# How to Compare Faculty Pay Across the Business School 

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#### Abstract

By scaling pay by AACSB averages pay across business school disciplines can be analyzed. This study looks at a unique data set of business school professors at a state university in the southeast. The approach in this paper could be applied to analyze pay practices at many other business schools and over many other time periods.


Key Words: AACSB; Academic research; Accounting; Accreditation; Business schools; Faculty compensation; Faculty pay; Finance; Higher education; Inequity; Inversion; Management; Marketing; MBA programs; Quantitative methods; Pay; Peer-review; Research productivity.

JEL Classification Numbers: A22, A23, G0, H75, I23, J24, J31, J44, M0, M52.

## 1. INTRODUCTION

One of the challenges for business school administrators is to compare faculty pay across the many disciplines within their school. AACSB averages or percentiles are not descriptive because they do not account for the school's ability to pay more or less than the average accredited business school and the school's research profile. Moreover, most academic disciplines within business schools have very small sample sizes and the small samples make rigorous statistical analysis impossible. This paper uses a unique methodology to overcome these problems. I use this methodology to analyze pay with the data set of a public university, where pay data is published annually. By scaling salaries by the AACSB averages for the rank and discipline, job seekers, administrators, and faculty can generate meaningful sample sizes large enough to draw conclusions about how much

[^0]a full professor in marketing and an assistant professor in management should be paid.

In the next section, I review the relevant literature on faculty pay and productivity. The data methodology is discussed in section 3, where basic statistics for the sample are introduced. In section 4, statistical tests of mean and multivariate regressions explaining research faculty pay are conducted. In section 5 , the paper concludes.

## 2. LITERATURE REVIEW

There does seem to be a positive association between research output and academic pay. In the United Kingdom, the government awards grants to the universities based on their assessment of research productivity as part of the Research Excellence Framework (REF). De Fraja et al. (2016) finds a positive and significant association between faculty salaries and how well the university does in the REF evaluations. Five of the seven economics departments studied Hamermesh et al. (1982) found more cited scholars earned significantly more. Diamond (1986) summarizes the results of five studies looking at a range of disciplines. That study found that each citation increases the scholars' pay by between $\$ 50$ and $\$ 1,300$. Beaulieu et al. (2010) finds that only top-tier publications were positively associated with accounting professors' pay in Ontario universities.
Hamermesh and Pfann (2012) find that more prolific academic economists make more. Here to I do find a positive and significant association between research output and pay in terms of peer-reviewed journal article output in the 2015-2016 data. Nevertheless, this effect is only significant if the underpayment and overpayment of finance and management professors at MCOBA, respectively, is controlled for. Moreover, the association between research output and pay disappears even with those controls in the most recent pay period studied.
In New Zealand during the period of Boyle (2008)'s study, pay was set uniformly regardless of discipline. Boyle (2008) found disciplines with more outside opportunities were significantly less productive. In contrast, in this study we control for outside opportunities, and find that the most productive discipline in terms of research in the sample, finance, was the lowest paid, controlling for wages across disciplines. Boyle's findings may point to long-term retention and research output problems for the university studied if the pay disparities found in this paper persist. Pagani and Turetsky (2008) argue that salary formulas that do not take into account differences between disciplines under the California State University collective bargaining agreement created retention problems for accounting and finance faculty. According to the AACSB, accounting and finance are the second and first highest paid disciplines in business schools, respectively.

Porter et al. (2008) found that female professors were paid significantly less after controlling for other factors. I will refer to the sample studied as coming from MCOBA, which is short for the B.I. Moody III College of Business Administration, at the University of Louisiana at Lafayette. I tested that hypothesis by including a dummy for the gender of the MCOBA tenured and tenure-track faculty members. I found no evidence of women making any more or less than men at the MCOBA after controlling for rank and discipline. Indeed, the 10 women in the MCOBA were paid 90 percent of the AACSB average for their rank and discipline while the 25 men made 83 percent of the AACSB average for their rank and discipline in 2015-2016 data. That gap favoring women professors only narrowed slightly in the 2016-2017 academic year with female research faculty earning 91 percent of the AACSB average and male faculty on average earning 86 percent of the AACSB average for their rank and discipline. Thus, there is a better case for gender bias being against men at the MCOBA compared to the pay gap harming women in Porter et al. (2008).

Moore et al. (1998) find that the lower pay of more senior faculty can be explained by lower research output by more senior faculty. Bratsberg (2010) finds that there is a significant penalty for seniority. There is some evidence that, at the MCOBA, higher ranked professors earn less than assistant professors relative to the AACSB averages for their ranks, but this is not proof of absolutely lower pay. It just indicates pay is compressed between the ranks. In this study, after controlling for research productivity, I find assistant professors at the MCOBA are paid a significantly higher percentage of the AACSB average for their rank and discipline than associate professors in 2015-2016, but the percentage gap is insignificant in 2016-2017. Further, I find that full professors at the MCOBA make significantly less than associate professors as a percent of the AACSB averages for their rank and discipline after journal article output is controlled for in the 2015-2016 and 2016-2017 data. I measured seniority as the years from receiving the PhD or DBA . There was no significant benefit or cost to seniority or years since earning the PhD or DBA at the MCOBA.

## 3. DATA

I hand-collected the total, nine-month salary data of the assistant, associate, and full professors in the MCOBA from the University of Louisiana at Lafayette's annual reports from the academic years of 2014-2015, 20152016, and 2016-2017. Salary growth was calculated from the difference between 2016-2017 and 2014-2015 academic years scaled by 2014-2015 salary data.

Total salary was scaled by the AACSB average pay for the professors' ranks and disciplines. 2015-2016 salary was scaled by the 2015-2016 AACSB
average for that rank and discipline. 2016-2017 pay was scaled by the AACSB average for 2016-2017 academic year. Finance professors had the highest average pay for every rank in the AACSB Salary Surveys for both those academic years.

TABLE 1.

Panel A: AACSB Average Pay by Rank and Discipline 2015-2016

|  | New PhD <br> or DBA | Assistant <br> Professor | Associate <br> Professor | Full <br> Professor |
| :--- | :---: | :---: | :---: | :---: |
| Accounting | $\$ 147.9$ | $\$ 145.6$ | $\$ 139.3$ | $\$ 163.8$ |
| Economics | $\$ 100.0$ | $\$ 101.0$ | $\$ 105.9$ | $\$ 142.4$ |
| Finance | $\$ 150.8$ | $\$ 153.8$ | $\$ 148.2$ | $\$ 189.5$ |
| Management | $\$ 117.3$ | $\$ 117.2$ | $\$ 126.4$ | $\$ 161.5$ |
| Marketing | $\$ 124.5$ | $\$ 124.0$ | $\$ 128.0$ | $\$ 166.4$ |
| Quantitative Methods | $\$ 117.2$ | $\$ 120.5$ | $\$ 120.8$ | $\$ 159.7$ |

Salary figures are in thousands.
Source: 2015-2016 AACSB Salary Survey Executive Summary

Panel B: AACSB Average Pay by Rank and Discipline 2016-2017

| 2016-2017 Average AACSB Salaries from the AACSB Salary <br> Survey Executive Summary |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | New PhD <br> or DBA | Assistant <br> Professor | Associate <br> Professor | Full <br> Professor |
| Accounting | $\$ 145.0$ | $\$ 149.4$ | $\$ 144.6$ | $\$ 172.1$ |
| Economics | $\$ 100.3$ | $\$ 103.5$ | $\$ 110.9$ | $\$ 147.9$ |
| Finance | $\$ 153.1$ | $\$ 155.9$ | $\$ 155.6$ | $\$ 195.7$ |
| Management | $\$ 118.0$ | $\$ 119.0$ | $\$ 130.9$ | $\$ 167.4$ |
| Marketing | $\$ 123.6$ | $\$ 126.3$ | $\$ 132.1$ | $\$ 172.8$ |
| Quantitative Methods | $\$ 116.0$ | $\$ 120.5$ | $\$ 127.6$ | $\$ 165.6$ |

Salary figures are in thousands.
Source: 2016-2017 AACSB Salary Survey Executive Summary

The discipline of each professor was identified based on the courses they taught at the business school. The management department had quantitative methods and management professors. The economics and finance department had professors from those two different disciplines. I included only professors for which we had salary data in 2015-2016. There was one hospitality professor, one insurance and risk management professor, and one legal studies assistant professor. I excluded those professors from the sample because the AACSB Salary Survey's did not report average pay for those disciplines.

According to table 2, the finance professors on average earned 71 percent of the AACSB average, which was 11 percent lower than the next lowest paid discipline, economics at 82 percent of average AACSB pay. Management professors on average had the highest scaled pay at 99 percent of the AACSB average for their rank and discipline. The most common rank was associate professor which was 20 professors in 2015-2016. The average pay of a finance associate professor was $\$ 155.6$ thousand in 2016-2017 in the AACSB survey, but the average pay of a management associate professor was $\$ 130.9$ thousand in the same survey.

TABLE 2.
Research Output, Pay, Graduates, and Tenured and Tenure-Track Faculty by Discipline

| Discipline | Average Number of Peer-Reviewed Journal Articles from 2010 to 2015 per Tenured or Tenure-Track Faculty Member | Average Faculty Salaries As a \% of the 2016-2017 AACSB Average for Their Rank | Average Number of Graduates of the Major from 2010 to 2015 per Tenured or Tenure-Track Faculty Member in 2014-2015 | Number of Tenured or TenureTrack Faculty 2014-2015 |
| :---: | :---: | :---: | :---: | :---: |
| Accounting | 4 | 90\% | 10.1 | 7 |
| Economic | 5.7 | 82\% | 2.2 | 6 |
| Finance | 20 | 71\% | 20.8 | 4 |
| Management | 5 | 99\% | 16.5 | 8 |
| Marketing | 5.9 | 95\% | 9.6 | 7 |
| Quant. Methods | 11 | 97\% | 2.7 | 6 |

Sources: Faculty CVs from 2014-2015 AACSB Report, 2016-2017, University of Louisiana at Lafayette Annual Report, 2014-2015 AACSB Continuance of Accreditation Report for the BI Moody III College of Business at the University of Louisiana at Lafayette, and 2016-2017 AACSB Salary Survey Executive Summary

As part of the MCOBA's continuance of accreditation with the AACSB all the faculty submitted CVs that listed their peer-reviewed publications from 2010 to 2015. I counted the peer-reviewed publications listed for ever faculty member. Finance had the highest number of peer-reviewed journal publications of 20 per faculty member. Accounting had only four journal publications per faculty member over the five-year period despite being the highest paid discipline in absolute terms and management only averaged 5 publications from 2010-2015 despite being the highest paid discipline relative to the AACSB averages.

As a robustness check, I scaled 2015-2016 data by the AACSB average for that year, and 2014-2015 salary was scaled by 2014-2015 averages for the rank and discipline. I found similar percentages of scaled pay across the disciplines in those years as are in Table 2. Thus, the relative overpayment
of management and quantitative methods an underpayment of finance relative to the overall average percent of AACSB average pay persisted in 2014-2015 and 2016-2017.

At the time of writing, there has been a de facto hiring freeze on both finance and economics research faculty for eight years, which is much longer than any other discipline listed. No other disciplines in table 2 have had similar hiring freezes. Indeed, both economics and finance have no assistant professors as faculty. While the major totals may support such a freeze in economics, the low-number of majors in quantitative methods did not stop that discipline from hiring a new assistant professor in 2014-2015. In addition, the high number of majors to research faculty in finance means finance majors at MCOBA have a much higher percentage of classes taught by lecturers than all other six disciplines listed. The low pay of finance professors and the low-number of research faculty teaching finance majors may be interrelated. Without a recent market test of finance faculty pay, the wages of finance faculty at MCOBA may have diverged from market salaries.

TABLE 3.
Summary Statistics
Panel A: Summary Statistics for the Dummy Variables

| Finance <br> Dummy | Mang. <br> Dummy | Acct. <br> Dummy | Econ. <br> Dummy | Marketing Dummy | Quant. <br> Methods <br> Dummy | Asst. <br> Prof. <br> Dummy | Full <br> Prof. <br> Dummy | Female <br> Dummy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.1143 | 0.2286 | 0.2000 | 0.1714 | 0.1429 | 0.1429 | 0.2000 | 0.2571 | 0.2857 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0.3228 | 0.4260 | 0.4058 | 0.3824 | 0.3550 | 0.3550 | 0.4058 | 0.4434 | 0.4583 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| 4 | 8 | 7 | 6 | 5 | 5 | 7 | 9 | 10 |

The AACSB continuance of accreditation report for 2014-2015 listed the number of majors graduating in each discipline between 2010-2015. The average number of majors graduating from 2010-2015 was scaled by the number of tenure-track and tenured faculty teaching those majors in 20142015. Finance had the highest number of graduating majors per tenured and tenure-track faculty of the six majors with more than one tenured or tenure-track faculty teaching the major with about 20.8 students per research faculty member. Second was management with 16.5 majors per
research faculty. Fifth and sixth were quantitative methods and economics with 2.7 and 2.2 majors per research faculty, respectively.

In Table 3, Panel A, we have the dummy variables for the sample. In 2015-2016, 11.4, 22.9, 20.0, 17.1, 14.3, and 14.3 percent of the professors in the sample were teaching in the subjects of finance, management, accounting, economics, marketing, and quantitative methods. In 2014-2015, 20 percent were assistant professors and full professors. The balance, the majority of this sample, were associate professors. 28.6 percent of tenured or tenure-track faculty in the sample were women.

Panel B: Summary Statistics for Other Variables

| Statistic | 2015-2016 Salary as a $\%$ of AACSB Average of for the Faculty Member's Discipline and Rank | 2016-2017 Salary as a $\%$ of AACSB Average of for the Faculty Member's Discipline and Rank | $\|$Salary <br> Growth <br> from <br> $2014-$ <br> 2015 to <br> $2016-$ <br> 2017 | Peer- <br> Reviesed <br> Journal <br> Articles <br> 2010- <br> 2015 | Years <br> Since <br> PhD or DBA | Log(1+ <br> Years <br> Since <br> PhD) | Professorship held in 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 85.37\% | 87.89\% | 13.71\% | 7.7429 | 19 | 1.1895 | 1.3714 |
| Maximum | 106.29\% | 118.45\% | 55.26\% | 25 | 42 | 1.6335 | 4 |
| Minimum | 60.25\% | 59.86\% | 1.40\% | 0 | 1 | 0.3010 | 0 |
| Median | 84.48\% | 85.68\% | 11.13\% | 5 | 19 | 1.3010 | 1 |
| Standard Deviation | 9.72\% | 11.17\% | 9.86\% | 6.1517 | 12.4049 | 0.3507 | 1.0596 |
| Mode | None | None | None | 5 | 6 | 0.8451 | 1 |
| Number of Observations | 35 | 35 | 35 | 35 | 35 | 35 | 35 |

The average professor made 87.9 percent of the AACSB average for her rank in 2016-2017. A finance professor was paid 59.9 percent of the AACSB average for his discipline or rank while the highest paid professor was a marketing professor, making over 118 percent of the AACSB average for his rank. Pay rose for the median professor in the two years between 20142015 and 2016-2017 by 11.1 percent. The university underwent a long pay freeze in a period of tight budgets after the great recession of 2008 that lifted around 2014-2015.

The MCOBA had a fairly-mechanical research standard for accreditation and tenure and promotion over the period studied. Journal articles would count towards tenure and promotion and accreditation if they were listed in the Cabell's directory with an acceptance rate of less than 50 percent. Five eligible articles were the minimum for tenure and seven articles were the minimum for promotion to associate professor. Ten articles post promotion to associate professor made a research faculty member eligible for promotion to full professor if the scholar was more than four years from her
associate professor promotion. Three eligible journal articles in five years were necessary to meet the scholarly academic (SA) standard for accreditation. No other quality criteria were generally recognized. The author found very few members of the faculty with Google Scholar profiles listing citations, for example. Thus, I believe that the number of journal articles is a good proxy for research output at the MCOBA.

The most prolific scholar in the sample was a finance professor with 25 peer-reviewed journal publications from 2010-2015. The least prolific over the period had no publications and received his PhD in accounting in 2013. The median scholar produced about one peer-reviewed journal article per year or five over the period. The average and median tenured or tenuretrack faculty member was 19 years from his or her PhD or DBA in 2015. That is, a majority of faculty earned their PhD or DBA prior to 2000.

The average faculty member held 1.4 endowed professorships. The range was four to zero professorships for any faculty member. The professorships usually carried an annual salary of roughly $\$ 3,000$. Professorships were competitively awarded typically and underwent a selection process every three years. Salary figures included any professorship salary.

TABLE 4.
T-tests of Differences in Means between Finance Faculty and the Other Faculty in the MCOBA

| Variable | Mean for <br> Finance | Mean for <br> the rest <br> of MCOBA | Diff. | T-stat. | Two- <br> tailed <br> Signif. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 2016-2017 Total Salary as \% of <br> AACSB Average for the Rank | 0.7073 | 0.9074 | -0.2001 | $-3.911^{* * *}$ | 0.000 |
| Peer-Reviewed Journal Arti- <br> cles from 2010 to 2015 | 20.00 | 6.355 | 13.65 | $5.882^{* * *}$ | 0.000 |
| Salary Growth from 2014-2015 <br> to 2016-2017 | 0.1359 | 0.1376 | -0.0017 | -0.032 | 0.979 |
| Years since the PhD or DBA | 17.25 | 21.77 | -4.524 | -0.663 | 0.512 |
| Number of Professorships Held | 2.500 | 1.226 | 1.274 | $2.420^{* *}$ | 0.021 |
| Number of Observations | 4 | 31 |  |  |  |

MCOBA is the B.I. Moody III College of Business Administration at the University of Louisiana at Lafayette. There were 33 degrees of freedom. ${ }^{* * *}$, ${ }^{* *}$, and ${ }^{*}$ signify at least 99,95 , and 90 percent confidence in the sign of $t$-statistic.

## 4. STATISTICAL TESTS

In table 4, we test if the means of finance faculty on measures of pay, research output, salary growth, experience, and the number of professorships
held were statistically significant from the rest of the tenured or tenuretrack faculty in our sample. With 99 percent confidence, we can conclude finance professors were lower paid ( 71 versus 91 percent of the AACSB average for their rank and discipline) and more productive (20 journal articles versus 6) than the average professor in 2016-2017. With 95 percent confidence, the finance professors held significantly more endowed professorships than other doctoral faculty members in the business school (2.5 versus 1.2 on average). The salary growth of finance was not significantly different than other disciplines. Thus, the pay disparities were not narrowing significantly from 2015 to 2017. Moreover, finance professors had about the same level of experience, 17 years, as the rest of the faculty, 22 years, since the PhD or DBA . Thus, experience is not a likely culprit of the pay disparity.

In the ordinary least squares (OLS) regressions of table 5, the dependent variable is scaled 2015-2016 research faculty pay as a percent of the average pay for their rank and discipline. In models 1 and 2, we find the coefficients for experience (in log years plus one since the PhD or DBA ) and the number of professorships held are insignificant. Model 3 has the highest adjusted R -squared of the five models. Its independent variables the number of journal articles and the dummies for assistant professors, full professors, finance professors, and management professors are all statistically significant at greater than 90 percent confidence. The finance and management dummies are significant with greater than 99 percent confidence. In model 3, finance professors earn 20.6 percent less than comparable economics, marketing, quantitative methods, and accounting professors as a percent of the AACSB average for their rank. Thus, an associate professor of finance with no publications would earn $81.7 \%-20.6 \%=61.7 \%$ of the AACSB average. In contrast, management professors are predicted to earn 8.7 percent more than comparable economics, marketing, quantitative methods, and accounting professors. Model 3 predicts a management professor with no publications would earn $81.7 \%+8.7 \%=90.4 \%$ of AACSB pay. Thus, comparable management professors are paid $28.7 \%$ more as a percent of AACSB averages than finance professors. That is a large and statistically significant pay gap that indicates the college is overpaying for management professors and underpaying for finance professors.

In models 1, 2, and 3, we have dummies for the finance and management professors. In those models, it appears that more productive researchers are paid $0.5 \%$ more per publication in the five-year period. This is statistically significant with 5 percent confidence. Thus, an associate professor with 25 publications in model 3 in accounting, economics, marketing, or quantitative methods would earn about $81.7 \%+25 * 0.5 \%=94.2 \%$ of the AACSB average. Unfortunately, for the one associate professor who did publish that much, he was in finance. Thus, model 3 predicts he would

TABLE 5.
Tenured and Tenure-Track Faculty Pay in MCOBA in 2015-2016 as a Percent of AACSB Average for the Rank and Discipline

| Dependent Variable is 2015-2016 Pay As a \% of AACSB <br> Average Pay for the Rank and Discipline |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 Model 5 |  |
| Constant | $0.745^{* * *}$ | $0.815^{* * *}$ | $0.816^{* * *}$ | $0.878^{* * *}$ | $0.848^{* * *}$ |
|  | $(0.000)$ | $(0.000)$ | $(0.000)$ | $(0.000)$ | $(0.000)$ |
| Peer-Reviewed Journal Articles <br> from 2010 to 2015 | $0.005^{* *}$ | $0.005^{* *}$ | $0.005^{* *}$ | -0.004 |  |
|  | $(0.035)$ | $(0.039)$ | $(0.035)$ | $(0.108)$ |  |
| Log(1+Years Since PhD) | 0.053 |  |  |  |  |
|  | $(0.371)$ |  |  |  |  |
| Number of Professorships Held | 0.005 | 0.002 |  |  |  |
|  | $(0.670)$ | $(0.879)$ |  |  |  |
| Assistant Professor $(X=1$ <br> yes, and $X=0$ if no) | $0.092^{*}$ | $0.059^{* *}$ | $0.058^{* *}$ | $0.098^{* *}$ | $0.103^{* * *}$ |
|  | $(0.054)$ | $(0.041)$ | $(0.038)$ | $(0.011)$ | $(0.011)$ |
| Full Professor Dummy $(X=1$ <br> if yes, and $X=0$ if no) | $-0.062^{* *}$ | $-0.047^{*}$ | $-0.047^{*}$ | -0.055 | -0.051 |
|  | $(0.043)$ | $(0.061)$ | $(0.057)$ | $(0.106)$ | $(0.141)$ |
| Management Dummy $(X=1$ <br> yes, and $X=0$ if no) | $0.083^{* * *}$ | $0.087^{* * *}$ | $0.087^{* * *}$ |  |  |
|  | $(0.003)$ | $(0.002)$ | $(0.001)$ |  |  |
| Finance Dummy $(X=1$ if yes, <br> and $X=0$ if no) | $-0.208^{* * *}$ | $-0.208^{* * *}$ | $-0.206^{* * *}$ |  |  |
|  | $(0.000)$ | $(0.000)$ | $(0.000)$ |  |  |
| Adjusted R-Squared | 0.632 | 0.634 | 0.646 | 0.293 | 0.254 |
| Number of Observations | 35 | 35 | 35 | 35 | 35 |

P-values are in parentheses. ${ }^{* * *}$, ${ }^{* *}$, and ${ }^{*}$ signify at least 99, 95, and 90 percent confidence in the sign of the coefficient. MCOBA is the B.I. Moody III College of Business at the University of Louisiana at Lafayette.
earn $81.7 \%+25 * 0.5 \%-20.6 \%=73.6 \%$ of the AACSB average. If that scholar was in management, then the model would predict that he would earn $81.7 \%+25 * 0.5 \%+8.7 \%=102.9 \%$ of the AACSB average for associate professors in management. In model 4 , in which the finance and management dummies are dropped, the positive and significant relationship between research output disappears. That is, if we don't control for the underpayment of finance professors and the overpayment of management professors, the rewards for research output become negative and insignificant.

It also seems clear that higher ranked professors are relatively underpaid in the MCOBA. This effect is not as large in magnitude as the underpayment of the finance faculty, but it is statistically significant in all models. Assistant professors are paid significantly more as a percent of the average AACSB pay for their rank. This ranges from 5.8 to 10.3 percent in the five models. Thus, model 3 predicts that an assistant professor in accounting, economics, marketing, or quantitative methods would make $81.7 \%+5.8 \%=87.5 \%$ if he or she had no journal publications. In contrast, if he or she was a full professor with no publications between 2010-2015 in accounting, economics, marketing, or quantitative methods then model 3 would predict that that professor would earn $81.7 \%-4.7 \%=77.0 \%$ of the AACSB average for full professors.

The significance of the assistant professor and full professor dummies is not evidence of absolute levels of "inversion". Inversion is when a higher ranked professor makes less than a lower ranked professor in the same discipline. In absolute terms, I did not observe absolute levels of inversion except in the management department (management and quantitative methods disciplines) in 2015-2016. Nevertheless, because associate and full professors generally make more than assistant professors in table 1, there can be no absolute inversion in many MCOBA departments even though there is a great deal of relative inversion and higher ranked professors make significantly lower percentages of AACSB pay.

In regression results, which are not reported, I included a dummy variable for the gender of the research faculty member. I found the gender dummy variable to be statistically insignificant when the controls in table 5 were used. The female dummy variable is insignificant in all the models in table 6. I also did t-tests of means between the ten female faculty and twenty-five male faculty in the sample, which are not reported for brevity. There was no significant difference between female and male research faculty in terms of 2016-2017 pay scaled by AACSB averages, salary growth, peer-reviewed publications between 2010 and 2015, professorships held, and years since PhD or DBA. Indeed, the average female research faculty member made 91 percent of the AACSB average for her rank and discipline. Compare that to the average male faculty member who made only 86 percent of AACSB average pay for his rank and discipline. Part of the lower relative pay of male faculty members may be due to their only being one female faculty member in the sample in the two lowest paid disciplines in table 2.

In the 2016-2017 pay regression in table 6, research output as measured by peer-reviewed journal articles is no longer significant. Instead, there is a positive association between professorships held and pay. Pay as a percent of the AACSB for the rank and discipline rises by about 4 percent per professorship in all the models in table 6 . In contrast in table 5, professorships

TABLE 6.
Tenured and Tenure-Track Faculty Pay in MCOBA in 2016-2017 as a Percent of AACSB Average for the Rank and Discipline
Dependent Variable is 2016-2017 Pay As a \% of AACSB Average Pay for the Rank and Discipline

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :---: | :---: | :---: | :---: | :---: |
| Constant | $0.794^{* * *}$ | 0.855*** | 0.859*** | 0.840*** |
|  | (0.000) | (0.000) | (0.000) | (0.000) |
| Peer-Reviesed Journal Articles from 2010 to 2015 | 0.002 | -0.003 | -0.003 |  |
|  | (0.595) | (0.268) | (0.262) |  |
| Years Since PhD or DBA | 0.002 | 0.000 |  |  |
|  | (0.123) | (0.855) |  |  |
| Number of Professorship Held | $-0.042^{* * *}$ | 0.041*** | $0.040^{* * *}$ | 0.039*** |
|  | (0.008) | (0.005) | (0.004) | (0.005) |
| Assistant Professor ( $X=1$ if yes, and $X=0$ if no) | 0.062 | 0.014 | 0.03 | 0.020 |
|  | (0.141) | (0.704) | (0.715) | (0.581) |
| Full Professor Dummy ( $X=$ 1 if yes, and $X=0$ if no) | $-0.097^{* *}$ | $-0.094^{* *}$ | $-0.091^{* * *}$ | $-0.087^{* * *}$ |
|  | (0.020) | (0.014) | (0.006) | (0.008) |
| Female Dummy ( $X=1$ if yes, and $X=0$ if no) | -0.034 | -0.037 | -0.036 | -0.034 |
|  | (0.326) | (0.238) | (0.232) | (0.262) |
| Management Dummy ( $X=1$ if yes, and $X=0$ if no) | $0.108^{* * *}$ |  |  |  |
|  | (0.006) |  |  |  |
| Mang. \& Quant. Meth. <br> Dummy $(X=1$ if yes, and <br> $X=0$ if no $)$ |  | $0.115^{* * *}$ | $0.116^{* * *}$ | 0.106*** |
|  |  | (0.001) | (0.000) | (0.001) |
| Finance Dummy ( $X=1$ if yes, and $X=0$ if no) | $-0.239^{* * *}$ | $-0.160^{* *}$ | $-0.160^{* *}$ | $-0.208^{* *}$ |
|  | (0.001) | (0.016) | (0.014) | (0.000) |
| Adjusted R-Squared | 0.526 | 0.603 | 0.617 | 0.613 |
| Number of Observations | 35 | 35 | 35 | 35 |

P-values are in parentheses. ${ }^{* * *},^{* *}$, and ${ }^{*}$ signify at least 99,95 , and 90 percent confidence in the sign of the coefficient. MCOBA is the B.I. Moody III College of Business at the University of Louisiana at Lafayette
were not significant in predicting pay as a percentage of AACSB averages, but research output was.

In addition, the assistant professor dummy is no longer significant in table 6. This indicates that the MCOBA was successful in correcting some of the relative inversion between assistant and associate professors between 2015-2016 and 2016-2017. Nevertheless, full professors made about 9 to 10 percent less than the AACSB average than associate professors.

There was no significant difference between the pay of men or women in all four models in table 6. Thus, there is no significant evidence of a gender gap in pay at MCOBA. In addition, experience was not significant in models 1 and 2 in table 6 .

Finance professors were paid between 16 to 24 percent less as a percent of the AACSB averages than accounting, economics, and marketing professors according to the four models. Management or management and quantitative methods professors were paid significantly more, about 11 percent more, than accounting, economics, and marketing professors according to the four models. The finance dummies were statistically significant at the 95 to 99 percent confidence levels. The management and management and quantitative methods dummies were significant with greater than 99 percent confidence.

## 5. CONCLUSION

This paper has shown how faculty pay can be compared across the business disciplines. By first scaling the data by AACSB averages for the discipline and rank, the relative pay of all professors in a given business school can be compared. Because the numbers of professors in a single academic discipline are so small, this scaling allows administrators, faculty, and job seekers to get a large enough sample size to draw statistically rigorous conclusions about whether an individual pay offer is in line with the pay across the business school. This paper analyzed pay at a single business school over a few years, but the methodology can be used to analyze faculty pay at many different schools of business over many different time periods.

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