## What Drives Finance Professors' Wages?\*

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#### Abstract

From the 1980s onward, the finance industry has been paying significantly higher wages relative to other industries. Such a high pay differential may have important spillover effects on society, including on academia. By exploiting an extensive dataset covering wages, publications and socio-demographics for 80,000 publicuniversity faculty from all fields, we show that tenure-faculty in finance earn wages that are 50% higher than in other fields. This premium has been increasing over the 2010-2018 period – from 42% to 57% –, is higher in top schools, and is comparable in magnitude to the one observed in the finance industry. We then show that finance-faculty wages are significantly more sensitive to students' future compensation than in other fields, which suggests that the academic premium results from a spillover from the industry. Higher university revenues per finance faculty – resulting from higher tuitions, donations and ratio of students per faculty – combined with a higher bargaining power for finance faculty are driving this spillover effect. Hence, undergraduate students benefit from better outside options in the finance industry than in other fields, leading universities to offer high wages in academic carriers to attract PhD candidates. However, returns to individual talent, as measured by within field performance in terms of citation, top publications or h-index, are not significantly higher in finance academia than in other fields.

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# I. Introduction

From the 1980s onward, the finance industry has been paying significantly higher wages relative to other industries (Philippon and Reshef, 2012; Célérier and Vallée, 2019). Such a high pay differential may have important spillover effects on society, including on academia, which trains the future finance workers. Investigating the wage dynamics of finance faculty provides insights on these spillover effects, as well as on the drivers of academic wages across fields.

Wages in academia matter as they directly affect both the sorting of academic talent across fields, as well as faculty effort and productivity. In turn, these dimensions affect students' academic and labor market outcomes, as well as innovation across sectors. Faculty wages also represent a large share of tuition costs, which have been significantly increasing over the recent years and are potentially dampening access to higher education.<sup>1</sup>

Our study addresses the following questions: Do finance professors benefit from a wage premium vs. academics in general? If so, of which magnitude? What is the underlying mechanism, and does it relate to the wage premium observed in the finance industry?

This paper brings a comprehensive dataset covering information on the rank, compensation, productivity and socio-demographics of 80,000 faculty over the 2006-2018 period. We collect the wage data from 279 US public universities across 32 states through public record requests in accordance with the state-level freedom of information laws. We complement this data with Green Card and H1B application data us to cover academic wages at private universities as well. When possible, we merge individual wage data with the bibliographic database Scopus and build measures of research output using citations and publications.<sup>2</sup> Finally, we collect university-level data on student salaries after graduation from the College Scorecard dataset provided by the U.S. Department of Education,

<sup>&</sup>lt;sup>1</sup>There has been a debate in the literature about whether faculty wages have been a driver of college tuition growth in the U.S. in the recent decades. For example, Rhoades and Frye, 2015 and Gordon and Hedlund, 2019 argue that faculty wages have not driven college tuition growth, while Archibald and Feldman, 2008 and Bundick and Pollard, 2019 support the opposite view.

<sup>&</sup>lt;sup>2</sup>We also exploit James Hasselback's dataset on Finance and Accounting faculties to better identify academics from these fields.

on the number of professors and students across fields and field-level data on donations.

Controlling for year, university and position fixed effects, we find that finance professors benefit from a wage premium of close to 53% on average. This premium has been increasing over the 2010-2018 period – from 42% to 57%–, is higher in top schools, and is comparable in magnitude to the one observed in the finance industry (Philippon and Reshef, 2012).<sup>3</sup>

We then investigate the economic mechanism underlying the finance wage premium in academia. Our central empirical result is that wages in finance academia are twice more sensitive to students' future wages than in other fields. We obtain this result by regressing faculty wages on university-field median student wage and controlling for university, field and year fixed effects.

We then document stylized facts providing a rationale for our central result. First, the wage premium in the finance industry spills over academia through higher university revenues per faculty in the finance field. Hence, tuitions, which correlate with revenues at graduation, are often higher in finance. The ratio of students per faculty is also particularly high in finance. Donations also originate disproportionately from finance alumni. All together, these facts support significantly higher revenues per faculty in finance, and particularly so when students have high earning prospects.

We also find evidence consistent with a higher bargaining power for finance academics. The ratio of PhD graduates to positions to fill is relatively low in finance, while universities cannot substitute PhD faculty with non PhD-faculty due to accreditation requirements for business programs. Second, undergraduate students benefit from better outside options in the finance industry than in other fields, leading universities to offer high wages in academic carriers to attract PhD candidates.

On the other hand, finance academia wages are only weakly increasing with experience, while wages trajectory in the finance industry are convex over this dimension. Returns to individual talent, as measured by within field performance in terms of citation, top publications or h-index, are not significantly higher in finance academia than in

<sup>&</sup>lt;sup>3</sup>(Philippon and Reshef, 2012) finds the finance wage premium amounts to around 50% in 2005.

other fields, while Célérier and Vallée (2019) document that they are three times higher in the finance industry than in the rest of the economy.

This paper contributes to the literature on the determinants of wages in academia, such as publications (Katz, 1973; Tuckman and Leahey, 1975; Swidler and Goldreyer, 1998; Garfinkel, Hammoudeh, and Weston, 2021), citations (Katz, 1973; Hamermesh, 2018), department performance (De Fraja, Facchini, and Gathergood, 2020), seniority (Ransom, 1993; Moore, Newman, and Turnbull, 1998; Hilmer and Hilmer, 2011), university monopsony power (Ransom, 1993; Goolsbee and Syverson, 2019), university rank (Kim, Morse, and Zingales, 2009) and attributes such as race or gender (Gordon, Morton, and Braden, 1974; Hoffman, 1976), including a more recent focus on finance (Sherman and Tookes, 2022). This paper focuses on the wage premium for finance professors to document how the high wages of finance students lead to heightened demand for finance professors, in the face of relatively inelastic supply.

Second, our work relates to the literature on the finance wage premium (Philippon and Reshef, 2012), its underlying mechanism (Acharya, Pagano, and Volpin, 2016; Benabou and Tirole, 2016; Célérier and Vallée, 2019) and its implications. For example, the finance sector may lure talented individuals away from other industries (Murphy, Shleifer, and Vishny, 1991; Philippon, 2010; Bolton, Santos, and Scheinkman, 2016) or from financial regulators (Shive and Forster, 2016; Bond and Glode, 2014). This paper shows how wage differentials across industry can have long-reaching effects by driving the wages of academic professors, which in turn might affect talent allocation, learning, and innovation in the economy.

Third, our paper relates to the literature on rent sharing between employers and employee, often tied to restrictions on the supply of skilled labor (Sauvagnat and Schivardi, 2022), and how employees can be rewarded for talent (e.g. Guadalupe, 2007; Terviö, 2009) or luck (Bertrand and Mullainathan, 2001; Davis and Hausman, 2020). Specifically, this study explores differences in rent-sharing and returns to talent across academic fields.

Finally, our paper contributes to the understanding of the rise in income inequalities

(Piketty and Saez, 2006; Kaplan and Rauh, 2010). We document spillover effects from high paying industries.

The paper is organized as follows. Section II presents the data. Section III provides stylized facts on finance academics' pay. Section IV provides facts consistent with a spillover from finance industry wages to academia. Section V explore other possible determinants. Section VI concludes. An Internet Appendix provides additional results.

## II. Data

This study relies on a comprehensive dataset on academic pay, rank, socio-demographics and research productivity across fields that we merge with university-level data on student wages and labor force composition.

## A. Academic Wages and Positions

We obtain panel data for tenure-track faculty from both public and private universities. For public universities (81% of our sample), we obtain panel data on faculty wages and positions through public record requests in accordance with the state-level freedom of information laws. We hence collect non-anonymized wage and rank data on faculty from 285 public universities across 32 states over the 2010-2018 period. Table AI in the online appendix lists the states and sample periods that our dataset covers.

For private universities and other public universities (19% of our sample), we use green card and H1B application data, as a large fraction of research faculty are not U.S. permanent residents. The U.S. Department of Labor (DOL) makes the permanent residence and H11B applications publicly available on its Employment and Training Administration webpage (Shen, 2021). The data set covers the 2005-2018 period and includes information on the petitioning employer's name and the employee's occupation, wage, work location, country of birth, and wage.<sup>4</sup>

Our final sample is an unbalanced panel over the 2005-2018 period with 208,000

<sup>&</sup>lt;sup>4</sup>Data are available here https://www.flcdatacenter.com/

faculty-year observations from around 80,000 tenure-track faculty. With 1,648 research institutions, the sample covers almost all 4-year research institutions in the United States. Table I displays summary statistics on wages across academic fields and positions. Research faculty receives higher wages in finance on average than in any other field. The median wage, as well as wages at the 10th, 90th and 95th percentiles are also higher in finance. Wages vary also across positions, leading us to control for position fixed effects.

## INSERT TABLE I HERE

## B. Academic Fields and Publications

As field information is not available for most of the data from the public record requests, we exploit the faculty identity to collect the information from two other data sources. The first source is a faculty directory manually collected and made publicly available by James Hasselback.<sup>5</sup> This dataset covers more than 700 U.S. schools and provides detailed information on department, position, research area within an academic field, the year of PhD completion, and PhD alma mater. We use the 2016-2017 version of the dataset for accounting, the 2019-2020 version for finance, and the 2006-2007 version for economics. While the James Hasselback's faculty dataset simultaneously covers public and private universities, it does not cover all the public universities we obtain wage data from. We hence identify the field for 15% of our observations.

The second source is Scopus, a leading citation database.<sup>6</sup> For each author, the Scopus database provides information on publications, historical citations and historical affiliations from the year of the first publication. Scopus identifies authors' fields based on publication profiles. We download information from Scopus for the full sample of faculty from the James Hasselback's dataset and for a 50% random sample of academic employees from the wage dataset.<sup>7</sup> We drop non-unique combination of first name and last name within the same university, as we cannot uniquely identify Scopus author's profiles

<sup>&</sup>lt;sup>5</sup>http://www.jrhasselback.com/FacDir.html

 $<sup>^6\</sup>mathrm{We}$  choose Scopus over the Web of Science because Scopus has a broader coverage.

<sup>&</sup>lt;sup>7</sup>We could not download information from Scopus for the full sample of academic employees from the wage dataset due to downloading limitations.

for such individuals. One limitation with Scopus is that it aggregates some academic fields. Specifically, it denotes economics and finance as one joint field, as well as business, management, and accounting as another joint field. Therefore, to disentangle finance from other fields, we calculate the share of publications in finance journals for each person and define finance faculty members as those with the share of publications in finance journals greater than one third. We choose this relatively low threshold because some finance academics may publish in the top economic, accounting, or management journals. We also disentangle law from humanities by identifying law schools using the department information in the academic wage data when available or the historical affiliations from Scopus.<sup>8</sup> We hence identify the field for 60% of our observations.

For the H1B and green card data, we identify the field using the occupation code from the Bureau of Labor and Statistics. We refine these field categories using job titles, as they often include more precise information on the field.

We use the following four measures of research productivity from the Scopus data: the number of publications, the number of top publications, the number of citations, and the h-index. We calculate the historical h-index for each author based on information on the article publication year and historical citations.

## C. University-Field Level Data

## C.1. Student Wages

We use two data sources for student future wages across universities and fields.

First, for undergraduate students, we exploit data on undergraduate wages one year after graduation across universities and fields from the College Scorecard dataset provided by the U.S. Department of Education. This dataset comprises various information on post-secondary institutions including data on median student wages one year after

<sup>&</sup>lt;sup>8</sup>Except for law, we do not to exploit information on the department from the academic wage dataset or from historical affiliations in Scopus to assign the academic field for the following reasons. First, the academic field may not correspond to the department, for instance, for finance academics who work in an economics department. In addition, the department in our data frequently corresponds to several academic fields, for example, when it is specified as "Faculty of Arts and Science", "Economics, Finance, and Entrepreneurship", or "Business School".

graduation by Classification of Instructional Programs (CIP) code – a field classification by the National Center for Education Statistics – and degree level. The information on student wages by CIP code is restricted to financial aid recipients and available for the 2016 and 2017 graduation cohorts.

Second, for graduate students, we access university-field level data from the Survey of Earned Doctorates, an annual census conducted by the National Center for Science and Engineering Statistics. Specifically, we use information on the median expected annual gross wage of US doctorate recipients in 2018 who had definite post-graduation plans for employment in industry or business sectors.

Table II displays statistics on this final dataset on student wages across universities and fields.

### INSERT TABLE II HERE

Finally, to get information on future wages over the career across fields, we obtain micro-data from the American Community Survey (ACS) for the period 2009-2019. Every year ACS collects information on employment, education, demographic characteristics and other topics for a sample of 3.5 million households.

### C.2. Number of Students

We use data from the Integrated Postsecondary Education Data System (IPEDS) to observe the number of students for each academic field in a university, and calculate the resulting student to faculty ratio. IPEDS is the set of annual surveys conducted by the U.S. Department of Education's National Center for Education Statistics, which cover postsecondary institutions that participate in the federal student financial aid programs. Within a university, we match academic programs to fields using the programs' CIP code, and then aggregate the number of students per field for each university.

#### C.3. Donations

We gather data on donations from the Chronicle of Philanthropy database of charitable gifts, which contains information on donations greater than 1 million dollars made in the U.S., including a text description of the donation purposes and the donation value. We collect donations to U.S. postsecondary institutions made in the period 2005-2018. Next, we employ a textual analysis to extract information on academic fields donations are associated with.

Table II displays statistics on donations across fields.

## **III.** Stylized Facts on Pay in Finance Academia

## A. The Finance Academia Wage Premium

We start our analysis by exploring wage differentials across academic fields and confirms that finance academia pays higher wages, as Table I suggests.<sup>9</sup>

We estimate the academic finance wage premium controlling for observable faculty characteristics, as well as absorbing potential composition effects resulting from our unbalanced panel, by running the following specification using humanities as the reference point:

$$\ln(w_{i,t}) = \sum_{f=1}^{n} \beta_f \mu_f + \mu_{u,t} + \mu_p + \epsilon_{i,t},$$
(1)

where  $w_{i,t}$  is the yearly gross wage of faculty *i* in year *t*,  $\mu_f$  are field indicator dummies for all fields except humanities.  $\mu_{u,t}$  are university times year fixed effects and  $\mu_p$  are academic rank fixed effects controlling for composition effects across fields. Standard errors are double clustered at the university and year level.

Figure 1 plots the  $1 + \beta_f$  coefficients across fields and the 95% confidence intervals. Finance appears to offer the highest wages, at a 75% premium over humanities, the lowest paying field. Finance also pays significantly more than related disciplines such as business or economics. Other well-paying fields include law, medicine and computer science.

### INSERT FIGURE 1

<sup>&</sup>lt;sup>9</sup>At the 90th decile, medicine is the highest, but medicine faculty are often performing tasks that are not academic in nature.

We further explore the finance academia wage premium estimating the following specification across university types and positions:

$$\ln(w_{i,t}) = \beta_{fin} \mathbb{1}_{fin} + \mu_{u,t} + \mu_p + \epsilon_{h,t}, \qquad (2)$$

where  $\mu_{fin}$  is an indicator variable for finance faculty. Other variables are the same as in equation (1). Standard errors are double clustered at the university and year level.

Table III reports the wage premium in finance across different samples. The finance wage premium amounts to 51% on average for all faculty (column 1). This premium is even larger among top schools (64%, column 2), universities with high research activity (63%, column 3) and for assistant professors (58%, column 7). The finance wage premium is slightly lower for tenured faculty (46%, column 8), private universities (44%, column 6). These estimates are comparable in magnitude to the wage premium in the finance industry, which amounts to 50% in the US in 2005 (Philippon and Reshef, 2012).

## INSERT TABLE III

## B. Evolution of the Finance Academia Wage Premium

Next, we investigate whether the finance academic wage premium has been increasing over the years, as the wage premium in the finance industry (Philippon and Reshef, 2012). To do so, we estimate the following model:

$$\ln(w_{i,t}) = \sum_{y=2010}^{2018} \beta_t \mathbb{1}_{fin} \mathbb{1}_t + \mu_{u,t} + \mu_p + \epsilon_{i,t},$$
(3)

where  $\mathbb{1}_{fin}$  is an indicator variable for finance faculty.  $\mathbb{1}_t$  are year fixed effects. Other variables are the same as in equation (1). Standard errors are double clustered at the university and year levels.

Figure 2 displays the regression coefficients  $\beta_t$ . We observe a significant upward trend for the finance academic premium, with the premium increasing by at least 10 percentage points over the sample period, or 20% of the premium in 2010. To compare the evolution of the finance premium in academia with the one observed in the finance industry, we exploit data on yearly gross wage across industries from the American Community Survey (ACS). The sample consists of individuals with at least an undergraduate degree who are employed in the industry and includes approximately 6 million observations from 2010 to 2018. Individuals with industry codes 7870-7890 associated with post-secondary institutions are excluded. Finance industry is defined as industry codes 6870-6992 in the census industry classification. The grey dots in Figure 2 plots the finance industry wage premium in this sample. We find that the wage premium in finance academia follows a similar trend to the finance industry over the 2010-2018 period.

## INSERT FIGURE 2

# IV. Evidence on Spillovers from the Finance Industry

We uncover a relationship between wages in finance academia and finance industry, suggesting a causality chain that flows through university revenues.

## A. Higher sensitivity to student future wages in finance

Figure 3 suggests that faculty wages are more sensitive to student future wages in finance than in other fields. For each field, the figure plots the average faculty wage in a university over the median student wages in the same university. Both the faculty wage and student future wages are relative to the overall field average. We observe a positive correlation for each field. The slope is significantly steeper in finance than in other fields, including well-paying ones such as computer science.

## INSERT FIGURE 3

We confirm this result by running the following specification:

$$\ln(w_{i,t}) = \beta \ln(w_{f,u,t}) + \gamma \ln(w_{f,u,t}) \mathbb{1}_{fin} + \mu_f + \mu_u + \mu_t + \mu_p + \epsilon_{i,t}$$
(4)

where  $w_{i,t}$  is the yearly gross wage of faculty *i* in year *t*, while  $w_{f,u,t}$  represents the median wage of students one year after graduation, who got a degree in academic field *f* from university *u* in year *t*.  $\mathbb{1}_{fin}$  denotes an indicator variable for being a finance or accounting faculty  $\mu_f$ ,  $mu_u$ ,  $\mu_t$  and  $\mu_p$  are field, university, year and position fixed effects, respectively. Standard errors are double clustered at the university and year levels.

Table IV documents the sensitivity of academic wages to student wages one year after graduation for both *undergraduate* students (Columns 1-4) and *graduate* students (Columns 5-8). Academic wages appear to be significantly more sensitive to both undergraduate and graduate student wages in finance than in other fields. The elasticities of faculty wages with respect to median undergraduate and graduate student wages are twice larger in finance than in other academic fields. Columns 4 and 8 show that this elasticity is also higher in finance than in the other top paying fields. We interpret this result as finance faculty obtaining a larger share of the surplus obtained by their students. This could also be higher returns to talent, if we assume that faculty talent is either correlated or causally related to students outcomes on the job market.

## INSERT TABLE IV

We now turn to investigating a rational for the high elasticity of faculty wages to students wages we observe in finance.

## B. Higher university revenues

A higher elasticity of faculty wages to student future wages can be explained by higher revenues and a stronger bargaining power for finance faculty.

In Table V, we regress the tuition revenue per faculty, and the total revenue per faculty, on students wages in the most populated fields: business, life science, and social science. We observe that university revenue is strongly positively correlated with wages

in business, while this relationship is weak for the other two fields. This fact suggests that university are able to obtain some of the surplus that the students in this field obtain in the labor market. Motivated by this suggestive evidence, we dig in the mechanisms that can rationalize this pass-through.

## INSERT TABLE V

### B.1. Tuition revenue per professor

We first investigate evidence suggestive of a high student demand for finance classes, and associated higher revenue and surplus per faculty for the university. A natural rationale for a high student demand for finance education are the high industry wages students can obtain in this field, which is particularly important when tuition is high and often debt-financed. Such demand should translate into a lower tuition-price elasticity from students, an in turn higher tuition price. In addition, we should observe higher students to faculty ratio given the rigidity of the number of faculty resulting from the tenure system.<sup>10</sup>

We approximate the student to faculty ratio at university u in academic field f as follows:

$$\frac{\# \text{ of Students}}{\# \text{ of Faculty}}_{u,f} = \frac{\sum_{\text{academic program}} \# \text{ of students graduating*years to complete}}{\frac{2*\# \text{ of faculty in the 50\% wage sample matched with } \text{Scopus}_{u,f}}{\text{Probability to be covered by } \text{Scopus}_{u}}$$
(5)

Figure 4 displays the number of students per faculty for various academic fields. The student to faculty ratio is indeed much higher in business fields, including finance, than in other academic fields.

## **INSERT FIGURE 4**

In addition, undergraduate tuition for business majors is typically equivalent to or greater than undergraduate tuition for other majors in U.S. colleges (Stange, 2015). Moreover, average MBA tuition exceeds average graduate tuition across all fields (Baum and

 $<sup>^{10}</sup>$ Certain fields have specific constraints on the number of faculty per students, for instance due to lab or hospital work. Such ratio should be interpreted cautiously and across fields with a comparable production function.

Steele, 2017). The combination of a high student to faculty ratio and higher tuition indicates that tuition revenue per faculty in finance, accounting and business is substantially higher than in other academic fields.

### B.2. Donations

We then turn to studying donations to universities, and show that they disproportionately originate from finance alumni. Donations are an important source of revenues for universities both through immediate use and endowment accumulation. This source of revenue is particularly important for the high research intensity universities. Thus, as per 2015, the top 10 largest public universities endowment total USD \$76 bn.

Donation amounts are typically skewed, making them particularly sensitive to having wealthy alumni, who disproportionately give to their alma mater. Individuals working in the finance industry are overrepresented in the right tail of the wage and wealth distribution, as compensation in the finance industry is higher and more skewed than in other sectors. Thus, Panel A in Figure 5 shows that the finance industry has the largest number of billionaires, close to 600, among all industries.

We calculate the donation intensity for each academic field as follows:

Donation Intensity = 
$$\frac{\frac{\text{The sum of all donations in this field}}{\text{The sum of all donations}}}{\frac{\text{The number of professors in this field in our sample}}{\text{The total number of professors in our sample}}$$
(6)

Panel B in Figure 5 compares the donation intensity per faculty across academic fields. Donation intensity is significantly higher in finance than in other fields, including other business fields. Such a mechanism being at play would reinforce the higher university surplus sensitivity to student wages in finance.

#### **INSERT FIGURE 5**

#### **B.3.** Business School Rankings

A last potential mechanism leading to a higher sensitivity of university revenue or surplus to finance student wages results from the important role that student wages play in business school rankings. School rankings drive future applications and donations (see for instance Monks and Ehrenberg, 1999; Luca and Smith, 2013; Faria, Mixon, and Upadhyaya, 2019), which subsequently leads to a greater revenue. Crucially, student wages at graduation are a major component of most business school and university rankings.

Schools have therefore incentives to enhance graduation wage average by both attracting and educating high quality finance students, which will be able to obtain the best paying jobs.<sup>11</sup> Figure A9 illustrates that the right tail of the students wage distribution is significantly higher in finance than in other industries. Such a mechanism would also potentially fuel the demand for finance professors.

## **INSERT FIGURE** A9

## C. A higher bargaining power of finance faculty

A complementary explanation for the higher sensitivity of finance faculty wages to the wages of their students relies on a higher bargaining power for finance faculty. This higher bargaining position would originate from an imbalance between demand and supply due to the inelastic supply of finance phd graduates, as well as better outside options for finance phd students, either before starting their phd, or at its completion.

## C.1. Inelastic supply of finance phd graduates facing an increasing demand

We find evidence consistent with an inelastic supply of business phd graduates facing an increasing demand for them, which would result in a labor market imbalance specific to the business field, and particularly so in finance. Panel A in Figure 6 compares the ratio of average yearly number of PhD graduates to the number of faculty across academic fields. Business fields, including finance, have the lowest ratio, with less than 5 graduates per professor.

As accreditations request university to hire a minimum share of PhD faculty, business schools compete for an initially small supply of PhD graduates. Panel B in Figure 6

 $<sup>^{11}\</sup>mathrm{Adjusting}$  for student placement industry composition, as the Economist does in its ranking, does not fully shut down this incentive.

shows that the historical number of business schools with accreditation has been constantly growing over time. This might lead to a constantly increasing demand for PhD graduates in business fields, including finance. The previously mentioned effect of business school ranking might lead to such demand being disproportionately targeted at finance professors.

## INSERT FIGURE 6

Panel C in Figure 6 documents a higher ratio of academic placement in business. This fact is consistent with universities having to compete particularly intensely for hiring business phd students. While this ratio amounts to more than 70% in business fields, including finance, it is significantly lower in other academic fields.

Without this imbalance between supply and demand, universities would have significant bargaining power over the faculty they hire, and would not need to share the associated surplus they obtain.<sup>12</sup>

## C.2. Outside options

An additional rationale for finance faculty having a higher bargaining power comes from the outside option they face if they opt out of an academic career. While academics in finance rarely opt out once they are tenured, it is quite frequent that they do so when they graduate from their PhD, or at the end of the tenure track. In addition, some individuals that possess the skills to become a successful finance academic might decide not to pursue a finance PhD due to attractive career prospects in the financial industry.

In addition to industry wages offered to PhD graduates, the outside option could also be captured by industry wages offered to the top undergraduate students.

To fully capture these outside options, we turn to comparing the present value of industry and academic wages over individuals' whole career.

<sup>&</sup>lt;sup>12</sup>A related question is why are the numbers of phd graduates across fields not adjusting for the associated job vacancies in the corresponding field in the medium to long run? While institutional rigidities or incentives might be important ingredients, we do not take a stance on the exact friction at play.

Figure 7 displays a scatter plot doing this comparison, focusing on students who joined the industry after undergraduate (Panel A), or after a Phd program (Panel B). Industry wages in Panel A are the 95th wage percentiles for the undergraduate degree holders, while industry wages in Panel B are the mean wages for the PhD degree holders of each age. The relationship between the PVs of undergraduate industry wages and academic wages appears to be linear and more pronounced than the relationship between the PVs of PhD industry wages and academic wages.

## INSERT FIGURE 7

The industry compensation of the top undergraduate students most likely have an effect on academic wages of the related field by affecting their outside option. In order to lure talented undergraduate students into doctoral programs, universities have to offer competitive wages for assistant professors, otherwise potential PhD students would go to the industry. Given the likely presence of switching costs, this effect would be more pronounced in the beginning of the career, which is consistent with the larger premium we observe for junior faculty.

## V. Other determinants of Finance Academic Wages

## A. Returns to experience

We investigate returns to experience across fields by estimating the following regression:

$$\ln(w_{i,t}) = \sum_{x} \beta_x \mathbb{1}_x + \sum_{x} \beta_{fin,x} \mathbb{1}_{fin} \mathbb{1}_x + \mu_f + \mu_u + \mu_{bschool} + \mu_t + \epsilon_{i,t}$$
(7)

where  $w_{i,t}$  is the yearly gross wage of faculty *i* in year *t*.  $\mathbb{1}_{fin}$  represents an indicator variable for being a finance faculty, and  $\mathbb{1}_x$  is an indicator for the number of years after a faculty first publication.<sup>13</sup>  $\mu_d$ ,  $\mu_j$  and  $\mu_t$  denote field, university and year fixed effects,

<sup>&</sup>lt;sup>13</sup>We only observe graduation year in Hasselback data.

respectively.<sup>14</sup> Standard errors are double clustered at the university and year level.

Figure A5 plots  $\beta_x$  and  $\beta_x + \beta_{fin,x}$  over years of experience. Returns to experience appear to be only weakly increasing in finance academia, and are lower than in other academic fields. This pattern is in sharp contrast with wage trajectories observed in the finance industry, which are typically significantly steeper than in other industries, and often are even convex.

## **INSERT FIGURE A5**

## B. Returns to talent

We also investigate whether returns to talent are higher in finance academia than in other academic fields. Célérier and Vallée, 2019 document significantly higher returns to talent in finance than in other industries, which result from higher talent scalability. We use within-field citation quintile as a measure of talent, controlling for experience, and estimate the following specification:

$$\ln(w_{i,t}) = \sum_{j=1}^{5} \beta_j q_j + \sum_{j=1}^{5} \beta_{j,fin} \mathbb{1}_{fin} q_j + \mu_f + \mu_u + \mu_{bschool} + \mu_t + \epsilon_{i,t}$$
(8)

where  $q_i$  corresponds to the citation quintile *i* within a given field. Using citation quintiles allows to factor in the heterogeneity in the distribution of citations across fields. Other variables are the same as in equation (7). Standard errors are double clustered at the university and year level.

Figure A6 plots  $\beta_j$  and  $\beta_j + \beta_{j,fin}$  over j and compares returns to talent in finance and other fields in business schools in Panel A and returns to talent in finance and all other academic fields in Panel B. We observe that returns to talent are similar in finance academia and in other academic fields, contrary to the central result of Célérier and Vallée, 2019 for the financial industry.

## INSERT FIGURE A6

<sup>&</sup>lt;sup>14</sup>Business schools fixed effects are also included as time-invariant effects might differ from the ones of the home university.

# VI. Conclusion

This paper documents documents a wage premium that amounts to close to 53% for finance professors. This premium has been increasing over the 2010-2018 period – from 42% to 57%–, and is higher in top schools.

We investigate the underlying mechanism for the finance wage premium in academia. Our central result is that wages in finance academia are significantly more sensitive to students' future wages than in other fields. We provide evidence suggesting that this higher sensitivity results from the finance wage premium leading to higher revenues per faculty and finance professors benefiting from a higher bargaining power.

Therefore, universities give a higher share of the revenues spilling over from the industry to professors in finance than in other fields. This could be interpreted as economically efficient, as faculty wages relates to the value added at the student level, as well as potentially socially efficient, as it is a way to attract talented undergraduate students in academic careers. However, we also find that the finance academic premium does not relate with research productivity and higher incentives, as returns to citations or impact are not higher than in other fields and wages increase less with experience than in other fields.

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# VII. Figures



Figure 1. Finance Wage Premium in Academia

This figure displays the wage premium of each academic field relative to humanities. It plots the coefficient of the field indicator dummies + 1 in OLS regressions in which the dependent variable is the log of the yearly gross wage. Each regression also includes university times year and position fixed effects. The bars indicate 95% confidence bounds based on standard errors double clustered at the year and university levels. The sample comprises 208,000 faculty-year observations from around 80,000 tenure-track faculty from almost all 4-year postsecondary research institutions in the United States in an unbalanced panel over the 2005-2018 period.



Figure 2. 2010-2018 Evolution of the Finance Wage Premium in Academia and in the Industry

This figure plots the evolution of the finance academic and industry premia over the 2010-2018 period. The black dots indicate the coefficients of the finance academic field dummy interacted with year fixed effects + 1 in OLS regressions in which the dependent variable is the log of the yearly gross wage. Each regression also includes university times year and position fixed effects. The sample comprises 208,000 faculty-year observations from around 80,000 tenure-track faculty from almost all 4-year postsecondary research institutions in the United States in an unbalanced panel over the 2010-2018 period. The grey dots indicate the coefficients of a finance industry dummy interacted with year fixed effects + 1 in OLS regressions in which the dependent variable is the log of the yearly gross wage. We exploit data on yearly gross wage across industries from the American Community Survey (ACS). The sample consists of individuals with at least an undergraduate degree who are employed in the industry and includes approximately 6 million observations from 2010 to 2018. Individuals with industry codes 7870-7890 associated with post-secondary institutions are excluded. Finance industry is defined as industry codes 6870-6992 in the census industry classification. Each regression also includes age and levels of education fixed effects. The bars indicate 95% confidence bounds based on standard errors double clustered at the year and university levels.



Figure 3. Elasticity of Academic Wages to Student Wages within Field This figure displays by field: the relative difference between the average faculty wage in a university and the rest of the field, versus the relative difference between the median student wage in that university and the rest<sub>7</sub> of the field.



Figure 4. Wage Premium and Students per Faculty Ratio Across Fields

This figure displays a scatter plot between wage premium and the students to faculty ratio across fields. The wage premium of each academic field is the same as in Figure 1. The students to faculty ratio for each field equals the ratio of the sum of students to the sum of faculty in this field at all universities from our main sample. The number of degrees received is from the Integrated Postsecondary Education Data System of the US Department of Education's National Center for Education Statistics. The number of faculty for one university-field combination is the mean annual number of faculty calculated using our main dataset.



Panel A. The Number of Billionaires per Industry

Panel B. Wage Premium and Donation per Faculty Intensity



Figure 5. Donations and Wage Premium across Fields

Panel A shows the number of billionaires per industry in 2021 according to Forbes. Panel B displays a scatter plot between wage premium and donation per faculty intensity. The wage premium for each academic field is the same as in Figure 1. Donation per faculty intensity for each field is calculated as the share of donations made to this field in total donations made to all fields divided by the share of faculty in this field to the total faculty in all fields in our dataset. Donation data comes from the Chronicle of Philanthropy database of charitable gifts and includes information on large donations ( $\geq$  1 million) made to US universities in the period 2005-2018.



Panel A. PhD Graduates to Faculty

Panel B. Academic Placement



Figure 6. Supply of PhDs across Fields

This figure displays the ratio of PhD students to faculty (Panel A) and the share of academic placement (Panel B). The ratio of PhD students to professors for each field equals the total number of PhD students in this field divided by the total number of professors in this field from universities in our main sample. The share of academic placement for each field comes from the Survey of Earned Doctorates, which is an annual census conducted by the National Center for Science and Engineering Statistics.





## Figure 7. Outside Options: Present Value of Future Wages in Industry versus Academic Careers

This figure plots the present value of future yearly gross wage for undergraduate and PhDs, in Panels A and B, respectively, in industry versus academic careers. The present value of future wages is the discounted sum of future annual gross wages for a hypothetical 25 year old person. For academic careers, we assume a \$25,000 PhD scholarship in the period from 25 to 29 years old and the mean yearly gross wage of tenure track academics from 30 to 64 year old. For industry careers, in Panel A, we use the 95th percentiles of the yearly gross industry wages of undergraduate degree holders from ACS. In Panel B, we assume a \$25,000 PhD scholarship in the period from 25 to 29 years old and the mean yearly gross industry wages of PhD degree holders from ACS. Academic fields are based on undergraduate degree majors. *Source:* American Community Survey, the U.S. Census Bureau.

# VIII. Tables

	Mean	Median	SD	p10	p90	p95	# Obs.
Gross Annual Faculty Wage - Total Sample	113 007	05 305	175 /86	62 040	-	-	18/ 950
Gross Annual Faculty Wage - Total Sample	110,007	50,050	110,400	02,040	101,001	221,000	104,500
By Academic Field							
Finance & Accounting	172,022	156,525	$70,\!373$	$96,\!635$	$266,\!620$	$302,\!592$	$5,\!460$
Business (Excluding Fin. & Acc.)	$131,\!171$	$118,\!256$	58,869	$74,\!133$	198,999	243,950	6,546
Economics	123,506	110,000	69,477	68,076	199,400	$239,\!656$	5,974
Law	148,417	$135,\!140$	73,035	74,133	238,958	277,893	5,025
Medicine	$145,\!393$	$115,\!275$	$98,\!681$	69,800	$250,\!600$	$322,\!438$	$18,\!689$
Other Health Studies	$114,\!510$	$105,\!699$	43,957	68,858	$172,\!263$	197,800	4,138
Computer Science	$113,\!895$	100,502	$207,\!191$	68,024	166,932	197,509	9,321
Engineering	113,311	94,008	$575,\!040$	$68,\!658$	163,500	193,333	$12,\!612$
Life Science	109, 130	96,561	49,915	64,725	169,299	201,750	$33,\!899$
Physics	$108,\!688$	$97,\!633$	$46,\!807$	64,502	165, 142	$193,\!150$	5,721
Mathematics	95,462	84,975	42,796	$57,\!587$	$148,\!044$	$175,\!878$	8,746
Social Science	93,712	82,744	38,126	60,317	139,077	$168,\!386$	38,067
Humanities	$84,\!352$	$72,\!638$	$83,\!826$	$54,\!956$	124,716	$152,\!225$	$19,\!699$
By Academic Field in Business Schools							
Finance & Accounting	184,100	171,376	70,901	107,100	280,275	314,970	4,271
Marketing	$155,\!819$	139,149	62,830	98,958	233,882	291,312	735
Operational Research	144,671	128,453	62,391	$87,\!342$	$227,\!252$	$279,\!111$	1,018
Management & Other Business	146,414	132,513	59,933	87,108	$223,\!647$	260,696	4,216
Business Economics	144,138	$125,\!063$	58,737	86,500	$232,\!179$	274,046	1,343
By Position							
Åssistant Professor	$93,\!655$	78,456	277,230	57,000	140,750	182,000	65,046
Associate Professor	99,212	89,080	44,594	65,308	137,774	168,884	$45,\!675$
Full Professor	143,083	$126,\!450$	$68,\!903$	82,326	220,400	264,400	$67,\!576$

## Table I. Summary Statistics: Faculty Wages

This table reports summary statistics on tenure-track faculty wages across fields and positions. Our sample includes 208,000 faculty-year observations from around 80,000 tenuretrack faculty from almost all 4-year postsecondary research institutions in the United States in an unbalanced panel over the 2005-2018 period. We obtain data for research faculty at public post-secondary institutions through public record requests in accordance with the state-level freedom of information laws and identify fields using Scopus and the James Hasselback's faculty dataset. We complete this sample using public data on green card and H1B applications provided by the US Department of Labor.

	Mean	Median	$\mathbf{SD}$	p10	p90	# Obs.
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A - Student Wages	Across U	Jniversitie	s and Fi	ields		
			10.010			
Undergraduate Student Wage - Total Sample	39,099	$33,\!627$	13,919	27,020	60,805	30,380
By Academic Field						
Finance & Accounting	49,424	47,877	9,833	38,707	62,900	1,373
Business (Excluding Fin. & Acc.)	$47,\!438$	45,271	9,229	37,500	$59,\!377$	1,442
Economics	47,038	45,100	9,775	$38,\!289$	$62,\!818$	781
Law	$34,\!970$	$35,\!000$	$3,\!417$	30,000	$38,\!621$	102
Other Health Studies	$47,\!275$	$46,\!050$	$12,\!075$	$33,\!010$	60,043	1,014
Computer Science	$67,\!262$	$63,\!100$	$16,\!175$	$51,\!300$	$86,\!531$	1,955
Engineering	61,211	61,522	$5,\!480$	$54,\!986$	$66,\!540$	2,310
Life Science	$30,\!658$	29,951	4,172	$25,\!871$	$36,\!583$	$7,\!334$
Physics	36,879	$37,\!171$	5,427	30,700	43,300	862
Mathematics	$47,\!679$	46,500	10,450	$38,\!156$	$58,\!582$	1,121
Social Science	32,507	$32,\!620$	3,332	28,548	36,471	8,899
Humanities	$28,\!572$	28,208	4,232	23,787	33,300	$3,\!187$
Graduate Student Wage - Total Sample	55.664	50.226	19.080	38.952	81.500	21.075
By Academic Field		00,0	_0,000		0-,000	,
Finance & Accounting	49.424	47.877	9.833	38.707	62.900	1.373
Business (Excluding Fin & Acc.)	47 438	$45\ 271$	9 229	37500	59.377	1 442
Economics	47,100	45,100	9,775	38,289	62,818	781
Law	34 970	35,000	3,110	30,000	38.621	102
Other Health Studies	47.275	46,050	12.075	33,010	60.043	1 014
Computer Science	67 262	63 100	12,010 16 175	51 300	86 531	1,014 1.055
Engineering	61 211	61522	5 480	54 086	66 540	1,300 2 310
Life Science	20.658	20.051	4,400	94,980 95 971	26 592	2,310 7 224
Dhugiog	26.970	23,301 97.171	5 497	20,071	42 200	260
1 Hysics Mathematics	30,019 47.670	31,111	0,427 10,450	30,700 20 156	40,000 50 500	002
Mathematics	41,019	40,000	10,400	38,130 00 F 40	98,982 96 471	1,121
Social Science	32,507	32,020	3,332	28,348	30,471	8,899
Humanities	28,572	28,208	4,232	23,787	33,300	3,187

## Table II. Summary Statistics: Student Wages and Donations

#### Panel B - Donations Across Fields (in million \$)

Business (Including Finance)	10.2	3.5	21.9	1.0	25.0	463
Economics	8.8	3.0	17.7	1.0	16.7	71
Law	8.1	3.0	14.2	1.0	20.0	279
Health Studies	15.7	5.0	39.3	1.0	30.0	599
Computer Science	6.0	2.1	9.5	0.5	16.7	48
Engineering	11.1	3.5	20.0	1.0	30.0	389
Life Science	8.7	2.0	24.6	1.0	13.0	104
Physics	10.3	2.8	20.5	0.9	20.0	40
Mathematics	7.5	2.5	19.1	0.5	14.5	64
Social Science	7.8	3.3	15.4	1.0	15.0	92
Humanities	9.6	2.7	22.6	1.0	25.0	340

This table reports summary statistics on the median student wages one year after graduation in Panel A and on donations to U.S. postsecondary institutions in Panel B. Information on student wages comes from the College Scorecard dataset provided by the U.S. Department of Education and is available for 2017-2018. Donation data is from the Chronicle of Philanthropy database of charitable gifts and covers the period 2005-2018. Information on academic fields are derived using textual analysis of donation goals' description.

	University Split							Professor Split		
	<b>All</b> (1)	<b>Top50 US News</b> (2)	<b>R1</b> (3)	<b>Non R1</b> (4)	$\begin{array}{c} \mathbf{Public} \\ (5) \end{array}$	Private (6)	Assistant (7)	$\frac{\textbf{Tenured}}{(8)}$		
1.Finance	$0.51^{***}$ (0.03)	$0.64^{***}$ (0.03)	$0.63^{***}$ (0.03)	$0.40^{***}$ (0.02)	$0.51^{***}$ (0.03)	$0.44^{***}$ (0.03)	$0.58^{***}$ (0.03)	$0.46^{***}$ (0.03)		
Fixed Effects										
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Position FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
University FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	179,756	31,143	97,502	82,254	166,040	13,716	65,437	$114,\!179$		
$R^2$	0.46	0.40	0.37	0.48	0.46	0.46	0.39	0.40		

## Table III. Finance Academia Wage Premium

This table reports the finance academia wage premium across university types and positions. We estimate OLS regressions, where the dependent variable is the log of the yearly gross faculty wage. Column 1 presents finance academia wage premium for the whole sample. Other columns show the premia for the following subsamples: the top 50 universities according to the US News MBA Ranking (Column 2), doctoral universities with very high research activity according to the Carnegie Classification (Column 3), all four-year colleges and universities except for doctoral universities with very high research activity (Column 4), public four-year colleges and universities (Column 5), private four-year colleges and universities (Column 6), assistant professors (Column 7), and tenured professors – associate, full and chaired – (Column 8). Standard errors are doubled clustered at the university and year level and reported in parentheses. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	$\text{Log}(\text{Academic Wage})_{i,t}$					
	(1)	(2)	(3)	(4)	(5)	(6)
1.Finance	$0.60^{***}$ (0.02)	$0.61^{***}$ (0.02)	$0.50^{***}$ (0.03)	$0.60^{***}$ (0.02)	$0.64^{***}$ (0.02)	$0.56^{***}$ (0.03)
Median Undergrad Student $\operatorname{Premium}_{university, field}$		$0.14^{***}$ (0.02)	$0.14^{***}$ (0.02)			
Median Undergrad Student $\text{Premium}_{university, field} \times \mathbbm{1}. \ensuremath{\mathbb{I}}. \ensuremath{Finance}$			$0.17^{***}$ (0.05)			
Median Graduate Student $\operatorname{Premium}_{university, field}$					$0.09^{***}$ (0.01)	$0.09^{***}$ (0.01)
Median Graduate Student $\operatorname{Premium}_{university,field} \times \mathbbm{1}.$ Finance						$0.12^{**}$ (0.05)
Fixed Effects						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Position FE	Yes	Yes	Yes	Yes	Yes	Yes
University FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations P <sup>2</sup>	27,443	25,296	25,296	27,443	17,217	17,217
$R^2$	0.52	0.54	0.54	0.52	0.57	0.57

## Table IV. Elasticity of Faculty Wages to Student Wages

This table reports the coefficients of OLS regressions, where the dependent variable is the log of the yearly gross faculty wage. Columns 1-3 demonstrate the relation between faculty wages and the median wage of undergraduate students one year after graduation, while Columns 4-6 show the relation between faculty wages and the median wage of graduate students one year after graduation. Student wages are matched to academic fields using information on academic majors. The sample is restricted to the 2017-2018 period, for which data on student wages is available. Standard errors are clustered at the university times year level and reported in parentheses. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Log(Revenue/Faculty)						
	Tuition (1)	<b>Total</b> (2)	Tuition (3)	Total (4)			
Log(Undergrad Wage Business)	$0.65^{***}$ (0.13)	$1.04^{***}$ (0.29)					
Log(Undergrad Wage Life Science)	-0.09 $(0.14)$	-0.07 (0.17)					
Log(Undergrad Wage Social Science)	$0.54^{***}$ (0.18)	$0.11 \\ (0.40)$					
Log(Graduate Wage Business)			$1.06^{***}$ (0.21)	$\begin{array}{c} 1.16^{***} \\ (0.39) \end{array}$			
Log(Graduate Wage Life Science)			$0.15 \\ (0.12)$	$\begin{array}{c} 0.42 \\ (0.31) \end{array}$			
Log(Graduate Wage Social Science)			-0.34 (0.30)	$0.22 \\ (0.58)$			
Fixed Effects							
Year FE	Yes	Yes	Yes	Yes			
Observations $\mathbf{D}^2$	405	405	86	86			
$K^2$	0.21	0.16	0.45	0.34			

## Table V. Elasticity of School Revenue to Student Wages

This table reports the coefficients of OLS regressions, where the dependent variables are the log of tuition revenue per faculty (Columns 1 and 3) and the log of total revenue per faculty (Columns 2 and 4). The independent variables are the logs of the median student wages one year after graduation in Business, Life Science and Social Science. Standard errors are clustered at the university level and reported in parentheses. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

# APPENDIX

# Appendix A. Additional Tables

## Table A1. Summary Statistics: Wages and Career Choice

	Mean	Median	$\mathbf{SD}$	10th Percentile	90th Percentile	Observations
Industry Wage (Undergrad) - Total Sample Bu Academic Field	73,626	58,000	72,563	15,000	135,000	2,275,183
Finance & Accounting	88,200	65,000	90,934	18.000	165,000	210,392
Business (Excluding Fin. & Acc.)	75,165	57,000	75.073	15,000	140,000	565,706
Economics	98,857	68,000	108,500	16,000	200,000	60,960
Law	56,723	45,000	56.091	12,000	100,000	5,459
Medicine	61,669	57,000	44,093	16,000	104,000	240,611
Computer Science	85,209	75,000	68,157	22,000	150,000	121,754
Engineering	92,540	80,000	74,963	24,000	157,000	304,392
Life Science	61,528	50,000	58,757	12,000	114,000	153,367
Physics	72,564	58,000	68,704	14,700	133,000	62,568
Mathematics	82,565	64,000	82,079	14,750	150,000	32,930
Social Science	57,922	43,500	63,002	10,000	110,000	285,030
Humanities	58,238	43,000	$65,\!609$	9,600	110,000	232,014
Industry Wage (PhD) - Total Sample Bu Academic Field	120,718	98,000	106,173	25,000	230,000	135,936
Finance & Accounting	124 785	92.000	121 878	21.000	296.000	1 964
Business (Excluding Fin & Acc.)	104 450	80,000	102 250	17,000	200,000	4 991
Economics	149 659	120,000	131,508	26 400	360,000	2 856
Law	109,000	80,000	104,362	18 000	229,000	1 482
Medicine	110 412	93,000	92 102	30,000	199,000	15 498
Computer Science	154 317	120,000	126 784	39,100	300,000	2 781
Engineering	139.047	119,000	105 227	40,000	247 000	18 541
Life Science	127.546	99.000	112.798	30.000	294,000	29,935
Physics	137.529	111.000	109.237	38.000	270.000	19.430
Mathematics	144.062	120.000	119.805	35.000	280.000	3.818
Social Science	98.091	80.000	90.319	19.300	180.000	20.841
Humanities	$90,\!624$	67,000	93,074	15,000	175,000	13,799
Academic Wage (PhD) - Total Sample Bu Academic Field	88,541	75,000	69,515	26,600	150,000	67,494
Finance & Accounting	128.199	108,000	96.658	40.000	215.000	873
Business (Excluding Fin. & Acc.)	103.017	90.000	76.901	26.000	184,000	2.056
Economics	124.607	100.000	104.335	32.000	230.000	2.018
Law	65.948	59,500	47.912	5.000	110.000	54
Medicine	91.465	82.000	65.011	32.000	145.000	3.232
Computer Science	94.247	87.000	63.203	30.000	154,000	1.142
Engineering	101,961	88,500	81,345	25,200	180,000	6,852
Life Science	82,162	67,000	66,029	28,000	145,000	12,654
Physics	86,642	72,000	67.077	26,500	152,000	8,775
Mathematics	96,235	81,000	72,963	30.000	160,000	3,793
Social Science	87,455	75,000	66,563	27,000	148,000	11,796
Humanities	77,110	68,000	56,029	24,000	126,000	14,249

This table reports summary statistics on wages by career choice and academic field. The data comes from the American Community Survey and covers the period from 2009 to 2019. The sample consists of 25-69 years old individuals who earn a positive wage and whose highest degree completed is either a bachelor's degree or a doctoral degree. Academic fields are based on undergraduate degree majors.

#	State	Time Period	# Faculty	# Observations	9-Month Salary	Total Compensation
1	Alaska	2010-2018	343	1,975	+	
2	Arizona	2012-2017	930	4,065	+	
3	California	2011-2016	4,889	15,825	+	+
4	Colorado	2016-2018	1,316	3,400		+
5	Connecticut	2015-2018	388	750	+	+
6	District of Columbia	2015-2018	51	126	+	
7	Florida	2018	3,133	3,133	+	+
8	Georgia	2010-2017	3,770	18,084	+	
9	Hawaii	2018	379	379	+	
10	Iowa	2010-2017	1,484	7,167	+	
11	Illinois	2010-2018	2,265	11,271	+	+
12	Indiana	2018	343	343	+	
13	Kansas	2010-2016	1,388	6,585		+
14	Kentucky	2018	703	703	+	
15	Louisiana	2010-2013	1,472	4,737	+	
16	Massachusetts	2010-2018	1,829	7,282	+	+
17	Maine	2018	132	132	+	
18	Michigan	2016-2018	1,199	3,080	+	
19	Missouri	2014-2018	800	3,161	+	+
20	North Carolina	2018	2,610	2,610	+	
21	Nebraska	2017-2018	792	1,469	+	+
22	New Hampshire	2016-2016	305	574	+	
23	New Mexico	2018	386	386	+	
24	Nevada	2010-2017	518	834	+	+
25	New York	2011-2017	3,837	11,976	+	+
26	Ohio	2010-2016	1,451	7,100	+	
27	South Carolina	2018	1,368	1,368	+	
28	Texas	2010-2018	4,736	$24,\!840$	+	
29	Utah	2010-2018	1,456	7,925	+	+
30	Virginia	2018	3,264	3,264	+	+
31	Vermont	2014 - 2017	306	982	+	
32	Washington	2012-2016	912	3,391	+	

**Table A2.** Sample Coverage for Panel Data on Academic Wages Obtained via FOILRequests

This table summarizes the sample coverage for panel data on academic wages obtained via FOIL requests and further merged with the James Hasselback's faculty dataset and Scopus. The last two columns show the availability of information on 9-month salary and total compensation for each state.

	All	Top50 US News	<b>R1</b> Universities	Non R1 Universities	Public	Assistant	Tenured
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.Finance & Accounting	$0.51^{***}$ (0.04)	$0.72^{***}$ (0.02)	$0.61^{***}$ (0.04)	$0.40^{***}$ (0.03)	$0.51^{***}$ (0.04)	$0.60^{***}$ (0.06)	$0.48^{***}$ (0.04)
Fixed Effects							
Year FE	Yes						
Position FE	Yes						
University FE	Yes						
Observations	74,298	16,931	44,798	29,500	74,298	18,240	56,125
$R^2$	0.51	0.51	0.48	0.50	0.51	0.45	0.48

Table A3. Finance Academia Wage Premium Based on Total Compensation.

This table reports finance academia wage premia based on total compensation instead of 9-month salary for different samples. These premia are the coefficients of OLS regressions, where the dependent variable is the log of the yearly gross faculty wage. Column 1 presents finance academia wage premium for the whole sample. Other columns show the premia for the following subsamples: the top 50 universities according to the US News MBA Ranking (Column 2), doctoral universities with very high research activity according to the Carnegie Classification (Column 3), all four-year colleges and universities except for doctoral universities with very high research activity (Column 4), public four-year colleges and universities (Column 5), assistant professors (Column 6), and tenured professors – associate, full and chaired – (Column 7). Standard errors are doubled clustered at the university and year level and reported in parentheses. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.



Figure A1. Finance Wage Premium in Academia (Alternative Samples)

**Note:** This figure displays the cross-section of wage premia across academic fields for different samples, including business school faculty (Panel A), non-tenure stream faculty (Panel B), tenure stream faculty (Panel C), and "research stars" faculty (Panel D). "Research stars" are defined as 20% faculty with the highest H-index 10 years after the first publication. The wage premium of each academic field is calculated as the regression coefficient of the field's indicator variable from Equation (1) plus 1. The dependent variable is the log of the annual gross faculty wage. The model includes university, year, and position fixed effects. The bars indicate 95% confidence bounds based on standard errors double clustered at the year and university levels.



Figure A2. Finance Wage Premium across University Ranks

**Note:** This figure displays finance academia wage premium across university ranks. It plots the coefficient of the finance academic field dummy interacted with university rank dummies + 1 in OLS regressions in which the dependent variable is the log of the yearly gross wage. Each regression also includes university times year and position fixed effects. The bars indicate 95% confidence bounds based on standard errors double clustered at the year and university levels. The sample comprises 187,000 faculty-year observations from around 80,000 tenure-track faculty from 4-year postsecondary research institutions in the United States in an unbalanced panel over the 2005-2018 period.



Figure A3. Faculty Wage Distribution: Finance & Accounting vs. All Other

**Note:** This figure compares the distributions of faculty wages in finance/accounting and other academic fields using wage data from our main dataset.



Figure A4. Evolution of the Wages over Experience

**Note:** This figure displays the evolution of the wage premium over years of experience calculated as years after the first publication. The wage premium for each year after the first publication is calculated as the regression coefficient of the intersection of field and year indicator variables from Equation (7) plus 1. The dependent variable is the log of the annual gross faculty wage. The model includes university, year, and position fixed effects. The solid black line demonstrates the relation between the wage premium and experience for finance and accounting, while the solid grey line shows it for other academic fields combined. Dashed lines indicate 90% confidence bounds based on standard errors double clustered at the year and university levels.



Figure A5. Evolution of the Wages over Experience

Note: This figure displays the evolution of the wage premium over years of experience calculated as years after the first publication. The wage premium for each year after the first publication is calculated as  $1 + \beta_x + \beta_{f,x}$  and  $1 + \beta_x$  from Equation (7) for finance & accounting and all other fields, respectively. The dependent variable is the log of the annual gross faculty wage. The model includes university, field, business school and year fixed effects. The solid black line demonstrates the relation between the wage premium and experience for finance and accounting, while the solid grey line shows it for other academic fields combined. Dashed lines indicate 95% confidence bounds based on standard errors double clustered at the year and university levels.

Panel A. Finance & Accounting vs Other Academic Fields in Business Schools



Panel B. Finance & Accounting vs All Other Academic Fields



Figure A6. Returns to Citation Quantiles

Note: This figure compares returns to citation quantiles in finance/accounting with returns to citation quantiles in the rest of business schools (Panel A) and in all other academic fields combined (Panel B). The wage premium for each citation quantile is calculated as  $1 + \beta_i + \beta_{i,f}$  and  $1 + \beta_i$  from Equation (8) for finance & accounting and other fields, respectively. The dependent variable is the log of the annual gross faculty wage. The model includes university, field, business school and year fixed effects. The solid black lines demonstrate the relation between the wage premium and citation quantiles for finance and accounting, while the solid grey lines show it for the comparable groups. Dashed lines indicate 95% confidence bounds based on standard errors double clustered at the year and university levels.



Figure A7. The Number of AACSB-Accredited Schools Note: This figure plots the historical number of business institutions that have AACSB accreditation. Source: https://www.aacsb.edu/newsroom/.



Figure A8. Wage Premium and Turnover by Academic Field

**Note:** This figure displays a scatter plot between wage premium and turnover. Turnover is calculated as the ratio of the number of historical affiliations to the length of academic career in years using data from the Scopus Profiles.



# Figure A9. The Distribution of Graduate Student Wages across Academic Fields

**Note:** This figure displays the distribution of graduate student wages across academic fields, using a box plot for the median and interquartile wages of graduate students one year after graduation. *Source:* College Scorecard, the U.S. Department of Education.



Figure A10. Wage Trajectories: Industry Career vs Academia

**Note:** This figure plots the wage trajectories of three career choices: academic career after PhD (solid line), industry career after PhD (dashed line) and industry career after undergraduate degree for a top student (dotted line). *Source:* American Community Survey, the U.S. Census Bureau.