
200-level course	0.080***	-0.010	0.078***	0.078***
	(0.006)	(0.006)	(0.006)	(0.006)
300-level course	0.188***	0.043***	0.186***	0.185***
	(0.007)	(0.007)	(0.007)	(0.007)
400-level course	0.483***	0.392***	0.480***	0.480***
	(0.013)	(0.012)	(0.013)	(0.013)
Constant	1.030***	0.916***	1.038***	0.931***
	(0.068)	(0.051)	(0.060)	(0.070)
Year Fixed-Effects	No	Yes	Yes	Yes
Faculty Fixed-Effects	Yes	No	Yes	Yes
Observations	124,947	124,947	124,947	124,947
R-squared	0.186	0.101	0.187	0.187

Notes: Grade point earned by an individual student in an individual course is the dependent variable. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All regressions are linear regressions. The median salary is the mid-career salary of the department/major that offers the course and is measured in thousands of dollars.

Table 4:

	(1)	(2)	(3)	(4)	(5)
Median Salary	-0.004***	-0.002***	-0.000	-0.002***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
International Student	0.109***	0.108***	0.112***	0.108***	0.111***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Male	-0.396***	-0.148***	-0.149***	-0.149***	-0.356***
	(0.021)	(0.004)	(0.004)	(0.004)	(0.021)
Class Size	-0.004***	-0.004***	-0.004***	-0.005***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SAT Math	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Low SAT Math	0.004	0.003	0.460***	0.003	0.444***
	(0.007)	(0.007)	(0.024)	(0.007)	(0.025)
SAT Verbal	0.002***	0.002***	0.001***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Low SAT Verbal	0.029***	0.054**		0.029***	-0.013
	(0.007)	(0.026)		(0.007)	(0.027)
Second Semester	0.006	0.007	0.006	0.006	0.006
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Short Semester	0.120***	0.120***	0.121***	0.120***	0.121***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Sophomore	0.079***	0.078***	0.078***	0.079***	0.080***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Junior	0.099***	0.098***	0.099***	0.099***	0.101***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Senior	0.097***	0.096***	0.096***	0.097***	0.098***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
200-level Course	0.074***	0.078***	0.074***	0.095***	0.091***
	(0.006)	(0.006)	(0.006)	(0.028)	(0.028)
300-level Course	0.181***	0.185***	0.180***	0.092***	0.095***
	(0.007)	(0.007)	(0.007)	(0.033)	(0.033)
400-level Course	0.475***	0.480***	0.476***	0.280***	0.274***
	(0.013)	(0.013)	(0.013)	(0.066)	(0.066)
Median Salary*200-level Course				-0.000	-0.000
				(0.000)	(0.000)
Median Salary*300-level Course				0.001***	0.001**
				(0.000)	(0.000)
Median Salary*400-level Course				0.003***	0.003***
				(0.001)	(0.001)
Median Salary*Males	0.003***				0.003***
	(0.000)				(0.000)
Median Salary*Low SAT Verbal		-0.000			0.001*
		(0.000)			(0.000)
Median Salary*Low SAT Math			-0.006***		-0.006***
			(0.000)		(0.000)
Constant	1.056***	0.926***	0.906***	0.961***	0.951***
	(0.070)	(0.070)	(0.066)	(0.072)	(0.072)
Year Fixed-Effects	Yes	Yes	Yes	Yes	Yes
Faculty Fixed-Effects	Yes	Yes	Yes	Yes	Yes
Observations	124,947	124,947	124,947	124,947	124,947
R-squared	0.188	0.187	0.189	0.187	0.190

Notes: Grade point earned by an individual student in an individual course is the dependent variable. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All regressions are linear. The median salary is the mid-career salary of the department/major that offers the course and it is measured in thousands of dollars.

Table 5:

	(1)	(2)	(3)	(4)
Median Salary	-0.003***	-0.004***	-0.003***	-0.003***
	(0.001)	(0.000)	(0.001)	(0.001)
Class Size	-0.004***	-0.004***	-0.004***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.000)
Second Semester	-0.004	0.016***	-0.004	-0.004
	(0.004)	(0.004)	(0.004)	(0.004)
Short Semester	0.138***	0.191***	0.138***	0.138***
	(0.005)	(0.005)	(0.005)	(0.005)
Sophomore	0.083***	0.046*	0.015	0.015
	(0.005)	(0.024)	(0.023)	(0.023)
Junior	0.140***	0.049	0.006	0.006
	(0.006)	(0.048)	(0.046)	(0.046)
Senior	0.148***	-0.001	-0.052	-0.052
	(0.007)	(0.071)	(0.069)	(0.069)
200-level Course	0.040***	-0.048***	0.040***	0.083***
	(0.005)	(0.005)	(0.005)	(0.024)
300-level Course	0.115***	-0.003	0.115***	0.087***
	(0.006)	(0.006)	(0.006)	(0.029)
400-level Course	0.341***	0.238***	0.341***	0.267***
	(0.012)	(0.012)	(0.012)	(0.062)
Median Salary*200-level Course				-0.001*
				(0.000)
Median Salary*300-level Course				0.000
				(0.000)
Median Salary*400-level Course				0.001
				(0.001)
Constant	3.458***	3.250***	3.356***	3.353***
	(0.100)	(0.119)	(0.118)	(0.119)
Year Fixed-Effects	No	Yes	Yes	Yes
Faculty Fixed-Effects	Yes	No	Yes	Yes
Student Fixed-Effects	Yes	Yes	Yes	Yes
Observations	124,947	124,947	124,947	124,947
R-squared	0.468	0.391	0.468	0.468

Notes: Grade point earned by an individual student in an individual course is the dependent variable. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The median salary is the mid-career salary of the department/major that offers the course and is measured in thousands of dollars.

Table 6: Prediction of Grades as Salaries Vary

Salary	Overall Predicted GPA (1)	Female (2)	Male (3)	Low SAT Verbal (4)	Low SAT Math (5)
$40,000	3.27	3.41	3.16	3.42	3.28
$50,000	3.25	3.37	3.15	3.36	3.27
$60,000	3.23	3.34	3.15	3.29	3.25
$70,000	3.21	3.30	3.14	3.23	3.24
$80,000	3.19	3.27	3.13	3.17	3.22
$90,000	3.18	3.23	3.13	3.10	3.21
$100,000	3.16	3.20	3.12	3.04	3.19
$110,000	3.14	3.16	3.11	2.98	3.18

Notes: Predicted values are based on column (5) of Table 4. All independent variables other than the ones mentioned are kept at their mean value.