

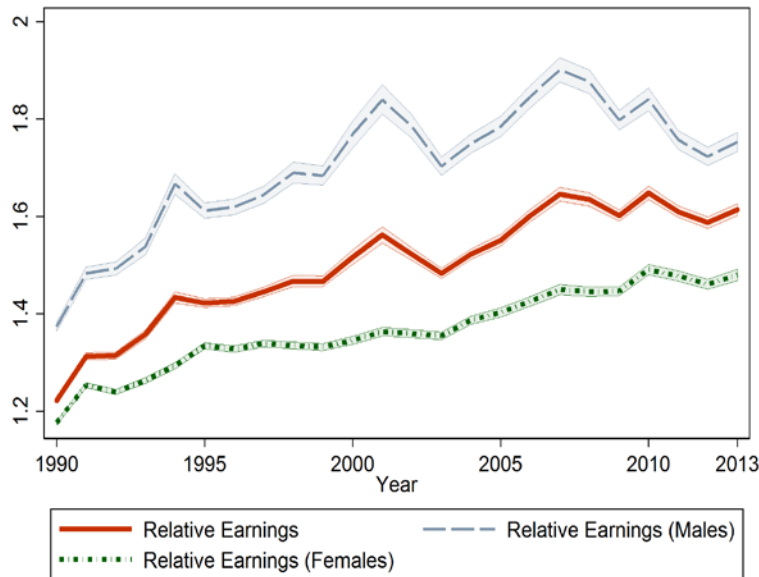


“Since you’re so rich, you must be really smart”: Talent and the Finance Wage Premium

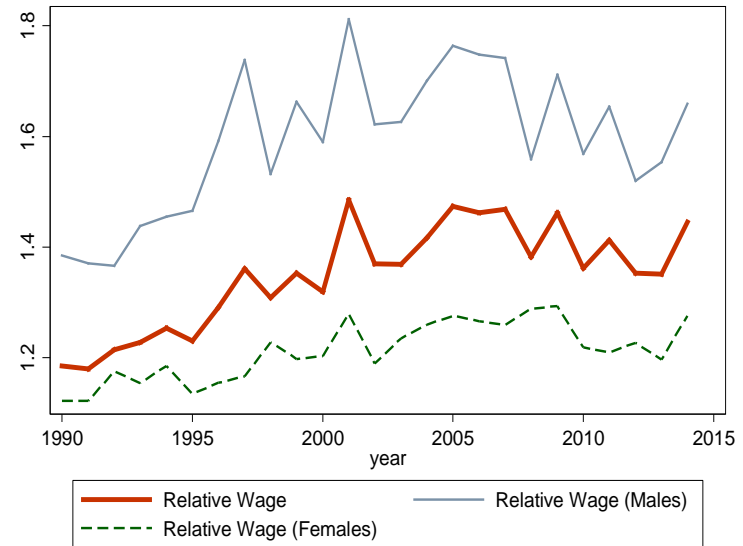
Michael Böhm, Daniel Metzger, and Per Strömberg

WAGE PREMIUM IN FINANCE

- Relative finance wages increased almost continuously until the financial crisis.



Sweden

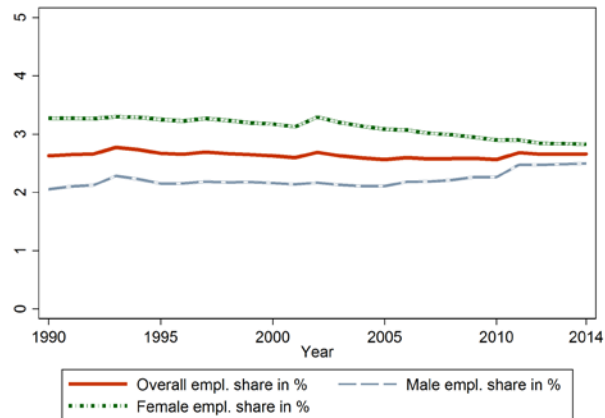
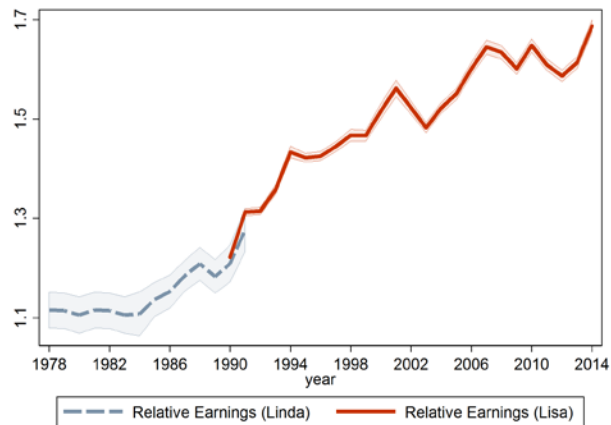


USA

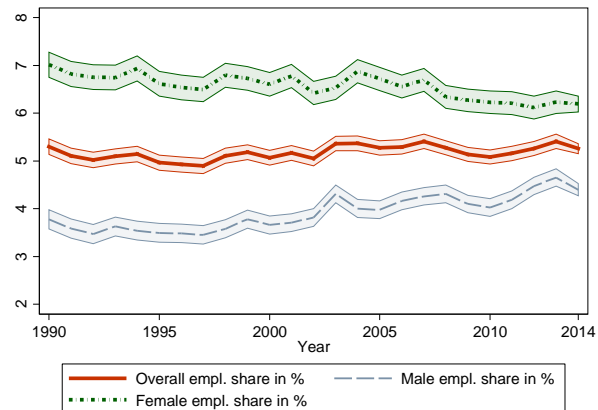
Def: Relative wage is defined as the ratio of the average wage in finance to the average wage in the non-financial, nonfarm private sector

WAGE PREMIUM IN FINANCE

- At the same time, labor share of finance roughly constant
- Women have larger labor share and lower wage premium



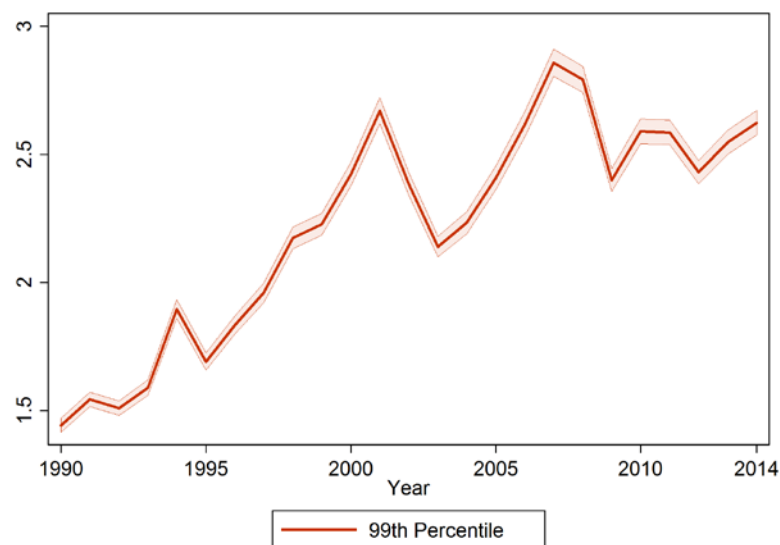
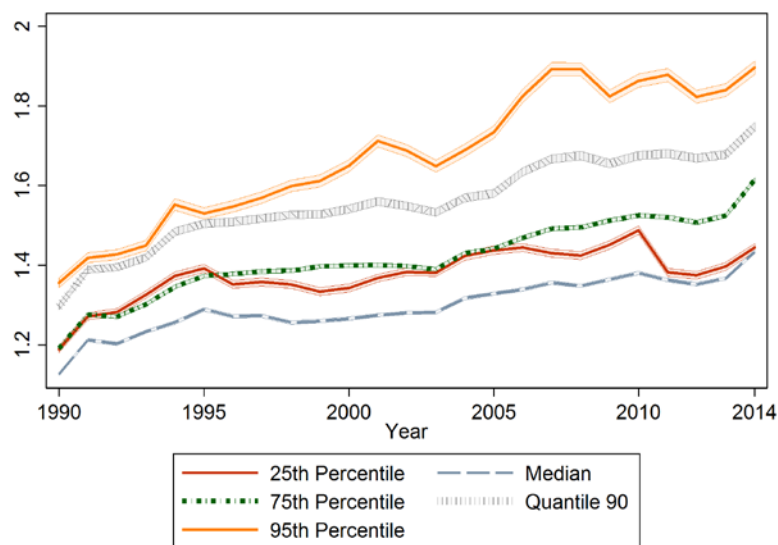
Sweden



USA

FINANCE WAGE PREMIUM DISTRIBUTION

- Increase in finance wages particularly dramatic at top incomes
- But significant relative wage increase also for lower earners



Dividing the xth percentile of finance wages with the xth percentile of non-finance wages

THESE FACTS ARE PERVASIVE

- Similar for the
 - U.S. (Kaplan & Rauh 2010, Philippon & Reshef 2012,)
 - U.K. (Bell & Van Reenen 2013, Lindley & MacIntosh 2014)
 - Canada (Lemieux & Ridell 2014)
 - Majority of developed countries experience similar trends (Philippon & Reshef 2013, Boustanifar et al. 2015)

WHY DO WE CARE?

- Excessive pay / wrong incentives in finance
 - Especially in aftermath of financial crisis
 - Proposals to regulate pay/bonuses.
- Inequality
 - Financial sector is big driver of income inequality.
 - E.g. top .1% earners in Sweden: 16% from finance in 1991, 29% in 2010. See Kaplan & Rauh (2010)
- ...
- Our perspective: **demand for skill and talent absorption.**



FINANCE INCREASINGLY SKILL-BIASED?

- Philippon & Reshef (QJE 2012):
 - 1980s deregulation → finance jobs become more complex
 - Globalization and IT technology → top talent can manage larger assets (e.g., Gabaix & Landier, 2008)
 - As a result, productivity of skilled labor increased faster in finance than in other sectors
 - Also: Kaplan & Rauh (RFS 2010), Philippon & Reshef (JEP 2013), Boustanifar et al (2015), Cellier & Vallee (2015).
- Predictions:
 1. Skill intensity of sector should increase more in finance than other sectors (given constant employment share)
 2. Wage premium increase should be driven by the most skilled workers

BRAIN DRAIN – CONCERN

- *“The flow of some of the most talented people in the United States today into law and financial services might then be one of the sources of our low productivity growth.”*

Murphy, Shleifer, Vishny 1991; also Baumol 1991

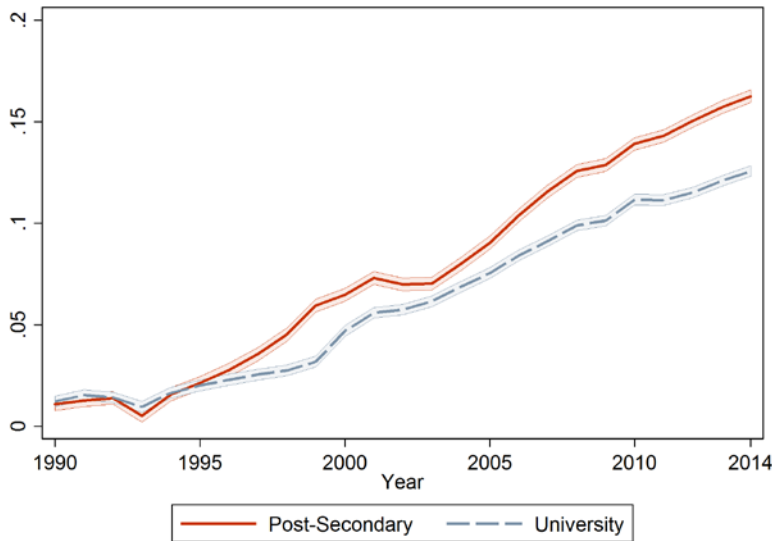
- *“... pay scales in finance shot up, drawing in many of the nation’s best and brightest young people”*

Krugman (2009)

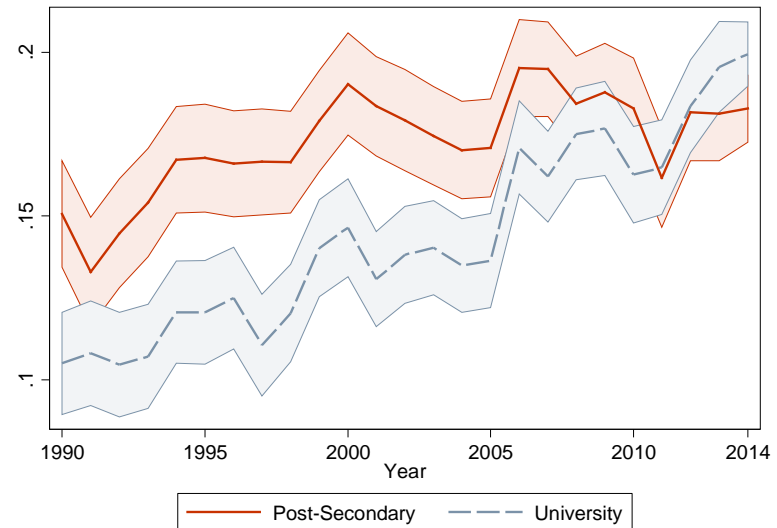
- If high salaries makes skill / talent go into finance sector, this could have negative externalities on other sectors:
 - Shu (2013), Goldin and Katz (2008), Oyer (2008) Celerier and Vallee (2015) find that many top school graduates go to finance.

SUPPORTIVE EVIDENCE I: INCREASE IN RELATIVE EDUCATION

- Philippon & Reshef (2012) show that share of educated labor increased faster in finance, consistent with increasing skill-bias in finance



Sweden



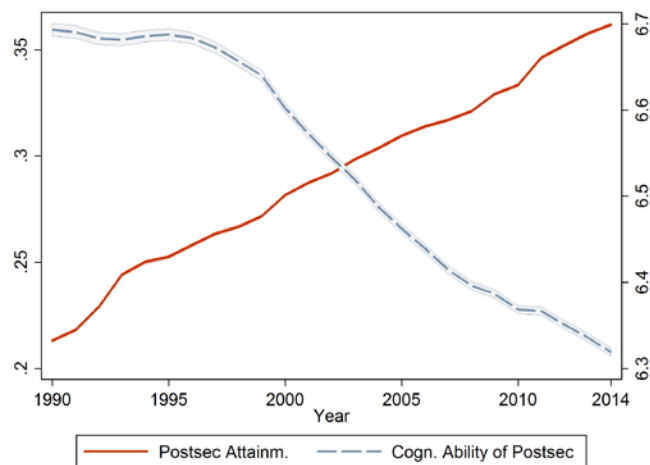
USA

Relative Education = share of individuals with more than a high-school (postsecondary) or university degree in finance minus the corresponding share in the rest of the economy.

HOWEVER: DISPUTED VIEW & REL. EDUCATION AT BEST SUGGESTIVE

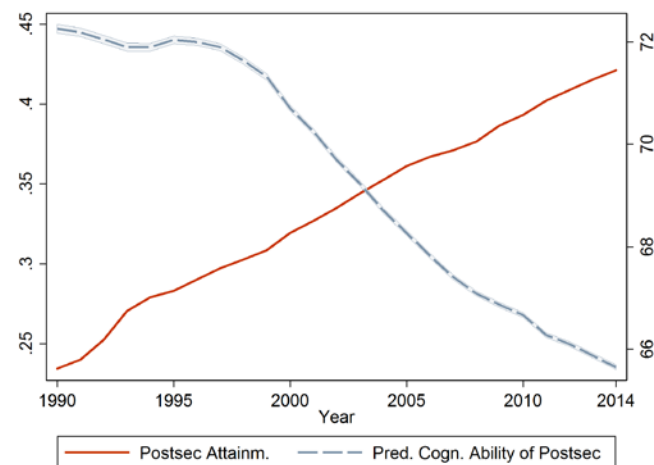
- Post-Sec / college degrees crude measures, especially at the top.
- May be determined jointly with sector.
- Strongly upward-trending, i.e., composition is changing.

Post-second. educ. & avg. cognitive ability (men)



Sweden

Post-second. educ. & avg. predicted cognitive ability (all)



Sweden

OUR PAPER

- Population-wide data from Sweden (72M individual-year obs.) 1990-2013
- Unique measures of “predetermined” talent from military test scores and high-school grades.
- Despite a substantial increase in relative finance wages in period:
 1. No evidence finance workers became more talented, neither on average nor at the top of the economy.
 2. Choice- and wage regressions suggests talent productivity cannot account for much of finance wage increase.
 3. Strong wage premium, not competed away even mid-long run.
 4. No evidence for substantial “brain drain” into finance.

DATA

Administrative registry data from Sweden

- 72 million individual-year observations.
- wages, sector, occupation (1990,2001+). No top coding or censoring.
- employer establishment and industry classification.
- Restrict sample to private, non-farming employees with earnings above social security minimum.

Military enlistment scores, males age 18-19.

- Military Archives ('69-'83), Defence Recruitment Agency ('83-2010).

High school register, males & females, 1973 onward.

- Track; final grade; school; graduation year.

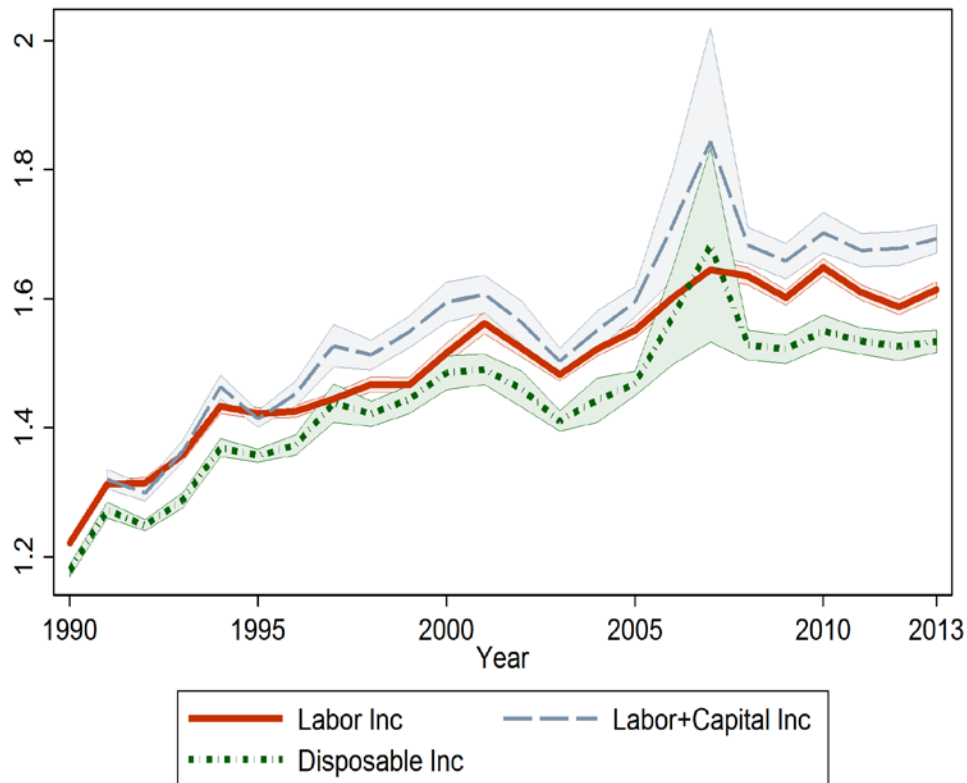
University register, males & females.

- school; subject; grades; graduation year.

Firm-level financial data for all companies

- Currently in the process of matching; not in current draft.

LABOR VS CAPITAL INCOME



- Some high finance earners (e.g. PE and hedge funds) get substantial share of comp as capital income.
- Focus on labor income in paper:
 - Capital income includes income unrelated to employment.
 - Equity-based incentives not used for vast majority of workers (banks and insurance companies) because of unfavorable tax rules
 - Results robust to using alternative income measures
- Still, issue with off-shore vehicles (PE & HF) & timing of realized gains for small number (but highly paid) finance workers

TALENT MEASURES I: MILITARY TEST SCORES (MALES ONLY)

- Military aptitude test scores, taken age 18-19 :
 - Cognitive ability (IQ)
 - Logic, verbal, spacial, technical
 - Non-cognitive ability
 - willingness to assume responsibility; independence; outgoing character; persistence; emotional stability; power of initiative
 - psychological test for functioning in very demanding environment (military combat)
 - Leadership ability (for IQ above average)
 - Suitability for officer; “more careful” non-cognitive score
- Coded on 1 (lowest) to 9 (highest) Stanine scale

TALENT MEASURES II: HIGH-SCHOOL GRADES (BOTH GENDERS)

- High School
 - Raw grades, normalized within cohort.
 - Different tracks, esp. tracks that lead to university or with science focus.
 - Predicted cognitive skill from regression of cognitives on tracks*graduation-age*grades by year.
 - Gets around issues of different difficulty of tracks, grade inflation, etc.
 - Note: grades significantly correlated with cognitive scores ($R^2 > 30\%$), slightly less so (but significantly) with non-cognitive scores
- SAT Scores (1977 onwards)
 - Normalised score (and raw scores)
- Also use info on university attainment in some analysis:
 - subjects, e.g., STEM programs
 - Elite institutions (SSE; KTH; Karolinska)

PREDICTION 1: TALENT SELECTION

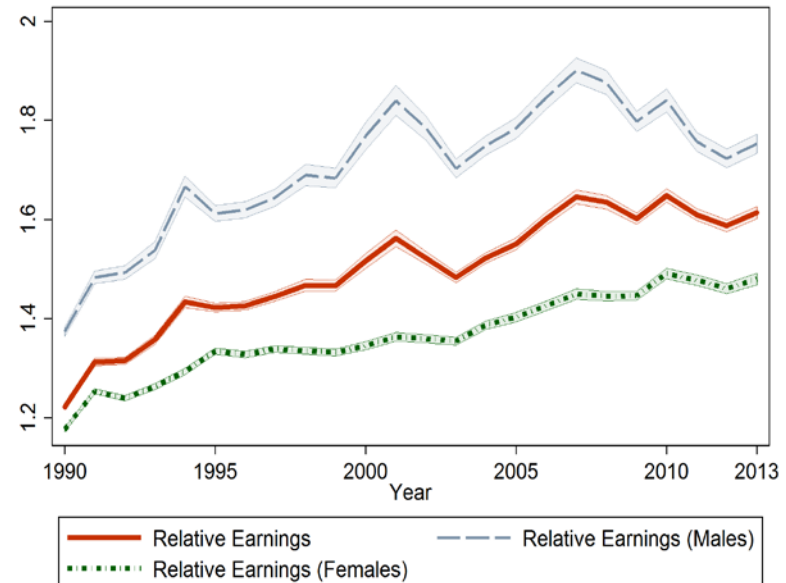
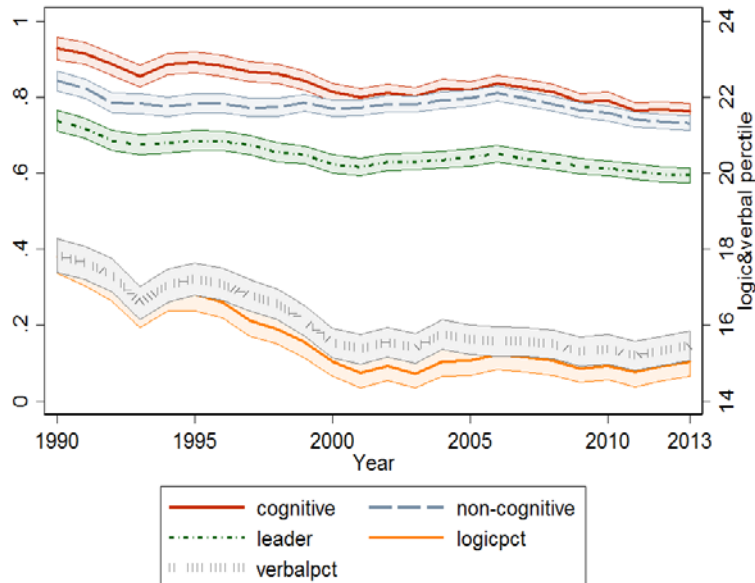
If production in finance becomes more skill-biased, expect that relative talent of finance sector employees improves,

- or sector size expands & finance employment rises, so that marginal entrants dilute the improved talent.
- But we have seen this is not the case in the data

(Simple 2-sector Roy model in paper appendix..)

RELATIVE AVERAGE TALENT (MEN)

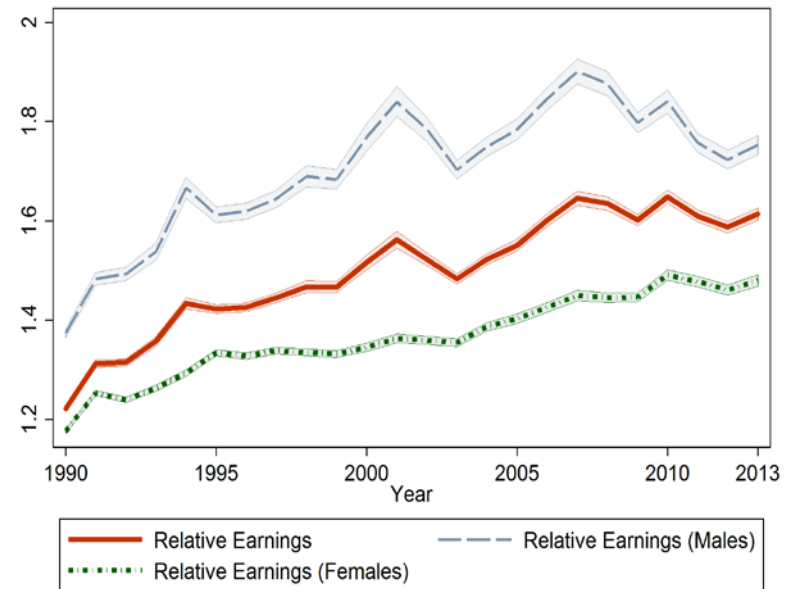
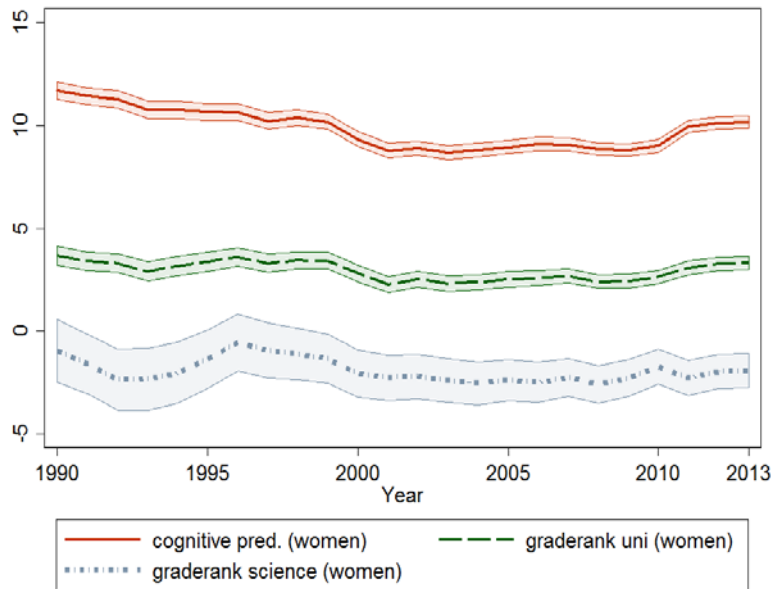
- Def: Relative talent is defined as average talent in the financial sector minus the corresponding average of the real economy.



- Average finance worker more talented than other workers
- BUT: No evidence of relative wage increase coinciding with improvement in relative talent over time

RELATIVE AV. TALENT (WOMEN)

- Def: Relative talent is defined as average talent in the financial sector minus the corresponding average of the real economy.



PREDICTION 1B: TALENT SELECTION AT THE TOP

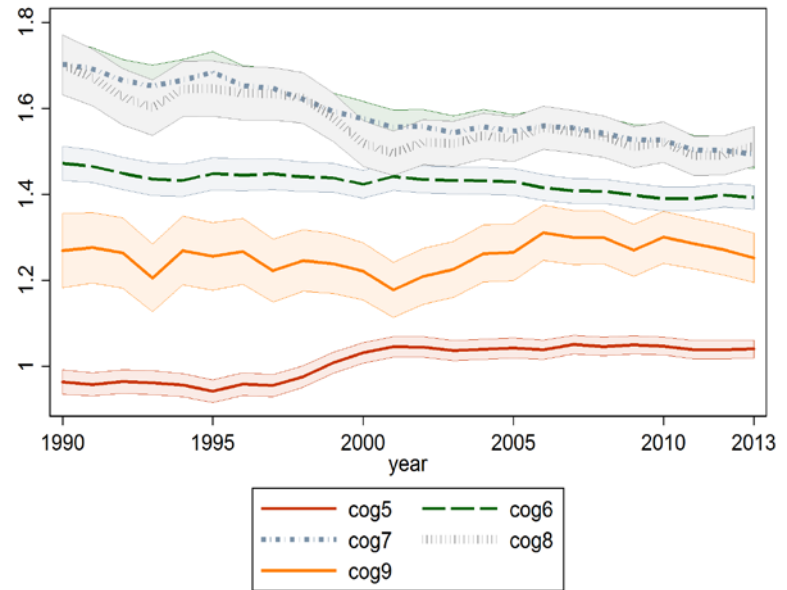
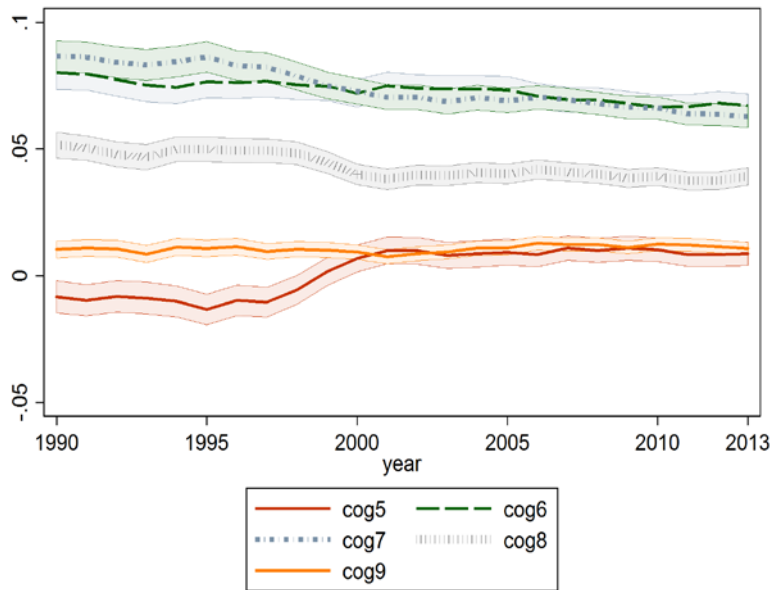
Surging top wages and flat average talent in finance may be consistent with skill demand:

- only rising at the top (e.g., due to superstars effects)
- or polarizing (e.g., due to fast routine-biased technology adoption).

→ Concentrate tests on top talent...

RELATIVE COGNITIVE TALENT (MALES)

- Def: Relative talent is defined as share of talent in the financial sector minus the corresponding share in the real economy (left); in ratios (right).

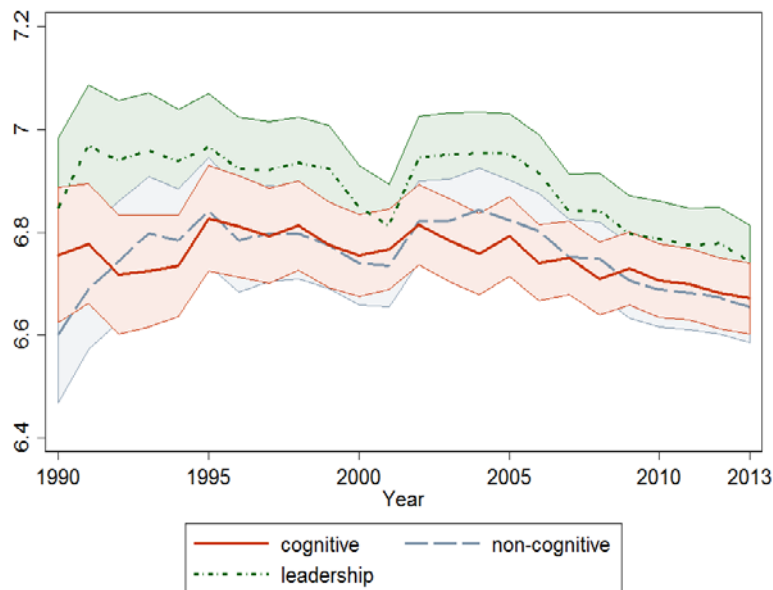


- No improvement in cognitive talent distribution over time

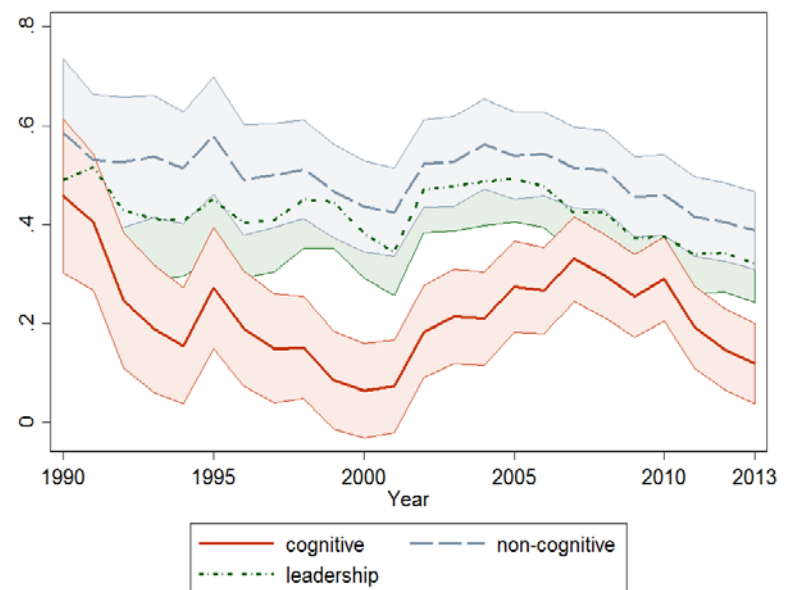
RELATIVE TALENT IN THE 95TH EARNINGS PERCENTILE

- Note: We control focus on males and control for a quadratic in age to identify wage observations at the 95th percentile and above in each sector.

Absolute Talent (Top 5%)

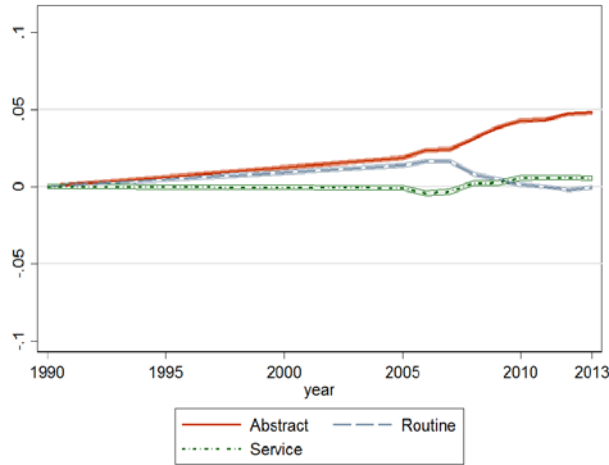


Relative Talent (Top 5%)

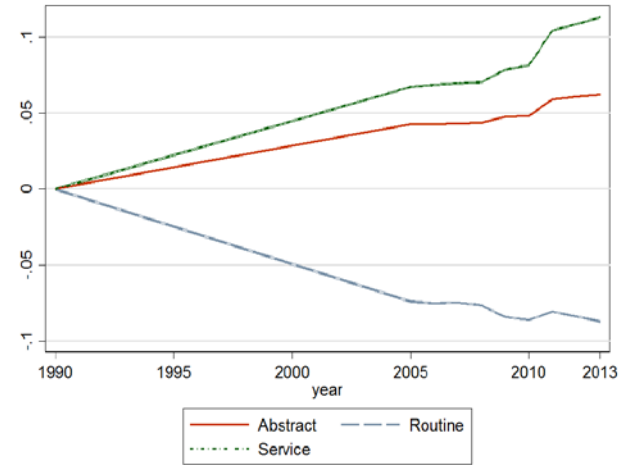


PREDICTION 1C: JOB TASK COMPOSITION

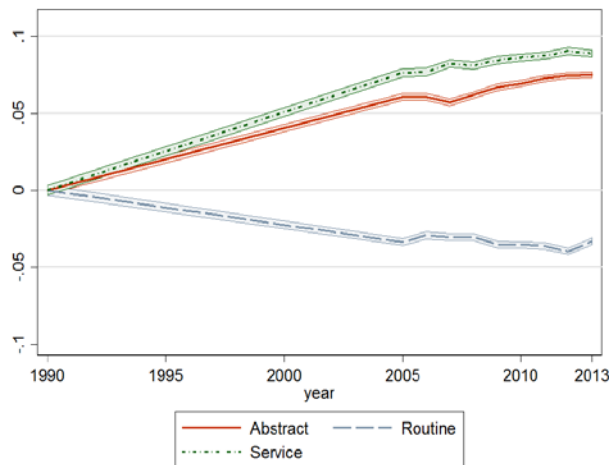
Finance



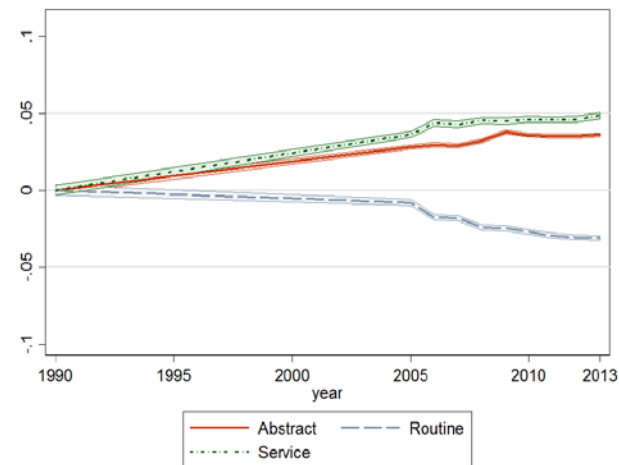
Rest of Economy



Law, Consult., Accounting



IT



LPM REGRESSION OF FINANCE SECTOR CHOICE (TALENT GROUPS)

Sample	Men, 30yo		Women, 30yo		Men, 30yo		Men, 30yo		Women, 30yo	
	Coeff.	P-val.	Coeff.	P-val.	Coeff.	P-val.	Coeff.	P-val.	Coeff.	P-val.
Year	-0.000861	0.000	-0.000887	0.000	-0.000887	0.000	-0.002	0.000	-3E-04	0.641
Years of school	0.00691	0.000	0.00662	0.000	0.00662	0.000	0.0048	0.000	-0.001	0.145
*Year	0.0000579	0.000	0.0000652	0.002	0.0000604	0	0.0001	0.000	4E-05	0.407
Mid cog talent (4-8)	0.00951	0.000			0.00919	0.000	0.0016	0.135		
*Year	-0.000283	0.000			-0.000279	0.000	7E-05	0.351		
High cog talent (9)	-0.0196	0.000			-0.0216	0.000	-0.022	0.000		
*Year	0.000434	0.01			0.000519	0.01	0.0004	0.213		
Mid non-cog talent (4-8)	0.00849	0.000			0.00953	0.000	0.0064	0.000		
*Year	-0.000105	0.07			-0.000194	0.01	-4E-05	0.629		
High non-cog talent (9)	0.0314	0.000			0.0357	0.000	0.0276	0.026		
*Year	-0.000809	0.04			-0.00121	0.01	-7E-04	0.358		
Mid pred. cog. (40-95pc)			0.042	0.000					0.014	0.000
*Year			-0.00102	0.000					0.0002	0.287
High pred. cog. (>95pc)			0.0171	0.000					-0.021	0.002
*Year			-0.00097	0.000					0.0007	0.067
Father works in finance					0.0412	0.000	0.01	0.111	0.022	0.048
*Year					0.000537	0.06	0.0019	0.000	0.0006	0.321
Mother works in finance					0.031	0.000	0.0152	0.006	0.0311	0.008
*Year					-4.01E-05	0.88	0.0006	0.087	0.0007	0.255

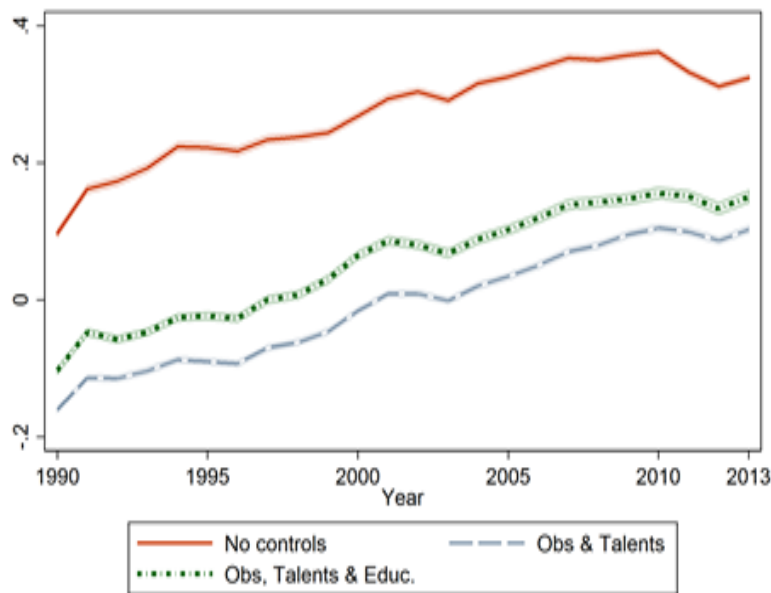
Fin labor share:
Men ~2%
Wom ~3%

Adj. R2	0.013	0.005	0.018	0.027	0.014
Num obs	787,218	632,847	633,378	398,507	305,989
Fathers income, *year	No	No	No	Yes (insig)	Yes (insig)
Finance share in municipality, *year				Yes (pos and sig)	Yes (pos and sig)

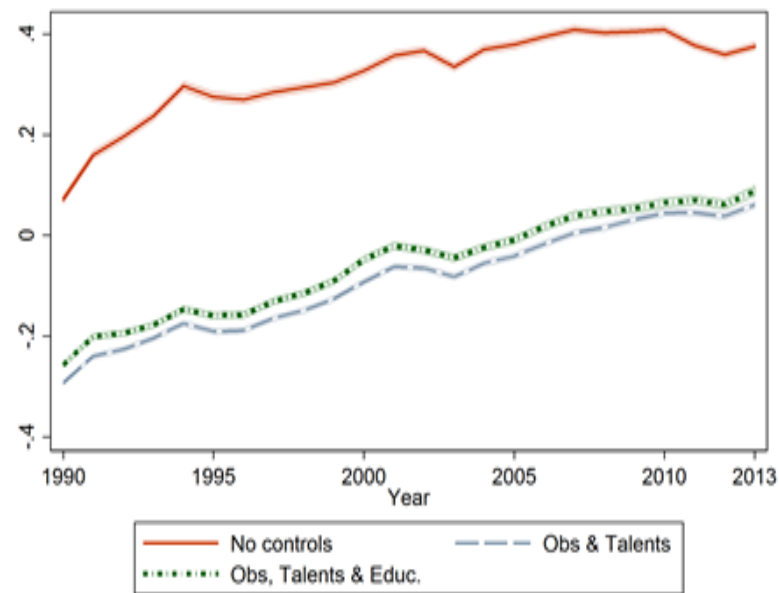


UNOBSERVED TALENT EXPLAINS FINANCE PREMIUM? FIXED EFFECTS WAGE REGRESSION

Fixed Effects All



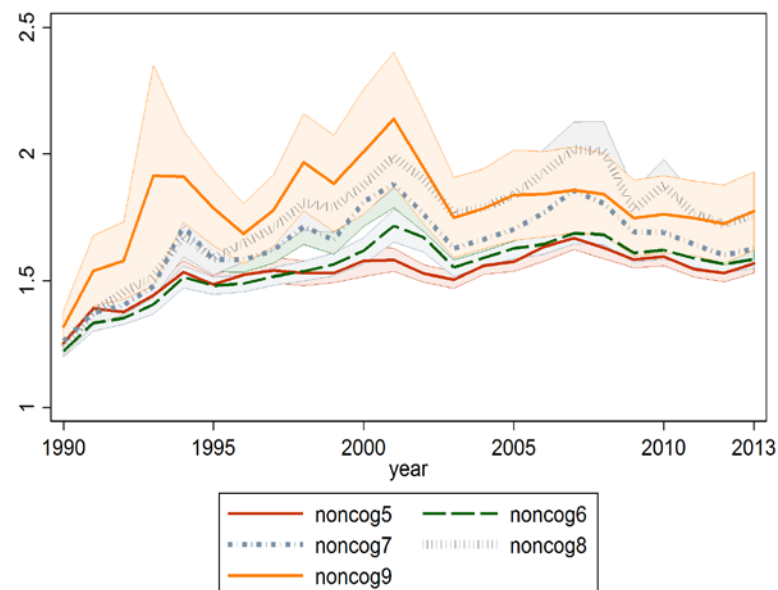
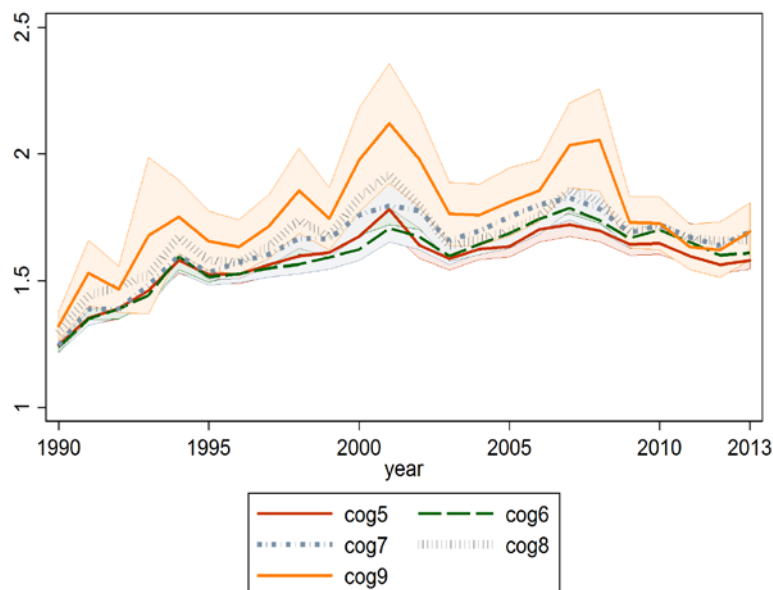
Fixed Effects Males



Fixed Effects Wage regressions:

- Level premium close to zero when looking “within” individual +
- Increase the same as without fixed effects –
- Premium higher when controlling for education, i.e., when given individual gets more education their finance premium declines –

PREDICTION 2: FINANCE PREMIUM INCREASE DRIVEN BY MORE TALENTED WORKERS?



For men:

- Wage premium lines up with cognitive and non-cognitive talent +
- Wedge between top talent and rest relatively constant, except a widening during market peaks (due to variable comp?) +/ -
- Substantial increase in wage premium also for lower-talent workers -

FIN. PROFESSIONS, RANKED BY WAGE PREMIUM

		Finance wage premium											
		Fin. labor share		Cognitive score			Non-cognitive score			Vs all workers		Vs same profession	
		Average	Change	Score	Change	Diff vs ROE	Score	Change	Diff vs ROE	Average	Change	Score	Change
		2010	1991-2010	2010	1991-2010	2010	2010	1991-2010	2010	2010	1991-2010	2010	1991-2010
Securities&finance dealers&brokers	HS	3.8%	3.5%	6.2	0.0	NA	6.3	-0.4	NA	3.60	2.15	NA	NA
Finance and admin managers	HS	0.8%	-0.5%	6.5	-0.1	0.1	6.2	0.2	0.1	3.50	1.29	1.38	0.13
Business professionals	AP	6.6%	2.6%	6.5	0.0	0.1	6.2	0.3	0.3	2.79	1.10	1.83	0.61
Corporate legal officers	HS	1.1%	-0.6%	6.6	0.0	-0.1	6.2	-0.3	0.0	2.39	0.72	1.24	0.33
Market res analysts and rel prof	AP	1.4%	0.3%	6.3	0.0	0.1	6.0	-0.2	0.0	2.08	0.35	1.33	0.20
Personnel and careers professionals	AP	0.3%	0.0%	6.2	-0.2	0.5	6.2	0.5	0.5	2.04	0.34	1.70	0.32
Accountants	AP	1.7%	0.7%	6.2	-0.5	0.1	5.8	-0.1	0.1	1.91	0.44	1.25	0.21
Computing professionals	C	4.8%	3.7%	6.5	-0.3	0.0	5.7	-0.2	0.2	1.79	0.10	1.24	0.10
Finance and sales associate prof	AP	0.6%	0.4%	5.9	-0.7	0.6	6.0	0.5	0.6	1.68	0.22	1.38	0.05
Insurance representatives	AP	12.4%	-3.5%	5.5	-0.4	NA	5.8	0.3	NA	1.56	0.08	NA	NA
Comp syst design, analys & programmers	C	4.6%	0.8%	6.5	0.0	-0.3	5.3	-0.2	0.0	1.56	0.07	1.15	0.03
Banking associate professionals	AP	25.8%	-12.8%	5.8	-0.1	NA	5.8	0.1	NA	1.50	0.40	NA	NA
Bookkeepers	R	0.8%	0.7%	6.1	-0.3	0.2	5.6	0.1	0.2	1.48	0.57	1.34	0.39
Admin secret and related assoc prof	R	1.0%	0.1%	5.8	0.2	0.1	5.7	0.1	0.4	1.48	0.19	1.25	0.15
Computer assistants	C	3.0%	2.2%	5.8	-0.2	-0.1	5.1	-0.5	0.1	1.40	0.03	1.28	0.17
Appraisers, valuers and auctioneers	AP	5.2%	0.7%	5.5	-0.4	0.1	5.6	0.1	0.2	1.24	0.03	1.24	0.19
Numerical clerks	R	0.5%	-0.3%	5.7	-0.1	0.2	5.2	-0.1	0.2	1.16	0.11	1.34	0.20
Doorkeepers and related workers	R	0.6%	-0.7%	4.7	-0.1	0.2	5.0	0.5	0.5	1.02	0.23	1.48	0.40
Other office clerks	R	1.4%	-0.1%	5.4	0.0	0.1	5.4	0.2	0.3	0.93	0.00	1.09	0.06
Telephone switchboard operators	R	0.3%	0.2%	5.1	-0.2	0.1	5.6	0.8	0.9	0.82	0.12	1.09	0.19
Tellers and other counter clerks	R	1.1%	0.8%	5.7	-0.4	0.2	5.4	0.5	0.3	0.67	-0.01	1.14	0.41

SUMMARY

1. No evidence that finance became more talented, neither on average nor at the top.
2. Increasing returns to talent can at best only account for modest share of wage premium increase
3. Puzzle: why don't more talented workers move to finance, given premium?
 - Significant impact of family / peers and geography

ADDITIONAL ANALYSES

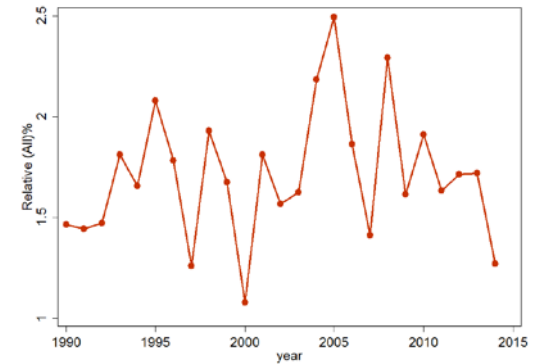
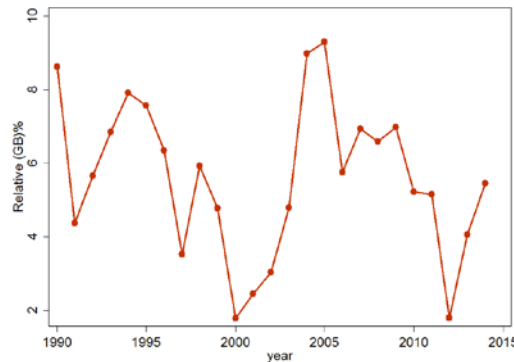
- Migration to foreign finance jobs (UK, US, ...)
 - Brain drain of talented Swedes?
 - Wage premium increase explained by foreign competition?
- Compare with other skilled sectors rather than all non-finance sectors
 - Accounting/Law/Consulting and IT
 - Finance phenomenon vs general “skilled industry” phenomenon?
- Graduates from top STEM programs
 - “Engineering brain-drain”?
- Rising working hours in finance?
 - Dis-amenity, which has to be compensated.
 - Would mis-measure trends in hourly wages using annual earnings.
- Where do talented workers go? “Big picture” perspective
 - How concerned should we be of potential brain-drain?



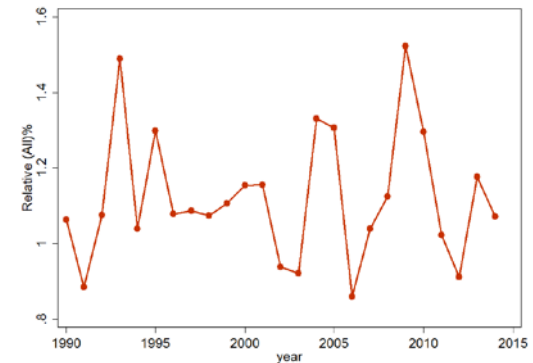
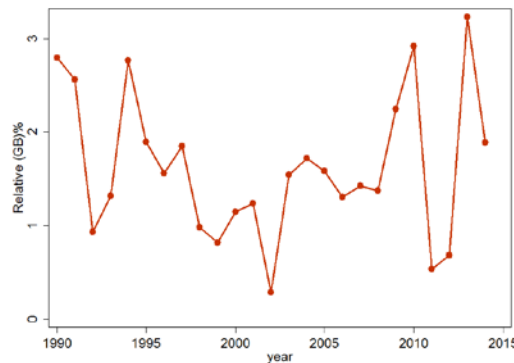
FOCUSING ON SKILLED EMIGRATION

Outcome: Ratio finance emigration / All emigration (20-35 years old)

Works in finance:



Dad works in finance:

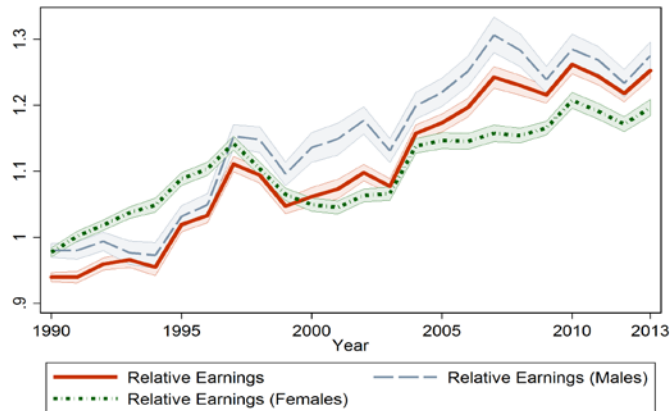


UK

Worldwide

FINANCE VS. LAW, CONSULTING, AND ACCOUNTING (LCA)

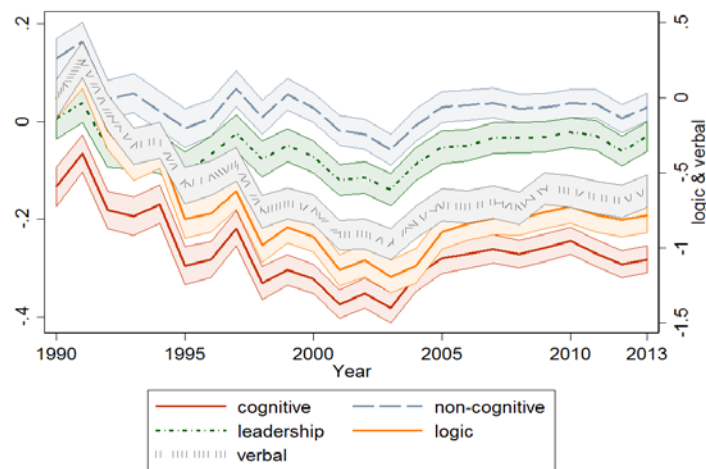
Finance / LCA Wage



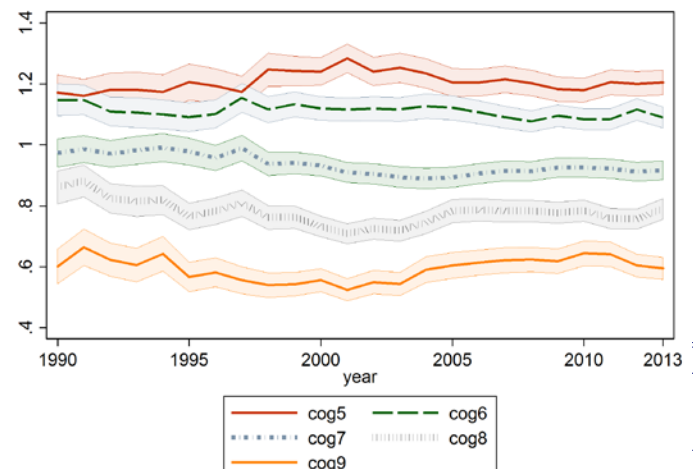
LCA Size



Males' Avg. Talent (Diff: Finance-LCA)

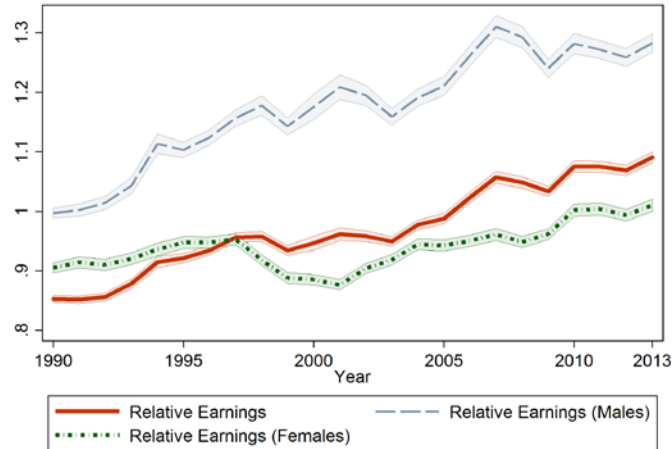


Males' Cogn. Distr. (Ratio: Finance/LCA)

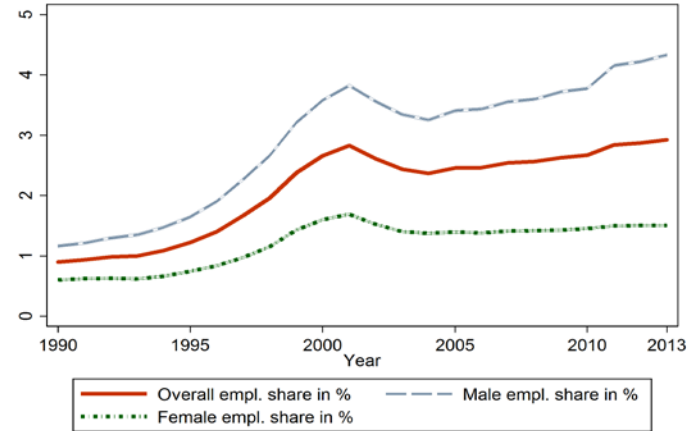


FINANCE VS. INFORMATION TECHN. (IT)

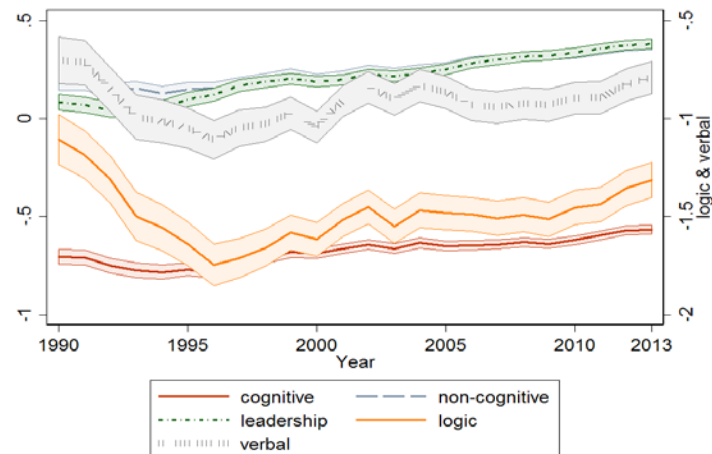
Finance / IT Wage



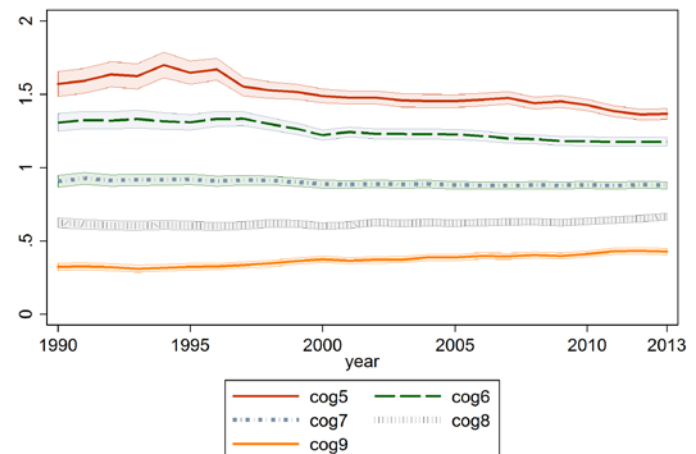
IT Size



Males' Avg. Talent (Diff: Finance-IT)

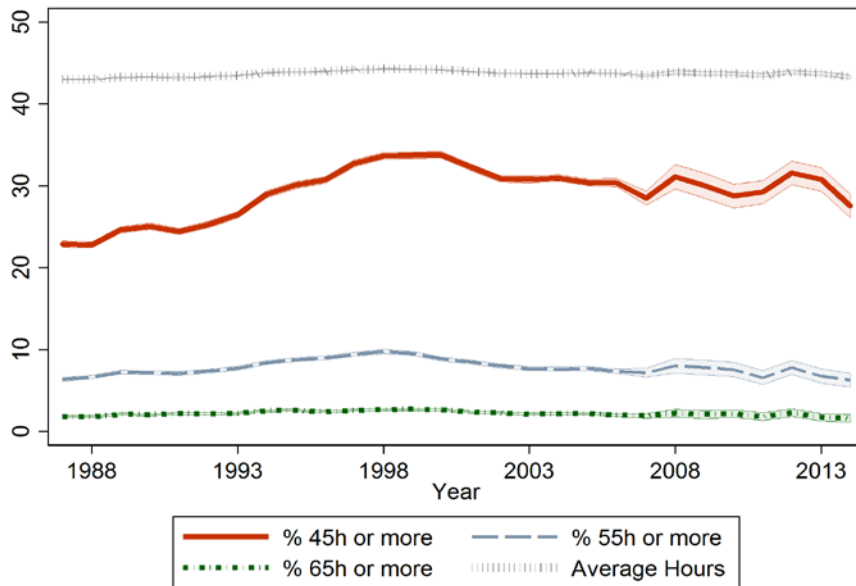


Males' Cogn. Distr. (Ratio: Finance/IT)

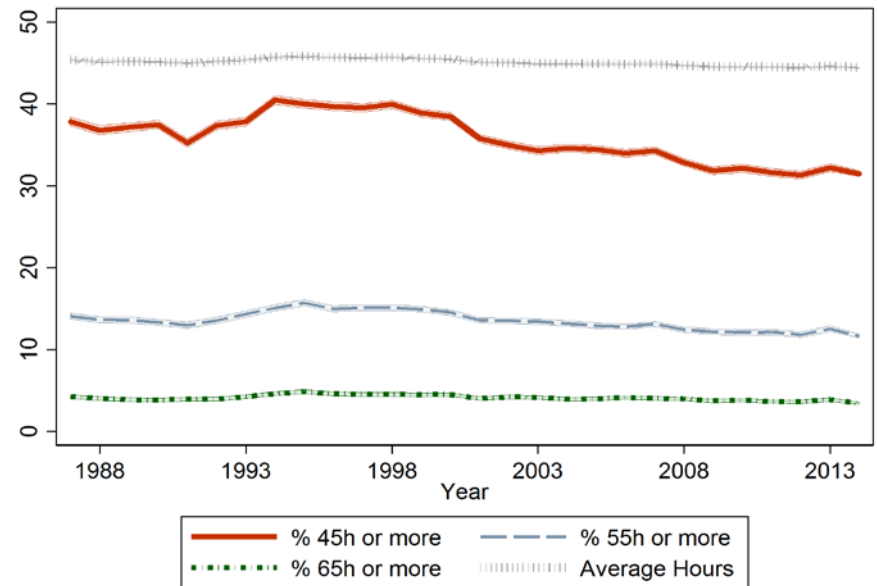


WORKING HOURS IN REST OF ECON.

Condition working ≥ 40 hours; Swedish LFS and US-CPS



Sweden

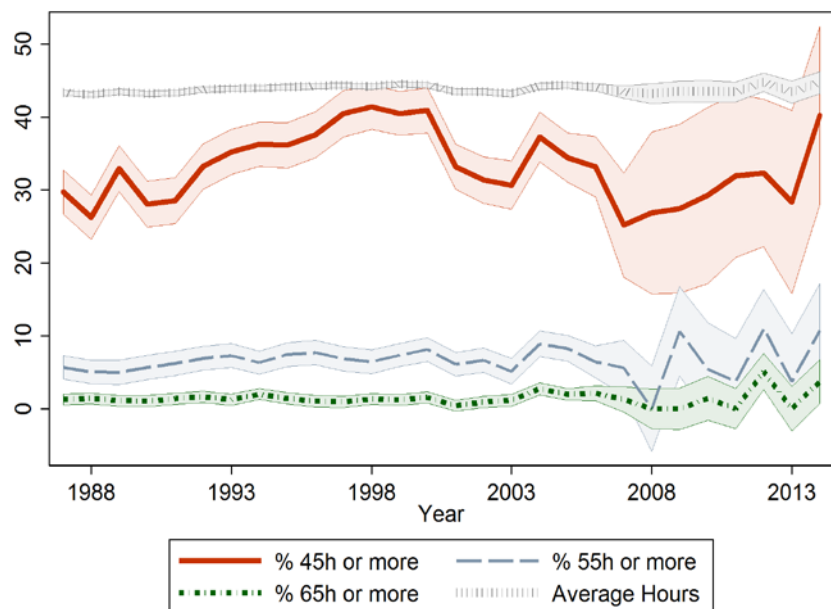


USA

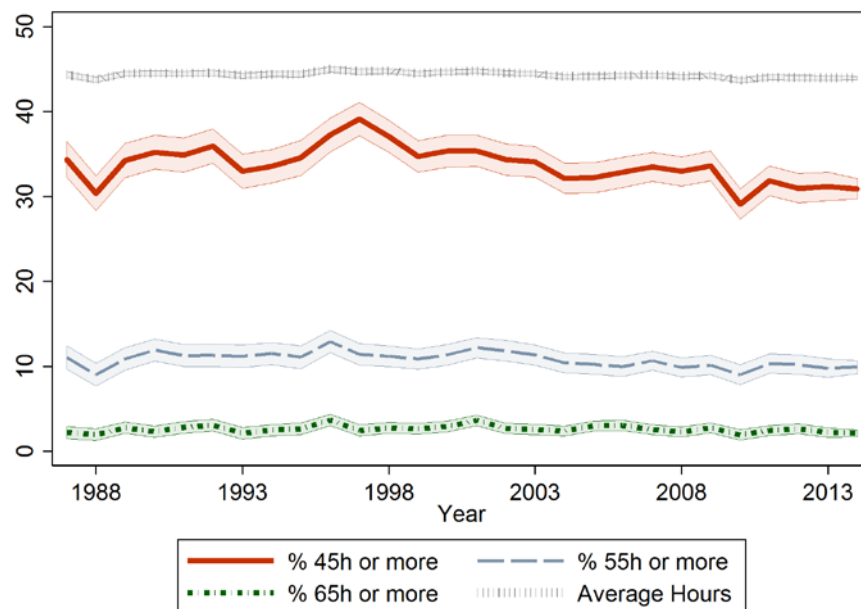
Def: Relative wage is defined as the ratio of the average wage in finance to the average wage in the non-financial, nonfarm private sector

WORKING HOURS IN FINANCE

Condition working ≥ 40 hours; Swedish LFS and US-CPS



Sweden

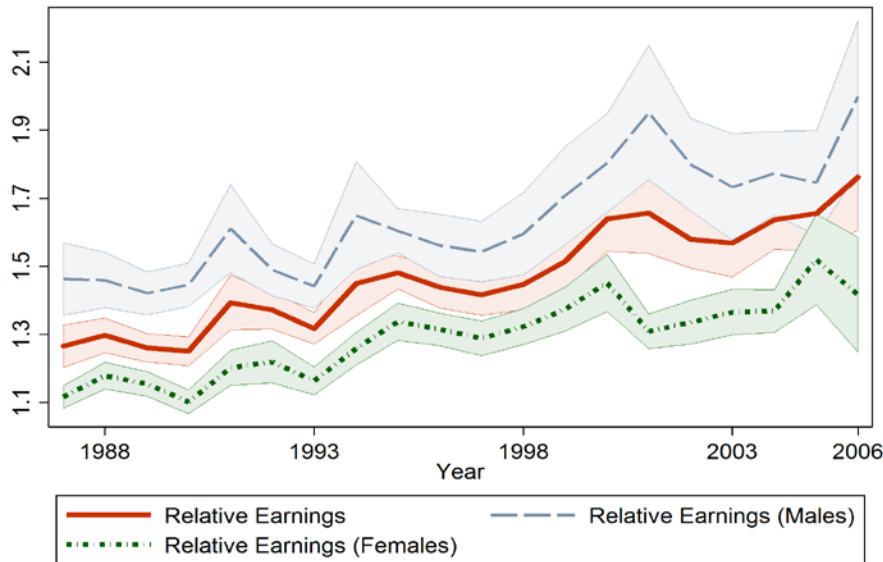


USA

Note: hours in high-paying “Securities, Brokers, Investment Companies” US sub-sector higher in levels, but also not increasing over time.

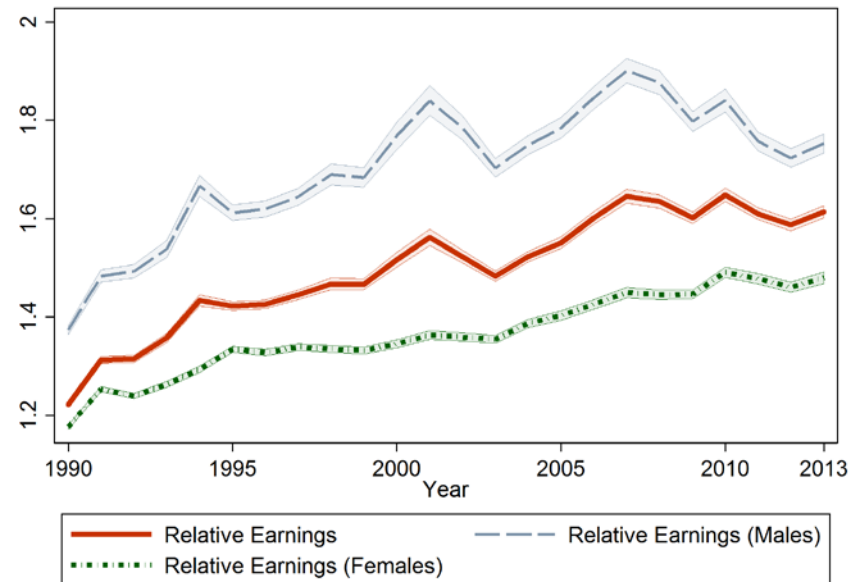
APPROX. HOURLY WAGE PREMIUM

Relative hourly wages and annual earnings look similar in levels and trends!



Sweden LFS

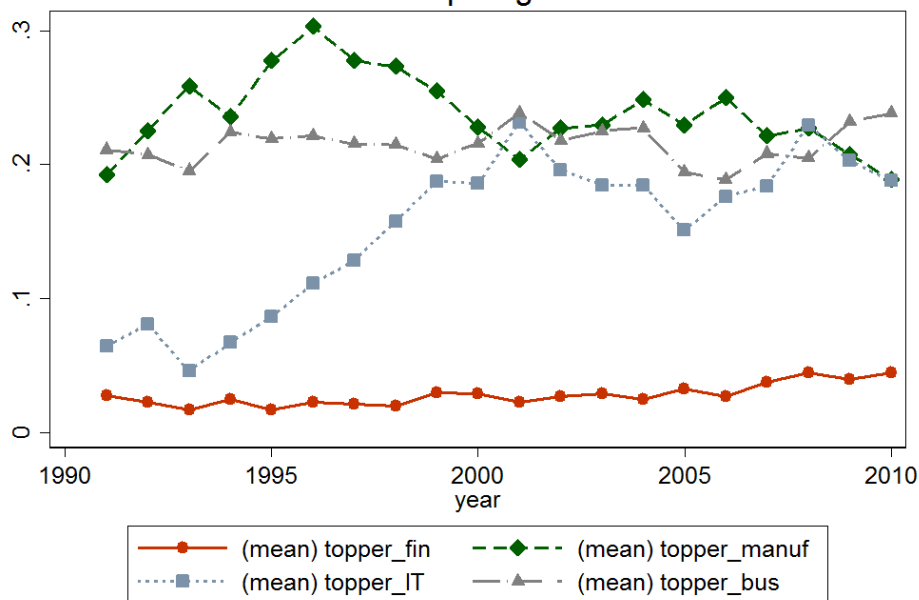
Divided annual earnings in SE-LFS by weekly hours, assuming weeks constant over time. Cut SE-LFS off in 2006 because becomes to imprecise



Sweden "main" LISA

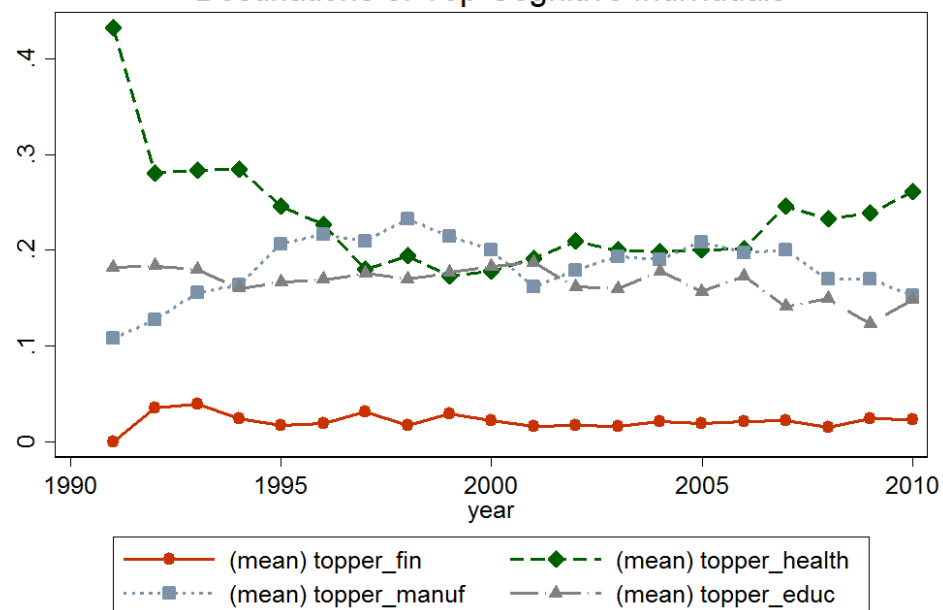
SECTOR CHOICES OF HIGH TALENT WORKERS: TOP 4% COGNITIVE (COG=9)

Destinations of Top Cognitive Individuals



MALES

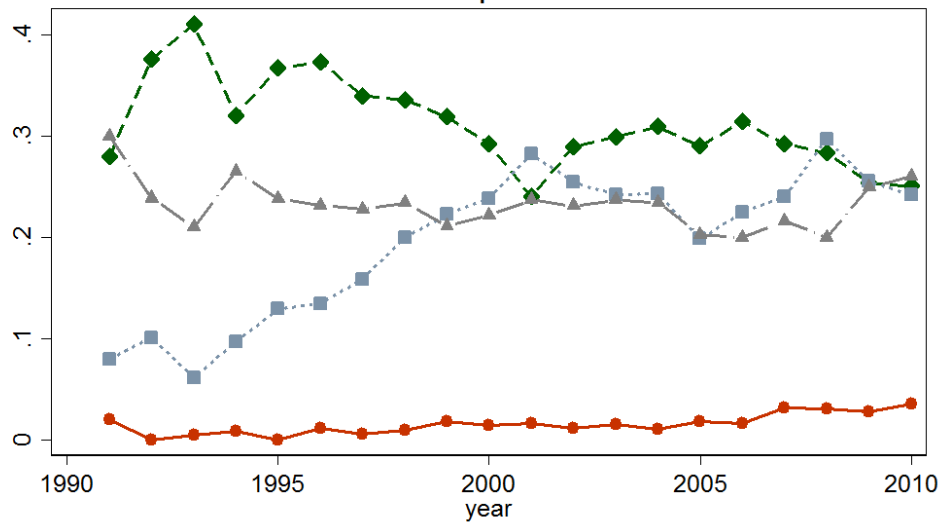
Destinations of Top Cognitive Individuals



FEMALES

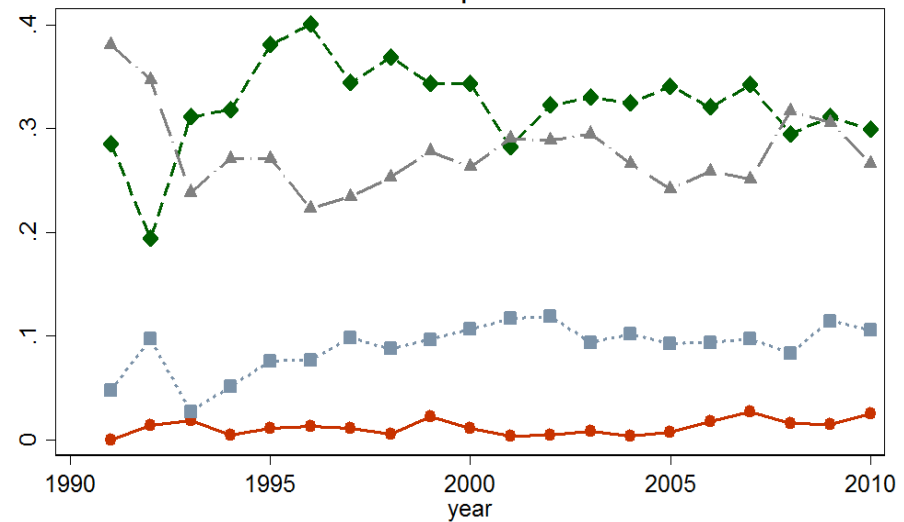
SECTOR CHOICES OF HIGH-TALENT WORKERS: TOP STEM GRADUATES (COG=9)

Destinations of Top STEM Graduates



MALES

Destinations of Top STEM Graduates



FEMALES

CONCLUSIONS

1. Extraordinary increase in finance workers' earnings; in all relevant comparisons; most extremely at the top.
2. However, no evidence finance became more talented, neither on average nor at top.
3. Choice- and wage regressions also do not support increased skill-bias explanation.
4. Strong and rising wage premium, not competed away via entry even in mid-to-long run.
5. No evidence for any substantial talent absorption / “brain-drain” into finance at expense of other sectors

FUTURE WORK: WHAT EXPLAINS RISING FINANCE EARNINGS?

- Unobservable skill, possibly learnt on the job
 - Terviö (RES 2009)
 - Consistent with tenure effect
 - Would have to be largely orthogonal to observable talent measures. Value of networks and relationships?
- Risk or compensating differentials
 - Preliminary evidence suggest not
 - Unpleasantness of job does not seem to have increased (hours, sick-leave, divorces, etc.)
 - Wage growth (acc. for unemployment) for finance workers is more volatile, but positively skewed
 - “Stochastic dominance” → can at best explain small part of premium



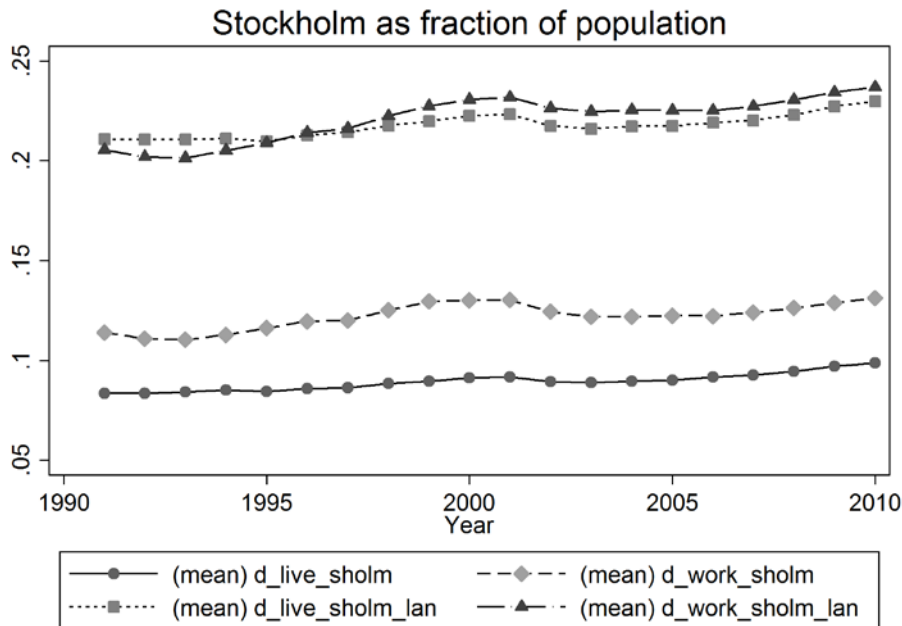
FUTURE WORK: WHAT EXPLAINS RISING FINANCE EARNINGS?

- Increasing rents in industry
 - Employees get $x\%$ of profits – Blanchflower et al, (QJE 1998)
 - Moral hazard premium – Axelson & Bond (JF 2014), Myerson (JPE 2012)
 - “Money doctors” phenomenon – Gennaiolo et al (JF 2015)
 - Akerlof & Yellen (QJE 1990) effect
 - High wages for most productive/valuable workers trickle down in organization
 - Who gets to share these rents?
 - Investigate further the role of networks, education
- Will address some of these hypotheses with matched firm-employee data

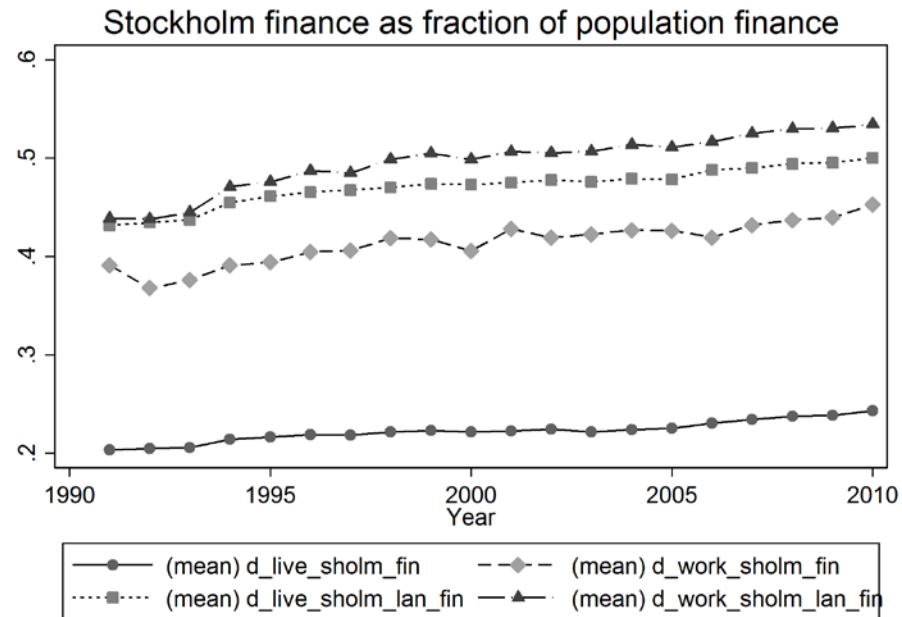
THANK YOU!

APPENDIX

SHARE OF INDIVIDUALS WORKING / LIVING IN STOCKHOLM



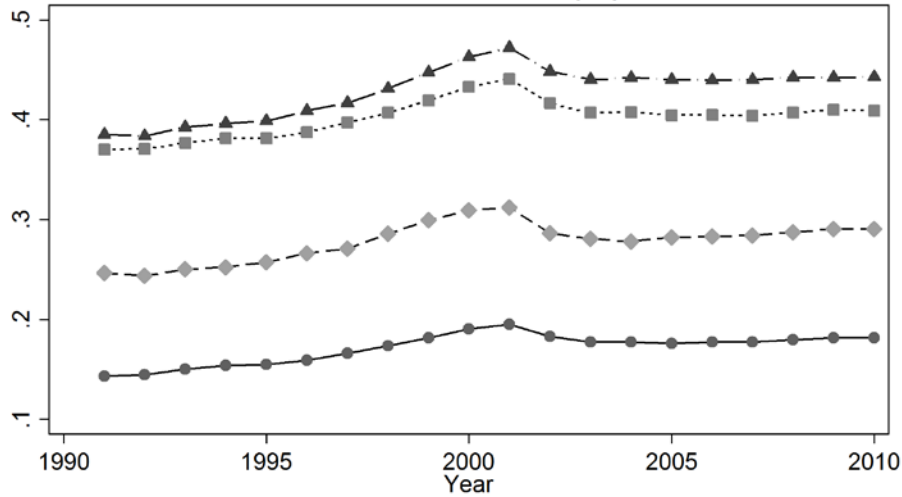
Everyone



Finance

SHARE OF TOP 5% EARNERS WORKING / LIVING IN STOCKHOLM

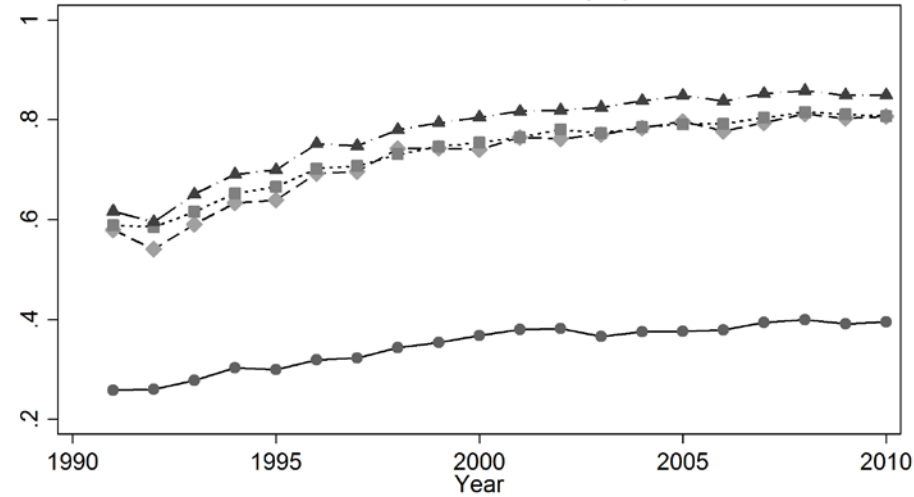
Stockholm as fraction of population



—●— (mean) d_live_sholm - -◆- - (mean) d_work_sholm
 ···■··· (mean) d_live_sholm_lan - ·▲· (mean) d_work_sholm_lan

Everyone

Stockholm finance as fraction of population finance



—●— (mean) d_live_sholm_fin - -◆- - (mean) d_work_sholm_fin
 ···■··· (mean) d_live_sholm_lan_fin - ·▲· (mean) d_work_sholm_lan_fin

Finance

THEORETICAL FRAMEWORK

- Simple Roy model: assume log wages in sector s (F,R) is

$$w_{kit} = \alpha_{kt} + \beta_{kt} s_{it} \quad (1)$$

- Utility from working in sector is

$$U_{kit} = w_{kit} + v_{kit} \quad (2)$$

$$v_{kit} = \mu_{kt} + \varepsilon_{kit}$$

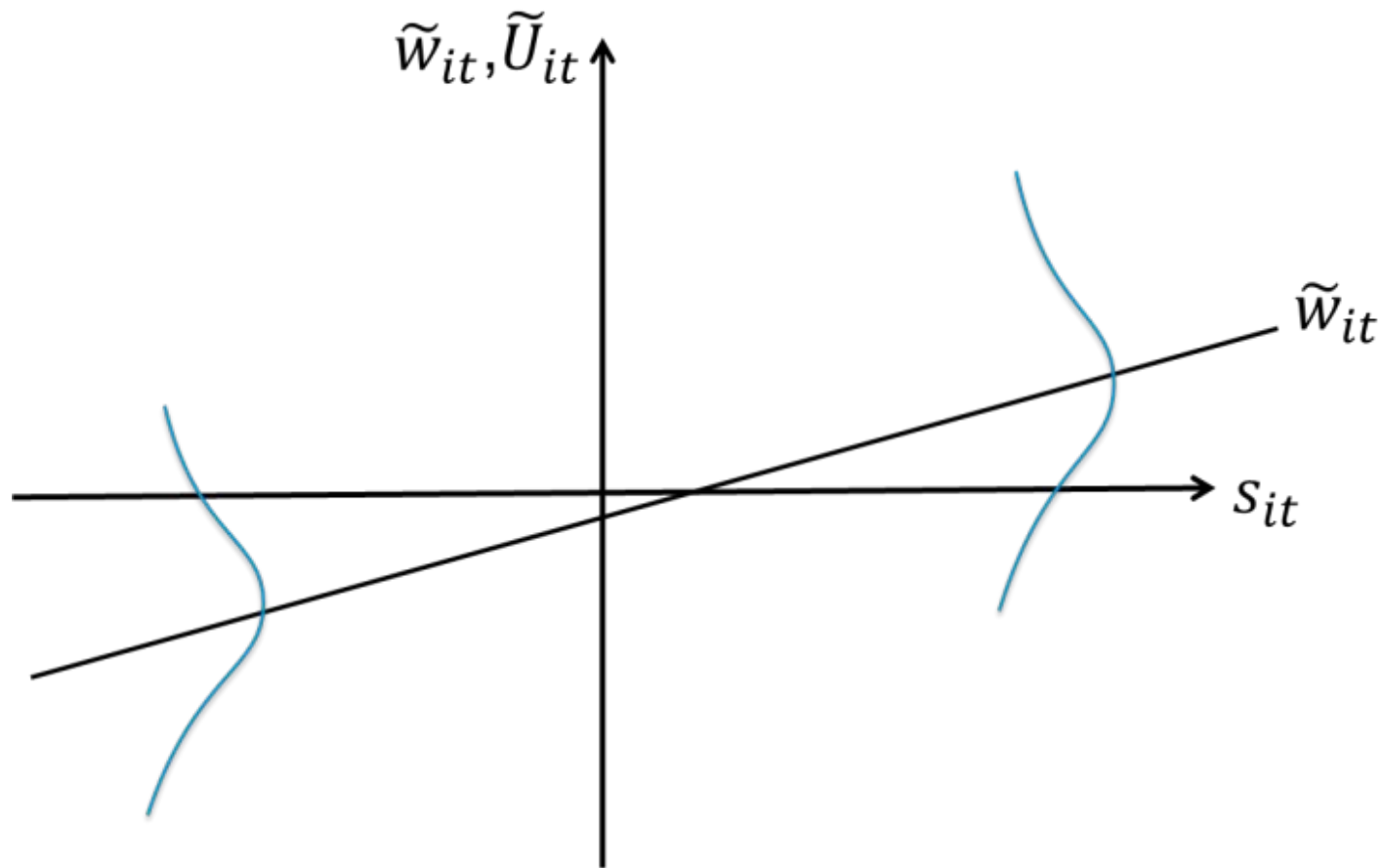
$$\varepsilon_{kit} | s_{it} \sim iid$$

- Define relative wages / utility in finance are

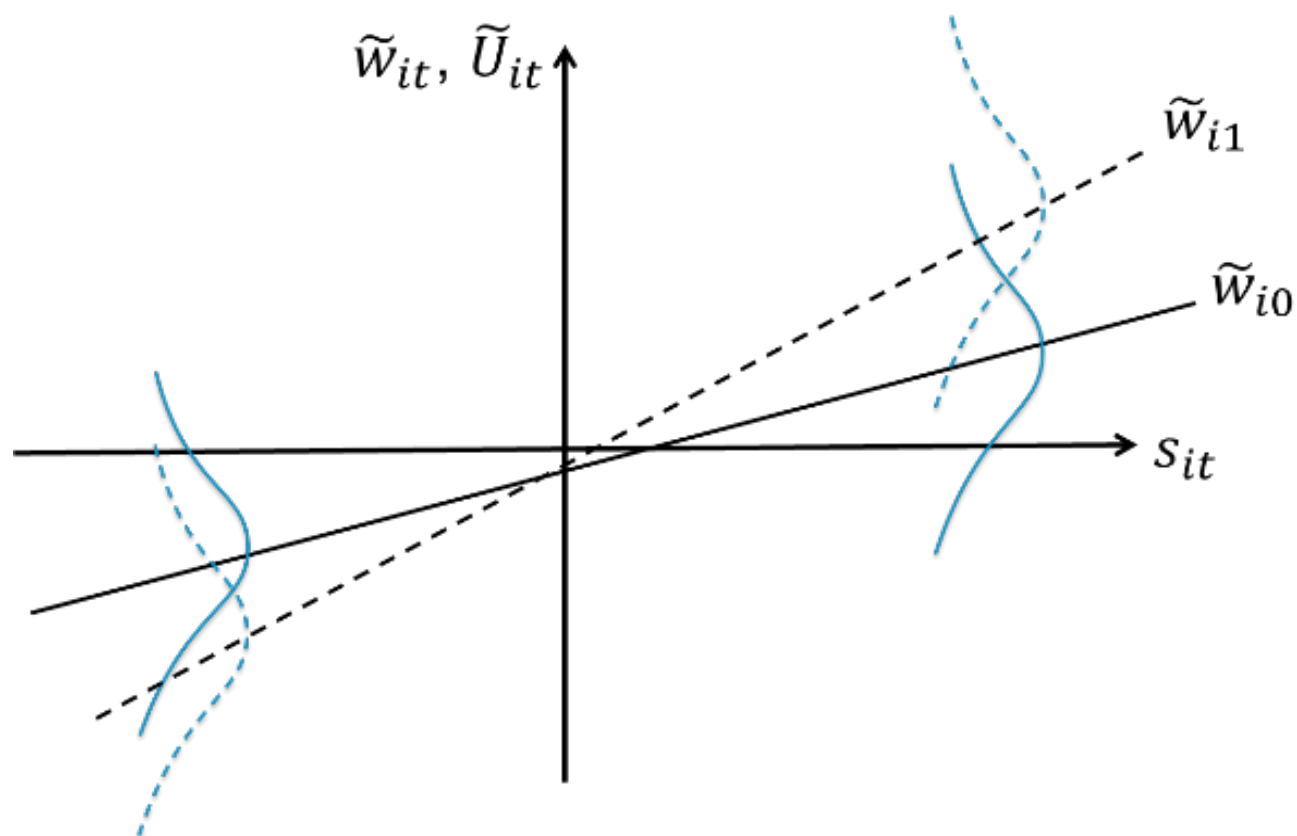
$$\tilde{w}_{it} \equiv w_{Fit} - w_{Rit} = \tilde{\alpha}_t + \tilde{\beta}_t s_{it} \quad (3)$$

$$\tilde{U}_{it} \equiv U_{Fit} - U_{Rit} = \tilde{\alpha}_t + \tilde{\beta}_t s_{it} + \tilde{\mu}_t + \varepsilon_{it} \quad (4)$$

SKILL SELECTION INTO FINANCE



RISING SKILL-BIAS OF FINANCE



Relative return to s_{it} increases in finance, i.e. $\tilde{\beta}_1 > \tilde{\beta}_0$

TEST 1: AVERAGE SKILL SELECTION

- Average skill in finance sector:

$$E(s_{it} | \tilde{U}_{it} > 0) = E(s_{it} | \varepsilon_{it} > -(\tilde{\alpha}_t + \tilde{\beta}_t s_{it} + \tilde{\mu}_t)) \quad (5)$$

- Under standard assumptions:
 - An increase in $\tilde{\beta}_t$ will increase probability of higher-skilled people entering the finance sector
 - Relative mean talent in finance compared to other sectors should increase

$$E(s_{it} | \tilde{U}_{it} > 0) - E(s_{it} | \tilde{U}_{it} < 0) \quad (6)$$

- Skill s_{it} can be proxied by
 - Education – potentially problematic because of composition changes
 - Fundamental talent measures: cognitive and non-cognitive skills; high-school grades
- Also, dispersion of skill $Var(s_{it} | \tilde{U}_{it} > 0)$ should decline.

TEST 2: CHOICE REGRESSION

$$Pr(\bar{U}_{it} > 0) = Pr(\varepsilon_{it} > -(\tilde{\alpha}_t + \tilde{\beta}_t s_{it} + \tilde{\mu}_t)) \quad (7)$$

- Approximate skill by

$$s_{it} = \gamma_1 cog_{it} + \gamma_2 noncog_{it} + \dots + s_{it}^u \quad (8)$$

and identify changes in α and β over time.

- Assume normality and use probit regressions.
- Make no assumptions and use LPM to identify changing marginal effects.
- Can also include other determinants of choice by parametrizing μ – “preferences” and/or “information”

TEST 3: SKILLS AND WAGES

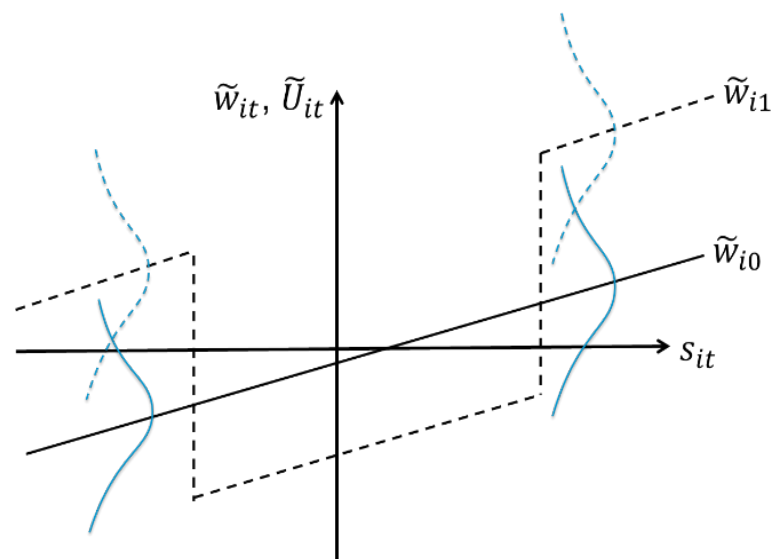
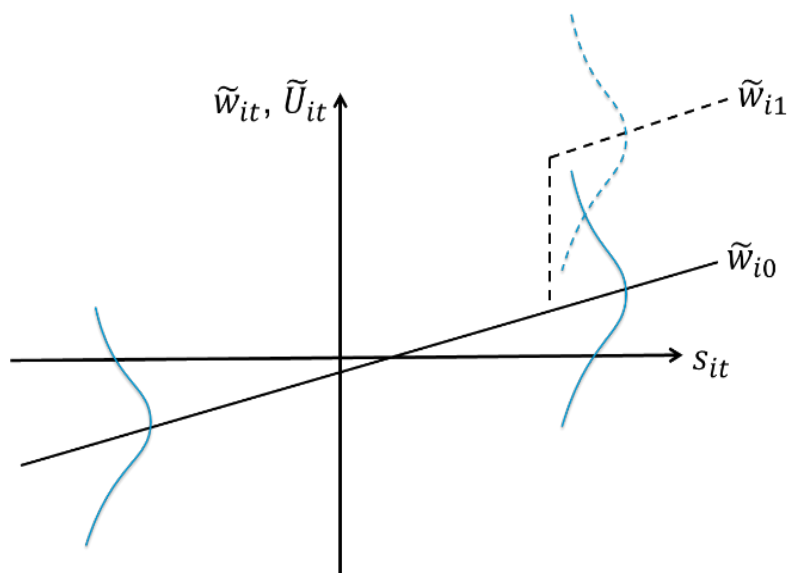
$$w_{kit} = \alpha_{Rt} + F_{it}\tilde{\alpha}_t + \beta s_{it} \quad (11)$$

- Improved selection of skill s_{it} into finance should explain (part of) wage premium $\tilde{\alpha}_t$.
- Use observable talent measures and fixed effects as s_{it} proxies.

$$w_{kit} = \alpha_{Rt} + F_{it}\tilde{\alpha}_t + (\beta_{Rt} + F_{it}\tilde{\beta}_t)s_{it} \quad (12)$$

- Increased $\tilde{\beta}_t$ implies finance premium rises more for high(er)-skilled workers (see also Cellier and Vallee, 2015).
- Split sample into different talent groups and check this.

POLARIZING CHANGE IN SKILL-DEMAND?



NOTE: TRANSITIONS INTO FINANCE FROM OTHER SECTORS RELATIVELY UNCOMMON

Panel A: Cognitive skills ≥ 8

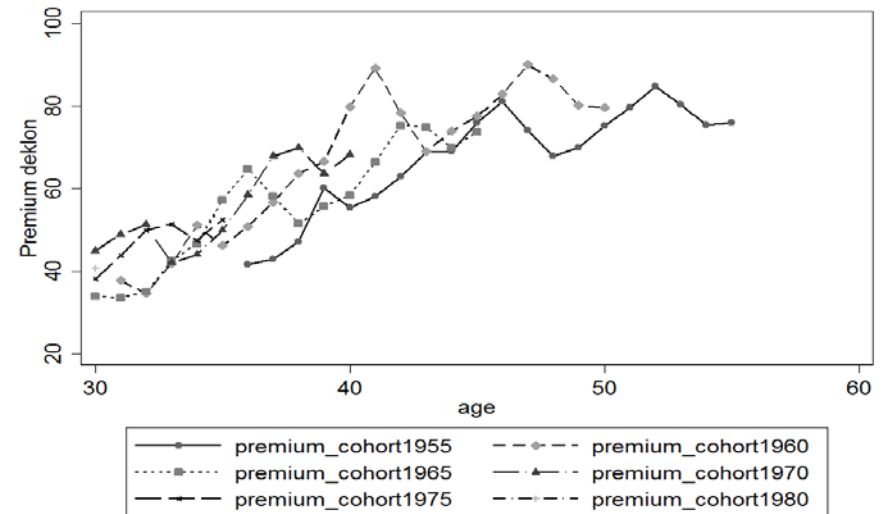
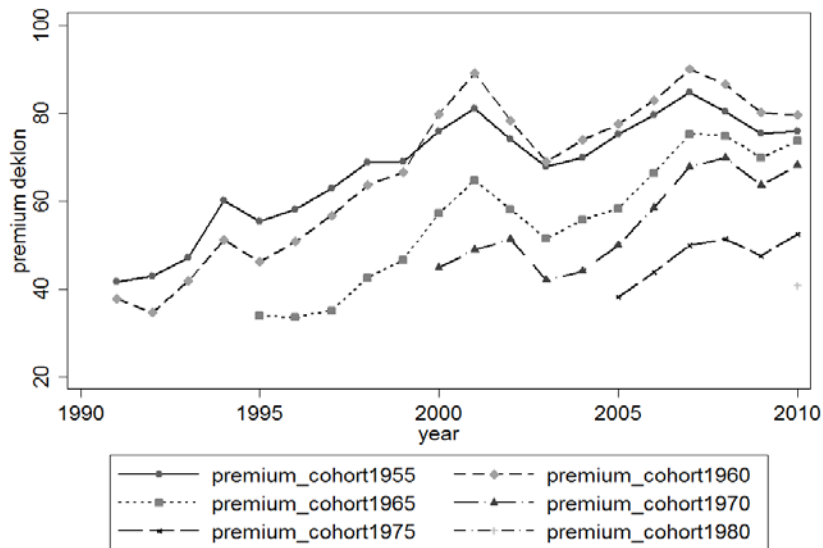
Previous sector	% of hiring
Financial sector	62.59%
IT	8.29%
Consulting and Accounting	6.27%
Other Services	3.72%
	80.87%

Panel B: Grade rank ≥ 90

Previous sector	% of hiring
Financial sector	61.86%
Consulting and Accounting	7.91%
IT	6.58%
Other Services	3.81%
	80.16%

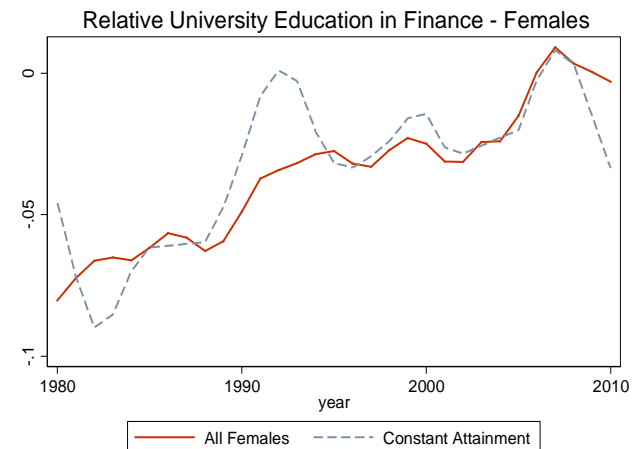
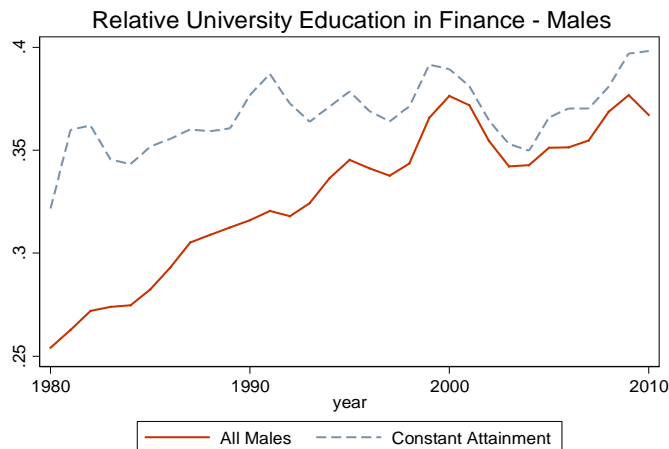
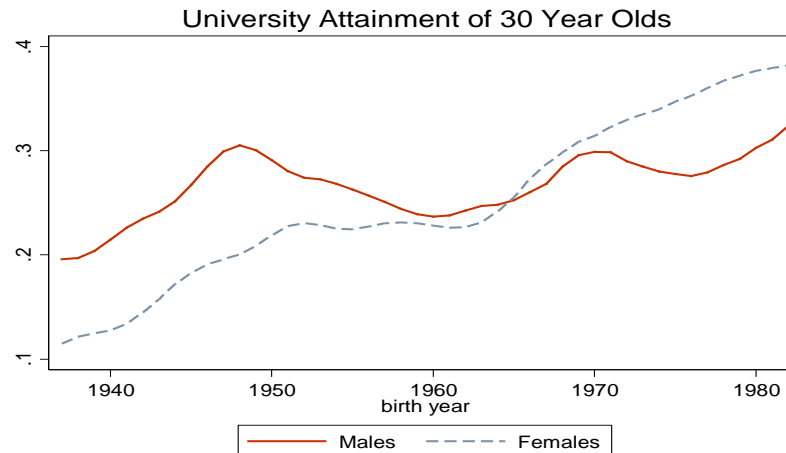
See Oyer (2008), Axelson & Bond (2014)

FINANCE PREMIUM INCREASES WITH TENURE, BUT IS PRESENT THROUGHOUT



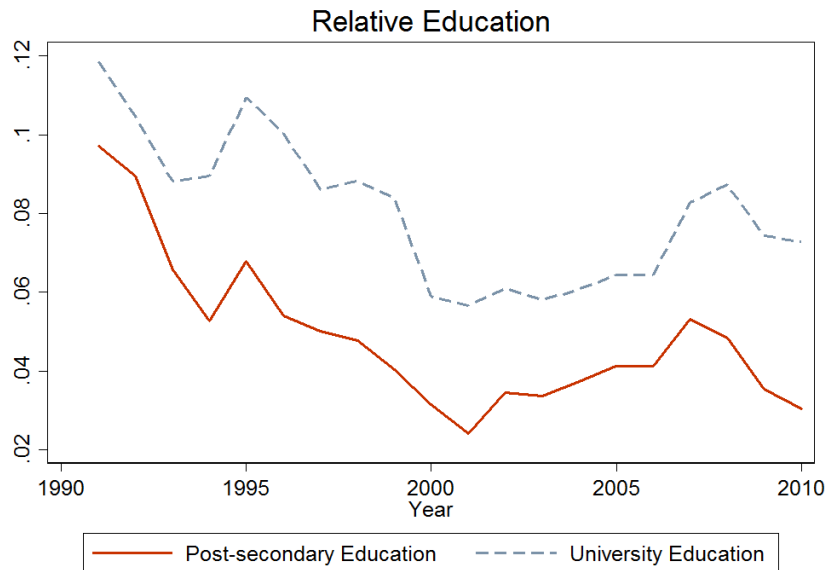
DECOMPOSING FINANCE RELATIVE ATTAINMENT IN THE U.S.

- Def: Use the attainment slowdown for birth cohorts since end of 1940 (Card&Lemieux 2001).

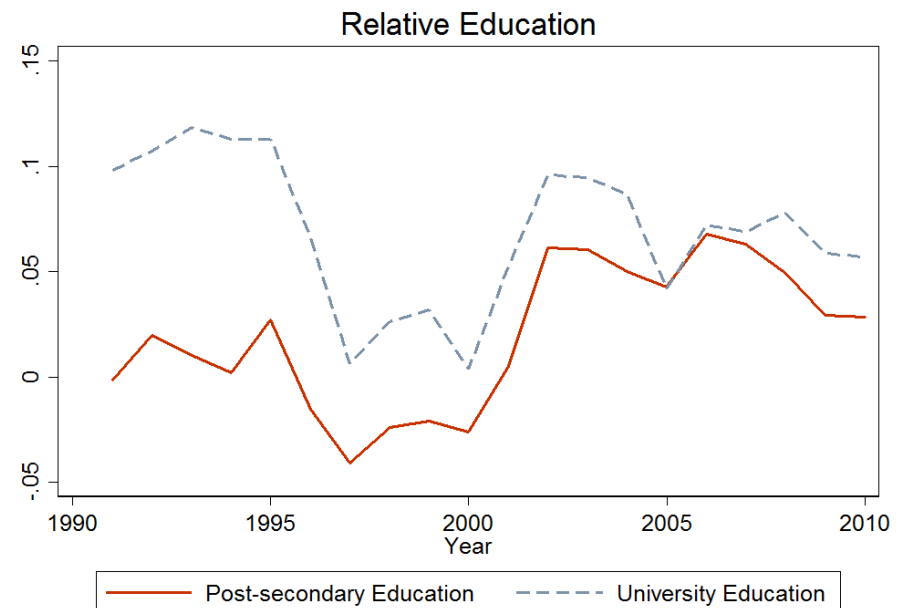


RELATIVE EDUCATION OF TOP 5% EARNERS

- Def: *Relative Education* is calculated as the share of individuals who attained more than a high-school degree (postsecondary education) and of those who attained a university degree (university) in finance minus the corresponding share in the rest of the economy. Baseline rates are 70 (80) percent for postsecondary (university).



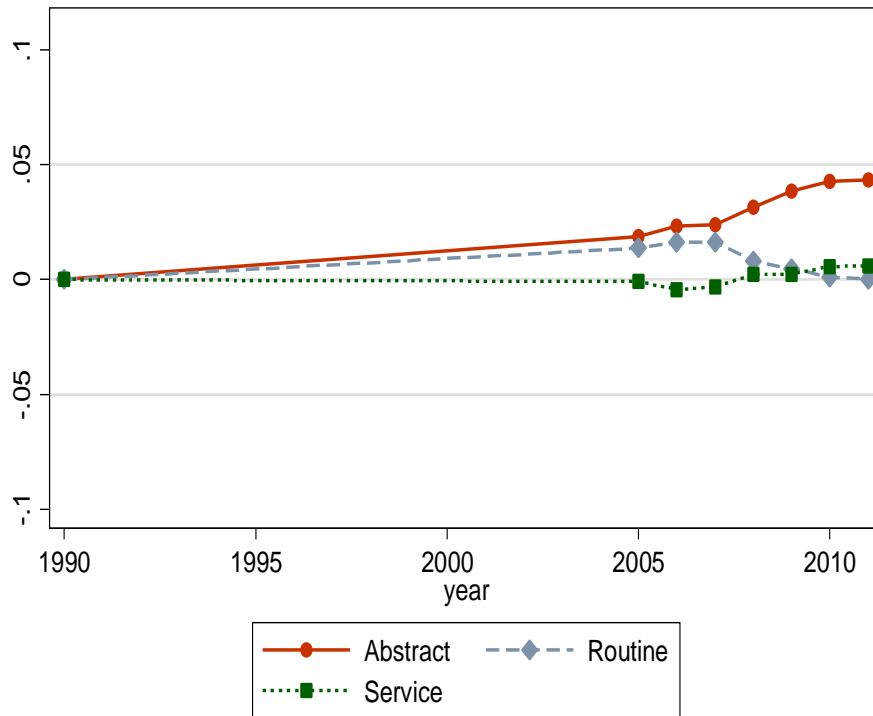
All



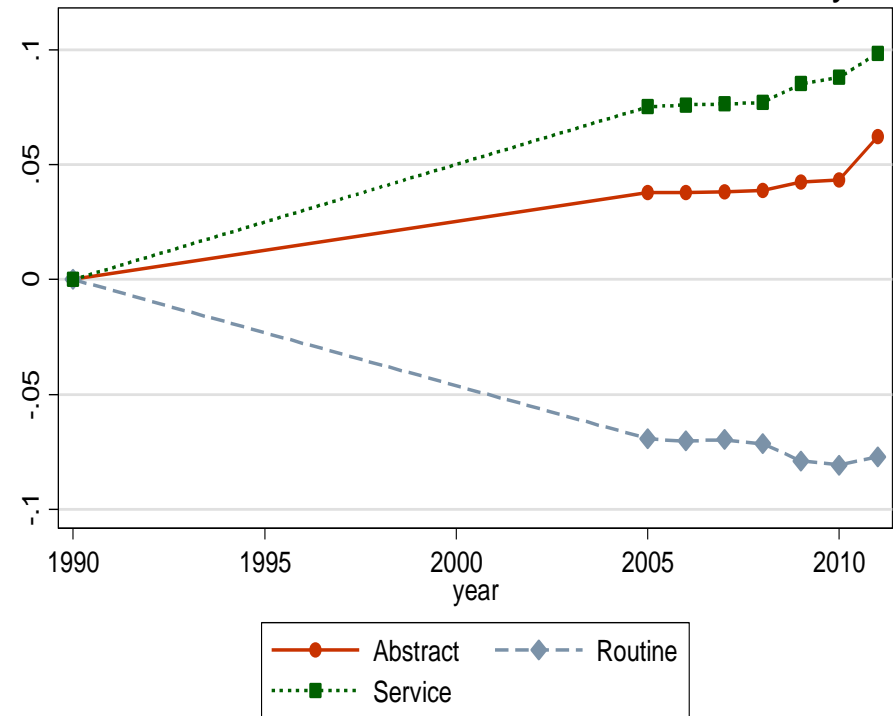
30 year olds

CHANGING JOB COMPOSITION

The Task Content of Finance



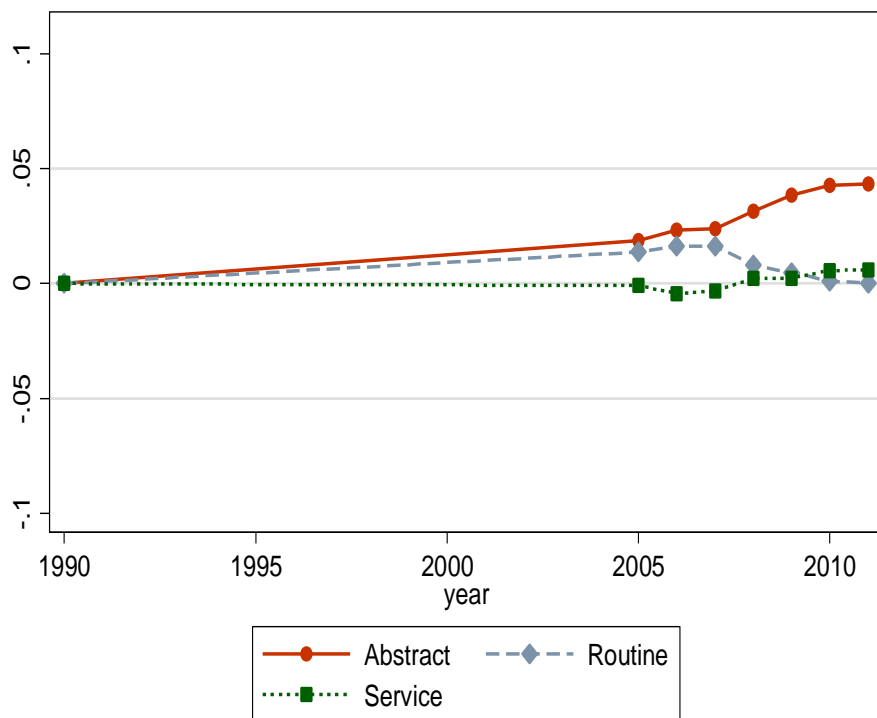
The Task Content of the Rest of Economy



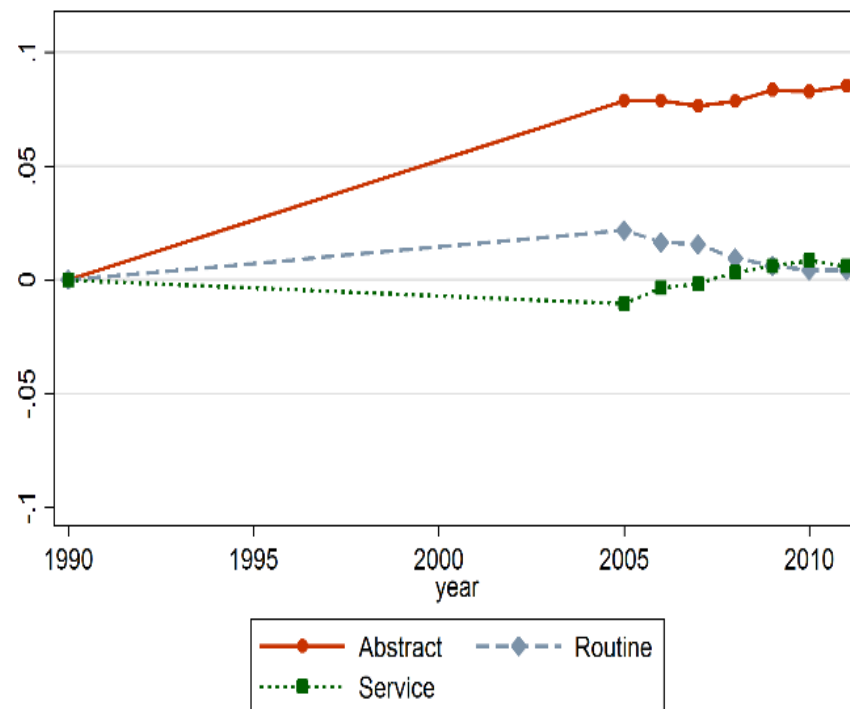
Using task content classif. from Goos, Manning, & Salomons, 2014
(in turn building on Autor & Dorn, 2013)

IT, LAW, ACCOUNTING, AND CONSULTING (ILCA)

The Task Content of Finance



The Task Content of ilca



Using task content classif. from Goos, Manning, & Salomons, 2014
(in turn building on Autor & Dorn, 2013)