

Relationships between business faculty teaching and research ratings

Terrance Jalbert
University of Hawaii Hilo

ABSTRACT

This paper examines relationships between teaching ratings and research ratings of business professors. The analysis uses matched data on teaching and research performance for 300 business professors across 104 United States universities. The analysis utilizes teaching data from ratemyprofessor.com (RMP) and research data from Social Science Research Network (SSRN). Findings reveal no evidence of a relationship between teaching ratings and research quality or quantity. However, results show that professor 'Hotness' significantly relates to student teaching evaluation ratings. Evidence shows that female professors receive higher teaching ratings than male professors. Further evidence shows that expertise area explains both teaching and research rankings. The data reveals no teaching performance differences for professors based on their university's research ranking.

Keywords: Gender, Teaching Evaluations, Research Rankings, Teaching Rankings



Copyright statement: Authors retain the copyright to the manuscripts published in AABRI journals. Please see the AABRI Copyright Policy at <http://www.aabri.com/copyright.html>

INTRODUCTION

Considerable debate exists on the relationships between faculty research and faculty teaching. Do better researchers make better teachers? Is there a tradeoff between teaching quality and research quality? Or, are there interacting variables that complicate the relationship between teaching and research? Some authors argue that a positive relationship exists between teaching and research. They argue for the superiority of courses taught by professors who conduct cutting-edge research (Lee, 2004). Others argue that research detracts from teaching quality (Pocklington and Tupper 2002, p. 7). Despite a plethora of existing research, no consensus has emerged. Thus, additional research is warranted to further understand this relationship.

The importance of this issue cannot be overstated. Universities invest considerable resources in both teaching and research endeavors. Properly balancing these expenditures to achieve a desired outcome occupies the time of many administrators. Moreover, administrators face increasing public demand for accountability and measurable outcomes further requiring them to justify selected expenditures. Professors face their own concerns. Professors must balance their efforts to meet university performance standards. In addition, they must carefully craft their career to maximize their desirability both to their current employer and future potential employers. To increase their output, professors often look for ways to achieve synergies between teaching, research and service activities.

Research and teaching ratings, such as those examined in this paper, commonly provide a basic metric to evaluate business professor performance. Some debate exists on the appropriateness of using teaching and research ratings to evaluate professors. Nevertheless, the practice is widely followed. Thus, professors must consciously monitor how each activity they undertake affects their ratings. A great deal is at stake in these ratings. Tenure and promotion results impact the career and earnings of professors. Research, teaching and service performance, and rankings of those performances, influence future job mobility. Merit raises may also be tied to research and teaching ratings.

This paper provides new evidence on the teaching and research relationship for business professors. This paper, along with a companion paper (Jalbert, 2018) rely on the same unique dataset. The sample include data for 300 business professors from 104 United States universities. Jalbert (2018) examines the extent to which individual business faculty excel both at teaching and research. The analysis here identifies relationships between teaching and research. The analysis controls for variables identified previously in the literature as impacting the relationship between teaching and research and examines new variables hypothesized to affect the relationship.

LITERATURE REVIEW

A sizable literature examines the relationship between teaching and research. Hattie and March (1996) provide a meta-analysis of 58 studies. They found no evidence of a relationship between teaching and research. Correlations between teaching and research, in the studies examined, equaled 0.06. Terenzine and Pasarella (1994) observed a minimal relationship between undergraduate teaching and research with correlations ranging between 0.10 and 0.16. Despite the low correlation noted in these studies, faculty seem to have a different view. Vidal and Quintanilla (2000) interviewed 36 faculty from Spain and collect other information. Results

show that professors believe there exist inexorable links between teaching and research. Their findings suggest that research activity leads to an improvement in teaching quality. However, the most specialized types of research impact negatively on general and basic courses.

Competition certainly exists for the time of professors. Oliveras, Blake and Dowds (2003) surveyed 226 faculty from Spanish and United Kingdom universities. They find that service activities have a larger impact on available time for research than teaching. Some 57 percent of United Kingdom participants and 69 percent of Spanish participants viewed research as more important than teaching for career success. Fox (1992) examines a survey of nearly 4,000 faculty over the period 1986-1987. She finds that research and teaching compete. Specifically, teaching related variables negatively relate to research productivity.

Astin (1993) found that real conflicts exist between teaching and research activities. He conducts a survey of all faculty at 212 baccalaureate-granting institutions. He found that institutions which prioritize teaching and student development tend to positively impact undergraduate students. Institutions that heavily emphasize research tend to produce negative patterns of student outcomes. Astin and Chang (1995) extend this analysis to examine if colleges can effectively emphasize both teaching and research. They found that 10 of 20 institutions with the strongest research orientations appear among the 20 institutions with the lowest student orientations. Indeed, only one research-oriented institution reached the top 70 percent of teaching-oriented institutions.

Mathews, Lodge and Bosanquet (2014) examined perceptions of early career academics. They found that 93-95 percent of early career faculty believe they must focus on research to become a successful academic. This contrasts with results of between 42 and 68 percent who indicated they needed to focus on teaching. Cheoi Shin (2011) examined teaching evaluations and publications for 1,060 faculty from a large research university in South Korea. He found the relationship between teaching and research differs across faculty by career stage.

Some authors examine the extent that professor research activity impacts, and provides a positive contribution to, their teaching. Leslie, Harvey and Leslie (1998) surveyed 160 chief academic officers from U.S. colleges and universities. Results show that 92.5 percent of respondents believe that faculty research activity enhances teaching effectiveness at their institution. Moses (1990) surveyed 400 faculty in 1987. She found that 90 percent of respondents, across four disciplines, agreed with the statement that research enhanced their teaching. Smeby (1998) found that more than 90 percent of faculty, at the major subject level, thought their research affected their teaching to some extent.

Newmann (1994) interviewed students. She concluded that tangible benefits accrue to students from faculty research. Jenkins, Blackman, Lindsay and Paton-Salzbart (1998) and Lindsay, Breen and Jenkins, (2002) utilized focus-group discussions to assess the relationship between teaching and research. They found that students positively view faculty research. Students who see faculty research incorporated into their teaching viewed the course as current and intellectually stimulating.

A substantial body of research documents determinants of student teaching evaluations. McPherson (2006) found that class size negatively affects teaching evaluations at the principles level. Professor experience is important in principles courses, but less important in upper division courses. Expected grades significantly impact student evaluation scores. He further found that unobservable professor characteristics influenced student evaluation scores as much or more than all other effects combined. Using data from Turkey, Bilgen, Susanh and Kaytaz (2015) also found a positive association between grades and student teaching evaluations.

Linsky and Strauss (1975) find a negative relationship between university enrollment and overall teaching ratings. Similarly, some studies document differences in the teaching and research relationship among disciplines (Becher and Trowler, 2001, Healey, 2000 and Colbeck (1998).

An assortment of personal characteristics could impact teaching evaluations. Bosow (1995) examined differences in student evaluations by gender of both the professor and the student. She found that student gender does not affect male professor's evaluations. However, female students tend to rank female professors higher than male students. Centra and Gaubatz (2000) also found that female students consistently give higher evaluations to female professors.

Riniolo, Johnson, Sherman and Misso (2006) examined physical attractiveness of professors as they relate to student evaluations. Using ratemyprofessor.com data for four universities, they found that professors perceived as 'Hot' received evaluations about 0.8 of a point higher on a 5-point scale. The results held for both male and female professors. Hamermesh and Parker (2005) examined teaching evaluations from the University of Texas Austin for 2000-2002. They found that perceptions of beauty positively impact teaching ratings by undergraduate students.

DATA AND METHODOLOGY

Data collection involved hand collecting data from two sources. The analysis utilizes data obtained from Social Science Research Network (SSRN). SSRN is the number one open-source repository in the world. As of May 2017, the directory includes research works from more than 339,000 authors. Coverage extends across 30 disciplines and more than 1,000 subject areas. The network has 2.2 million users. The database includes more than 682,000 abstracts and 572,000 full text downloadable articles (Social Science Research Network, 2017).

Faculty and other organizations list their research on SSRN. For inclusion in the database, individuals must upload at least one abstract. Faculty have two options regarding the amount of information provided about their research. Faculty can limit the listing to an abstract. Alternatively, faculty can make the full text document available for download. Individuals may upload working papers and published papers. However, the individual must certify they have legal authority to upload the work. Copyright restrictions and personal preferences limit the ability, and willingness, of some authors to place works on SSRN. Some publishers also list their content on SSRN. SSRN ranks faculty based on research impact. SSRN tracks the number of papers, number of full text downloads, and number of citations. SSRN aggregates these data by individual to assign overall professor ratings. SSRN provides several rankings of professors including the top 30,000 professors overall and the top 12,000 business professors. SSRN further aggregates the data by university and provides university rankings. This paper focuses on business professor ratings and university rankings.

Data collection began by examining the top U.S. Business School Listing available on the SSRN website. The approach involved randomly selecting universities from this listing for inclusion in the sample. SSRN also provides a listing of individual faculty members included in the database from each of these universities. The sample includes faculty identified from these university lists. For further data collection, the data collection process involved cross checking faculty selected against the SSRN top 30,000 authors list.

Several selection criteria limit the sample size. SSRN reports results for many retired faculty. Some of these faculty have been retired for many years. To limit faculty selection to more recently active individuals, selected data includes only professors included in both the

SSRN and ratemyprofessors.com (RMP) databases. Further, the sample includes only individuals identified as assistant, associate or professor. This determination eliminated faculty classified as emeritus, lecturers and other non-tenure track faculty. A full discussion of faculty rank data collection appears later in this section.

Inclusion in the sample requires professors to meet a ten or more student reviews on RMP criteria. This limitation assures that no single student evaluation unduly influences the results. To ensure that no one university overly influenced the sample, the sample includes four or fewer faculty from any institution. In only rare instances did the number of sample-qualified faculty exceed four for a given university.

Data collected from SSRN includes three measures of research performance. For each author, data includes the variables Number of Papers, Total Downloads and Total Citations. Number of Papers indicates the total number of papers in SSRN attributable to the author. Number of Papers measures the research quantity produced by an individual. Total Downloads measures the popularity of an author's research. For an author to receive a download count, SSRN users first view the paper abstract then make a separate election to download the entire document. Larger values indicate the author's work appeals to a large readership. Total Citations measures research quality. A cited paper implies another academic considers the article's contribution to the body of knowledge as noteworthy. Data collection also included university rank (SSRN University Rank) for the most recent twelve months downloads which provides a measure of the current productivity of the university faculty. SSRN provides information on the methodology used to calculate each variable at: https://hq.ssrn.com/rankings/ranking_data_explain.cfm?id=7 and https://hq.ssrn.com/rankings/ranking_data_explain.cfm?id=11.

Teaching quality data were obtained from ratemyprofessors.com (RMP). As of May 2017, RMP includes reviews for 1.6 million professors from 7,000 schools. Further, as of May 2017, the database includes approximately 17 million rankings (ratemyprofessors.com).

Faculty *Area* of specialty was identified from RMP data. When a professor's area was not specifically indicated, an examination of course alphas revealed the appropriate classification. Sample composition includes 78 accounting, 80 economics, 83 finance, 43 management and 16 professors classified as others. While selection was random regarding specialty area, the final sample was heavily weighted toward accounting economics and finance. It was not possible to determine if this outcome occurred randomly, or if the SSRN data contains more faculty from these areas.

RMP reports the Number of Professors contained in their database from each institution, used here to proxy for university size. RMP allows students to rate professors on several attributes. Raw Teaching Rating, scores professors from 1-5 with 5 being the highest possible ranking. Difficulty ratings range from 1 to 5, with a rating of 1 indicating easy and 5 indicating most difficult. The individual's name provided the basis for determining Gender. When there existed any doubt about gender, student written comments successfully resolved the issue. The dummy variable Gender equals 0 for male professors and 1 for female professors.

Students can assign professors a 'Hot' rating if they choose. RMP aggregates the data and reports a professor as 'Hot' if at least 50% of reviewers rate the professor as 'Hot'. The dummy variable Hotness takes a value of 1 if RMP reports the professor as 'Hot' and 0 otherwise. RMP does not define what a 'Hot' rating implies, but the analysis here takes it as a reflection of the professor's personal appearance.

To supplement the RMP data, two additional measures of teaching effectiveness were calculated. RMP reports the Average Teaching Rating for University which averages teaching ratings assigned to all professors from a university. These average ratings reveal considerable variation across universities. The possibility exists that differences in teaching ratings across schools drive the results reported here. To control for cross-university variation, the approach here standardized the individual Raw Teaching Rating relative to the average evaluation for the school where they work. Consider a professor, with Raw Teaching Rating of P_{eval} , who works at a university with average professor rating U_{eval} . Then the Standardized Teaching Rating, for each professor in the sample equals:

$$\text{Standardized Teaching Rating} = \frac{P_{eval}}{U_{eval}} \quad (1)$$

Next, the analysis considers the stylized fact that course difficulty impacts teaching evaluations. The variable Weighted Teaching Rating simultaneously considers both overall quality ratings and course difficulty ratings. As no known standard exists for combining the two effects, this research utilizes an equally weighted measure. Consider a professor with course difficulty rating, $DiffRtg$. Then, Weighted Teaching Rating equals:

$$\text{Weighted Teaching Rating} = \frac{P_{eval} + DiffRtg}{2} \quad (2)$$

RMP also allows students to rate their university. Students evaluate colleges based on ten attributes: Reputation, Location, Opportunities, Facilities and Common Areas, Internet, Food, Clubs, Social, Happiness, and Safety. Students also indicate their graduation year.

The analysis here uses three university measures from RMP: University Reputation, RMP University Rating and RMP Average Professor Rating. For RMP University Reputation, students specify their perception of the university's reputation based on a five-point Likert scale score. The highest ranking is defined as distinguished. The lowest reputation score is defined as virtually unknown. RMP University Rating indicates the perception of the overall university quality. The RMP University Rating variable ranges in value from 1-5 with larger numbers indicating a better university. RMP Average Professor rating equals the average rating assigned to all professors from the university with values ranging from 1-5.

Collected data includes the academic rank of each professor from SSRN. When not available, a general internet search of the professor's name and university helped make the determination. It was not possible to determine when the academic rank was updated. Indeed, some professors achieving a promotion, may not change their status on all documentation. Thus, this variable provides a minimum ranking for the professor as opposed to a definitive variable. As noted earlier, the sample includes only professors classified as assistant, associate or professor. This process eliminated emeritus professors, adjunct professors, lecturers and all other classifications from the sample. The analysis here uses two dummy variables regarding rank. The variable Experience considers each academic rank independently by classifying assistant professors as 0, associate professors as 1 and professors as 2. The variable *Tenured* focuses on tenured status. Assistant professors face a great deal of pressure to publish. We wish to know if achieving tenured status changes the relationship between teaching and research. This variable classifies assistant professors as non-tenured and both associate and professors as

tenured. Assistant professors receive a 0 value. Associate and professors both receive classifications of 1.

The next classification groups the sample universities as public or private institutions based on information obtained from internet searches. Private universities generally pursue different missions than their public counterparts. The resulting differences in desired outcomes might influence the relationship between teaching and research. The Public or Private dummy variable equals 1 for public institutions and 0 for private institutions.

The sample include data for 300 business professors from 104 United States universities. The sample includes 19 universities with data for a single business professor. Data for 17 and 25 universities included observations for two or three business professors respectively. Data for four business professors were available for 43 universities. All data collection occurred during the period March 31, 2017 through April 18, 2017.

Table 1 (appendix) shows summary sample statistics. For some variables, the results report statistic levels as ranges to preserve anonymity of universities and professors included in the sample. Panel A shows summary statistics from SSRN. The average university rank from SSRN equals 200.39 with a median of 181. The highest ranked university comes from the top ten ranked universities. The lowest ranked school in the sample ranked between 600 and 620. Panel B reports summary statistics for data obtained from RMP. RMP data indicates the average number of professors employed by each sample school equals 2,033.28 with a medium equaling 1,727. The maximum number of professors falls between 7,000 and 7,500 professors. The minimum number of professors falls between 100 and 150. The mean teaching rating equals 3.616 and the mean weighted teaching rating equals 3.4502. The mean standardized teaching rating equals 0.9689. The mean teaching difficulty equals 3.2840 with a median of 3.30. The average teaching rating by university equals 3.7338 with a maximum falling between 3.9 and 4.0 and a minimum falling between 3.50 and 3.60.

Table 2 (appendix) provides additional summary statistics. Panel A segregates data by professor experience. The sample includes 65 assistant professors, 103 associate professors and 130 professors. A t-test for differences in means on the Tenured variable indicate no significant differences between tenured and non-tenured faculty for any variable except Weighted Teaching Rating where non-tenured faculty earn significantly higher scores.

Panel B compares results for public vs private universities. Results indicate significant differences for each variable examined with the single exception of Weighted Teaching Rating. In each case, results indicate significance at either the one or five percent level. Private university professors receive higher teaching evaluations, on both a raw and standardized basis. Private university professors produce nearly twice as many papers, are downloaded nearly twice as frequently and receive nearly three times as many citations as public university professors.

Panel C identifies differences by gender. The sample includes 216 males and 84 females. Teaching results indicate that females receive significantly higher teaching evaluations than male professors on Raw and Standardized Teaching Rating. However, no significant differences appear by gender for Weighted Teaching Rating. Females receive Raw Teaching Rating 0.1641 (3.7345 - 3.5704) higher than males on a 5-point scale. Standardized Teaching Rating indicates females receive teaching evaluations 0.0463 (1.0022 - 0.9559) higher than males. These findings show consistency with findings of Bosow (1995) and Centra and Gaubatz (2000) who also found that female professors receive higher teaching ratings. The finding could indicate evaluator bias, or that females make better teachers. The data did not discern by student evaluator gender, so the issue could not be further addressed.

The analysis also examines the relationship between gender and research ratings. The evidence on Number of Papers produced indicates that males, on average, produce 1.6462 (6.3843 - 4.7381) more papers than females. However, the other two research measures indicate no significant gender differences.

Panel D examines the RMP variable Hotness. Results show 61 observations with the 'Hot' designation. A larger percentage of sampled females (29.8 percent, 25 total) received hot designation than males (16.7 percent, 36 total). Professors rated 'Hot' received substantially higher teaching evaluations than other professors. The mean teaching evaluation for 'Hot' professors equals 4.19. The mean for other professors equals 3.47. The non-trivial difference of 0.7182 falls only slightly lower than the 0.8 difference findings of Riniolo, Johnson, Sherman and Misso (2006).

Panel E shows results based on the area of expertise for each faculty member. Management professors earn the highest teaching evaluations, averaging 3.8. Finance professors receive the lowest teaching evaluations on average at 3.45. The difference of 0.35 on a scale of 1-5 is substantial by any interpretation.

RESULTS

The empirical analysis begins with a correlation analysis. Table 3 (appendix) shows the results. Panel A shows correlation among variables taken from ratemyprofessor.com (RMP). The data shows that Raw Teaching Rating and Standardized Teaching Rating have correlation of 0.9954. Given this high level of correlation, the remainder of the analysis excludes the Standardized Teaching Rating results. Raw Teaching Rating and Weighted Teaching Rating produce a correlation of 0.6050. This correlation level suggests important differences in variables, so the examination includes both variables for analysis. One noteworthy finding shows that Weighted Teaching Rating significantly correlates with tenured status. However, Raw Teaching Rating does not significantly correlate with tenured status. This suggests that upon achieving tenure, professors change their teaching and course difficulty approach. Gender on the other hand significantly correlates with Raw Teaching Rating but does not significantly correlate with Weighted Teaching Rating.

Table 3, Panel B, shows correlation between research variables and teaching variables. The results indicate significant correlation between the research variables. Correlations range from 0.4768 between Number of Papers and Total Citations to 0.7151 between Total Citations and Total Downloads. In each case the correlation analysis reveals significance at the 1 percent level. However, the evidence on correlation between the research variables and teaching variables reveals no significant correlations.

Determinants of Teaching Ratings

The analysis continues by using regression analysis to examine determinants of teaching ratings. This analysis initially involves single regressions of the dependent variable, Raw Teaching Rating, on each independent variable as follows:

$$\text{Raw Teaching Rating} = \alpha + \beta_1 \text{Independent Variable} + \varepsilon \quad (3)$$

Table 4 (appendix), Panel A reports the results. None of the research variables significantly explain variations in teaching performance. This finding suggests that research and teaching constitute two separate and substantially unrelated activities.

Six independent variables significantly explain variations in teaching ratings. Area impacts teaching evaluations with significance at the five percent level. The negative coefficient on the Public or Private variable, indicates that public university professors receive significantly lower Raw Teaching Rating than private university professors. A significant coefficient of 0.16415 provides added evidence that females receive higher Raw Teaching Rating than males. Difficulty significantly explains teaching ratings at the one percent level. The negative coefficient indicates that professors perceived as more difficult receive lower ratings. Course Difficulty produces the highest R2 for any independent variable considered at 0.1994. Teachers perceived as 'Hot', receive significantly higher Raw Teaching Rating. With an R2 statistic of 0.1402, Hotness follows only Difficulty in ability to explain Raw Teaching Rating. Clearly, professors wishing to improve their teaching ratings should pay special attention to their appearance. Finally, university reputation as reported by RMP significantly explains Raw Teaching Rating, with professors from schools with better reputations receiving higher Raw Teaching Rating.

University size does not significantly explain variations in Raw Teaching Rating. This finding contradicts those of Strauss (1975), who found a negative relationship between university enrollment and overall teaching ratings. Also, SSRN University Rank does not explain Raw Teaching Rating. Thus, professors from highly rated research universities perform no differently on teaching than professors from other schools.

The following multiple regression selects the individually significant independent variables for further analysis:

$$\text{Teaching Rating} = \alpha + \beta_1 \text{Area} + \beta_2 \text{Public or Private} + \beta_3 \text{Gender} + \beta_4 \text{Difficulty} + \beta_5 \text{Hotness} + \beta_6 \text{RMP University Reputation} + \varepsilon \quad (4)$$

Table 4 (appendix), Panel B shows the results. The evidence indicates that Difficulty and Hotness remain significant at the one percent level after controlling for the explanatory power of the other independent variables. The remaining variables no longer show significance. The model R2 equals 0.3030. Further reduction of the model includes only those two variables significant in the initial multiple regression. The results presented in Table 3, Panel C, show that course Difficulty and Hotness remain in the model with both variables significant at the one percent level. This reduced form regression achieves an R2 of 0.2964.

The analysis continues by considering Weighted Teaching Rating. Recall that Weighted Teaching Rating equally values student perceptions of professor quality and course Difficulty. The analysis design corresponds to the approached used above for Raw Teaching Rating. Table 5 (appendix) shows the results. Once again, in the single regressions reported in Panel A, research variables do not significantly explain the Weighted Teaching Rating. The variables, Area, Experience, Tenure and Hotness individually explain Weighted Teaching Rating. The analysis here does not include Difficulty as an independent variable because it was used to formulate the dependent variable. In the single regressions, the highest R2 value equals 0.0589. The multiple regression results, reported in Panel B, indicate that only Area and Hotness remain significant, producing an R2 of 0.1033. The final reduced model, presented in Panel C,

produces an R2 of 0.0972. The careful reader will notice lower R2 statistics produced here than those resulting from the Raw Teaching Rating results.

Determinants of Research Ratings

This section examines factors that explain faculty research performance. The analysis first examines the Number of Papers listed in the SSRN database. Recall, Number of Papers measures the research quantity produced by a professor. The analysis begins by examining single regressions as follows:

$$\text{Number of Papers} = \alpha + \beta_1 \text{Independent Variable} + \varepsilon \quad (5)$$

The results in Table 6 (appendix) reveal significance for five independent variables, Experience, Public or Private, Hotness, RMP School Rank and RMP School Reputation. Each variable produces significance at the one or five percent levels. RMP School reputation produces the highest R2 of 0.0444. The teaching variables are not significant in explaining the number of papers produced.

The following multiple regression incorporates variables found significant in the single regressions. The regression specification equals:

$$\text{Number of Papers} = \alpha + \beta_1 \text{Experience} + \beta_2 \text{Public or Private} + \beta_3 \text{Hotness} + \beta_4 \text{RMP University Rank} + \beta_5 \text{RMP University Reputation} + \varepsilon \quad (6)$$

Table 6 (appendix), Panel B reports results indicating that three variables remain significant, Experience, Hotness and RMP University Reputation. Next, the analysis considers only those variables found significant in the multiple regression for inclusion in a reduced-form multiple regression. The results, presented in Panel C, show these three variables remain significant at the one or five percent levels. The R2 of the final model equals 0.0696.

Next, the analysis considers Total Downloads. Recall that Total Downloads measures the popularity of a researcher's work. Table 7 (appendix), Panel A reports the single regression results. Results show that SSRN University Rank, Area, Public or Private, RMP School Rank and RMP School Reputation significantly explain Total Downloads. Neither of the teaching rating specifications significantly explain Total Downloads.

Panel B of Table 7 shows the multiple regression. The results indicate University Rank and Area remain significant, while the remaining variables do not achieve a ten percent significant level. The regression R2 equals 0.1043. The final regression, reported in Panel C, which includes the remaining significant variables, reveals an R2 of 0.0820. Results indicate significance at the 1 percent level for both remaining variables, University Rank and Area.

Next, the analysis examines variables that explain Total Citations. Recall the Total Citations variable measures research quality. Table 8 (appendix) shows regression results. The single regression results presented in Panel A indicate that University Rank, Area, Public or Private, Rate My Professor School Rank and RMP School Reputation explain variation in Total Citations. Again, the results show no evidence that teaching variables explain research. The multiple regression results presented in Panel B show that University Rank, Area and Public versus Private, RMP University Rank and RMP University Reputation remain significant,

producing an R2 of 0.1174 and adjusted R2 equaling 0.1024. All variables in the multiple regression show significance so further model reduction is not completed.

CONCLUDING COMMENTS

This paper examines the relationship between teaching and research performance of business faculty from 104 United States universities. Data examined includes matched data from ratemyprofessor.com (RMP) and Social Science Research Network (SSRN) on the teaching and research performance of 300 business faculty classified as assistant, associate or full professor.

The approach here measures teaching performance of each faculty based on three metrics. Raw Teaching Rating indicates student perceptions of professor quality. Standardized Teaching Rating adjusts the Raw Teaching Rating to reflect differences in Raw Teaching Rating across universities. The third measure equally weights Raw Teaching Rating and course Difficulty ratings. The approach used here measures research performance in three ways. The first measure considers the total number of papers an author lists on SSRN, which measures research quantity. The second measure considers the number of downloads an author's works receive on the SSRN database, a measure of research popularity. The third measure considers the number of citations an author's work receives, which measures research quality.

The results provide no evidence of statistically significant relationships between teaching and research ratings. Research ratings do not explain variation in teaching ratings. Similarly, teaching ratings do not explain research ratings. The results hold for both teaching rating metrics considered and for all three research ratings. This finding suggests that neither quantity, popularity or quality of research impacts teaching performance. It appears that teaching and research are separate and unrelated enterprises.

The analysis produces some other interesting results. Results show that university size does not impact teaching or research ratings. The results show that female professors receive consistently higher teaching ratings than their male counterparts. Females receive Raw Teaching Ratings a significant 0.1641 higher than males on a 1-5 scale. However, no significant gender differences appear for Weighted Teaching Ratings. Future research should determine if these gender differences occur because of evaluator bias or because females make better teachers. Evidence indicates that male faculty produce more publications than females, but the popularity and quality scores provide no evidence of differences.

Area of expertise affects both teaching and research ratings. On average finance professors receive the lowest teaching ratings and management professors receive the highest teaching ratings. Finance professors produce the largest number of papers. Economics professors are most frequently cited. Accounting professors produce the fewest papers.

The data reveals that Hotness significantly explains variations in teaching scores. Professors classified as 'Hot' receive 0.7182 higher Raw Teaching Rating, on a 1-5 scale, than professors not classified as 'Hot.' These effects hold when examining Weighted Teaching Rating, but the effect is smaller. 'Hot' professors receive Weighted Teaching Rating a significant 0.2323 higher than non-hot professors. The rather large magnitude of these findings suggests the need for more research to shed additional light on this relationship. From a practical standpoint, individuals control, to some degree, personal appearance. Given the potential impact appearance has on teaching ratings, professors stand to gain by improving their appearance. Faculty wishing to improve their teaching ratings should do what they can to improve their personal appearance through proper grooming, hygiene, dress and accessorizing.

The sample here includes only U.S. business discipline professors. The extent that these results can be generalized is not clear. Further research might explore these relationships for other faculty classifications.

REFERENCES

- Astin, A.W. (1993) "What Matters in College? Four Critical Years Revisited, San Francisco, Jossey-Bass.
- Astin, A.W. and M.J. Chang (1995) "Colleges that Emphasize Research and Teaching: Can you Have your Cake and eat it too?" *Change*, Vol. 27(5, September/October), p. 45-49
- Becher T. and P. Trowler (2001) "Academic Tribes and Territories Intellectual Enquiry and the Cultures of Disciplines," 2nd ed. Buckingham Open University Press/SRHE
- Bilgen Susanh, Z., and M. Kaytaz (2015) "Determinants of Student Evaluation of Teaching: Evidence from Turkey," *Journal of Business & Economic Policy*, vol. 2(1) p. 121-134
- Bosow, S. A. (1995) "Student Evaluations of College Professors: When Gender Matters." *Journal of Educational Psychology*, vol. 87(4) p. 656-665
- Centra, J. A. and N. B. Gaubatz (2000) "Is there Gender Bias in Student Evaluations of Teaching?," *Journal of Higher Education*, vol. 71(1) p. 17-33
- Cheol Shin, J. (2011) "Teaching and Research Nexuses Across Faculty Career Stage, Ability and Affiliated Discipline in a South Korean Research University," *Studies in Higher Education*, vol. 36(4) p. 485-503
- Colbeck (1998) "Merging the Seamless Blend," *The Journal of Higher Education*, Vol. 369(6) p. 647-671
- Fox, M. F. (1992) "Research, Teaching and Publication Productivity: Mutuality versus Competition in Academia," *Sociology of Education*, vol. 65 (4, Oct) p. 293-305
- Hamermesh D. D. and A. Parker (2005) "Beauty in the Classroom: Instructors' Pulchritude and Putative Pedagogical Productivity," *Economics of Education Review*, Vol. 24(4) p. 369-376
- Hattie, J. and H.W. Marsh (1996) "The Relationship Between Research and Teaching: A Meta-Analysis," *Review of Educational Research*, Vol. 66(4) p. 507-542
- Healey, M. (2000) "Developing the Scholarship of Teaching in Higher Education: A Discipline-Based Approach. *Higher Education Research and Development*, Vol. 19(2) p. 169-189
- Jalbert, T. (2018) "Do Professors Who Excel at Both Teaching and Research Exist?" *Working Paper*
- Jenkins, A., T. Blackman, R.O. Lindsay and R. Paton-Salzberg (1998) "Teaching and Research: Student Perceptions and Policy Implications," *Studies in Higher Education*, Vol. 23(2) p. 127-141
- Lee, R. (2004) "Research and Teaching: Making – or Breaking – the Links," *Planet*, Vol 12, p. 9-10
- Leslie, P.L., L.K. Harvey and G.J. Leslie (1998) "Chief Academic Officers' Perceptions of the Relationship between Faculty Research and Undergraduate Teaching," *Sociological Spectrum*, vol. 18(2), p. 185-199
- Lindsay, R. R. Breen and A. Jenkins (2002) "Academic Research and Teaching Quality: The Views of Undergraduate and Postgraduate Students," *Studies in Higher Education*, Vol. 27(3) p. 309-327

- Linsky A.S. and M.A. Strauss (1975) Student Evaluations, Research Productivity and Eminence of College Faculty, *Journal of Higher Education*, Vol. 46(1) p. 89-102
- Mathews, K. E., J. M. Lodge and A. Bosanquet (2014) "Early Career Academic Perceptions, Attitudes and Professional Development Activities: Questioning the Teaching and Research Gap to Further Academic Development," *International Journal for Academic Development*, vol. 19(2) p. 112-124
- McPherson, M. A. (2006), "Determinants of How Students Evaluate Teachers," *Research in Economic Education*, vol.37(1, Winter) p. 3-20
- Moses, I. (1990) "Teaching, Research and Scholarship in Different Disciplines," *Higher Education* vol. 19(3), p. 351-375
- Newmann R. (1004) "The Teaching-Research Nexus: Applying a Framework to University Students' Learning Experiences," *European Journal of Education*, Vol. 29(3) p. 323-339
- Oliveras, E., J. Blake and J. Dowds (2003) "The Interaction Between Teaching and Research: Perceptions of Accounting Academics in Spain and in the United Kingdom," *Working Paper*
- Pocklington, T. and A. Tupper, (2002) "No Places to Learn: Why Universities AREn't Working," Vancouver: University of British Columbia Press
- Ratemyprofessors.com, Data collected from www.ratemyprofessors.com. Data were collected during the period March 31, 2017 through April 18, 2017
- Ratemyprofessors.com "Top Lists Ranking Methodology," <http://www.ratemyprofessors.com/blog/toplist?posturl=/methodology/> accessed 05/20/2017
- Riniolo, T. C., K. C. Johnson, T. R. Sherman and J. A. Misso (2006), "Hot or Not: Do Professors Perceived and Physically Attactive Receive Higher Student Evaluations?" *The Journal of General Psychology*, Vol. 13(1) p. 19-35
- Smeby, JC. (1998) "Knowledge Production and Knowledge Transmission: The Interaction between Research and Teaching at Universities," *Teaching in Higher Education*, " vol. 3(1) p. 5-20
- Social Science Research FAQ accessed May 21, 2017
https://www.ssrn.com/en/index.cfm/ssrn-faq/#what_is
- Terenzini, P.T. and E.T. Pascarella (1994) "Living with Myths: Undergraduate Education in America," *Change*, Vol. 26(1, January/February) p. 28-32
- Vidal, J. and M. A. Quintanilla (2000) "The Teaching and Research Relationship Within an Institutional Evaluation," *Higher Education*, Vol 40(2) p. 217-229

APPENDIX

Table 1: Summary Statistics

	Scale	Mean	Medium	Max	Min	Standard Deviation
Panel A: Social Science Research Network (SSRN) Data						
University Rank		200.39	181	600-610	1-10	114.3411
Last 12 Months Download		147.60	41.5	2,100-2.200	0	258.4053
Number of Papers		5.9233	3.0000	55-60	1.0000	8.0336
Total Citations		19.9267	0	350-400	0	46.4750
Total Downloads		1675.95	446	35,000-40,000	1	3,287.3830
Panel B: RatemyProfessors (RMP) Data						
Number of Professors		2033.28	1727	7,000-7,500	100-150	1,246.4681
Number of Teaching Ratings		29.3533	21.0000	230-250	10.0000	25.6781
Teaching Rating	1-5	3.6163	3.7000	4.9000	1.10-1.40	0.7734
Standardized Teaching Rating		0.9689	0.9974	1.3315	0.3226	0.2079
Weighted Teaching Rating		3.4502	3.4500	4.700	1.800	0.3853
Teaching Difficulty	1-5	3.2840	3.3000	4.9000	1.30-1.60	0.6866
Hotness	1, 0	0.2033	0.0000	1.0000	0.0000	0.4032
University Ranking	1-5	3.9117	3.9000	4.40-4.60	3.10-3.30	0.3105
University Reputation	1-5	3.9713	4.0000	4.60-4.80	3.0-3.3	0.3949
Average Teaching Rating for University	1-5	3.7338	3.7400	3.9-4.0	3.5-3.60	0.0740

This table shows summary statistics for variables included in the study. For some variables, data is reported in ranges to protect the anonymity of universities and professors included in the sample.

Table 2: Summary Statistics

		N	Raw Teaching Rating	Standardized Teaching Rating	Weighted Teaching Rating	Number of Papers	Total Downloads	Total Citations
Panel A: Professor Experience								
Prof. Experience	Assistant Professor	65	3.6923	0.9894	3.5338	5.3385	1,827.0	20.2000
	Associate Professor	105	3.5904	0.9625	3.4362	4.5048	1,466.5	13.7524
	Professor	130	3.5992	0.9637	3.4196	7.3615	1,769.6	24.7769
Tenure	Non-tenured	65	3.6923	0.9894	3.5338	5.3385	1,827.1	20.2000
	Tenured	235	3.5953	0.9632	3.4270	6.0851	1,634.1	19.8511
t-statistic			0.89	0.90	2.29**	-0.90	0.48	0.05
Panel B: Private or Public								
	Private	87	3.7621	1.0123	3.4695	8.2759	2545.6	36.9885
	Public	213	3.5568	0.9511	3.4423	4.9624	1320.7	12.9577
t-statistic			2.10**	2.33**	0.56	3.29***	2.35**	3.08***
Panel C: Gender								
	Male	216	3.5704	0.9559	3.4588	6.3843	1,787.4	20.8519
	Female	84	3.7345	1.0022	3.4280	4.7381	1,389.5	17.5476
t-statistic			-1.77*	-1.74*	0.62	2.11**	1.13	0.55
Panel D: Hotness								
Hotness	Hot Indicated	61	4.1885	1.1217	3.6352	7.7869	1,493.3	28.3443
	Hot Not Indicated	239	3.4703	0.9298	3.4029	5.4477	1,722.6	17.7782
t-statistic			-8.92***	-8.87***	-4.32***	-1.74*	0.63	-1.23
Panel E: Area								
	Accounting	78	3.6080	0.9690	3.4936	4.5264	2,414.4	17.9615
	Economics	80	3.7013	0.9902	3.4331	6.0875	878.70	37.6301
	Finance	83	3.4530	0.9228	3.5133	7.7349	2,246.2	31.2530
	Management	43	3.8023	1.0210	3.3663	4.9605	1,891.3	14.1628
	Others	16	3.5813	0.9607	3.2063	5.3750	1,161.8	6.4375

This table reports summary statistics for five categorical variables utilized in this study. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Raw Teaching

Rating refers to the teaching rating assigned by evaluators in ratemyprofessor (RMP), with values ranging from 1-5. Standardized Teaching Rating reflects differences in average student ratings across universities. Weighted Teaching Rating equally weights the Raw Teaching Rating and the course Difficulty with a range from 1-5. Hotness equals 1 for professors classified as ‘Hot’ in the RMP database and 0 otherwise. Gender equals 1 for females and 0 males. Public or Private equals 1 for public universities and 0 otherwise. Number of Papers shows the number of papers an author has included in the Social Science Research Network (SSRN) database. Total Downloads equals the number of times SSRN users have downloaded a paper. Total Citations indicates the frequency that other authors cite an individual’s work.

Table 3: Correlation Test Results

Panel A: RMP Variables									
	Teaching	Std. Teach	WGT Teach	Difficulty	Hotness	Gender	Area	Tenured	Pub/Prv
Teaching	1.0000	0.9954***	0.6050***	-0.4465***	0.3744***	0.0955*	0.1262**	-0.0518	-0.1206**
Std Teach		1.0000	0.5981***	-0.4491***	0.3720***	0.1002*	0.1304**	-0.0520	-0.1337**
WGT Tch			1.0000	0.4423***	0.2428***	-0.0359	-0.1881***	-0.1142**	-0.0322**
Difficulty				1.0000	-0.1489***	-0.1479**	-0.3536***	-0.0701	0.0998*
Hotness					1.0000	0.1461**	0.0305	-0.0962*	-0.0604
Gender						1.0000	0.1022	-0.0685	-0.1250**
Area							1.0000	0.0640	0.0061
Tenured								1.0000	-0.1400**
Pub/Prv									1.0000
Panel B: SSRN and RMP Variables									
	Teaching	Std Teach	WGT Tch	Npapers	Tdownloads	TCite			
Teaching	1.0000	0.9954***	-0.4465***	0.0475	0.0142	0.0399			
Std Teach		1.0000	-0.4491***	0.0497	0.0149	0.0412			
WGT Tch			1.0000	-0.0187	0.0247	0.0351			
NPapers				1.000	0.5540***	0.4787***			
Tdownloads					1.0000	0.7151***			
Tcite						1.0000			

This table reports correlation statistics for variables included in the analysis. Each cell reports correlation levels along with an indicator of significance. *** indicates significance at the 1 percent level. ** indicates significance at the 5 percent level. * indicates significance at the 10 percent level. Teaching indicates the Raw Teaching Rating taken from ratemyprofessor.com (RMP) with values ranging from 1-5. Std. Teach refers to the Standardized Teaching Rating that reflects differences in average student ratings across universities. WGT Tch indicates the Weighted Teaching Rating which equally weights the Raw Teaching Rating and the course Difficulty with a range from 1-5. Difficulty indicates the evaluator’s perception of the course difficulty with range from 1-5. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. The variable Tenured equals 1 for tenured faculty and 0 otherwise. Pub/Prv is the dummy variable Public or Private and equals 1 for public universities and 0 otherwise. NPapers indicates the Number of Papers an author has included in the Social Science Research Network (SSRN) database. Tdownloads indicates Total Downloads equaling the number of times SSRN users that have downloaded a paper. TCite indicates Total Citations attributable to the author’s work.

Table 4: Regression Results on Raw Teaching Rating

Panel A: Single Regressions				
Variable	Intercept	Coefficient	T-Statistic	R2
Number of Professors	3.7007	-0.00004	-1.16	0.0045
SSRN University Rank	3.6555	-0.00019	-0.50	0.0008
Number of Papers	3.5893	0.00457	0.52	0.0023
Total Downloads	3.6107	0.000003	0.25	0.0002
Total Citations	3.6031	0.00007	0.69	0.0016
Area	3.4983	0.08217	2.20**	0.0159
Experience	3.6645	-0.03959	-0.69	0.0016
Tenured	3.6923	-0.09699	-0.89	0.0027
Public or Private	3.7621	-0.20526	-2.10**	0.0146
Gender	3.5704	0.16415	1.66*	0.0091
Hotness	3.4703	0.71823	6.97***	0.1402
Difficulty	5.2681	-0.50298	-8.61***	0.1994
RMP University Rating	3.1804	0.11144	0.77	0.0020
RMP University Reputation	2.7868	0.20887	1.85*	0.0114
RMP Average Professor Rating	2.9618	0.17531	0.29	0.0003
Panel B: Multiple Regression		Coefficient	T-Statistic	
Intercept		4.6921		
Area		-0.01722	0.51	
Public or Private		-0.07029	-0.75	
Gender		-0.02883	-0.33	
Difficulty		-0.45726	-7.63***	
Hotness		0.59621	6.23***	
RMP University Reputation		0.09753	0.091	
R2		0.3030		
Adjusted R2		0.2887		
Panel C: Multiple Regression		Coefficient	T-Statistic	
Intercept		4.9718		
Difficulty		-4.5016	-8.12***	
Hotness		0.6041	6.40***	
R2		0.2964		
Adjusted R2		0.2916		

This table shows regression results. The dependent variable equals Raw Teaching Rating as assigned by student evaluators for each professor. Panel A shows results for single regressions incorporating each independent variable into the model individually. The estimated equation equals: Raw Teaching Rating = $\alpha + \beta_1$ Independent Variable + ϵ . Panel B shows the results of a multiple regression that includes those variables found significant in the single regressions. Panel C shows results of further reducing the model to include only variables significant in the initial multiple regression. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Number of Professors indicates the number of professors from an institution listed in the ratemyprofessors.com (RMP) database. SSRN University Rank indicates the university’s rank from the SSRN U.S. Business School listing. Number of Papers indicates the total number of papers an author has included in the Social Science Research Network (SSRN) database. Total Downloads indicates the number of times SSRN users that have downloaded the author’s papers. Total Citations indicates the number of citations attributable to an author’s work. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. Experience equals 0, 1 and 2 for assistant, associate and professors respectively. The variable Tenured equals 1 for tenured faculty and 0 otherwise. The dummy variable Public or Private equals 1 for public universities and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. Difficulty indicates the evaluator’s perception of course difficulty with range from 1-5. RMP University Rating indicates student evaluator’s overall opinion of the university with values ranging from 1-5. RMP University Reputation indicates student evaluators perception of the university’s reputation with values ranging from 1-5. RMP Average Professor Rating equals the average rating assigned to professors from a given university.

Table 5: Regression results on Weighted Teaching Rating

Panel A: Single Regressions				
Variable	Intercept	Coefficient	T-Statistic	R2
Number of Professors	3.49750	-0.00002	-1.30	0.0057
SSRN University Rank	3.45315	-0.00001	-0.08	0.0000
Number of Papers	3.45549	-0.00090	-0.32	0.0004
Total Downloads	3.44530	0.000003	0.43	0.0006
Total Citations	3.44436	0.00029	0.61	0.0012
Number of Papers	3.45549	-0.00090	-0.32	0.0004
Area	3.53795	-0.06110	-3.31***	0.0354
Experience	3.51345	-0.05202	-1.82*	0.0110
Tenured	3.53385	-0.10682	-1.99**	0.0131
Public or Private	3.46954	-0.02729	-0.56	0.0010
Gender	3.45880	-0.03082	-0.62	0.0013
Hotness	3.40293	0.23232	4.32***	0.0589
RMP University Rating	3.13885	0.07959	1.11	0.0041
RMP University Reputation	3.17540	0.06919	1.23	0.0050
RMP Average Professor Rating	2.46662	0.26342	0.87	0.0026
Panel B: Multiple Regression				
Intercept		3.5498		
Area		-0.0618	-3.43***	
Experience		-0.0014	-0.03	
Tenured		-0.0716	-0.52	
Hotness		0.2306	4.35***	
R2		0.1033		
Adjusted R2		0.0912		
Panel C: Multiple Regression				
Intercept		3.4931		
Area		-0.0636	12.59***	
Hotness		0.2380	20.34***	
R2		0.0972		

This table shows regression results. The dependent variable equals Weighted Teaching Rating which equally values Raw Teaching Rating and course Difficulty ratings earned by each professor. Panel A shows results for single regressions, incorporating each independent variable into the model individually. The estimated equation equals: $\text{Weighted Teaching Rating} = \alpha + \beta_1 \text{Independent Variable} + \varepsilon$. Panel B shows the results of a multiple regression that includes those variables found significant in the single regressions. Panel C shows results from further reducing the model to include only variables significant in the initial multiple regression. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Number of Professors indicates the number of professors from an institution listed in the ratemyprofessors.com (RMP) database. SSRN University Rank indicates the universities rank from the SSRN U.S. Business School listing. Number of Papers indicates the total number of papers an author has included in the Social Science Research Network (SSRN) database. Total Downloads indicates the number of times SSRN users have downloaded the author’s papers. Total Citations indicates the number of citations attributable to an author’s works. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. Experience equals 0, 1 and 2 for assistant, associate and professors respectively. The variable Tenured equals 1 for tenured faculty and 0 otherwise. The dummy variable Public or Private equals 1 for public universities and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. Difficulty indicates the evaluator’s perception of the course difficulty with range from 1-5. RMP University Rating indicates student evaluator’s overall opinion of the university with values ranging from 1-5. RMP University Reputation indicates student evaluators perception of the university’s reputation with values ranging from 1-5. RMP Average Professor Rating equals the average rating assigned to professors from a given university.

Table 6: Regression Results on Number of Papers

Variable	Intercept	Coefficient	T-Statistic	R2
Panel A: Single Regressions				
Number of Professors	6.40322	-0.0002	-0.63	0.0013
Area	6.79173	-0.6045	-1.55	0.0080
Experience	4.14032	1.2436	2.09**	0.0145
Tenured	5.33846	0.7466	0.66	0.0015
Public or Private	8.27586	-3.3134	-3.29***	0.0351
Gender	6.38426	-1.6462	-1.60	0.0085
Hotness	5.44770	2.3392	2.04**	0.0138
Raw Teaching Rating	4.14023	0.4931	0.82	0.0023
Weighted Teaching Rating	7.26829	-0.3898	-0.32	0.0004
Difficulty	8.78618	-0.8718	-1.29	0.0056
RMP University Rank	-7.27446	3.3740	2.27**	0.0170
RMP University Reputation	-11.10373	4.2875	3.72***	0.0444
Panel B: Multiple Regression		Coefficient	T-Statistic	
Intercept		-4.4810		
Experience		1.1321	1.93*	
Public or Private		-1.4331	-1.25	
Hotness		2.0545	1.82*	
RMP University Rank		-2.8145	-1.00	
RMP University Reputation		5.1963	2.16**	
R2		0.0802		
Adjusted R2		0.0645		
Panel C: Multiple Regression		Coefficient	T-Statistic	
Intercept		-12.0677		
Experience		1.2660	2.18**	
Hot		2.2164	1.97**	
RMP University Reputation		4.0289	3.52***	
R2		0.0696		
Adjusted R2		0.0601		

This table shows regression results. The dependent variable equals Number of Papers which indicates the total number of papers an author has included in the Social Science Research Network (SSRN) database. Panel A shows results for single regressions, incorporating each independent variable into the model individually. The estimated equation equals: Number of Papers = $\alpha + \beta_1$ Independent Variable + ϵ . Panel B shows the results of a multiple regression that includes those variables found significant in the single regressions. Panel C shows results of further reducing the model to include only variables significant in the initial multiple regression. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Number of Professors indicates the number of professors from an institution listed in the ratemyprofessors.com (RMP) database. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. Experience equals 0, 1 and 2 for assistant, associate and professors respectively. The variable Tenured equals 1 for tenured faculty and 0 otherwise. The dummy variable Public or Private equals 1 for public universities and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. Raw Teaching Rating is reported by RMP for each professor with values ranging from 1-5. Weighted Teaching Rating equally weights the Raw Teaching Rating and Difficulty rating for each professor. Difficulty indicates the evaluator’s perception of the course difficulty with range from 1-5. RMP University Rank indicates student evaluator’s overall opinion of the university with values ranging from 1-5. RMP University Reputation indicates student evaluators perception of the university’s reputation with values ranging from 1-5.

Table 7: Regression Results on Total Downloads

Variable	Intercept	Coefficient	T-Statistic	R2
Panel A: Single Regressions				
Number of Professors	1,914.2	-0.1172	-0.77	0.0020
SSRN University Rank	3,083.9	7.0259	-4.35***	0.0597
Area	2362.7	-478.0418	-3.03***	0.0298
Experience	1,660.2	12.9576	0.005	0.0000
Tenured	-1,827.1	-192.9280	-0.42	0.0006
Public or Private	2,545.6	-1,224.8400	-2.97***	0.0287
Gender	1,787.4	-397.9134	-0.94	0.0030
Hotness	1,722.6	-229.2122	-0.49	0.0008
Raw Teaching Rating	1,457.5	60.4163	0.25	0.0002
Weighted Teaching Rating	948.44	210.8603	0.43	0.0006
Difficulty	1,490.5	56.4856	0.20	0.0001
RMP School Rank	-3,507.5	1,325.1328	2.18**	0.0157
RMP School Reputation	-4,167.0	1,458.6814	3.07***	0.0307
Panel B: Multiple Regression		Coefficient	T-Statistic	
Intercept		2770.8348		
SSRN University Rank		-5.6170	-3.22***	
Area		-474.6988	-3.10***	
Public or Private		-617.6880	-1.34	
RMP University Rank		-683.4766	-0.60	
RMP University Reputation		964.6100	0.99	
R2		0.1043		
Adjusted R2		0.0891		
Panel C: Multiple Regression		Coefficient	T-Statistic	
Intercept		3,738.2502		
SSRN University Rank		-6.9446	-4.36***	
Area		-466.8312	-3.04***	
R2		0.0882		
Adjusted R2		0.0820		

This table shows regression results. The dependent variable equals Total Downloads which indicates the number of times SSRN users have downloaded the author’s papers. Panel A shows results for single regressions, incorporating each independent variable into the model individually. The estimated equation equals: Total Downloads = $\alpha + \beta_1$ Independent Variable + ϵ . Panel B shows the results of a multiple regression that includes those variables found significant in the single regressions. Panel C shows results of further reducing the model to include only variables significant in the initial multiple regression. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Number of Professors indicates the number of professors from an institution listed in the ratemyprofessors.com (RMP) database. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. Experience equals 0, 1 and 2 for assistant, associate and professors respectively. The variable Tenured equals 1 for tenured faculty and 0 otherwise. The dummy variable Public or Private equals 1 for public universities and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. Raw Teaching Rating is reported by RMP for each professor with values ranging from 1-5. Weighted Teaching Rating equally weights the Raw Teaching Rating and Difficulty rating for each professor. Difficulty indicates the evaluator’s perception of course difficulty with range from 1-5. RMP University Rank indicates student evaluator’s overall opinion of the university with values ranging from 1-5. RMP University Reputation indicates student evaluators perception of the universities reputation with values ranging from 1-5.

Table 8: Regression Results on Total Citations

Variable	Intercept	Coefficient	T-Statistic	R2
Number of Professors	23.5664	-0.0018	-0.83	0.0023
SSRN University Rank	37.6319	-0.0884	-3.84***	0.0473
Area	28.1230	-5.7051	-2.54**	0.0213
Experience	15.8058	3.3870	0.98	0.0032
Tenured	20.2000	-0.3489	-0.05	0.0000
Public or Private	36.9885	-24.0307	-4.17***	0.0552
Gender	20.8519	-3.3042	-0.55	0.0010
Hotness	17.7782	10.5660	1.59	0.0084
Raw Teaching Rating	11.2603	2.3965	0.69	0.0016
Weighted Teaching Rating	5.3378	4.2284	0.61	0.0012
Difficulty	21.1442	-0.3707	-0.09	0.0000
RMP University Rank	-49.7821	17.8207	2.07**	0.0393
RMP University Reputation	-80.8753	25.3824	3.81***	0.0465
Panel B: Multiple Regression		Coefficient	T-Statistic	
Intercept		36.1737		
SSRN University Rank		-0.0584	-2.37***	
Area		-5.7786	-2.69***	
Public or Private		-13.4206	-2.07**	
RMP University Rank		-27.3594	-1.71*	
RMP University Reputation		30.2942	2.21**	
R2		0.1174		
Adjusted R2		0.1024		

This table shows regression results. The dependent variable equals Total Citations number of citations attributable to an author’s works. Panel A shows results for single regressions, incorporating each independent variable into the model individually. The estimated equation equals: Total Citations = $\alpha + \beta_1$ Independent Variable + ϵ . Panel B shows the results of a multiple regression that includes those variables found significant in the single regressions. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively. Number of professors indicates the number of professors from an institution listed in the ratemyprofessors.com (RMP) database. The categorical variable Area distinguishes between the faculty specialty areas of accounting, economics, finance, management and others. Experience equals 0, 1 and 2 for assistant, associate and professors respectively. The variable Tenured equals 1 for tenured faculty and 0 otherwise. The dummy variable Public or Private equals 1 for public universities and 0 otherwise. The dummy variable Gender equals 1 for females and 0 males. The dummy variable Hotness equals 1 for professors classified as ‘Hot’ and 0 otherwise. Raw Teaching Rating is reported by RMP for each professor with values ranging from 1-5. Weighted Teaching Rating equally weights the Raw Teaching Rating and Difficulty rating for each professor. Difficulty indicates the evaluator’s perception of course difficulty with range from 1-5. RMP University Rank indicates student evaluator’s overall opinion of the university with values ranging from 1-5. RMP University Reputation indicates student evaluators perception of the university’s reputation with values ranging from 1-5.