

**A report to the faculty on the change in the distribution of student evaluation ratings
accompanying the switch to online administration***

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Introduction

In the spring semester of 2010 the School of Business, following the rest of the University, switched from the use of "paper and pencil" student evaluations of teaching (evaluations completed inside the classroom with Scantron sheets) to online evaluations (evaluations completed outside class time via the internet). In the fall semester of 2010, the School of Business Faculty Council discussed this issue and determined it warranted a study of whether this change in the method of administration of student evaluations was accompanied by a change in the distribution of average ratings.

It is with some trepidation that I prepare a report for a faculty who nearly all have extensive experience in research and analytical methods. I chose a simple approach, but one I think is sufficiently compelling to address this issue: draw conclusions by comparing the difference in ratings for the same teachers in the same courses in spring 2010 (online evaluations) and spring 2009 (paper and pencil evaluations). Hence, an observation is the aggregated outcome (mean rating or proportion of responses) for a single professor teaching a particular course in a semester.¹ Obviously, there is an error term in this method; there are idiosyncratic factors that may have led ratings to be higher or lower for a particular teacher across the two semesters, but, aside from the issues directly connected to the change in administration method, it is hard to conceive how most such factors would be correlated with the switch to online evaluations. There is, however, the possibility of a time trend where ratings are, say, higher over time; I acknowledge this as a limitation.

This report contains extensive descriptive information to allow, to the extent possible, the data to speak for itself on the question of whether there was a change in the average ratings. Moreover, the analytical data set is available should any faculty member wish to undertake their

¹ Where that single professor taught multiple sections of the same course, student responses from the multiple sections were combined.

own analysis.² In addition to providing information on the difference in average ratings, the report includes information on the distribution of ratings for the two semesters, both for the set of matched teacher-course combinations and for all courses. To my knowledge, this is the first time that such information on school-wide averages has been assembled and distributed to faculty.

Summary of conclusions

There is evidence of a small to moderate shift downward in average ratings with the change to online evaluations. One way to gauge the shift downwards in ratings is through the mean difference in "mean" ratings for each of the evaluative statements. (Table 1 lists the statements for each of the nine evaluation items.) Although we all understand the problems of assuming an interval scale for an ordinal rating ("Strongly Agree" = 5, "Agree" = 4, and so on), it is nonetheless common within the School to apply such a scale and calculate mean ratings.

Table 2 provides the mean and standard deviation of mean teacher ratings in spring 2009 and spring 2010 among the set of 141 matched teacher-course observations in the two semesters. Table 2 also indicates the number of sections and number of students from which these mean ratings were aggregated.^{3,4} The columns of Table 2 marked "Difference" give the mean and standard deviation of the differences in mean ratings between the semesters and the 95% confidence interval for the differences.

² The analytical data set does not contain instructor names or course names or the like. The Stata code to document how I created the analytical data set (never looking at ratings by name, except for my own so that I could understand the coding and structure of the data sets) is available at http://www.people.vcu.edu/~dwharles/student_eval_report.htm

³ For comparative purposes, the first table of Appendix A provides the mean and standard deviation of mean ratings in the two semesters for all teachers and courses including those for which there was not teacher-course match across the two semesters. Still more detailed statistics on the distribution in the two semesters are provided in the first table of Appendix B where the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentile values of the mean ratings are provided.

⁴ Throughout this analysis, all summary statistics across teacher-course combinations are calculated using weights equal to the number of students who completed the evaluation questionnaire. Thus, in calculating the mean rating for spring 2009, a teacher-course combination with 100 student responses carries four times the weight of a teacher-course combination with 25 student responses. Where, say, differences in mean rating are calculated, weights are equal to the sum of the number of students who completed evaluations across the two semesters.

- The mean difference in mean ratings was negative for all nine items and the mean differences ranged from -0.20 to -0.11.
- Among the four mean differences of largest magnitude, -0.20 and -0.19, three of four items explicitly mentioned "Professor": Item 5 (*The professor's method of presentation helped me learn the subject matter of this course.*), Item 7 (*I feel the professor challenged and motivated me to learn.*), and Item 9 (*When I requested individual help from the professor outside the classroom, I received it.*)
- The last column of Table 2 provides a measure of the effect size by normalizing the difference in mean rating by the standard deviation of the ratings for each teacher.⁵ These values are obtained by calculating a Cohen's *d* for each teacher, equal to the difference in mean ratings for the teacher and dividing by the standard deviation of the rating for the respective teacher in spring 2009, then calculating the mean Cohen's *d* across the 141 observations. This indicates that the size of the mean difference in ratings is approximately one-quarter of a spring 2009 standard-deviation of the ratings – somewhat larger for items 5, 7, 10, and 11 and somewhat smaller for items 6, 8, 12, and 13.

Because average ratings differ across course levels, a version of the analysis in Table 2 is provided for each of six course categories⁶

Table 2(i) 100/200-level foundation program courses

Table 2(ii) other 100/200-level courses

Table 2(iii) 300/400-level advanced core courses

Table 2(iv) other 300/400-level courses

⁵ I thank Mike McDaniel for suggesting use of Cohen's *d*.

⁶ Analogously, Appendix A tables A(i)-A(iv) provide the means and standard deviations of the ratings and Appendix B tables B(i)-B(iv) provide percentile values for all teachers and courses in these course categories, including those for which there was not teacher-course match across the two semesters.

Table 2(v) 500/600-level MBA foundation and advanced courses

Table 2(vi) other 500/600-level courses.

Some differences across these course categories are notable. The difference in mean ratings and the mean Cohen's d are somewhat smaller for 300/400-level advanced core courses, while the differences are larger for 500/600-level courses. Note that mean of Cohen's d is as large as -0.62 (62% of a spring 2009 within-course standard deviation of ratings) for item 9 for MBA foundation and advanced courses and as large as -0.56 for item 11 for other 500/600-level courses.

Another way in which the change in ratings can be measured is the mean difference in the proportion of students giving the various ratings (5, "Strongly Agree"; 4, "Agree", 3 "Neither Agree nor Disagree"; 2, "Disagree"; and 1, "Strongly Disagree"). Table 3 provides the mean (and standard deviation) of the proportion of each of the five responses for the 141 teacher-course observations where the same teacher taught the same course in both the spring 2009 and spring 2010 semesters.⁷ Table 3 also provides the mean difference in proportions and the 95% confidence interval for the mean difference. Note the following concerning the mean difference in the proportion of the highest rating ("Strongly Agree").

- For Item 5 (*The professor's method of presentation helped me learn the subject matter of this course.*), the mean difference in proportions was -0.095; i.e., on average, there was a 9.5 percentage point decline in selection of the highest rating.
- The largest decline in percentage of students giving the highest rating was for Item 9 (*When I requested individual help from the professor outside the classroom, I received it.*), where the mean difference in proportions was -0.101; i.e., on average, a 10.1 percentage point decline in selection of the highest rating.

⁷ For comparative purposes, the first table of Appendix C provides the same information for the two semesters for all teachers and courses including those for which there was not teacher-course match across the two semesters.

- The mean difference in proportions was negative for all nine evaluative items, with the smallest mean difference, -0.063, for Item 12 (*I recognize the value of the content of this course.*)

Noteworthy in Table 3 is that while the mean difference in the proportion of responses of the second highest rating is positive for each item, these mean differences are smaller in magnitude than the negative mean differences for the highest rating. Also note that the mean difference in proportion is positive for the two lowest ratings.

Again, a version of the analysis in Table 3 is provided for each the six course categories; see Tables 3(i) – 3(iv).⁸ The most remarkable aspect of the analysis across course categories are the larger differences in mean proportions of the highest rating for 500/600-level MBA foundation and advanced courses. For items 5-9 and item 12, the mean differences in Table 3(v) for MBA courses are approximately twice the size of the mean differences in Table 3; for example, on item 9 there was, on average, a 21.3 percentage point decrease in the highest rating for MBA courses compared to the 10.1 percentage point decrease for all courses. Offsetting to some extent the effect of this change was that the size of the mean difference in proportion giving the second highest rating was higher for MBA courses than for other courses.

Differences in ratings and student response rates

Both the in-class and online administration of evaluations suffer selection bias; neither method results in a census or a random sample of students in a course responding. Obviously, changes in the types of students responding may account for part of the difference in average ratings, but I cannot see how one would formulate a valid test of a conjecture of this kind.

⁸ Appendix C tables C(i)-C(iv) provides information on the distribution of the proportion of ratings for the two semesters for all teachers and courses including those for which there was not teacher-course match across the two semesters.

Nevertheless, the data at hand do allow one to undertake a cursory examination of the relationship between student response rates and the change in the distribution of ratings. Along with other statistics for the evaluative items, the tables in Appendix B provide the percentile values for the response rates. Across all courses, the median response rate declined from 69% in spring 2009 to 49% in spring 2010. Did those teachers with unusually high or low changes in response rate have especially high or low changes in mean ratings?

To address this question, I provide both scatter plots and univariate nonparametric regressions based on local mean smoothing.⁹ Consider Figure 1, the top half of which contains the (weighted) scatterplot of difference in mean rating on difference in response rate for the 141 matched teacher-course combinations; the scatterplot contains markers scaled to reflect the number of students completing evaluations across the two semesters. This figure also contains the results of the univariate nonparametric regression line and 95% confidence interval for the prediction (again, where estimates are constructed weighting by the number of students completing the evaluations as with all other summary statistics in this report). Over the vast majority of differences in response rates, the regression line is approximately horizontal, indicating no relationship between the difference in response rate and the difference in rating. The exception is where the difference in response rates is at or above 10, i.e., an increase in response rate of 10 percentage points or more. Note, however, that there are relatively few observations where the difference in response rate is this large. Further, these observations are predominantly made up of instances where the 2009 paper and pencil evaluation response rate was very low. This is illustrated in the graph in the bottom half of Figure 1 which provides the scatterplot and univariate nonparametric regression for the difference in rating and the 2009 response rate. Again caution is warranted about drawing conclusions based on the small number

⁹ See, for example, Nadaraya, E. A. 1964. On estimating regression. *Theory of Probability and Its Application* 9: 141–142, and Watson, G. S. 1964. *Smooth regression analysis*. *Sankhya Series A* 26: 359–372.

of observations with very low response rates, but the graph does suggest that teachers with the lowest 2009 response rate, say less than one-third of enrolled students, had the larger declines in mean ratings with the switch to online administration.¹⁰ This serves to remind that in-class administration of student evaluations was neither a census nor a random sample of enrolled students.

For completeness, Figures 2-9 provide the same pair of scatterplots and nonparametric regressions for the other eight evaluative statements. Each of the figures is essentially similar to Figure 1.

Conclusion

Student evaluation ratings are used in a number of ways in our School, the most important of which is use by Promotion and Tenure Committees evaluating candidates. Faculty serving on P&T Committees may have a sense of the average level of ratings under the previous system of in-class administration. This report provides evidence that there were small to moderate decreases in average ratings with the switch to online administration. Moreover, if student evaluation ratings are to be used in these and other important matters, then we should rely on accurate comparative information rather than relying on individual's sense or impression of what are superior, average, and inferior ratings. In addition to providing evidence on the change in the distribution of ratings, this report provides detailed descriptions of the distribution of ratings (both overall and by course category) in Appendixes A, B, and C. This information should promote more accurate evaluation and comparison of individual teachers relative to school-wide norms.

¹⁰ The nonparametric regression line in the top half of Figure 1 remains essentially horizontal throughout the range of difference in response rate if teacher-course observations with a 2009 response rate less than one-third are excluded.

Table 1. Item Numbers and Evaluative Statements.

Item	Evaluative Statement
5	The professor's method of presentation helped me learn the subject matter of this course.
6	I feel the subject matter of this course challenged and motivated me to learn.
7	I feel the professor challenged and motivated me to learn.
8	This course enhanced my understanding of concepts and principles.
9	When I requested individual help from the professor outside the classroom, I received it.
10	I felt encouraged to ask questions and to participate in class discussions.
11	I understand what was expected of me to succeed in this course.
12	I recognize the value of the content of this course.
13	Assignments helped me learn the subject matter of this course.

Table 2. Mean rating and mean difference in rating.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.10	0.52	3.85	0.60	-0.20	0.41	(-0.27, -0.13)	-0.27
6	4.10	0.44	3.96	0.46	-0.11	0.34	(-0.17, -0.05)	-0.17
7	4.11	0.47	3.87	0.56	-0.20	0.41	(-0.27, -0.13)	-0.27
8	4.22	0.39	4.04	0.44	-0.14	0.33	(-0.19, -0.08)	-0.21
9	4.11	0.40	3.91	0.45	-0.19	0.36	(-0.25, -0.13)	-0.25
10	4.21	0.40	3.99	0.51	-0.20	0.40	(-0.26, -0.13)	-0.27
11	4.31	0.44	4.12	0.46	-0.16	0.38	(-0.23, -0.10)	-0.27
12	4.29	0.37	4.16	0.38	-0.11	0.31	(-0.16, -0.05)	-0.20
13	4.17	0.44	4.02	0.46	-0.12	0.39	(-0.19, -0.06)	-0.19
Observations		141		141				
Sections		170		173				
Responses		5,213		4,070				

Table 2(i). Mean rating and mean difference in rating, 100/200-level foundation program courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.08	0.41	3.62	0.62	-0.27	0.35	(-0.45, -0.08)	-0.27
6	4.03	0.25	3.73	0.44	-0.17	0.29	(-0.33, -0.02)	-0.18
7	4.07	0.30	3.61	0.58	-0.31	0.37	(-0.51, -0.12)	-0.30
8	4.14	0.27	3.85	0.48	-0.17	0.35	(-0.36, 0.01)	-0.19
9	3.99	0.22	3.72	0.46	-0.21	0.34	(-0.39, -0.03)	-0.20
10	4.09	0.23	3.69	0.52	-0.29	0.41	(-0.51, -0.08)	-0.31
11	4.40	0.24	4.03	0.49	-0.25	0.29	(-0.41, -0.10)	-0.31
12	4.24	0.26	4.03	0.35	-0.13	0.33	(-0.30, 0.04)	-0.18
13	4.16	0.35	3.90	0.41	-0.18	0.27	(-0.33, -0.04)	-0.19
Observations		16		16				
Sections		26		25				
Responses		1,092		713				

Table 2(ii). Mean rating and mean difference in rating, other 100/200-level courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	3.83	0.40	3.44	0.36	-0.34	0.38	(-0.63, -0.04)	-0.37
6	3.65	0.46	3.46	0.48	-0.13	0.39	(-0.42, 0.17)	-0.17
7	3.67	0.35	3.34	0.47	-0.27	0.47	(-0.63, 0.09)	-0.27
8	4.00	0.36	3.62	0.33	-0.30	0.34	(-0.56, -0.04)	-0.38
9	3.89	0.36	3.49	0.42	-0.32	0.35	(-0.59, -0.04)	-0.32
10	3.96	0.45	3.54	0.52	-0.29	0.53	(-0.70, 0.11)	-0.37
11	4.11	0.48	3.78	0.40	-0.27	0.41	(-0.59, 0.05)	-0.40
12	4.03	0.42	3.82	0.42	-0.11	0.27	(-0.31, 0.10)	-0.13
13	3.93	0.40	3.80	0.35	-0.06	0.45	(-0.41, 0.29)	-0.10
Observations		9		9				
Sections		11		14				
Responses		335		294				

Table 2(iii). Mean rating and mean difference in rating, 300/400-level advanced core courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.09	0.64	3.96	0.55	-0.11	0.40	(-0.27, 0.05)	-0.22
6	4.03	0.51	3.96	0.34	-0.07	0.29	(-0.19, 0.04)	-0.14
7	4.10	0.57	3.94	0.44	-0.14	0.36	(-0.29, -0.00)	-0.25
8	4.17	0.46	4.02	0.39	-0.13	0.32	(-0.26, -0.00)	-0.23
9	4.05	0.50	3.95	0.37	-0.12	0.33	(-0.26, 0.01)	-0.18
10	4.18	0.48	4.04	0.46	-0.15	0.37	(-0.30, 0.00)	-0.21
11	4.25	0.61	4.18	0.42	-0.11	0.33	(-0.24, 0.03)	-0.26
12	4.23	0.43	4.11	0.33	-0.13	0.29	(-0.25, -0.01)	-0.24
13	4.09	0.54	3.95	0.45	-0.11	0.36	(-0.26, 0.04)	-0.18
Observations		26		26				
Sections		34		33				
Responses		1,362		1,106				

Table 2(iv). Mean rating and mean difference in rating, other 300/400-level courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.16	0.51	3.96	0.62	-0.20	0.42	(-0.31, -0.09)	-0.28
6	4.21	0.41	4.12	0.43	-0.09	0.34	(-0.18, -0.00)	-0.16
7	4.20	0.46	4.02	0.56	-0.16	0.41	(-0.27, -0.06)	-0.25
8	4.32	0.37	4.21	0.42	-0.10	0.31	(-0.18, -0.02)	-0.18
9	4.22	0.37	4.03	0.46	-0.18	0.33	(-0.26, -0.09)	-0.23
10	4.31	0.37	4.14	0.44	-0.17	0.35	(-0.26, -0.08)	-0.26
11	4.35	0.38	4.24	0.44	-0.11	0.36	(-0.20, -0.01)	-0.18
12	4.39	0.33	4.31	0.36	-0.08	0.30	(-0.15, 0.00)	-0.17
13	4.28	0.41	4.15	0.48	-0.11	0.36	(-0.21, -0.02)	-0.20
Observations		58		58				
Sections		65		67				
Responses		1,734		1,417				

Table 2(v). Mean rating and mean difference in rating, 500/600-level MBA foundation and advanced courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.07	0.62	3.75	0.56	-0.26	0.22	(-0.40, -0.12)	-0.35
6	4.11	0.45	3.97	0.49	-0.09	0.30	(-0.29, 0.10)	-0.10
7	4.11	0.52	3.87	0.50	-0.19	0.27	(-0.36, -0.02)	-0.23
8	4.20	0.42	4.08	0.41	-0.09	0.27	(-0.26, 0.08)	-0.12
9	4.31	0.39	3.95	0.35	-0.33	0.38	(-0.57, -0.10)	-0.62
10	4.23	0.41	4.04	0.56	-0.17	0.28	(-0.35, 0.01)	-0.22
11	4.30	0.36	4.07	0.44	-0.20	0.21	(-0.34, -0.07)	-0.25
12	4.30	0.36	4.14	0.46	-0.12	0.30	(-0.31, 0.07)	-0.18
13	4.12	0.39	4.08	0.44	-0.02	0.35	(-0.25, 0.20)	-0.03
Observations		12		12				
Sections		12		12				
Responses		305		261				

Table 2(vi). Mean rating and mean difference in rating, other 500/600-level courses.

Item	2009		2010		Difference			Cohen's <i>d</i>
	Mean	SD	Mean	SD	Mean	SD	95% CI	
5	4.14	0.47	3.94	0.56	-0.18	0.68	(-0.50, 0.14)	-0.29
6	4.39	0.39	4.20	0.46	-0.18	0.61	(-0.47, 0.11)	-0.39
7	4.23	0.48	3.99	0.57	-0.22	0.71	(-0.55, 0.12)	-0.37
8	4.36	0.35	4.19	0.38	-0.15	0.53	(-0.39, 0.10)	-0.30
9	4.27	0.38	4.10	0.50	-0.17	0.62	(-0.46, 0.12)	-0.39
10	4.37	0.41	4.20	0.56	-0.17	0.64	(-0.47, 0.13)	-0.42
11	4.27	0.42	4.00	0.55	-0.26	0.75	(-0.62, 0.09)	-0.56
12	4.46	0.38	4.35	0.31	-0.09	0.46	(-0.31, 0.13)	-0.31
13	4.29	0.45	4.10	0.51	-0.17	0.74	(-0.52, 0.17)	-0.39
Observations		20		20				
Sections		22		22				
Responses		385		279				

Table 3. Proportion of responses and mean difference in proportion.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.472	0.209	0.361	0.202	-0.095	0.154	(-0.121, -0.069)
	4	0.303	0.098	0.359	0.105	0.060	0.130	(0.038, 0.082)
	3	0.114	0.083	0.106	0.081	-0.017	0.098	(-0.033, -0.000)
	2	0.076	0.082	0.116	0.103	0.032	0.088	(0.017, 0.046)
	1	0.036		0.059		0.020		
6	5	0.446	0.190	0.371	0.185	-0.064	0.149	(-0.089, -0.039)
	4	0.321	0.097	0.377	0.110	0.055	0.132	(0.033, 0.077)
	3	0.142	0.086	0.128	0.082	-0.019	0.091	(-0.034, -0.004)
	2	0.065	0.069	0.088	0.080	0.018	0.078	(0.005, 0.031)
	1	0.025		0.036		0.010		
7	5	0.462	0.197	0.377	0.190	-0.072	0.157	(-0.098, -0.046)
	4	0.308	0.095	0.321	0.105	0.017	0.133	(-0.005, 0.039)
	3	0.138	0.090	0.147	0.095	0.001	0.096	(-0.015, 0.017)
	2	0.063	0.070	0.103	0.094	0.035	0.087	(0.021, 0.050)
	1	0.029		0.052		0.019		
8	5	0.480	0.183	0.397	0.186	-0.069	0.156	(-0.095, -0.043)
	4	0.345	0.100	0.394	0.105	0.047	0.130	(0.026, 0.069)
	3	0.110	0.077	0.103	0.078	-0.013	0.082	(-0.027, 0.000)
	2	0.044	0.045	0.069	0.064	0.021	0.061	(0.011, 0.031)
	1	0.022		0.038		0.014		
9	5	0.478	0.184	0.373	0.186	-0.101	0.165	(-0.128, -0.073)
	4	0.217	0.084	0.255	0.092	0.038	0.115	(0.019, 0.057)
	3	0.263	0.123	0.313	0.150	0.047	0.128	(0.026, 0.069)
	2	0.023	0.034	0.031	0.049	0.007	0.046	(-0.001, 0.014)
	1	0.018		0.028		0.009		
10	5	0.504	0.180	0.409	0.197	-0.084	0.159	(-0.111, -0.058)
	4	0.293	0.093	0.330	0.095	0.037	0.128	(0.016, 0.058)
	3	0.132	0.086	0.142	0.092	0.001	0.091	(-0.014, 0.016)
	2	0.048	0.048	0.077	0.078	0.028	0.078	(0.015, 0.041)
	1	0.023		0.043		0.018		
11	5	0.548	0.188	0.446	0.192	-0.093	0.167	(-0.120, -0.065)
	4	0.302	0.103	0.368	0.112	0.064	0.125	(0.044, 0.085)
	3	0.083	0.076	0.087	0.070	-0.001	0.082	(-0.015, 0.012)
	2	0.045	0.056	0.063	0.063	0.017	0.064	(0.006, 0.027)
	1	0.022		0.036		0.013		
12	5	0.524	0.184	0.449	0.178	-0.063	0.154	(-0.089, -0.037)
	4	0.323	0.112	0.380	0.112	0.049	0.136	(0.026, 0.071)
	3	0.096	0.076	0.093	0.071	-0.003	0.081	(-0.017, 0.010)
	2	0.035	0.041	0.045	0.047	0.007	0.048	(-0.001, 0.015)
	1	0.021		0.034		0.011		
13	5	0.497	0.190	0.413	0.188	-0.073	0.171	(-0.102, -0.045)
	4	0.296	0.097	0.352	0.107	0.058	0.120	(0.038, 0.078)
	3	0.120	0.085	0.122	0.093	-0.005	0.098	(-0.022, 0.011)
	2	0.055	0.059	0.068	0.068	0.009	0.073	(-0.003, 0.021)
	1	0.031		0.046		0.012		
Observations			141		141			
Sections			170		173			
Responses			5,213		4,070			

Table 3(i). Proportion of responses and mean difference in proportion, 100/200-level foundation program courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.450	0.182	0.292	0.180	-0.094	0.129	(-0.163, -0.025)
	4	0.318	0.079	0.344	0.100	0.042	0.127	(-0.026, 0.110)
	3	0.125	0.071	0.127	0.097	-0.033	0.097	(-0.084, 0.019)
	2	0.079	0.065	0.162	0.111	0.048	0.065	(0.013, 0.082)
	1	0.028		0.076		0.037		
6	5	0.392	0.116	0.291	0.156	-0.056	0.111	(-0.115, 0.003)
	4	0.361	0.073	0.375	0.079	0.020	0.090	(-0.028, 0.068)
	3	0.158	0.062	0.163	0.073	-0.018	0.080	(-0.061, 0.024)
	2	0.064	0.051	0.119	0.074	0.030	0.049	(0.004, 0.056)
	1	0.025		0.052		0.024		
7	5	0.418	0.136	0.299	0.165	-0.076	0.135	(-0.148, -0.004)
	4	0.336	0.069	0.302	0.097	-0.020	0.105	(-0.076, 0.036)
	3	0.160	0.079	0.175	0.091	-0.007	0.095	(-0.058, 0.044)
	2	0.063	0.041	0.154	0.103	0.068	0.072	(0.030, 0.106)
	1	0.022		0.069		0.035		
8	5	0.428	0.132	0.323	0.186	-0.052	0.161	(-0.138, 0.033)
	4	0.372	0.068	0.402	0.086	0.015	0.131	(-0.055, 0.084)
	3	0.128	0.052	0.137	0.084	-0.013	0.070	(-0.050, 0.025)
	2	0.051	0.039	0.080	0.051	0.019	0.043	(-0.004, 0.042)
	1	0.019		0.058		0.031		
9	5	0.409	0.096	0.287	0.146	-0.098	0.143	(-0.174, -0.022)
	4	0.233	0.046	0.250	0.099	0.019	0.098	(-0.033, 0.071)
	3	0.317	0.084	0.395	0.157	0.063	0.132	(-0.008, 0.133)
	2	0.021	0.020	0.030	0.042	0.005	0.045	(-0.019, 0.029)
	1	0.020		0.038		0.012		
10	5	0.433	0.106	0.294	0.158	-0.102	0.161	(-0.188, -0.016)
	4	0.323	0.077	0.346	0.087	0.020	0.139	(-0.054, 0.094)
	3	0.166	0.059	0.186	0.063	0.006	0.089	(-0.041, 0.054)
	2	0.056	0.034	0.107	0.091	0.041	0.086	(-0.005, 0.087)
	1	0.023		0.067		0.035		
11	5	0.561	0.133	0.398	0.176	-0.117	0.132	(-0.187, -0.046)
	4	0.328	0.089	0.385	0.076	0.052	0.113	(-0.008, 0.112)
	3	0.074	0.047	0.113	0.082	0.015	0.061	(-0.017, 0.048)
	2	0.026	0.029	0.058	0.046	0.026	0.043	(0.003, 0.049)
	1	0.012		0.046		0.023		
12	5	0.485	0.127	0.386	0.162	-0.056	0.161	(-0.141, 0.030)
	4	0.348	0.075	0.407	0.086	0.036	0.111	(-0.024, 0.095)
	3	0.114	0.058	0.104	0.071	-0.016	0.075	(-0.056, 0.024)
	2	0.033	0.032	0.058	0.039	0.018	0.048	(-0.008, 0.043)
	1	0.020		0.045		0.019		
13	5	0.478	0.161	0.366	0.153	-0.078	0.128	(-0.147, -0.010)
	4	0.310	0.101	0.363	0.070	0.045	0.107	(-0.012, 0.102)
	3	0.134	0.090	0.135	0.074	-0.016	0.059	(-0.047, 0.016)
	2	0.049	0.038	0.076	0.058	0.025	0.054	(-0.004, 0.054)
	1	0.029		0.060		0.024		
Observations			16		16			
Sections			26		25			
Responses			1,092		713			

Table 3(ii). Proportion of responses and mean difference in proportion, other 100/200-level courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.313	0.128	0.171	0.148	-0.123	0.147	(-0.236, -0.010)
	4	0.397	0.049	0.396	0.093	-0.002	0.134	(-0.105, 0.101)
	3	0.140	0.056	0.184	0.078	0.045	0.090	(-0.024, 0.114)
	2	0.107	0.079	0.198	0.066	0.073	0.080	(0.012, 0.135)
	1	0.042		0.051		0.008		
6	5	0.261	0.128	0.160	0.139	-0.079	0.110	(-0.163, 0.005)
	4	0.347	0.098	0.415	0.102	0.071	0.136	(-0.034, 0.175)
	3	0.221	0.077	0.194	0.083	-0.040	0.072	(-0.096, 0.016)
	2	0.120	0.079	0.190	0.117	0.058	0.096	(-0.016, 0.131)
	1	0.051		0.041		-0.009		
7	5	0.270	0.124	0.197	0.148	-0.054	0.168	(-0.183, 0.075)
	4	0.359	0.060	0.289	0.072	-0.061	0.119	(-0.152, 0.031)
	3	0.200	0.055	0.231	0.060	0.023	0.072	(-0.032, 0.078)
	2	0.117	0.086	0.218	0.077	0.082	0.078	(0.022, 0.142)
	1	0.054		0.065		0.009		
8	5	0.345	0.142	0.211	0.151	-0.112	0.158	(-0.233, 0.009)
	4	0.422	0.078	0.433	0.095	0.025	0.116	(-0.065, 0.114)
	3	0.150	0.063	0.161	0.104	-0.005	0.102	(-0.083, 0.073)
	2	0.051	0.036	0.150	0.055	0.085	0.061	(0.038, 0.132)
	1	0.033		0.044		0.008		
9	5	0.364	0.176	0.203	0.151	-0.135	0.144	(-0.246, -0.025)
	4	0.237	0.089	0.228	0.047	0.002	0.076	(-0.057, 0.060)
	3	0.339	0.114	0.472	0.130	0.113	0.132	(0.012, 0.214)
	2	0.045	0.043	0.048	0.035	-0.006	0.031	(-0.029, 0.018)
	1	0.015		0.048		0.026		
10	5	0.375	0.181	0.235	0.205	-0.087	0.208	(-0.247, 0.074)
	4	0.342	0.056	0.330	0.078	-0.020	0.087	(-0.088, 0.047)
	3	0.180	0.077	0.238	0.111	0.032	0.125	(-0.064, 0.128)
	2	0.069	0.062	0.133	0.073	0.051	0.087	(-0.016, 0.117)
	1	0.033		0.065		0.025		
11	5	0.440	0.175	0.269	0.172	-0.152	0.189	(-0.297, -0.007)
	4	0.352	0.037	0.446	0.094	0.094	0.118	(0.003, 0.185)
	3	0.111	0.056	0.129	0.048	0.016	0.054	(-0.026, 0.057)
	2	0.069	0.078	0.109	0.062	0.025	0.074	(-0.032, 0.082)
	1	0.027		0.048		0.017		
12	5	0.379	0.156	0.297	0.169	-0.037	0.111	(-0.122, 0.048)
	4	0.397	0.076	0.394	0.091	-0.021	0.128	(-0.119, 0.078)
	3	0.131	0.067	0.182	0.054	0.048	0.054	(0.006, 0.089)
	2	0.060	0.067	0.083	0.060	0.007	0.052	(-0.033, 0.047)
	1	0.033		0.045		0.002		
13	5	0.362	0.153	0.287	0.175	-0.049	0.185	(-0.191, 0.094)
	4	0.375	0.060	0.411	0.083	0.042	0.090	(-0.027, 0.111)
	3	0.132	0.059	0.161	0.074	0.007	0.079	(-0.054, 0.067)
	2	0.089	0.068	0.092	0.031	-0.003	0.069	(-0.056, 0.050)
	1	0.043		0.048		0.003		
Observations			9		9			
Sections			11		14			
Responses			335		294			

Table 3(iii). Proportion of responses and mean difference in proportion, 300/400-level advanced core courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.482	0.243	0.406	0.180	-0.073	0.132	(-0.127, -0.020)
	4	0.292	0.095	0.354	0.086	0.068	0.103	(0.026, 0.109)
	3	0.100	0.079	0.092	0.064	-0.015	0.076	(-0.046, 0.016)
	2	0.080	0.101	0.092	0.085	0.010	0.079	(-0.021, 0.042)
	1	0.046		0.056		0.011		
6	5	0.433	0.202	0.381	0.137	-0.051	0.113	(-0.097, -0.006)
	4	0.308	0.077	0.357	0.080	0.054	0.096	(0.015, 0.093)
	3	0.152	0.075	0.138	0.078	-0.022	0.077	(-0.053, 0.009)
	2	0.073	0.079	0.089	0.056	0.016	0.079	(-0.016, 0.048)
	1	0.034		0.036		0.003		
7	5	0.475	0.219	0.397	0.154	-0.071	0.122	(-0.120, -0.022)
	4	0.291	0.088	0.322	0.087	0.035	0.112	(-0.010, 0.080)
	3	0.129	0.094	0.150	0.095	0.010	0.088	(-0.026, 0.045)
	2	0.074	0.089	0.086	0.062	0.013	0.082	(-0.020, 0.046)
	1	0.031		0.044		0.013		
8	5	0.463	0.209	0.397	0.148	-0.060	0.137	(-0.116, -0.005)
	4	0.347	0.093	0.379	0.076	0.031	0.099	(-0.009, 0.072)
	3	0.110	0.078	0.110	0.065	-0.002	0.059	(-0.026, 0.022)
	2	0.055	0.056	0.078	0.065	0.020	0.068	(-0.007, 0.048)
	1	0.025		0.036		0.011		
9	5	0.467	0.214	0.388	0.151	-0.081	0.149	(-0.141, -0.021)
	4	0.191	0.067	0.239	0.068	0.042	0.092	(0.005, 0.080)
	3	0.290	0.121	0.329	0.130	0.037	0.105	(-0.006, 0.079)
	2	0.029	0.043	0.023	0.036	-0.001	0.040	(-0.017, 0.015)
	1	0.024		0.022		0.003		
10	5	0.508	0.200	0.428	0.173	-0.074	0.135	(-0.129, -0.020)
	4	0.274	0.081	0.325	0.072	0.048	0.098	(0.008, 0.088)
	3	0.137	0.084	0.140	0.090	-0.007	0.085	(-0.041, 0.028)
	2	0.054	0.058	0.072	0.072	0.019	0.071	(-0.010, 0.048)
	1	0.027		0.036		0.014		
11	5	0.559	0.237	0.463	0.170	-0.102	0.153	(-0.163, -0.040)
	4	0.257	0.101	0.372	0.107	0.110	0.109	(0.066, 0.154)
	3	0.095	0.089	0.080	0.067	-0.017	0.083	(-0.051, 0.016)
	2	0.053	0.074	0.053	0.052	0.006	0.049	(-0.013, 0.026)
	1	0.036		0.033		0.003		
12	5	0.493	0.205	0.425	0.149	-0.069	0.137	(-0.125, -0.014)
	4	0.335	0.101	0.385	0.092	0.046	0.103	(0.005, 0.087)
	3	0.105	0.084	0.100	0.055	-0.001	0.083	(-0.034, 0.032)
	2	0.041	0.043	0.055	0.042	0.012	0.045	(-0.006, 0.030)
	1	0.025		0.034		0.012		
13	5	0.478	0.211	0.404	0.181	-0.065	0.162	(-0.130, 0.001)
	4	0.284	0.081	0.310	0.082	0.030	0.090	(-0.006, 0.067)
	3	0.125	0.086	0.163	0.097	0.032	0.105	(-0.011, 0.074)
	2	0.069	0.075	0.071	0.067	-0.005	0.061	(-0.030, 0.019)
	1	0.043		0.051		0.008		
Observations			26		26			
Sections			34		33			
Responses			1,362		1,106			

Table 3(iv). Proportion of responses and mean difference in proportion, other 300/400-level courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.508	0.200	0.413	0.211	-0.094	0.170	(-0.138, -0.049)
	4	0.284	0.109	0.344	0.123	0.060	0.144	(0.022, 0.097)
	3	0.109	0.089	0.088	0.074	-0.020	0.107	(-0.049, 0.008)
	2	0.060	0.070	0.093	0.095	0.034	0.087	(0.012, 0.057)
	1	0.038		0.060		0.020		
6	5	0.493	0.189	0.438	0.184	-0.054	0.157	(-0.095, -0.013)
	4	0.312	0.115	0.369	0.128	0.048	0.157	(0.007, 0.089)
	3	0.126	0.098	0.101	0.074	-0.019	0.105	(-0.047, 0.008)
	2	0.051	0.058	0.062	0.070	0.014	0.069	(-0.004, 0.032)
	1	0.018		0.030		0.011		
7	5	0.500	0.197	0.439	0.202	-0.057	0.172	(-0.102, -0.011)
	4	0.301	0.104	0.322	0.120	0.021	0.147	(-0.018, 0.059)
	3	0.128	0.091	0.114	0.089	-0.014	0.097	(-0.040, 0.011)
	2	0.043	0.056	0.074	0.084	0.032	0.081	(0.011, 0.053)
	1	0.028		0.051		0.019		
8	5	0.538	0.171	0.469	0.186	-0.066	0.145	(-0.104, -0.028)
	4	0.315	0.106	0.380	0.117	0.065	0.133	(0.030, 0.100)
	3	0.099	0.087	0.075	0.072	-0.025	0.095	(-0.050, 0.000)
	2	0.028	0.037	0.045	0.056	0.016	0.058	(0.001, 0.031)
	1	0.020		0.031		0.009		
9	5	0.525	0.176	0.430	0.202	-0.095	0.159	(-0.137, -0.054)
	4	0.220	0.096	0.260	0.096	0.042	0.120	(0.011, 0.074)
	3	0.221	0.117	0.250	0.128	0.030	0.115	(-0.000, 0.060)
	2	0.017	0.029	0.036	0.065	0.018	0.053	(0.004, 0.032)
	1	0.017		0.025		0.006		
10	5	0.554	0.176	0.466	0.184	-0.086	0.158	(-0.128, -0.045)
	4	0.280	0.099	0.328	0.107	0.050	0.128	(0.016, 0.084)
	3	0.111	0.095	0.116	0.078	0.002	0.089	(-0.022, 0.025)
	2	0.036	0.040	0.058	0.068	0.023	0.070	(0.004, 0.041)
	1	0.019		0.032		0.012		
11	5	0.559	0.180	0.502	0.194	-0.054	0.173	(-0.100, -0.009)
	4	0.307	0.107	0.342	0.119	0.034	0.140	(-0.003, 0.071)
	3	0.076	0.082	0.076	0.067	0.000	0.090	(-0.024, 0.024)
	2	0.041	0.043	0.051	0.063	0.010	0.059	(-0.005, 0.026)
	1	0.017		0.030		0.010		
12	5	0.575	0.172	0.520	0.177	-0.056	0.170	(-0.100, -0.011)
	4	0.299	0.123	0.355	0.126	0.055	0.163	(0.012, 0.098)
	3	0.084	0.076	0.070	0.071	-0.012	0.086	(-0.034, 0.011)
	2	0.025	0.032	0.030	0.043	0.005	0.043	(-0.006, 0.016)
	1	0.017		0.026		0.007		
13	5	0.548	0.185	0.470	0.188	-0.075	0.159	(-0.117, -0.034)
	4	0.275	0.101	0.347	0.114	0.074	0.119	(0.043, 0.106)
	3	0.112	0.082	0.085	0.077	-0.027	0.091	(-0.051, -0.003)
	2	0.039	0.041	0.061	0.074	0.021	0.068	(0.003, 0.039)
	1	0.026		0.036		0.008		
Observations			58		58			
Sections			65		67			
Responses			1,734		1,417			

Table 3(v). Proportion of responses and mean difference in proportion, 500/600-level MBA foundation and advanced courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.475	0.237	0.276	0.181	-0.178	0.127	(-0.259, -0.097)
	4	0.282	0.066	0.418	0.088	0.132	0.122	(0.054, 0.209)
	3	0.105	0.090	0.138	0.079	0.027	0.065	(-0.014, 0.069)
	2	0.111	0.114	0.119	0.106	0.000	0.091	(-0.057, 0.058)
	1	0.026		0.050		0.019		
6	5	0.466	0.227	0.318	0.215	-0.124	0.175	(-0.235, -0.013)
	4	0.308	0.109	0.464	0.108	0.142	0.133	(0.057, 0.226)
	3	0.125	0.088	0.119	0.076	-0.007	0.093	(-0.066, 0.052)
	2	0.075	0.088	0.069	0.065	-0.011	0.101	(-0.075, 0.054)
	1	0.026		0.031		-0.000		
7	5	0.485	0.240	0.321	0.198	-0.138	0.127	(-0.219, -0.057)
	4	0.282	0.112	0.393	0.108	0.109	0.108	(0.041, 0.178)
	3	0.131	0.100	0.162	0.099	0.013	0.094	(-0.047, 0.073)
	2	0.066	0.053	0.077	0.059	0.009	0.053	(-0.025, 0.043)
	1	0.036		0.046		0.006		
8	5	0.495	0.214	0.353	0.178	-0.131	0.139	(-0.220, -0.043)
	4	0.315	0.101	0.482	0.125	0.167	0.131	(0.084, 0.251)
	3	0.105	0.086	0.080	0.060	-0.030	0.084	(-0.083, 0.023)
	2	0.066	0.052	0.061	0.063	-0.007	0.050	(-0.038, 0.025)
	1	0.020		0.023		0.000		
9	5	0.569	0.209	0.344	0.168	-0.213	0.196	(-0.337, -0.088)
	4	0.198	0.084	0.340	0.096	0.137	0.106	(0.070, 0.204)
	3	0.210	0.148	0.265	0.097	0.050	0.157	(-0.050, 0.149)
	2	0.017	0.016	0.023	0.033	0.005	0.031	(-0.014, 0.025)
	1	0.007		0.027		0.021		
10	5	0.505	0.201	0.410	0.214	-0.096	0.111	(-0.167, -0.026)
	4	0.308	0.137	0.379	0.116	0.088	0.203	(-0.041, 0.217)
	3	0.121	0.109	0.100	0.123	-0.034	0.087	(-0.089, 0.022)
	2	0.043	0.047	0.061	0.080	0.017	0.089	(-0.039, 0.074)
	1	0.023		0.050		0.024		
11	5	0.548	0.202	0.429	0.210	-0.108	0.116	(-0.182, -0.035)
	4	0.305	0.131	0.374	0.161	0.070	0.137	(-0.017, 0.157)
	3	0.069	0.065	0.081	0.064	0.008	0.077	(-0.040, 0.057)
	2	0.062	0.047	0.074	0.047	0.003	0.046	(-0.026, 0.033)
	1	0.016		0.042		0.026		
12	5	0.548	0.199	0.402	0.181	-0.129	0.111	(-0.199, -0.058)
	4	0.298	0.122	0.448	0.132	0.138	0.161	(0.036, 0.241)
	3	0.079	0.060	0.073	0.069	-0.003	0.090	(-0.060, 0.054)
	2	0.056	0.041	0.042	0.054	-0.015	0.052	(-0.048, 0.018)
	1	0.020		0.034		0.009		
13	5	0.457	0.184	0.384	0.200	-0.074	0.168	(-0.181, 0.033)
	4	0.322	0.098	0.442	0.143	0.133	0.165	(0.028, 0.238)
	3	0.128	0.102	0.088	0.102	-0.041	0.130	(-0.123, 0.042)
	2	0.077	0.056	0.039	0.050	-0.044	0.036	(-0.067, -0.021)
	1	0.017		0.047		0.025		
Observations			12		12			
Sections			12		12			
Responses			305		261			

Table 3(vi). Proportion of responses and mean difference in proportion, other 500/600-level courses.

Item	Rating	2009		2010		Difference		
		Proportion	SD	Proportion	SD	Mean	SD	95% CI
5	5	0.465	0.204	0.369	0.201	-0.089	0.233	(-0.198, 0.021)
	4	0.317	0.119	0.391	0.106	0.082	0.153	(0.010, 0.154)
	3	0.132	0.115	0.086	0.080	-0.056	0.138	(-0.120, 0.009)
	2	0.068	0.082	0.115	0.149	0.042	0.153	(-0.029, 0.114)
	1	0.018		0.039		0.020		
6	5	0.582	0.186	0.462	0.212	-0.117	0.281	(-0.248, 0.015)
	4	0.288	0.111	0.380	0.157	0.095	0.182	(0.009, 0.180)
	3	0.078	0.074	0.082	0.094	0.002	0.121	(-0.054, 0.059)
	2	0.047	0.090	0.047	0.089	-0.003	0.126	(-0.062, 0.055)
	1	0.005		0.029		0.023		
7	5	0.519	0.200	0.418	0.189	-0.096	0.253	(-0.215, 0.022)
	4	0.299	0.127	0.326	0.128	0.029	0.190	(-0.060, 0.118)
	3	0.096	0.096	0.123	0.092	0.029	0.138	(-0.035, 0.094)
	2	0.062	0.091	0.093	0.133	0.025	0.153	(-0.046, 0.096)
	1	0.023		0.040		0.013		
8	5	0.527	0.195	0.456	0.181	-0.064	0.264	(-0.188, 0.059)
	4	0.353	0.134	0.387	0.140	0.031	0.179	(-0.053, 0.115)
	3	0.081	0.079	0.083	0.074	0.002	0.100	(-0.045, 0.049)
	2	0.026	0.037	0.044	0.061	0.016	0.067	(-0.016, 0.047)
	1	0.013		0.030		0.016		
9	5	0.528	0.202	0.455	0.201	-0.080	0.271	(-0.207, 0.046)
	4	0.255	0.134	0.257	0.133	0.009	0.194	(-0.081, 0.100)
	3	0.180	0.127	0.241	0.157	0.063	0.201	(-0.032, 0.157)
	2	0.029	0.048	0.029	0.042	-0.001	0.059	(-0.028, 0.027)
	1	0.008		0.018		0.009		
10	5	0.582	0.188	0.527	0.219	-0.054	0.245	(-0.169, 0.061)
	4	0.281	0.115	0.269	0.111	-0.009	0.136	(-0.072, 0.055)
	3	0.083	0.061	0.104	0.088	0.017	0.103	(-0.031, 0.065)
	2	0.039	0.057	0.075	0.091	0.037	0.104	(-0.011, 0.086)
	1	0.016		0.025		0.009		
11	5	0.522	0.169	0.417	0.202	-0.104	0.265	(-0.228, 0.020)
	4	0.322	0.107	0.360	0.114	0.042	0.110	(-0.009, 0.093)
	3	0.086	0.083	0.068	0.066	-0.020	0.109	(-0.072, 0.031)
	2	0.047	0.067	0.115	0.106	0.066	0.133	(0.004, 0.128)
	1	0.024		0.039		0.016		
12	5	0.624	0.205	0.543	0.165	-0.065	0.201	(-0.160, 0.029)
	4	0.277	0.156	0.339	0.135	0.050	0.136	(-0.013, 0.114)
	3	0.055	0.096	0.076	0.071	0.018	0.075	(-0.017, 0.053)
	2	0.029	0.047	0.014	0.046	-0.015	0.071	(-0.049, 0.018)
	1	0.016		0.029		0.012		
13	5	0.540	0.200	0.429	0.226	-0.103	0.328	(-0.257, 0.051)
	4	0.299	0.111	0.373	0.147	0.067	0.197	(-0.025, 0.160)
	3	0.089	0.098	0.097	0.126	0.010	0.141	(-0.056, 0.076)
	2	0.053	0.091	0.068	0.101	0.015	0.152	(-0.056, 0.086)
	1	0.019		0.032		0.011		
Observations			20		20			
Sections			22		22			
Responses			385		279			

Figure 1. Item 5 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

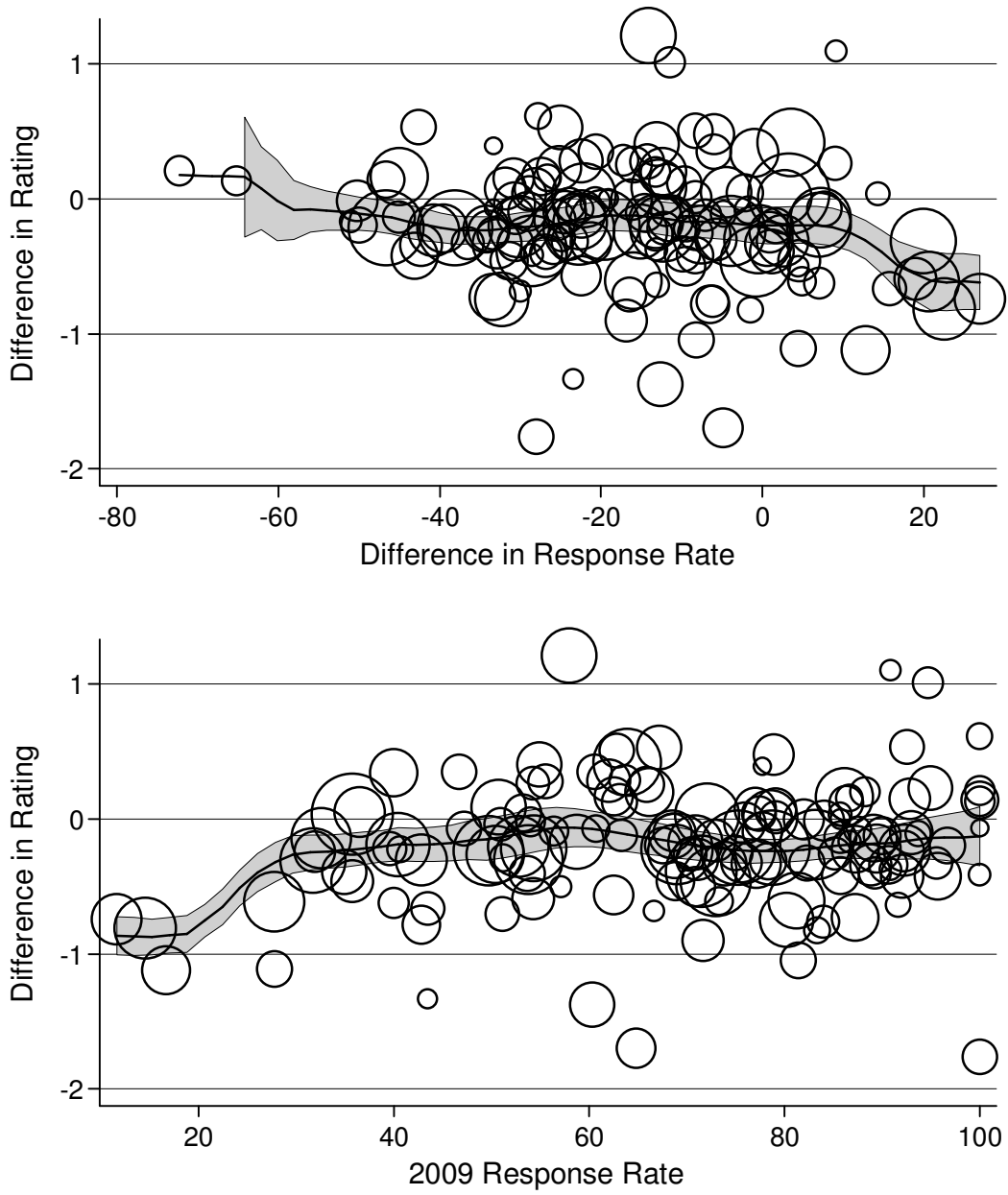


Figure 2. Item 6 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

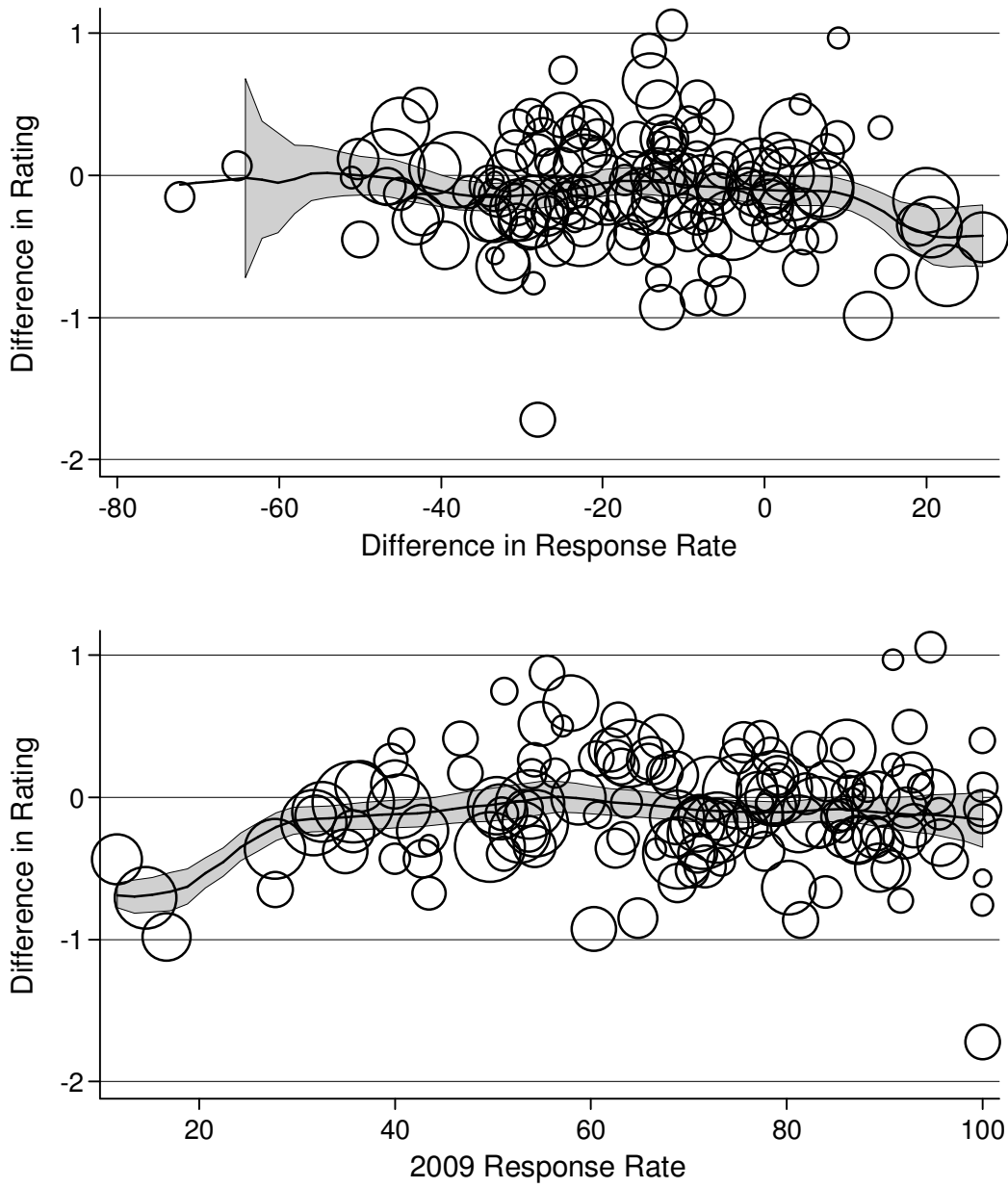


Figure 3. Item 7 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

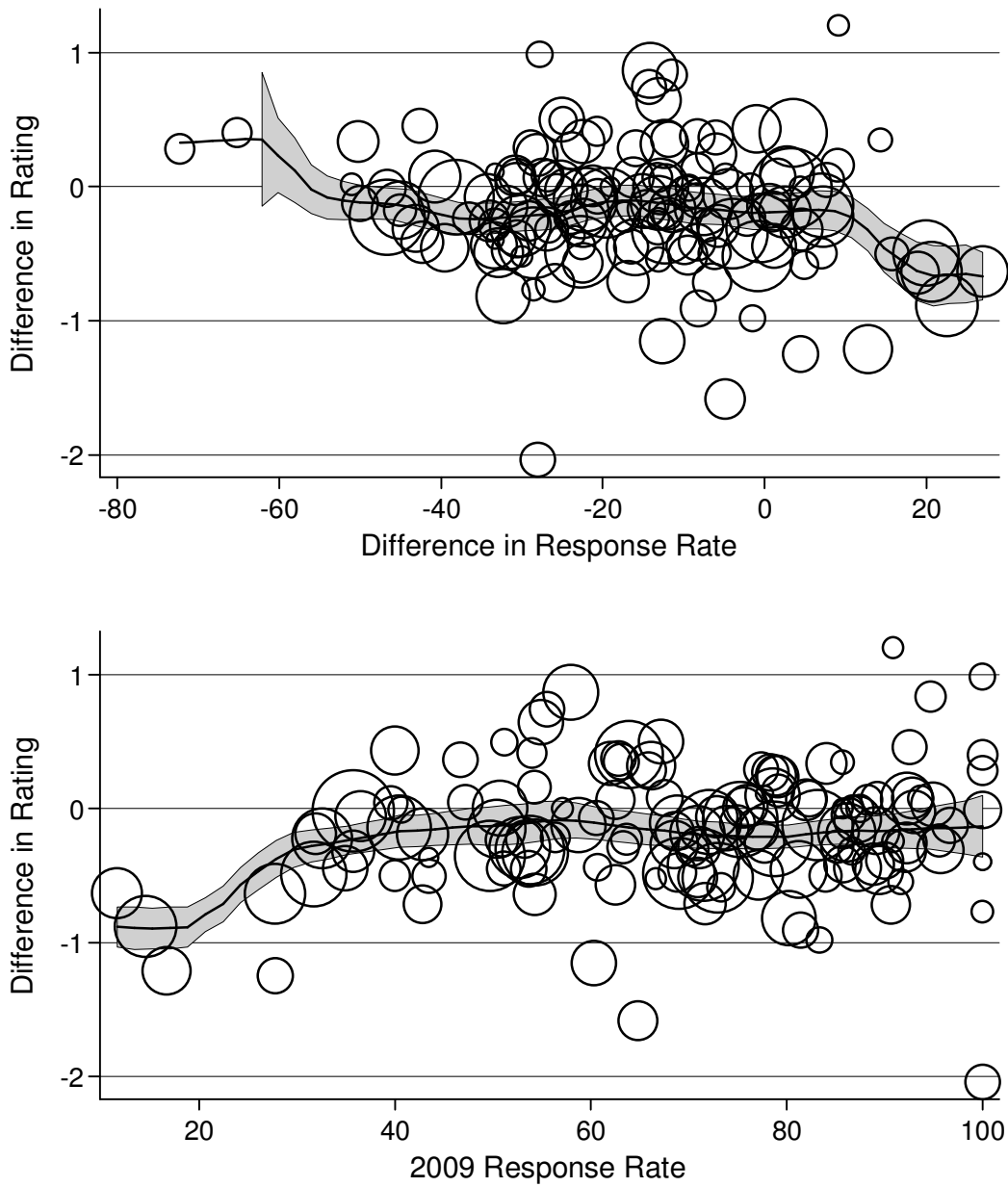


Figure 4. Item 8 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

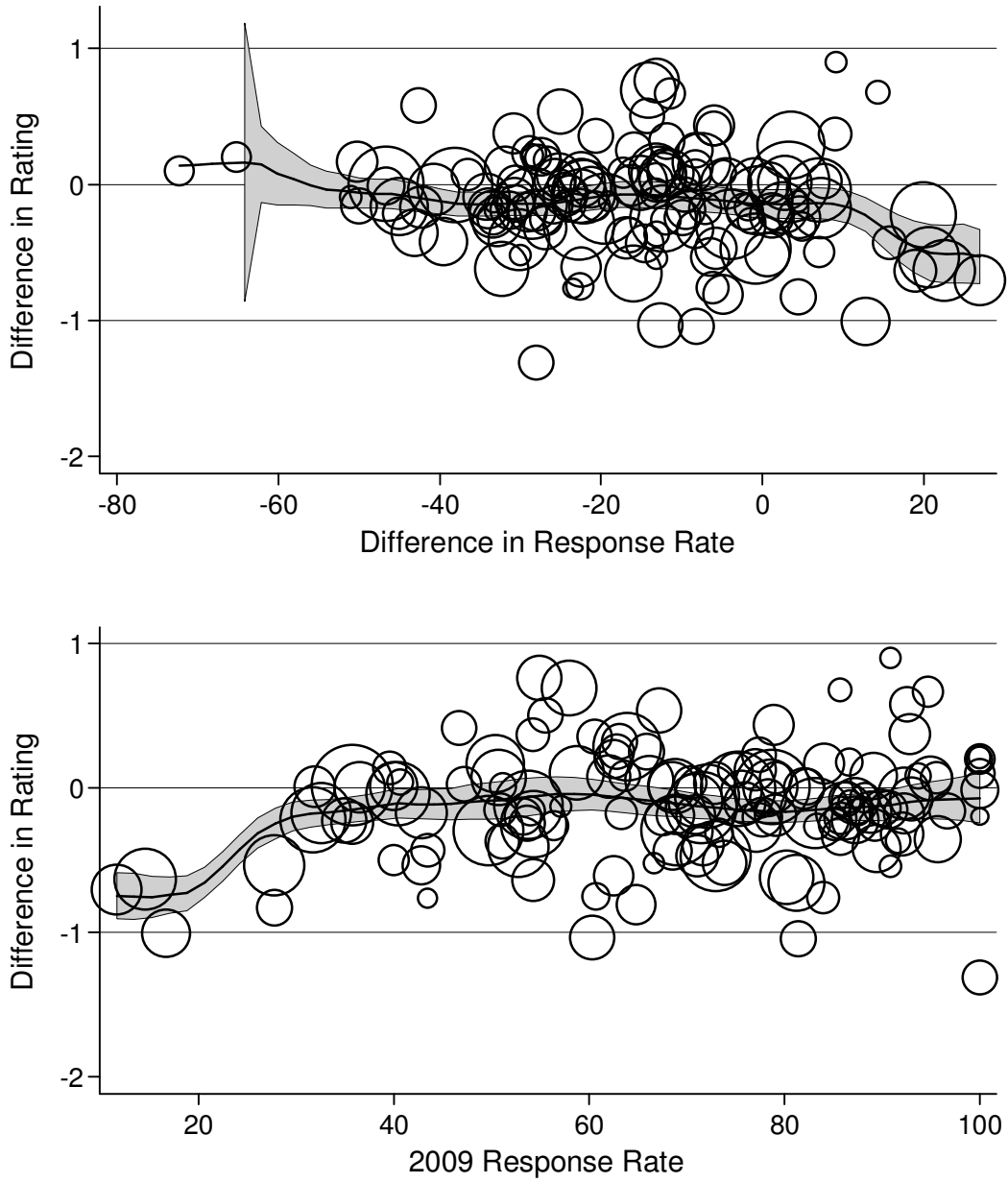


Figure 5. Item 9 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

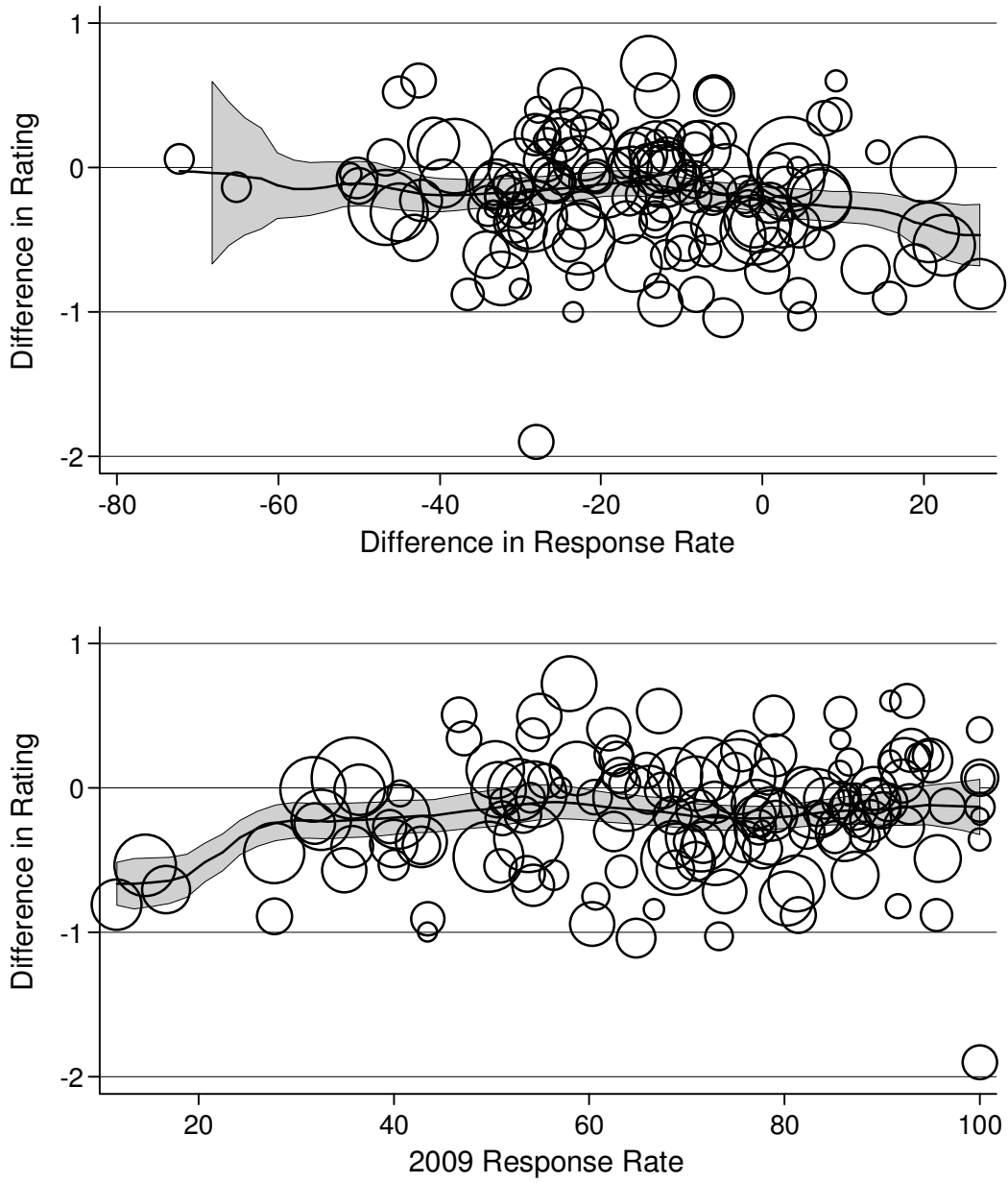


Figure 6. Item 10 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

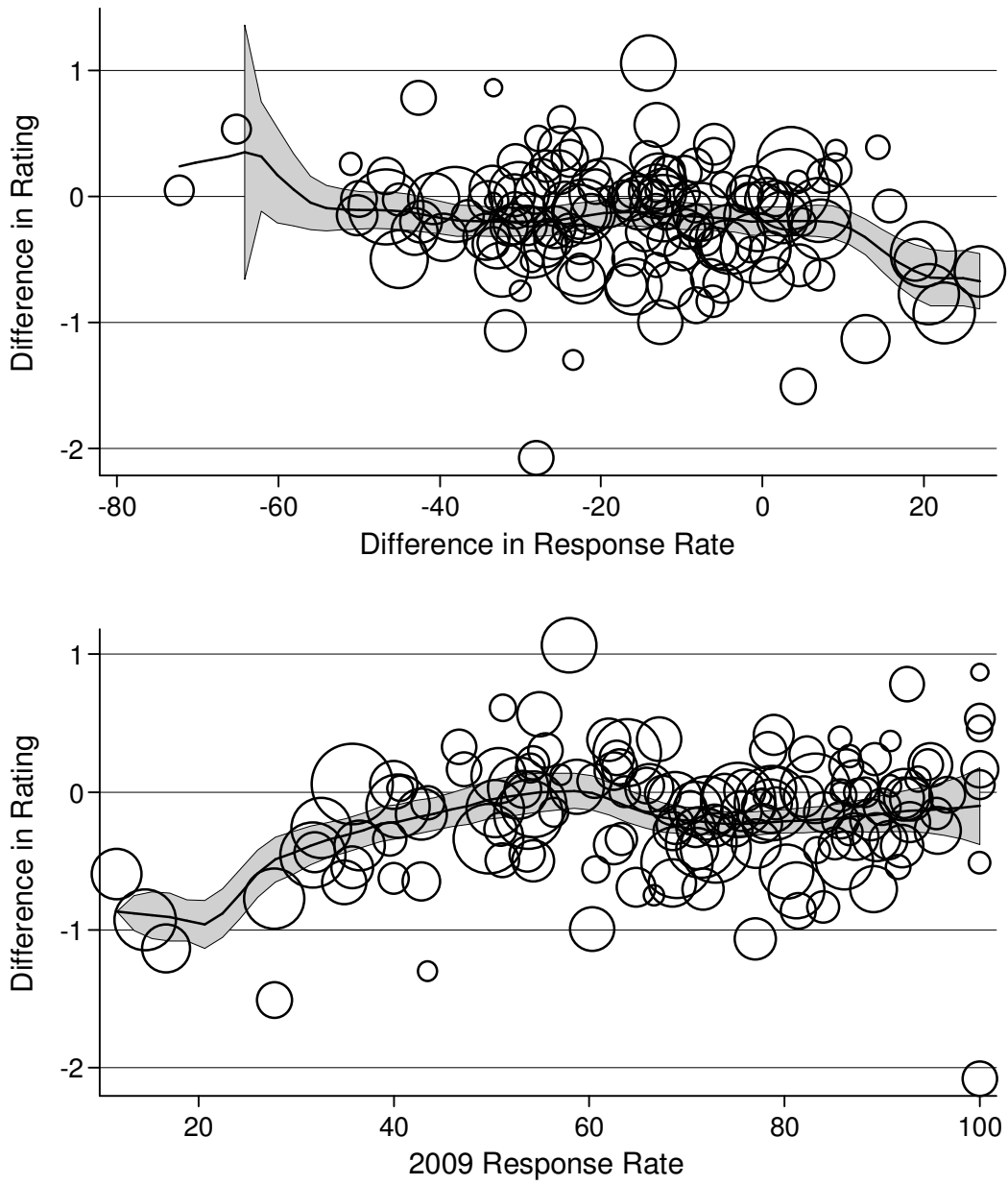


Figure 7. Item 11 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

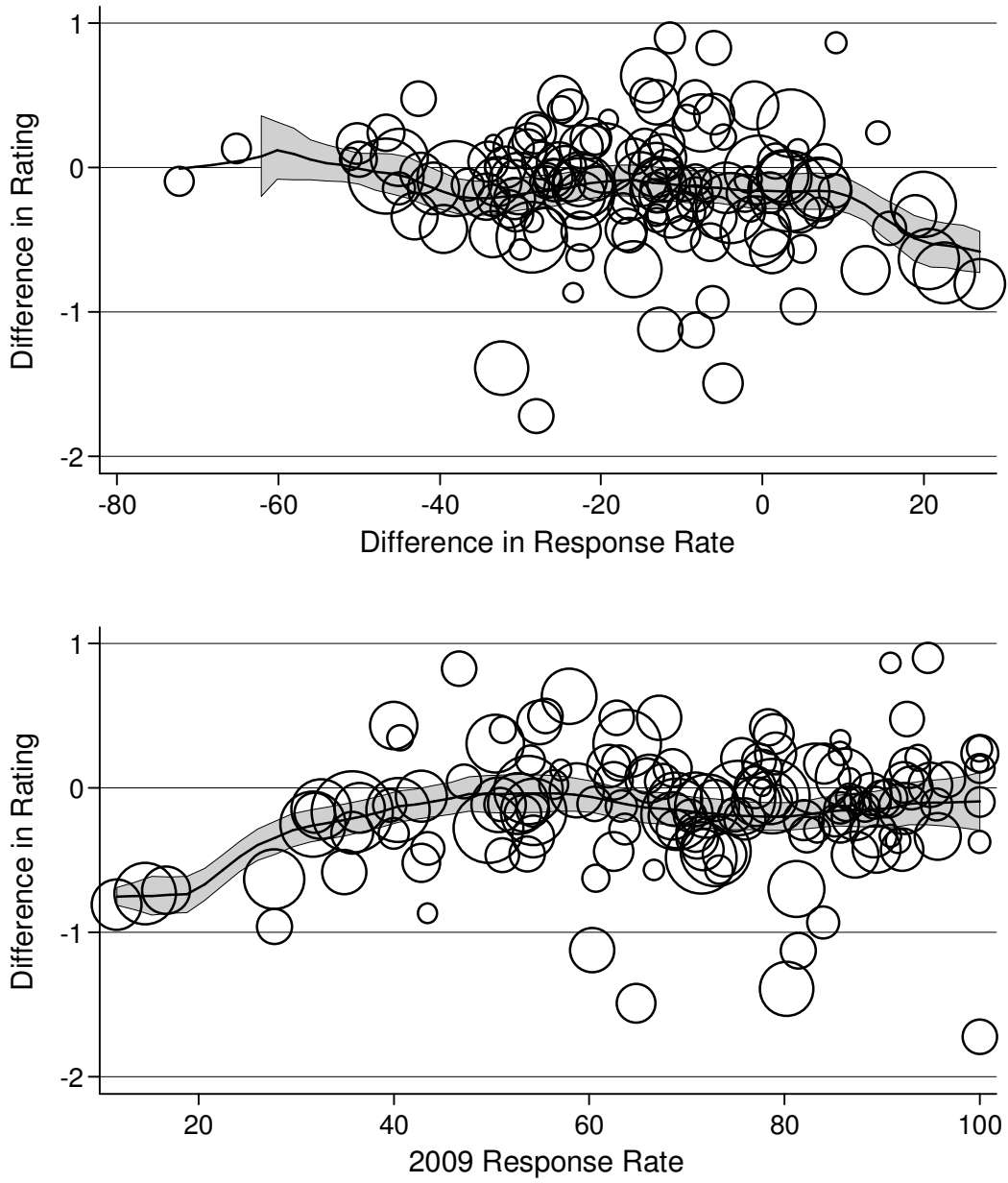


Figure 8. Item 12 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.

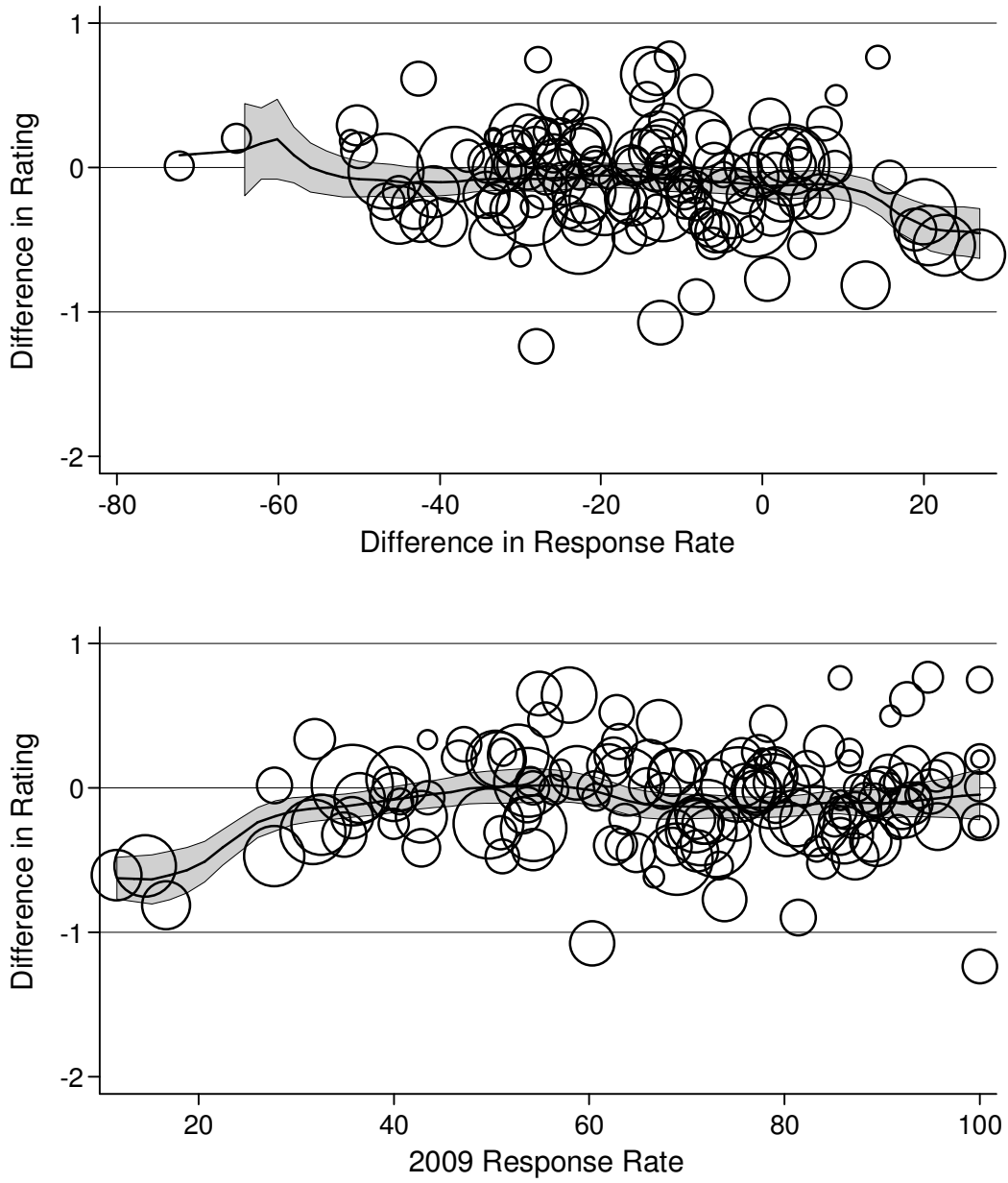
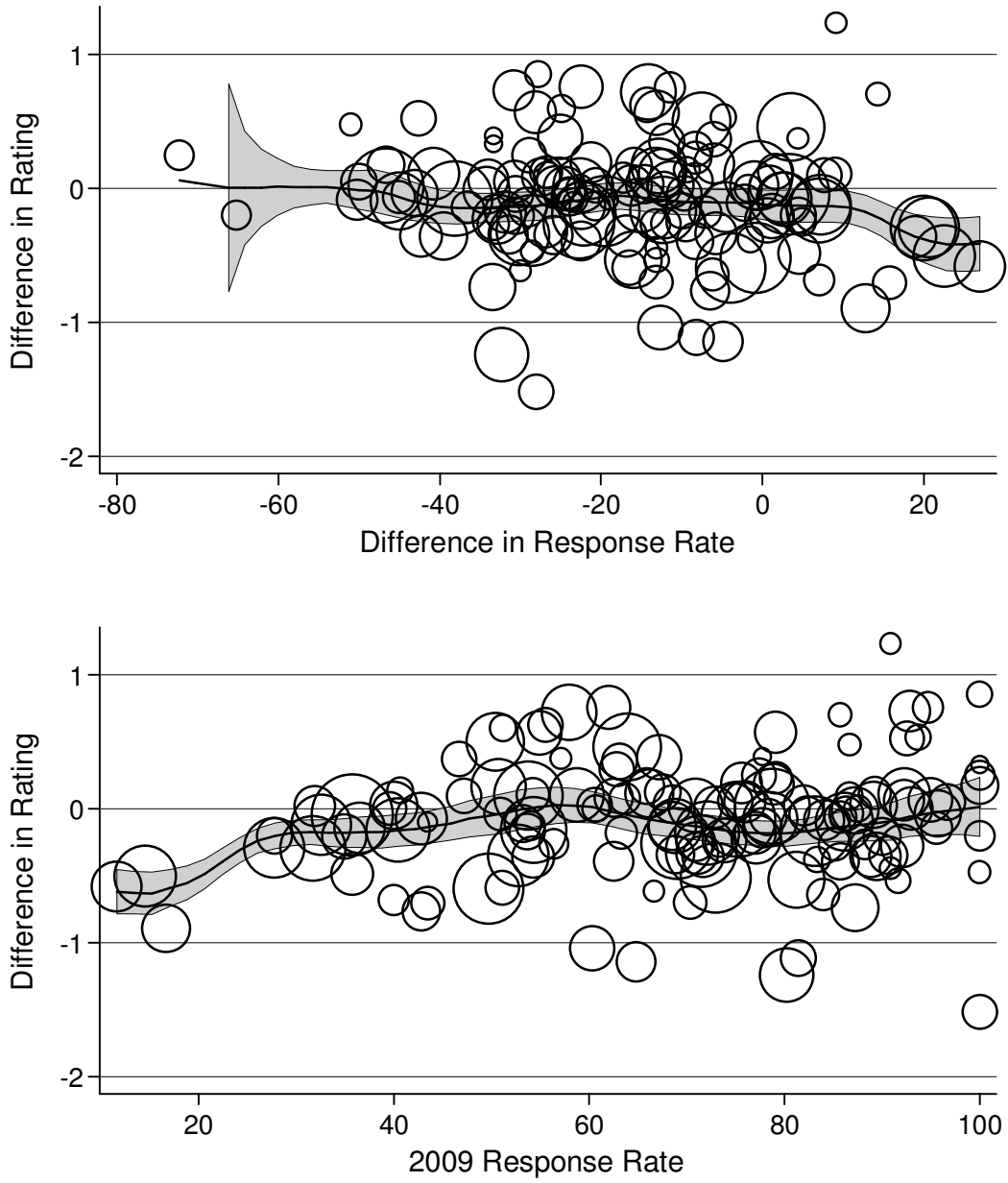


Figure 9. Item 13 nonparametric regression of difference in mean rating on difference in response rate and 2009 response rate.



Appendix A. Mean ratings, spring 2009 and spring 2010.

Table A. All courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.06	0.57	3.85	0.59
6	4.06	0.45	3.93	0.47
7	4.06	0.52	3.87	0.56
8	4.18	0.43	4.04	0.45
9	4.08	0.45	3.94	0.46
10	4.20	0.44	4.03	0.50
11	4.28	0.48	4.14	0.45
12	4.27	0.39	4.17	0.37
13	4.13	0.48	4.00	0.47
Observations		219		232
Sections		255		276
Responses		7,369		6,131

Appendix A. Mean ratings, spring 2009 and spring 2010.

Table A(i). 100/200-level foundation program courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.10	0.41	3.64	0.59
6	4.03	0.25	3.75	0.41
7	4.07	0.30	3.64	0.55
8	4.15	0.28	3.88	0.46
9	3.99	0.23	3.72	0.44
10	4.11	0.25	3.68	0.51
11	4.40	0.25	4.05	0.46
12	4.23	0.26	4.05	0.33
13	4.17	0.33	3.94	0.39
Observations		20		18
Sections		30		27
Responses		1,216		823

Table A(ii). Other 100/200-level courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	3.93	0.41	3.42	0.38
6	3.74	0.43	3.45	0.48
7	3.79	0.40	3.31	0.47
8	4.05	0.34	3.61	0.34
9	3.95	0.33	3.53	0.39
10	4.06	0.43	3.54	0.46
11	4.20	0.44	3.81	0.38
12	4.12	0.39	3.80	0.41
13	3.98	0.43	3.75	0.35
Observations		13		14
Sections		16		21
Responses		458		396

Appendix A. Mean ratings, spring 2009 and spring 2010.

Table A(iii). 300/400-level advanced core courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.00	0.66	3.90	0.55
6	3.95	0.53	3.88	0.41
7	4.01	0.60	3.90	0.48
8	4.11	0.47	4.02	0.39
9	4.03	0.49	3.92	0.37
10	4.17	0.47	4.07	0.44
11	4.22	0.59	4.17	0.38
12	4.17	0.45	4.10	0.34
13	4.02	0.55	3.89	0.48
Observations		38		45
Sections		46		57
Responses		1,737		1,842

Table A(iv). Other 300/400-level courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.07	0.61	3.95	0.61
6	4.12	0.46	4.07	0.44
7	4.08	0.56	4.00	0.56
8	4.20	0.48	4.16	0.44
9	4.11	0.50	4.08	0.45
10	4.23	0.48	4.17	0.43
11	4.27	0.51	4.24	0.44
12	4.34	0.36	4.29	0.33
13	4.17	0.49	4.13	0.47
Observations		99		103
Sections		112		116
Responses		3,025		2,298

Appendix A. Mean ratings, spring 2009 and spring 2010.

Table A(v). 500/600-level MBA foundation and advanced courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.11	0.53	3.73	0.65
6	4.13	0.39	3.93	0.54
7	4.13	0.44	3.84	0.59
8	4.25	0.36	4.04	0.53
9	4.33	0.34	3.93	0.45
10	4.34	0.40	4.07	0.51
11	4.34	0.33	4.04	0.62
12	4.34	0.32	4.14	0.52
13	4.20	0.37	4.05	0.50
Observations		17		16
Sections		17		16
Responses		441		352

Table A(vi). Other 500/600-level courses.

Item	2009		2010	
	Mean	SD	Mean	SD
5	4.12	0.52	3.97	0.57
6	4.37	0.40	4.19	0.48
7	4.24	0.47	4.03	0.58
8	4.36	0.38	4.22	0.40
9	4.27	0.43	4.15	0.55
10	4.36	0.50	4.20	0.60
11	4.25	0.52	4.03	0.52
12	4.42	0.51	4.37	0.30
13	4.30	0.47	4.13	0.50
Observations		32		36
Sections		34		39
Responses		492		420

Appendix B. Percentile values of mean ratings, spring 2009 and spring 2010.

Table B. All courses.

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	3.00	3.25	3.70	4.19	4.48	4.71	4.78	2.84	3.02	3.44	4.00	4.30	4.55	4.65
6	3.15	3.42	3.82	4.09	4.40	4.60	4.69	3.08	3.25	3.64	3.99	4.31	4.49	4.60
7	3.11	3.33	3.79	4.14	4.47	4.64	4.77	2.76	3.12	3.47	3.93	4.29	4.54	4.63
8	3.36	3.59	3.90	4.26	4.50	4.62	4.75	3.25	3.42	3.74	4.10	4.38	4.57	4.65
9	3.36	3.50	3.89	4.11	4.39	4.63	4.70	3.15	3.37	3.65	3.98	4.29	4.50	4.64
10	3.45	3.63	3.95	4.23	4.53	4.71	4.78	3.13	3.33	3.70	4.10	4.42	4.63	4.69
11	3.33	3.56	4.10	4.40	4.60	4.73	4.80	3.24	3.54	3.89	4.20	4.47	4.64	4.74
12	3.50	3.70	4.08	4.33	4.53	4.72	4.82	3.44	3.62	3.92	4.21	4.43	4.62	4.69
13	3.24	3.45	3.87	4.24	4.52	4.66	4.73	3.17	3.29	3.66	4.00	4.38	4.56	4.67
Response Rate (%)	32.56	39.58	53.80	68.99	81.25	90.00	93.75	32.26	36.98	41.14	48.86	61.32	72.00	77.78
Sections				255							276			
Responses				7,369							6,131			

Appendix B. Percentile values of mean ratings, spring 2009 and spring 2010.

Table B(i). 100/200-level foundation program courses

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	3.57	3.57	3.70	4.20	4.34	4.72	4.72	2.64	2.64	3.27	3.63	4.12	4.33	4.50
6	3.60	3.77	3.83	4.00	4.22	4.39	4.39	2.94	2.95	3.72	3.76	3.95	4.21	4.43
7	3.64	3.67	3.95	4.02	4.20	4.55	4.55	2.65	2.65	3.47	3.70	3.93	4.19	4.47
8	3.80	3.80	3.81	4.18	4.37	4.54	4.54	3.10	3.10	3.74	3.91	4.19	4.42	4.53
9	3.56	3.76	3.91	4.00	4.11	4.30	4.30	2.96	2.96	3.63	3.70	3.99	4.38	4.38
10	3.71	3.79	4.00	4.14	4.27	4.42	4.42	2.70	3.12	3.34	3.73	4.06	4.36	4.36
11	3.97	4.14	4.30	4.39	4.56	4.68	4.73	3.14	3.14	4.02	4.08	4.37	4.45	4.60
12	3.70	3.70	4.08	4.36	4.40	4.48	4.52	3.35	3.62	3.91	4.08	4.27	4.50	4.50
13	3.82	3.87	3.91	4.20	4.39	4.66	4.66	3.44	3.57	3.66	3.89	4.18	4.46	4.59
Response Rate (%)	27.78	31.71	35.73	54.95	71.51	78.77	78.77	29.41	31.96	32.79	38.99	46.26	51.56	51.56
Sections	30							27						
Responses	1,216							823						

Table B(ii). Other 100/200-level courses

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	3.39	3.39	3.76	3.92	4.31	4.44	4.46	2.96	3.09	3.09	3.27	3.70	4.06	4.13
6	2.99	2.99	3.49	3.85	4.07	4.16	4.27	2.94	2.94	3.00	3.32	3.66	4.33	4.33
7	3.24	3.24	3.43	3.88	4.06	4.20	4.49	2.69	2.92	2.92	3.12	3.43	4.13	4.28
8	3.46	3.46	3.87	4.08	4.34	4.44	4.45	3.23	3.34	3.34	3.45	3.68	4.11	4.33
9	3.50	3.50	3.53	4.10	4.24	4.27	4.38	3.15	3.15	3.30	3.45	3.57	4.22	4.40
10	3.29	3.29	3.92	4.16	4.38	4.48	4.48	3.13	3.13	3.23	3.38	3.64	4.39	4.47
11	3.36	3.36	4.15	4.40	4.54	4.55	4.55	3.35	3.35	3.54	3.70	3.91	4.44	4.47
12	3.39	3.39	4.02	4.24	4.35	4.44	4.52	3.42	3.43	3.43	3.57	4.09	4.50	4.53
13	3.45	3.48	3.54	4.03	4.34	4.53	4.53	3.38	3.53	3.53	3.63	3.81	4.44	4.47
Response Rate (%)	14.51	31.58	46.15	53.80	67.57	81.25	100.00	27.78	30.23	37.01	39.53	53.33	65.28	65.28
Sections	16							21						
Responses	458							396						

Appendix B. Percentile values of mean ratings, spring 2009 and spring 2010.

Table B(iii). 300/400-level advanced core courses.

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	2.97	3.05	3.42	4.25	4.54	4.76	4.78	2.92	3.10	3.45	4.07	4.31	4.50	4.62
6	3.08	3.12	3.47	4.16	4.32	4.67	4.69	3.19	3.24	3.53	3.98	4.18	4.34	4.54
7	2.97	3.11	3.46	4.27	4.50	4.70	4.80	3.18	3.22	3.36	4.03	4.23	4.35	4.62
8	3.29	3.41	3.75	4.22	4.46	4.73	4.80	3.25	3.53	3.71	4.10	4.30	4.50	4.59
9	3.09	3.41	3.59	4.11	4.49	4.63	4.70	3.52	3.55	3.63	3.91	4.15	4.38	4.48
10	3.45	3.48	3.86	4.24	4.53	4.75	4.78	3.33	3.35	3.76	4.21	4.40	4.50	4.60
11	3.04	3.38	3.89	4.46	4.61	4.80	4.80	3.58	3.59	3.89	4.27	4.47	4.53	4.58
12	3.40	3.57	3.78	4.22	4.52	4.77	4.82	3.60	3.64	3.84	4.18	4.38	4.52	4.66
13	3.17	3.24	3.52	4.14	4.53	4.63	4.70	3.17	3.17	3.52	3.98	4.17	4.51	4.64
Response Rate (%)	35.71	40.48	50.79	66.00	83.19	87.50	92.31	34.15	37.96	40.22	45.81	52.63	63.64	72.07
Sections				46							57			
Responses				1,737							1,842			

Table B(iv). Other 300/400-level courses.

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	2.83	3.26	3.82	4.16	4.50	4.70	4.82	2.84	3.02	3.56	4.03	4.40	4.64	4.71
6	3.24	3.45	3.92	4.14	4.45	4.61	4.75	3.25	3.50	3.78	4.15	4.39	4.55	4.63
7	2.84	3.48	3.84	4.16	4.50	4.61	4.78	2.95	3.25	3.71	4.17	4.40	4.57	4.67
8	3.00	3.64	4.06	4.32	4.52	4.66	4.79	3.36	3.52	3.96	4.25	4.52	4.58	4.71
9	3.14	3.43	3.92	4.11	4.45	4.68	4.73	3.33	3.45	3.80	4.13	4.40	4.55	4.75
10	3.39	3.71	3.95	4.33	4.58	4.74	4.86	3.23	3.58	3.91	4.21	4.48	4.68	4.71
11	3.13	3.68	4.10	4.39	4.62	4.73	4.78	3.31	3.61	4.00	4.33	4.60	4.73	4.74
12	3.71	3.85	4.18	4.37	4.60	4.78	4.82	3.67	3.74	4.09	4.35	4.52	4.65	4.74
13	3.13	3.63	3.93	4.27	4.55	4.68	4.82	3.25	3.40	3.90	4.21	4.49	4.63	4.68
Response Rate (%)	40.00	46.67	60.00	68.85	77.42	87.50	90.00	34.48	39.47	45.30	51.29	60.00	70.15	73.21
Sections				112							116			
Responses				3,025							2,298			

Appendix B. Percentile values of mean ratings, spring 2009 and spring 2010.

Table B(v). 500/600-level MBA foundation and advanced courses.

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	3.00	3.46	3.93	4.07	4.63	4.67	4.67	2.50	2.86	3.31	3.76	4.31	4.43	4.43
6	3.44	3.56	3.93	4.16	4.46	4.59	4.69	2.90	3.37	3.46	4.00	4.31	4.62	4.71
7	3.37	3.53	3.86	4.24	4.54	4.63	4.81	2.70	3.20	3.38	3.90	4.31	4.55	4.55
8	3.49	3.86	4.09	4.29	4.55	4.58	4.75	2.87	3.57	3.57	4.07	4.53	4.63	4.65
9	3.70	3.86	4.08	4.31	4.66	4.69	4.73	2.97	3.46	3.69	3.90	4.20	4.43	4.47
10	3.77	3.83	3.88	4.61	4.68	4.77	4.79	3.17	3.48	3.67	4.13	4.57	4.62	4.62
11	3.63	3.92	4.12	4.40	4.55	4.72	4.72	2.63	3.31	3.66	4.24	4.50	4.76	4.76
12	3.76	4.00	4.12	4.34	4.53	4.78	4.82	3.20	3.34	3.71	4.28	4.52	4.71	4.81
13	3.68	3.72	3.74	4.15	4.52	4.69	4.69	3.10	3.50	3.77	4.11	4.45	4.71	4.76
Response Rate (%)	73.91	73.91	82.35	89.13	92.86	97.67	97.67	57.69	58.33	59.18	65.91	74.47	77.78	78.26
Sections				17							16			
Responses				441							352			

Table B(vi). Other 500/600-level courses.

Item	2009							2010						
	5th	10th	25th	50th	75th	90th	95th	5th	10th	25th	50th	75th	90th	95th
5	3.10	3.25	3.78	4.35	4.42	4.73	4.77	2.71	3.29	3.64	4.07	4.50	4.63	4.70
6	3.40	3.70	4.21	4.50	4.60	4.70	4.80	3.21	3.58	3.96	4.33	4.50	4.67	4.80
7	3.30	3.40	4.10	4.32	4.54	4.71	4.80	2.71	3.43	3.72	4.11	4.40	4.54	4.75
8	3.60	3.73	4.15	4.50	4.57	4.73	4.76	3.21	3.80	4.00	4.33	4.50	4.61	4.63
9	3.75	3.78	3.88	4.38	4.60	4.80	4.93	2.79	3.68	3.86	4.21	4.54	4.75	4.80
10	3.38	3.73	4.10	4.54	4.68	4.80	4.87	2.71	3.42	4.08	4.25	4.63	4.77	4.87
11	3.17	3.40	4.00	4.43	4.58	4.67	4.80	2.94	3.19	3.88	4.17	4.39	4.54	4.63
12	3.50	3.67	4.30	4.60	4.72	4.82	4.87	4.00	4.14	4.27	4.38	4.54	4.69	4.75
13	3.30	3.58	4.00	4.47	4.60	4.71	4.86	3.21	3.31	3.86	4.21	4.43	4.67	4.85
Response Rate (%)	77.78	78.95	83.33	88.24	94.74	100.00	100.00	48.00	48.00	61.54	72.97	79.17	92.86	100.00
Sections				34							39			
Responses				492							420			

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C. All courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.458	0.216	0.363	0.206
	4	0.302	0.104	0.354	0.116
	3	0.119	0.092	0.109	0.079
	2	0.078	0.086	0.116	0.106
	1	0.043		0.059	
6	5	0.431	0.190	0.363	0.188
	4	0.323	0.102	0.373	0.112
	3	0.150	0.088	0.133	0.088
	2	0.067	0.069	0.092	0.081
	1	0.029		0.039	
7	5	0.445	0.203	0.375	0.196
	4	0.310	0.101	0.324	0.109
	3	0.140	0.090	0.145	0.094
	2	0.068	0.073	0.103	0.094
	1	0.037		0.052	
8	5	0.464	0.188	0.399	0.186
	4	0.347	0.102	0.389	0.113
	3	0.116	0.082	0.105	0.078
	2	0.047	0.053	0.069	0.069
	1	0.026		0.038	
9	5	0.471	0.193	0.387	0.194
	4	0.212	0.092	0.255	0.101
	3	0.268	0.130	0.299	0.154
	2	0.026	0.047	0.031	0.049
	1	0.023		0.028	
10	5	0.508	0.193	0.425	0.203
	4	0.288	0.098	0.325	0.105
	3	0.129	0.089	0.142	0.098
	2	0.048	0.052	0.068	0.074
	1	0.027		0.040	
11	5	0.542	0.193	0.449	0.193
	4	0.294	0.107	0.372	0.122
	3	0.089	0.079	0.086	0.070
	2	0.049	0.066	0.058	0.064
	1	0.026		0.035	
12	5	0.516	0.188	0.445	0.180
	4	0.324	0.114	0.384	0.118
	3	0.100	0.077	0.094	0.071
	2	0.036	0.045	0.045	0.047
	1	0.023		0.032	
13	5	0.484	0.195	0.410	0.194
	4	0.294	0.100	0.347	0.116
	3	0.130	0.093	0.125	0.095
	2	0.057	0.061	0.070	0.069
	1	0.035		0.047	
Number of Observations			219		232
Number of Sections			255		276
Number of Student Responses			7,369		6,131

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(i). 100/200-level foundation program courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.450	0.180	0.297	0.170
	4	0.326	0.081	0.345	0.093
	3	0.124	0.071	0.129	0.091
	2	0.072	0.064	0.156	0.105
	1	0.027		0.073	
6	5	0.386	0.114	0.296	0.146
	4	0.372	0.078	0.381	0.077
	3	0.156	0.060	0.153	0.073
	2	0.060	0.051	0.118	0.070
	1	0.026		0.051	
7	5	0.418	0.137	0.304	0.154
	4	0.343	0.073	0.310	0.094
	3	0.153	0.081	0.174	0.085
	2	0.063	0.042	0.147	0.099
	1	0.022		0.066	
8	5	0.429	0.128	0.333	0.178
	4	0.376	0.068	0.396	0.082
	3	0.126	0.052	0.139	0.078
	2	0.050	0.039	0.078	0.050
	1	0.019		0.054	
9	5	0.412	0.101	0.287	0.138
	4	0.229	0.045	0.248	0.093
	3	0.319	0.085	0.398	0.150
	2	0.021	0.021	0.029	0.039
	1	0.019		0.037	
10	5	0.441	0.118	0.294	0.152
	4	0.320	0.079	0.335	0.089
	3	0.164	0.061	0.196	0.068
	2	0.052	0.035	0.108	0.089
	1	0.022		0.067	
11	5	0.563	0.133	0.398	0.164
	4	0.327	0.087	0.394	0.074
	3	0.074	0.050	0.107	0.077
	2	0.025	0.029	0.056	0.044
	1	0.012		0.044	
12	5	0.478	0.124	0.386	0.150
	4	0.352	0.073	0.413	0.081
	3	0.115	0.059	0.102	0.067
	2	0.034	0.033	0.059	0.040
	1	0.021		0.040	
13	5	0.476	0.153	0.373	0.143
	4	0.316	0.098	0.374	0.071
	3	0.134	0.086	0.126	0.073
	2	0.048	0.037	0.071	0.056
	1	0.026		0.056	
Observations		20		18	
Sections		30		27	
Responses		1,216		823	

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(ii). Other 100/200-level courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.365	0.148	0.185	0.149
	4	0.365	0.080	0.380	0.094
	3	0.144	0.063	0.172	0.073
	2	0.094	0.077	0.198	0.085
	1	0.033		0.066	
6	5	0.291	0.133	0.175	0.154
	4	0.347	0.092	0.379	0.110
	3	0.217	0.066	0.221	0.103
	2	0.103	0.077	0.170	0.112
	1	0.042		0.056	
7	5	0.298	0.144	0.184	0.150
	4	0.374	0.062	0.293	0.082
	3	0.186	0.065	0.245	0.062
	2	0.101	0.081	0.199	0.084
	1	0.042		0.078	
8	5	0.369	0.138	0.215	0.145
	4	0.416	0.068	0.429	0.088
	3	0.140	0.064	0.163	0.097
	2	0.048	0.034	0.134	0.056
	1	0.026		0.058	
9	5	0.387	0.161	0.216	0.148
	4	0.237	0.081	0.235	0.046
	3	0.323	0.116	0.457	0.129
	2	0.042	0.039	0.043	0.032
	1	0.011		0.049	
10	5	0.418	0.177	0.230	0.185
	4	0.338	0.054	0.333	0.073
	3	0.156	0.078	0.250	0.103
	2	0.064	0.057	0.124	0.071
	1	0.024		0.063	
11	5	0.470	0.163	0.275	0.169
	4	0.348	0.047	0.447	0.099
	3	0.110	0.051	0.134	0.050
	2	0.053	0.072	0.096	0.065
	1	0.020		0.048	
12	5	0.418	0.149	0.289	0.174
	4	0.378	0.072	0.396	0.088
	3	0.131	0.058	0.193	0.071
	2	0.049	0.061	0.074	0.054
	1	0.024		0.048	
13	5	0.387	0.168	0.279	0.159
	4	0.358	0.059	0.407	0.088
	3	0.139	0.092	0.161	0.071
	2	0.080	0.064	0.089	0.031
	1	0.035		0.064	
Observations		13		14	
Sections		16		21	
Responses		458		396	

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(iii). 300/400-level advanced core courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.451	0.252	0.385	0.187
	4	0.292	0.095	0.351	0.087
	3	0.114	0.088	0.105	0.066
	2	0.091	0.102	0.100	0.090
	1	0.052		0.060	
6	5	0.400	0.204	0.357	0.161
	4	0.311	0.087	0.358	0.090
	3	0.167	0.083	0.140	0.081
	2	0.082	0.081	0.102	0.071
	1	0.039		0.043	
7	5	0.440	0.231	0.385	0.179
	4	0.296	0.089	0.321	0.093
	3	0.143	0.096	0.148	0.085
	2	0.083	0.089	0.097	0.083
	1	0.039		0.048	
8	5	0.436	0.207	0.396	0.161
	4	0.353	0.096	0.382	0.099
	3	0.122	0.084	0.108	0.063
	2	0.060	0.060	0.074	0.060
	1	0.028		0.040	
9	5	0.451	0.220	0.379	0.157
	4	0.201	0.082	0.244	0.080
	3	0.297	0.135	0.326	0.138
	2	0.028	0.046	0.023	0.035
	1	0.022		0.027	
10	5	0.507	0.204	0.437	0.182
	4	0.270	0.087	0.323	0.085
	3	0.139	0.082	0.145	0.100
	2	0.055	0.060	0.062	0.065
	1	0.029		0.034	
11	5	0.545	0.228	0.453	0.170
	4	0.260	0.103	0.383	0.117
	3	0.101	0.090	0.083	0.064
	2	0.058	0.077	0.048	0.049
	1	0.037		0.034	
12	5	0.472	0.212	0.420	0.161
	4	0.335	0.104	0.391	0.099
	3	0.116	0.087	0.097	0.055
	2	0.046	0.050	0.056	0.041
	1	0.031		0.037	
13	5	0.455	0.212	0.387	0.185
	4	0.284	0.089	0.312	0.091
	3	0.137	0.091	0.165	0.105
	2	0.076	0.076	0.080	0.072
	1	0.048		0.057	
Observations			38		45
Sections			46		57
Responses			1,737		1,842

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(iv). Other 300/400-level courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.474	0.216	0.412	0.218
	4	0.291	0.114	0.337	0.132
	3	0.115	0.088	0.094	0.079
	2	0.070	0.082	0.103	0.107
	1	0.050		0.055	
6	5	0.460	0.193	0.414	0.187
	4	0.308	0.105	0.369	0.123
	3	0.144	0.097	0.116	0.084
	2	0.061	0.062	0.071	0.076
	1	0.026		0.030	
7	5	0.460	0.205	0.425	0.202
	4	0.302	0.105	0.324	0.121
	3	0.137	0.090	0.121	0.095
	2	0.059	0.071	0.080	0.087
	1	0.041		0.049	
8	5	0.487	0.192	0.453	0.188
	4	0.329	0.106	0.373	0.120
	3	0.115	0.091	0.087	0.077
	2	0.039	0.057	0.057	0.078
	1	0.030		0.030	
9	5	0.492	0.196	0.449	0.208
	4	0.206	0.100	0.258	0.114
	3	0.248	0.124	0.237	0.136
	2	0.025	0.056	0.034	0.058
	1	0.030		0.022	
10	5	0.524	0.199	0.480	0.193
	4	0.286	0.103	0.323	0.121
	3	0.117	0.098	0.113	0.078
	2	0.043	0.050	0.050	0.064
	1	0.030		0.034	
11	5	0.540	0.196	0.502	0.199
	4	0.292	0.111	0.345	0.127
	3	0.087	0.082	0.073	0.068
	2	0.052	0.068	0.052	0.068
	1	0.028		0.027	
12	5	0.548	0.181	0.503	0.177
	4	0.311	0.123	0.363	0.131
	3	0.092	0.077	0.078	0.068
	2	0.030	0.039	0.031	0.044
	1	0.020		0.025	
13	5	0.506	0.199	0.465	0.198
	4	0.278	0.105	0.336	0.122
	3	0.131	0.095	0.096	0.078
	2	0.048	0.054	0.066	0.072
	1	0.036		0.036	
Observations		99		103	
Sections		112		116	
Responses		3,025		2,298	

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(v). 500/600-level MBA foundation and advanced courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.490	0.203	0.278	0.185
	4	0.286	0.103	0.415	0.114
	3	0.102	0.084	0.131	0.074
	2	0.093	0.100	0.111	0.100
	1	0.029		0.065	
6	5	0.463	0.192	0.321	0.200
	4	0.331	0.109	0.446	0.117
	3	0.116	0.075	0.114	0.069
	2	0.059	0.078	0.077	0.068
	1	0.032		0.043	
7	5	0.499	0.207	0.329	0.193
	4	0.274	0.101	0.379	0.106
	3	0.127	0.089	0.152	0.094
	2	0.061	0.048	0.083	0.067
	1	0.039		0.057	
8	5	0.524	0.184	0.361	0.184
	4	0.302	0.086	0.454	0.125
	3	0.098	0.083	0.082	0.063
	2	0.054	0.049	0.065	0.071
	1	0.023		0.037	
9	5	0.584	0.181	0.362	0.182
	4	0.192	0.075	0.301	0.108
	3	0.202	0.133	0.265	0.089
	2	0.014	0.015	0.043	0.086
	1	0.009		0.028	
10	5	0.571	0.211	0.423	0.199
	4	0.272	0.131	0.372	0.102
	3	0.104	0.102	0.099	0.114
	2	0.032	0.043	0.063	0.074
	1	0.020		0.043	
11	5	0.571	0.188	0.446	0.227
	4	0.281	0.117	0.343	0.155
	3	0.077	0.079	0.077	0.074
	2	0.052	0.043	0.077	0.060
	1	0.018		0.057	
12	5	0.571	0.174	0.415	0.196
	4	0.288	0.113	0.420	0.128
	3	0.075	0.055	0.085	0.092
	2	0.043	0.041	0.045	0.062
	1	0.023		0.034	
13	5	0.494	0.173	0.394	0.198
	4	0.308	0.103	0.417	0.135
	3	0.119	0.088	0.088	0.091
	2	0.058	0.055	0.049	0.057
	1	0.021		0.052	
Observations			17		16
Sections			17		16
Responses			441		352

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.

Table C(vi). Other 500/600-level courses.

Item	Rating	2009		2010	
		Proportion	SD	Proportion	SD
5	5	0.465	0.227	0.369	0.224
	4	0.305	0.132	0.402	0.171
	3	0.138	0.176	0.090	0.088
	2	0.069	0.091	0.107	0.142
	1	0.022		0.031	
6	5	0.569	0.203	0.452	0.240
	4	0.297	0.144	0.383	0.170
	3	0.077	0.081	0.093	0.108
	2	0.045	0.083	0.048	0.084
	1	0.012		0.024	
7	5	0.524	0.218	0.421	0.216
	4	0.305	0.164	0.345	0.150
	3	0.089	0.097	0.108	0.092
	2	0.053	0.085	0.093	0.124
	1	0.028		0.034	
8	5	0.537	0.215	0.450	0.197
	4	0.346	0.155	0.405	0.168
	3	0.071	0.084	0.084	0.100
	2	0.030	0.048	0.037	0.067
	1	0.016		0.024	
9	5	0.538	0.222	0.464	0.234
	4	0.243	0.153	0.283	0.142
	3	0.176	0.152	0.208	0.166
	2	0.033	0.060	0.026	0.044
	1	0.010		0.019	
10	5	0.598	0.212	0.517	0.240
	4	0.258	0.123	0.279	0.132
	3	0.079	0.082	0.112	0.111
	2	0.039	0.071	0.069	0.087
	1	0.026		0.024	
11	5	0.524	0.214	0.406	0.201
	4	0.304	0.135	0.377	0.148
	3	0.090	0.095	0.095	0.088
	2	0.057	0.087	0.083	0.105
	1	0.025		0.038	
12	5	0.612	0.236	0.532	0.187
	4	0.276	0.170	0.368	0.169
	3	0.057	0.094	0.065	0.068
	2	0.033	0.065	0.014	0.043
	1	0.022		0.022	
13	5	0.548	0.215	0.426	0.245
	4	0.294	0.122	0.386	0.185
	3	0.090	0.108	0.105	0.128
	2	0.046	0.083	0.055	0.095
	1	0.023		0.029	
Observations		32		36	
Sections		34		39	
Responses		492		420	

Appendix C. Proportion of responses of each rating, spring 2009 and spring 2010.