

## APPENDIX C.

### **Linear Regression Modeling: Course No-Pass Rates**

*Prepared by:*

*Kelly Wahl*

*Statistical Analysis - Office of Academic Planning and Budget*

*With support from:*

*Erin R. Sanders and Tracy Teel*

*Center for Education Innovation & Learning in the Sciences*

### **Overview**

Given that our overall analyses revealed variation across campus in no-pass (NP) rates, our next step was to examine the structural characteristics associated with course offering NP rates among student groups. Statistical models were developed to explore interrelationships among course characteristics, their contributions to overall course offering NP rates, and other factors. In this appendix, we present a long series of linear regression models testing the association of factors with overall course offering NP rates and with NP rates of demographic groups of interest. The first factor that emerges is the performance of all other students. In other words, courses with overall high NP rates also have high NP rates for focal student groups, which would suggest that any improvements in the course may improve the success of all students. We also examined other factors such as academic discipline of course, secondary section size, and status of course instructor. Additional separate models were created for the academic disciplines and for each demographic subgroup of interest: URM/non-URM students, males/females, and Pell recipients/non-Pell recipients.

### **Data Analysis**

A series of linear regression models were created to describe the relationship of several course offering descriptors to the no-pass (NP) rates of course offerings that enrolled 50 or more students in the 2012-13 and 2013-14 academic years. Course offering NP rates were calculated both for all enrolled students and for particular demographic categories of students (focal groups), and were subjected to a log10 transformation to address issues with their distribution (skew and kurtosis). Any course offerings with an applicable NP rate of zero were excluded from the analysis.

A stepwise procedure was used to build each model, and the following variables were considered for inclusion in all models created:

- whether the course offering had a regular rank faculty member among its instructors;
- the course offering size (as a percentage of the largest course offering in the dataset);
- whether the course was among the lower division or upper division offerings.

Other variables, such as a dummy coding of academic discipline of the offering and a calculation of the average secondary section (i.e., laboratory or discussion section) size, were used when applicable, and the model summaries below indicate when they are present in the analysis. One set of linear regression models was created to include midterm and final exam performance data collected by the departmental Course Data Questionnaire (**Appendix F**).

Table C-1a lists the divisions/schools included in the analysis, categorized into broader disciplinary areas. Models accounting for the variance in no-pass rates by demographic group included only offerings that enrolled five or more members of the focal group and five or more members of its complementary group. Accompanying each model (designated *a* in each set) is a mean table (designated *b*), which contains descriptive statistics for the population used in the model. For the cases included in the linear regression analysis, these statistics summarize the central tendencies of the variables.

### Summary of Findings

The no-pass (NP) rates were best predicted when regression models used academic performance data, and specifically when the models regressed the NP rates of focal groups with their complements. The correlation was positive: when a focal group (e.g., URM students) had a high NP rate, its complement (e.g., non-URM students) demonstrated a high NP rate as well.

A considerably smaller amount of variance could be accounted for, generally, by the academic discipline of the course, the course level (i.e., lower or upper division course), the category of faculty teaching the course, the course offering size, or the secondary section size. While these characteristics loaded into selected models in a notably consistent manner, they did not build considerably on the amount of variance explained by the models with academic performance measures alone. Among the course grading data collected on the Course Data Questionnaire (**Appendix F**), the midterm scoring data had less explanatory power than the final examination percentiles.

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**Tables**

Table C-1a  
*List of Divisions/Schools by Broader Disciplinary Areas*

<b>Arts &amp; Humanities</b>
Arts and Architecture
Humanities
Theatre, Film, and Television
<b>Engineering, Life &amp; Physical Sciences</b>
Engineering and Applied Science
Life Sciences (excluding Psychology, including MIMG)
Physical Sciences
<b>Management, Social Sciences, &amp; Other Disciplines</b>
Education and Information Studies
Law
Life Sciences (Psychology only)
Management
Nursing
Public Affairs
Public Health
Social Sciences
UCLA International Institute
Undergraduate Education

Table C-1b  
*Legend for Variables Used in Linear Regression Models*

Overall No-Pass Rate	The log10 transformation of the no-pass rate per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
URM No-Pass Rate	The log10 transformation of the no-pass rate for URM students only per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
Non-URM No-Pass Rate	The log10 transformation of the no-pass rate for non-URM students only per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
Female No-Pass Rate	The log10 transformation of the no-pass rate for female students only per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
Male No-Pass Rate	The log10 transformation of the no-pass rate for male students only per offering (sum of D+,

	D, D-, F, NP, and U grades divided by the total number of grades awarded)
Pell Recipient No-Pass Rate	The log10 transformation of the no-pass rate for Pell Grant recipients only (in the term of enrollment) per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
Non-Pell Recipient No-Pass Rate	The log10 transformation of the no-pass rate for non-Pell Grant recipients only (in the term of enrollment) only per offering (sum of D+, D, D-, F, NP, and U grades divided by the total number of grades awarded)
Course in the Sciences	Discipline of the course subject is in the Basic Biomedical Sciences, Life Sciences, Physical Sciences, and Engineering and Applied Science
Course in the Social Sciences and Other Disc.	Discipline of the course subject is in all other areas of campus except Humanities, Arts and Architecture, and Theater, Film, and Television
Course Taught by Regular Rank Faculty	At least one of the course offering instructors is a regular rank faculty member (in any department)
Course Among Upper Division Offerings	Course number is between 100 and 199
Average Secondary Section Size	Average enrollment of all discussion/lab sections for the course offering divided by the largest average discussion/lab section size in the data set (105)
Course Offering Size	The enrollment of the course offering divided by the size of the largest course offering in the dataset (527)
Average Midterm Grade (Percentage)	Response to the survey item: “Grading information on first midterm: What was the number of points out of total points possible on this exam that corresponded to the mean score? Please provide raw scores, not the percentage-adjusted or normalized score. (e.g., mean was 50 out of 100 pts total).”
Average Final Exam Grade (Percentage)	Response to the survey item: “Grading information for final exam: What was the number of points out of total points possible on this exam that corresponded to the mean score? Again, please provide raw scores, not the percentage-adjusted or normalized score. (e.g., mean was 75 out of 100 pts total).”

Table C-2a

*Linear Regression Model for Course Offerings with Secondary Sections*  
*Dependent Variable: Overall No-Pass Rate*

Model	Predictor Variables	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1		--	--	--	0.19	0.04	--
	(Constant)	-1.46	0.01	--	--	--	--
	Course in the Sciences	0.15	0.02	0.19 ***	--	--	--
Step 2		--	--	--	0.20	0.04	0.005
	(Constant)	-1.50	0.02	--	--	--	--
	Course in the Sciences	0.20	0.02	0.25 ***	--	--	--
	Course in the Social Sciences and Other Disc.	0.08	0.03	0.09 **	--	--	--
Step 3		--	--	--	0.22	0.05	0.006
	(Constant)	-1.48	0.02	--	--	--	--
	Course in the Sciences	0.20	0.02	0.26 ***	--	--	--
	Course in the Social Sciences and Other Disc.	0.09	0.03	0.10 **	--	--	--
	Course Among Upper Division Offerings	-0.06	0.02	-0.08 **	--	--	--
Step 4		--	--	--	0.24	0.06	0.010
	(Constant)	-1.41	0.03	--	--	--	--
	Course in the Sciences	0.22	0.03	0.28 ***	--	--	--
	Course in the Social Sciences and Other Disc.	0.12	0.03	0.13 ***	--	--	--
	Course Among Upper Division Offerings	-0.10	0.02	-0.12 ***	--	--	--
	Course Offering Size	-0.26	0.06	-0.11 ***	--	--	--
Step 5		--	--	--	0.24	0.06	0.003
	(Constant)	-1.38	0.03	--	--	--	--
	Course in the Sciences	0.21	0.03	0.27 ***	--	--	--
	Course in the Social Sciences and Other Disc.	0.12	0.03	0.14 ***	--	--	--
	Course Among Upper Division Offerings	-0.09	0.02	-0.12 ***	--	--	--
	Course Offering Size	-0.27	0.06	-0.12 ***	--	--	--
	Course Taught by Regular Rank Faculty	-0.05	0.02	-0.06 *	--	--	--

*N*=1,758

Significance: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table C-2b

*Components of Linear Regression Model*

Variables	<i>Mean</i>	<i>SD</i>	<i>N</i>
Overall No-Pass Rate	-1.37	0.39	1,758
Course in the Sciences	0.55	0.50	
Course in the Social Sciences and Other Disc.	0.26	0.44	
Course Taught by Regular Rank Faculty	0.52	0.50	
Course Among Upper Division Offerings	0.41	0.49	
Average Secondary Section Size	0.25	0.12	
Course Offering Size	0.29	0.17	

Table C-3a

*Linear Regression Model for Course Offerings without Secondary Sections*  
*Dependent Variable: Overall No-Pass Rate*

Model	Predictor Variables	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1		--	--	--	0.21	0.05	--
	(Constant)	-1.65	0.04	--	--	--	--
	Course in the Social Sciences and Other Disc.	0.22	0.04	0.21 ***	--	--	--
Step 2		--	--	--	0.30	0.09	0.042
	(Constant)	-1.58	0.04	--	--	--	--
	Course in the Social Sciences and Other Disc.	0.23	0.04	0.23 ***	--	--	--
	Course Taught by Regular Rank Faculty	-0.16	0.03	-0.21 ***	--	--	--

*N*=518

Significance: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table C-3b

*Components of Linear Regression Model*

Variables	<i>Mean</i>	<i>SD</i>	<i>N</i>
Overall No-Pass Rate	-1.47	0.38	518
Course in the Sciences	0.05	0.23	
Course in the Social Sciences and Other Disc.	0.83	0.37	
Course Taught by Regular Rank Faculty	0.49	0.50	
Course Among Upper Division Offerings	0.89	0.32	
Average Secondary Section Size	0.00	0.00	
Course Offering Size	0.21	0.12	



Table C-4a

*Linear Regression Model for Course Offerings with Secondary Sections*  
*Dependent Variable: Overall No-Pass Rate*  
*Predictors Include: Midterm Academic Performance*  
*Predictors Exclude: Disciplinary Area*

Model	Predictor Variables	B	SE B	$\beta$	R	R <sup>2</sup>	$\Delta R^2$
Step 1		--	--	--	0.16	0.03	--
	(Constant)	-0.92	0.13	--	--	--	--
	Average Midterm Grade (Percentage)	-0.53	0.18	-0.16 **	--	--	--
Step 2		--	--	--	0.21	0.05	0.020
	(Constant)	-0.87	0.13	--	--	--	--
	Average Midterm Grade (Percentage)	-0.54	0.18	-0.16 **	--	--	--
	Course Taught by Regular Rank Faculty	-0.11	0.04	-0.14 **	--	--	--
Step 3		--	--	--	0.24	0.06	0.014
	(Constant)	-1.02	0.15	--	--	--	--
	Average Midterm Grade (Percentage)	-0.48	0.18	-0.14 **	--	--	--
	Course Taught by Regular Rank Faculty	-0.11	0.04	-0.14 **	--	--	--
	Average Secondary Section Size	0.47	0.21	0.12 *	--	--	--

N=355

Significance: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table C-4b

*Components of Linear Regression Model*

Variables	Mean	SD	N
Overall No-Pass Rate	-1.30	0.38	355
Course Taught by Regular Rank Faculty	0.45	0.50	
Course Among Upper Division Offerings	0.39	0.49	
Average Secondary Section Size	0.24	0.10	
Course Offering Size	0.38	0.19	
Average Midterm Grade (Percentage)	0.72	0.11	

Table C-5a

*Linear Regression Model for Course Offerings with Secondary Sections*  
*Dependent Variable: Overall No-Pass Rate*  
*Predictors Include: Final Examination Academic Performance*  
*Predictors Exclude: Disciplinary Area*

Model	Predictor Variables	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1		--	--	--	0.29	0.09	--
	(Constant)	-0.56	0.13	--	--	--	--
	Average Final Exam Grade (Percentage)	-1.05	0.18	-0.29 ***	--	--	--
Step 2		--	--	--	0.32	0.10	0.015
	(Constant)	-0.50	0.13	--	--	--	--
	Average Final Exam Grade (Percentage)	-1.01	0.18	-0.28 ***	--	--	--
	Course Offering Size	-0.23	0.09	-0.12 *	--	--	--
Step 3		--	--	--	0.34	0.12	0.016
	(Constant)	-0.45	0.13	--	--	--	--
	Average Final Exam Grade (Percentage)	-0.98	0.18	-0.27 ***	--	--	--
	Course Offering Size	-0.29	0.10	-0.15 **	--	--	--
	Course Taught by Regular Rank Faculty	-0.11	0.04	-0.13 **	--	--	--

*N*=383

Significance: \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table C-5b

*Components of Linear Regression Model*

Variables	<i>Mean</i>	<i>SD</i>	<i>N</i>
Overall No-Pass Rate	-1.31	0.40	383
Course Taught by Regular Rank Faculty	0.43	0.50	
Course Among Upper Division Offerings	0.37	0.48	
Average Secondary Section Size	0.24	0.09	
Course Offering Size	0.39	0.21	
Average Final Exam Grade (Percentage)	0.71	0.11	

Table C-6a

*Linear Regression Models for Course Offerings with Secondary Sections Disaggregated by Discipline*  
*Dependent Variable: Overall No-Pass Rate*

Disciplinary									
Area	Model	Predictor Variables	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	
Arts & Humanities <sup>a</sup>	Step 1		--	--	--	0.14	0.02	--	
		(Constant)	-1.44	0.03	--	--	--	--	
		Course Offering Size	-0.25	0.10	-0.14 *	--	--	--	
	Step 2		--	--	--	0.19	0.04	0.019	
		(Constant)	-1.39	0.04	--	--	--	--	
		Course Offering Size	-0.32	0.11	-0.17 **	--	--	--	
		Course Among Upper Division Offerings	-0.10	0.04	-0.14 *	--	--	--	
Engineering Life & Physical Sciences <sup>b</sup>	Step 1		--	--	--	0.12	0.02	0.015	
		(Constant)	-1.22	0.03	--	--	--	--	
		Course Offering Size	-0.29	0.08	-0.12 ***	--	--	--	
	Step 2		--	--	--	0.18	0.03	0.017	
		(Constant)	-1.12	0.04	--	--	--	--	
		Course Offering Size	-0.47	0.09	-0.20 ***	--	--	--	
		Course Among Upper Division Offerings	-0.12	0.03	-0.15 ***	--	--	--	
Management Social Sciences & Other Disciplines <sup>c</sup>	Step 1		--	--	--	0.22	0.05	0.047	
		(Constant)	-1.30	0.03	--	--	--	--	
		Course Taught by Regular Rank Faculty	-0.19	0.04	-0.22 ***	--	--	--	
	Step 2		--	--	--	0.24	0.06	0.011	
		(Constant)	-1.26	0.04	--	--	--	--	
		Course Among Upper Division Offerings	-0.08	0.04	-0.11 *	--	--	--	
		Course Taught by Regular Rank Faculty	-0.18	0.04	-0.21 ***	--	--	--	
	Step 3		--	--	--	0.26	0.07	0.010	
		(Constant)	-1.42	0.08	--	--	--	--	
		Course Among Upper Division Offerings	-0.08	0.04	-0.10 *	--	--	--	
	Course Taught by Regular Rank Faculty	-0.16	0.04	-0.19 ***	--	--	--		
		Average Secondary Section Size	0.72	0.32	0.10 *	--	--	--	

<sup>a</sup> *N*=323

<sup>b</sup> *N*=974

<sup>c</sup> *N*=461

Significance: \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table C-6b

*Components of Linear Regression Model*

Disciplinary Area		<i>Mean</i>	<i>SD</i>	<i>N</i>
Arts & Humanities	Overall No-Pass Rate	-1.50	0.31	323
	Course in the Sciences	0.00	0.00	
	Course in the Social Sciences and Other Disc.	0.00	0.00	
	Course Taught by Regular Rank Faculty	0.55	0.50	
	Course Among Upper Division Offerings	0.30	0.46	
	Average Secondary Section Size	0.18	0.06	
	Course Offering Size	0.25	0.17	
Engineering, Life & Physical Sciences	Overall No-Pass Rate	-1.31	0.39	974
	Course in the Sciences	1.00	0.00	
	Course in the Social Sciences and Other Disc.	0.00	0.00	
	Course Taught by Regular Rank Faculty	0.44	0.50	
	Course Among Upper Division Offerings	0.41	0.49	
	Average Secondary Section Size	0.30	0.13	
	Course Offering Size	0.29	0.16	
Management, Social Sciences & Other Disciplines	Overall No-Pass Rate	-1.42	0.40	461
	Course in the Sciences	0.00	0.00	
	Course in the Social Sciences and Other Disc.	1.00	0.00	
	Course Taught by Regular Rank Faculty	0.68	0.47	
	Course Among Upper Division Offerings	0.48	0.50	
	Average Secondary Section Size	0.20	0.06	
	Course Offering Size	0.33	0.17	

Table C-7a

*Linear Regression Model for Course Offerings without Secondary Sections Disaggregated by Discipline*  
*Dependent Variable: Overall No-Pass Rate*

Disciplinary Area	Model	Predictor Variables	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Management	Step 1		--	--	--	0.24	0.06	--
Social Sciences & Other Disciplines <sup>a</sup>		(Constant)	-1.34	0.03	-- ***	--	--	--
		Course Taught by Regular Rank Faculty	-0.18	0.04	-0.24 ***	--	--	--
	Step 2		--	--	--	0.27	0.07	0.015
		(Constant)	-1.17	0.07	-- ***	--	--	--
		Course Taught by Regular Rank Faculty	-0.18	0.04	-0.24 ***	--	--	--
		Course Among Upper Division Offerings	-0.19	0.07	-0.12 **	--	--	--

*Note:* Course offerings without secondary sections and with overall no-pass rates > 0 in other disciplinary areas had population sizes (*N*) too small for separate disciplinary area modeling (each with *N* < 60).

<sup>a</sup> *N*=431

Significance: \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table C-7b

*Components of Linear Regression Model*

Disciplinary Area		<i>Mean</i>	<i>SD</i>	<i>N</i>
Management, Social Sciences & Other Disciplines	Overall No-Pass Rate	-1.43	0.38	431
	Course in the Sciences	0.00	0.00	
	Course in the Social Sciences and Other Disc.	1.00	0.00	
	Course Taught by Regular Rank Faculty	0.50	0.50	
	Course Among Upper Division Offerings	0.93	0.26	
	Average Secondary Section Size	0.00	0.00	
	Course Offering Size	0.21	0.12	

Table C-8a

*Linear Regression Models for Course Offerings with Secondary Sections Disaggregated by Discipline*  
*Dependent Variable: URM No-Pass Rate*  
*Predictors Include: Non-URM No-Pass Rate*

Disciplinary Area	Model	Predictor Variables	B	SE B	$\beta$	R	R <sup>2</sup>	$\Delta R^2$
Arts & Humanities <sup>a</sup>	Step 1		--	--	--	0.24	0.06	--
		(Constant)	-1.05	0.04	--	--	--	--
		Course Offering Size	-0.42	0.11	-0.24 ***	--	--	--
	Step 2		--	--	--	0.34	0.12	0.060
		(Constant)	-0.81	0.07	--	--	--	--
		Course Offering Size	-0.43	0.11	-0.25 ***	--	--	--
		Non-URM No-Pass Rate	0.15	0.04	0.25 ***	--	--	--
	Step 3		--	--	--	0.38	0.14	0.024
		(Constant)	-0.76	0.08	--	--	--	--
		Course Offering Size	-0.51	0.11	-0.29 ***	--	--	--
		Non-URM No-Pass Rate	0.14	0.04	0.24 ***	--	--	--
		Course Among Upper Division Offerings	-0.12	0.05	-0.16 *	--	--	--
Engineering Life & Physical Sciences <sup>b</sup>	Step 1		--	--	--	0.58	0.33	--
		(Constant)	-0.29	0.04	--	--	--	--
		Non-URM No-Pass Rate	0.45	0.03	0.58 ***	--	--	--
	Step 2		--	--	--	0.59	0.35	0.021
		(Constant)	-0.21	0.04	--	--	--	--
		Course Offering Size	-0.30	0.07	-0.15 ***	--	--	--
		Non-URM No-Pass Rate	0.44	0.03	0.56 ***	--	--	--
	Step 3		--	--	--	0.60	0.36	0.004
		(Constant)	-0.17	0.04	--	--	--	--
		Course Offering Size	-0.36	0.07	-0.18 ***	--	--	--
		Non-URM No-Pass Rate	0.44	0.03	0.56 ***	--	--	--
		Course Among Upper Division Offerings	-0.05	0.03	-0.07 *	--	--	--
Management Social Sciences & Other Disciplines <sup>c</sup>	Step 1		--	--	--	0.57	0.33	--
		(Constant)	-0.52	0.05	--	--	--	--
		Non-URM No-Pass Rate	0.40	0.03	0.57 ***	--	--	--
	Step 2		--	--	--	0.60	0.36	0.031
		(Constant)	-0.45	0.05	--	--	--	--
		Non-URM No-Pass Rate	0.39	0.03	0.55 ***	--	--	--
	Course Taught by Regular Rank Faculty	-0.14	0.03	-0.18 ***	--	--	--	

<sup>a</sup> N=223

<sup>b</sup> N=635

<sup>c</sup> N=362

Significance: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table C-8b

*Components of Linear Regression Model*

Disciplinary Area		<i>Mean</i>	<i>SD</i>	<i>N</i>
Arts & Humanities	URM No-Pass Rate	-1.17	0.30	223
	Course Taught by Regular Rank Faculty	0.59	0.49	
	Course Among Upper Division Offerings	0.24	0.43	
	Non-URM No-Pass Rate	-1.69	0.52	
	Average Secondary Section Size	0.18	0.06	
	Course Offering Size	0.27	0.18	
Engineering, Life & Physical Sciences	URM No-Pass Rate	-0.89	0.32	635
	Course Taught by Regular Rank Faculty	0.39	0.49	
	Course Among Upper Division Offerings	0.26	0.44	
	Non-URM No-Pass Rate	-1.34	0.42	
	Average Secondary Section Size	0.29	0.11	
	Course Offering Size	0.33	0.16	
Management, Social Sciences & Other Disciplines	URM No-Pass Rate	-1.12	0.38	362
	Course Taught by Regular Rank Faculty	0.65	0.48	
	Course Among Upper Division Offerings	0.44	0.50	
	Non-URM No-Pass Rate	-1.51	0.54	
	Average Secondary Section Size	0.20	0.06	
	Course Offering Size	0.34	0.17	

Table C-9a  
*Linear Regression Models for Course Offerings with Secondary Sections Disaggregated by Discipline*  
*Dependent Variable: Female No-Pass Rate*  
*Predictors Include: Male No-Pass Rate*

Disciplinary Area	Model	Predictor Variables	B	SE B	$\beta$	R	R <sup>2</sup>	$\Delta R^2$
Arts & Humanities <sup>a</sup>	Step 1		--	--	--	0.33	0.11	--
		(Constant)	-1.34	0.03	--	--	--	--
		Course Offering Size	-0.58	0.10	-0.33 ***	--	--	--
	Step 2		--	--	--	0.44	0.19	0.084
		(Constant)	-1.05	0.06	--	--	--	--
		Course Offering Size	-0.59	0.10	-0.33 ***	--	--	--
Engineering, Life & Physical Sciences <sup>b</sup>	Step 1		--	--	--	0.60	0.36	--
		(Constant)	-0.56	0.03	--	--	--	--
		Male No-Pass Rate	0.51	0.03	0.60 ***	--	--	--
	Step 2		--	--	--	0.62	0.38	0.026
		(Constant)	-0.47	0.04	--	--	--	--
		Course Offering Size	-0.37	0.07	-0.16 ***	--	--	--
Management, Social Sciences & Other Disciplines <sup>c</sup>	Step 1		--	--	--	0.53	0.28	--
		(Constant)	-0.87	0.05	--	--	--	--
		Male No-Pass Rate	0.40	0.03	0.53 ***	--	--	--
	Step 2		--	--	--	0.56	0.31	0.028
		(Constant)	-0.81	0.05	--	--	--	--
		Male No-Pass Rate	0.39	0.03	0.51 ***	--	--	--
	Step 3		--	--	--	0.57	0.32	0.010
		(Constant)	-0.96	0.08	--	--	--	--
		Male No-Pass Rate	0.38	0.03	0.50 ***	--	--	--
		Average Secondary Section Size	0.69	0.29	0.10 *	--	--	--
		Course Taught by Regular Rank Faculty	-0.12	0.04	-0.15 **	--	--	--
	Step 4		--	--	--	0.58	0.34	0.014
	(Constant)	-0.92	0.08	--	--	--	--	
	Course Offering Size	-0.30	0.10	-0.13 **	--	--	--	
	Male No-Pass Rate	0.39	0.03	0.52 ***	--	--	--	
	Average Secondary Section Size	1.06	0.31	0.16 **	--	--	--	
	Course Taught by Regular Rank Faculty	-0.12	0.04	-0.15 ***	--	--	--	

<sup>a</sup> N=257

<sup>b</sup> N=769

<sup>c</sup> N=405

Significance: \* p < .05, \*\* p < .01, \*\*\* p < .001



Table C-9b

*Components of Linear Regression Model*

Disciplinary Area		<i>Mean</i>	<i>SD</i>	<i>N</i>
Arts & Humanities	Female No-Pass Rate	-1.49	0.31	257
	Course Taught by Regular Rank Faculty	0.56	0.50	
	Course Among Upper Division Offerings	0.30	0.46	
	Male No-Pass Rate	-1.49	0.48	
	Average Secondary Section Size	0.19	0.06	
	Course Offering Size	0.27	0.18	
Engineering, Life & Physical Sciences	Female No-Pass Rate	-1.22	0.38	769
	Course Taught by Regular Rank Faculty	0.41	0.49	
	Course Among Upper Division Offerings	0.34	0.47	
	Male No-Pass Rate	-1.28	0.44	
	Average Secondary Section Size	0.30	0.12	
	Course Offering Size	0.32	0.17	
Management, Social Sciences & Other Disciplines	Female No-Pass Rate	-1.42	0.39	405
	Course Taught by Regular Rank Faculty	0.66	0.47	
	Course Among Upper Division Offerings	0.47	0.50	
	Male No-Pass Rate	-1.37	0.51	
	Average Secondary Section Size	0.20	0.06	
	Course Offering Size	0.34	0.17	

Table C-10a

*Linear Regression Model for Course Offerings with Secondary Sections Disaggregated by Discipline*  
*Dependent Variable: Pell Grant Recipient No-Pass Rate*  
*Predictors Include: Non-Pell Grant Recipient No-Pass Rate*

Disciplinary Area	Model	Predictor Variables	B	SE B	$\beta$	R	R <sup>2</sup>	$\Delta R^2$
Arts & Humanities <sup>a</sup>	Step 1		--	--	--	0.35	0.12	--
		(Constant)	-1.12	0.03	--	--	--	--
		Course Offering Size	-0.60	0.10	-0.35 ***	--	--	--
	Step 2		--	--	--	0.44	0.19	0.070
		(Constant)	-0.86	0.06	--	--	--	--
		Course Offering Size	-0.61	0.10	-0.35 ***	--	--	--
		Not Pell Recipient No-Pass Rate	0.15	0.03	0.26 ***	--	--	--
	Step 3		--	--	--	0.48	0.24	0.042
		(Constant)	-0.80	0.06	--	--	--	--
		Course Offering Size	-0.70	0.10	-0.41 ***	--	--	--
		Not Pell Recipient No-Pass Rate	0.15	0.03	0.25 ***	--	--	--
		Course Among Upper Division Offerings	-0.14	0.04	-0.21 ***	--	--	--
Engineering Life & Physical Sciences <sup>b</sup>	Step 1		--	--	--	0.58	0.33	--
		(Constant)	-0.50	0.03	--	--	--	--
		Not Pell Recipient No-Pass Rate	0.40	0.02	0.58 ***	--	--	--
	Step 2		--	--	--	0.59	0.35	0.014
		(Constant)	-0.43	0.03	--	--	--	--
		Course Offering Size	-0.25	0.06	-0.12 ***	--	--	--
		Not Pell Recipient No-Pass Rate	0.39	0.02	0.56 ***	--	--	--
	Step 3		--	--	--	0.61	0.37	0.023
		(Constant)	-0.34	0.04	--	--	--	--
		Course Offering Size	-0.44	0.07	-0.21 ***	--	--	--
		Not Pell Recipient No-Pass Rate	0.38	0.02	0.56 ***	--	--	--
		Course Among Upper Division Offerings	-0.13	0.02	-0.18 ***	--	--	--
Management Social Sciences & Other Disciplines <sup>c</sup>	Step 1		--	--	--	0.61	0.37	--
		(Constant)	-0.58	0.04	--	--	--	--
		Not Pell Recipient No-Pass Rate	0.40	0.03	0.61 ***	--	--	--

<sup>a</sup> N=259

<sup>b</sup> N=808

<sup>c</sup> N=406

Significance: \* p < .05, \*\* p < .01, \*\*\* p < .001

Table C-10b

*Components of Linear Regression Model*

Disciplinary Area	Variables	Mean	SD	N
Arts & Humanities	Pell Recipient No-Pass Rate	-1.28	0.30	259
	Course Taught by Regular Rank Faculty	0.57	0.50	
	Course Among Upper Division Offerings	0.28	0.45	
	Not Pell Recipient No-Pass Rate	-1.69	0.52	
	Average Secondary Section Size	0.19	0.06	
	Course Offering Size	0.27	0.17	
Engineering, Life & Physical Sciences	Pell Recipient No-Pass Rate	-1.05	0.34	808
	Course Taught by Regular Rank Faculty	0.43	0.49	
	Course Among Upper Division Offerings	0.36	0.48	
	Not Pell Recipient No-Pass Rate	-1.40	0.50	
	Average Secondary Section Size	0.30	0.13	
	Course Offering Size	0.31	0.17	
Management, Social Sciences & Other Disciplines	Pell Recipient No-Pass Rate	-1.21	0.36	406
	Course Taught by Regular Rank Faculty	0.66	0.48	
	Course Among Upper Division Offerings	0.46	0.50	
	Not Pell Recipient No-Pass Rate	-1.56	0.55	
	Average Secondary Section Size	0.20	0.06	
	Course Offering Size	0.34	0.17	