

China's Thousand Talent Program and US Research Discrimination

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Four Main Points

- (1) China has experienced a terrible “brain drain”—80-90% of its very best talent refuse to return to China fulltime--

 - America has only benefitted from other countries’ “drain” so cannot understand China’s deep desire to bring home their best.
- (2) Li Yuanchao set up the Thousand Talents Plan (TTP) in 2008 to create an “innovative society” through “reverse migration” of Chinese talent to bring cutting edge technology from the West Not to steal US tech!
- (3) Too many Mainland–born Chinese working in US, who are part-time participants in the TTP, are truly abusing access to US research jobs, funding and grants;
- (4) But the USG exaggerates and securitizes this misbehavior and threatens to decouple US and Chinese scientific collaboration which would hurt the world.

Why the Problem? 1

1. In 2009, the CCP used mass mobilization, quotas, propaganda, money in “search for talent.”
 - Chinese institutions and cities cajoled and gave financial incentives to attract overseas talent while ignoring international norms.
 - More recently, some universities, research institutes, hospitals and companies reward Mainland-born Chinese who transfer new technologies back to China, sometimes without concern for IP rights.
2. Individual researchers seek “rents” by filling “shortages” in China’s technology market;
 - Circa 2005, transferring “second tier” technology was enough for returnees to succeed back in China,
 - now need to transfer leading tech to get research positions, promotions and large profits.
 - Foreign TTP program pays Americans to transfer US tech to Chinese institutions.

Why the Problem? 2

3. Li Yuanchao wanted people to return permanently, but only 25% of TTP participants return “full-time,”

- 75% join “part-time” and remain in US even as they interact with institutes in China.

4. USG mistrusts China due to cyber theft, military intelligence, IP infringement, opaque talent programs;

- Talent programs move technology because information is transferred when talent moves;
- “doesn’t involve export of physical goods.”#

5. Trump Administration believes economic security = national security, so fear of China’s rise securitizes collaborative research.

Alex Joske, “Picking flowers, making honey:’ The Chinese military’s collaboration with foreign universities,” *Policy Brief, Report No. 10/2018*, Australian Strategic Policy Institute.

My research team analyzed the quality of 1400 CVs of participants in three national programs

(1) h-index

- **Based on numbers and quality of scientist's most cited papers and the number of citations they received.**

(2) Average Annual Impact Factor of publications (AAIF)

- **Based on impact factor of all journals in which they published, calculating an annual average impact factor.**

(3) Annual number of publications/year

Part-timers much better researchers than Full-timers

Table 1. Quality of Part-time vs. Full-time participants in TTP

VARIABLES	h-index	Impact of journals	No. Papers/yr.
<u>1. 1000 Talents part-time</u>	0.581***	0.760***	0.524***
(still overseas)	(0.165)	(0.255)	(0.200)
<u>2. 1000 Talents full-time</u>	-0.172	0.040	-0.096
(already back to China)	(0.199)	(0.265)	(0.212)
<u>3. Changjiang part-time</u>	0.593***	0.555**	0.673***
(still overseas)	(0.147)	(0.256)	(0.188)
No. of cases	833	833	833
R-squared	0.117	0.154	0.079

Note: Statistically significant findings; **p<0.05; *p<0.01.
Each group is compared to Changjiang Scholar full-time.**

Quality of part-time participants, by country

- **Our data on the three measures of quality, by country, show that the US is the top beneficiary of China's brain drain and US has top researchers in the TTP, China's top national talent program.**
- **The "most cited" (h-index) researchers are in UK, US and Canada.**
- **Those publishing in best journals (impact factor) are in Canada and US.**

Co-publications with China are good for America**

- NIH quoted to the effect that “excessive” co-authorship with scholars in China *is a sign of potential technological theft*.
- But scientific community sees co-publication positively.
- Since 2010, percent of US publications from international collaboration rose from 25.2% to 37.0%.
- US publications would have declined without PRC co-authors.

**J. Lee & J. Haupt, “Winners and losers in US-China scientific research collaborations,” *Higher Education*, Nov. 2019, doi.org/10.1007/s10734-019-00464-7.

America's Challenge to TTP since April 2018 (2015)

- **FBI mobilized universities, Congress, NIH and NSF to investigate.**
- **Found “shadow” laboratories in China mirroring work in the US.**
- **Peer reviewers of NSF or NIH grant applications shared information with colleagues in China.**

But major transgression is “double dipping”

- **taking two full-time jobs or getting US and Chinese grants for the same project**

Public evidence shows few examples of outright theft or illegal transfer of technology through TTP.

NIH Findings, circa June 2020

- 399 scientists “of possible concern,” 44 more flagged by their home institutions in US.
- Investigations of 256 scientists found 63% “positive,” 19% “negative,” 18% “pending.”
- Totals funds involved was \$164 million
- 70% failed to tell NIH of a foreign grant;
- 54% did not disclose participation in foreign talent program.
- 5% violated peer-review system.
- Median age is 56 (48-59)—senior researchers!!
- *54 professors resigned, 93% are Mainland-born Chinese.*

“1000 Grains of Sand” hypothesis encourages ‘Racial Profiling’

- **FBI believes Chinese intelligence uses “1000 grains of sand” strategy to compel Chinese researchers in US to spy.**
- **FBI Director Wray: “*China has pioneered a societal approach to stealing innovation*” and everyone is in on it, *including 130,000 Chinese grad students and researchers coming to US yearly.***
- **Former FBI agent, Paul Moore, who created that concept now rejects it.**

Data show Racial Profiling **

- In 1997- 2009, 17% of defendants indicted under Economic Espionage Act (1996) had Chinese names;
- In 2009-2014, 52% of defendants had Chinese names.
- 21% of Chinese charged, then exonerated of serious crime—which was twice rate of wrongful accusations (11%) among non-Chinese.
- “Pretextual prosecutions”—cutting a deal over a lesser charge when prosecutors can’t prove serious crime.

** Andrew C. Kim, “Prosecuting Chinese ‘Spies’: An Empirical Analysis of the Economic Espionage Act,” *Cardozo Law Review*, Dec. 2018.

What should Chinese do?

- **Publicly recognize their share of responsibility for problem**
- **End secret contracts with researchers.**
- **Continue reform of scientific environment and fight cheating, fraud, IPR theft by local scientists and returnees and enforce tough penalties.**
- **Transparency on “National High-end Foreign Experts Recruitment Plan” (which has replaced TTP).**
- **End secret payments to Foreign TTP participants (Leiber, MOFFIT).**
- **Publicize all joint labs.**
- **Encourage ethnic Chinese researchers in US who get Natural Science Foundation of China (NSFC) grants to put it on NSF or NIH applications.**

What U.S. side should do

- Be more transparent on true extent of abuse.
- FBI should stop “pretextual prosecutions.”
- FBI should run more training programs on racial profiling.
- Investigate, but surgical strikes only.
- People in DC are thinking that NSF and NIH should restrict Chinese participants in national talent programs from applying for grants until China becomes transparent.
- Congress should spend more on R&D—compete with China.

US-China Dialogue on Talent?

- **Reestablish bilateral dialogue between US and China on academic and scientific exchanges.**
- **Could start with “Track 2” meetings but need to move to ministerial level as soon as some trust reestablished.**
- **Need partners on both sides who are willing to try to slow decoupling.**
- **Can your organization mediate this issue?**

Thank You!!

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