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Working Paper

K-returns to field of study

Discussion Papers, No. 1027

Provided in Cooperation with:
Research Department, Statistics Norway, Oslo

Suggested Citation: Holm, Martin Blomhoff (2025) : K-returns to field of study, Discussion Papers, No. 1027, Statistics Norway, Research Department, Oslo

This Version is available at:
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K-Returns to Field of Study

Martin B. Holm

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Published: September 2025

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ISSN 1892-753X (electronic)

Abstract

Financial and quantitative education, such as pursuing a degree in business or economics, should potentially equip individuals with the skills to better allocate their financial resources. This paper leverages discontinuities in admission cutoffs in the Norwegian higher education system to estimate the causal effect of entering a field of study on returns to wealth later in life. We find no statistically significant impact of entering any field of study on returns to wealth later in life, mainly because our estimation sample is too small to confidently identify the effect of field of study on returns to wealth. We thus conclude that we still do not know whether completing a specific field of study affects returns to wealth.

Keywords: Education and Inequality, College Admission

JEL classification: I24

Acknowledgements: The author thanks Michael Graber and Zhiyang Jia for valuable feedback and discussions, and Edwin Leuven for help with access to the data from Samordna Opptak under his DOPE project (Norwegian Research Council project number 275906). The article was written as part of a research project at Statistics Norway, supported by the Finance Market Fund (Research Council of Norway, project number 294978).

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Sammendrag

Finansiell og kvantitativ utdanning, som å ta en grad i økonomi eller finans, bør potensielt gi individer ferdigheter til bedre å forvalte sine økonomiske ressurser. Denne artikkelen utnytter diskontinuiteter i opptaksgrenser i det norske høyere utdanningssystemet for å estimere den kausale effekten av å ta en spesifikk studieretning på formuesavkastningen senere i livet. Vi finner ingen statistisk signifikant effekt av studieretning på formuesavkastning, hovedsakelig fordi vårt utvalget er for lite til å identifisere effekten. Vi konkluderer derfor med at vi fortsatt ikke vet om det å fullføre et spesifikt studieretning påvirker formuesavkastning.

1 Introduction

A recent literature on wealth inequality argues that differences in returns to wealth are an essential driver of the recent increase in wealth inequality in many Western countries. Models with persistent differences in returns to wealth can generate wealth distributions with a thick right tail resembling those observed in the data (De Nardi and Fella, 2017; Benhabib, Bisin, and Zhu, 2011; Benhabib, Bisin, and Luo, 2017, 2019; Gaillard, Wangner, Hellwig, and Werquin, 2023). In addition, persistent heterogeneity in returns coupled with a positive correlation between wealth returns and wealth levels, can potentially account for rapid transitions in wealth concentration over time (Gabaix, Lasry, Lions, and Moll, 2016).

Fagereng, Guiso, Malacrino, and Pistaferri (2020) document persistent differences in returns to wealth using Norwegian administrative data. Moreover, they argue that only part of this heterogeneity is explained by risk exposure. Instead, part of the variation in returns to wealth seems to reflect systematic differences in the ability to manage wealth. These systematic differences may stem from innate abilities, as well as formal education or specific skills. Understanding the causes of this dispersion in returns to wealth is crucial for designing effective policies to address wealth inequality.

This paper utilizes Norwegian administrative data on higher education admissions and returns to wealth to investigate whether completing a specific field of study impacts wealth returns later in life. The empirical setup and identification strategy closely follow Kirkeboen, Leuven, and Mogstad (2016), who analyze the effect of the field of study on labor market outcomes. The centralized higher education admission system in Norway requires applicants to rank their preferred field and place of study among public higher education institutions in Norway. The applicants are then scored based on their high school grade point average. All applicants are then ranked from highest to lowest, and places are assigned according to this rank. The highest-ranked candidate gets her preferred choice, then the next candidate gets her best available spot, and so on. The application system essentially generates instruments from discontinuities that randomize applicants near unpredictable admission cutoffs. The admission data is then combined with returns on wealth from detailed administrative data on income and wealth collected for tax purposes. In this study, return to wealth is defined as the five-year average of (net) capital income and capital gains as a share of gross wealth.

There are significant correlations between the completed field of study and returns to wealth. For example, the average returns to wealth are 3.07% and 3.40% for individuals completing a business or STEM degree. In contrast, the returns to wealth are 2.04% and 1.64% on average for individuals who complete a degree in the humanities or teaching. However, such differences may reflect several factors that predict both higher returns

and entering specific fields, including differences in preferences or abilities. Hence, the associations may reflect forces other than education or the field of study.

We resolve this by comparing applicants on each side of the admission cutoffs to estimate the effect of completing a field of study on returns to wealth. We find no significant impact of fields of study on the return to wealth. From these results alone, however, it is not possible to conclude that the impact of finishing a specific field of study on wealth returns is zero. Instead, one cannot rule out a null effect, but one can also not rule out relatively large effects for some fields of study. We therefore remain inconclusive regarding the impact of the field of study on wealth returns because we would need more data to more precisely estimate this effect.

Related literature. Our paper is related to the literature on financial education and financial outcomes. Several papers document a positive association between measures of financial literacy and financial outcomes. For example, Girshina (2019) uses Swedish administrative data to document a correlation between education and returns when comparing siblings. There is more limited evidence on the causal effect of education on financial outcomes. A related paper is Fagereng, Guiso, Holm, and Pistaferri (2020), who use a Norwegian education reform in the 1960s to estimate the causal impact of general education on returns to wealth, finding no evidence to support the idea that general education affects returns to wealth.

However, for financial outcomes, one may argue that it is not general education that matters. Instead, specific skills are more relevant for financial outcomes, skills that may be acquired through studying specific fields in higher education. This study contributes to this literature by using admission cutoffs to estimate the causal impact of field of study on returns to wealth. As such, we also contribute to the broader literature attempting to understand the causal effect of the field of study on other outcomes (see Kirkeboen, Leuven, and Mogstad, 2016, and the references therein).

2 Institutional Setting and Data

2.1 Institutional Setting

We use the admission process to higher education in Norway to estimate the effect of the field of study on returns to wealth. Norway has a centralized admission process for higher education, which encompasses four public universities and several private and public university colleges during the sample period. Each institution posts its spots in each detailed field in which it offers education. Potential students then submit applications to the central admission organization, the Norwegian Universities and

College Admission Service, in which they rank combinations of detailed field and institution (e.g., economics at the University of Oslo).

For most fields and institution combinations, there are more applicants than spots available. In these cases, spots are allocated based on an application score calculated from the applicant's high school grade point average. This application score is primarily calculated by multiplying the grade point average by 10. In addition, applicants can receive extra points for having attended specific high school subjects, for being a woman in some male-dominated fields, and as a function of the applicant's age, previous educational history, and fulfilling the mandatory military service.

Each applicant can rank up to 15 field and institution combinations. Offers are then made sequentially based on the applicants' application scores. The highest-ranked applicant will get her first choice. The second-highest ranked applicant will get her highest-ranked choice among available field and institution combinations on her application. This process is repeated until it runs out of applicants or slots. The allocation procedure is designed as a serial dictatorship, which is Pareto efficient and strategy-proof. Hence, applicants are incentivized to reveal their true preferences.

After the initial allocation of slots, applicants must accept the offers, remain on the waiting list for a spot, or withdraw from the process. Remaining slots after this initial allocation are then distributed in a second round by repeating the allocation procedure above.

2.2 Data

Data sources. This study combines three main data sources: the admission data from the Norwegian Universities and College Admission Service, the centralized register on completed education, and the administrative tax data on income and wealth. The admission data includes each individual's application score, the ranking of field and institution combinations, and the relevant cutoffs. The register of completed education contains a record of each individual's completed education at any point in time. The tax data contain detailed information on income and wealth at the individual and household levels, collected for tax purposes and mostly reported by third parties, covering the years from 1993 to 2017 and reported at the end of the year.

Variable definitions. The main variable of interest is *returns to wealth*. Return for household h at time t is defined as

$$\text{return} = \frac{\sum_{t=2013}^{2017} \text{capital income}_{h,t} + \text{capital gains}_{h,t}}{\sum_{t=2013}^{2017} \frac{1}{2}\left(\text{gross wealth}_{h,t-1} + \text{gross wealth}_{h,t}\right)} \cdot 100 \tag{1}$$

where capital income is the sum of interest income, dividend income, and other capital income minus interest expenses, capital gains is the realized capital gains and losses in stocks plus unrealized capital gains in housing, and gross wealth is the sum of housing wealth, stocks, stock funds, private businesses, and deposits. All variables are reported directly in the tax registry except for unrealized capital gains in housing. We measure capital gains in housing as the change in estimated housing wealth in the tax registry in years in which the household does not transact houses. We define all variables in the tax registry at the household level because the wealth tax is at the household level. Since the division of assets between household members is irrelevant to the tax authorities, the asset allocation at the individual level may be somewhat arbitrary. Hence, if a household contains multiple adults, then each variable is the sum of the individual-level variables. Each individual in the household is then given the household's returns to wealth.

We follow Fagereng, Guiso, Malacrino, and Pistaferri (2020) and Fagereng, Guiso, Malacrino, and Pistaferri (2020) in defining returns to wealth as the return on gross wealth, a comprehensive measure of return on all wealth akin to return on assets in accounting. The primary reason for defining return in this manner, rather than, for example, return on net wealth (which would be similar to return on equity), is that a substantial portion of the population has negative or near-zero net wealth. For households with negative net wealth, the return on equity is not defined. For households with very low net wealth, the return on equity contains significant outliers as the denominator approaches zero. Using return on gross wealth circumvents both problems.

We define *the field of study* as the broad field at the top level of the education codes in Norway. In the analysis below, we operate with six such fields: humanities, teaching, social science, business, STEM, and health.[1] We define degree completion in a specific field as when an individual has completed a university degree in the specific broad field in 2012.

Sample selection. We make three sample restrictions. First, we restrict attention to applicants between 1998 and 2006, and we measure returns as the five-year average using equation (1) for the years 2013-2017. This leaves us with a relatively significant difference between the application and the measurement of returns. Second, we remove

[1]Examples of more detailed fields within the broad fields: Humanities: history, philosophy, languages, media; Teaching: kindergarten teacher, school teacher; Social science: sociology, political science, anthropology, economics, psychology; Business: administration, accounting, business studies; STEM: biology, chemistry, computer science, mathematics, physics, electrical engineering, construction engineering, mechanical engineering, computer engineering, biotechnology, information technology; Health: nursing, social work, physical therapy.

the top and bottom 5% of the five-year averaged returns to wealth to limit the impact of outliers in our analysis. Third, we restrict attention to applicants in the six broad fields above where their next choice on the list was not the same broad field as their top choice. The final sample consists of 96,706 applicants.

Dependent variable: Returns to wealth	
Humanities	2.0364
	(0.1249)
Teaching	1.6419
	(0.0955)
Social Science	3.6362
	(0.1095)
Business	3.0694
	(0.0851)
STEM	3.4012
	(0.1105)
Health	1.9039
	(0.0662)
Observations	96,706

Notes: The table displays estimated coefficients of a regression of returns to wealth on completed field of study in our sample. The standard errors are in parentheses.

Table 1: The association between returns to wealth and completed field of study.

Descriptive statistics. Table 1 displays average returns to wealth for the six broad groups of completed field of study. Individuals who have completed a degree in social science, business, or STEM tend to have higher returns to wealth, higher than 3 percent on average. Individuals who have completed a degree in the humanities, teaching, or health tend to have lower return on wealth, between 1.6 and 2.0 percent on average. Notably, these differences in return across completed fields do not necessarily reflect that the education in the specific field causally impacted returns. The correlations in Table 1 may for example arise from associations between preferences or abilities and the choice of field, and therefore reflect forces beyond a causal impact from the skills acquired during higher education.

3 Results

3.1 Empirical Setup

The empirical setup follows the 2SLS model in Kirkeboen, Leuven, and Mogstad (2016). We are interested in the effect of choosing a specific field of study (relative to another alternative) on returns to wealth. One strategy would be to run an OLS regression like the one displayed in Table 1. However, as discussed above, running an OLS like in Table 1 suffers from a selection bias, for example, because the innate characteristics of individuals choosing a specific field of study may differ from those choosing another. The second challenge is that individuals who complete a specific field may vary in their chosen next-best alternatives. The estimated payoff from a field of study in an OLS setting is therefore hard to interpret because it reflects a weighted average of different combinations of first-choice and second-choice alternatives, and the payoff may differ substantially between individuals with different rankings of fields.

Kirkeboen, Leuven, and Mogstad (2016) propose an instrumental variable model for unordered choice models applicable to the Norwegian application setup. The main identification result relies on Proposition 2 in Kirkeboen, Leuven, and Mogstad (2016), which states that one can identify the local average treatment effect (LATE) by choosing one field over another if one finds an instrument that (a) satisfy an exclusion restriction, (b) an independence assumption, (c) a rank condition, and (d) a monotonicity assumption. The exclusion restriction requires that the individual's return to wealth is the same within the field of study, regardless of how that individual got into that field of study. The independence assumption requires that the instrument should not be related to anything that could directly affect returns to wealth except through its impact on the field of study. The rank condition requires that the instrument is sufficiently correlated with the field of study to allow for consistent estimation of the causal effect. And the monotonicity assumption requires that the instrument only affects the choice of field of study in one direction.

The setup requires one instrument per ranking of first-choice and second-choice field of study. Moreover, the instrument must be relevant by pushing individuals toward choosing one field over another, and it must not affect returns to wealth via other channels than the field of study. Motivated by these results, we estimate the following system of equations for individuals who apply for field j with the next-best

field k in year t:

$$\text{return}_h = \sum_{j \neq k} \beta_{jk} d_j + x' \gamma_k + \lambda_{jk} + \lambda_t + \varepsilon_k \tag{2}$$

$$d_j = \sum_{j \neq k} \pi_{jk} z_j + x' \psi_{jk} + \eta_{jk} + \lambda_t u_{jk}, \forall\ j \neq k \tag{3}$$

where (2) is the second-stage equation and (3) contain the first-stage equations for each combination of first choice j and second choice k fields. The outcome variable in (3) d_j equals 1 if an individual completed field j, and 0 otherwise. The main coefficient of interest is β_{jk}, measuring the payoff on return to wealth from completing field j instead of k. The instruments z_j represent the predicted admissions from the application process, where $z_j = 1$ if the application score exceeds the admission cutoff for field j.

Equations (2) and (3) additionally include a set of controls. First, we include λ_{jk} as the fixed effect for each application combination with field j and k as the first and second choices, respectively. Second, because we measure returns at a specific point in time, and the applications span several years, we include a fixed effect for the application year λ_t. Third, we control for the distance from the threshold (the running variable) and the interaction of this distance from the threshold with z_j in the vector of controls x'.

3.2 Payoffs to field of study

Table 2 reports the main estimation results for the broad field *business* and *STEM*. The first column within each field reports the first-stage estimated effects of the instrument on degree completion. For most combinations of first and second choices, the estimated impact is statistically significant with a point estimate between 10 and 15 percentage points. Hence, the estimated effect in the first stage is positive and mostly statistically significant, consistent with the instruments satisfying the rank and monotonicity conditions.

The second column within each field reports the payoff of completing the field in terms of returns to wealth, measured also in percentage points. For business, the estimated payoffs are generally negative. Some of the estimated payoffs are very large, at 4-5 percentage points, suggesting that completing the field of study leads to a reduction in returns to wealth of 4-5 percentage points. However, the standard errors are also substantial, and none of the results are statistically significant at any conventional level. For STEM, the estimated payoffs vary substantially and are also never statistically significant at any conventional level.

Table 2 only reports the payoff from the field of study for business and STEM. The

	Business		STEM	
	First-stage (Completed education)	**IV** (Return to wealth)	**First-stage** (Completed education)	**IV** (Return to wealth)
No college	3.2747*	-4.4247	6.8963**	-3.2405
	(1.7507)	(8.9778)	(2.1729)	(5.3434)
Humanities	5.7442	-5.4312	10.5198**	7.6318
	(3.5840)	(12.6744)	(4.4373)	(6.7550)
Teaching	15.3916**	-4.4652	17.8567**	-4.4070
	(3.9572)	(5.2509)	(5.2284)	(5.5239)
Social Science	15.9609**	-1.2218	12.9286**	-0.5314
	(2.2599)	(2.9196)	(3.8274)	(5.2437)
Business			13.3963**	-0.0667
			(3.0257)	(3.8752)
STEM	15.8668**	-4.8031		
	(2.6843)	(3.3376)		
Health	18.2506**	-5.1737	16.3065**	1.3288
	(3.7622)	(4.7263)	(4.5539)	(5.0583)
Observations	11,786	11,786	7,221	7,221

Notes: The table reports the estimated coefficients from estimating Equations (2) and (3) within two first-choice fields: business and STEM. Standard errors are reported in parentheses. One and two stars indicate statistical significance at the 10% and 5% level, respectively.

Table 2: The effect of fields of study on returns to wealth.

results are representative, however, of how they also appear in more detailed fields of study and other fields of study. For example. Tables A.1 and A.2 in Appendix A present results for the two largest detailed fields within business and STEM. Moreover, Tables A.3 and A.4 in Appendix A present results for the remaining broad fields. For most fields, we find no systematic gain from completing a specific field of study.[2]

A natural question, given the non-significance of the results, is to ask whether our sample sizes are sufficient to detect effects. They are not. We follow Athey and Imbens (2017, Section 7.1) by computing the required sample size to detect an effect of 0.1 percentage point difference in returns that is significant at the 5% level in a two-sided

[2]The only exception is that there seems to be an adverse effect of completing a study in health for some application combinations. However, the effect does not hold for most combinations, so we cannot confidently claim that there is a broad effect of studying health on return to wealth.

t-test of 0.05 with power 0.8 in a sample where half the population is treated as

$$N = \frac{(\Phi^{-1}(\beta) + \Phi^{-1}(1-\alpha/2))^2}{\left(\frac{\tau}{\hat{\sigma}}\right)^2 \cdot \gamma \cdot (1-\gamma)} = \frac{(\Phi^{-1}(0.8) + \Phi^{-1}(0.975))^2}{\left(\frac{0.1}{10}\right)^2 \cdot 0.5^2} \approx 313,600, \tag{4}$$

where Φ is the normal distribution, β is the power requirement, α is the required test significance, τ is the expected return effect, $\hat{\sigma}$ is the standard deviation of the outcome variable, and γ is the share of treated in the sample. The sample sizes in Table 2 are 11,786 and 7,221; thus, we would need sample sizes that are more than 20 times greater to expect to find effects in this setup. Alternatively, we can compute the minimum detectable effect with a sample of 10,000 as 0.56 percentage points, a quite substantial difference in returns to wealth, so large that the causal effect of field of study would have to explain a substantial share of the unconditional correlation in Table 1.

4 Conclusion

This paper utilizes Norwegian administrative data on higher education admissions and returns on wealth to investigate whether completing a specific field of study affects returns to wealth. While there are significant differences in returns on wealth across completed fields, we find no significant effect from field of study on returns to wealth when instrumenting field completion with the admission cutoffs. It may seem tempting to conclude that there is no effect from specific fields on returns to wealth. However, given the limited power of our analysis, the reasonable conclusion is that we cannot say whether the field of study has any effect on returns to wealth.

References

Athey, S., and G. W. Imbens (2017): "The econometrics of randomized experiments," in *Handbook of economic field experiments*, vol. 1, pp. 73–140. Elsevier.

Benhabib, J., A. Bisin, and M. Luo (2017): "Earnings inequality and other determinants of wealth inequality," *American Economic Review*, 107(5), 593–597.

——— (2019): "Wealth distribution and social mobility in the US: A quantitative approach," *American Economic Review*, 109(5), 1623–1647.

Benhabib, J., A. Bisin, and S. Zhu (2011): "The distribution of wealth and fiscal policy in economies with finitely lived agents," *Econometrica*, 79(1), 123–157.

De Nardi, M., and G. Fella (2017): "Saving and wealth inequality," *Review of Economic Dynamics*, 26, 280–300.

Fagereng, A., L. Guiso, M. B. Holm, and L. Pistaferri (2020): "K-returns to education," .

Fagereng, A., L. Guiso, D. Malacrino, and L. Pistaferri (2020): "Heterogeneity and persistence in returns to wealth," *Econometrica*, 88(1), 115–170.

Gabaix, X., J.-M. Lasry, P.-L. Lions, and B. Moll (2016): "The dynamics of inequality," *Econometrica*, 84(6), 2071–2111.

Gaillard, A., P. Wangner, C. Hellwig, and N. Werquin (2023): "Consumption, wealth, and income inequality: A tale of tails," *Available at SSRN 4636704*.

Girshina, A. (2019): "Wealth, savings, and returns over the life cycle: the role of education," *Swedish House of Finance Research Paper*, (19-10).

Kirkeboen, L. J., E. Leuven, and M. Mogstad (2016): "Field of study, earnings, and self-selection," *The Quarterly Journal of Economics*, 131(3), 1057–1111.

Online Appendix

A Appendix to Section 3

	General Business		Business Administration	
	First-stage (Completed education)	**IV** (Return to wealth)	**First-stage** (Completed education)	**IV** (Return to wealth)
No college	9.1428**	-2.2444	1.8075	5.1122
	(2.1821)	(4.7410)	(3.1624)	(16.7997)
Humanities	11.6800**	3.3930	12.6682*	-6.6175
	(4.7821)	(8.1539)	(6.5630)	(13.5773)
Teaching	12.8750**	-11.2040	48.3297	16.8058**
	(4.6083)	(7.8303)	(15.4228)	(7.2876)
Social Science	18.0467**	1.3657	22.9288**	-3.0847
	(3.3804)	(3.7087)	(3.2273)	(3.6390)
STEM	16.4515**	-3.3747	22.5224**	-2.9377
	(3.6377)	(4.3582)	(4.3387)	(4.1107)
Health	20.5231**	-4.5050	25.5413**	-4.1589
	(4.4918)	(5.0561)	(8.4510)	(8.1611)
Observations	7,437	7,437	3,513	3,513

Notes: The table reports the estimated coefficients from estimating Equations (2) and (3) within two first-choice detailed fields within business: general business and business administration (Norwegian: siv. øk). Standard errors are reported in parentheses. One and two stars indicate statistical significance at the 10% and 5% level, respectively.

Table A.1: The effect of fields of study on returns to wealth.

	Computer Science		Civil Engineering	
	First-stage (Completed education)	**IV** (Return to wealth)	**First-stage** (Completed education)	**IV** (Return to wealth)
No college	6.9727**	1.3712	-9.2746**	23.4085
	(4.3371)	(10.9842)	(3.4661)	(22.5607)
Humanities	4.3371	41.0746	28.7052**	16.5939**
	(5.6959)	(59.9850)	(8.6889)	(7.4621)
Teaching	22.9043**	-0.1685	10.2211	-2.4660
	(7.0435)	(6.6232)	(14.0219)	(19.9474)
Social Science	8.1844	36.1698	22.0353**	-9.6641*
	(5.2459)	(25.2374)	(6.6172)	(5.8147)
Business	13.9023**	8.2589	25.7159**	4.0345
	(4.0212)	(7.3498)	(5.2988)	(3.7431)
Health	16.3318**	-1.8554	5.2726	16.6143
	(6.6219)	(8.4923)	(9.2590)	(18.0426)
Observations	2,781	2,781	2,375	2,375

Notes: The table reports the estimated coefficients from estimating Equations (2) and (3) within two first-choice detailed fields within STEM: computer science and civil engineering. Standard errors are reported in parentheses. One and two stars indicate statistical significance at the 10% and 5% level, respectively.

Table A.2: The effect of fields of study on returns to wealth.

	Humanities		Teaching	
	First-stage (Completed education)	**IV** (Return to wealth)	**First-stage** (Completed education)	**IV** (Return to wealth)
No college	5.5225**	0.0379	15.8936**	3.1160
	(1.8767)	(8.4496)	(2.1766)	(2.7725)
Humanities			10.2220**	-0.9367
			(3.6028)	(4.7999)
Teaching	5.3434	-3.4910		
	(3.2992)	(14.1185)		
Social Science	5.1214*	-5.3979	9.8214**	-2.6314
	(2.7325)	(11.9315)	(4.2867)	(5.2437)
Business	8.5356	3.8212	13.4671**	-2.1554
	(5.3845)	(15.2213)	(6.2367)	(7.1630)
STEM	8.0048*	1.6567	12.3364	
	(4.2163)	(12.8138)	(10.9615)	
Health	6.4680	4.6340	19.5935**	-2.1886
	(4.4329)	(13.5261)	(4.6421)	(3.8644)
Observations	6,901	6,901	8,020	8,020

Notes: The table reports the estimated coefficients from estimating Equations (2) and (3) within two first-choice fields: humanities and teaching. Standard errors are reported in parentheses. One and two stars indicate statistical significance at the 10% and 5% level, respectively.

Table A.3: The effect of fields of study on returns to wealth.

	Social Science		Health	
	First-stage (Completed education)	**IV** (Return to wealth)	**First-stage** (Completed education)	**IV** (Return to wealth)
No college	6.8232**	-4.0810	15.6215**	-2.2191*
	(1.2743)	(3.9621)	(0.9608)	(1.1806)
Humanities	13.0730	1.9334	9.8166**	-7.7138**
	(1.6663)	(2.8728)	(2.3796)	(3.1025)
Teaching	17.8035**	2.1893	28.2864**	-0.5646
	(2.4478)	(3.2012)	(1.3678)	(0.9218)
Social Science			9.0445**	-3.9173
			(1.7709)	(2.4676)
Business	10.1276**	2.9544	19.6816**	-3.5347*
	(2.4717)	(4.9637)	(2.3814)	(1.9313)
STEM	9.0863**	-1.9839	14.5295**	-0.3486
	(2.4442)	(5.8675)	(1.9123)	(1.9263)
Health	12.7781**	4.7837		
	(2.3982)	(4.5482)		
Observations	18,497	18,497	33,671	33,671

Notes: The table reports the estimated coefficients from estimating Equations (2) and (3) within two first-choice fields: social science and health. Standard errors are reported in parentheses. One and two stars indicate statistical significance at the 10% and 5% level, respectively.

Table A.4: The effect of fields of study on returns to wealth.