

Academic Profile of Chinese Economists: Productivity, Pay, Time Use, Gender Differences, and Impacts of COVID-19

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Jan 7, 2024

CSWEP - ASSA Conference, San Antonio, TX

Motivation

- It has been over four decades since the initiation of China's economic reforms, which brought profound changes across various aspects of Chinese academic institutions. This includes significant transformations in higher education and the field of economics.
 - Who are they?
 - How do Chinese female economists perform in comparison to their male peers, and is there a gender disparity among economists in China?
 - Do people employed in the Chinese economics departments with the tenure system differ from overseas counterparts in terms of time allocation, promotion processes, and faculty productivity?

- One cannot capture the current profile of academics without addressing the unprecedented challenges imposed by the COVID-19 pandemic.
- Do we observe the same impacts on Chinese economists who live in a society with a different trajectory of the pandemic from Western countries?
- This study is crucial for understanding the landscape of Chinese economists, providing insights into their professional characteristics, and contributing to a comprehensive understanding of the field.

Chinese Economists Society (CES)

- The CES, an American-registered non-profit academic organization, was established on May 26, 1985, by a cohort of Chinese graduate students and scholars pursuing studies in economics and business administration in North America (www.china-ces.org).
 - The CES has evolved into an international professional society for Chinese scholars of economics and scholars interested in studies of the Chinese economy to promote scholarly exchanges.
 - The CES organizes annual conferences in China and the US, and has this journal (*China Economic Review*) as its flagship publication.

Survey Method

- Upon obtaining consent from the Regents Committee and the Board of Directors of the CES, the authors carried out two waves of survey targeting both CES members and non-member Chinese economists in 2019 and 2021.
- The survey team solicited voluntary responses via the CES email list-serv (for both the 2019 and 2021 waves) and administered both waves of the survey online using Qualtrics.
 - For the 2021 wave, CES officers also promoted and distributed the survey to conference attendees at the 2021 Chinese Economists Society annual meeting.

Survey Sample

- Out of the 524 respondents collected in the two waves (292 in 2019 and 232 in 2021), 277 were currently employed in academia (*the focus group*), 12 worked for the government sector, 25 worked in the private sector, 14 were self-employed, 3 retired, and the rest of the 193 respondents were graduate students.
- Our final sample consists of 234 individuals, as we dropped 18 post-doctoral fellows and 25 observations with missing wages.
 - We caution against extrapolating the results to the entire community of academic Chinese economists.

Profile of Chinese Academic Economists

Table 1: Summary Statistics by Employment Location (2019 and 2021 pooled)

	(1)		(2)		(3)	(4)
	Employ in China		Employ Overseas		Mean Diff.	T-Stats
	Mean	Std. Dev.	Mean	Std. Dev.	(2)-(1)	
Age	40.09	7.94	44.53	12.52	4.44**	-3.04
Female	0.29	0.46	0.44	0.50	0.15*	-2.33
Married	0.81	0.39	0.83	0.38	0.02	-0.38
Child or not	0.77	0.42	0.73	0.45	-0.03	-0.59
Wage in 10k Yuan	37.14	32.02	85.21	49.81	48.07***	-8.25
Doctoral Degree	0.84	0.36	0.94	0.46	0.10*	-2.55
Years of Receiving the Highest Degree	8.10	5.32	11.13	8.76	3.03*	-2.60
Annual Employment Months	11.03	1.27	10.63	1.34	-0.40*	-2.24
Courses Taught per Year	4.15	2.57	5.52	3.83	1.37**	-3.02
Whether Receiving Outside Pay	0.66	0.48	0.57	0.50	-0.09	-1.37
Full Professors	0.28	0.45	0.37	0.48	0.09	-1.42
Associate Professors	0.34	0.48	0.23	0.42	-0.12	-1.94
TT Assistant Professors	0.30	0.46	0.38	0.49	0.08	-1.23
Non-TT Assistant Professor	0.09	0.28	0.03	0.18	-0.05	-1.77
Total Peer Reviewed PR Publications	16.26	20.22	20.25	30.71	3.99	-1.10
PR Publications within Last 5 Years	8.99	10.55	8.85	11.36	-0.14	-0.09
Percentage of Research	48.85	19.80	44.48	19.44	-4.37	-1.62
Percentage of Teaching	32.31	16.98	36.92	17.10	4.61	-1.96
Percentage of Administration	13.44	14.52	14.65	15.07	1.21	-0.59
Percentage of Other Activities	5.40	9.14	3.95	6.64	-1.45	-1.37
Observations	141		93		234	

Findings of Gender Disparity

We now turn to gender disparity in demographics, education, employment, wage compensation, research output, time use, and perceived promotion standards among Chinese economists.

Table 2a: Gender Disparity in Demographics

	Employed in China						Employed Overseas					
	Men		Women		Mean Difference		Men		Women		Mean Difference	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Mean	SD	Mean	SD	(3) – (1)	t-Stat	Mean	SD	Mean	SD	(9) – (7)	T-Stat
Age	39.49	7.86	41.54	8.05	2.05	-1.38	47.27	13.01	41.05	11.07	-6.220*	-2.49
Married	0.77	0.42	0.90	0.30	0.132*	-2.10	0.85	0.36	0.80	0.40	-0.0413	-0.51
Have Child	0.74	0.44	0.83	0.38	0.09	-1.21	0.79	0.41	0.66	0.48	-0.13	-1.38
Received Doctoral Degree	0.85	0.36	0.83	0.38	-0.02	-0.30	0.75	0.48	0.76	0.43	0.01	-1.07
Annual Pay (in 10,000 Yuan)	40.80	35.51	28.22	18.74	-12.58***	-2.73	94.75	53.16	73.12	42.85	-21.63*	-2.17
Years of Receiving the Highest Degree	7.84	5.53	8.75	4.80	0.91	-0.91	12.17	8.94	10.03	8.57	-2.141	-1.01
Annual Employment Months	11.07	1.29	10.92	1.24	-0.15	-0.64	10.70	1.36	10.54	1.33	-0.16	-0.56
Courses Taught per Year	4.12	2.61	4.22	2.50	0.10	-0.21	6.17	4.36	4.68	2.88	-1.49	-1.98
Received Pay Outside Primary Job	0.68	0.47	0.61	0.49	-0.07	-0.78	0.69	0.47	0.41	0.50	-0.278**	-2.74
Observations	100		41				52		41			

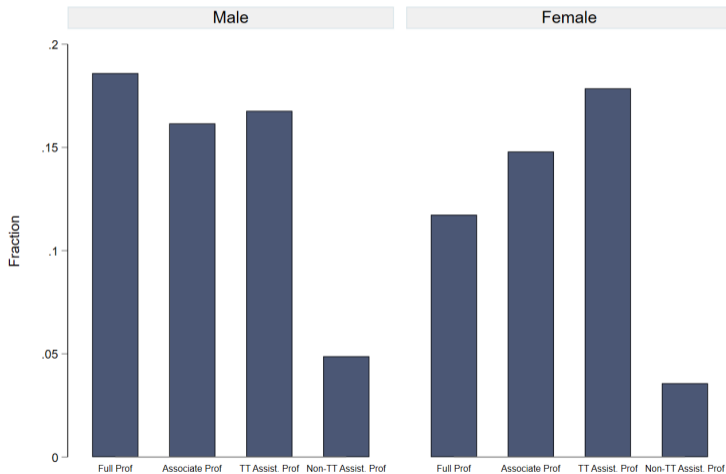
Table 2b: Gender Disparity in Education

	Employed in China						Employed Overseas					
	Men		Women		Mean Difference		Men		Women		Mean Difference	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Mean	SD	Mean	SD	(3) – (1)	t-Stat	Mean	SD	Mean	SD	(9) – (7)	T-Stat
211 University (%)	29.0%	0.46	20.0%	0.41	-9.0%	-1.14	2.0%	0.14	3.0%	0.16	1.0%	-0.16
985 University (%)	32.0%	0.47	25.0%	0.44	-7.0%**	-2.84	8.0%	0.14	7.0%	0.27	-1.0%	-1.18
Double First-Class University (%)	16.0%	0.46	23.0%	0.42	-7.0%	-1.04	6.0%	0.24	3.0%	0.22	-3.0%	-0.21
Other Chinese University (%)	7.0%	0.26	6.0%	0.22	-1.0%	-0.46	0.0%		0.0%		0.0%	
Top 20 Overseas University (%)	6.0%	0.26	4.0%	0.02	-2.0%	-0.73	20.0%	0.40	13.0%	0.33	-7.0%**	-2.96
Top 20-50 Overseas University (%)	3.0%	0.24	12.0%	0.30	9.0%**	2.75	12.0%	0.33	23.0%	0.42	11.0%*	2.29
Top 50-100 Overseas University (%)	5.0%	0.31	5.0%	0.44	0.0%	-1.84	32.0%	0.47	28.0%	0.45	-4.0%	-0.46
Other Overseas University (%)	2.0%	0.34	5.0%	0.22	3.0%	-1.65	20.0%	0.40	23.0%	0.42	3.0%	0.28
Observations	100		41				52		41			

Table 3: Gender Disparity in Research Interests

Areas of Primary Research Interest	(1)	(2)	(3)	(4)	(5)	(6)
	Male		Female		Mean Diff.	T-Stats
	Mean	Std. Dev.	Mean	Std. Dev.	(1)-(3)	
Applied Econometrics	0.09	0.29	0.10	0.30	0.00	-0.09
Behavioral Economics	0.01	0.08	0.06	0.24	-0.05*	-2.50
Financial Economics	0.13	0.34	0.05	0.22	0.08*	-2.05
Development Economics	0.11	0.32	0.15	0.36	-0.03	-0.71
Economic Growth	0.02	0.14	0.01	0.11	0.01	-0.44
Economic Inequality	0.00	0.00	0.04	0.19	-0.04*	-2.37
Environmental Economics	0.07	0.26	0.02	0.16	0.05	-1.56
Experimental Economics	0.01	0.12	0.02	0.16	-0.01	-0.61
Fiscal Policy	0.02	0.14	0.05	0.22	-0.03	-1.21
Game Theory	0.03	0.16	0.01	0.11	0.01	-0.73
Health Economics	0.05	0.21	0.10	0.30	-0.05	-1.49
International Finance	0.01	0.12	0.01	0.11	0.00	-0.08
Trade	0.11	0.31	0.06	0.24	0.05*	-2.17
Labor Economics	0.08	0.27	0.15	0.36	-0.07*	-2.57
Microeconomic Theory	0.01	0.12	0.02	0.16	-0.01	-0.61
Monetary Policy	0.02	0.14	0.01	0.11	0.01	-0.44
Public Economics	0.02	0.14	0.00	0.00	0.02	-1.29
Political Economy	0.02	0.14	0.01	0.11	0.01	-0.44
Chinese Economy	0.05	0.21	0.05	0.22	0.00	-0.06
Urban Economics	0.03	0.18	0.01	0.11	0.02	-0.97
Others	0.02	0.14	0.02	0.16	0.00	-0.21
Observations	152		82		234	

Gender Disparity in Academic Ranks



Gender Disparity in Publications

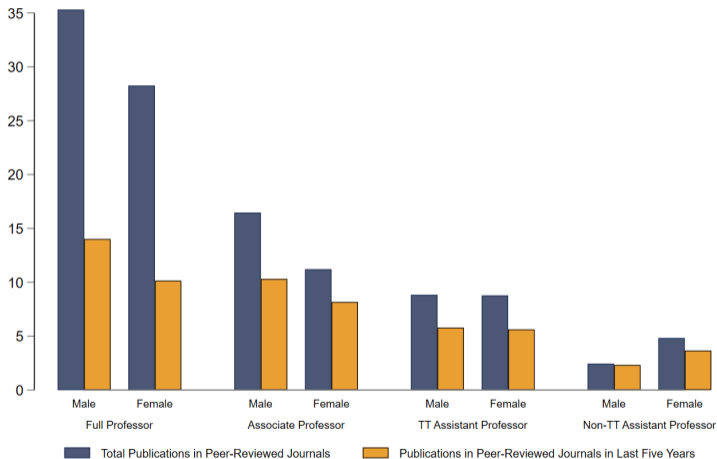
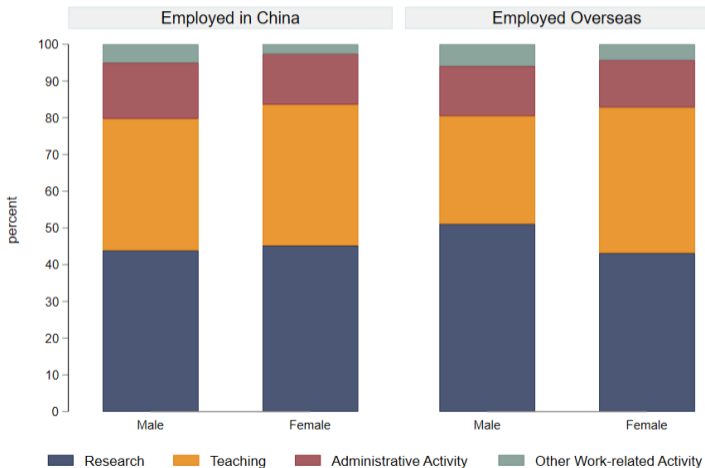


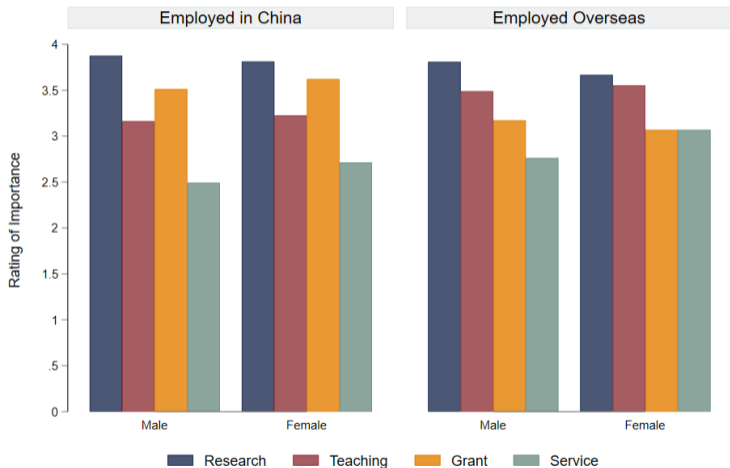
Table 4: Gender Disparity in Employment Ranks and Publications

	Employed in China						Employed Overseas					
	Men		Women		Mean Difference		Men		Women		Mean Difference	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Mean	SD	Mean	SD	(3)–(1)	t-Stat	Mean	SD	Mean	SD	(9)–(7)	T-Stat
Academic Rank												
Full Professor	28.0%	45.0%	27.0%	45.0%	-1.2%	-0.14	48.0%	50.0%	22.0%	42.096	-26.1%**	-2.73
Associate Professor	33.0%	47.0%	37.0%	49.0%	3.6%	-0.40	23.0%	43.0%	22.0%	42.0%	-1.13%	-0.13
Tenure-track (TT) Assistant Professor	31.0%	46.0%	27.0%	45.0%	-4.2%	-0.50	27.0%	45.0%	51.0%	51.0%	24.3%*	-2.42
Non-TT Assistant Professor	8.0%	27.0%	10.0%	30.0%	1.8%	-0.32	2.09	14.0%	5.09	22.0%	2.95%	-0.76
Productivity												
Peer Reviewed (PR) Publications	17.29	20.97	13.76	18.25	-3.53%	-1.00	25.06	36.61	14.15	19.78	-10.91%***	-2.84
PR Publications within last 5 years	9.70	11.29	7.24	8.36	-2.46%	-1.42	9.98	12.10	7.41	10.31	-2.566%**	-2.10
Observations	100		41				52		41			

Time Allocation on Different Job Duties



Importance of Job Duties for Promotion



Gender Pay Gap

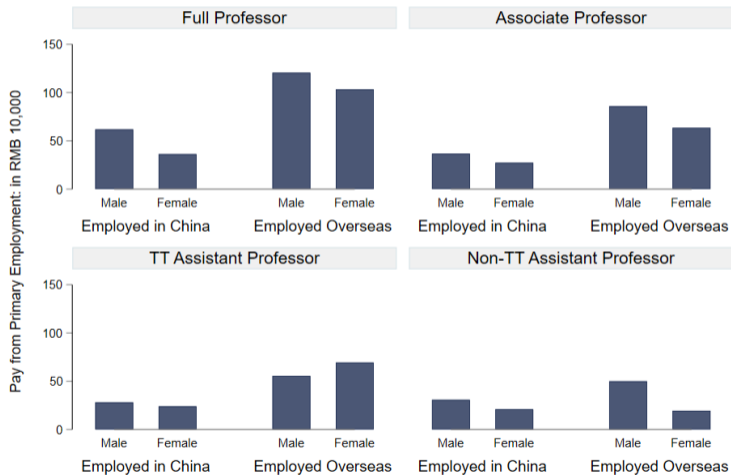


Table 5: Regression of Gender Pay Disparity

Variable: Ln (annual pay)	(1)	(2)	(3)	(4)	(5)	(6)
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female	-0.13 (0.11)	-0.12 (0.11)	-0.09 (0.11)	-0.20** (0.09)	-0.19** (0.09)	-0.19** (0.09)
Age		0.04*** (0.01)	-0.02 (0.01)	-0.02* (0.01)	-0.02** (0.01)	-0.02* (0.01)
Whether Married		0.17 (0.13)	0.24** (0.12)	0.30*** (0.10)	0.29*** (0.10)	0.30*** (0.10)
Whether have a child		-0.29* (0.17)	-0.42** (0.18)	-0.15 (0.14)	-0.18 (0.14)	-0.17 (0.14)
Years of Receiving the Highest Degree			0.07*** (0.02)	0.06*** (0.01)	0.05*** (0.01)	0.04*** (0.01)
Annual Employment Months			0.01 (0.04)	0.01 (0.04)	0.01 (0.04)	0.02 (0.04)
Coursed Taught last year			0.04** (0.02)	0.02 (0.02)	0.02 (0.02)	0.01 (0.02)
Whether has outside Pay			-0.14 (0.11)	0.07 (0.09)	0.00 (0.09)	0.05 (0.09)
Full Professor					0.43** (0.15)	0.35* (0.18)
Associate Professor					0.12** (0.05)	0.17*** (0.02)
Tenure Track Assistant Professor					0.12* (0.07)	0.09 (0.07)
Peer Review Publication Last 5 Year						0.03** (0.00)
Observations	234	234	189	189	189	189
R-squared	0.03	0.24	0.31	0.58	0.61	0.61
Survey Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Employment Rank	No	No	No	Yes	Yes	Yes
Education Rank	No	No	No	Yes	Yes	Yes

Impact of Covid-19 on Changes in Time Allocation

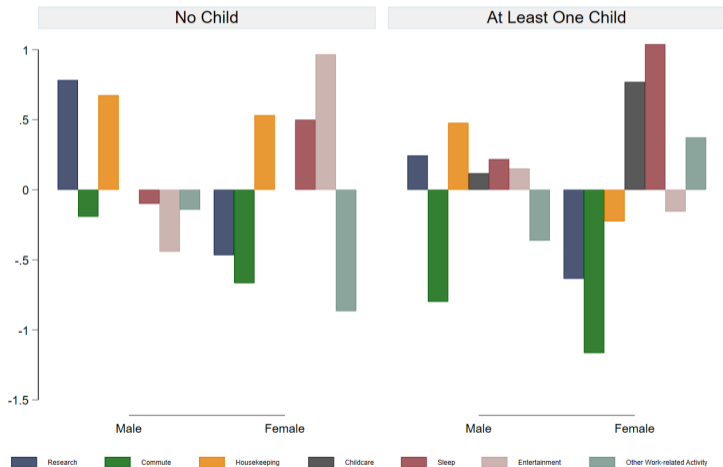


Table 6: Difference in Time Allocated to Activities Before and After Pandemic (Workday)

	No Child				Gender Difference		With Children				Gender Difference	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Men		Women		(1)-(3)	T-Stats	Men		Women		(7)-(9)	T-Stats
	Mean	Std. Dev.	Mean	Std. Dev.			Mean	Std. Dev.	Mean	Std. Dev.		
Change in Research	0.78	4.04	-0.47	0.50	1.25**	2.54	0.20	3.90	-0.63	3.82	0.83***	3.08
Change in Commute	-0.59	4.14	-0.67	0.76	-0.08	-0.37	-0.80	1.89	-1.17	2.36	0.37	0.60
Change in Housework	0.68	0.84	0.53	0.84	-0.15	-0.26	0.48	1.41	-0.23	1.50	-0.70	-1.70
Change in Child Care	0.00	.	0.00	.	0.00	.	0.12	1.91	0.77	2.34	-0.65***	-2.97
Change in Sleep	-0.10	1.33	0.50	0.87	-0.60*	-2.35	0.22	1.04	1.04	4.72	-0.82	-0.82
Change in Leisure	-0.44	0.92	0.97	1.00	-1.41	-1.21	0.15	1.60	-0.16	1.49	0.31**	2.71
Change in Other Work-Related Act.	-0.34	1.65	-0.87	0.81	0.5	1.09	-0.36	2.72	0.37	1.86	-0.74	-1.13
Observations	22		21		43		25		15		40	

Summarize Findings

- Using two waves of a survey among Chinese economists through the listserv maintained by the CES and its conference events, we capture a current profile of Chinese academic economists employed in China and overseas.
 - The main distinction is a significant wage premium for the overseas sample and a slightly heavier teaching workload. However, despite these differences, there are many similarities in the characteristics of these two groups, such as research output and time allocation for different job tasks.
 - Although the typical differences in gender comparisons were not statistically significant among Chinese and overseas groups, gender disparity in wage earnings is noticeable.
 - COVID-19 imposed the biggest impact and penalty on working mothers, who suffered the most lost time on research while picking up the additional burden of childcare.