

Revisiting Social Mobility in Ming China

Evidence from
Thirteen Thousand
Chin-shih Data

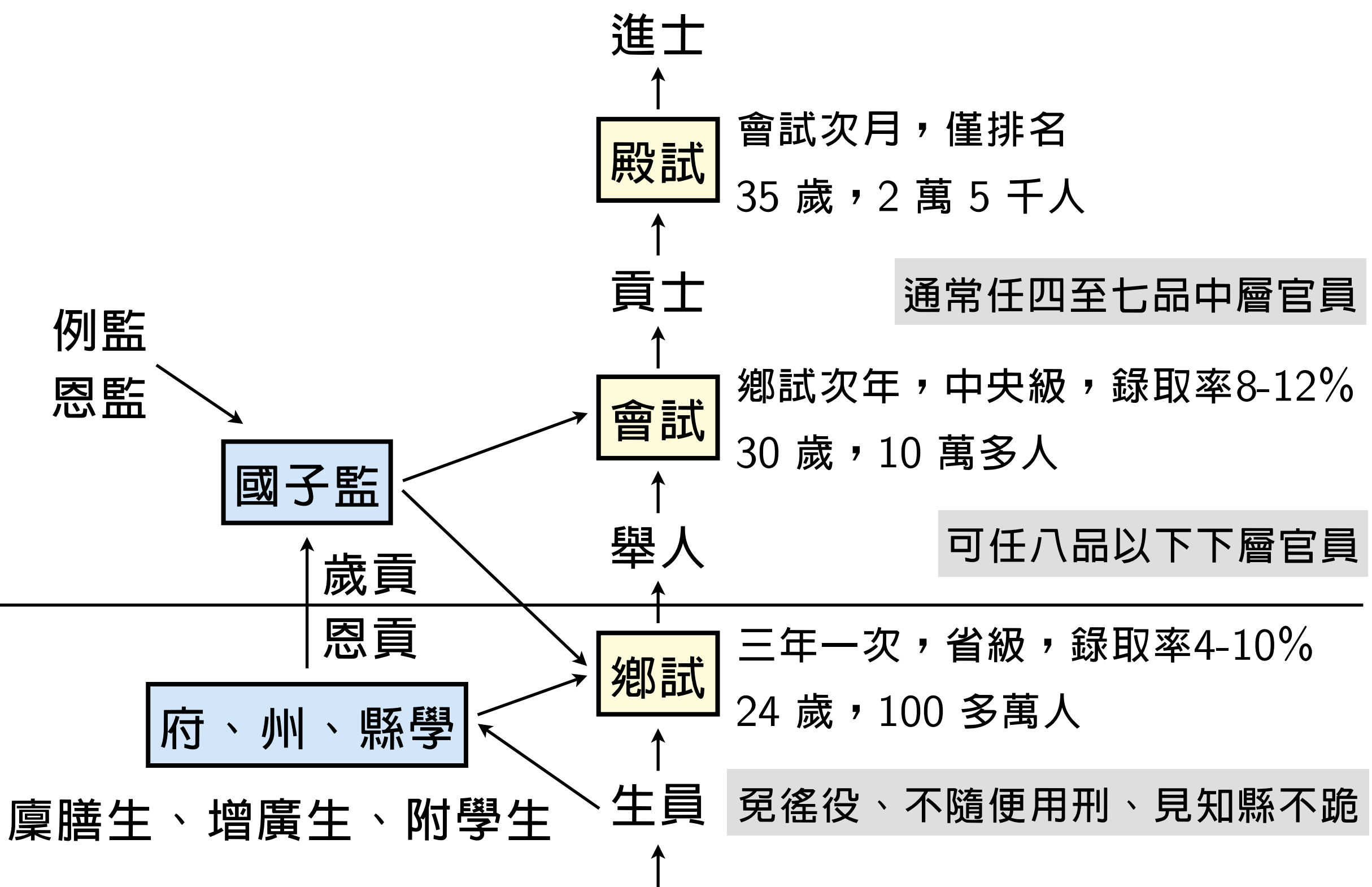
經濟三 · B00303001 · 張耕齊



Chuang-yüan Paraded before Friends

Imperial Examination

- Start in Sui & Tang, develop in Sung, mature in Ming & Ch'ing (605–1905 A.D.)
- Main way to select political elite since Sung (Chang, 1955)
- Frustrates dynastic clans (世族、勢族、士族)
- Generates scholar-gentry (士大夫、士紳) status
- A long-lasting and influential institution in imperial China



Ming Chin-shih Lists (進士登科錄)

第一甲三名

賜進士及第

王華

貫浙江紹興府餘姚縣民籍

儒士

曾祖與準

祖傑

父天叙

母岑氏

具慶下

兄榮

弟袞冕 黼黻娶鄭氏

浙江鄉試第二名

會試第三十三名

湯顯祖

貫江西撫州府臨川縣民籍

國子生

曾祖瑄

祖懋昭

父尚賢

母吳氏

具慶下

弟儒祖

鳳祖

會祖

良祖

娶吳氏

江西鄉試第八名

會試第六十五名

張居正

貫湖廣荊州衛軍籍

荊州府學生

曾祖誠

祖鎮

父文明

母趙氏

重慶下兄居仁弟居敬居安居居易居寬居善居學居娶顧氏

湖廣鄉試第三十名

會試第二百六十名

Imperial Examination & Social Mobility

- Imperial Examinations may facilitate mobility and stabilize the country, especially in early Ming (Ho, 1962)
 - ① Over half of *Chin-shih*s are from common family
 - ② School supply increases, large-scale reproduction of classics
 - ③ Mobility decreases fast in late 16th century
- “Circulation of elites” (Elman, 2000)
 - ① Overestimates of common family
 - ② Overlooks the effects of clans and marriages
 - ③ Mobility lies inside the ruling class, not the whole society

Imperial Examination & Social Mobility

- High mobility in early Ming is due to Yüan's special discriminating policy (Shen, 2006)
- Balance regional political power (Lin, 1992; Wu, 2009)
 - ① Quota of Provincial Exam (鄉試: 解額數管制)
 - ② Quota of Metropolitan Exam (會試: 南北分卷制)
- Till now, all studies are based on descriptive statistics

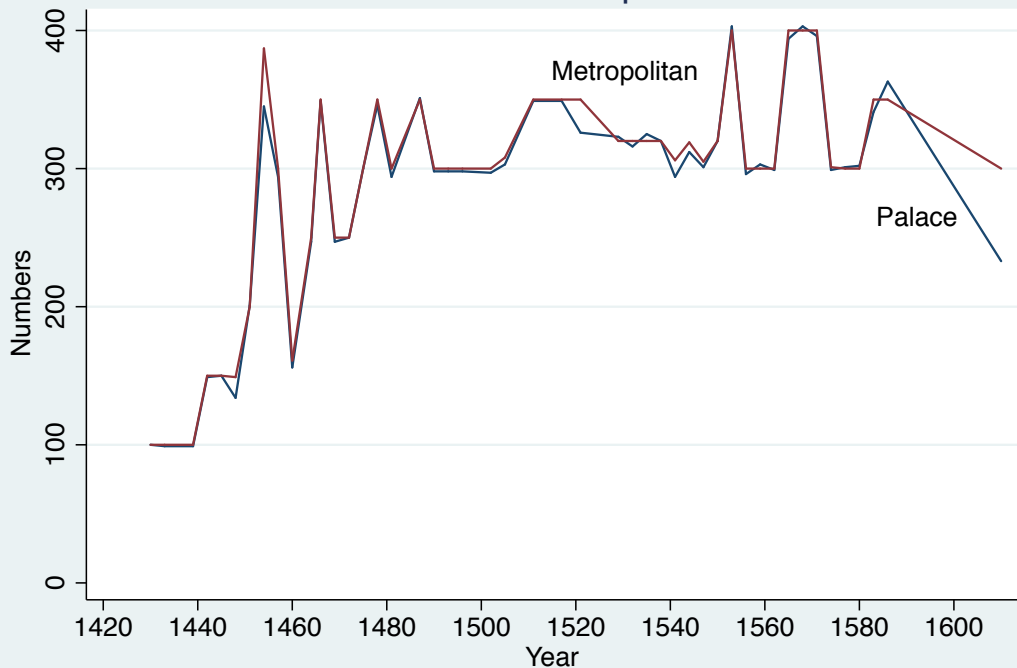
Data

- China Biographical Database
(CBDB, 中國歷代人物傳記資料庫; Harvard, Sinica, PKU)
- Records from *Chin-shih* list
- Years 1430–1583 Palace Exam
- 45/51 of the exam years during this period
- 12,877 observations
- Cf. Ming: 1368–1644, 88 exams, 24,862 *Chin-shih*s

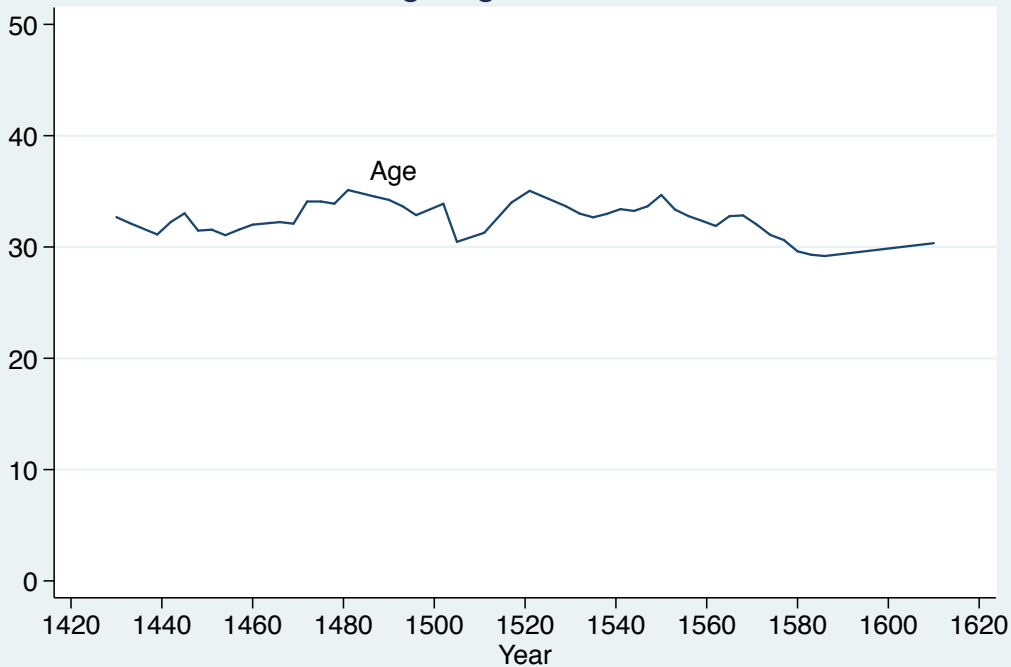
Main Variables

- Exam year
- Palace Exam (殿試) ranking → percentage
- Metropolitan Exam (會試) ranking → percentage
- Father's, Grandfather's, & Great-grandfather's officialdom record (任官記錄) → Nine-rank system (九品十八級)
- Birthplace (籍貫), registered family status (戶籍)
- Provincial Exam (鄉試) place, schooling, major subject, age

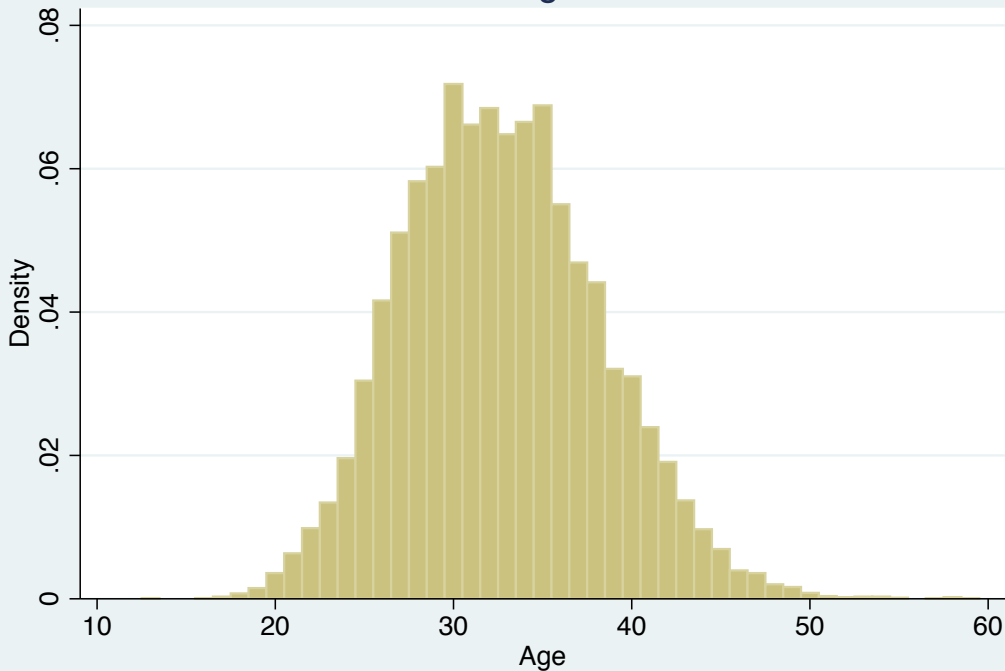
Numbers of Candidates for Metropolitan and Palace Exam



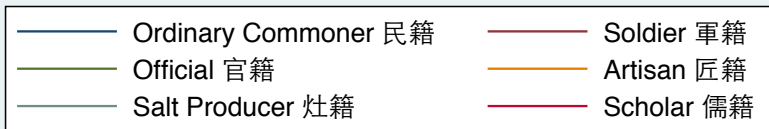
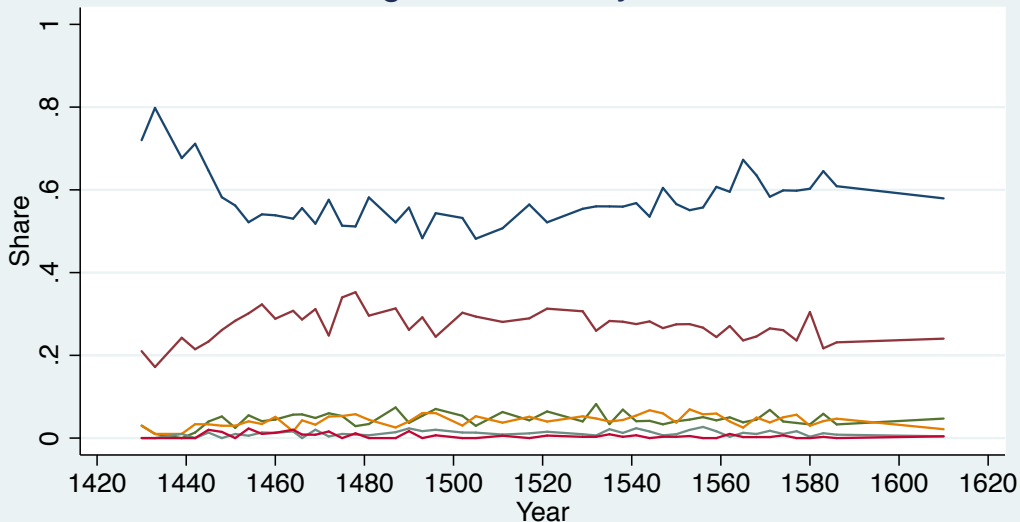
Average Age of Chin-shihs



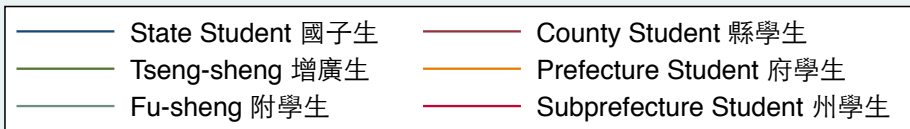
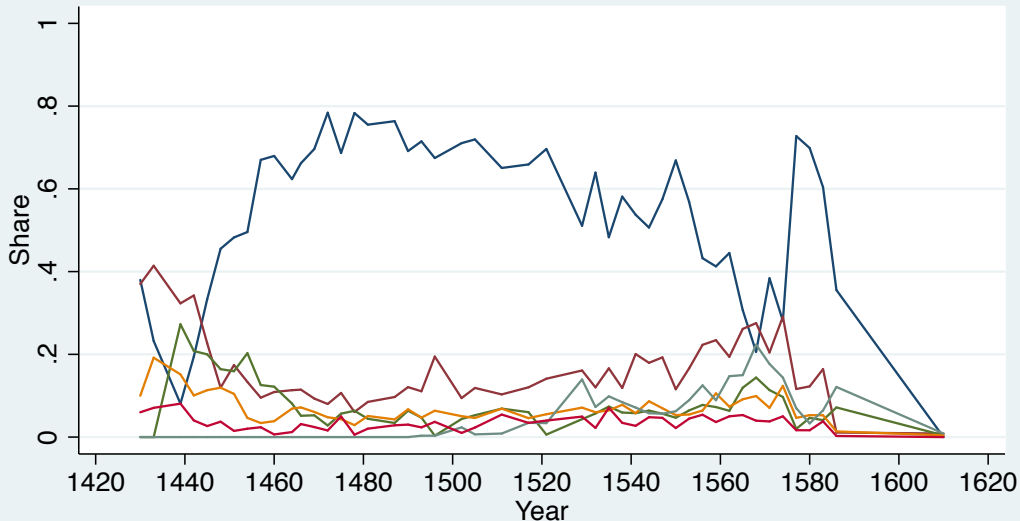
Distribution of Age of Chin-shihs



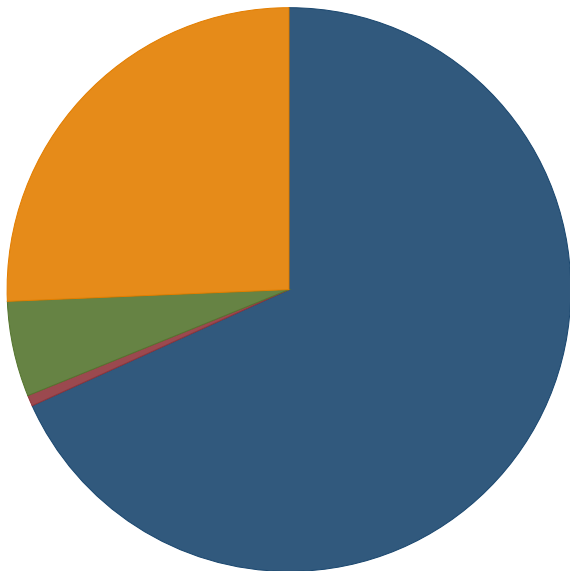
Registered Family Status



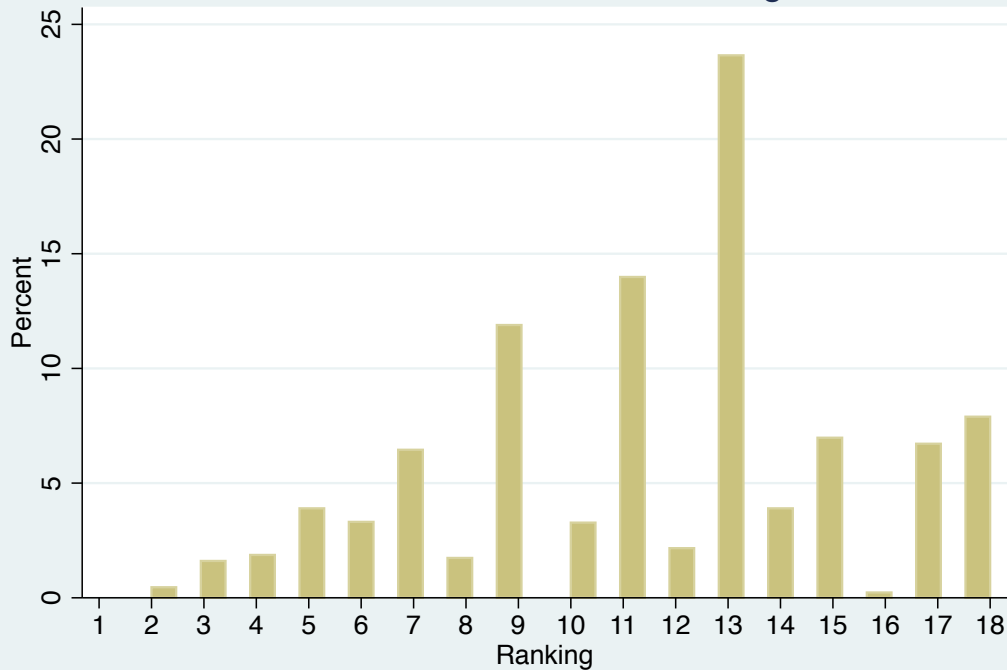
Schooling



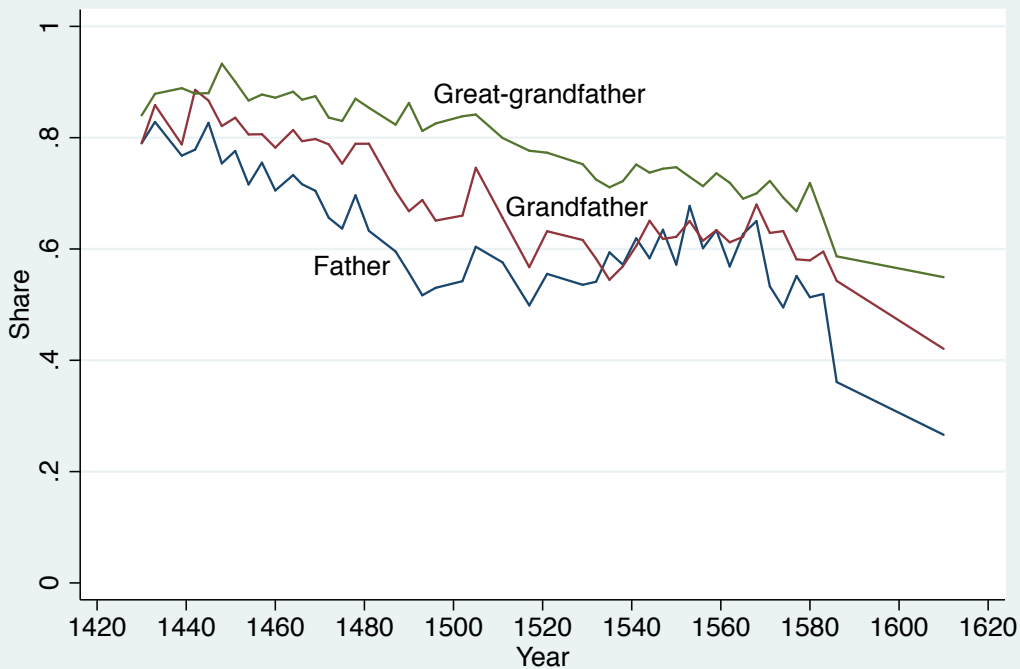
Father's Officialdom Record



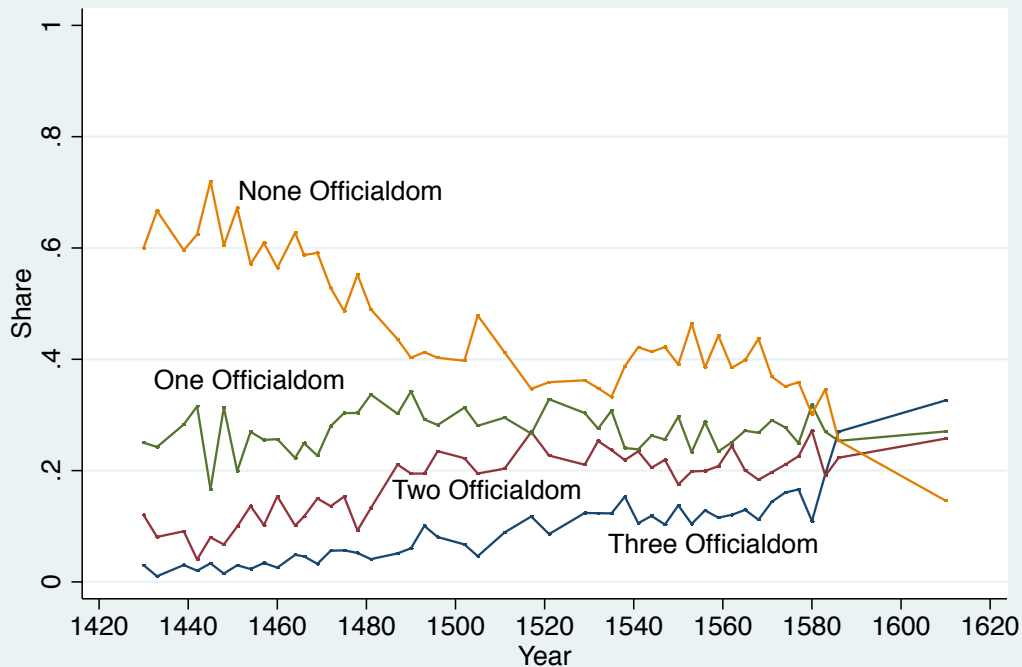
Father's Officialdom Ranking



Officialdom Records of Past Three Generations



Number of Officialdoms in Past Three Generations



Empirical Strategy: Officialdom Record

$$\% \text{ PALA} = \alpha + \beta \text{ OFF} + X\gamma + \varepsilon$$

- % PAL: Palace Exam ranking in percentage
- REC: Dummy for three generation's officialdom record
- X: Control variables
 - Metropolitan Exam ranking in percentage
 - Year, age
 - Dummy for birth province, schooling, registered family status, Provincial Exam place, major subject
- Robustness Checks: Birth county, year dummy

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Father	-0.0257***	-0.0251***	-0.0329***	-0.0354***
with record	(0.00508)	(0.00511)	(0.00543)	(0.00551)
% Metro.		0.151***	0.126***	0.117***
Exam ranking		(0.00872)	(0.00918)	(0.00934)
Age		0.00227***	0.00292***	0.00329***
		(0.000455)	(0.000510)	(0.000517)
Year		$4.27e - 05$	$-2.17e - 05$	$-5.62e - 05$
		($5.46e - 05$)	($6.15e - 05$)	($6.36e - 05$)
A			✓	✓
B				✓
Obs.	13,473	13,312	12,633	12,363

A: Birth prov., schooling, family status; B: Prov. Exam place, major subject

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Birth province (Chih-li 直隸 = 0)				
Che-chiang 浙江			-0.0506*** (0.00897)	-0.0678*** (0.0184)
Chiang-hsi 江西			-0.0325*** (0.00983)	-0.0153 (0.0217)
Fu-chien 福建			-0.0338*** (0.0105)	-0.0430 (0.0324)
Shang-tung 山東			0.0831*** (0.0110)	0.0344 (0.0227)

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Schooling (State Student 國子生 = 0)				
County Stu. 縣學生			0.0185** (0.00751)	0.0208*** (0.00757)
Tseng-sheng 增廣生			0.0166* (0.0101)	0.0186* (0.0102)
Prefecture Stu. 府學生			0.0217** (0.0106)	0.0236** (0.0107)

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Father	−0.0354***			−0.0305***
with record	(0.00551)			(0.00577)
Grandfather		−0.0252***		−0.0115*
with record		(0.00578)		(0.00632)
Great-grandfather			−0.0231***	−0.0144**
with record			(0.00656)	(0.00689)
% Metro.	0.117***	0.117***	0.118***	0.117***
Exam ranking	(0.00934)	(0.00936)	(0.00936)	(0.00934)
Age	0.00329***	0.00333***	0.00339***	0.00320***
	(0.000517)	(0.000517)	(0.000517)	(0.000518)
A & B	✓	✓	✓	✓
Obs.	12,363	12,363	12,363	12,363

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Three generations have record	−0.0575*** (0.00882)	−0.0539*** (0.00897)	−0.0612*** (0.00988)	−0.0593*** (0.0102)
Two generations have record	−0.0277*** (0.00686)	−0.0274*** (0.00687)	−0.0333*** (0.00718)	−0.0351*** (0.00727)
One generation has record	−0.0179*** (0.00602)	−0.0198*** (0.00601)	−0.0258*** (0.00627)	−0.0268*** (0.00632)
% Metro. Exam ranking		0.150*** (0.00872)	0.126*** (0.00918)	0.117*** (0.00934)
Age		✓	✓	✓
A			✓	✓
B				✓
Obs.	12,363	12,363	12,633	12,363

A: Birth prov., schooling, family status; B: Prov. Exam place, major subject

	% Palace Exam ranking				
	1430–1469	1472–1496	1502–1535	1538–1559	1562–1583
Three	−0.0689* (0.0372)	−0.0292 (0.0296)	−0.0416* (0.0237)	−0.0577*** (0.0201)	−0.0819*** (0.0186)
Two	−0.0567*** (0.0202)	−0.0312* (0.0180)	−0.0459*** (0.0165)	−0.0169 (0.0158)	−0.0388** (0.0151)
One	−0.0230 (0.0144)	−0.0212 (0.0143)	−0.0311** (0.0148)	−0.0254* (0.0150)	−0.0423*** (0.0144)
% Metro.	0.105*** (0.0212)	0.108*** (0.0218)	0.131*** (0.0219)	0.108*** (0.0215)	0.125*** (0.0209)
Contr.	✓	✓	✓	✓	✓
Obs.	2,394	2,329	2,432	2,494	2,714

Empirical Strategy: Officialdom Ranking

$$\begin{aligned}\% \text{PALA} = & \alpha + \beta_0 \text{OFFRANK} + \beta_1 \text{OFF} \\ & + \beta_2 \text{SMALL} + \beta_3 \text{SCHO} + X\gamma + \varepsilon\end{aligned}$$

- OFFRANK: Officialdom rankings 1–18
- OFF: Dummy for officialdom with rankings
- SMALL: Dummy for no ranking small officialdoms
- SCHO: Dummy for no officialdom but pass at least Provincial Exam

	% Palace Exam ranking		
	Father's	GF's	GGF's
Officialdom rank	0.00560*** (0.00143)	0.00487*** (0.00162)	0.00671*** (0.00187)
Officialdom with rankings	-0.110*** (0.0181)	-0.0851*** (0.0196)	-0.0983*** (0.0219)
Small officialdom without rankings	-0.0166** (0.00832)	-0.0140 (0.00884)	-0.0156 (0.0108)
At least passed Prov. Exam	-0.0306** (0.0130)	-0.0338 (0.0249)	-0.0460 (0.0337)
Contr.	✓	✓	✓
Obs.	12,363	12,363	12,363

	% Palace Exam ranking		
	Father's	GF's	GGF's
Officialdom rank	0.00453*** (0.00153)	0.000931 (0.00182)	0.00489** (0.00198)
Officialdom with rankings	-0.0937*** (0.0202)	-0.0139 (0.0237)	-0.0657*** (0.0243)
Small officialdom without rankings	-0.0156* (0.00838)	-0.00712 (0.00897)	-0.00970 (0.0109)
At least passed Prov. Exam	-0.0269** (0.0131)	-0.0235 (0.0248)	-0.0414 (0.0335)
Contr.	✓	✓	✓
Obs.	12,363	12,363	12,363

	% Palace Exam ranking			
	(1)	(2)	(3)	(4)
Highest officialdom ranking across three generations	0.00741*** (0.00107)	0.00615*** (0.00106)	0.00488*** (0.00114)	0.00459*** (0.00116)
% Metro. Exam ranking		0.176*** (0.0143)	0.151*** (0.0152)	0.146*** (0.0156)
Age		0.00220*** (0.000737)	0.00301*** (0.000838)	0.00338*** (0.000853)
A			✓	✓
B				✓
Obs.	4,994	4,953	4,684	4,570

	% Palace Exam ranking				
	1430–1469	1472–1496	1502–1535	1538–1559	1562–1583
Highest ranking	0.000408 (0.00320)	0.00317 (0.00283)	0.00189 (0.00277)	0.00559** (0.00252)	0.00911*** (0.00244)
% Metro.	0.162*** (0.0399)	0.145*** (0.0365)	0.105*** (0.0340)	0.177*** (0.0360)	0.159*** (0.0342)
Age	0.000376 (0.00246)	0.00174 (0.00198)	0.00630*** (0.00183)	0.000841 (0.00206)	0.00741*** (0.00218)
A & B	✓	✓	✓	✓	✓
Obs.	712	890	978	932	1,058

Extensions

- Put Metropolitan ranking in Y , Palace ranking omitted
- Put Metropolitan ranking in Y , Palace ranking in X

	% Pala. Exam ranking		% Metro. Exam ranking	
	(1)	(2)	(3)	(4)
Three generations have record	-0.0637*** (0.00882)	-0.0593*** (0.0102)	-0.0265*** (0.0101)	-0.0192* (0.0101)
Two generations have record	-0.0363*** (0.00733)	-0.0351*** (0.00727)	0.0100 (0.00739)	-0.00580 (0.00732)
One generation has record	-0.0257*** (0.00635)	-0.0268*** (0.00632)	-0.00456 (0.00637)	-0.00137 (0.00633)
% Metro. Exam ranking		0.117*** (0.00934)		
% Palace Exam ranking				0.117*** (0.00938)
Contr.	✓	✓	✓	✓
Obs.	12,450	12,363	12,363	12,363

	% Metropolitan Exam ranking				
	1430–1469	1472–1496	1502–1535	1538–1559	1562–1583
Three	0.00544 (0.0345)	−0.0560* (0.0288)	−0.0492** (0.0236)	0.0170 (0.0204)	−0.0554*** (0.0184)
Two	0.00284 (0.0204)	−0.00330 (0.0183)	−0.0305* (0.0166)	0.00763 (0.0160)	−0.0235 (0.0154)
One	−0.00193 (0.0146)	−0.0115 (0.0146)	0.00136 (0.0152)	−0.0120 (0.0150)	−0.00927 (0.0140)
Contr.	✓	✓	✓	✓	✓
Obs.	2,394	2,329	2,432	2,494	2,714

	% Metropolitan Exam ranking				
	1430–1469	1472–1496	1502–1535	1538–1559	1562–1583
Three	0.0128 (0.0349)	−0.0521* (0.0287)	−0.0428* (0.0235)	0.0230 (0.0203)	−0.0447** (0.0184)
Two	0.00892 (0.0201)	0.000180 (0.0181)	−0.0239 (0.0165)	0.00936 (0.0158)	−0.0185 (0.0152)
One	0.000572 (0.0145)	−0.00902 (0.0145)	0.00545 (0.0150)	−0.00917 (0.0150)	−0.00405 (0.0140)
% Palace	0.108*** (0.0217)	0.110*** (0.0223)	0.132*** (0.0221)	0.107*** (0.0213)	0.120*** (0.0201)
Contr.	✓	✓	✓	✓	✓
Obs.	2,394	2,329	2,432	2,494	2,714

	% Pala. Exam ranking		% Metro. Exam ranking	
	(1)	(2)	(3)	(4)
Highest officialdom ranking across three generations	0.00524*** (0.00117)	0.00459*** (0.00116)	0.00275** (0.00119)	0.00202* (0.00117)
% Metro. Exam ranking		0.146*** (0.0156)		
% Pala. Exam ranking				0.147*** (0.0157)
Contr.	✓	✓	✓	✓
Obs.	4,600	4,570	4,570	4,570

Conclusion & Discussions

- Family background may have a significant help on the Palace Exam ranking
- The effect is relatively large since mid 16th century
- The result suggest that mobility is deteriorating; high mobility in early Ming may not be due to Yüan's policy
- Corruption in the Palace Exam? Cheating?
- Palace Exam ranking may not be a good measure, can consider officialdom outcome of *Chin-shihs*
- Persistent effect of the Imperial Examination?