## What Drives the Finance Academia Wage Premium?\*

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#### Abstract

This paper documents the existence of a significant wage finance premium in academia, and investigates its underlying mechanism. By exploiting an extensive dataset covering wages, publications and socio-demographics for 60,000 public-university faculty from all fields, we first document a wage premium of more than 50% for finance professors. 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. Non-exclusive channels for such spillover supported by the data are higher university revenues per finance faculty, combined with a higher bargaining power for finance faculty and attractive outside options for finance undegraduate students.

JEL classification: J31, I23

Keywords: Finance wage premium, Finance academia.

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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. A natural place to investigate such potential phenomenon is finance academia, as it is positioned upstream of the industry by training future finance workers. Investigating finance professor wage dynamics should provide insights on the drivers of academic wages across fields, which have a disproportionate impact on the economy and society at large. Wages in academia indeed directly affect both the sorting of talent into certain academic fields, as well as faculty effort and productivity. In turn, these dimensions have an effect on 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, which raises heated debate around access to higher education and segments of the labor market.<sup>1</sup> Our study therefore 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 faculty and alumni compensation across U.S. public universities and fields to examine these questions. We collect panel data on faculty wages and academic ranks at institutions in the U.S. through public record requests in accordance with the state-level freedom of information laws. We merge this dataset with information on publications from Scopus to identify the field of each faculty employee.<sup>2</sup> Our main sample comprises close to 60,000 faculty across 279 postsecondary institutions from 32 states over the 2010-2018 period. The data also covers measures of research output such as citations, publications and the h-index, on top of information on

<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.

wages, academic ranks and sociodemographics. Finally, we collect data on student salaries after graduation from the College Scorecard dataset provided by the U.S. Department of Education.

Using this dataset, we first measure the finance academic wage premium relative to wages in all other academic fields. After controlling for year, university and position fixed effects, we find that the finance wage premium amounts to close to 53% of average faculty wage on average over our sample, has been increasing over the 2010-2018 period – from 42% to 57%–, and is higher in top schools. This premium is comparable in magnitude to the one observed in the finance industry compared to the other sectors and controlling for education level, which was about 50% in the US in 2005 (Philippon and Reshef, 2012).

However, finance academia wages display some empirical patterns that differ fundamentally from the ones observed in the finance industry (Philippon and Reshef, 2012; Bell and Van Reenen, 2014; Célérier and Vallée, 2019). First, the wage distribution in finance academia is *less* skewed than in other academic fields, while the wage distribution in the finance industry is *more* skewed than in the rest of the economy. Second, wages are only weakly increasing with experience, while wages trajectory in the finance industry are convex over this dimension. Third, 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, while Célérier and Vallée (2019) document that they are three times higher in the finance industry than in the rest of the economy. In addition to being higher, wages in finance academia also differ from the ones of other fields along several dimensions, for instance by exhibiting a somewhat flat level over the career trajectory.

Therefore, the second step of our study consists in investigating the economic mechanism underlying the finance wage premium in academia. Our central empirical result is that wages in finance academia are significantly more sensitive to students' future wages than in other fields. Consistent with a higher bargaining power for finance academics, we also document a low elasticity of finance phd graduate supply to the increasing demand in this field. Thus, the ratio of PhD graduates to positions to fill is relatively low in finance, and universities cannot easily substitute PhD faculty with non PhD-faculty due to accreditation requirements for business programs.

We then document three channels rationalizing why university revenue might be particularly sensitive to its finance student future wages. First, due to heightened demand when wages are high, the tuition price elasticity of students in finance decreases with their future wages, and university can also enroll more students in a field when future wages are high. Second, we collect data on donations per field and show that the average donation amount per faculty is higher in finance than in other fields, including other business fields. Such a pattern can be rationalized by the skewed distribution of wages in finance, and particularly so at highly ranked institution, that allows large donations from alumni. Finally, we also document that student wages at graduation are a major driver of business school rankings that have a large influence on future applications, donations and subsequently school revenues. Because the right tail of the student's wage distribution is significantly higher and heavier in the financial sector than in other sectors, attracting high quality students and providing them quality education to ensure placement in the best paying-jobs of the industry is particularly important for the university. Such phenomenon stimulates the demand for finance academics that will ensure the standing of the department.

Overall, our evidence supports the view that highly-ranked universities uniquely share in the surplus obtained by their finance students in the labor market compared to the ones joining other industry, and that in turn finance academics of such institutions obtain a disproportionate share of such university revenue due to their high bargaining power. This high bargaining power can be traced to the inelastic supply of finance phd students facing an increasing demand for institutional reason. The industry outside option of talented students, especially when joining it without doing a phd, also likely plays the role in increasing the bargaining power of finance academia. The more pronounced premium for young academics can be rationalized by frictions to reallocation that increase with experience.

This paper contributes to the literature on the determinants of wages in academia,

such as citations (Hamermesh, 2018), publications (De Fraja, Facchini, and Gathergood, 2020), seniority and university monopsy power (Ransom, 1993; Moore, Newman, and Turnbull, 1998; Hilmer and Hilmer, 2011; Brogaard, Engelberg, and Van Wesep, 2018; Goolsbee and Syverson, 2019), experience (Ransom, 1993), university rank (Kim, Morse, and Zingales, 2009) or 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 documents additional empirical facts consistent with a spillover from finance industry wages to academia. Section ?? considers alternative explanations for the finance academic wage premium. Section V concludes. An Internet Appendix provides additional results.

## II. Data

This study relies on a novel comprehensive dataset over academic pay and productivity, specifically collected for the purpose of this study. This section describes our data sources and the methodology we use to assemble the dataset. In a nutshell, we collect and harmonize individual faculty wage data from a large set of US public universities, and merge these wage data with information on individual faculty characteristics, academic programs and donations.

#### A. Academic Wages and Positions

We obtain panel data on wages and positions for faculty working at U.S. public colleges and universities through public record requests in accordance with the state-level freedom of information laws. Our sample comprises 190,000 faculty-year observations from 60,000 faculty from 279 postsecondary institutions of 32 states. The panel data covers the period from 2006 to 2018 but is unbalanced, as coverage periods vary for each state. This sample includes both ladder and non-ladder faculty.

For each faculty and fiscal year, we directly observe the following information: last name, first name, yearly wage, institution, position – tenure track or not –, and rank – assistant, associate or full professor –. For a few states, we also have information on department, gender, teaching load, and ethnic group. For individuals without gender information, we fill this information using a dictionary that identifies gender based on individuals' first name.<sup>3</sup> Table AI in the online appendix lists the states and sample periods that our dataset covers.

Although our sample covers a large number of universities, they are all public, and

<sup>&</sup>lt;sup>3</sup>The gender guess can be of six types: "male", "female", "mostly male", "mostly female", "androgynous", or "unknown".

we therefore need to ensure the representativity of our sample for private universities. For that purpose, we compare the distributions of academic wages in public and private universities in the U.S using data on green card recipients employed at four-year universities in the period 2005-2015. Panels A and B in Figure 1 plot wage distributions for the samples of faculty who received a green card from all academic fields and from business fields, respectively. Apart from a slightly higher kurtosis in the distributions do not significantly differ from each other in both samples. This exercise supports the view that studying wages only in public universities is representative of the entire academic market.

#### INSERT FIGURE 1

#### B. Academic Fields and Publications

We exploit two sources of data for identifying the research field when it is missing in the original wage data, as well as measuring research productivity. The first source is a faculty directory manually collected and made publicly available by James Hasselback.<sup>4</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 following versions of the faculty dataset for each field: the version of 2016-2017 for accounting, the version of 2019-2020 for finance, and the version of 2006-2007 for economics.<sup>5</sup>

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

<sup>&</sup>lt;sup>4</sup>http://www.jrhasselback.com/FacDir.html

<sup>&</sup>lt;sup>5</sup>The James Hasselback's faculty dataset simultaneously covers public and private universities, but does not fully cover the public universities we obtain wage data from.

<sup>&</sup>lt;sup>6</sup>We choose Scopus over the Web of Science because Scopus has a broader coverage.

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 for such individuals.

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. Sample Construction and Allocation to Fields

To build our main sample, we start from the academic wage dataset and keep all the observations we can assign an academic field to. To identify the academic field, we first link the academic wage dataset to the James Hasselback's faculty dataset, as it offers a the most precise classification of business school fields. If there is no match in the James Hasselback's faculty dataset, we define the academic field using the data from Scopus. 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>

<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.

<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".

#### D. Additional Data at the University-Field Level

#### D.1. Student Wages

We use several data sources for wages outside of academia by fields, to proxy for both the earning power of the students from a given field, and for the outside option of individuals deciding to pursue an academic career in a given field.<sup>9</sup> First, data on undergraduate and graduate student wages one year after graduation comes 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 graduation by CIP code, a field classification of educational program 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, we access data on the post-graduation plans of US doctorate recipients to measure outside options by fields. We obtain this 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.

Finally, 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. We use the ACS data to get information on outside options in different academic fields. Specifically, it allows us to trace wage trajectories associated with the following career choices: industry career after an undergraduate degree without pursuing a PhD degree, industry career after PhD and academic career after PhD.

 $<sup>^9\</sup>mathrm{Although}$  gradual, this decision is most likely to happen around undergrad and phd degree completion.

#### D.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.

#### D.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.

#### E. Summary Statistics

Table I presents summary statistics on the dataset we obtain once we implement these steps, breaking down faculty wages by academic field and position. Table II reports summary statistics on student wages by degree level and academic field. Table III reports summary statistics on wages by career choice and academic field.

#### INSERT TABLE I, II AND III HERE

## **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. Table I already suggests that academic finance is exceptional in terms of compensation, as it exhibits both the highest unconditional mean wage and highest unconditional median wage.<sup>10</sup> We thus precisely 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.

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

where  $w_{i,t}$  is the yearly gross wage of faculty *i* in year *t*,  $\mu_f$  are field fixed effects, using humanities as the reference point.  $\mu_{u,t}$  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 2 plots the  $\beta_f$  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 2

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.

 $<sup>^{10}\</sup>mathrm{At}$  the 90th decile, medicine is the highest, but medicine faculty are often performing tasks that are not academic in nature.

Table IV reports the wage premium in finance for the following samples: all faculty (Column 1), faculty at the universities featuring in the top 50 of the US News MBA Ranking (Column 2), faculty at doctoral universities with very high research activity, i.e. R1 in the Carnegie Classification (Column 3), non-tenure track faculty (Column 4), tenure track faculty (Column 5), assistant professors (Column 6) and tenured professors (associate, full and chaired) (Column 7).

#### INSERT TABLE IV

The finance wage premium amounts to 53% on average for all faculty. This premium is even larger among the top schools (68%), the universities with high research activity (61%) and for assistant professors (66%). The finance wage premium is slightly lower for non-tenure faculty (46%) and for tenured faculty (49%). For all tenure-track faculty, it is 54%. These estimates are comparable in magnitude to the wage premium in the finance industry, which was about 50% in the US in 2005 (Philippon and Reshef, 2012).

#### 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 3 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.

#### INSERT FIGURE 3

#### C. Wage Skewness and Returns to Experience and Productivity

While a significant and increasing finance wage premium is present both in the industry and in academia, we document three distinct patterns in academia: a lower skewness of the wage distribution than in the rest of academia, low returns to experience, and returns to talent that are comparable to the ones in other fields.

#### C.1. Skewness of wage distribution

Figure 4 compares the wage distributions in finance and other academic fields. The wage distribution in finance academia is *less* skewed than the wage distribution in other academic fields. In contrast, the wage distribution in the finance industry is *more* skewed than the wage distribution in the rest of the economy. The finance wage premium is there-fore shared significantly more uniformly in academia than it is the case in the financial industry.

#### INSERT FIGURE 4

#### C.2. Returns to experience

Next, we investigate returns to experience across fields by estimating the following regression:

$$\ln(w_{i,t}) = \sum_{x} \beta_x \mathbb{1}_x + \sum_{x} \beta_{fin,x} \mathbb{1}_{fin} \mathbb{1}_x + \mu_f + \mu_u + \mu_{bschool} + \mu_t + \epsilon_{i,t}$$
(4)

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>11</sup>  $\mu_d$ ,  $\mu_j$  and  $\mu_t$  denote field, university and year fixed effects, respectively.<sup>12</sup> Standard errors are double clustered at the university and year level.

Figure 5 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

<sup>&</sup>lt;sup>11</sup>We only observe graduation year in Hasselback data.

<sup>&</sup>lt;sup>12</sup>Business schools fixed effects are also included as time-invariant effects might differ from the ones of the home university.

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 5

#### C.3. Returns to talent

Last, we 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:

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

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 (4). Standard errors are double clustered at the university and year level.

Figure 6 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 6

## IV. Economic Mechanism

Having documented that the finance academia compensation policies both share similarities and distinction with the ones from the financial industry, we turn to exploring the economic mechanism underlying such patterns. 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

We first document that faculty wages are more sensitive to the level of pay the students obtain after graduation in finance than in other academic fields. To do so, we run the following specification:

$$\ln(w_{i,t}) = \beta \ln(w_{f,u,t}) + \gamma \ln(w_{f,u,t}) \mathbb{1}_{fin} + \mu_f + \mu_u + \mu_t + \mu_p + \epsilon_{i,t}$$
(6)

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 V 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 0.35 and 0.24 higher, respectively, 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.

#### INSERT TABLE V

We now turn to investigating the causality chain that can rationalize the particularly high elasticity of faculty wages to students wages we observe in finance.

# B. A higher sensitivity of university revenue/surplus to student wages in finance

In VI, 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 VI

#### B.1. Student demand for education and 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>13</sup>

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

$$\frac{\# \text{ of Students}}{\# \text{ of Faculty}}_{u,f} = \frac{\sum_{\text{academic program}} \# \text{ of students graduating*years to complete}}{\frac{2*\# \text{ of faculty in the 50\% wage sample matched with Scopus}_{u,f}}{\text{Probability to be covered by Scopus}_{u}}$$
(7)

Figure 8 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

 $<sup>^{13}</sup>$ 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.

in other academic fields.

#### INSERT FIGURE 8

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 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 9 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 = 
$$\frac{\frac{\text{The sum of all donations in this field}}{\text{The sum of all donations}}}{\frac{\text{The number of professors in this field in our sample}}{\text{The total number of professors in our sample}}$$
(8)

Panel B in Figure 9 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 9**

#### **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>14</sup> Figure 10 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 10

#### 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 7 compares the

 $<sup>^{14}</sup>$ Adjusting for student placement industry composition, as the Economist does in its ranking, does not fully shut down this incentive.

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 7 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 7

Panel C in Figure 7 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>15</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.

<sup>&</sup>lt;sup>15</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.

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. In addition, not only outside wages at specific career points can affect academic wages, but the lifetime PV of outside wages may also drive academic wages as well.

Figure 11 presents 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, i.e. being at the 95th percentile of wages among their field cohort (dotted line) - in a few academic fields. Industry wage trajectories for top earners (5th percentile) in the industry are usually steeper and have a hump-shaped form with the maximum wage around 50 years, while the growth of academic wages usually is flatter.

The main takeaway from this figure is that students taking an undergrad in finance and accounting, as well as in economics, have significantly better wage prospects at the right tail of wage distribution than in other fields. Such prospects improve the outside option of top students in these fields, who are likely candidate for pursuing a PhD, and in turn potentially increase the bargaining power of finance phd students.

To fully capture the career wages, we turn to comparing the present value of industry and academic wages over individual whole career. Figure 12 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.

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. Conclusion

This paper documents the existence of a significant wage finance premium in academia, and investigates its underlying mechanism. We collect panel data on faculty wages and academic ranks at U.S. public post-secondary institutions through public record requests in accordance with the state-level freedom of information laws. These data are further merged with data on publication profiles, the number of students by academic program, donations and industry wages.

Using this dataset, we document 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. Its magnitude is also comparable to the one in the finance industry.

Finance academic wages also display patterns that differ from the ones in the finance industry. First, wage dispersion is significantly lower among finance academics than in the industry. Second, wages are only weakly increasing with experience, while wages trajectory in the finance industry are convex. Finally, returns to 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.

We further 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 then describe a plausible causality chain explaining this relationship. Universities share in the surplus that their finance students obtain in the labor market through higher revenues, including tuition and donations. Finance academics also benefit from a stronger bargaining power, due to the inelastic supply of finance phd students, combined with an attractive outside option, which is stronger prior to starting their phd.

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## VI. Figures





Figure 1. Faculty Wage distribution: Private vs. Public Universities.

**Note:** This figure compares the distributions of faculty wages in public and private US universities using data on green card recipients. The sample in Panel A consists of 20,976 postsecondary teachers from 1,457 four-year universities who received green cards during the period 2005-2015. Panel B displays wage distributions for the subsample of postsecondary teachers in business fields.



Figure 2. Finance Wage Premium in Academia

**Note:** This figure displays the wage premia of academic fields relative to humanities. 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 times year and position fixed effects. The bars indicate 95% confidence bounds based on standard errors double clustered at the year and university levels.



Figure 3. Evolution of the Finance Wage Premium in Academia in the US

Note: This figure displays the evolution of the wage premium in finance relative to other academic fields. The wage premium for each year is calculated as the regression coefficient of the intersection of finance and year indicator variables from Equation (3) plus 1. The dependent variable is the log of the annual gross faculty wage. The model 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.



Figure 4. 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 5. 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 (4) 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 6. 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 (5) 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.



Panel B. The Number of AACSB-Accredited School.



Panel C. Academic Placement



Figure 7. Supply and Demand in the Market for Finance PhDs

**Note:** This figure displays the ratio of PhD students to faculty (Panel A), the historical number of business institutions that have AACSB accreditation (Panel B) and the share of academic placement (Panel C). 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. Data source for the number of AACSB-accredited business institutions is https://www.aacsb.edu/newsroom/. 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 8. Wage Premium and Students per Faculty Ratio

Note: This figure displays a scatter plot between wage premium and the students to faculty ratio. The wage premium of each academic field is the same as in Figure 2 and is calculated as the regression coefficient of the field's indicator variable from Equation (1) plus 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 students for one university-field combination is the mean annual value of 4\*undergraduate degrees received+2\*graduate degrees received. 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 using our main dataset.



Panel A. The Number of Billionaires per Industry

Panel B. Wage Premium and Donation per Faculty Intensity



Figure 9. Donations and Finance Academia Wage Premium

Note: 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 2 and is calculated as the regression coefficient of the field's indicator variable from Equation (1) plus 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.



## Figure 10. 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 11. 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.



Panel A. Industry Career after Undergrad

Figure 12. PV of Wages: Industry vs Academia

**Note:** This figure displays a scatter plot between the PVs of industry and academic wages calculated as the discounted sum of future annual gross wages for a hypothetical 25 year old person. The PV of academic wages is computed based on the assumption that this person will receive a \$25,000 PhD scholarship in the period 25-29 years and will earn the mean annual gross academic wages of PhD degree holders from ACS in the period 30-64 years. The PV of industry wages in Panel A is calculated using the assumption that this individual will earn annual gross wages in the period 25-64 years, which are equivalent to the 95th percentiles of the annual gross industry wages of undergraduate degree holders from ACS. The PV of industry wages in Panel B is computed based on the assumption that this person will receive a \$25,000 PhD scholarship in the period 25-29 years and will earn the mean annual gross industry wages of PhD degree holders from ACS. The PV of industry wages in Panel B is computed based on the assumption that this person will receive a \$25,000 PhD scholarship in the period 25-29 years and will earn the mean annual 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.

## VII. Tables

#### Table I. Summary Statistics: Faculty Wages

	Mean	Median	SD	10th Percentile	90th Percentile	95th Percentile	Observations
Gross Annual Faculty Wage - Total Sample	125,028	102,400	78,174	64,116	210,740	265,467	190,482
By Academic Field							
Finance & Accounting	180,531	162,820	74,273	105,355	277,209	317,946	5,339
Business (Excluding Fin. & Acc.)	136,229	121,036	64,346	76,460	210,148	257,112	6,253
Economics	140,850	121,092	65,265	81,984	228,245	284,444	4,027
Law	145,755	127,444	74,491	72,152	242,516	285,600	7,380
Medicine	162,174	126,161	115,668	68,480	297,115	375,699	46,887
Computer Science	120,120	108,859	49,614	71,246	180,366	218,475	8,230
Engineering	120,581	107,949	53,266	71,444	184,903	217,976	9,826
Life Science	115,085	100,215	56,882	65,000	181,528	220,378	36,175
Physics	118,077	106,474	49,491	68,381	180,927	216,392	5,307
Mathematics	105,266	92,771	48,060	61,475	165,000	196,235	6,888
Social Science	94,217	82,972	39,695	60,000	139,931	170,048	40,682
Humanities	91,329	81,086	36,729	58,491	137,030	163,660	13,488
By Academic Field in Business Schools							
Finance & Accounting	186, 196	170,000	74,681	109,894	283,850	325,000	4,783
Marketing	157,486	139,101	66,938	97,500	252,281	301,200	818
Operational Research	146, 134	129,566	62,931	89,111	229,906	283,767	1,146
Management & Other Business	149,794	133,476	68,311	87,000	229,201	275,668	4,927
Business Economics	146,303	124,771	68,832	85,536	242,000	300,308	1,471
By Position							
Assistant Professor	91,559	80,792	43,878	58,145	130,862	170,000	40,936
Associate Professor	101, 119	90,840	45,628	64,804	142,792	176,443	48,099
Full Professor	148,980	129,617	80,571	79,109	236,078	288,891	71,642
Non-Tenure Track (Excluding Medicine)	95,191	78,843	52,678	55,000	158,990	203,216	10,068
Non-Tenure Track (Medicine)	180,989	150,000	$124,\!697$	67,029	330,299	407,256	19,737

This table reports summary statistics on faculty wages. The dataset covers the period from 2010 to 2018. Information on faculty wages and position characteristics was obtained through public record requests in accordance with the state-level freedom of information laws. Academic fields were identified using the Scopus Profiles and the James Hasselback's faculty dataset.

	Mean	Median	$\mathbf{SD}$	10th Percentile	90th Percentile	Observations
Undergraduate Student Wage - Total Sample	41,430	36,820	13,516	27,890	59,788	39,007
By Academic Field	,	,	,	,	,	*
Finance & Accounting	49,941	47,780	10,007	39,263	66,149	1,328
Business (Excluding Fin. & Acc.)	48,052	$45,\!645$	9,303	38,460	59,939	1,409
Economics	45,880	45,100	7,667	37,856	57,098	668
Law	35,746	35,300	3,996	31,000	40,005	410
Medicine	49,201	47,311	10,214	38,836	59,131	10,349
Computer Science	67,466	63,100	15,519	53,039	86,531	1,830
Engineering	61,245	61,301	5,125	54,986	66,423	2,109
Life Science	$30,\!685$	29,969	4,040	26,350	36,583	7,345
Physics	36,887	37,277	5,027	30,830	43,300	874
Mathematics	46,578	45,800	$^{8,062}$	38,289	56,776	1,058
Social Science	32,556	32,901	3,146	28,690	35,622	8,935
Humanities	$28,\!654$	28,522	$3,\!643$	24,350	33,100	2,692
Gaduate Student Wage - Total Sample	62,990	56,900	22,148	41,700	95,550	30,215
By Academic Field						
Finance & Accounting	49,941	47,780	10,007	39,263	66,149	1,328
Business (Excluding Fin. & Acc.)	48,052	$45,\!645$	9,303	38,460	59,939	1,409
Economics	$45,\!880$	45,100	$7,\!667$	37,856	57,098	668
Law	35,746	35,300	3,996	31,000	40,005	410
Medicine	49,201	47,311	10,214	38,836	59,131	10,349
Computer Science	67,466	63,100	15,519	53,039	86,531	1,830
Engineering	61,245	61,301	5,125	54,986	66,423	2,109
Life Science	30,685	29,969	4,040	26,350	36,583	7,345
Physics	36,887	37,277	5,027	30,830	43,300	874
Mathematics	46,578	45,800	$^{8,062}$	38,289	56,776	1,058
Social Science	32,556	32,901	3,146	28,690	35,622	8,935
Humanities	$28,\!654$	28,522	$3,\!643$	$24,\!350$	33,100	2,692
Social Science Humanities Gaduate Student Wage - Total Sample By Academic Field Finance & Accounting Business (Excluding Fin. & Acc.) Economics Law Medicine Computer Science Engineering Life Science Physics Mathematics Social Science Humanities	$\begin{array}{c} 32,556\\ 28,654\\ 62,990\\ 49,941\\ 48,052\\ 45,880\\ 35,746\\ 49,201\\ 67,466\\ 61,245\\ 30,685\\ 36,887\\ 46,578\\ 32,556\\ 28,654\\ \end{array}$	$\begin{array}{c} 32,901\\ 28,522\\ \hline\\ 56,900\\ 47,780\\ 45,645\\ 45,100\\ 35,300\\ 47,311\\ 63,100\\ 61,301\\ 29,969\\ 37,277\\ 45,800\\ 32,901\\ 28,522\\ \end{array}$	3,146 3,643 22,148 10,007 9,303 7,667 3,996 10,214 15,519 5,125 4,040 5,027 8,062 3,146 3,643	28,690 24,350 41,700 39,263 38,460 37,856 31,000 38,836 53,039 54,986 26,350 30,830 38,289 28,690 24,350	35,622 33,100 95,550 66,149 59,939 57,098 40,005 59,131 86,531 66,423 36,583 43,300 56,776 35,622 33,100	$\begin{array}{c} 8,935\\ 2,692\\ \hline 30,215\\ 1,328\\ 1,409\\ 668\\ 410\\ 10,349\\ 1,830\\ 2,109\\ 7,345\\ 874\\ 1,058\\ 8,935\\ 2,692\\ \end{array}$

 Table II.
 Summary Statistics:
 Student Wages

This table reports summary statistics on the median student wages one year after graduation. Information on student wages comes from the College Scorecard dataset provided by the U.S. Department of Education and is available only for the period 2017-2018.

Table III.	Summary	Statistics:	Wages	and	Career	Choice
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	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	131508	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.

	All	Top 50 US News Banking	R1 Universities	Non-Tenure Track	Tenure Track	Assistant Professor	Tenured Professor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.Finance & Accounting	$0.53^{***}$ (0.03)	$0.68^{***}$ (0.02)	$0.61^{***}$ (0.03)	$0.46^{***}$ (0.05)	$0.54^{***}$ (0.03)	$0.66^{***}$ (0.03)	$0.49^{***}$ (0.03)
Fixed Effects							
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Position FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	190,476	59,330	$125,\!449$	29,790	$160,\!673$	40,934	119,804
$R^2$	0.47	0.41	0.41	0.52	0.47	0.39	0.43

Table IV. Finance Academia Wage Premiu	ım.
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This table reports finance academia wage premia 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), non-tenure track faculty (Column 4), tenure track faculty (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.

	Log(Undergrad. Wages)		Log(Grad. Wages)		ages)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log(Student Wage)	$0.04 \\ (0.04)$	$0.02 \\ (0.04)$	-0.08 (0.05)	$0.13^{***}$ (0.03)	$0.12^{***}$ (0.03)	$0.08^{**}$ (0.04)
$Log(Student Wage)^* \mathbb{1}.$ Finance & Accounting		$\begin{array}{c} 0.35^{***} \\ (0.08) \end{array}$	$\begin{array}{c} 0.44^{***} \\ (0.09) \end{array}$		$0.24^{**}$ (0.10)	$0.28^{***}$ (0.11)
$\label{eq:log(Student Wage)*1.Business(Excluding Fin. & Acc.)} \label{eq:log(Student Wage)*1.Business(Excluding Fin. & Acc.)}$			$0.26^{***}$ (0.07)			$0.10^{*}$ (0.06)
$Log(Student Wage)^* \mathbb{I}.$ Economics			$\begin{array}{c} 0.36^{***} \\ (0.13) \end{array}$			-0.31 (0.21)
$Log(Student Wage)^* \mathbb{1}.Law$			$\begin{array}{c} 0.13 \\ (0.21) \end{array}$			$\begin{array}{c} 0.05\\ (0.12) \end{array}$
Log(Student Wage)*1.Medicine			$0.16^{*}$ (0.09)			$\begin{array}{c} 0.07 \\ (0.09) \end{array}$
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
Fleid FE	1 es 20.001	1es 20.001	1 es 20.001	1 es	1es 20.209	1 es
$R^2$	0.53	0.53	0.53	0.53	0.53	0.53

#### Table V. The Sensitivity of Faculty Wages to Students' Wages.

This table reports the coefficients of OLS regressions, where the dependent variable is the log of the yearly gross faculty wage. Columns 1-4 demonstrate the relation between faculty wages and the median wage of undergraduate students one year after graduation, while Columns 5-8 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.

Table VI.	The Sensitivity	of School Rev	venue to Studer	nt Wages.
	Log(Tuition Revenue/Faculty)	Log(Total Revenue/Faculty)	Log(Tuition Revenue/Faculty)	Log(Total Revenue/Facu

	Log(Tuition Revenue/Faculty)	Log(Total Revenue/Faculty)	Log(Tuition Revenue/Faculty)	Log(Total Revenue/Faculty)
	(1)	(2)	(3)	(4)
Log(Undergrad Wage Business)	0.65***	1.04***		
	(0.13)	(0.29)		
Log(Undergrad Wage Life Science)	-0.09	-0.07		
	(0.14)	(0.17)		
Log(Undergrad Wage Social Science)	0.54***	0.11		
	(0.18)	(0.40)		
Log(Graduate Wage Business)			1.06***	1.16***
			(0.21)	(0.39)
Log(Graduate Wage Life Science)			0.15	0.42
			(0.12)	(0.31)
Log(Graduate Wage Social Science)			-0.34	0.22
			(0.30)	(0.58)
Fixed Effects				
Year FE	Yes	Yes	Yes	Yes
Deservations D <sup>2</sup>	405	405	86	86
11	0.21	0.10	0.40	0.34

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.