

What are your chances of finding an academic job?

Professional Development Seminar

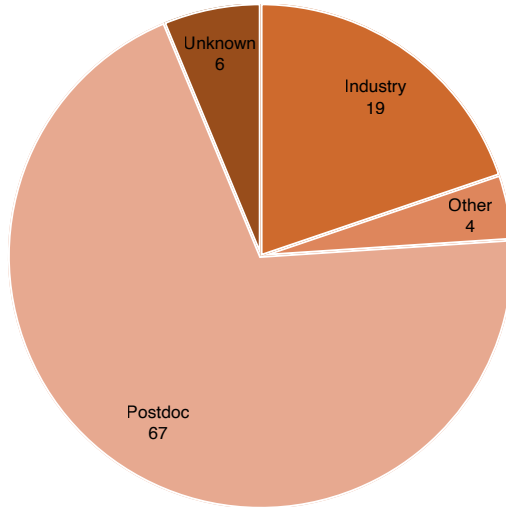
September 9, 2020

Part I

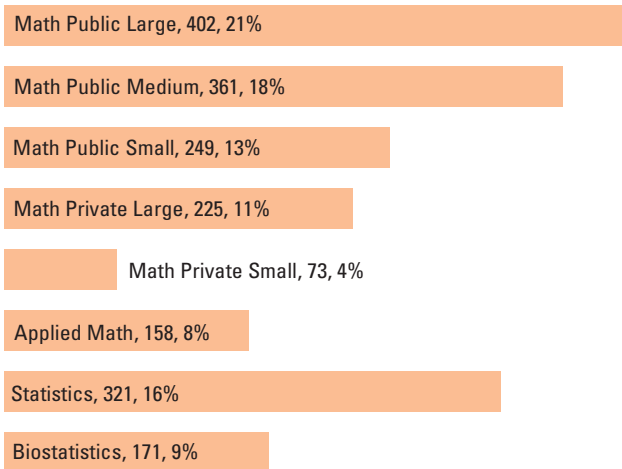
Postdoc jobs

Stony Brook: first job after PhD

Our department: **96 PhD** graduates between 2010 and 2020

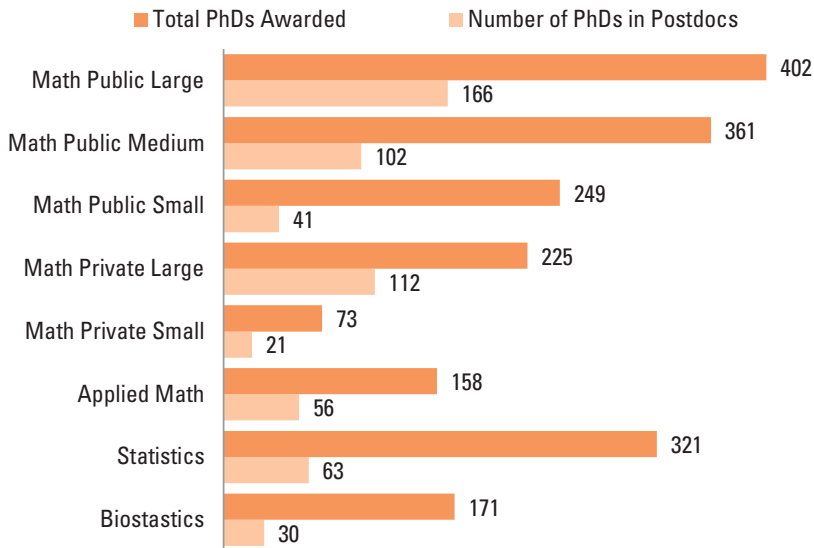


Degrees awarded (2018 Annual Survey, AMS)

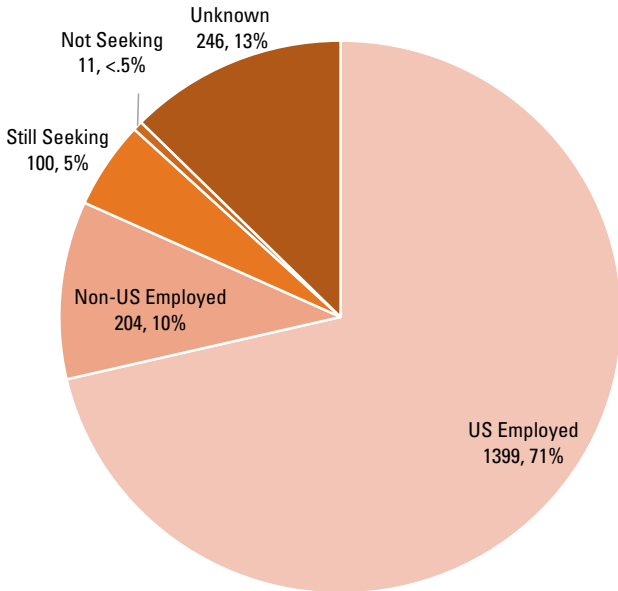


Total degrees awarded: **1960** (about 50% in pure math)

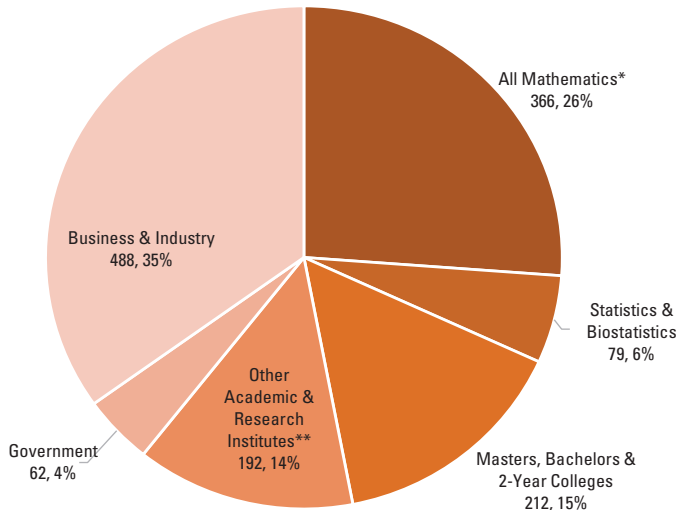
Postdocs



Employment status (2018)



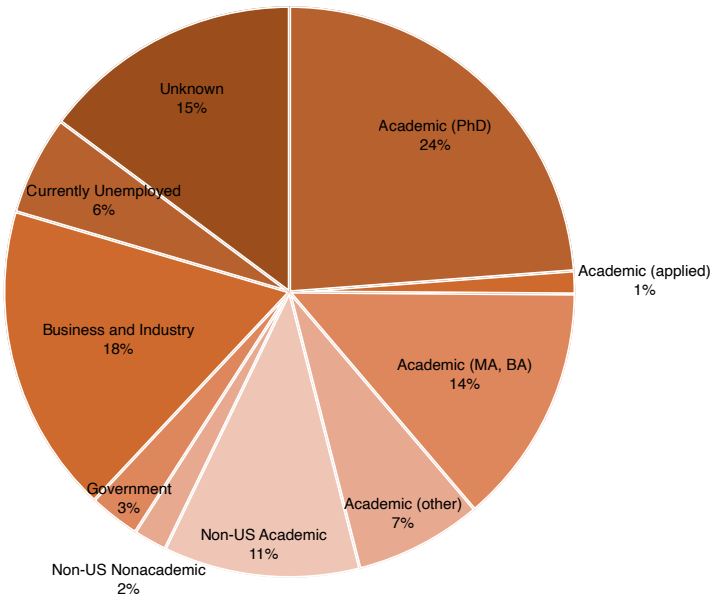
US employed, by type of employer (2018)



* Includes all Math Public, Math Private, and Applied Math departments.

** Other Academic consists of departments outside the mathematical sciences including numerous medical-related units.

Employment status (2018, pure math)

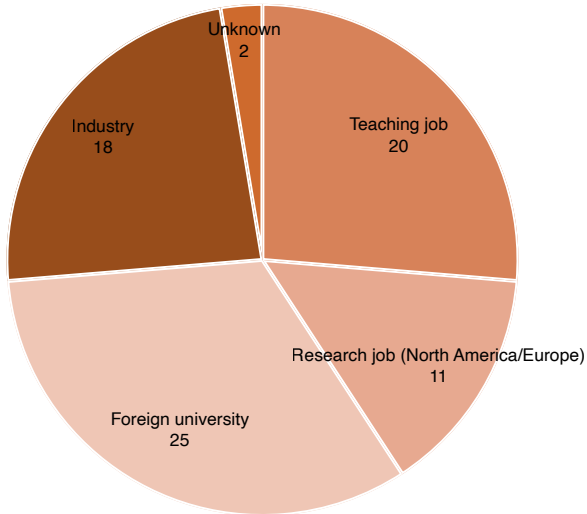


Part II

Faculty jobs

Stony Brook: long-term statistics

Our department: **76 PhD** graduates between 2000 and 2010



Some calculations

According to the 2017/18 Annual Survey (AMS):

- ▶ 194 departments (in pure math)
(Harvard, . . . , Bowling Green State)
- ▶ about 5680 permanent faculty jobs
- ▶ about 980 students got a PhD in pure math
- ▶ about 610 in the kind of fields found here

Say the average professor retires after 30 years.

$\Rightarrow 5680 \div 30 = 190$ tenure-track jobs per year

\Rightarrow about 1 job per department per year.

Conclusion: About 1 faculty job per 5 PhD graduates

Some more calculations

According to the 2017/18 Annual Survey (AMS):

- ▶ 50 large public/private departments (in pure math) (Harvard, . . . , Stony Brook, . . . , North Carolina State)
- ▶ about 2100 permanent faculty jobs
- ▶ about 510 students got a PhD in pure math
- ▶ about 380 in the kind of fields found here



Say the average professor retires after 30 years.

$\Rightarrow 2100 \div 30 = 70$ tenure-track jobs per year

\Rightarrow about 1-2 jobs per department per year.

Conclusion: About 1 faculty job per 7 PhD graduates

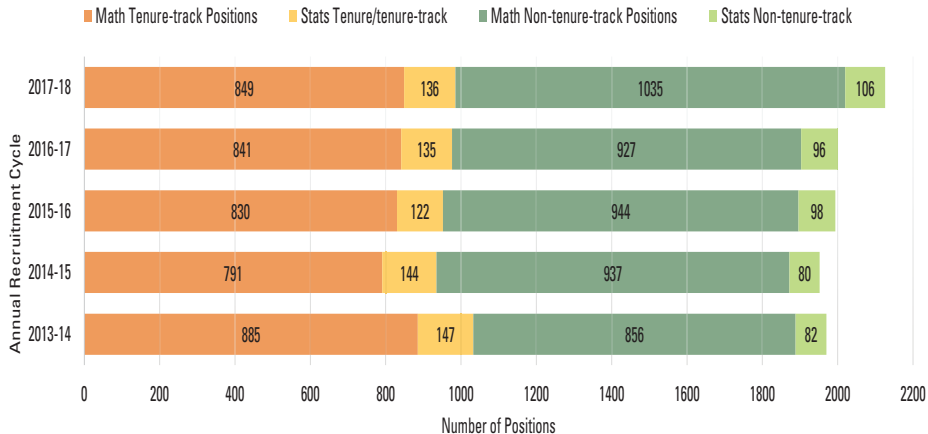
Stony Brook calculations

At the Stony Brook math department:

- ▶ 9-10 PhD students graduate each year
(110 since 2008, 72 since 2013)
- ▶ 5-6 postdoc jobs each year
- ▶ ≤ 1 tenure-track job each year
(8 since 2008, 5 since 2013)

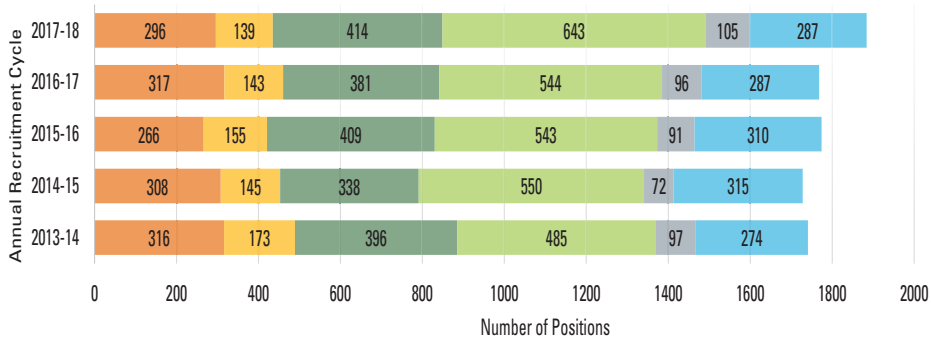
Conclusion: About 1 faculty job per 14 PhD graduates

Positions offered (2017/18)

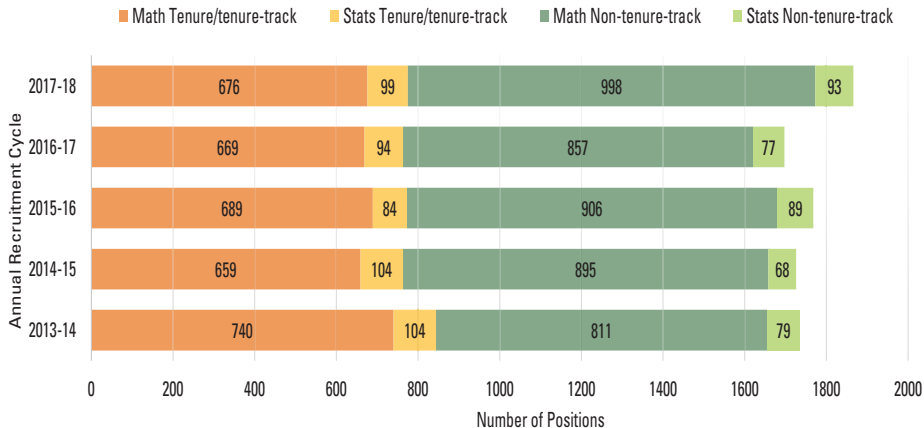


Positions offered (2017/18)

- Doctoral Math Tenure/tenure-track
- Masters Tenure/tenure-track
- Bachelors Tenure/tenure-track
- Doctoral Math Non-tenure-track
- Masters Non-tenure-track
- Bachelors Non-tenure-track



Positions filled (2017/18)



Tenure-track jobs filled (PhD): 218 (our estimate: 190)

Tenure-track jobs filled (MA, BA): 458

Conclusions

- ▶ Over the past 10 years, about **75%** of our PhD students got a postdoc job after graduation.
- ▶ In the 2000–10 cohort, about **75%** are still in academia:
 - ▶ about 1 in 4 has a teaching job in the U.S.
 - ▶ about 1 in 3 has a university job abroad
 - ▶ about 1 in 7 has a research job (matches rough estimate)
- ▶ What are your chances of finding an academic job?
 - ▶ **3 in 4** if going abroad or teaching jobs are okay.
 - ▶ **1 in 7** if you only consider research jobs at larger math departments in North America or Europe.
 - ▶ **1 in 14** (?) if it must be a place like Stony Brook