

# Data Appendix for “Survey of Pre-Doctoral Research Experiences in Economics”

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## Table of Contents

<b>Survey Methodology</b>	<b>4</b>
<b>Consent</b>	<b>8</b>
<b>Demographic Background</b>	<b>10</b>
Are you a U.S. citizen or permanent resident? . . . . .	11
Which of the following best represents your racial or ethnic heritage? . . . . .	12
To which gender do you most identify? . . . . .	13
In what year did you receive your bachelor’s degree? . . . . .	14
What is the highest level of schooling completed by your parents or guardians? . . . . .	15
<b>Current Institution Characteristics</b>	<b>16</b>
What is the type of institution affiliated with your current position? . . . . .	17
Is your current position part-time or full-time? . . . . .	18
When did you start your current position and when do you plan to leave? . . . . .	19
Is the institution located in the United States? . . . . .	22
Does the institution provide international visa support for you or others in your position? . . . . .	23
What is the name of the institution affiliated with your position? . . . . .	24
Please tell us the specific program, group or lab you work for . . . . .	25
<b>Academic Background</b>	<b>26</b>
Did you complete your undergraduate studies in the United States? . . . . .	27
What is the name of your undergraduate institution? . . . . .	28
Undergraduate field(s) of study. Please select all that apply. . . . .	29
Do you hold a master’s degree? . . . . .	30
Did you complete your graduate studies in the United States? . . . . .	31
What is the name of your graduate institution? . . . . .	32
Graduate field(s) of study. Please select all that apply. . . . .	33
What math classes had you taken prior to the start of your position? . . . . .	34
What economics classes had you taken prior to the start of your position? . . . . .	35
What programming or statistical tools had you known prior to the start of your position? . . . . .	36
What experiences did you have prior to the start of your position? . . . . .	37
<b>Application Process for Position</b>	<b>38</b>
How did you find out about your current position? . . . . .	39
What materials did the application process for your position require you to submit? . . . . .	40

When did you start the application process and when did you receive an offer? . . . . .	41
Did the application process for your position include coding challenges? . . . . .	43
Did the coding challenge require a specific programming or statistical tool? . . . . .	44
What programming or statistical tools did you use for your coding challenges? . . . . .	45
How long did the coding challenges cumulatively take? . . . . .	46
Did the application process for your position include interviews? . . . . .	47
Who interviewed you? . . . . .	48
What types of topics were discussed during your interviews? . . . . .	49
How many other post-undergraduate research positions did you apply to concurrently? .	50
<b>Day-to-Day Life</b>	<b>51</b>
On average, how many hours per week do you spend on the following activities? . . . .	52
On average, what fraction of hours do you spend on the following activities? . . . . .	53
Which programming or statistical tools do you use in your position? . . . . .	55
What is your annual salary in US dollars? . . . . .	56
Does your position provide free health insurance? . . . . .	57
What for professional development does your institution provide? . . . . .	58
How frequently do you exchange messages with your PI(s)? . . . . .	61
How frequently do you have a conversation with your PI(s) . . . . .	62
How frequently do you discuss your professional development or career with your PI(s)?	63
In your workplace, how many people are in similar position as yours? . . . . .	64
How frequently do you interact with other individuals in a similar position to you? . . . .	65
How many letters of recommendation do you plan to get from this position? . . . . .	66
Have you or do you anticipate co-authoring papers with your PIs in this position? . . . .	67
How did your current position affect your interest in applying for PhD programs . . . . .	68
Please indicate your current status with regards to applying to PhD programs . . . . .	69
Will you be reapplying to PhD programs in the future? . . . . .	70
What do you expect to do instead of applying to PhD programs? . . . . .	71
What is the name of the program and institution you are attending? . . . . .	72
<b>Open-Ended Responses</b>	<b>73</b>
What is your advice to students applying to post-undergraduate research experiences? . .	73

## Survey Methodology

We collected responses for our survey in June and July of 2020. We recruited participants through the following methods:

1. We contacted current post-undergraduate, pre-doctoral researchers at the following academic institutions: Abdul Latif Jameel Poverty Action Lab, Columbia University<sup>1</sup>, Harvard University<sup>2</sup>, Innovations for Poverty Action, Massachusetts Institute of Technology<sup>3</sup>, National Bureau of Economic Research, Northwestern University<sup>4</sup>, New York University<sup>5</sup>, Princeton University<sup>6</sup>, Stanford University<sup>7</sup>, UC Berkeley<sup>8</sup>, University of Chicago<sup>9</sup>, and Yale University<sup>10</sup>.
2. We contacted current post-undergraduate, pre-doctoral researchers at the following non-academic institutions: the Consumer Financial Protection Bureau, the Federal Reserve Bank of New York, the Federal Reserve Bank of Chicago, the Federal Reserve Board of Governors, the International Monetary Fund, Microsoft Research, RAND Corporation, and the World Bank.
3. We advertised our survey on Twitter using our personal Twitter accounts and the #EconTwitter hashtag.

We received a total of 410 clicks on our survey distribution link, and 258 participants completed the survey. All completed responses were manually validated using the email address provided by participants. We limited our analytic sample to valid participants in recent full-time positions at U.S. institutions, leaving us with a total of 203 responses. We decided against presenting results for non-U.S institutions due to limited sample size. Table 1 explains the filtering criteria we employed in further detail. Table 2 presents counts of participants by institution in our analytic sample.

A number of questions were optional for participants to answer. Table 3 provides the percent of responses non-missing in our analytic sample for each optional question. The remaining of this data appendix will consist of our survey instrument as well as tabulations or summary statistics by institution type for every close-ended question.

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<sup>1</sup>Columbia Business School

<sup>2</sup>Harvard Economics, Harvard Kennedy School, and Opportunity Insights Lab

<sup>3</sup>MIT Economics

<sup>4</sup>Global Poverty Research Lab

<sup>5</sup>NYU Stern School of Business

<sup>6</sup>Industrial Relations Section and Princeton Public Finance

<sup>7</sup>Stanford Graduate School of Business, Stanford Institute for Economic Policy Research, and Stanford Law School

<sup>8</sup>UC Berkeley Economics and UC Berkeley Haas School of Business

<sup>9</sup>Becker Friedman Institute, Energy & Environment Lab, and University of Chicago Booth School of Business

<sup>10</sup>Tobin Center for Economic Policy

Table 1: **Sample Sizes**

Criterion	N
Clicked on survey distribution link	410
Consented and finished survey	258
Valid e-mail	254
Full-time position	247
Institution in U.S.	226
Position end date $\geq$ 2018	222
Position started $\leq$ March 2020	203

Note: Sample sizes are cumulative of criteria; i.e., they indicate the number of observations given a criterion and all preceding criteria.

Table 2: **Institution Counts**

Academic		Non-academic	
Institution	Count	Institution	Count
Stanford	27	Fed system	26
Harvard	21	RAND	17
UChicago	20	IMF	11
Yale	15	CFPB	4
Princeton	11	Microsoft Research	3
Northwestern	9	Other non-academic	4
MIT	6		
NYU	6		
Columbia	5		
JPAL / IPA	4		
NBER	4		
Other academic	10		
<b>Total</b>	<b>138</b>		<b>65</b>

Note: Institutions with small cell counts are grouped to protect confidentiality.

Table 3: **Percent Non-Missing for Optional Questions**

Variable	Non-Missing
U.S. citizen or permanent resident	99.01%
Racial or ethnic heritage	98.03%
Gender	99.01%
Year of bachelor's degree	99.01%
Parent highest level of schooling	98.52%
Name of position's program, group, or lab	67.49%
Name of bachelor's institution	84.73%
Name of master's institution	78.43%
Name of PhD institution	92.21%

Note: Percents for *Name of master's institution* and *Name of PhD institution* are conditional on respondents answering that they hold a master's degree and that they are attending a PhD program in economics or a related field, respectively.

# **Survey of Post-Undergraduate Research Experiences in Economics**

Thank you for your interest in our survey!

## **Study Overview**

Participating in a post-undergraduate research experience (e.g., a predoctoral fellowship, full time research assistant position) is becoming increasingly common for incoming PhD students in economics and related fields (Schlauch and Startz 2018). However, often the information on how to get these positions and what they entail is passed only through informal networks. The goal of this survey is to make this information more transparent and widely available.

This survey will take 10-15 minutes to complete.

Throughout the survey, you will be asked the following information:

1. Demographic background;
2. Current institution characteristics;
3. Academic background;
4. Application process for position;
5. Day-to-day environment;
6. Future plans.

## **Voluntary Participation**

Participation in this survey is completely voluntary. To ensure the accuracy of responses, we ask that you provide a work email address (e.g., the ones that end with @school.edu or @company.com). Please rest assured that the collection of this information will be used solely for validation and communication. Email addresses will be removed from all responses during analysis.

Your private information collected as part of the research, even if identifiers are removed, will not be used or distributed for future research studies.

## **Compensation**

There is no compensation for participating in this survey.

## **Privacy and Confidentiality**

All data collected will be stored on a secure server and analyzed in an anonymous way. No raw, individual response-level data will be made public.



## **Risks and Benefits**

There are no foreseeable risks associated with this survey. The benefits which may reasonably be expected to result from this research include increasing the accessibility of post-undergraduate research experiences in economics and related fields. The research team cannot and does not guarantee or promise that you will receive any benefits from this survey.

## **Contact Information**

All questions, comments or complaints are welcome! Please send them to Dominic Russel (dom-russel@gmail.com), Pauline Liang (paulineliang7829@gmail.com), and Zong Huang (zongyhuang@gmail.com).

If you are not satisfied with how this survey is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the Stanford Institutional Review Board (IRB) to speak to someone independent of the research team at IRB2-Manager@lists.stanford.edu, or toll free at 1-866-680-2906. You can also write to the Stanford IRB, Stanford University, 1705 El Camino Real, Palo Alto, CA 94306.

**Please indicate below whether you agree to participate in the study.**

- I agree to participate in the survey.
- I do not agree to participate in the survey.

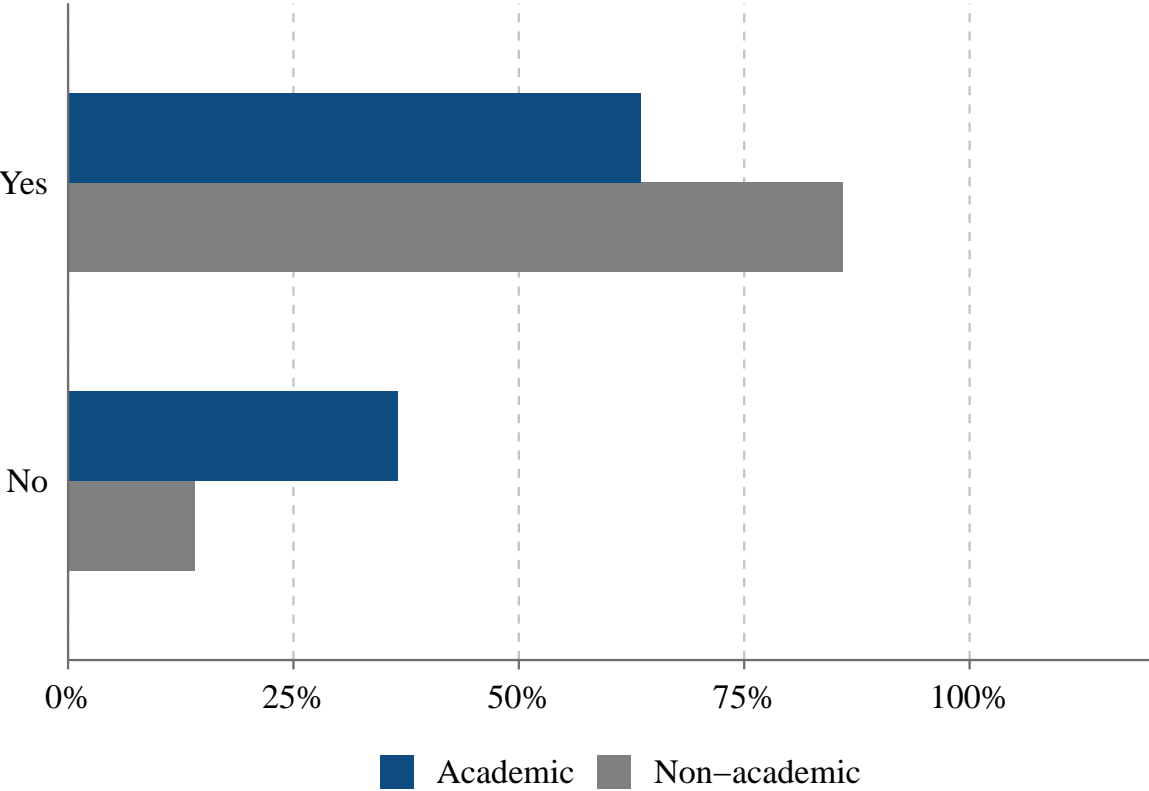
**What is your work email address?**

## **Demographic Background (Optional)**

Please tell us about your demographic background. This section is optional. If you prefer not to answer any question in this section, please click next.

**Are you a U.S. citizen or permanent resident?**

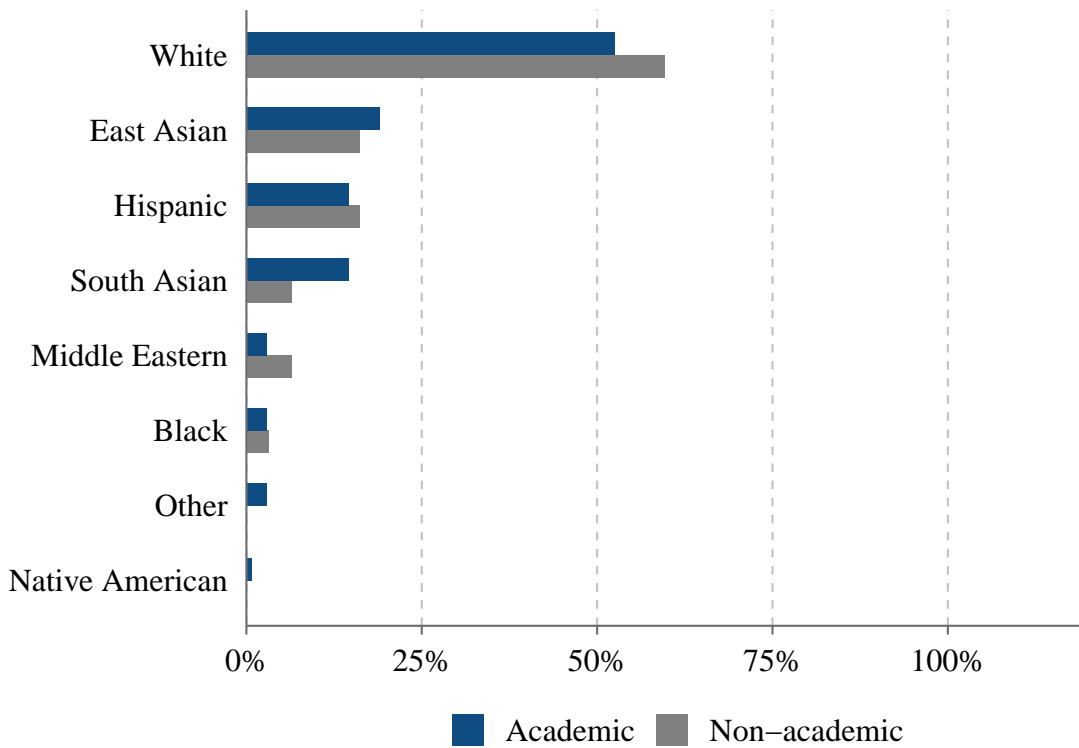
- Yes
- No



	Academic	Non-academic
Yes	64%	86%
No	36%	14%

**Which of the following best represents your racial or ethnic heritage? Please select all that apply.**

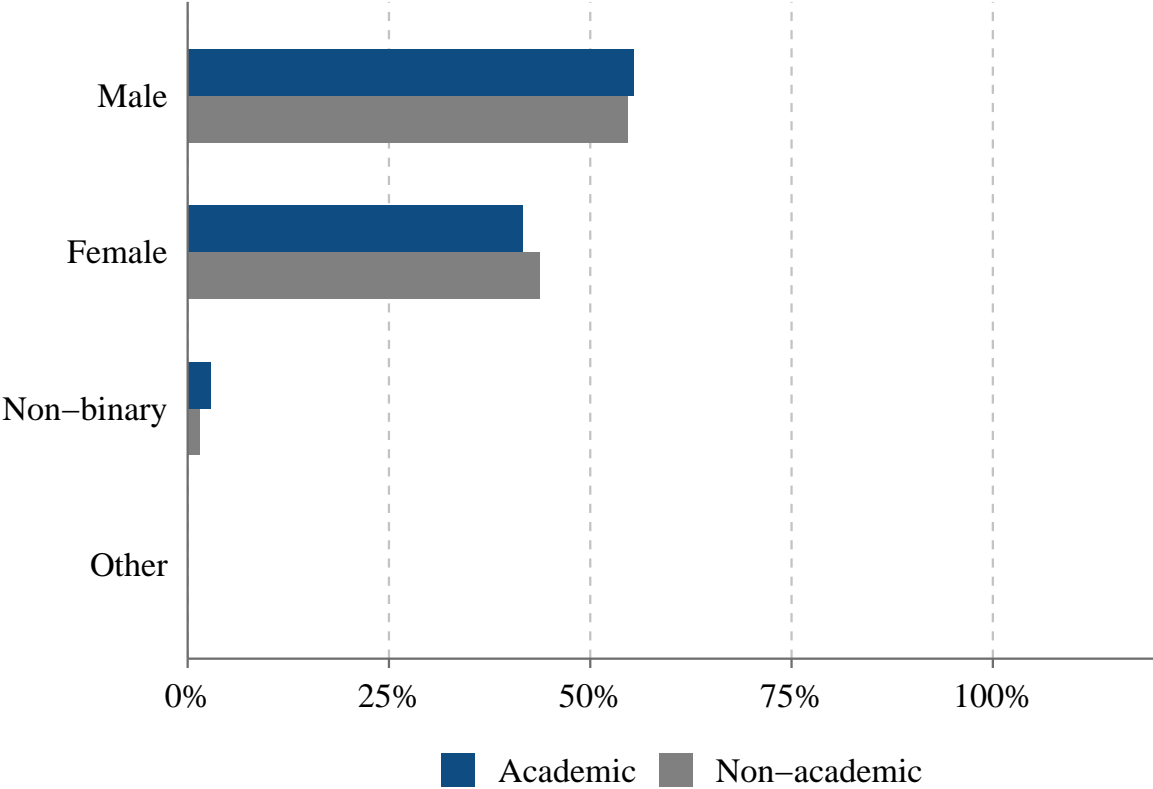
- Black, Afro-Caribbean, or African American
- East Asian or Asian American
- Hispanic, Latino, or Spanish
- Middle Eastern or Arab American
- Native American or Alaskan Native
- Non-Hispanic White or Caucasian
- South Asian, Indian, or Indian American
- Other



	Academic	Non-academic
White	53%	60%
East Asian	19%	16%
Hispanic	15%	16%
South Asian	15%	6%
Middle Eastern	3%	6%
Black	3%	3%
Other	3%	0%
Native American	1%	0%

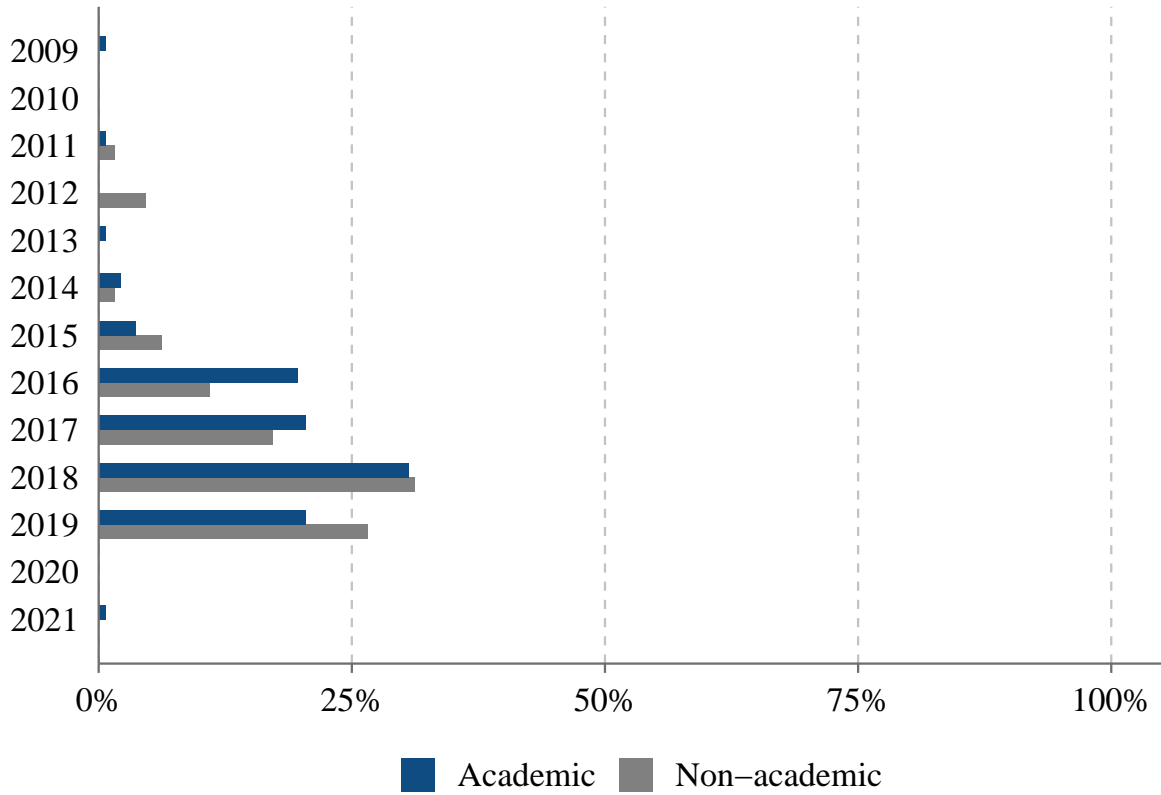
**To which gender do you most identify?**

- Male
- Female
- Non-binary
- Other



	Academic	Non-academic
Male	55%	55%
Female	42%	44%
Non-binary	3%	2%
Other	0%	0%

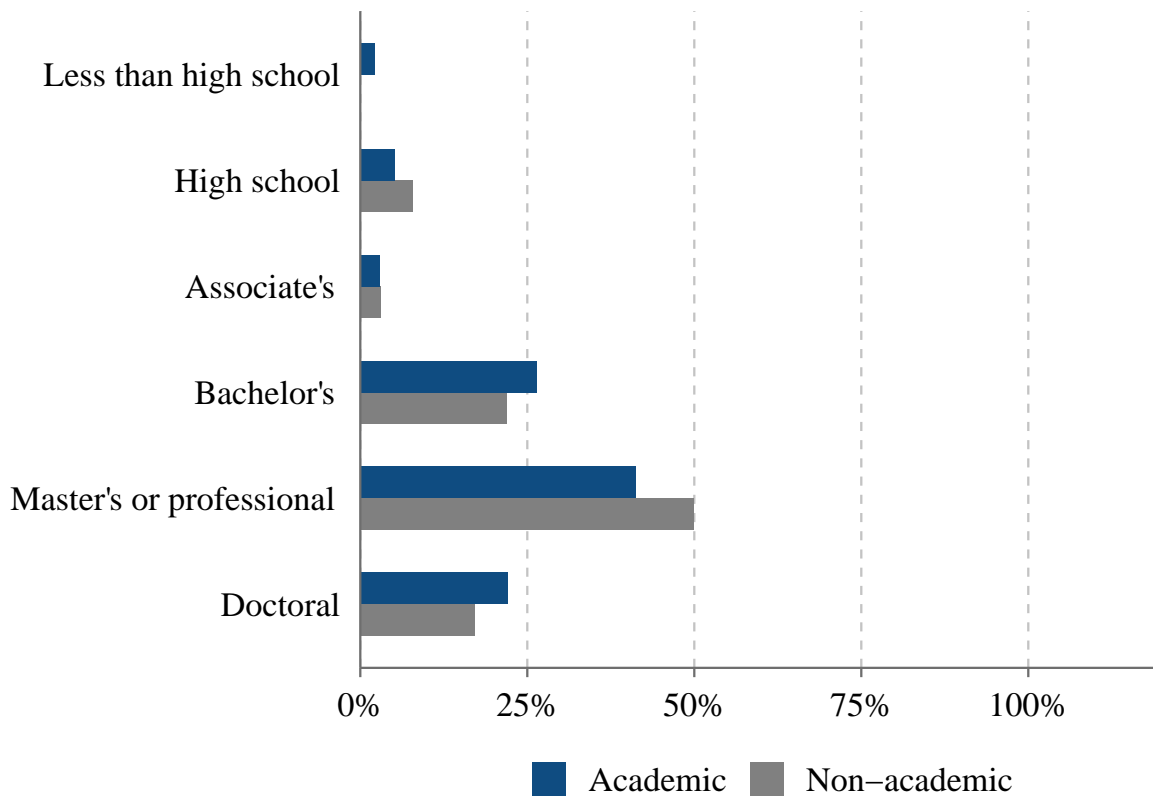
**In what year did you receive your bachelor’s degree?**



	Academic	Non-academic
2009	1%	0%
2011	1%	2%
2012	0%	5%
2013	1%	0%
2014	2%	2%
2015	4%	6%
2016	20%	11%
2017	20%	17%
2018	31%	31%
2019	20%	27%
2021	1%	0%

**What is the highest level of schooling completed by your parents or guardians?**

- Less than a high school diploma
- High school diploma or equivalent (e.g., GED)
- Associate’s degree
- Bachelor’s degree
- Master’s or professional graduate degree (e.g., MD, MBA, JD)
- Doctoral degree



	Academic	Non-academic
Less than high school	2%	0%
High school	5%	8%
Associate’s	3%	3%
Bachelor’s	26%	22%
Master’s or professional	41%	50%
Doctoral	22%	17%

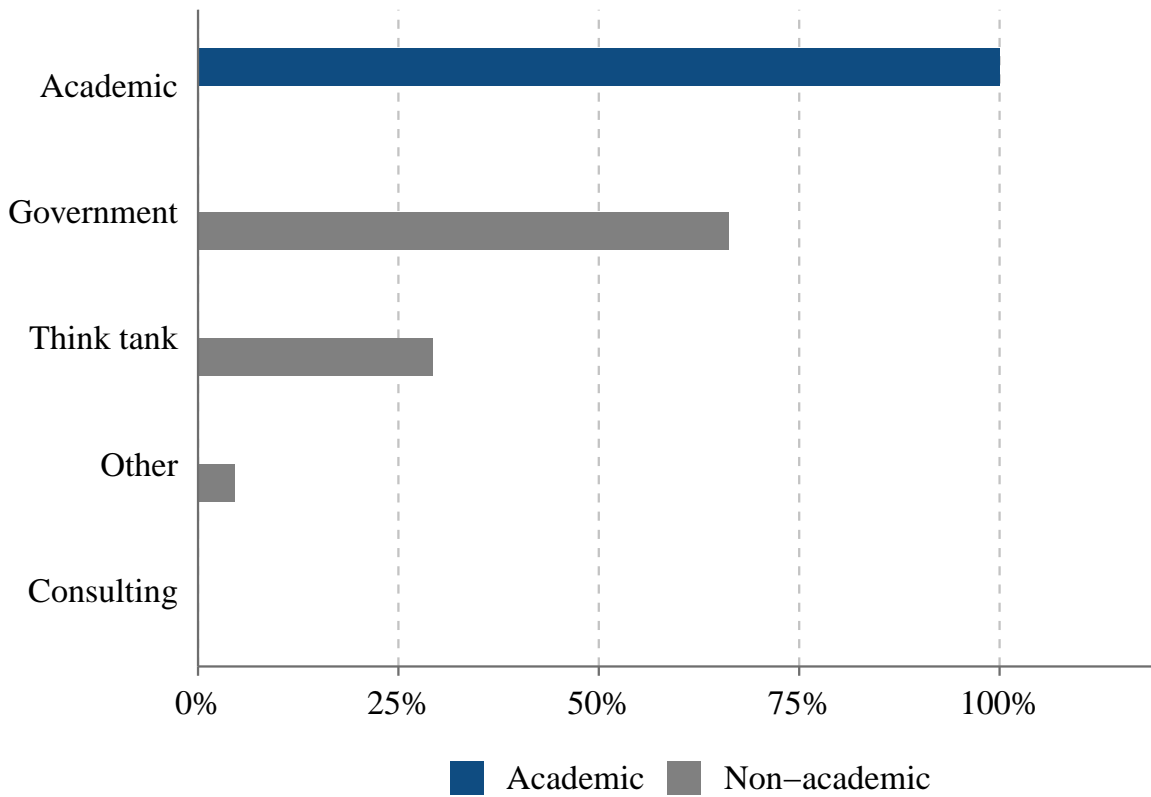
## **Current Institution Characteristics**

Please tell us about the institution for your current position. If you are a former post-undergraduate researcher, please answer all questions referring to current position as if you were still in your most recent post-undergraduate research experience.



**What is the type of institution affiliated with your current position?**

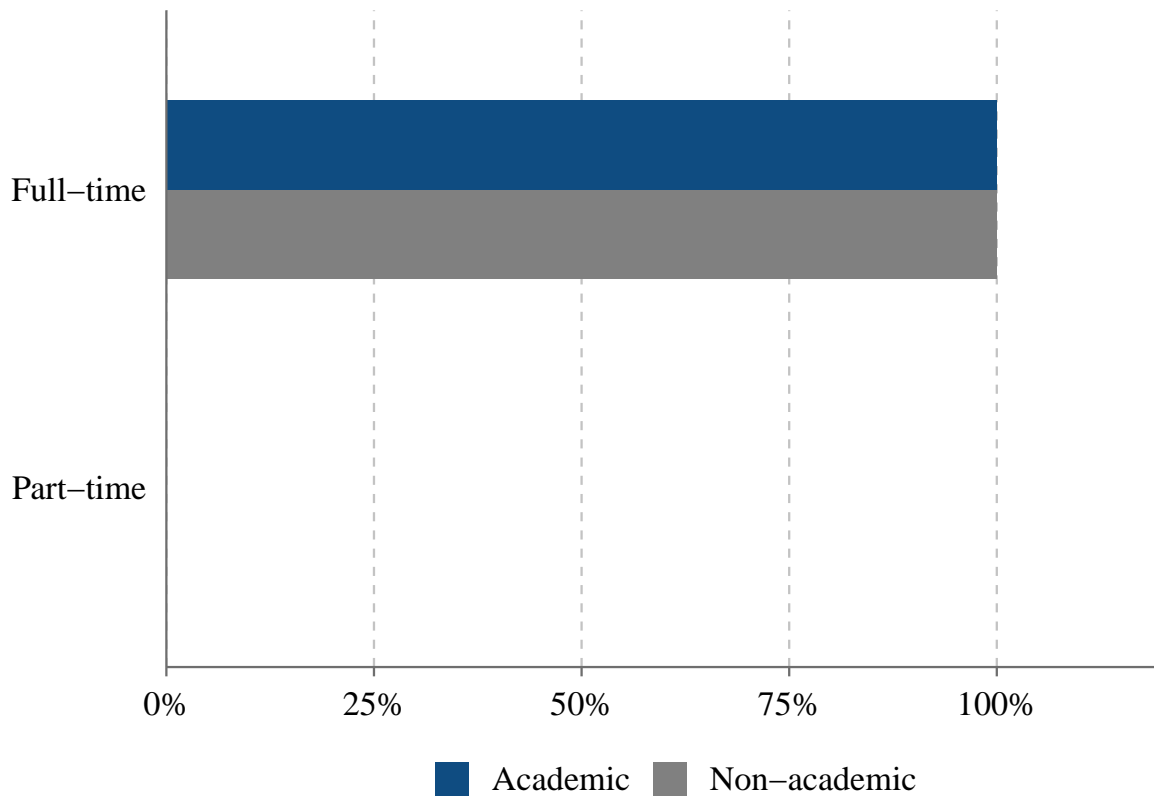
- Academic (e.g., a university or research lab)
- Government agency (e.g., Federal Reserve, IMF)
- Economic consulting (e.g., NERA, Cornerstone)
- Think tank (e.g., RAND, Brookings)
- Other



	Academic	Non-academic
Academic	100%	0%
Government	0%	66%
Think tank	0%	29%
Other	0%	5%
Consulting	0%	0%

**Is your current position part-time or full-time?**

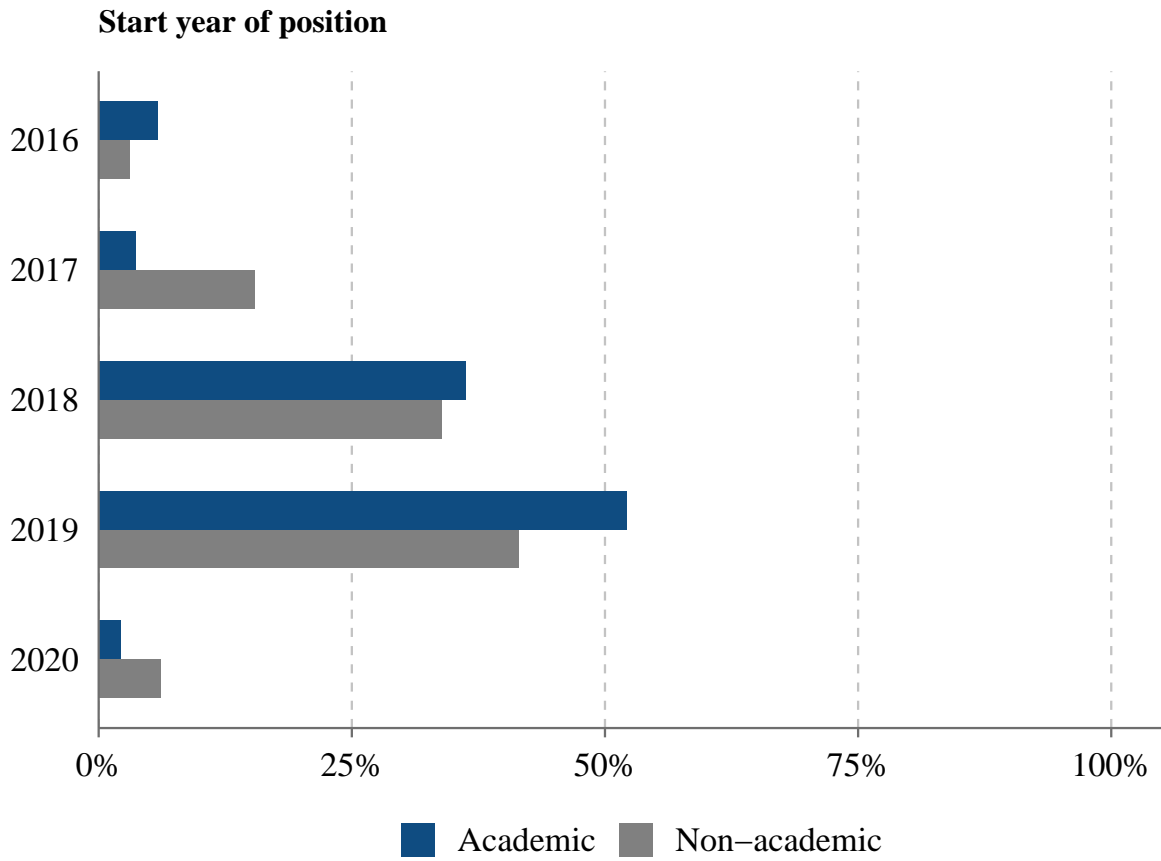
- Full-time
- Part-time



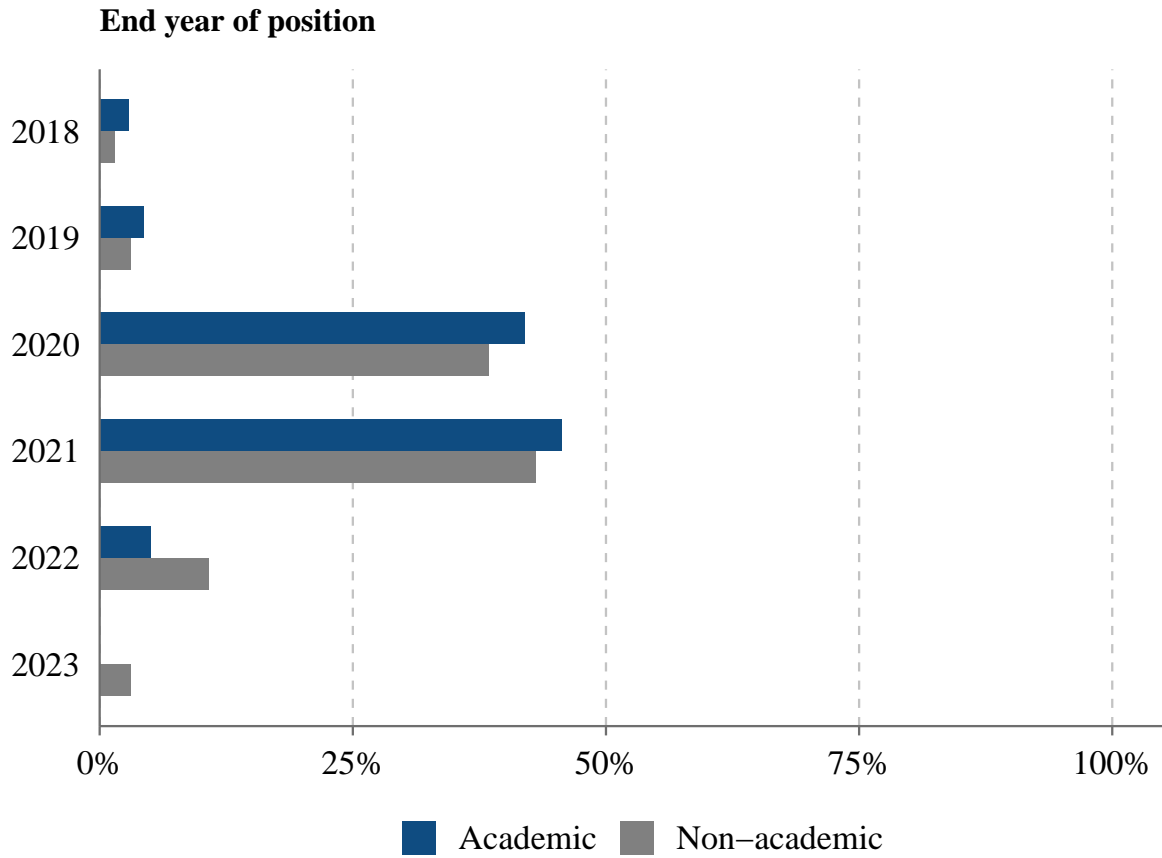
	Academic	Non-academic
Full-time	100%	100%
Part-time	0%	0%

**When did you start your current position and when do you plan to leave?**

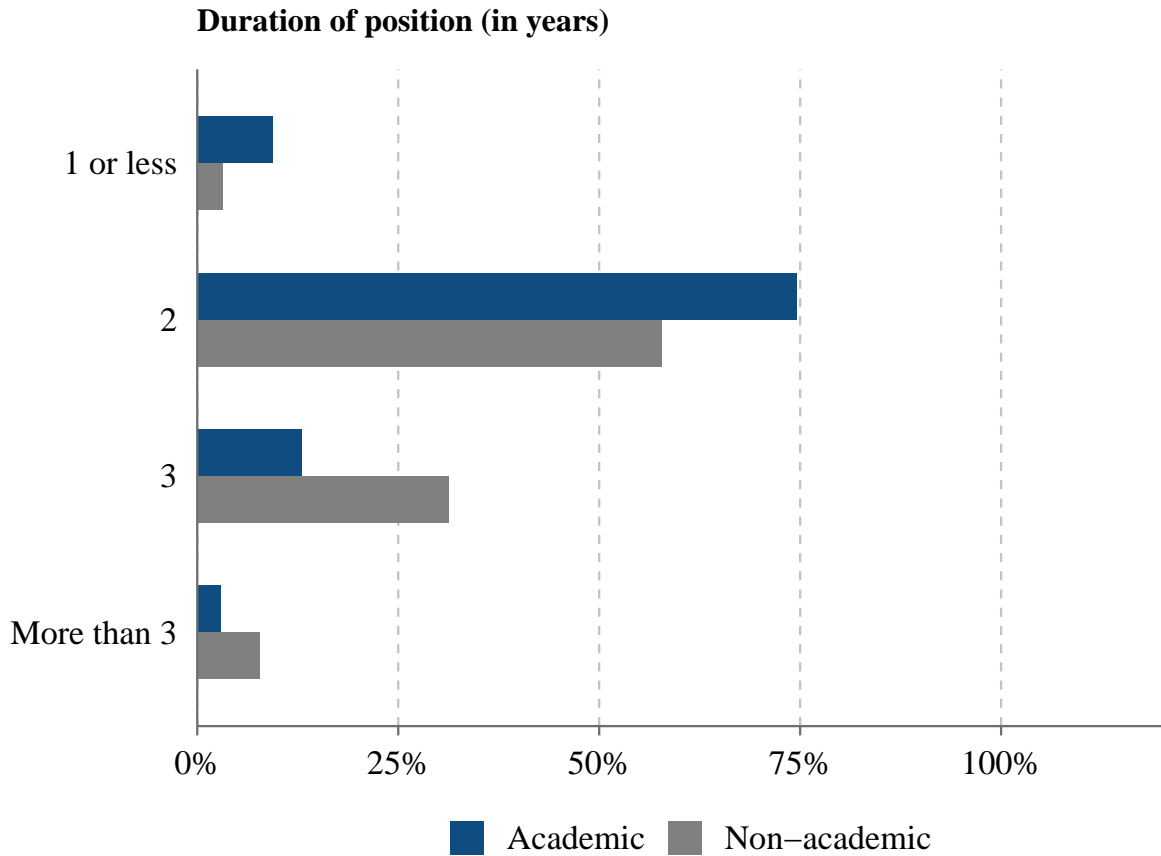
- Month
- Year



	Academic	Non-academic
2016	6%	3%
2017	4%	15%
2018	36%	34%
2019	52%	42%
2020	2%	6%



	Academic	Non-academic
2018	3%	2%
2019	4%	3%
2020	42%	38%
2021	46%	43%
2022	5%	11%
2023	0%	3%

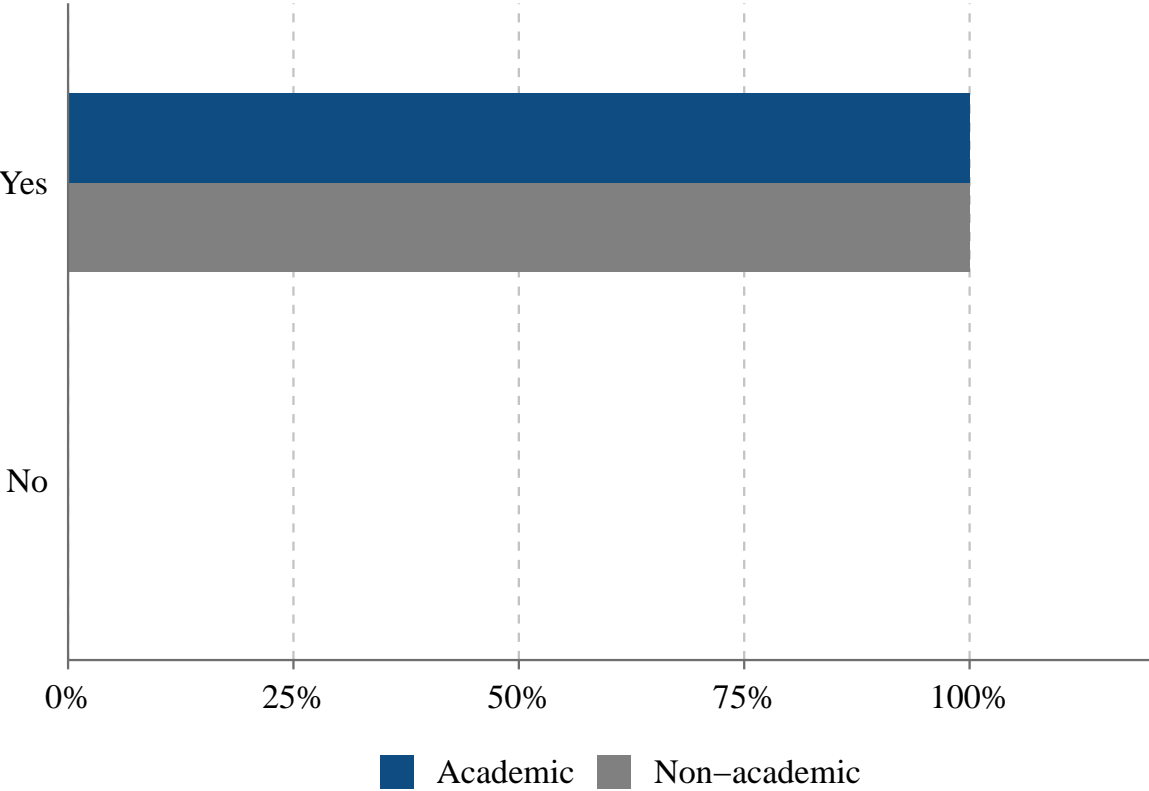


	Academic	Non-academic
1 or less	9%	3%
2	75%	58%
3	13%	31%
More than 3	3%	8%

Note: *1 or less* includes all durations less than 1.25 years. *2* includes all durations between 1.25 years and 2.25 years. *3* includes all durations between 2.25 years and 3.25 years. *More than 3* includes all durations greater than 3.25 years.

**Is the institution located in the United States?**

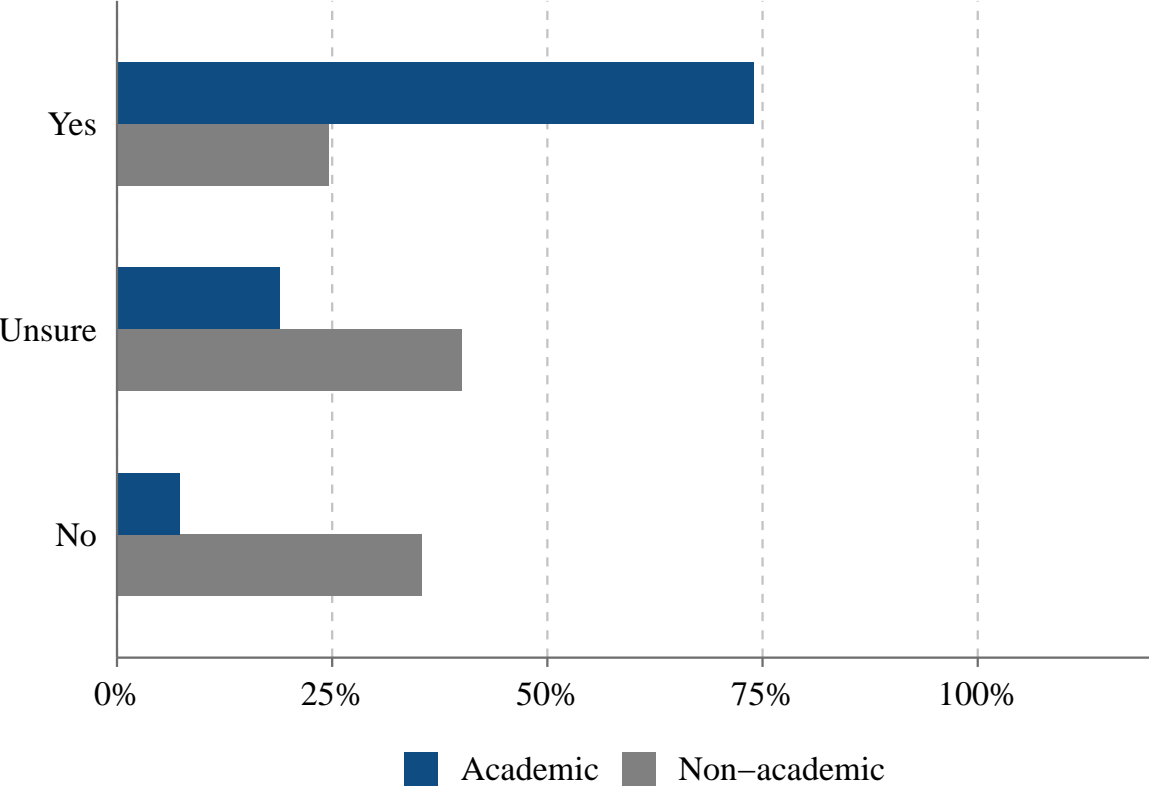
- Yes
- No



	Academic	Non-academic
Yes	100%	100%
No	0%	0%

**Does the institution provide international visa support for you or others in your position?**

- Yes
- No
- Not sure



	Academic	Non-academic
Yes	74%	25%
Unsure	19%	40%
No	7%	35%

**What is the name of the institution affiliated with your position?**



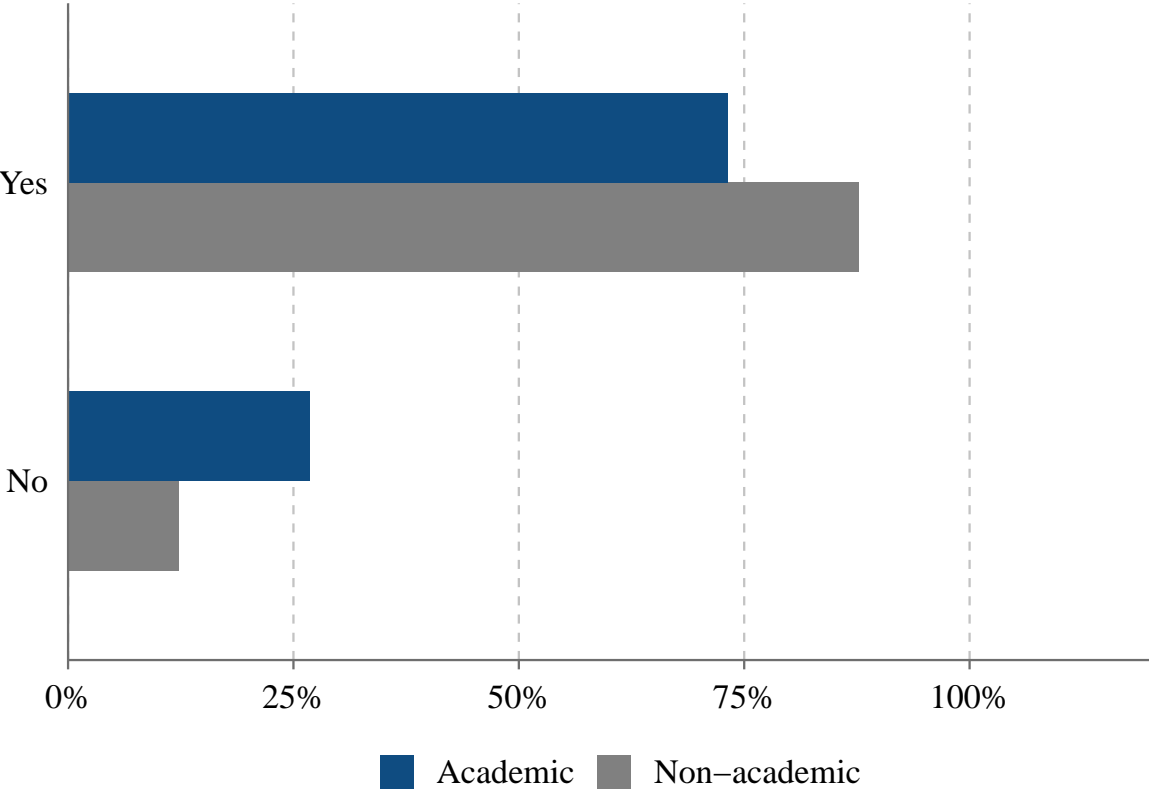
**(Optional) If applicable, please tell us the specific program, group or lab you work for (e.g., Opportunity Insights at Harvard University, the financial intermediation team at the Federal Reserve Bank of New York).**

## **Academic Background**

Please tell us about your academic background.

**Did you complete your undergraduate studies in the United States?**

- Yes
- No

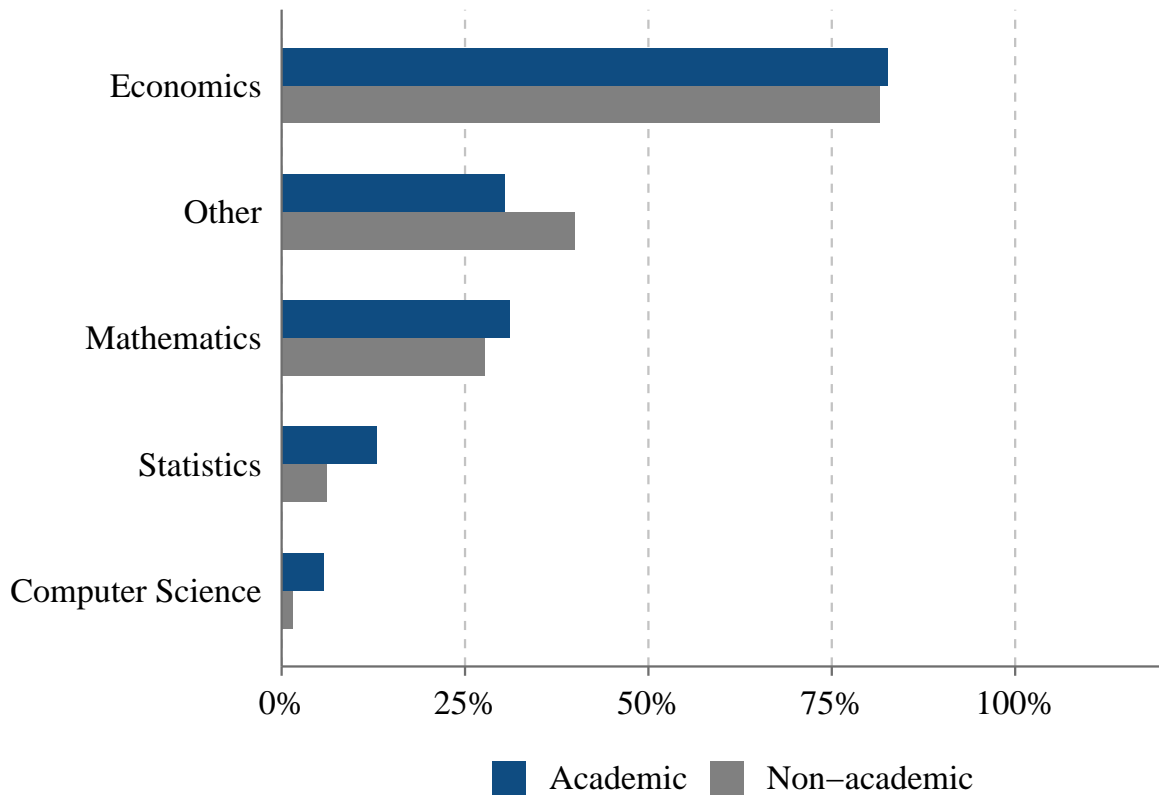


	Academic	Non-academic
Yes	73%	88%
No	27%	12%

**(Optional) What is the name of your undergraduate institution?**

**Undergraduate field(s) of study. Please select all that apply.**

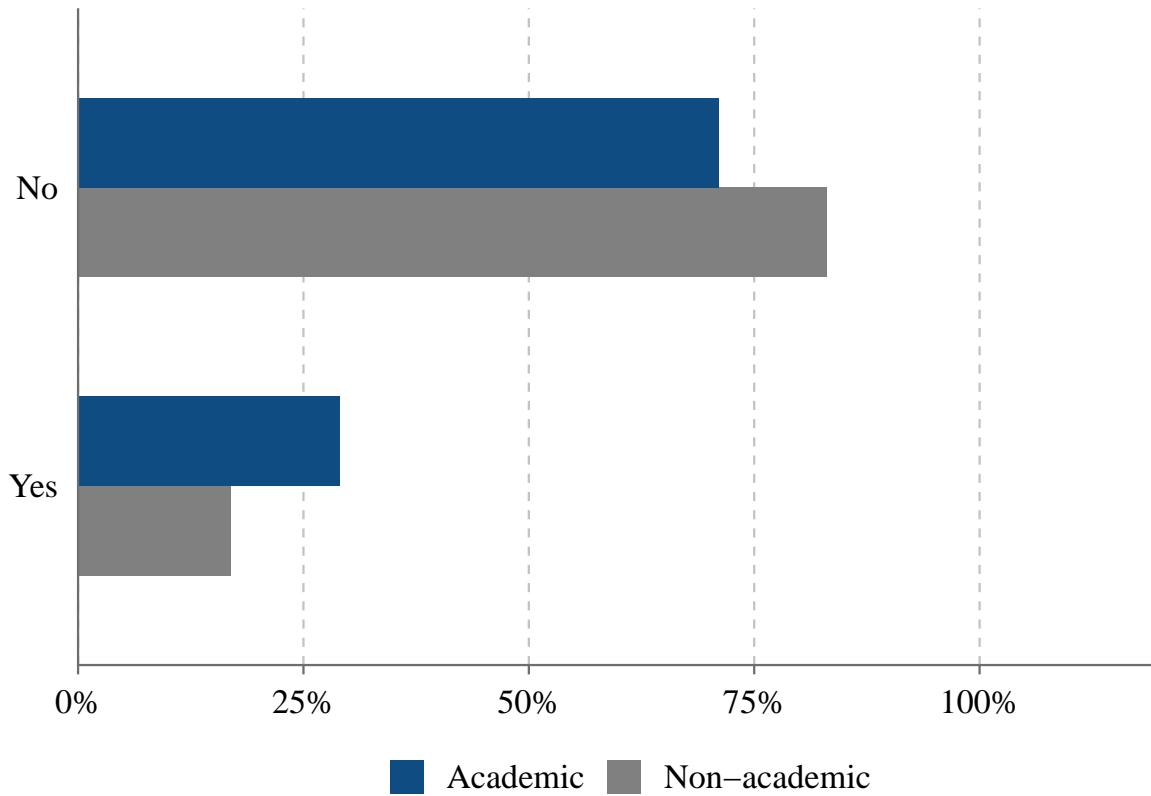
- Economics
- Mathematics
- Statistics
- Computer science
- Other



	Academic	Non-academic
Economics	83%	82%
Other	30%	40%
Mathematics	31%	28%
Statistics	13%	6%
Computer Science	6%	2%

### Do you hold a master's degree?

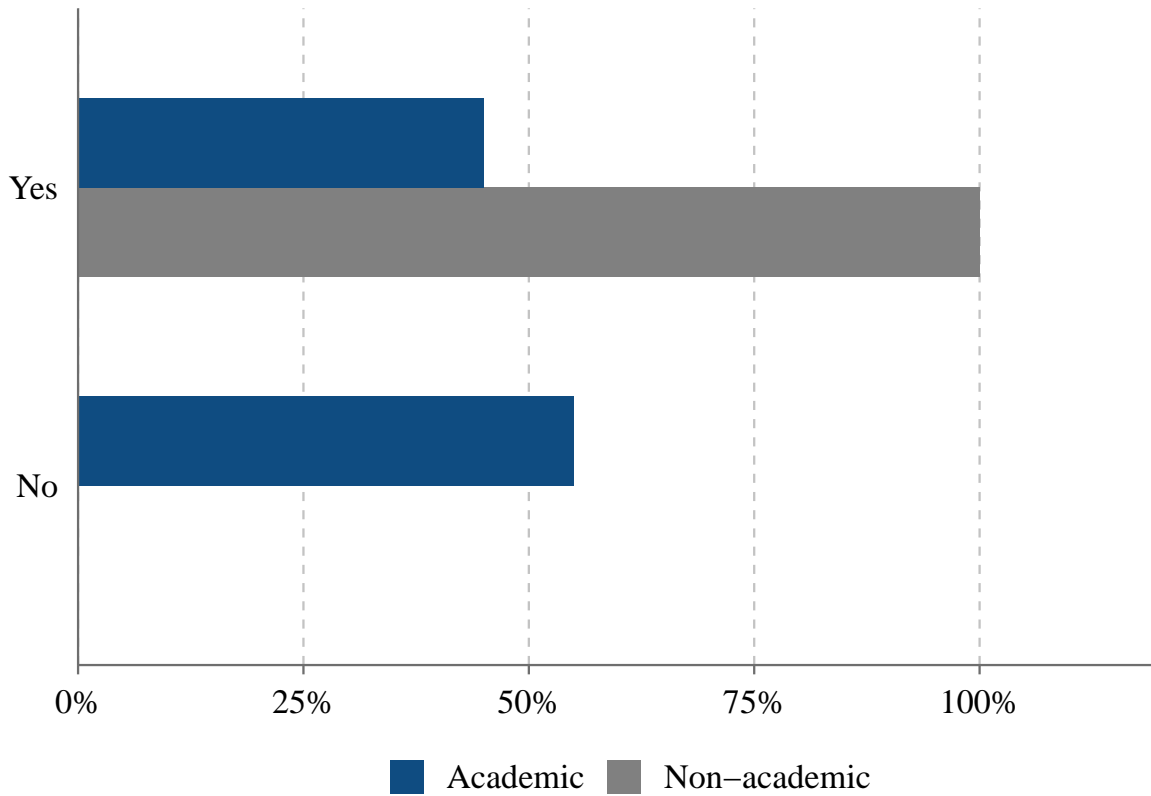
- Yes
- No



	Academic	Non-academic
No	71%	83%
Yes	29%	17%

### Did you complete your graduate studies in the United States?

- Yes
- No



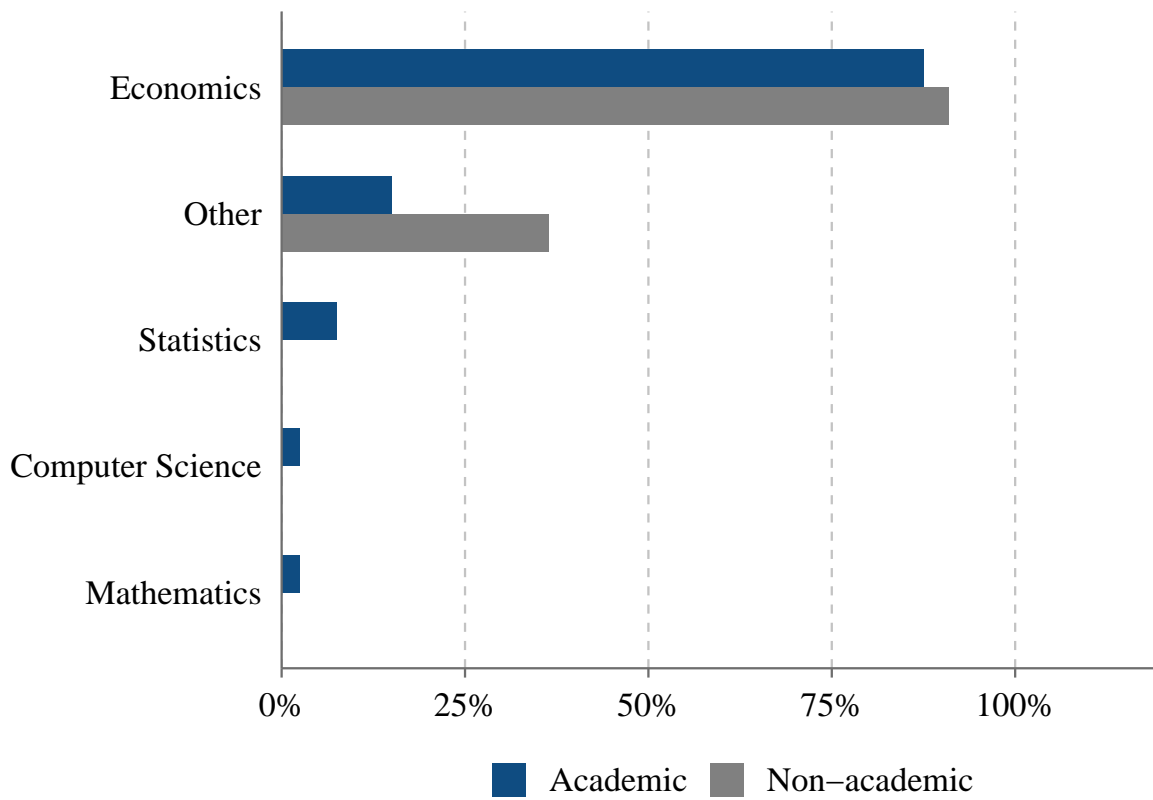
	Academic	Non-academic
Yes	45%	100%
No	55%	0%

**(Optional) What is the name of your graduate institution?**



**Graduate field(s) of study. Please select all that apply.**

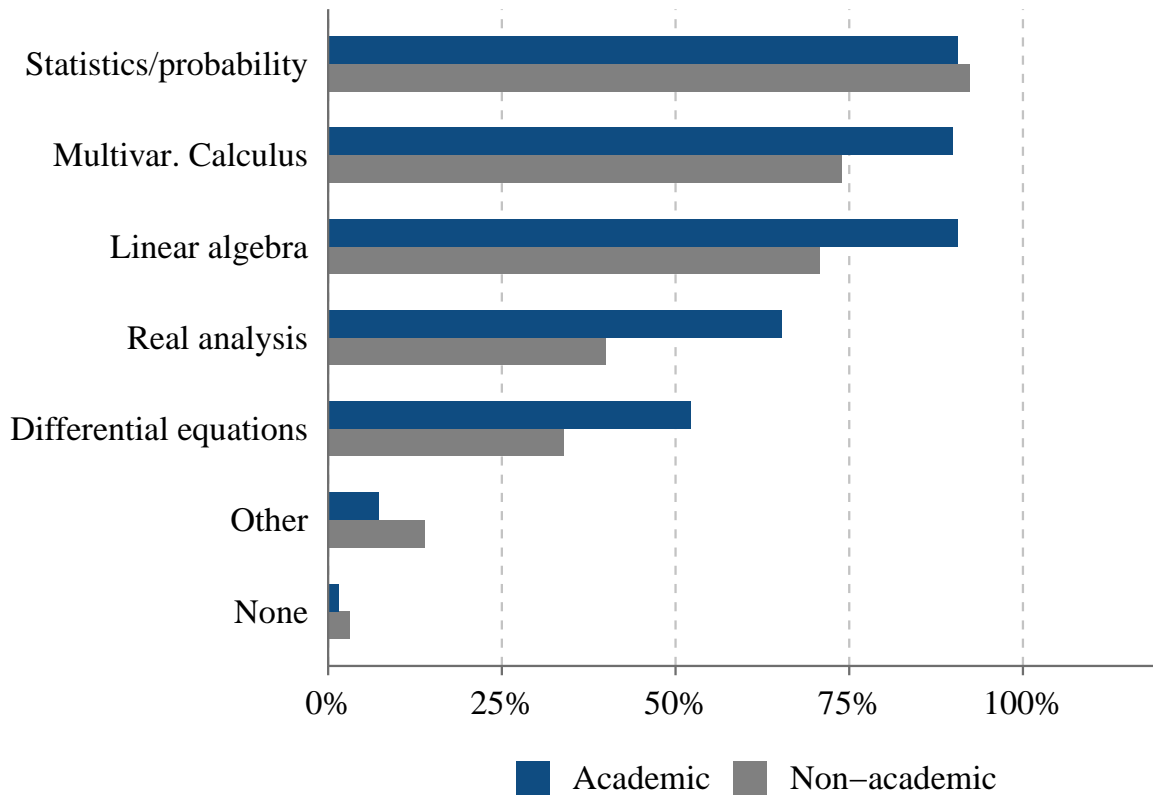
- Economics
- Mathematics
- Statistics
- Computer
- Science
- Other



	Academic	Non-academic
Economics	88%	91%
Other	15%	36%
Statistics	8%	0%
Computer Science	2%	0%
Mathematics	2%	0%

**What math classes had you taken PRIOR to the start of your position? Please select all that apply.**

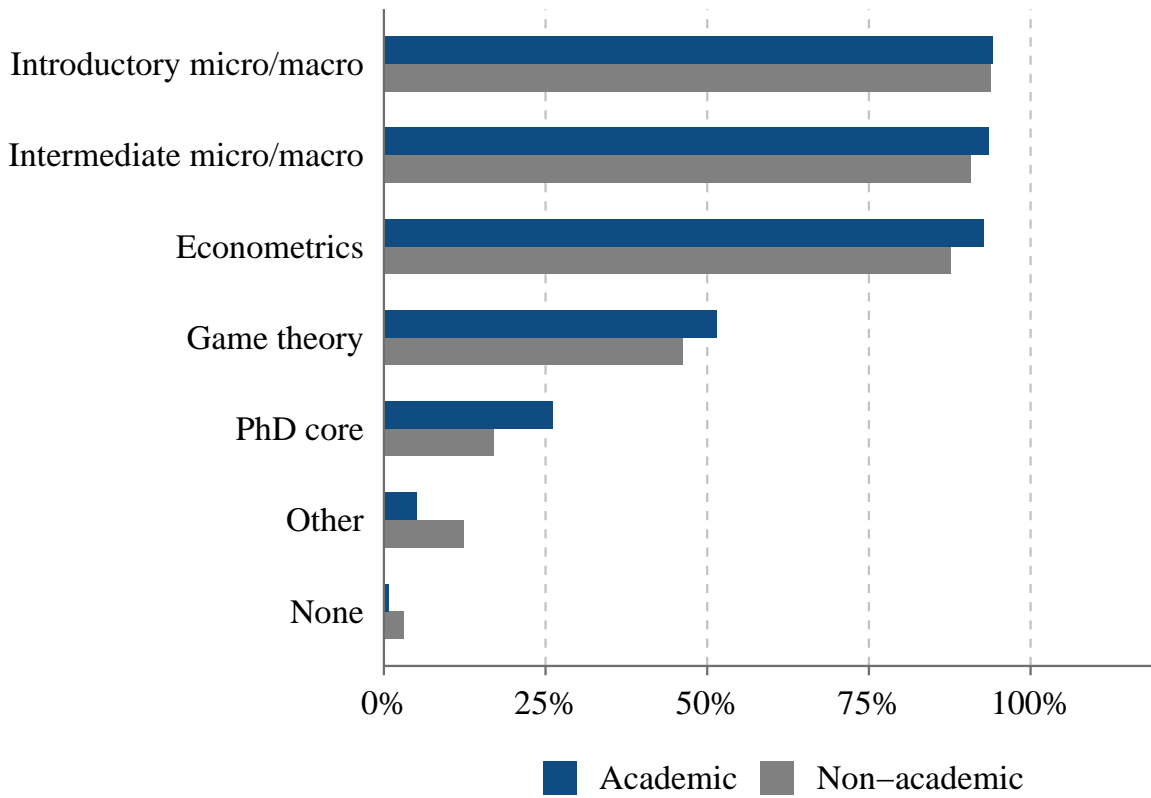
- Multivariate Calculus (often Calculus III)
- Linear Algebra
- Statistics and Probability
- Ordinary Differential Equations
- Real Analysis
- None
- Other



	Academic	Non-academic
Statistics/probability	91%	92%
Multivar. Calculus	90%	74%
Linear algebra	91%	71%
Real analysis	65%	40%
Differential equations	52%	34%
Other	7%	14%
None	1%	3%

**What economics classes had you taken PRIOR to the start of your position? Please select all that apply.**

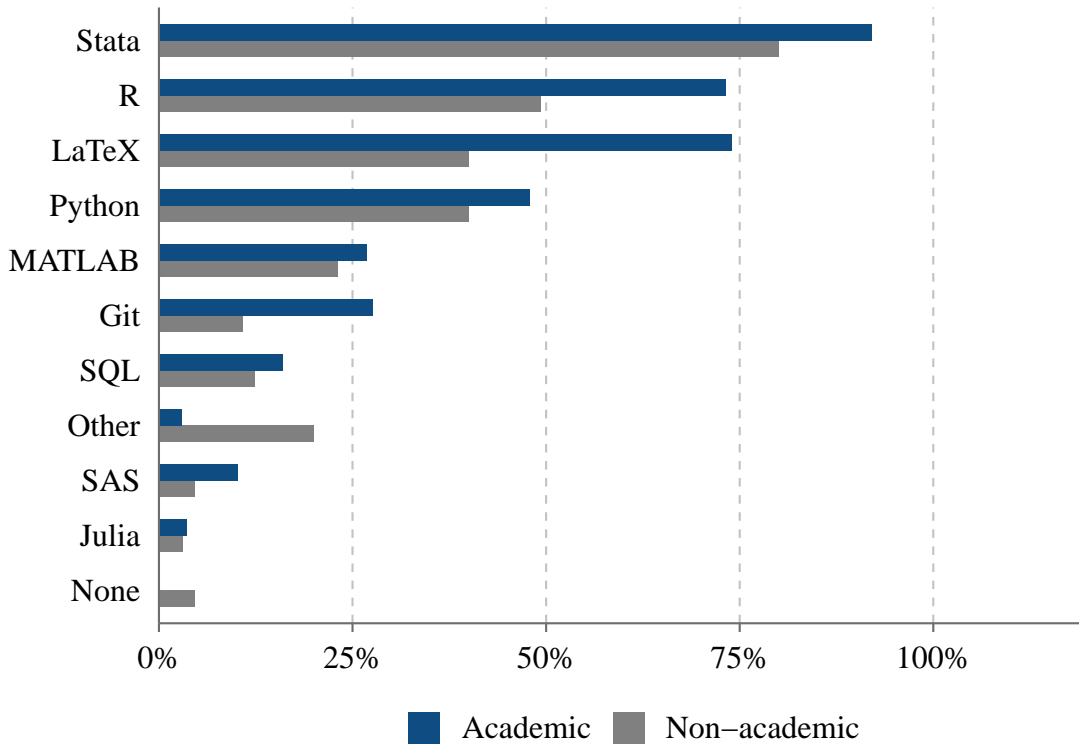
- Introductory Micro/Macro
- Intermediate Micro/Macro
- Econometrics
- Game Theory
- PhD-level Micro/Macro/Metrics
- None
- Other



	Academic	Non-academic
Introductory micro/macro	94%	94%
Intermediate micro/macro	93%	91%
Econometrics	93%	88%
Game theory	51%	46%
PhD core	26%	17%
Other	5%	12%
None	1%	3%

**What programming or statistical tools had you known PRIOR to the start of your position?  
Please select all that apply.**

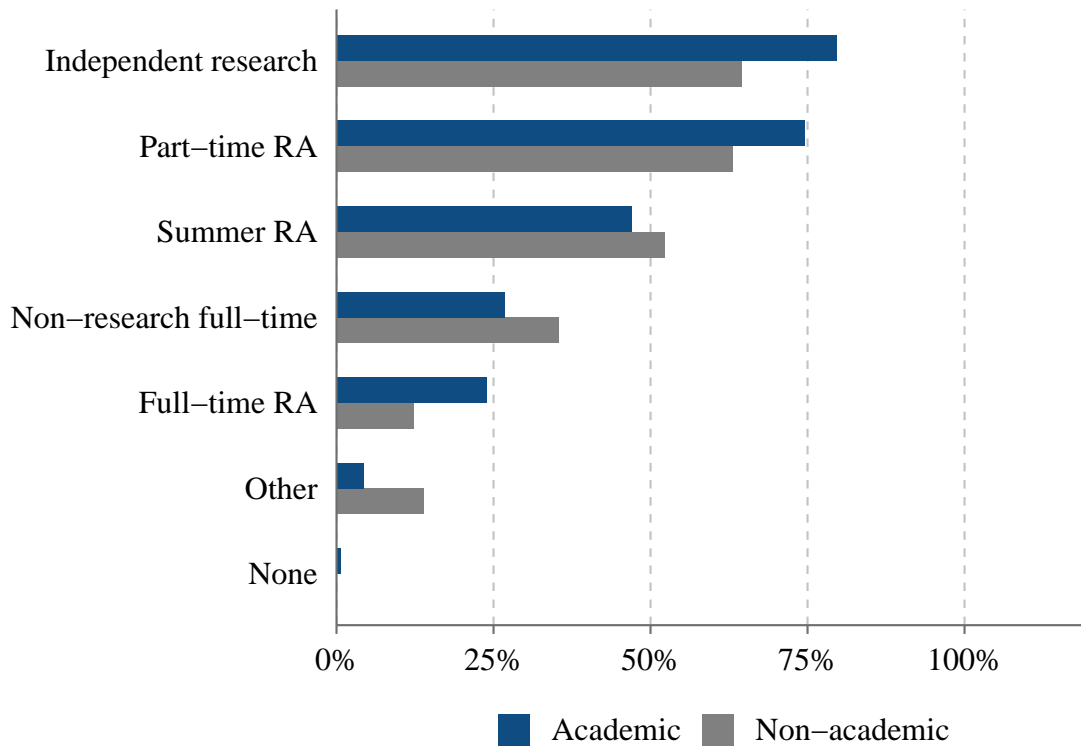
- Stata
- Python
- R
- MATLAB
- Julia
- SAS
- SQL
- LaTeX
- Git
- None
- Other



	Academic	Non-academic
Stata	92%	80%
R	73%	49%
LaTeX	74%	40%
Python	48%	40%
MATLAB	27%	23%
Git	28%	11%
SQL	16%	12%
Other	3%	20%
SAS	10%	5%
Julia	4%	3%
None	0%	5%

**What research and/or professional experience did you have PRIOR to the start of your position? Please select all that apply.**

- Independent research (e.g., honors thesis)
- Part-time undergraduate/graduate RA
- Summer RA internship/training (e.g., summer RA at the Fed, AEA Summer Program)
- Other full-time RA position
- Non-research full-time professional experience (e.g., position in private sector)
- None
- Other



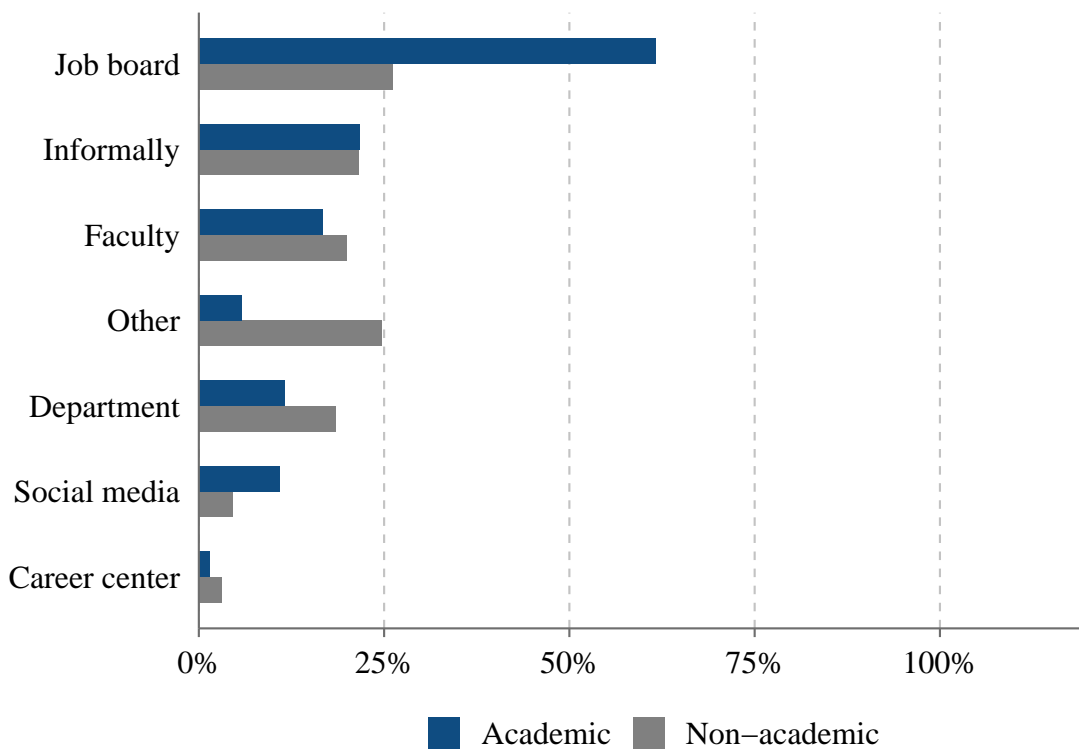
	Academic	Non-academic
Independent research	80%	65%
Part-time RA	75%	63%
Summer RA	47%	52%
Non-research full-time	27%	35%
Full-time RA	24%	12%
Other	4%	14%
None	1%	0%

## **Application Process for Position**

Please tell us about the application process for your current position.

**How did you find out about your current position? Please select all that apply.**

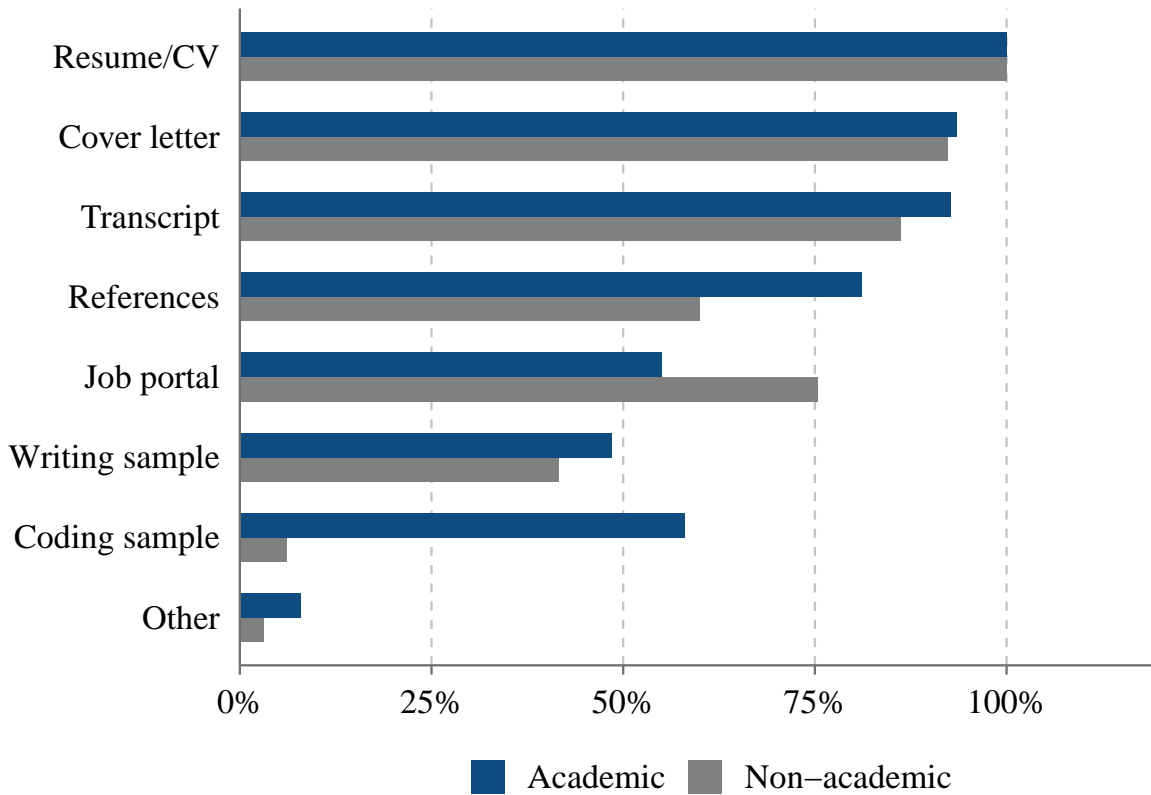
- Department email or listserv
- Job board (e.g., NBER job listings)
- Faculty
- University career center
- Social media (e.g., Twitter)
- Informally (e.g., through friends or acquaintances)
- Other



	Academic	Non-academic
Job board	62%	26%
Informally	22%	22%
Faculty	17%	20%
Other	6%	25%
Department	12%	18%
Social media	11%	5%
Career center	1%	3%

**What materials did the application process for your position require you to submit? Please select all that apply.**

- Resume/CV
- Cover letter
- Transcript
- References
- Application through job portal
- Writing sample
- Coding sample
- Other

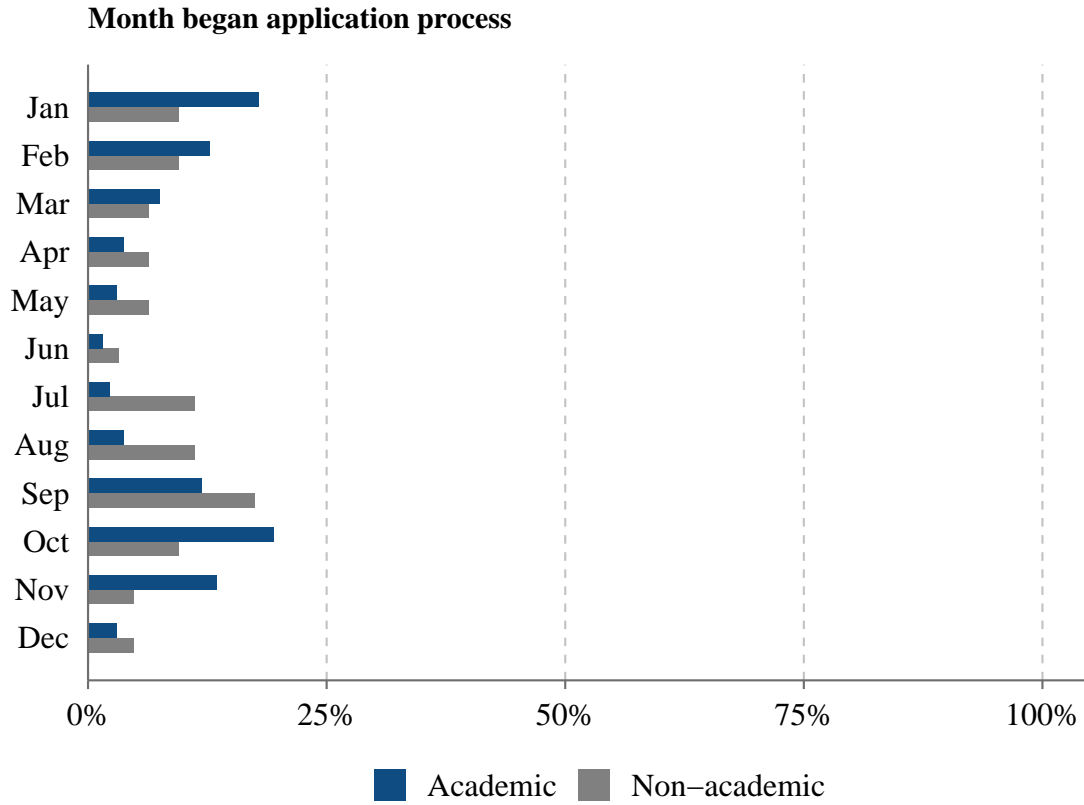


	Academic	Non-academic
Resume/CV	100%	100%
Cover letter	93%	92%
Transcript	93%	86%
References	81%	60%
Job portal	55%	75%
Writing sample	49%	42%
Coding sample	58%	6%
Other	8%	3%



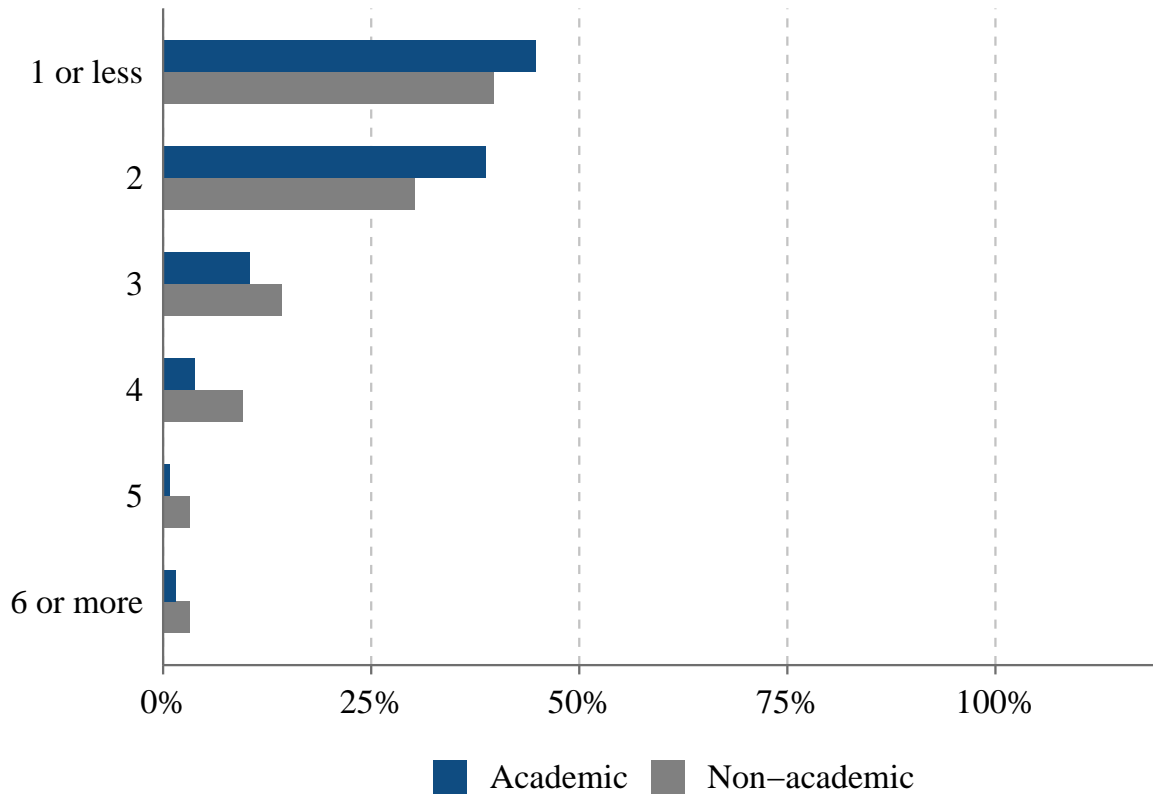
**When did you start the application process and when did you receive an offer?**

- Month
- Year



	Academic	Non-academic
Jan	18%	10%
Feb	13%	10%
Mar	7%	6%
Apr	4%	6%
May	3%	6%
Jun	1%	3%
Jul	2%	11%
Aug	4%	11%
Sep	12%	17%
Oct	19%	10%
Nov	13%	5%
Dec	3%	5%

**Duration of application process (in months)**

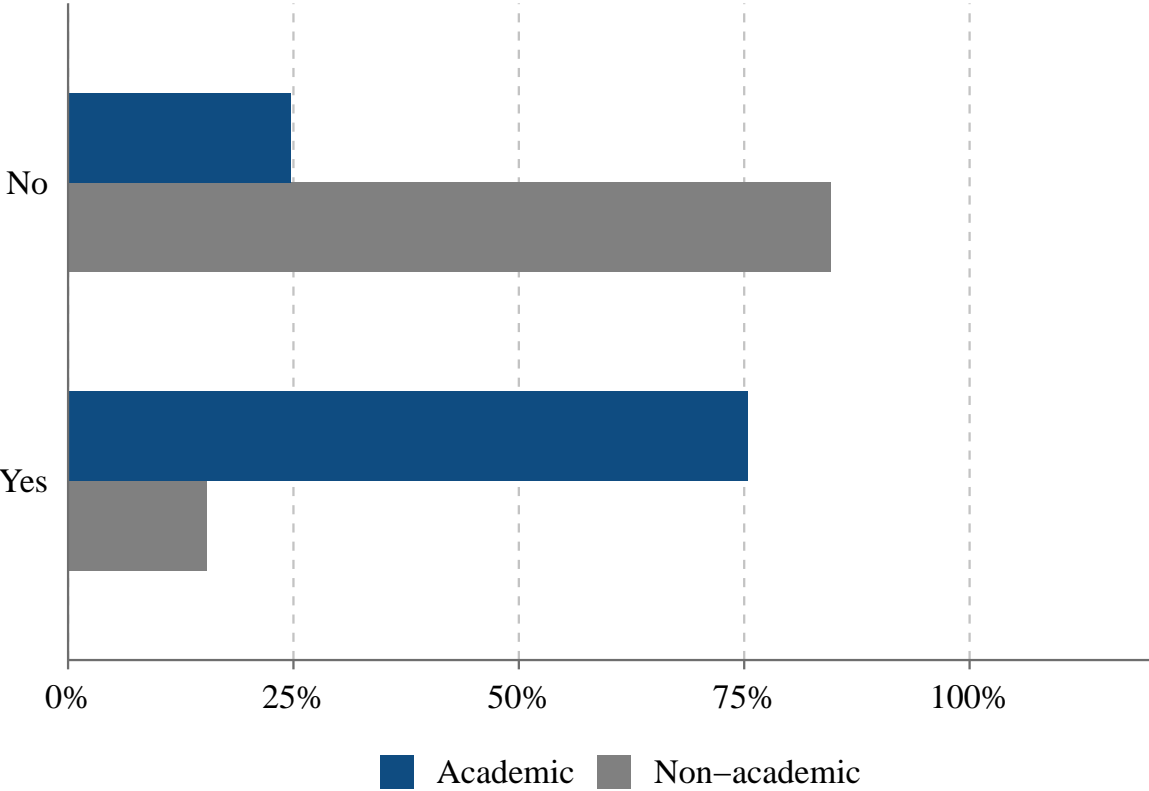


	Academic	Non-academic
1 or less	45%	40%
2	39%	30%
3	10%	14%
4	4%	10%
5	1%	3%
6 or more	1%	3%

Note: Durations are rounded to the nearest month.

**Did the application process for your position include coding challenges?**

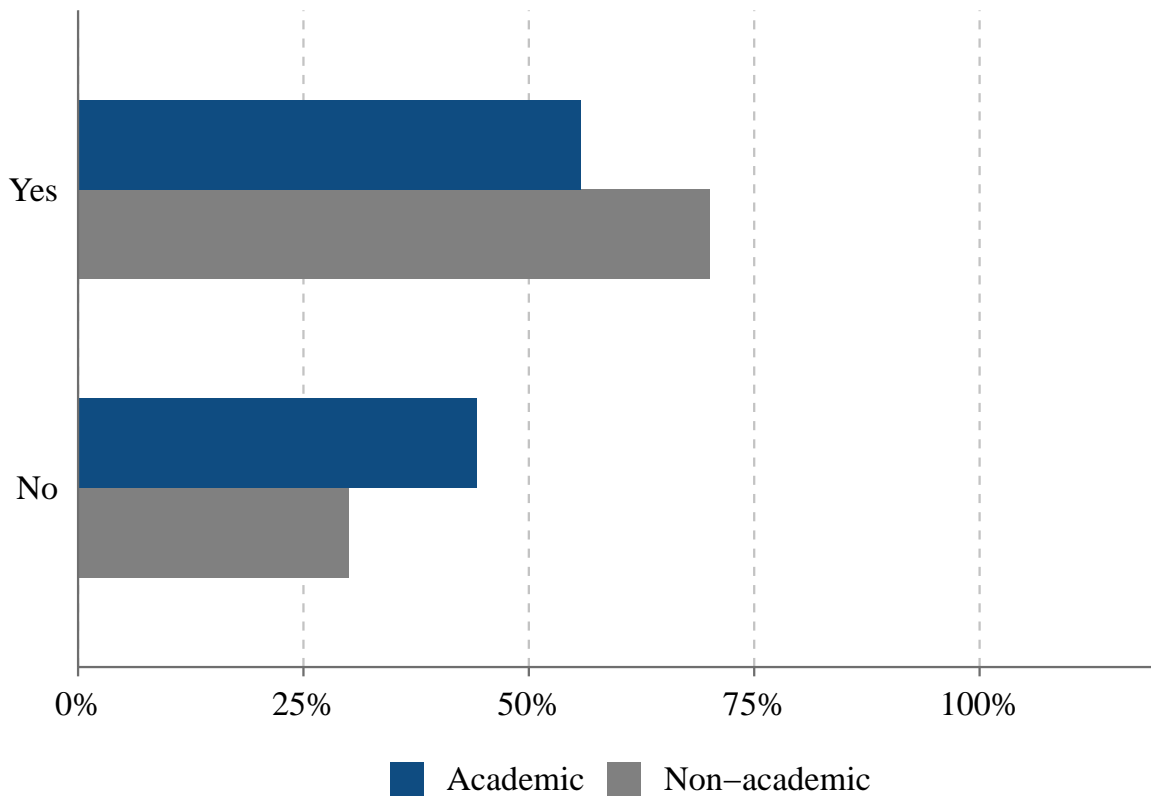
- Yes
- No



	Academic	Non-academic
No	25%	85%
Yes	75%	15%

### Did the coding challenge require a specific programming or statistical tool?

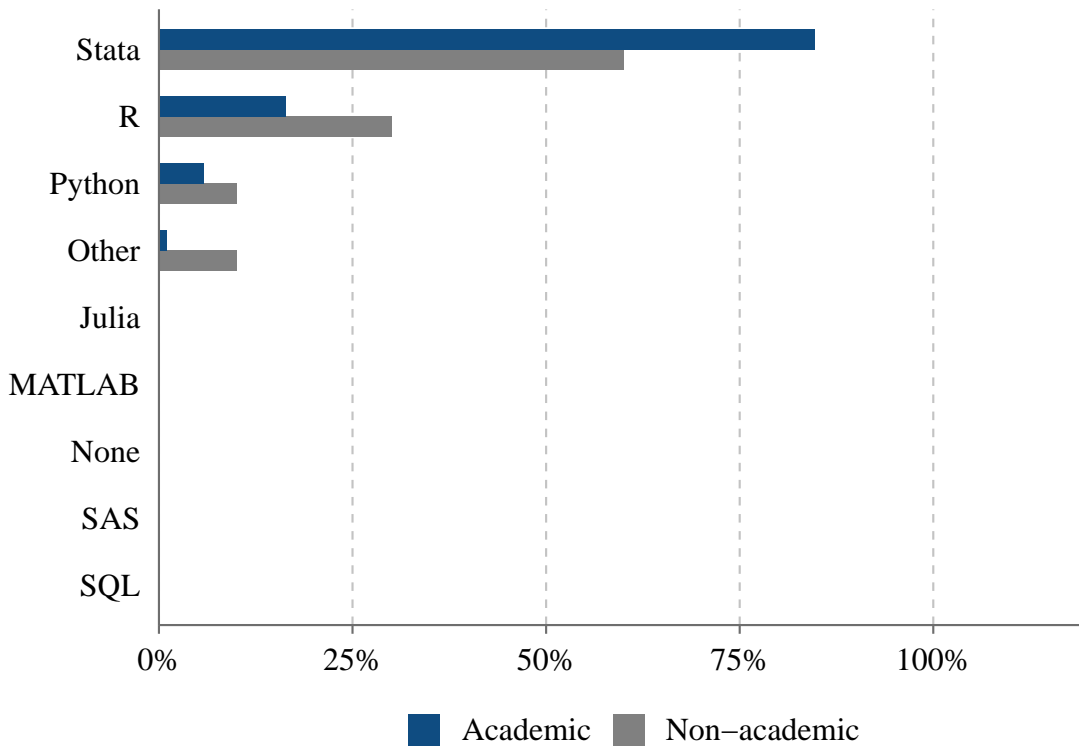
- Yes
- No



	Academic	Non-academic
Yes	56%	70%
No	44%	30%

**What programming or statistical tools did you use for your coding challenges? Please select all that apply.**

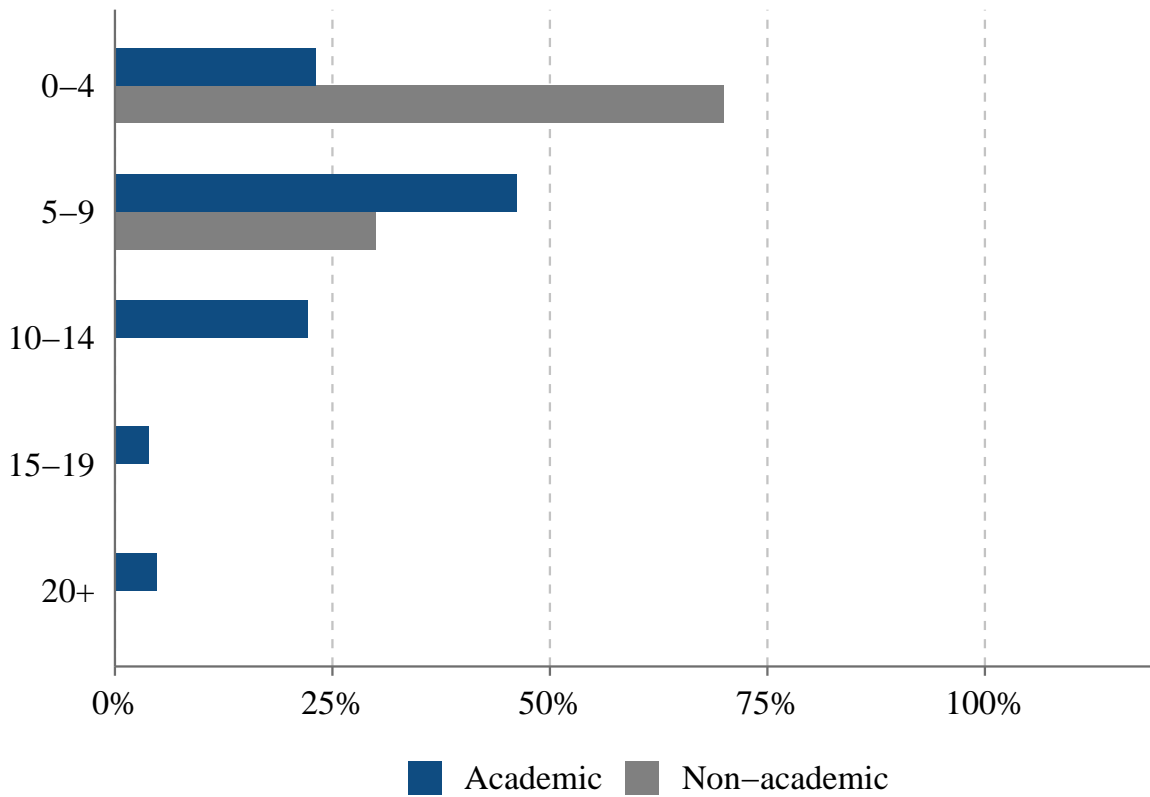
- Stata
- Python
- R
- MATLAB
- Julia
- SAS
- SQL
- Other



	Academic	Non-academic
Stata	85%	60%
R	16%	30%
Python	6%	10%
Other	1%	10%
Julia	0%	0%
MATLAB	0%	0%
None	0%	0%
SAS	0%	0%
SQL	0%	0%

### How long did the coding challenges cumulatively take?

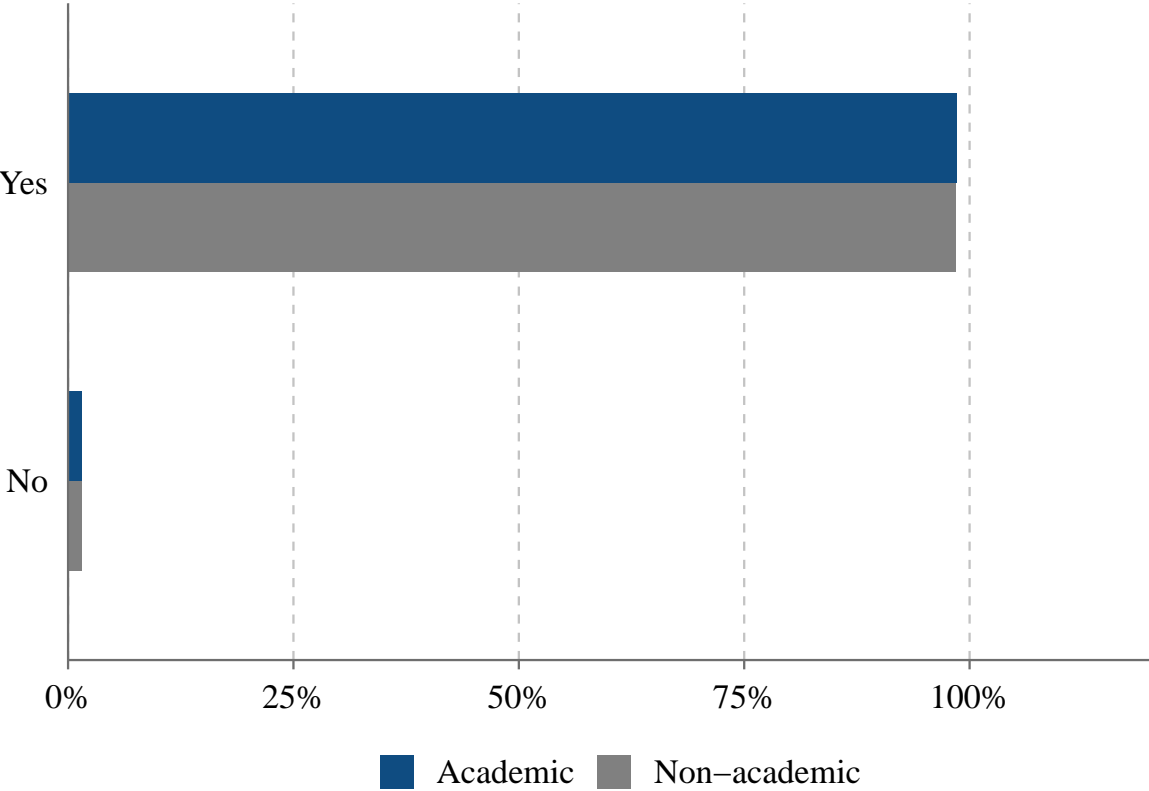
- 0-4 hours
- 5-9 hours
- 10-14 hours
- 15-19 hours
- 20 hours or more



	Academic	Non-academic
0-4	23%	70%
5-9	46%	30%
10-14	22%	0%
15-19	4%	0%
20+	5%	0%

**Did the application process for your position include interviews?**

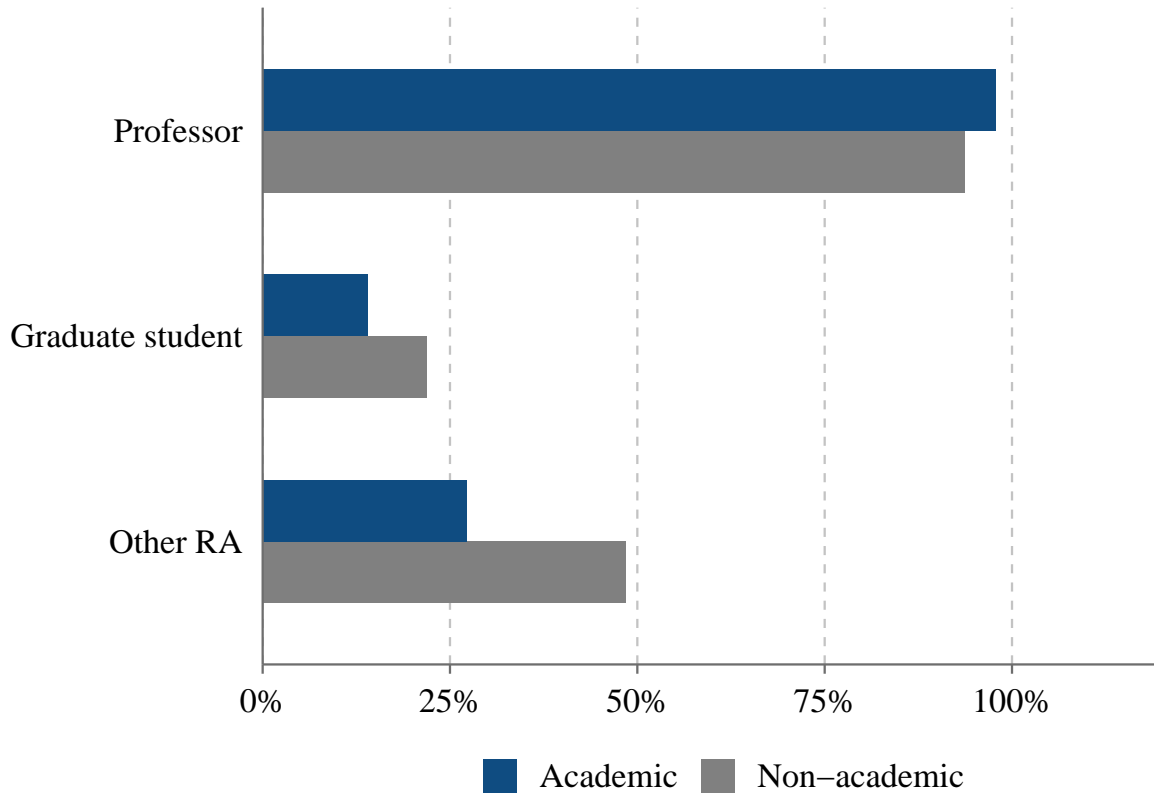
- Yes
- No



	Academic	Non-academic
Yes	99%	98%
No	1%	2%

**Who interviewed you? Please select all that apply.**

- Professor/senior researcher
- Graduate student/junior researcher
- Another post-undergraduate researcher

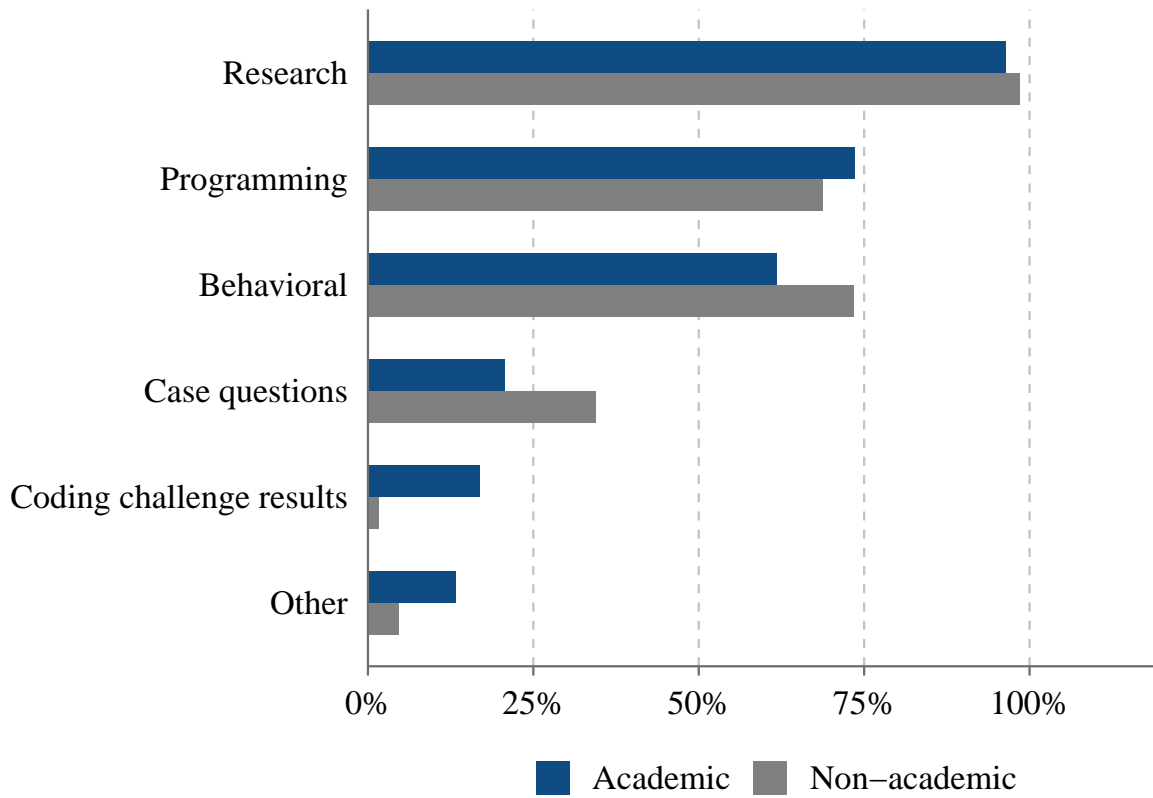


	Academic	Non-academic
Professor	98%	94%
Graduate student	14%	22%
Other RA	27%	48%



What types of topics were discussed during your interviews? Please select all that apply.

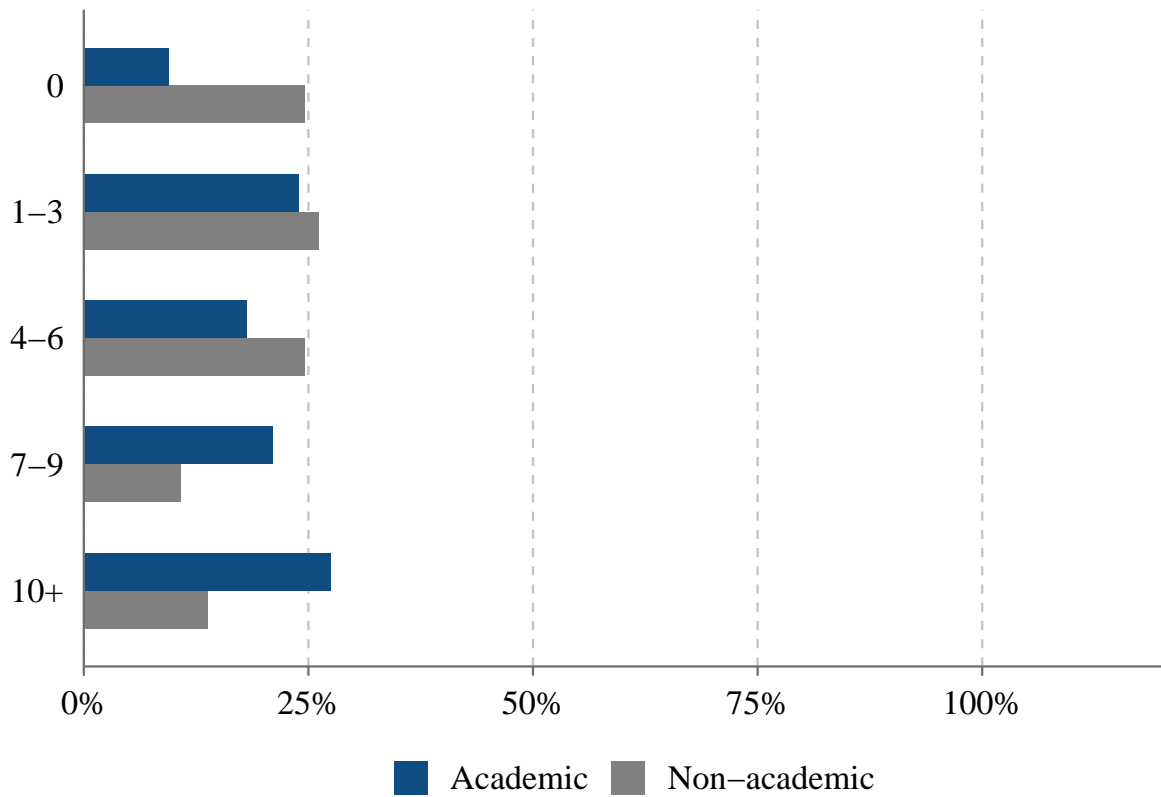
- Behavioral questions
- Research experience
- Programming experience
- Case questions
- Results of coding challenges
- Other



	Academic	Non-academic
Research	96%	98%
Programming	74%	69%
Behavioral	62%	73%
Case questions	21%	34%
Coding challenge results	17%	2%
Other	13%	5%

**How many other post-undergraduate research positions did you apply to concurrently?**

- None
- 1-3
- 4-6
- 7-9
- 10 or more



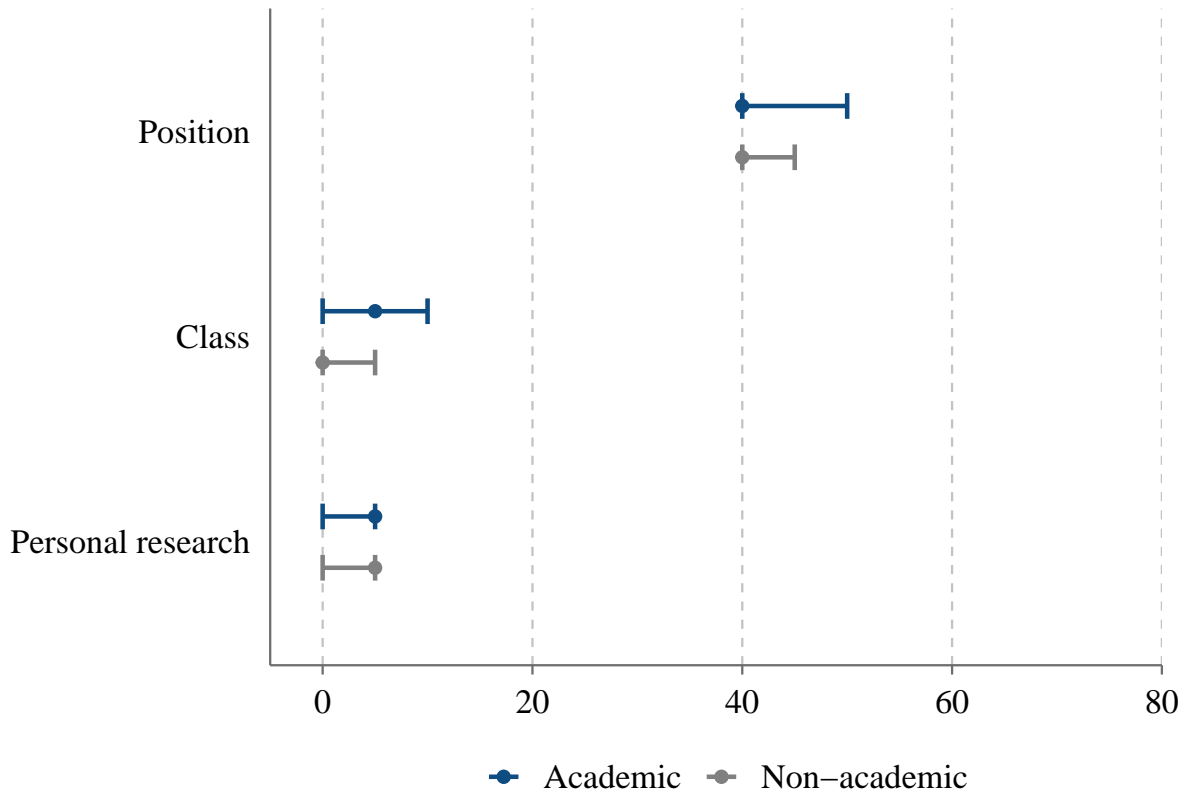
	Academic	Non-academic
0	9%	25%
1-3	24%	26%
4-6	18%	25%
7-9	21%	11%
10+	28%	14%

## **Day-to-Day Life**

Please tell us about the day-to-day life of your current position. To the best of your ability, please answer these questions as you would have before any COVID-19 related changes to your work environment.

**On average, how many hours per week do you spend on the following activities? Please round to the nearest 5 hours.**

- Research for your institution
- Coursework
- Personal research agenda

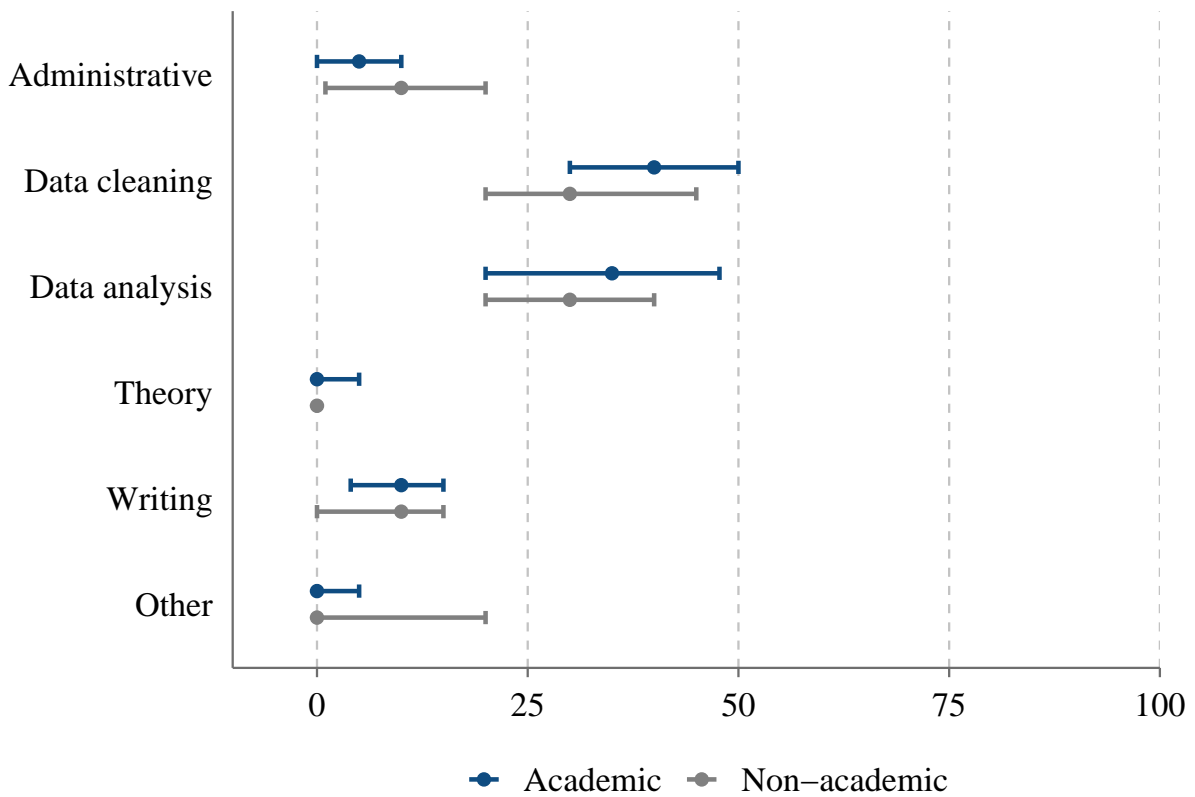


	Academic			Non-academic		
	p25	p50	p75	p25	p50	p75
Position	40	40	50	40	40	45
Class	0	5	10	0	0	5
Personal research	0	5	5	0	5	5

Note: Error bars present the 25th, 50th, and 75th percentile.

Based on the previous question, you spend X hours per week on research for your institution. On average, what fraction of those hours do you spend on the following activities? Total must sum to 100.

- Administrative work (e.g., taking notes, scheduling meetings)
- Data cleaning work (e.g., data entry, data wrangling)
- Data analysis work (e.g. creating plots, running regressions)
- Theory related work (e.g., writing proofs or models)
- Writing drafts or creating slides
- Other

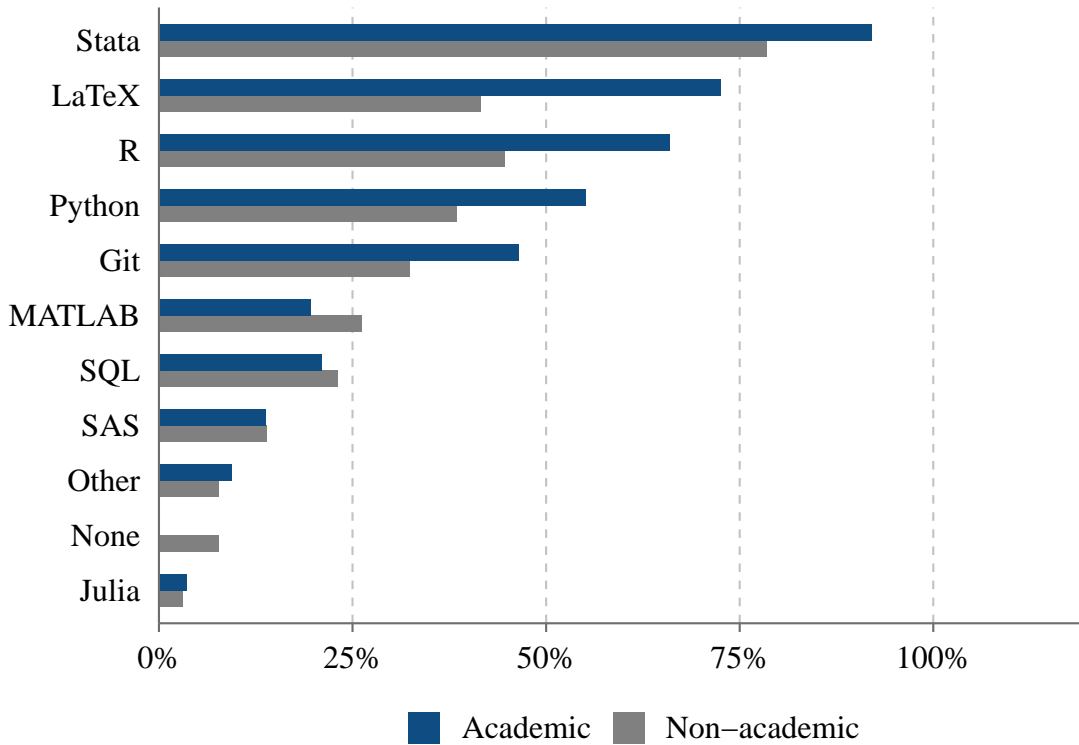


Note: Error bars present the 25th, 50th, and 75th percentile.

	Academic			Non-academic		
	p25	p50	p75	p25	p50	p75
Administrative	0	5	10	1	10	20
Data cleaning	30	40	50	20	30	45
Data analysis	20	35	48	20	30	40
Theory	0	0	5	0	0	0
Writing	4	10	15	0	10	15
Other	0	0	5	0	0	20

Which programming or statistical tools do you use in your position? Please select all that apply.

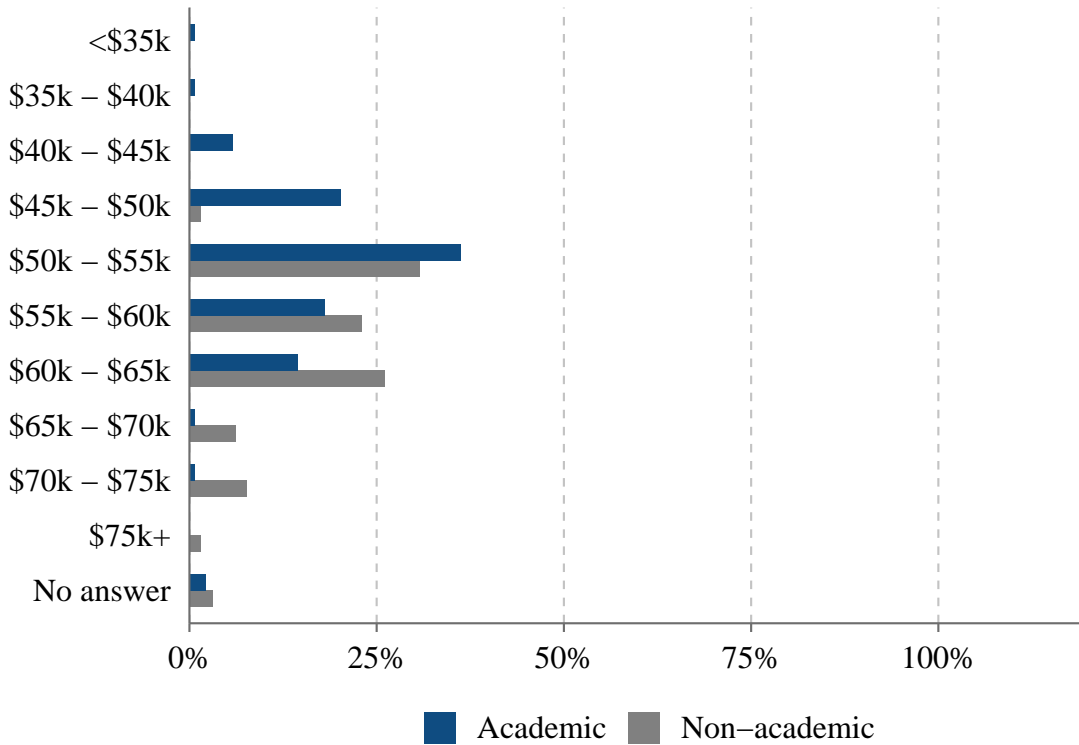
- Stata
- Python
- R
- MATLAB
- Julia
- SAS
- SQL
- LaTeX
- Git
- None
- Other



	Academic	Non-academic
Stata	92%	78%
LaTeX	72%	42%
R	66%	45%
Python	55%	38%
Git	46%	32%
MATLAB	20%	26%
SQL	21%	23%
SAS	14%	14%
Other	9%	8%
None	0%	8%
Julia	4%	3%

### What is your annual salary in US dollars?

- Less than \$35,000
- \$35,000 - \$39,999
- \$40,000 - \$44,999
- \$45,000 - \$49,999
- \$50,000 - \$54,999
- \$55,000 - \$59,999
- \$60,000 - \$64,999
- \$65,000 - \$69,999
- \$70,000 - \$74,999
- \$75,000 or more
- Prefer not to answer

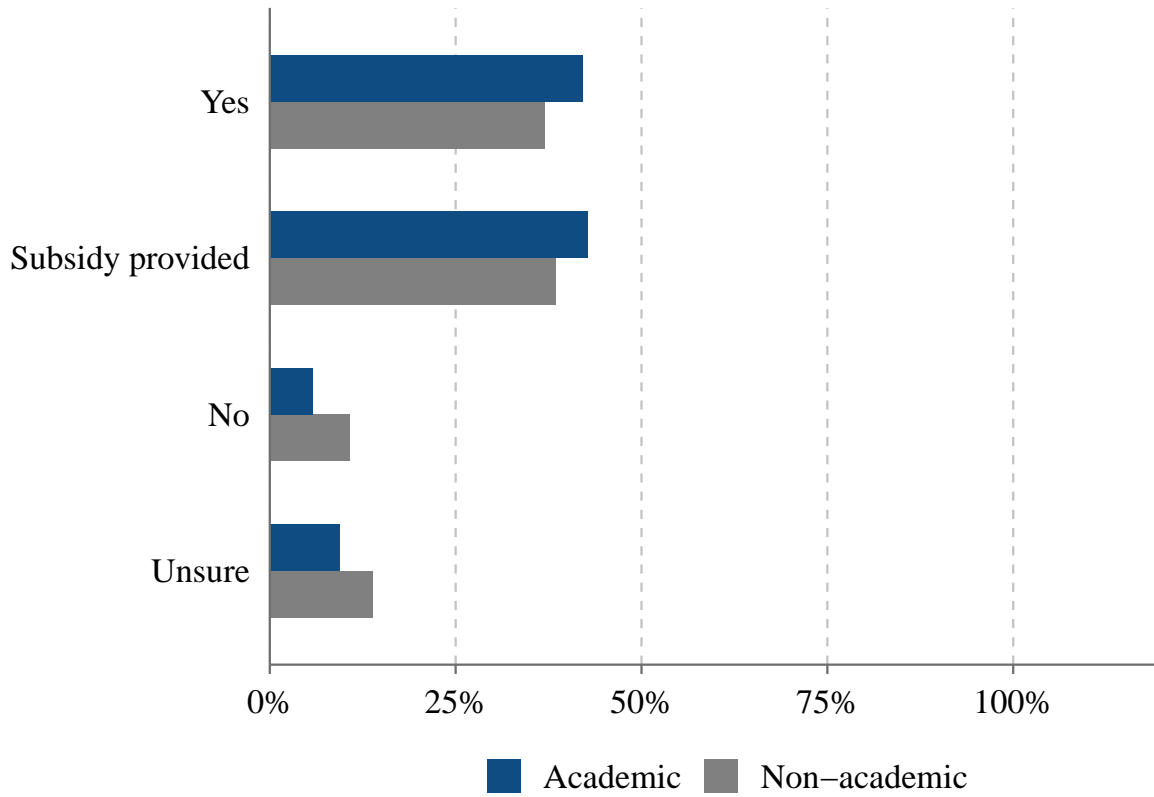


	Academic	Non-academic
<\$35k	1%	0%
\$35k - \$40k	1%	0%
\$40k - \$45k	6%	0%
\$45k - \$50k	20%	2%
\$50k - \$55k	36%	31%
\$55k - \$60k	18%	23%
\$60k - \$65k	14%	26%
\$65k - \$70k	1%	6%
\$70k - \$75k	1%	8%
\$75k+	0%	2%
No answer	2%	3%



**Does your position provide free health insurance?**

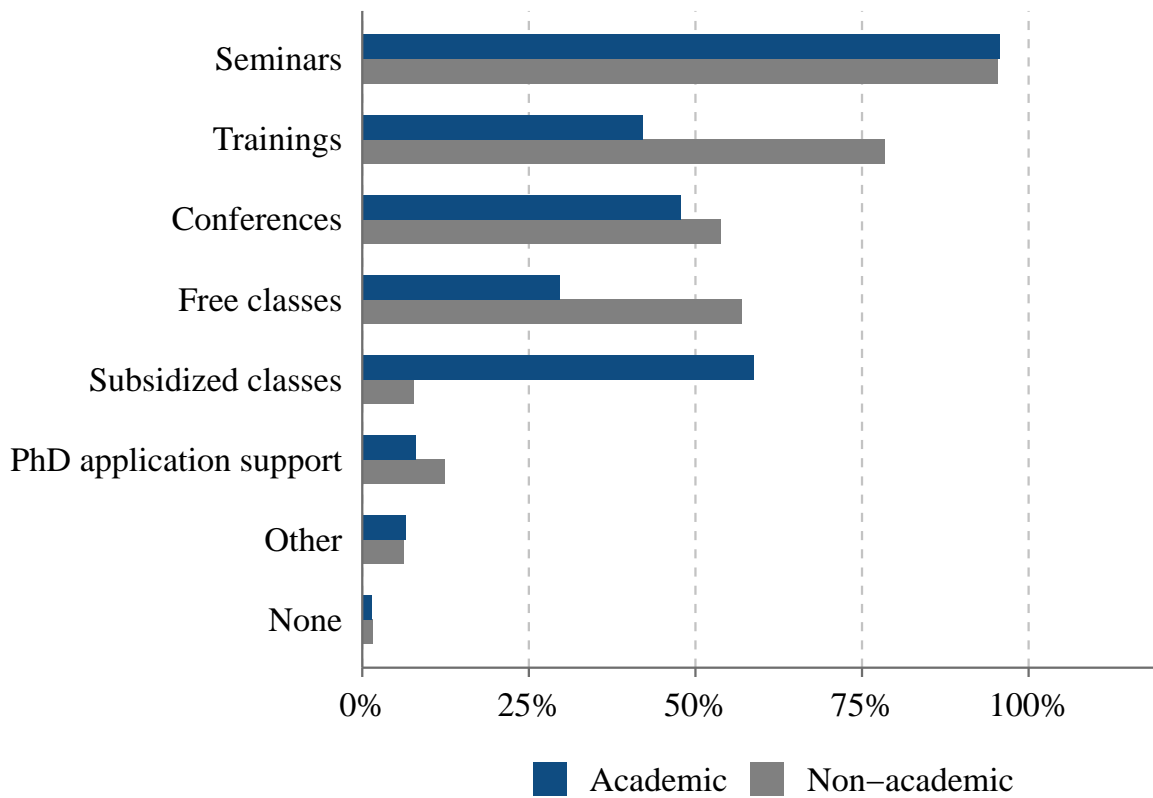
- Yes.
- No, but I receive a health insurance subsidy.
- No, and I do not receive a health insurance subsidy.
- Not sure.



	Academic	Non-academic
Yes	42%	37%
Subsidy provided	43%	38%
No	6%	11%
Unsure	9%	14%

**Which of the following opportunities for professional development does your institution provide? Please select all that apply.**

- Free academic courses
- Discounted academic courses
- Opportunities to attend seminars or guest speaker discussions
- Opportunities to attend conferences
- Trainings or other skill building opportunities
- Support for PhD applications (e.g., free GRE preparation)
- None
- Othe

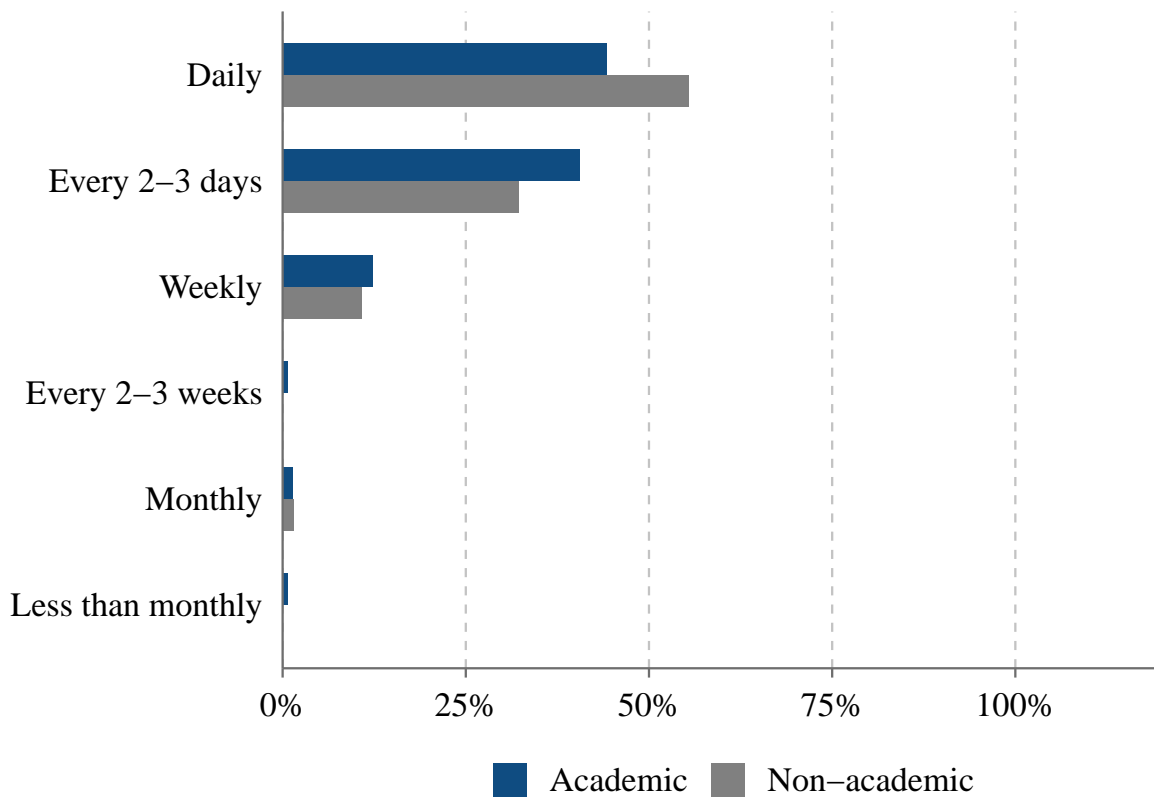


	Academic	Non-academic
Seminars	96%	95%
Trainings	42%	78%
Conferences	48%	54%
Free classes	30%	57%
Subsidized classes	59%	8%
PhD application support	8%	12%
Other	7%	6%
None	1%	2%

In this section, we will ask you questions about your principal investigators. Principal investigator (PI) refers to a person who makes the final decision and has ultimate responsibility for a given project (e.g. professor). This may differ from a supervisor who instructs you on the day-to-day tasks for a given project (e.g. graduate student, senior research assistant). We recognize that this distinction may be difficult to disentangle for your specific situation. Please answer the questions in this section to the best of your abilities.

**How frequently do you exchange messages with your PI(s) (e.g. email, Github, Slack)?**

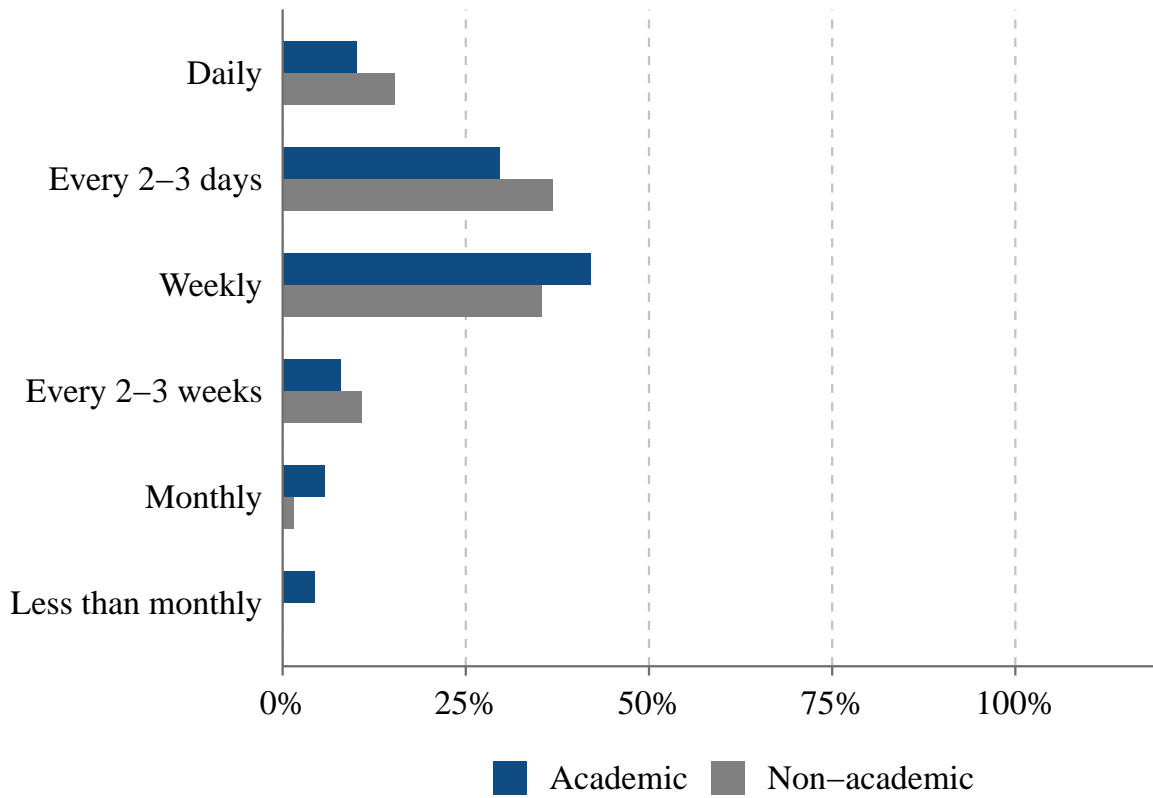
- Everyday
- Every 2-3 days
- Once a week
- Every 2-3 weeks
- Once a month
- Less than once a month



	Academic	Non-academic
Daily	44%	55%
Every 2-3 days	41%	32%
Weekly	12%	11%
Every 2-3 weeks	1%	0%
Monthly	1%	2%
Less than monthly	1%	0%

**How frequently do you have a conversation with your PI(s) (e.g. in-person, phone call)?**

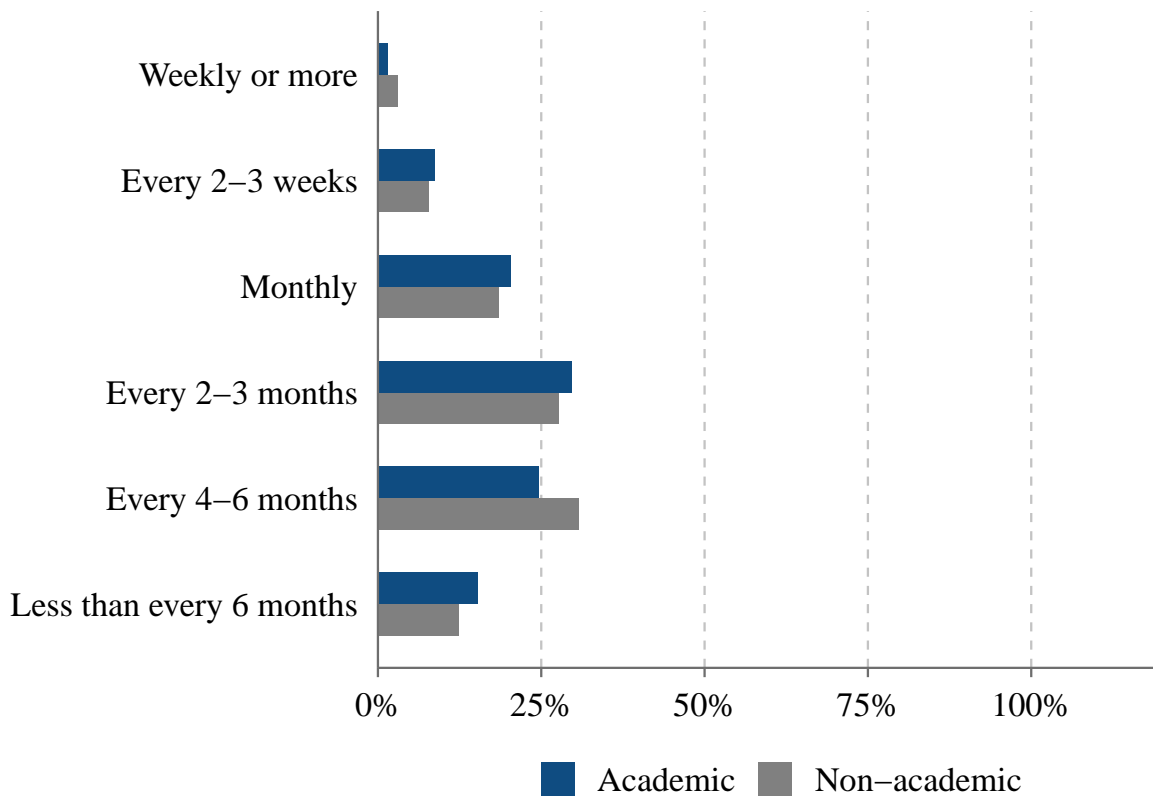
- Everyday
- Every 2-3 days
- Once a week
- Every 2-3 weeks
- Once a month
- Less than once a month



	Academic	Non-academic
Daily	10%	15%
Every 2-3 days	30%	37%
Weekly	42%	35%
Every 2-3 weeks	8%	11%
Monthly	6%	2%
Less than monthly	4%	0%

**How frequently do you discuss your professional development or career with your PI(s)?**

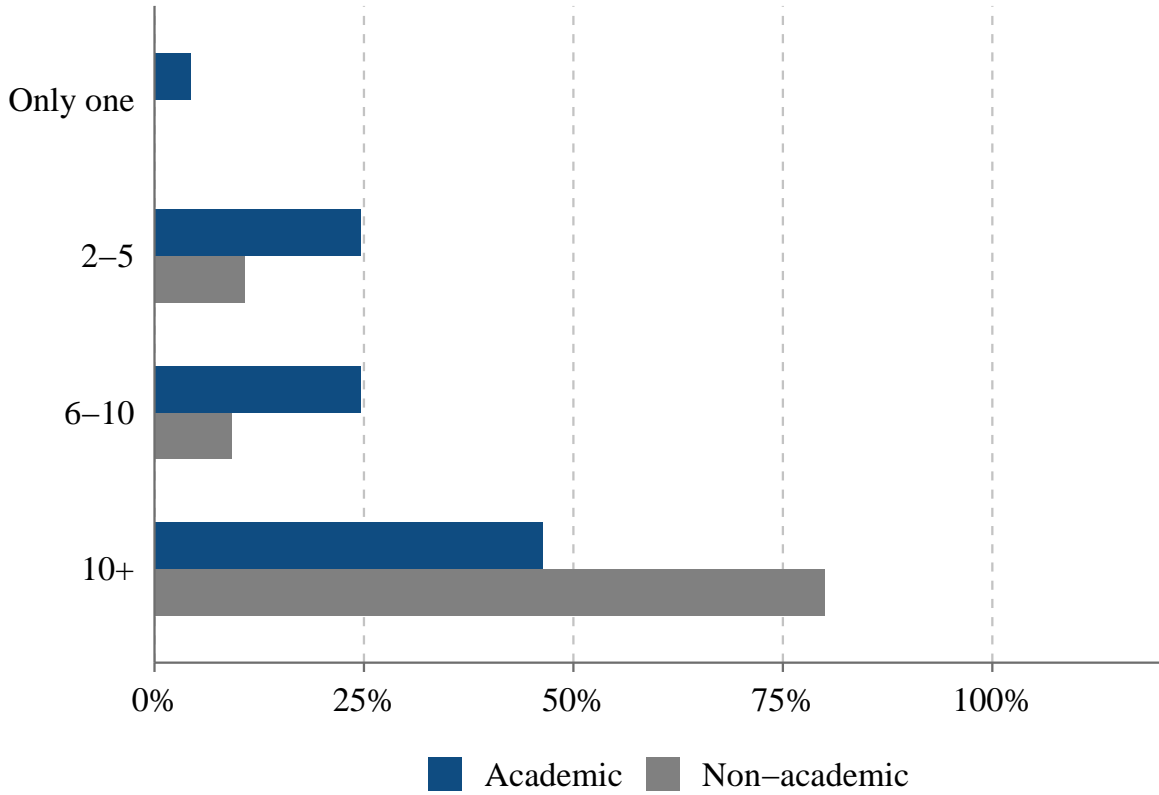
- At least once a week
- Every 2-3 weeks
- Once a month
- Every 2-3 months
- Every 4-6 months
- Less than every 6 months



	Academic	Non-academic
Weekly or more	1%	3%
Every 2-3 weeks	9%	8%
Monthly	20%	18%
Every 2-3 months	30%	28%
Every 4-6 months	25%	31%
Less than every 6 months	15%	12%

**In your workplace, how many people are in similar position as yours (including yourself)?**

- 1 (I am the only post-undergraduate researcher)
- 2-5
- 6-10
- More than 10

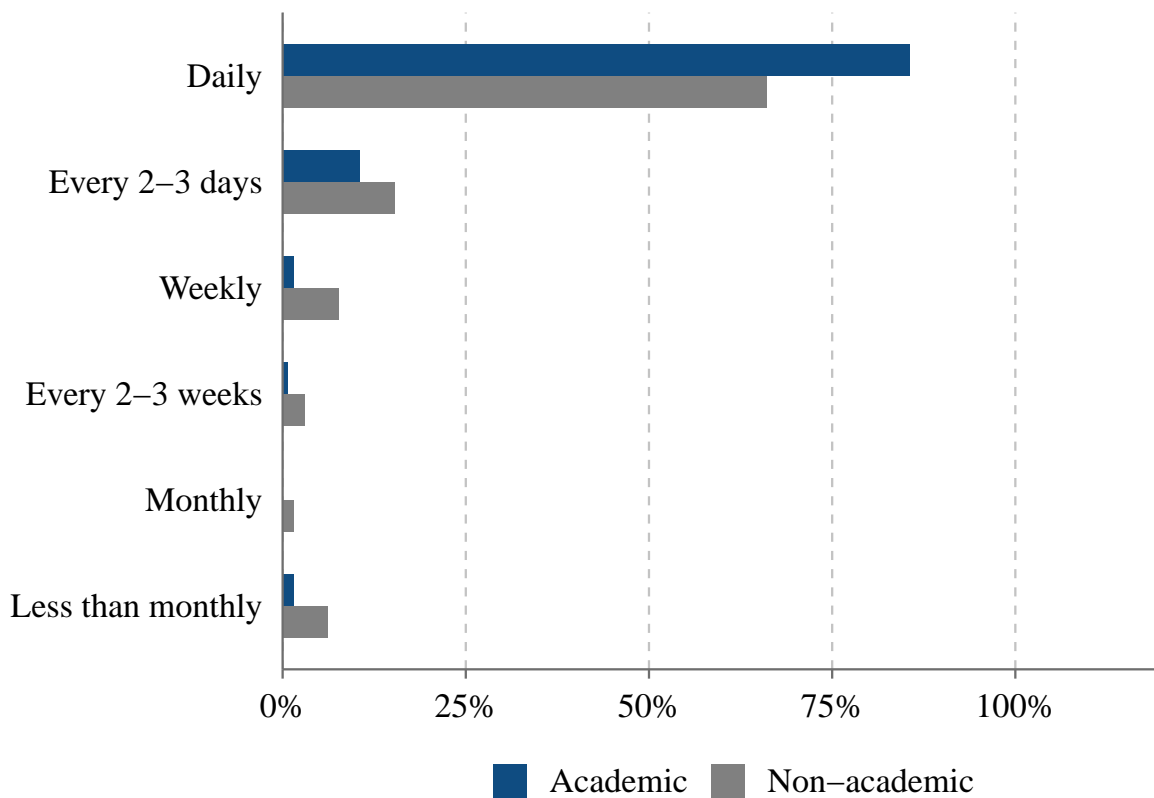


	Academic	Non-academic
Only one	4%	0%
2-5	25%	11%
6-10	25%	9%
10+	46%	80%



**How frequently do you interact with other individuals in a similar position to you at your workplace?**

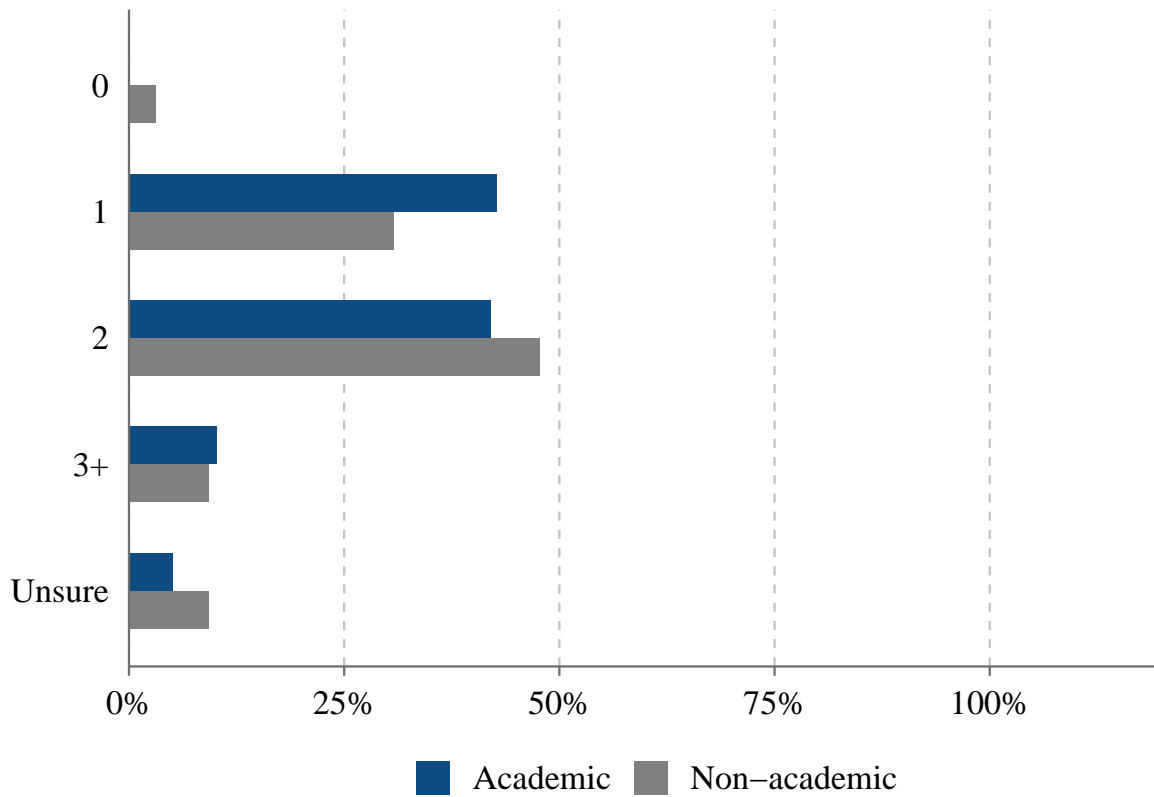
- Everyday
- Every 2-3 days
- Once a week
- Every 2-3 weeks
- Once a month
- Less than once a month



	Academic	Non-academic
Daily	86%	66%
Every 2-3 days	11%	15%
Weekly	2%	8%
Every 2-3 weeks	1%	3%
Monthly	0%	2%
Less than monthly	2%	6%

**How many letters of recommendation do you plan to get from this position?**

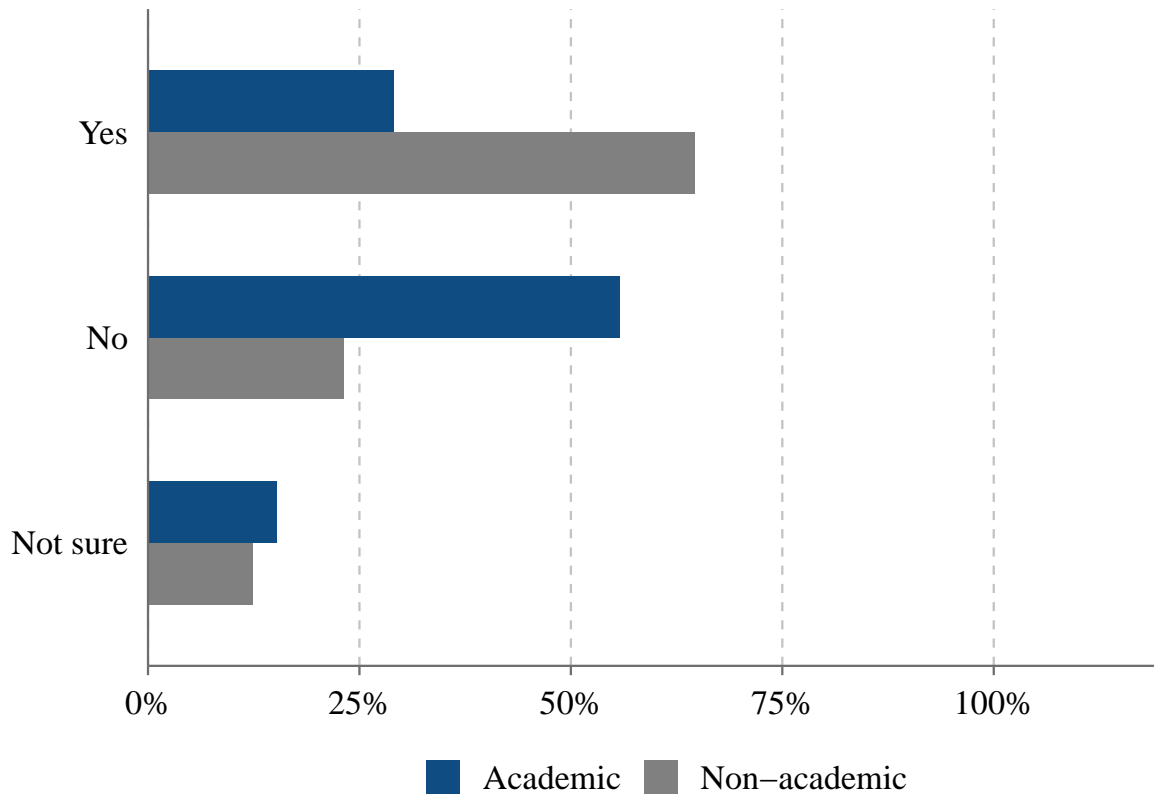
- 0
- 1
- 2
- 3 or more
- Not sure



	Academic	Non-academic
0	0%	3%
1	43%	31%
2	42%	48%
3+	10%	9%
Unsure	5%	9%

### Have you or do you anticipate co-authoring papers with your PIs in this position?

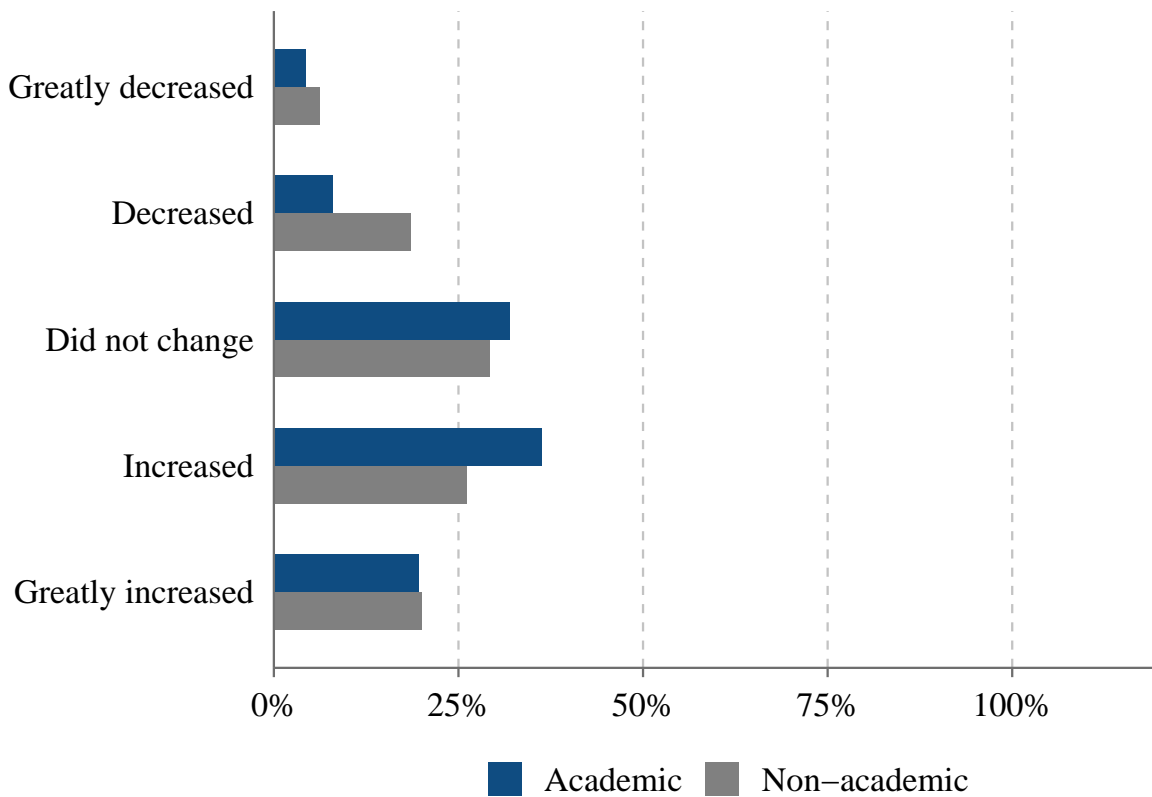
- Yes
- No
- Not sure



	Academic	Non-academic
Yes	29%	65%
No	56%	23%
Not sure	15%	12%

**How did your current position affect your interest in applying for PhD programs in economics or related fields?**

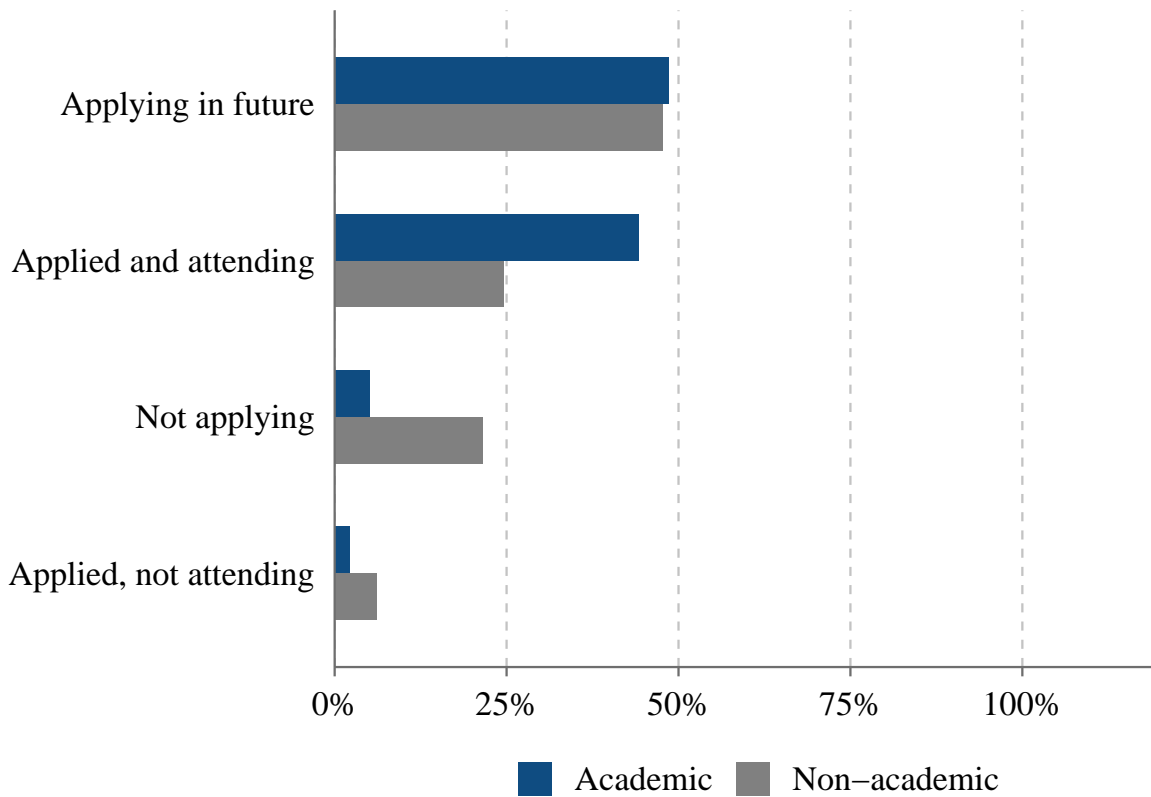
- Greatly increased
- Increased
- Did not change
- Decreased
- Greatly decreased



	Academic	Non-academic
Greatly decreased	4%	6%
Decreased	8%	18%
Did not change	32%	29%
Increased	36%	26%
Greatly increased	20%	20%

**Please indicate your current status with regards to applying to PhD programs in economics or related fields.**

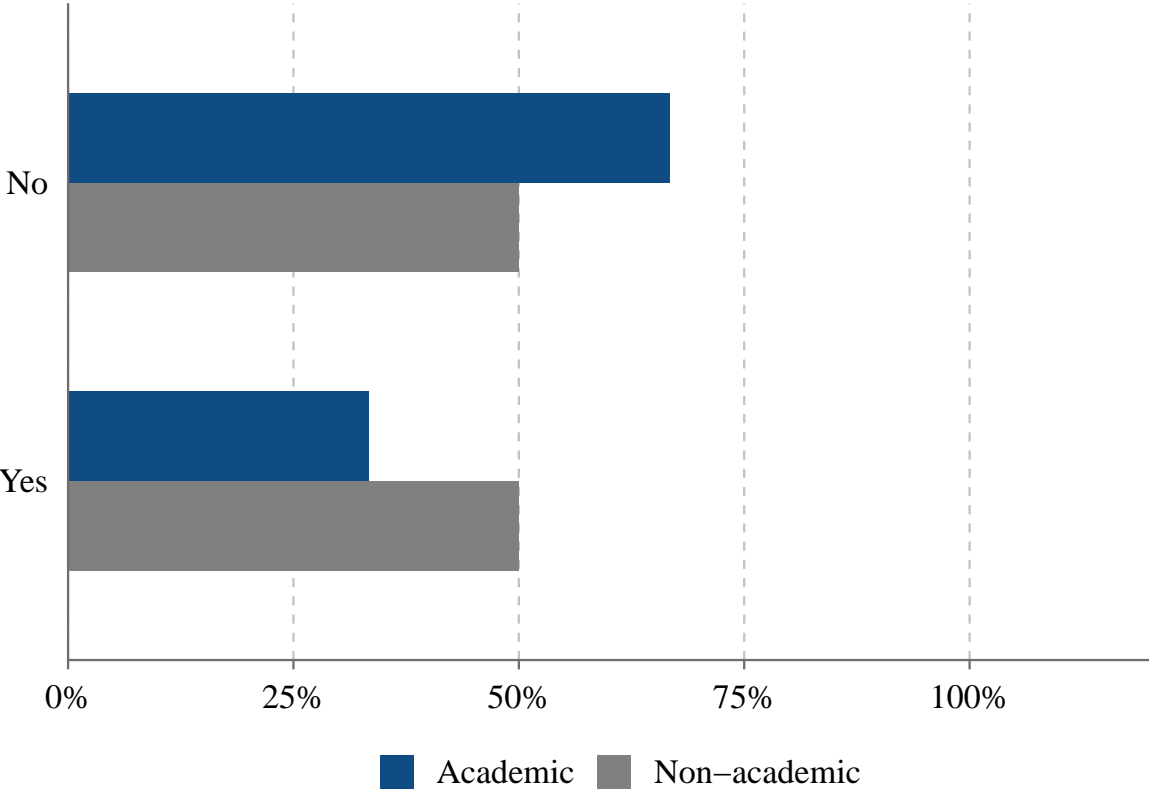
- I have applied to PhD programs and am attending a PhD program.
- I have applied to PhD programs but will not be attending a PhD program.
- I anticipate applying to PhD programs in the future.
- I have not and will not be applying to PhD programs.



	Academic	Non-academic
Applying in future	49%	48%
Applied and attending	44%	25%
Not applying	5%	22%
Applied, not attending	2%	6%

**Will you be reapplying to PhD programs in economics or related fields in the future?**

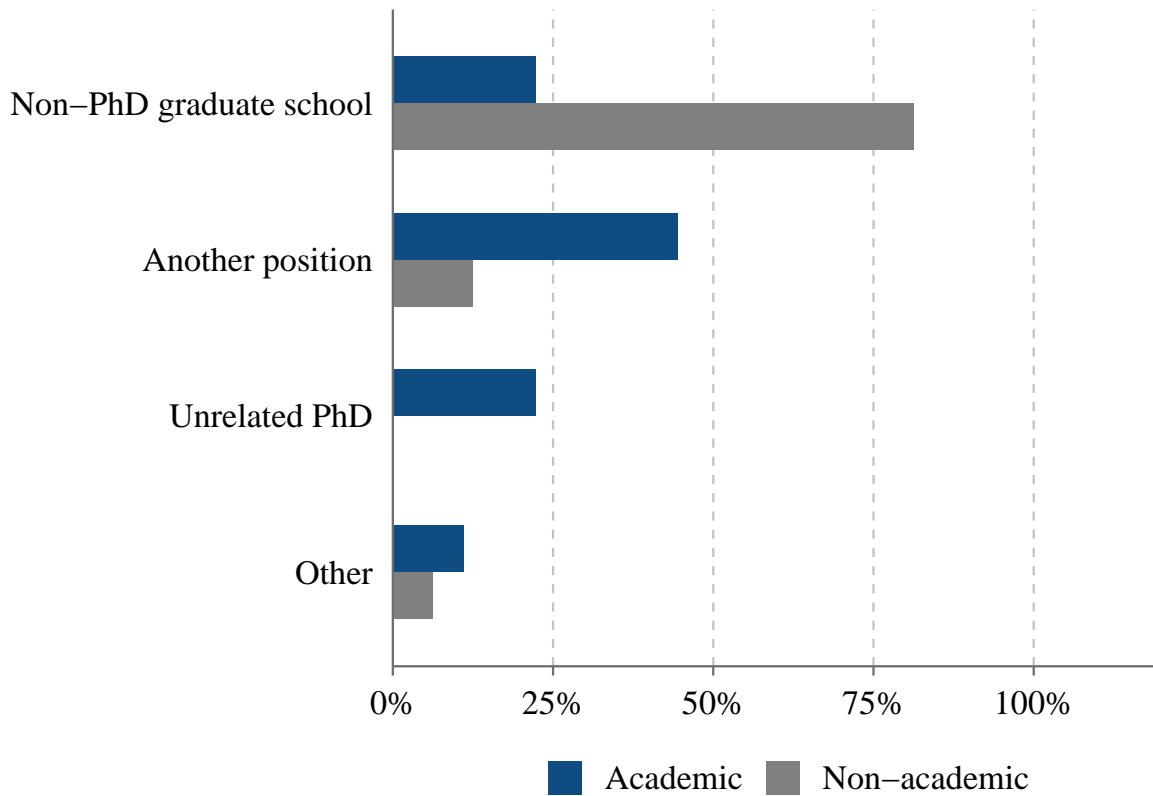
- Yes
- No



	Academic	Non-academic
No	67%	50%
Yes	33%	50%

**What do you expect to do instead of applying to PhD programs in economics or a related fields?**

- I will apply to or attend a PhD program in a field unrelated to economics (e.g., computer science).
- I will apply to or attend a non-PhD graduate program (e.g., JD, MA, MBA).
- I will apply to or switch to a position at another institution.
- Other



	Academic	Non-academic
Non-PhD graduate school	22%	81%
Another position	44%	12%
Unrelated PhD	22%	0%
Other	11%	6%

**(Optional) What is the name of the program and institution you are attending? Please provide as complete of a name as possible (e.g., PhD in Economics at New York University).**



## Open-Ended Responses

**(Optional) What is your advice to students applying to post-undergraduate research experiences?**

87 individuals answered this open-ended question. Based on the responses, we organized advice into four topics:

- I. Applying to a position
- II. Selecting the ‘right’ position
- III. Succeeding during the position
- IV. Overall experience with the position

We then manually tagged responses by whether they mentioned a frequently re-occurring piece of advice on one of these topics. Below, we provide the most common pieces of advice, including representative quotes in italics. Within each topic, pieces of advice are organized from most to least frequently occurring.

### **I. Applying to a position**

#### **1. Seek prior research experience and connections with professors**

- *It’s important to have prior research experience (e.g., honors thesis or part-time undergraduate RA)*
- *Undergrad research experiences definitely help...don’t be afraid to ask professors whether they have or if they know someone who is hiring part-time undergrad RAs.*
- *Get (very) strong recommendation letters (preferably from professors who have connections)*
- *Most important prep tip from my experience is to prove yourself to a professor at your institution and show them your motivation to do economics research.*

#### **2. Apply widely**

- *Apply to a bunch of places*
- *Apply to as many as possible! I was rejected by all but one that I applied to.*
- *Apply to every position you can find, and email professors whose work you really like. RA skills are transferable so even if you get experience in a field you don’t plan to*

*pursue, you still get valuable research skills to use in your own field of interest later, and you might develop new interests and ideas too.*

- *Look for [many] job postings on NBER website or @econ\_ra on Twitter*

### **3. Develop prior coding experience**

- *Find ways to learn Stata or R as much as possible as an undergrad*
- *Definitely learn how to code at least a bit, especially if coming from a more qualitative background.*
- *Learn as much programming as possible. If you are a great programmer you will have an easier time finding jobs and be more effective once you get there.*
- *Some of the coding skills that are valued for the positions are not traditionally taught in economics courses, such as writing efficient code without duplicated lines.*
- *If the position you are applying for asks for a coding sample...make sure that the code is well commented, well organized, and demonstrates your ability to perform a range of tasks, for eg. data cleaning, producing publication-quality tables and graphs etc.*

## **II. Selecting the ‘right’ position**

### **1. Talk to previous RAs and others about your potential supervisors**

- *Before accepting any position talk to RAs who have worked for that professor...The type of work and quality of advisor varies a lot across professors, even within university. While most RAs I know have had positive experiences, there is not much HR oversight in some places and there are a few professors that are a nightmare to work for*
- *Experience depends heavily on how well the PI treats you - talk to current RAs and make sure it seems like a good fit rather than choosing the most famous prof*
- *Try to talk to RAs at the institutions you are looking to apply. There is a tremendous amount of heterogeneity in experience, training, support, and mentorship in these jobs.*
- *If possible, reach out to ex-RAs or pre-docs who worked in that position via LinkedIn and ask for their experience working. Work experience as an RA greatly depends on the PI.*
- *If you get an offer, talk to the RA before you (or several). There’s no real accountability on the PI’s part, and it’s hard to leave if it turns out to be a bad fit.*

- *Research closely the environment of the organization, it matters a lot more to your happiness and success than the relative fame of the organization*
- *Talk to as many RAs in the current position as possible and hope that someone gives you an honest answer about their experiences. Think deeply about how much you really believe research is what promotes social good or policy change. Think deeply about what your core values relating to research are and what your level of integrity is.*
- *Try to enquire about a PI before taking a job offer or even before applying to said job. The PI that you work for shapes your entire research experience*

## **2. Seek programs with RA ‘cohorts’**

- *I’ve loved having a community of fellow RAs*
- *I’d also recommend looking for RA positions that have cohorts...These kinds of programs more often have trainings and other learning opportunities. Perhaps even more importantly, they will make the often isolating work of the RA more enjoyable*
- *Join an RAship where there are many other RAs so you can make friends and have a support group throughout the process.*

## **3. Take into account the reputation of researchers and past placements of RAs**

- *Frankly, getting hired by a "top" or at least tenured professor matters – their letter has much more weight in admissions.*
- *Ask about placement records from past RAs*

## **4. Choose diverse working environments**

- *I would also suggest that students from “diverse” backgrounds pay close attention to the diversity makeup of the RAs currently working with a specific economist. It is normally quite telling whether you’ll actually receive coauthorship and whether your boss will take your research interests seriously. It also can protect you from harassment*
- *Go somewhere that values diversity, says so openly, and has a record of having a diverse staff.*

# **III. Succeeding during the position**

## **1. Be self-sufficient**

- *Get comfortable with self-driven independent work (RAship work is very self-guided)*

- *Be prepared to self-teach yourself a lot of skills!*
- *Work hard and use it as an opportunity to primarily focus on picking up 2 key skills: 1. technical/coding skills and 2. project management- better organization of files, structuring of project tasks in a more efficient manner, etc.*

## **2. Work to develop a relationship with your supervisor**

- *Make the most of your exposure to PIs and other faculty*
- *Get to know your PI. Ask them out for a meal, get to know them and the research they have done and advise about grad school. They know a lot!*
- *PIs want to work with you as a researcher but also a co-worker - it's okay to be friendly!*

## **3. Don't be afraid to prioritize your own research or classes**

- *Make sure you have time and support to work on your own research or classes*
- *Prioritize independent research.*
- *If you want to take classes, figure out beforehand the amount of work hours you need to put in. Before accepting the job, communicate this with the PI and make your intentions of taking classes clear.*

# **IV. Overall experience with the position**

## **1. Positive experiences**

- *It's a good way to figure out whether academia is something you want to do.*
- *Predoctoral research positions provide the following: (1) the ability to test out doing real economic research and see if this is something you want to do as a career, (2) a way to get letters of recommendation for your doctoral applications that can attest to your research experience, and (3) additional time for you to take classes you need (real analysis, etc)...if you are interested in learning more about if a economics or economics-adjacent (finance, public policy, etc) research career is what you want, I would strongly recommend these programs.*
- *It's a great opportunity to develop skills, get a break from student life and a taste of the real world, and expand your understanding both of your discipline and the world at large.*

- *Do it! I have appreciated this time and space to experience and learn more that has shifted my focus and will affect my graduate school trajectory.*

## **2. Negative experiences**

- *It is a data cleaning job and nothing more. Long hours with no prospects for co-authorship. [However] One should clearly understand that this experience and recommendation letters would do a miracle [for grad school admissions]*
- *Go to the private sector*
- *I would recommend it only as a back-up. If you are unable to get into grad school without it, it will aid that ability. Other than working the system in this way, you will not learn particularly much that is relevant for your future plans.*
- *You are trading pay for recommendations. The results and job quality will be 100% a function of the PI you work for.*

## References

Schlauch, Garrison and Richard Startz. 2018. “The path to an economics PhD.” *Economics Bulletin* 38 (4):1864–1876.