



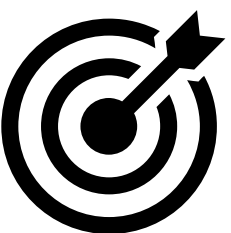
# Should I Stay or Should I Go?

*A career in the sciences*

Report 18-021

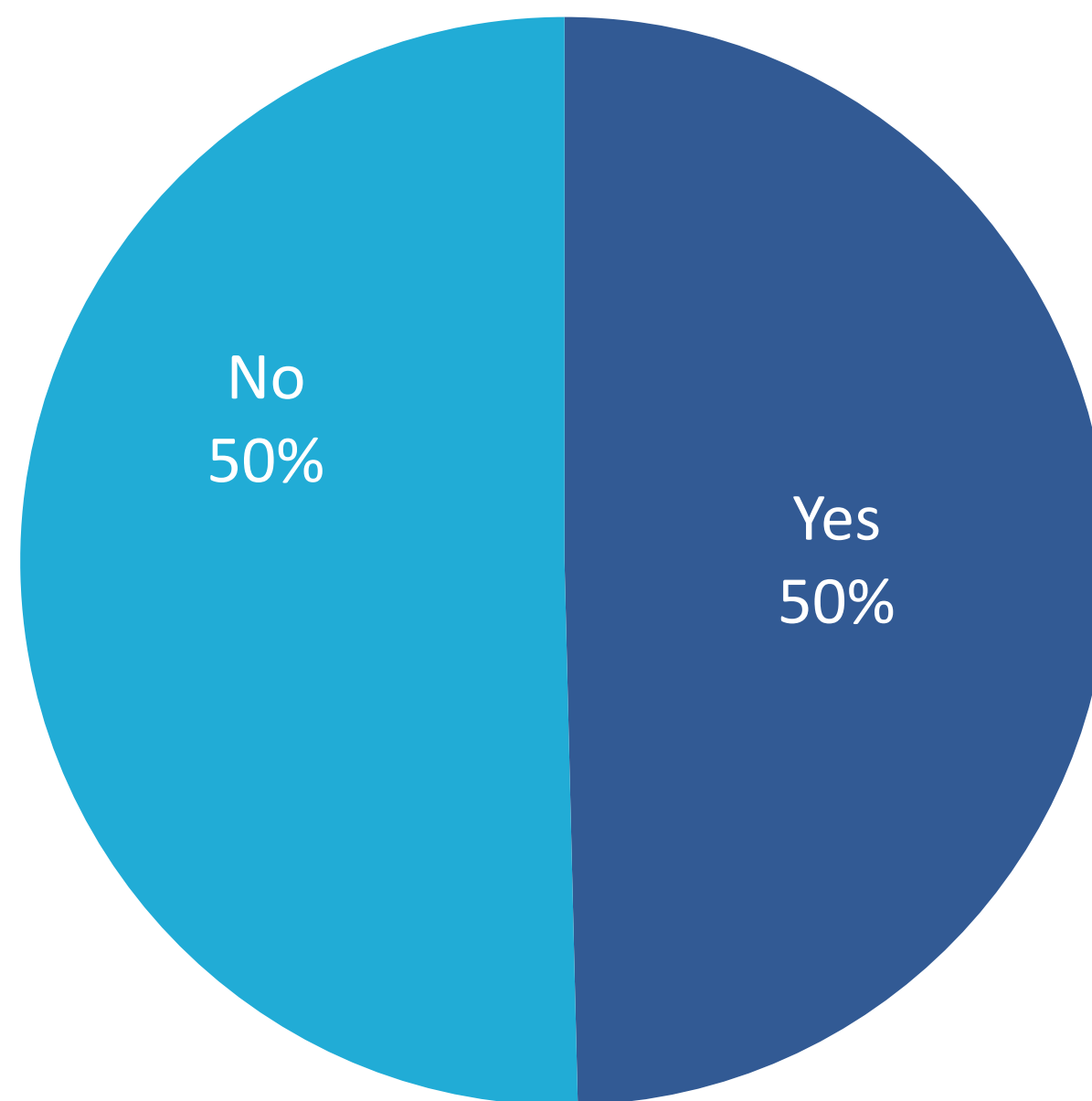
## Study Objectives

- Obtain information about career paths in science.
- Understand the driving factors of career satisfaction in the sciences.
- Examine how likely a science professional is to leave his/her career.
- Allow participants to benchmark their preferences/experiences to others.



# Study Results

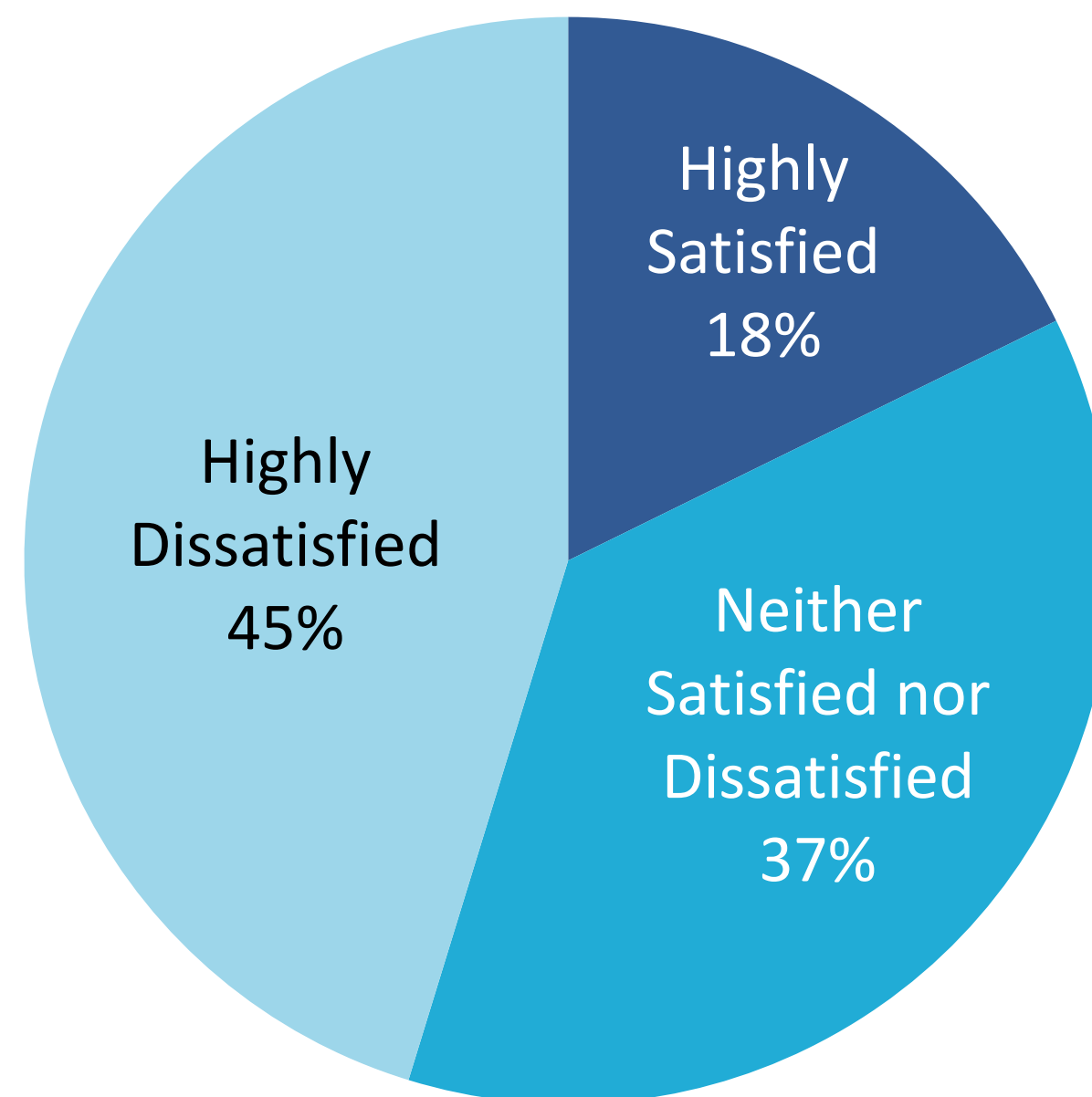
## 50% of Scientists Surveyed Have Considered Leaving Their Career in the Sciences



n= 643



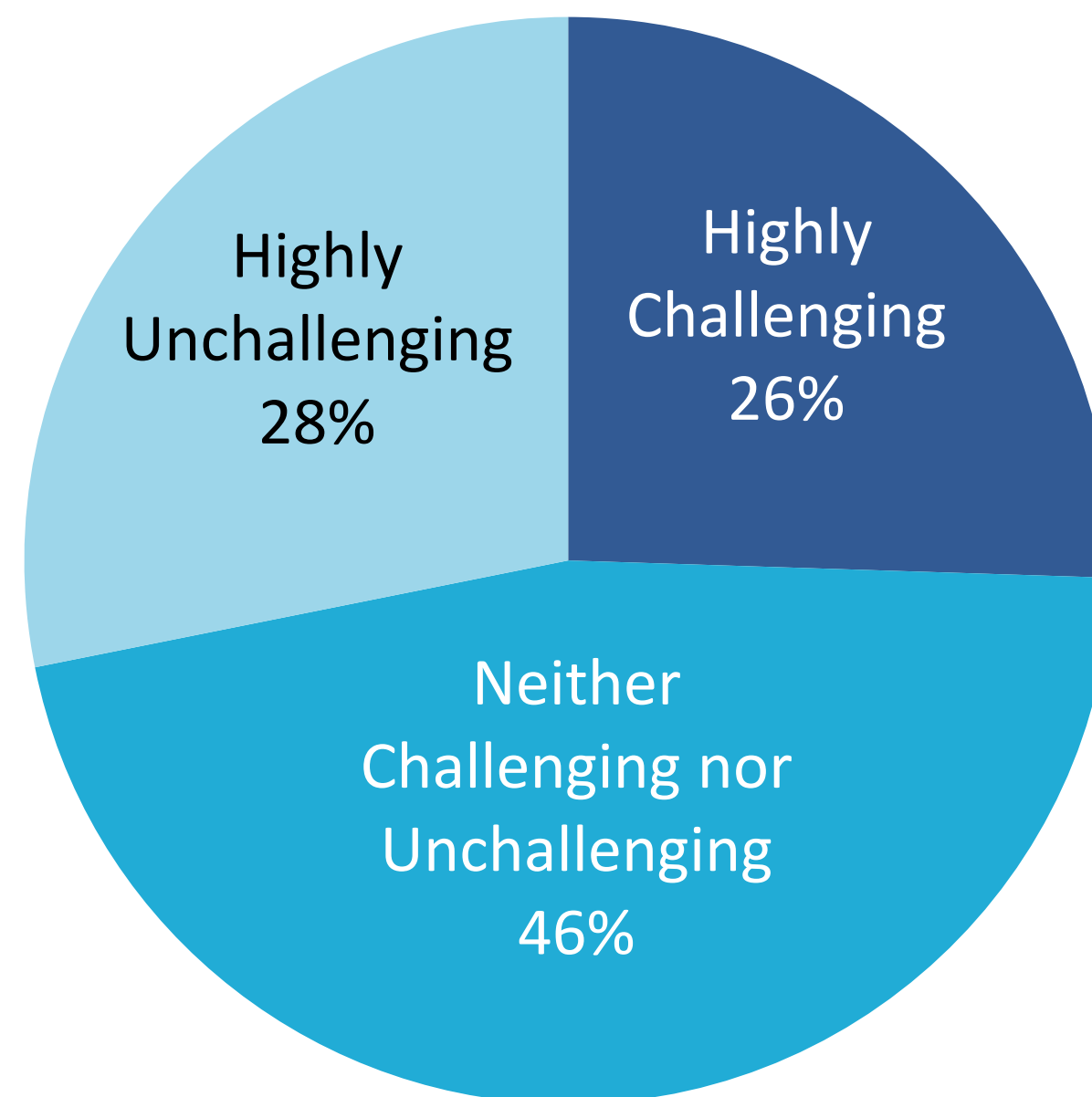
## Only 18% of Scientists Surveyed are Highly Satisfied with Their Current Position



n= 643



## Only 26% Find their Job Highly Intellectually Challenging

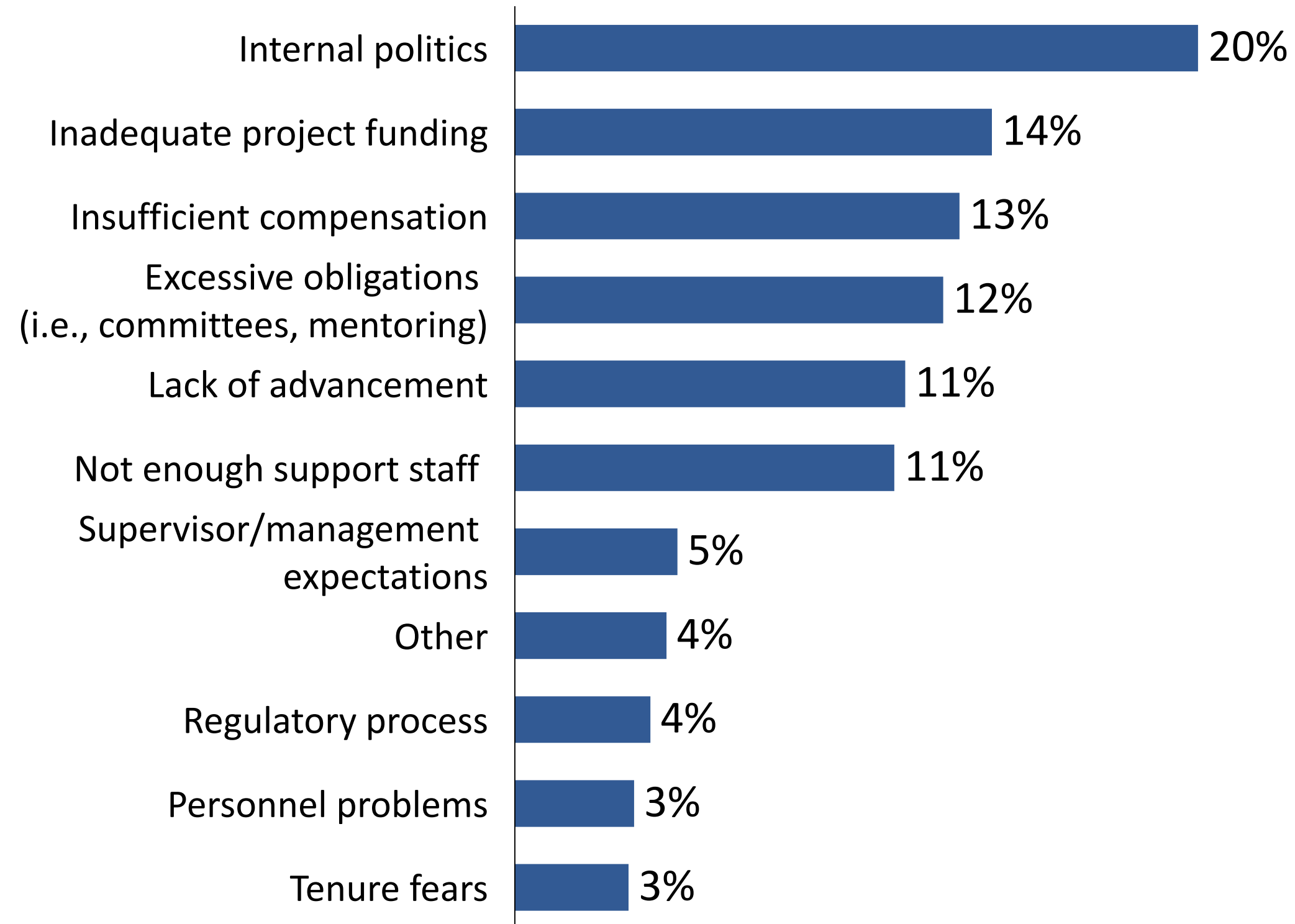


n= 643



# What's Driving those Statistics?

## The Main Work-Related Frustrations of Scientists



Scientists across the board report a large problem with internal politics. Professionals are constantly competing with one another for talent, who gets published, who gets funded, the pressure to have significant findings etc.

### Interesting Findings:

- Academic professionals are more frustrated than Pharma/Biotech professionals with inadequate project funding (16% vs. 6%).
- Pharma/Biotech professionals are more frustrated than any other group with supervisor/management expectations (10% Pharma/Biotech vs. 3% Academic and Other).
- Almost a quarter of Millennials are frustrated with insufficient compensation, more than any other generation (22%).

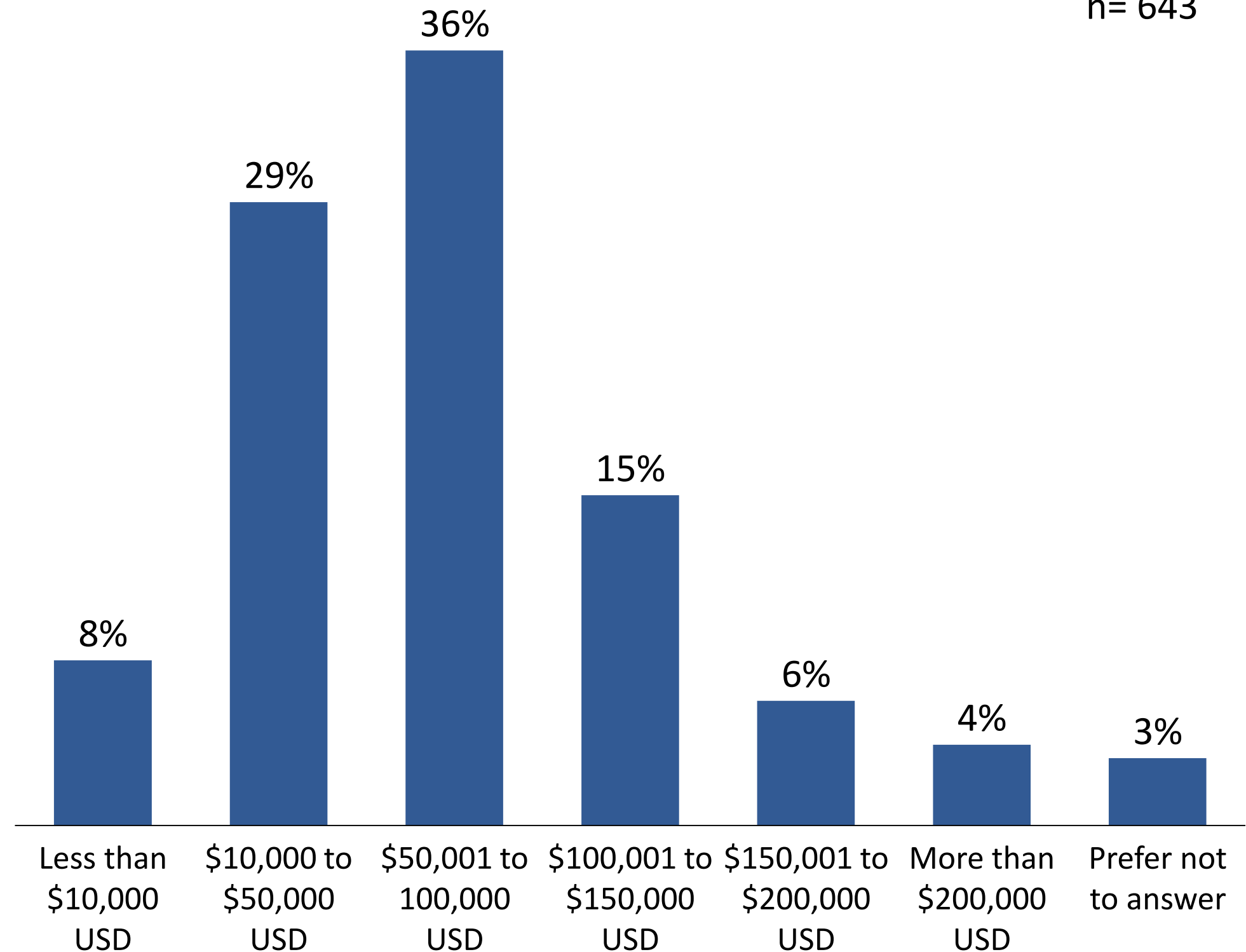


## Scientists' Base Salaries

n= 643

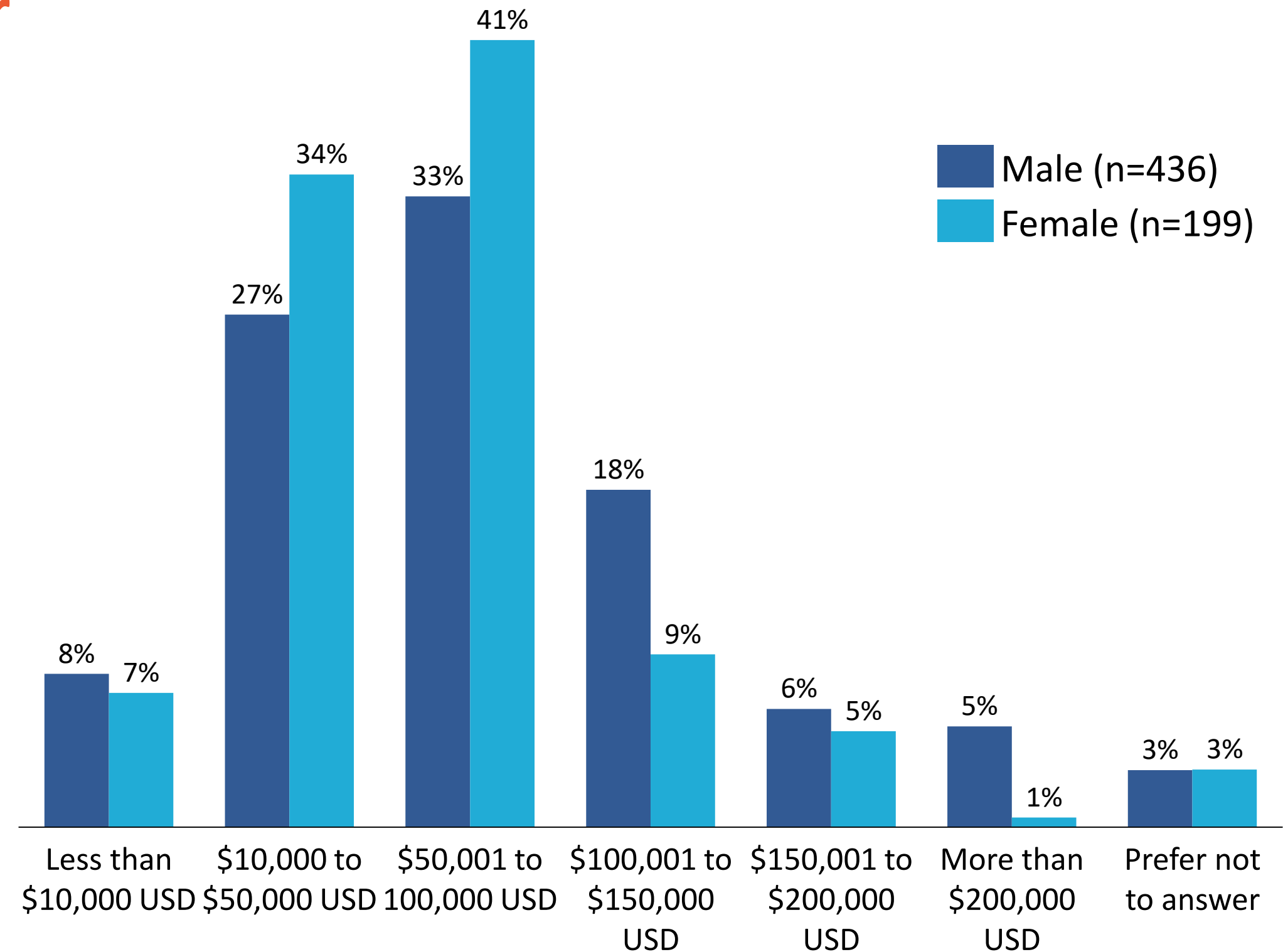
Being a scientist is more than a job, it's a *calling*. A desire to make the world better and to understand the way things work.

- 37% of scientists earn **\$50,000 USD or less**
- **49% strongly disagree** that the salary they receive is adequate to cover their expenses and support their lifestyle.
- **62% strongly disagree** that the salary they receive is fair considering their age, education, and experience.
- **64% strongly disagree** that their institution/company provides a benefits package adequate for their needs.



## Scientists' Base Salaries by Gender

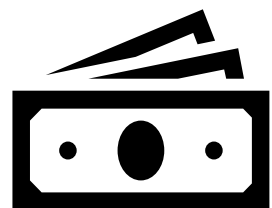
- 29% of male scientists report making \$100,001 USD or more while only 15% of females match that.
- Almost a quarter of women strongly disagree that the salary they receive is fair considering their age, education, and experience, more than men do (22% of women, 15% of men).



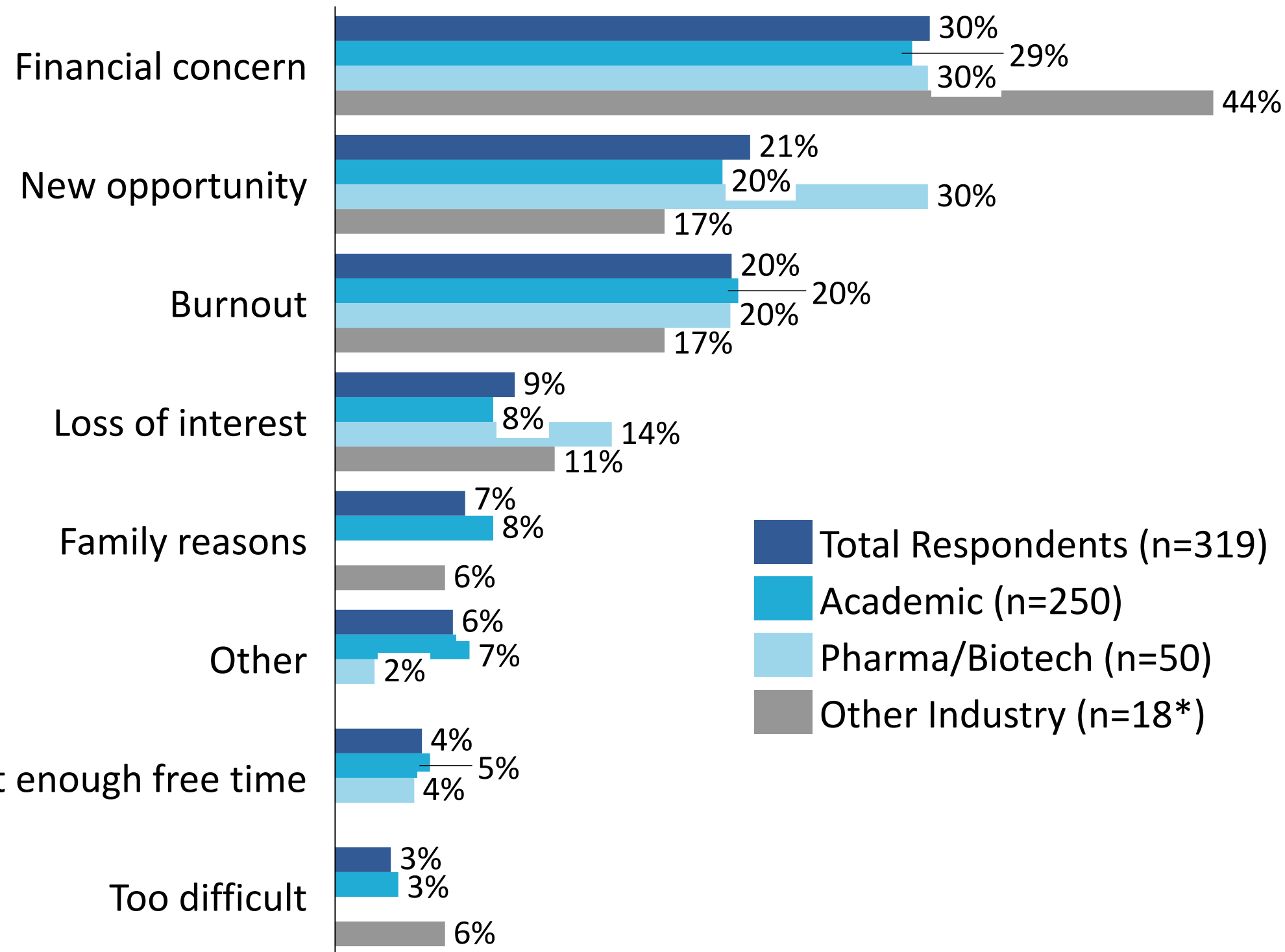
## Scientists' Base Salaries

Many scientists feel they do not earn a sufficient salary. Obviously workers of any career (or in any field) want fair compensation; it is rare to ever find someone that is completely satisfied with their pay. However, what often gets overlooked for scientists is that what they do is not just a job, it's a *calling*. A calling to make a difference. A calling to contribute something to the overall benefit of society.

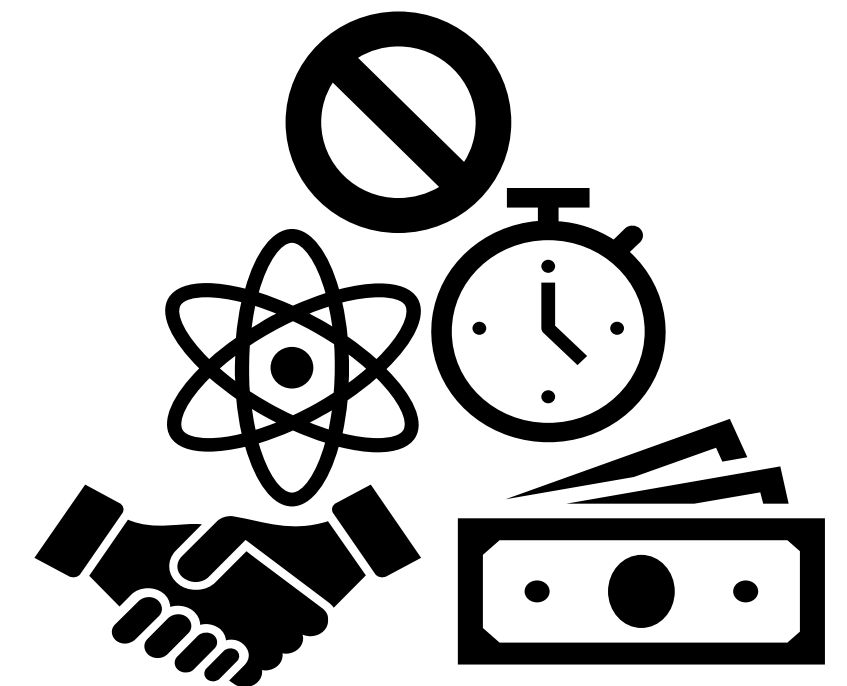
So given the sacrifices they have endured of strenuous school years, the cost of paying for that schooling, the long hours spent in the lab, the low-paying post-graduate jobs, and all the frustrations they have encountered, it is valid that many would feel undercompensated and undervalued as an employee.



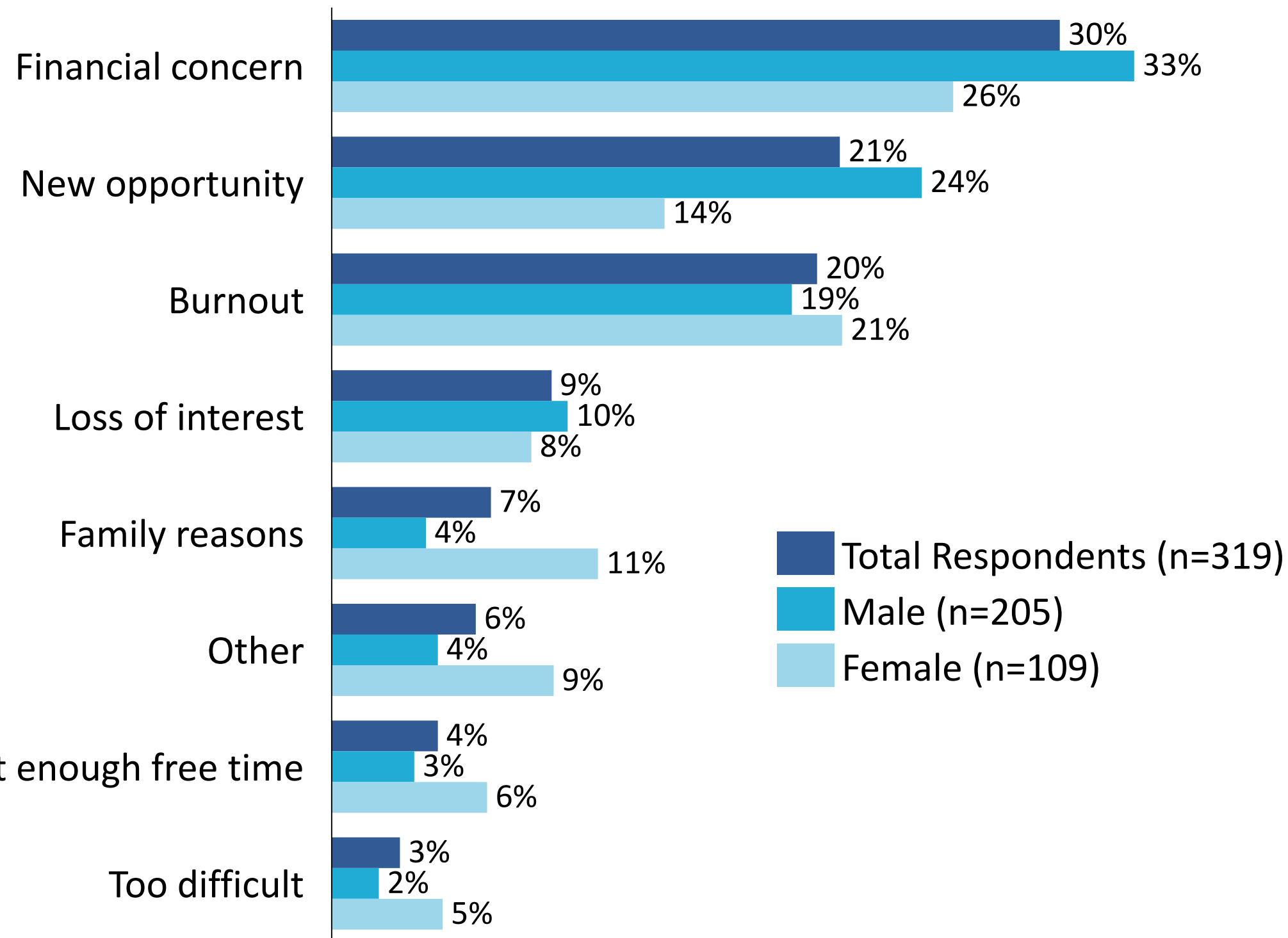
## Main Reasons to Leave Career



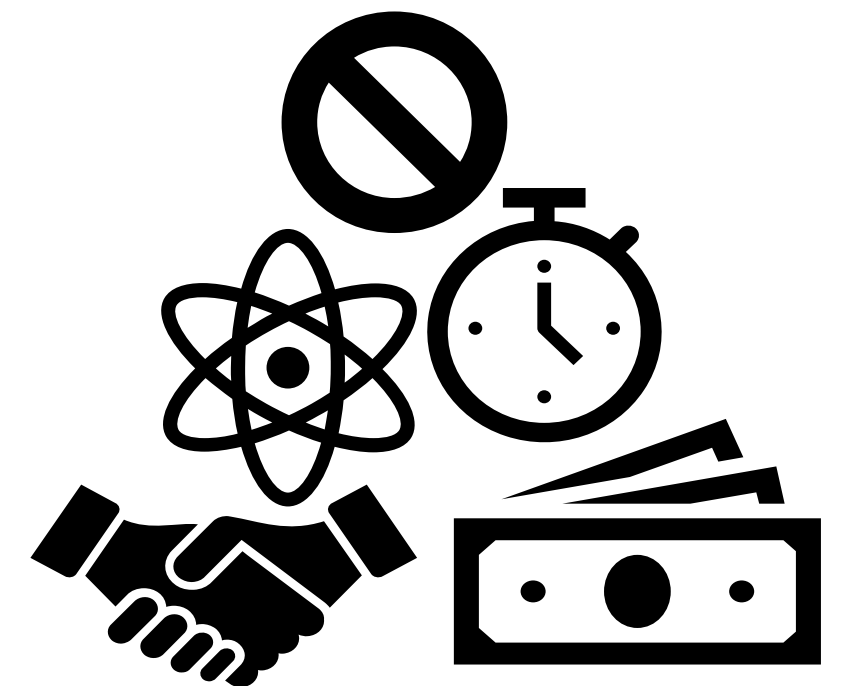
- Scientists working in Pharma/Biotech were more likely to consider leaving their career due to new opportunities and loss of interest than any other group. They were the least likely to leave due to family reasons.
- Scientists working in academia were the least likely to consider leaving due to loss of interest.



## Main Reasons to Leave Career



- Males were more likely to consider leaving due to financial concerns and new opportunities than females.
- Females were more likely to consider leaving due to burnout and family reasons than males.
- In part these reasons reflect different traditional roles in the family (breadwinning vs. caregiving either for immediate family or extended family).



## Many Scientists Feel a Lack of Support

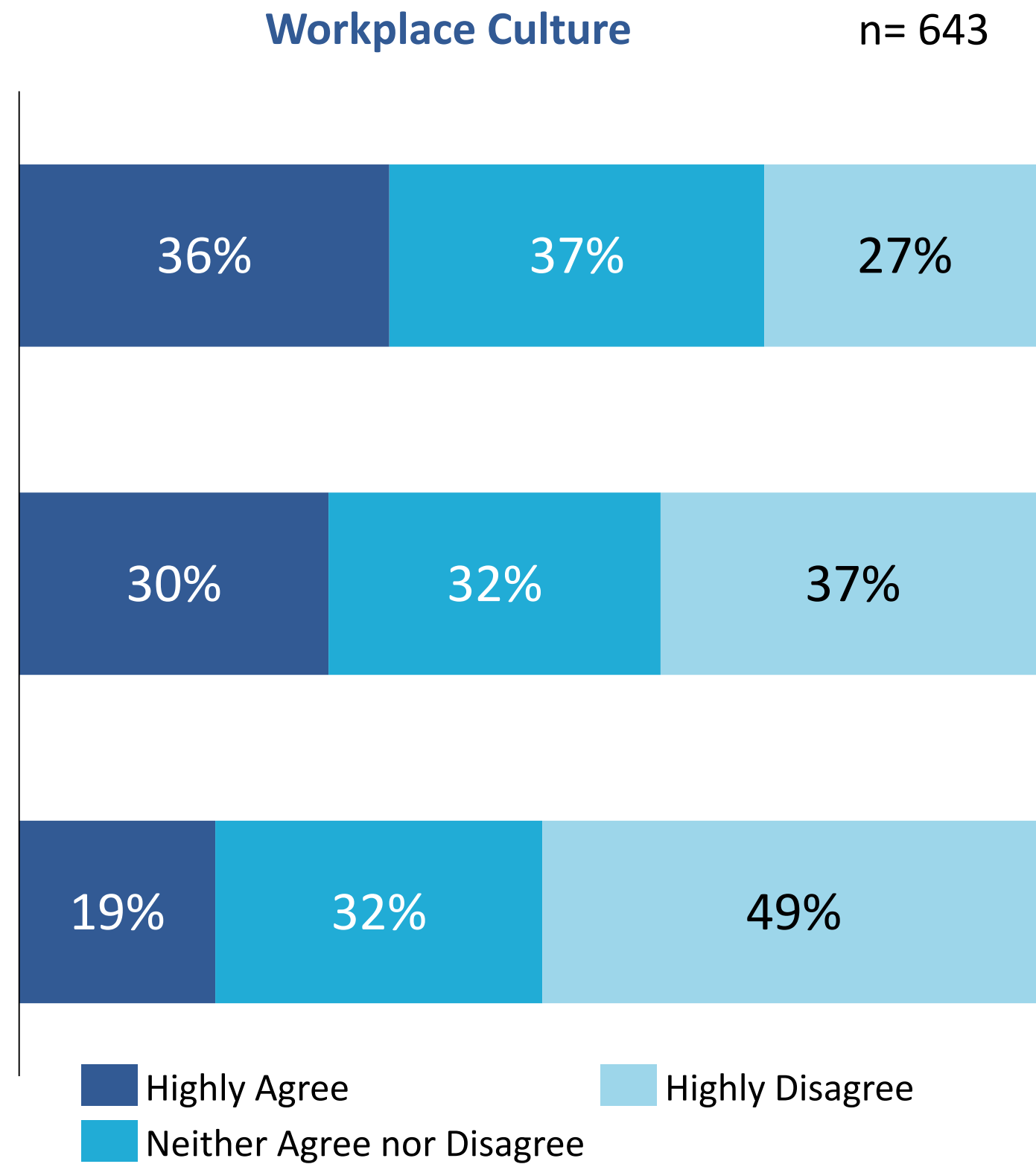
Scientists feel more valued by their colleagues – the people they’re metaphorically in the “trenches” with – than they do by the people who are externally related.

- Europeans are less likely to feel that any other group of people values their workplace contributions.
- Those in the Academia feel the least supported out of all the other industries.
- Females are more likely than men to strongly disagree that their colleagues value their workplace contributions.

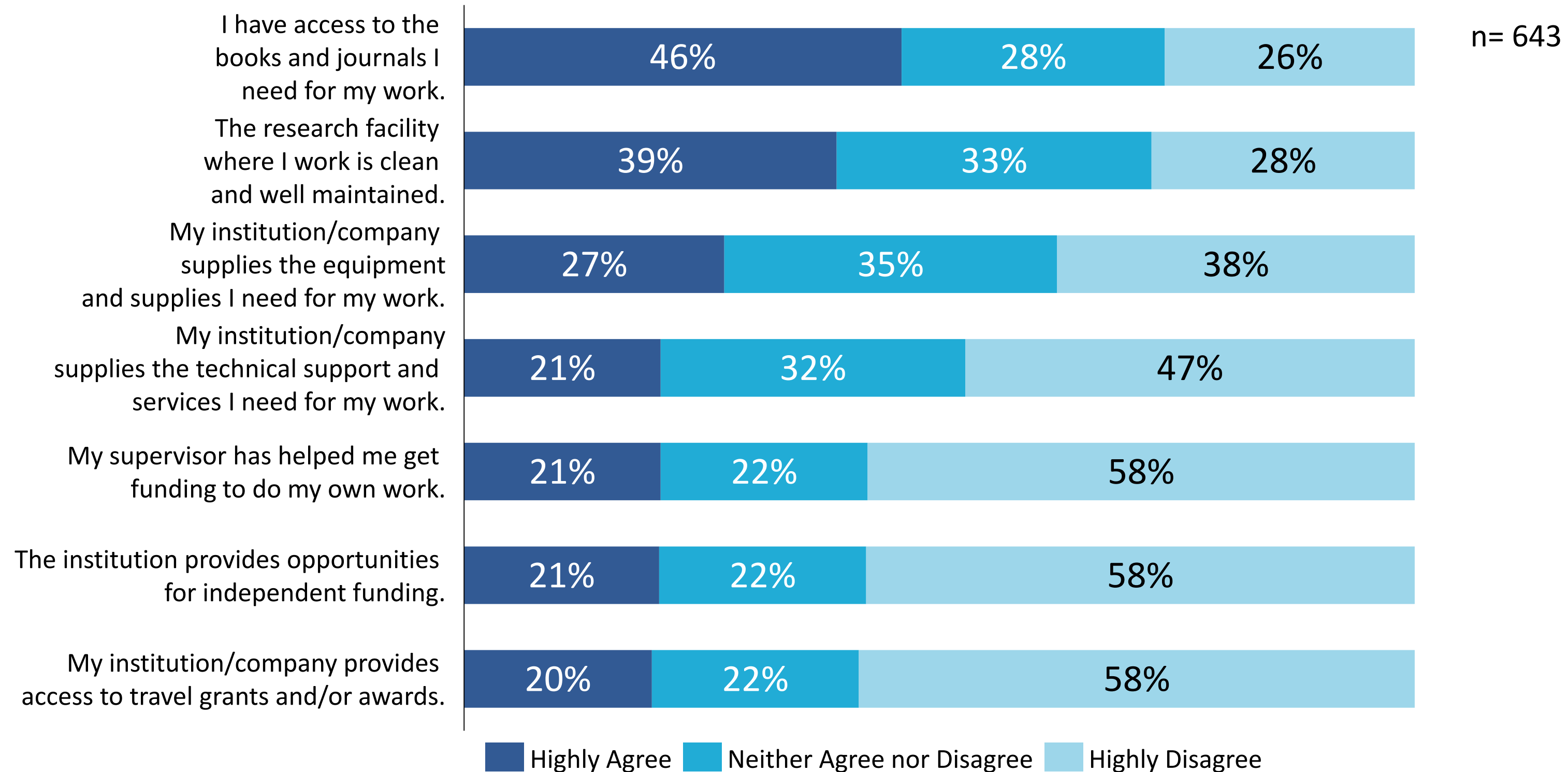
My COLLEAGUES value my workplace contributions.

My SUPERVISOR values my workplace contributions.

My INSTITUTION/COMPANY values my workplace contributions.



## Many Are Dissatisfied with the Quality of Facilities and Infrastructure



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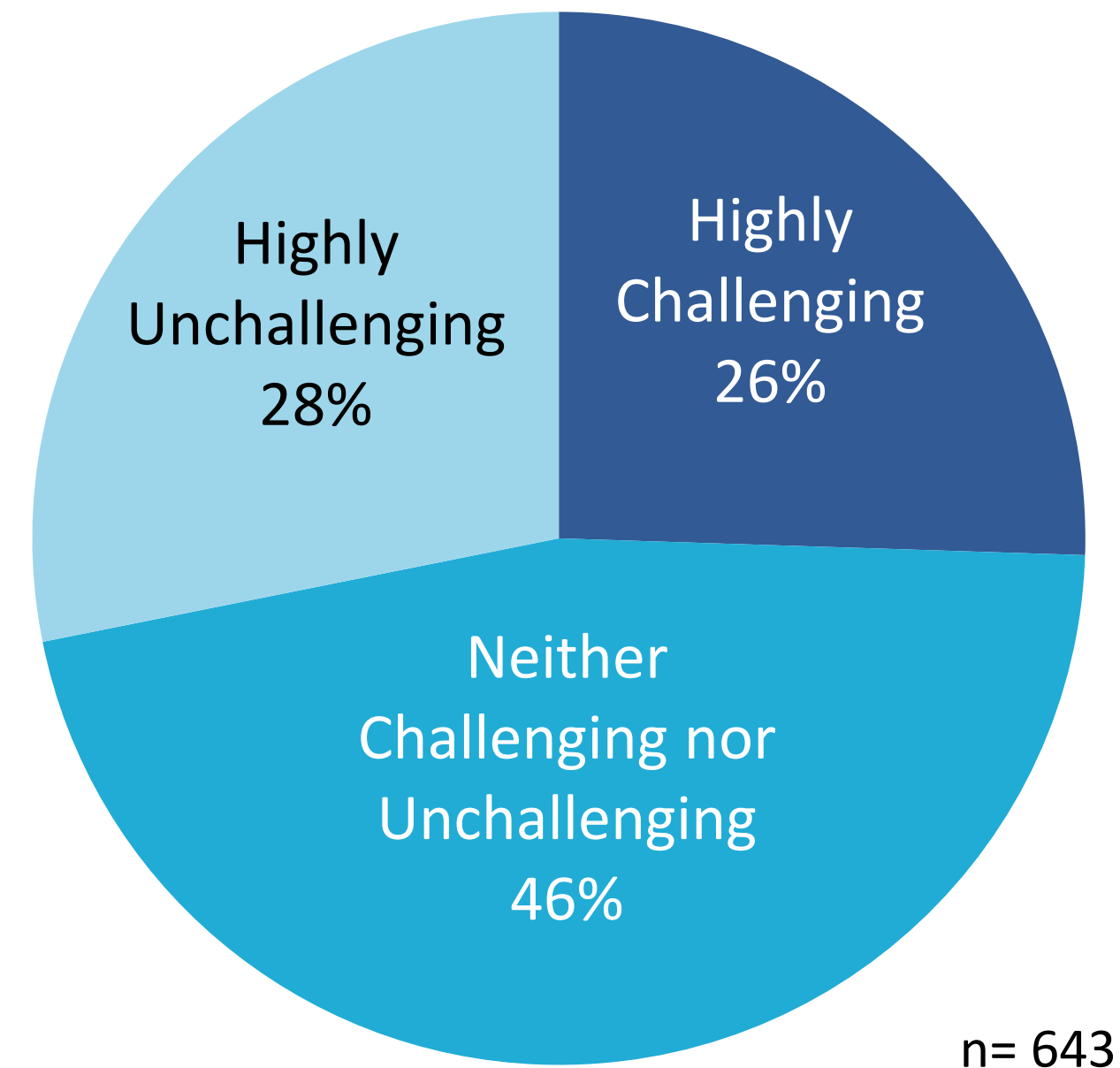
- Only 15% of European scientists strongly agree that their institution/company supplies the technical support and services they need for their work.
- Scientists in Academia are more likely than scientists working in Pharma/Biotech to strongly disagree that their institution/company supplies the equipment and supplies they need for their work (Strongly Disagree: Academic 44%, Pharma/Biotech 18%).
- The lower the salary, the higher the percentage of respondents that strongly agree that their institution/company supplies the technical support and services they need for their work.



## Many Scientists Do Not Feel Challenged

- Boomers ranked their current positions as more intellectually challenging than average.
- Generation X ranked their current positions as less intellectually challenging than average.
- Those who make more than \$150,000 USD ranked their current positions as more challenging than average.

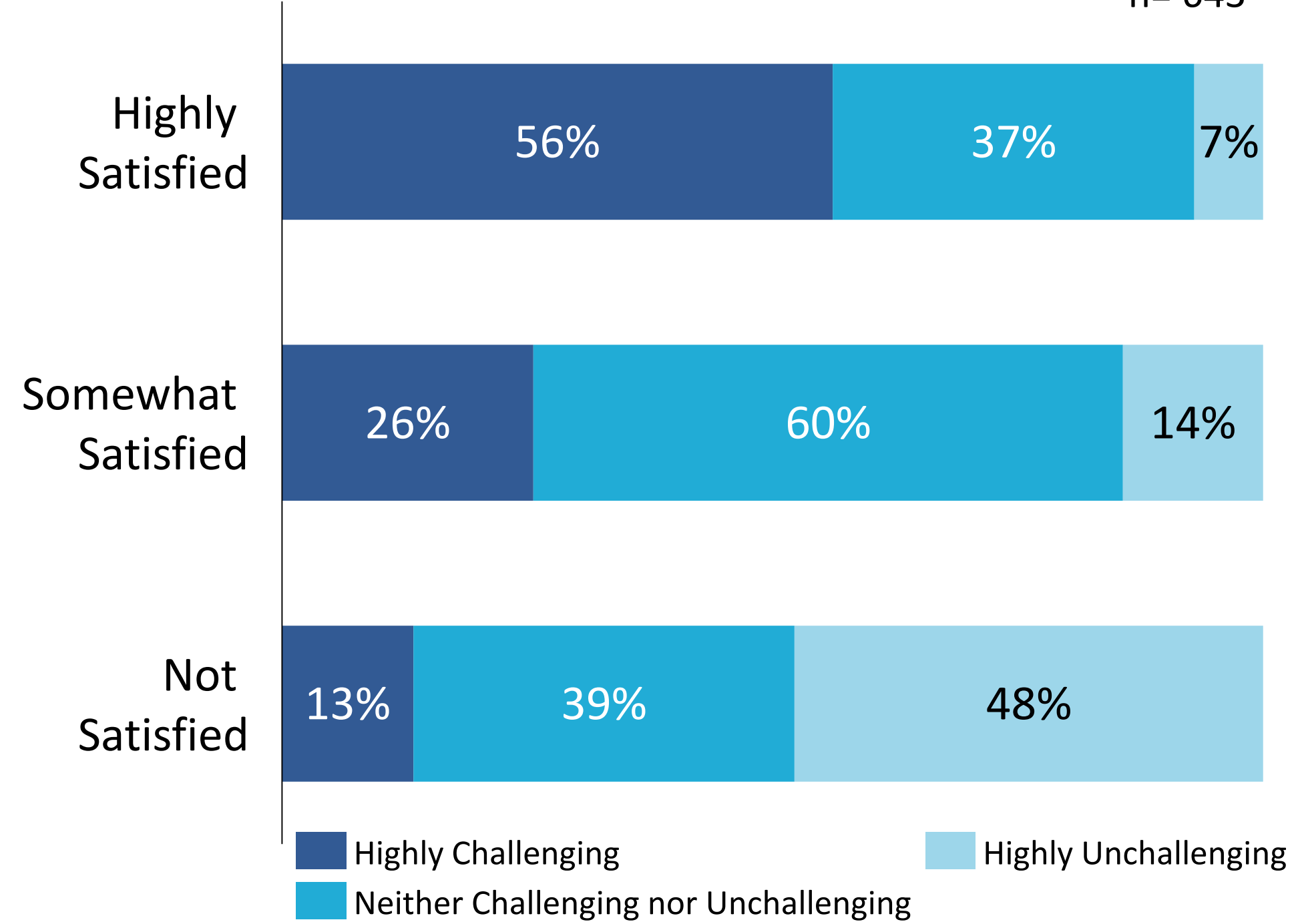
Level of Intellectual Challenge



## The Correlation Between Satisfaction and Challenge

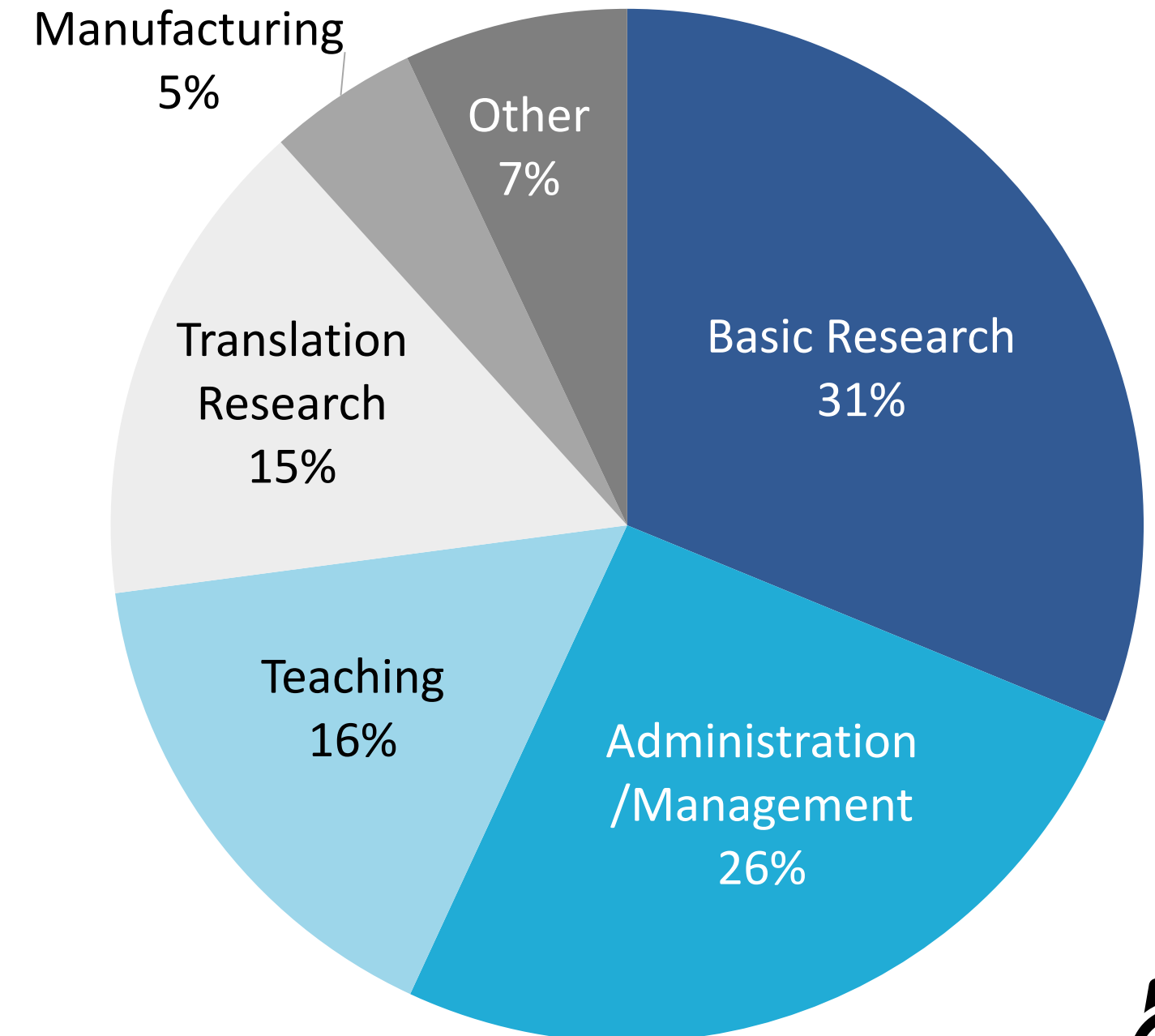
- There seems to be a direct correlation between overall job satisfaction and the level of intellectual challenge involved with scientist's current positions.
- The more intellectually challenged one is, the more overall satisfied they seem to be.
- 48% of those who are unsatisfied with their job feel highly unchallenged while 56% of those who are highly satisfied with their job also feel highly challenged.

n= 643



## Percentage of Time Spent Performing Tasks in Current Position

- Pharma/Biotech and other industries report spending more of their time performing administration/management tasks than those in Academia (33% Pharma/Biotech vs. 23% Academic).
- Those in Academia spend more of their time performing basic research than those in Pharma/Biotech (34% Academic vs. 25% Pharma/Biotech).
- There is a positive correlation between earning a larger salary and spending less time performing basic research.
- Scientists making more than \$150,000 USD spend more time than average performing “other” tasks.

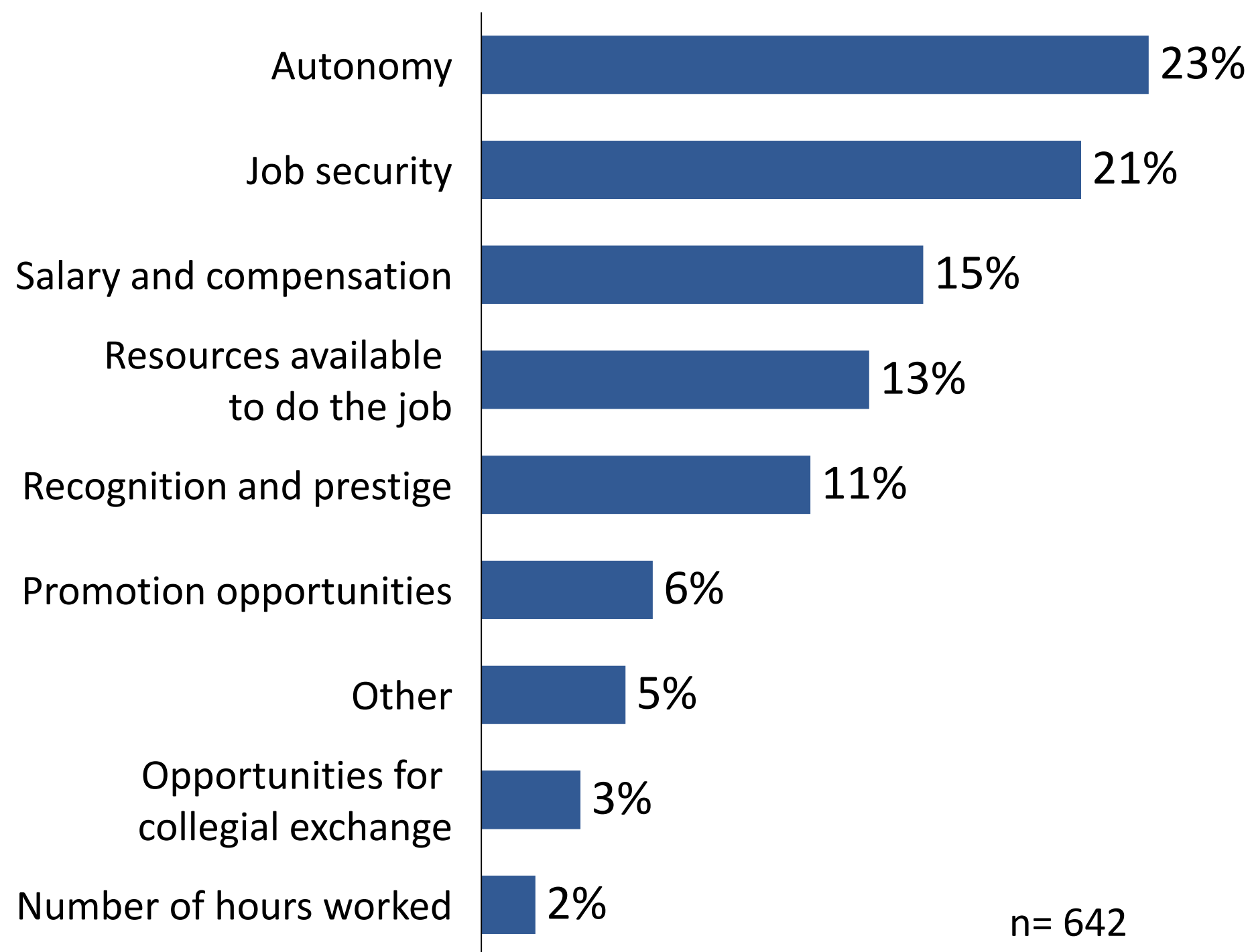


### Some Other Tasks According to SAB Members:

- Clinical Work
- Quality Control
- Analysis
- Project Management
- Diagnostics Research



## The Most Important Factors in Scientist's Professional Lives



- Asian scientists ranked recognition and prestige as their number one most important factor in their professional lives.
- Males ranked autonomy as the most important factor while females ranked job security as most important factor.

15% of those making more than \$150,000 USD marked "Other" as being the most important. Some of their answers include:

- Intellectual stimulation and challenge
- Job satisfaction
- Accomplishment and self-satisfaction
- Work/Life balance
- Contribution to society



# Implications

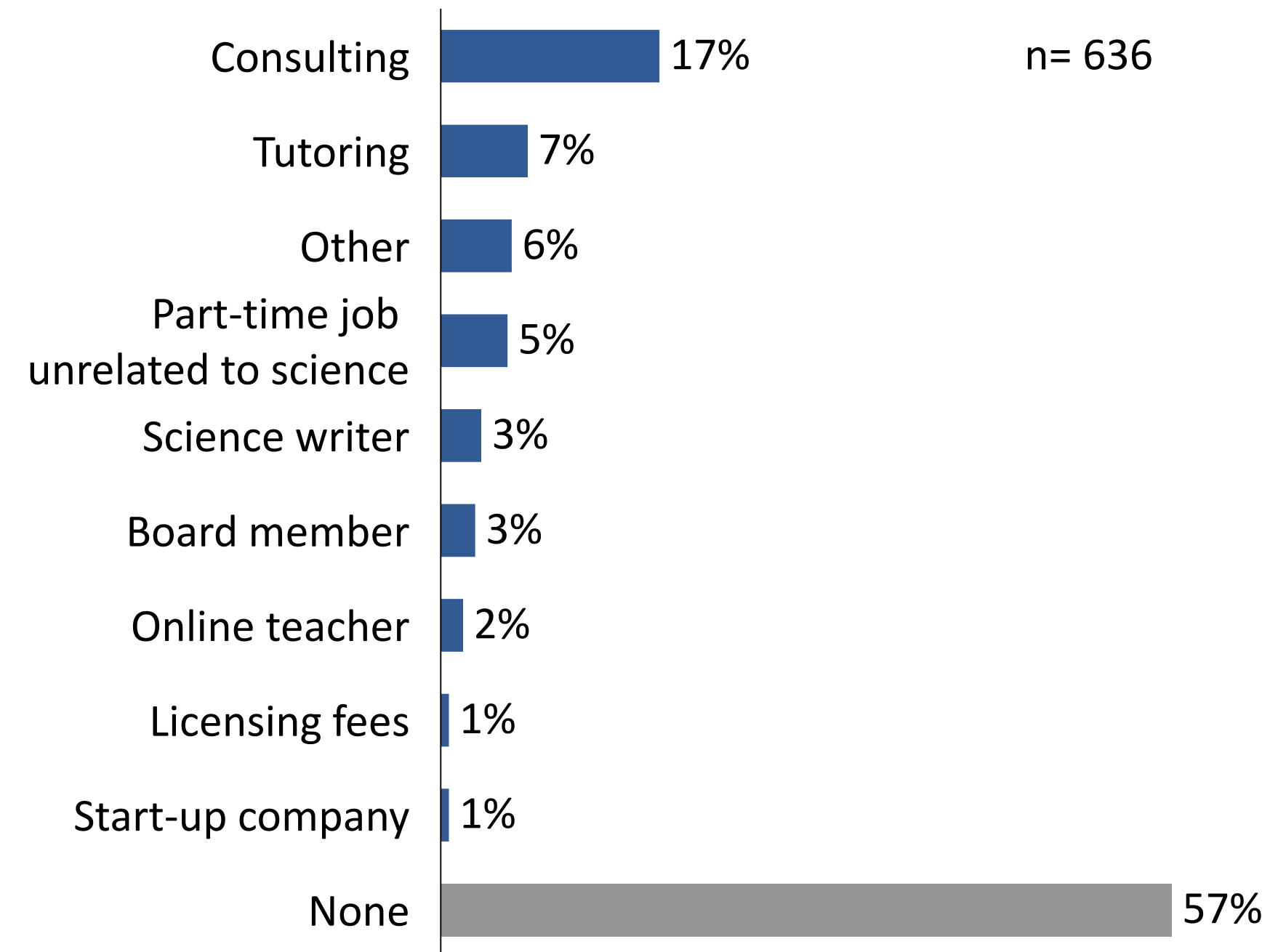
## Scientists Seek Additional Income

- Due to an insufficient salary, 43% of scientists seek additional income.
- Scientists in Asia are more likely than those in any other region to pursue science writing as an additional source of income.
- Male scientists are more likely than female scientists to have an additional source of income.
- Out of all the age groups, Boomers are the most likely to have an additional source of income.

### Some “Other” Sources of Income According to SAB Members:

- Exam rater
- Renting out properties
- Adjunct faculty
- Grant reviewer
- Teaching at a University

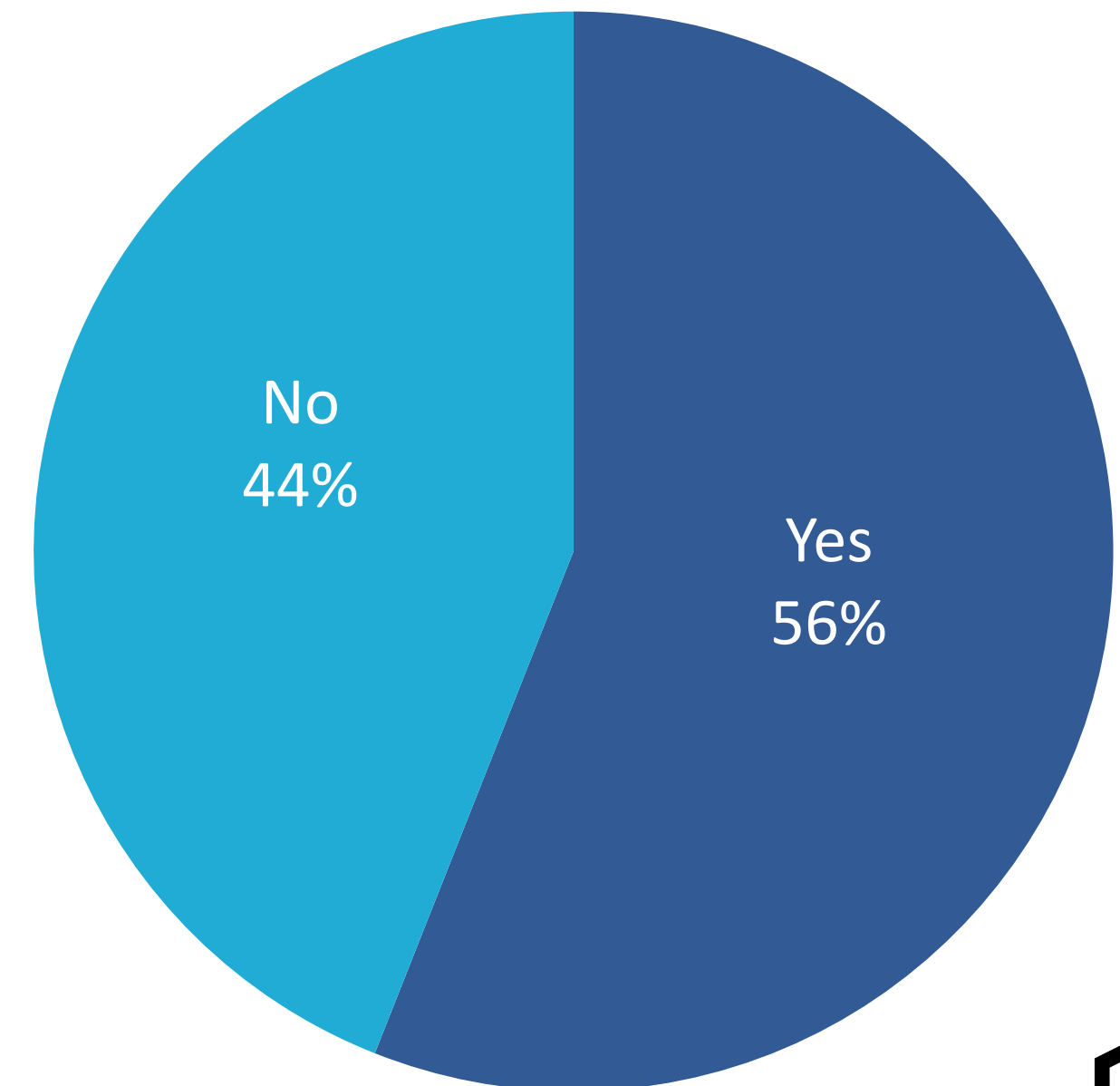
### Sources of Additional Income in 2017/2018



## Scientists Consider Relocation

- 71% of Asian scientists would consider relocating to another country.
- Male scientists are more likely than female scientists to consider relocating to another country (Willing to Relocate: 59% male, 49% female).
- There is a positive correlation between youth and willingness to relocate.
- Millennials are much more willing to consider relocation than Boomers (Willing to Relocate: 41% Boomers, 74% Millennials).
- There is a positive correlation between willingness to relocate and salary, the less one makes, the more willing they are to relocate.

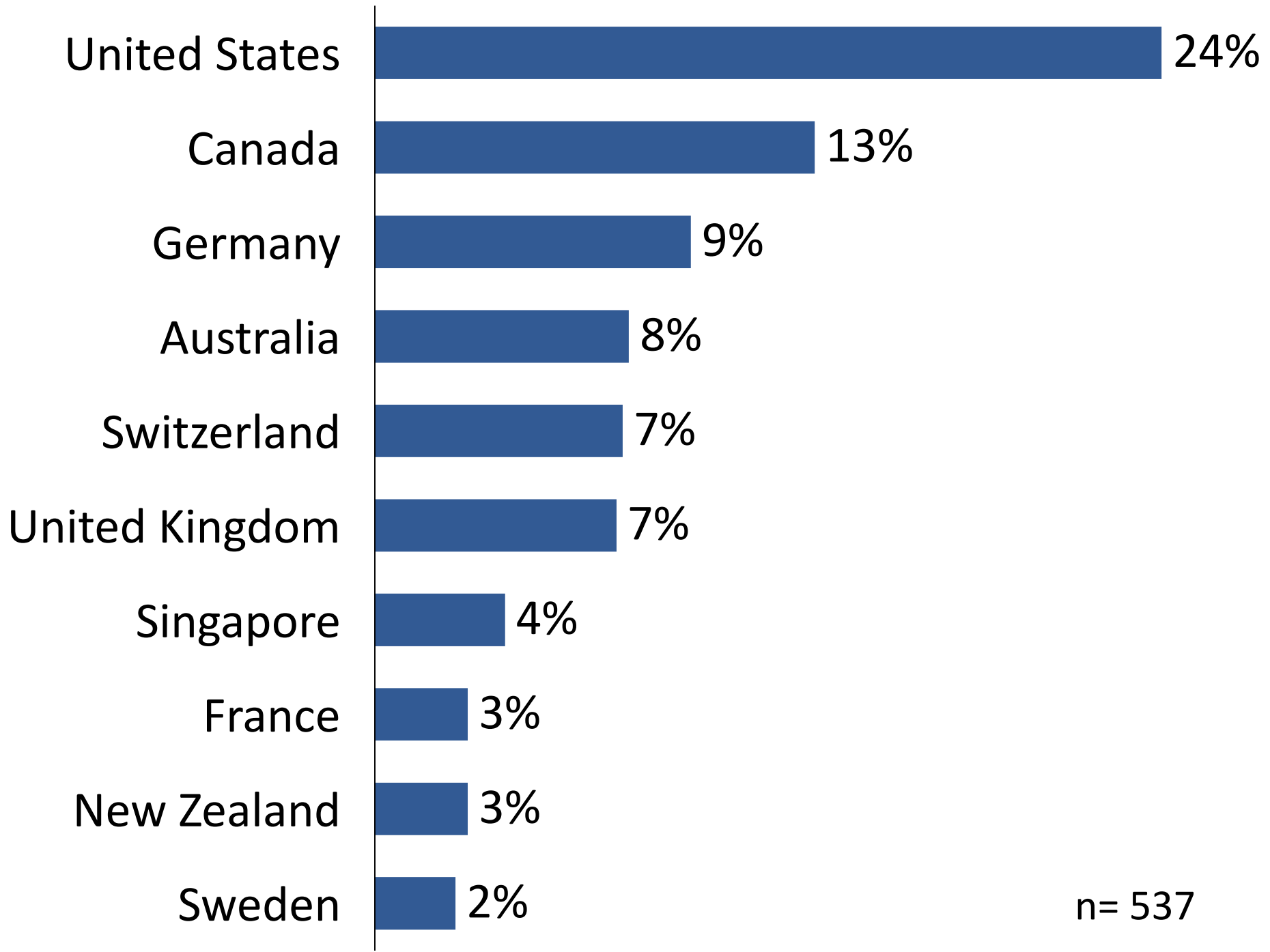
Percentage of those  
Considering Relocation



n= 643



## Most Attractive Countries for Relocation in Regard to Science (Top 10)



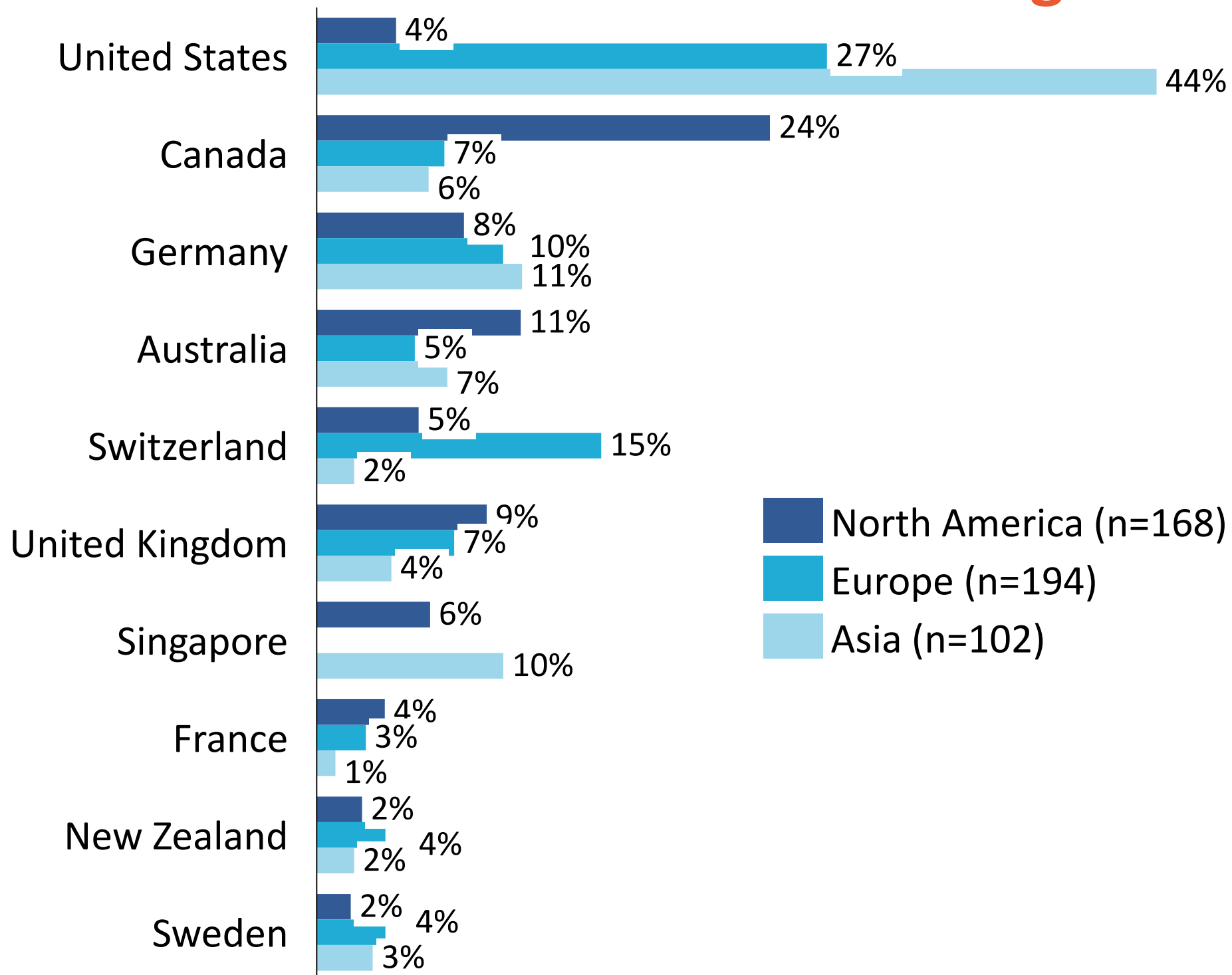
n= 537

- The United States is considered the most attractive country to relocate to by those who live elsewhere.
- 16% of respondents indicated that relocating within the country they currently live in is the most attractive option.





## Most Attractive Countries in Regard to Science (Top 10)

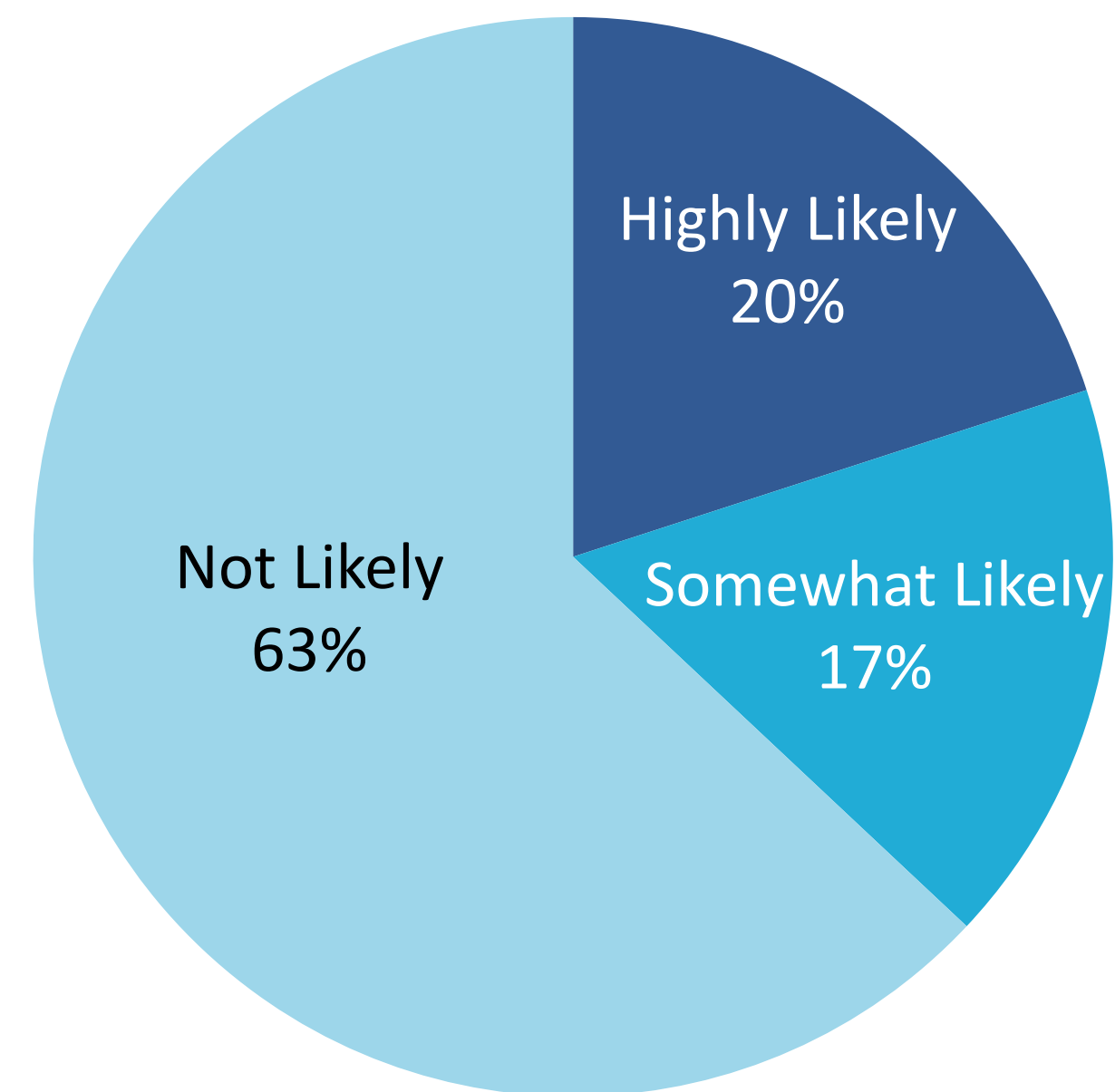


- Europeans are twice as likely to choose Germany for relocation than North Americans.
- North Americans are almost three times more likely to choose to relocate to Canada than Europeans.
- Europeans find Switzerland to be a particularly attractive location for relocation.
- Similarly, Asians find the United States more attractive to relocate to than Europeans and North Americans.



## Likelihood of Searching for a New Job in the Next 12 Months

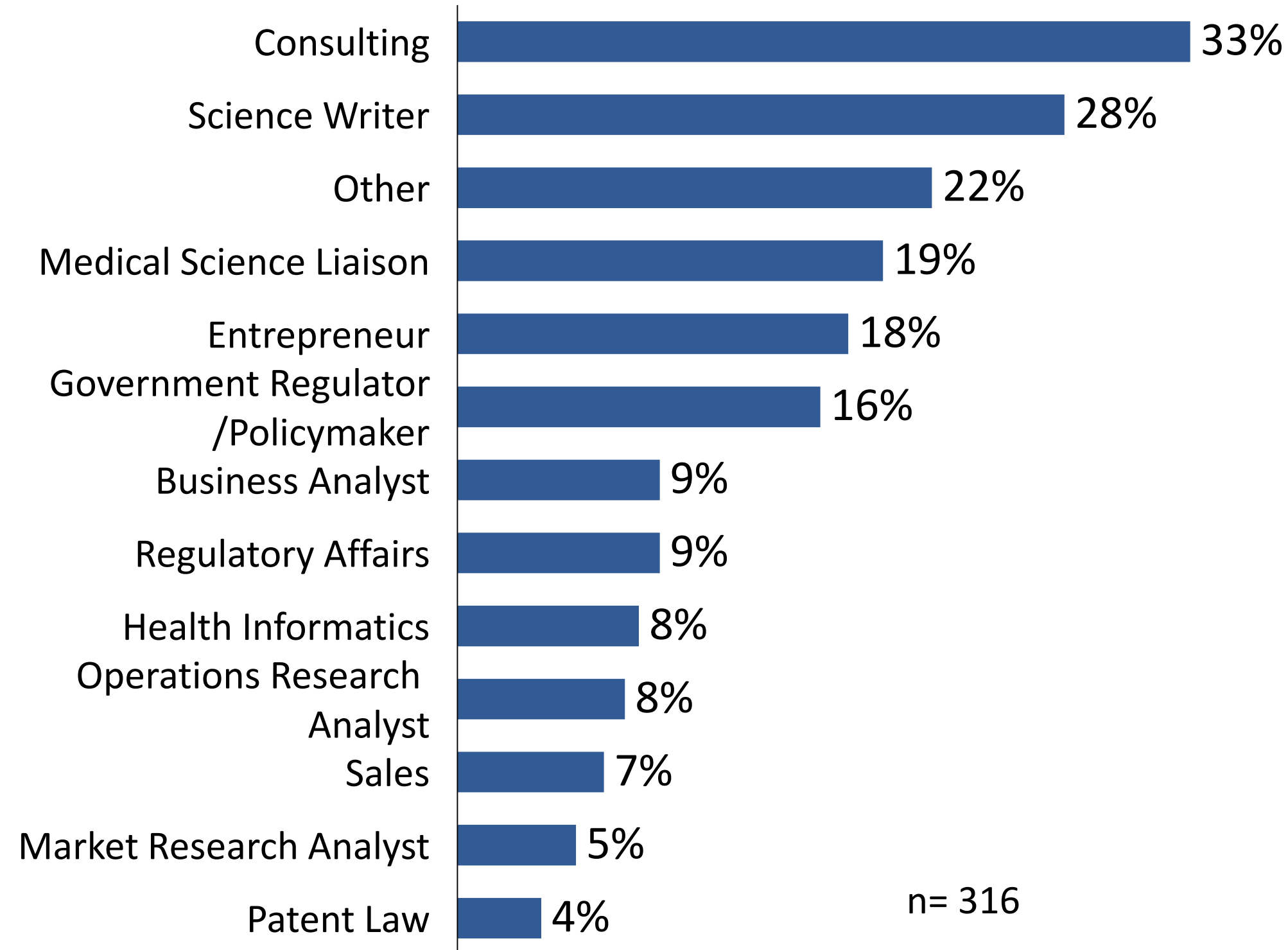
- Asian scientists are more likely than average to search for a new job in the next 12 months (27% Highly Likely vs. 20% Highly Likely for total respondents).
- Millennials are more likely to search for a new job than Boomers (29% Highly Likely Millennials vs. 14% Highly Likely Boomers).
- Generally, the lower the salary, the more likely scientists are to be searching for a job in the next 12 months.
- 30% of respondents who reported being unsatisfied with their jobs will actively search for a new job in the next 12 months.



n= 643



## Top Alternative Careers for Scientists



- Out of all the age groups, Generation X was the most likely to pursue consulting at 43% and Millennials were the least likely at 17%.
- Males were slightly more interested than females in pursuing entrepreneurship.
- Males top two choices were consulting (36%) and science writer (24%) while females chose science writer (34%) and “Other” (29%).

### Some “Other” Alternative Careers According to SAB Members:

- Teaching
- Research Administration
- Agriculture
- Academic Administration
- Eye Surgeon
- Food Scientist
- Product Development



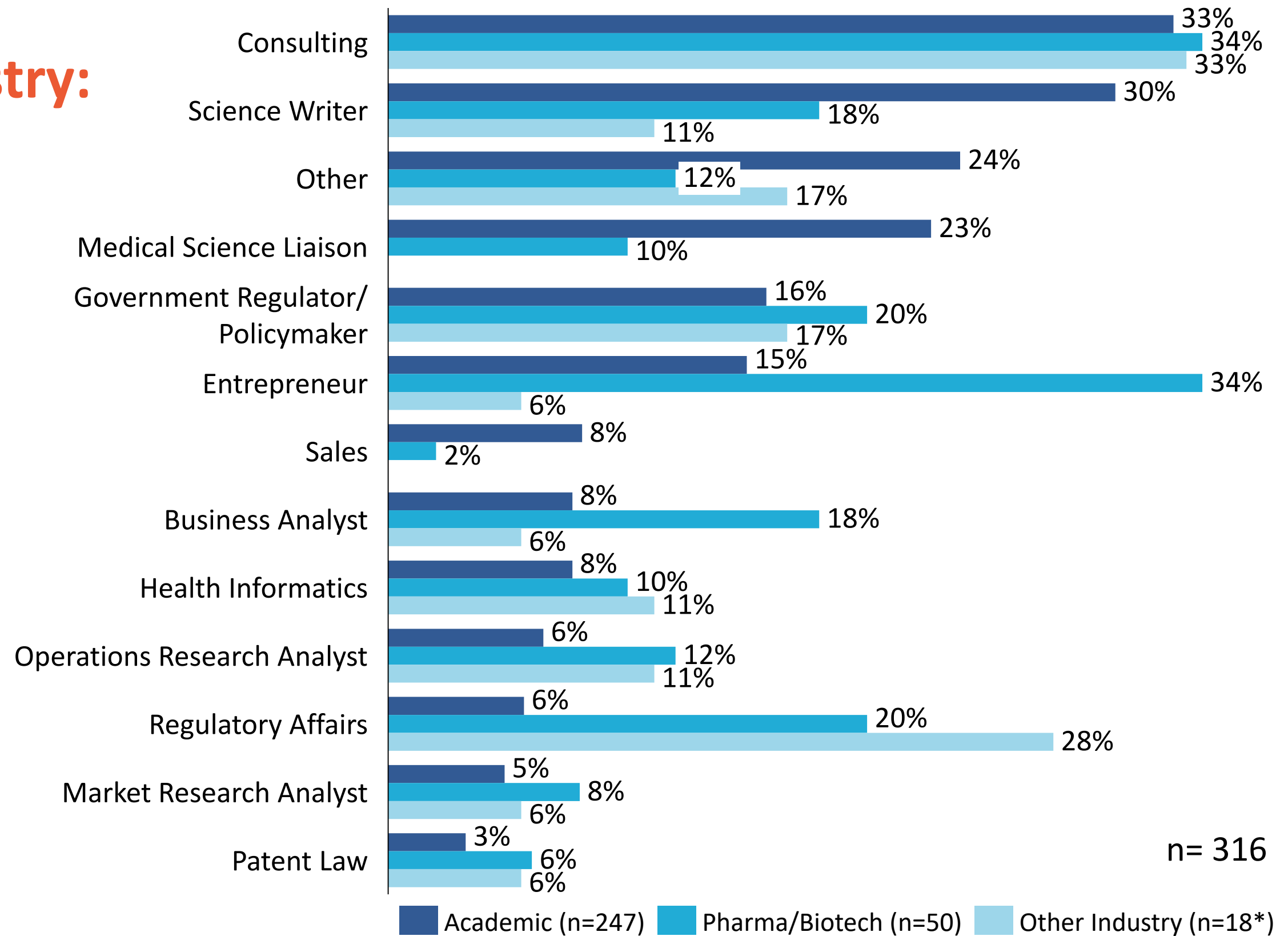
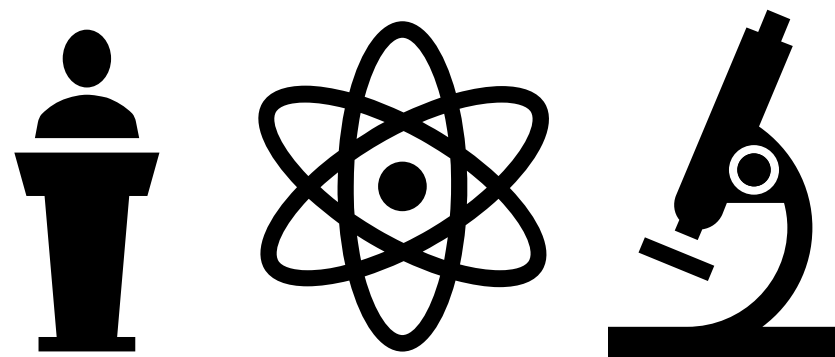
## Alternative Careers by Industry:

Top Two Choices per Industry:

**Academic:** 1<sup>st</sup> choice is Consulting (33%) and 2<sup>nd</sup> choice is Science Writer (30%).

**Pharma/Biotech:** 1<sup>st</sup> choice is Consulting (34%) and 2<sup>nd</sup> choice is Entrepreneur (34%).

**Other Industry:** 1<sup>st</sup> choice is Consulting (33%) and 2<sup>nd</sup> choice is Regulatory Affairs (28%).

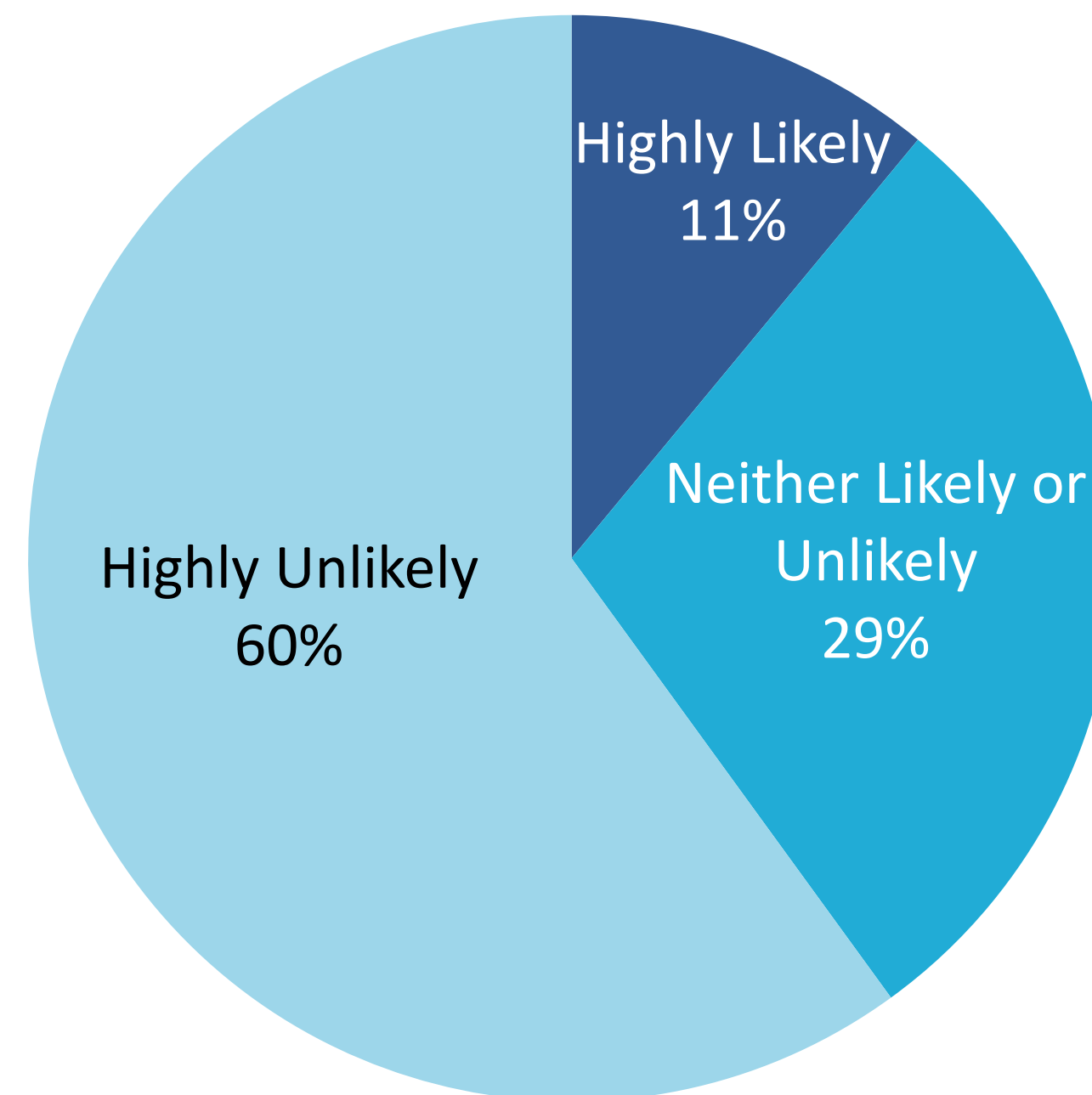


# Outcome

## Likelihood of Acting upon Interest to Leave the Lab

Through all the dissatisfaction, frustrations, and obstacles, only 11% are actually highly likely to act upon their interest in leaving the lab.

- Asian scientists report being the most likely to act on their interest in leaving the lab (Highly Likely: 18% Asia vs. 14% North America, and 7% Europe).
- Pharma/Biotech professionals are more likely than Academic professionals to act on their interest in leaving the lab (Highly Likely: 16% Pharma/Biotech, 11% Academic).
- Females are more likely than males to act on their interest in leaving the lab (Highly Likely: 9% Male, 15% Female).
- 21% of those making less than \$10,000 USD annually are highly likely to act upon their interest in leaving the lab while only 10% of those making more than \$150,000 USD are likely to act upon this interest.

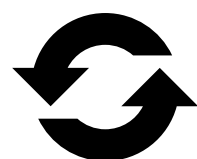
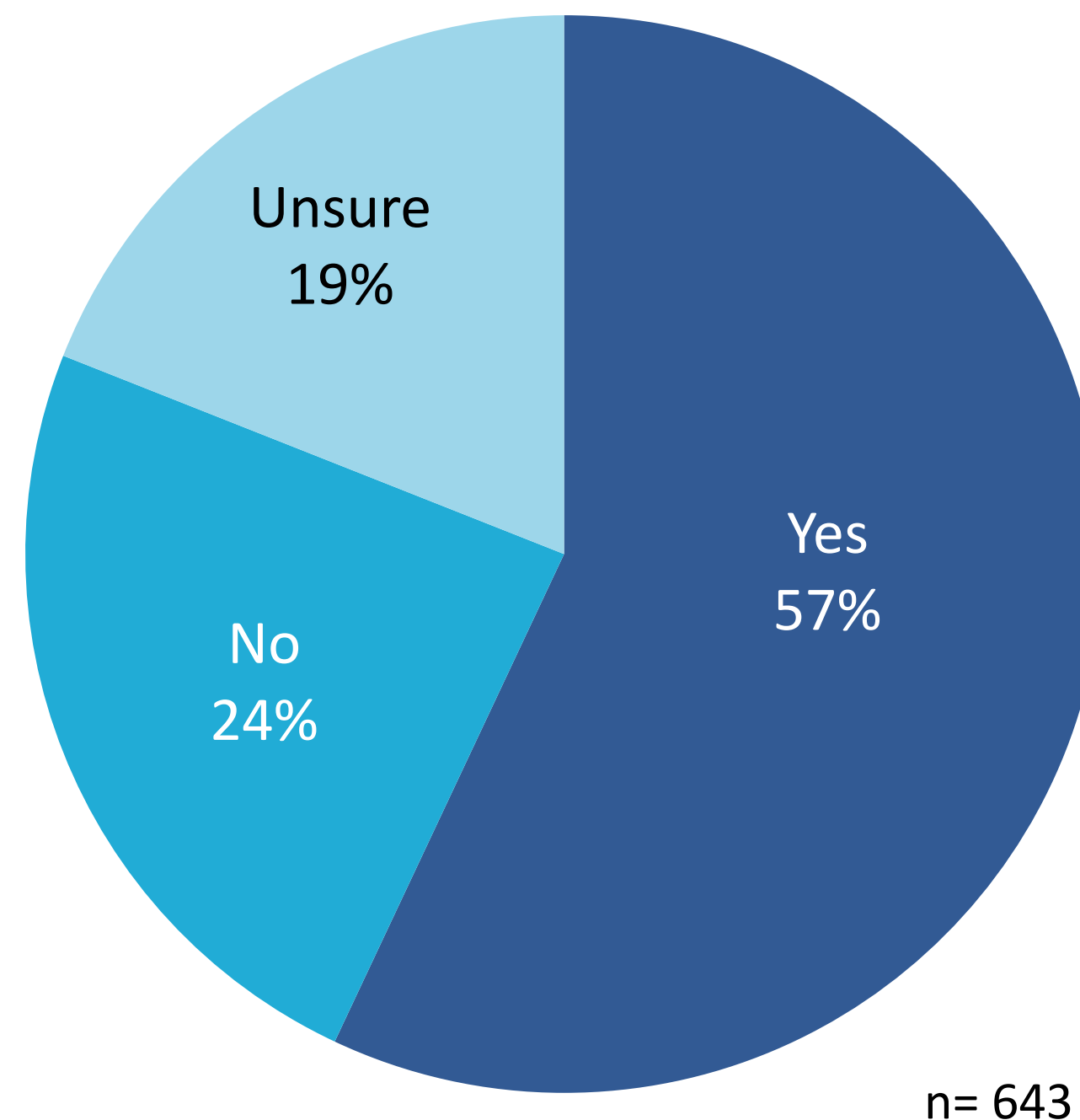


n= 319



## Percentage of those who would “Do it All Over Again” if Given the Chance

- Despite all the conveyed frustration amongst scientists, 57% said they would do it all over again.
- Asian scientists are the most enthusiastic: 71% said “yes” while North Americans had the lowest rate at 51%.
- Those who make the lowest and those who make the highest salaries are both more positive about “doing it all over again” (69% and 66% respectively said “yes”). Passion for science and a good salary clearly help convince people to keep going.



## Percentage of those who would “Do it All Over Again” if Given the Chance

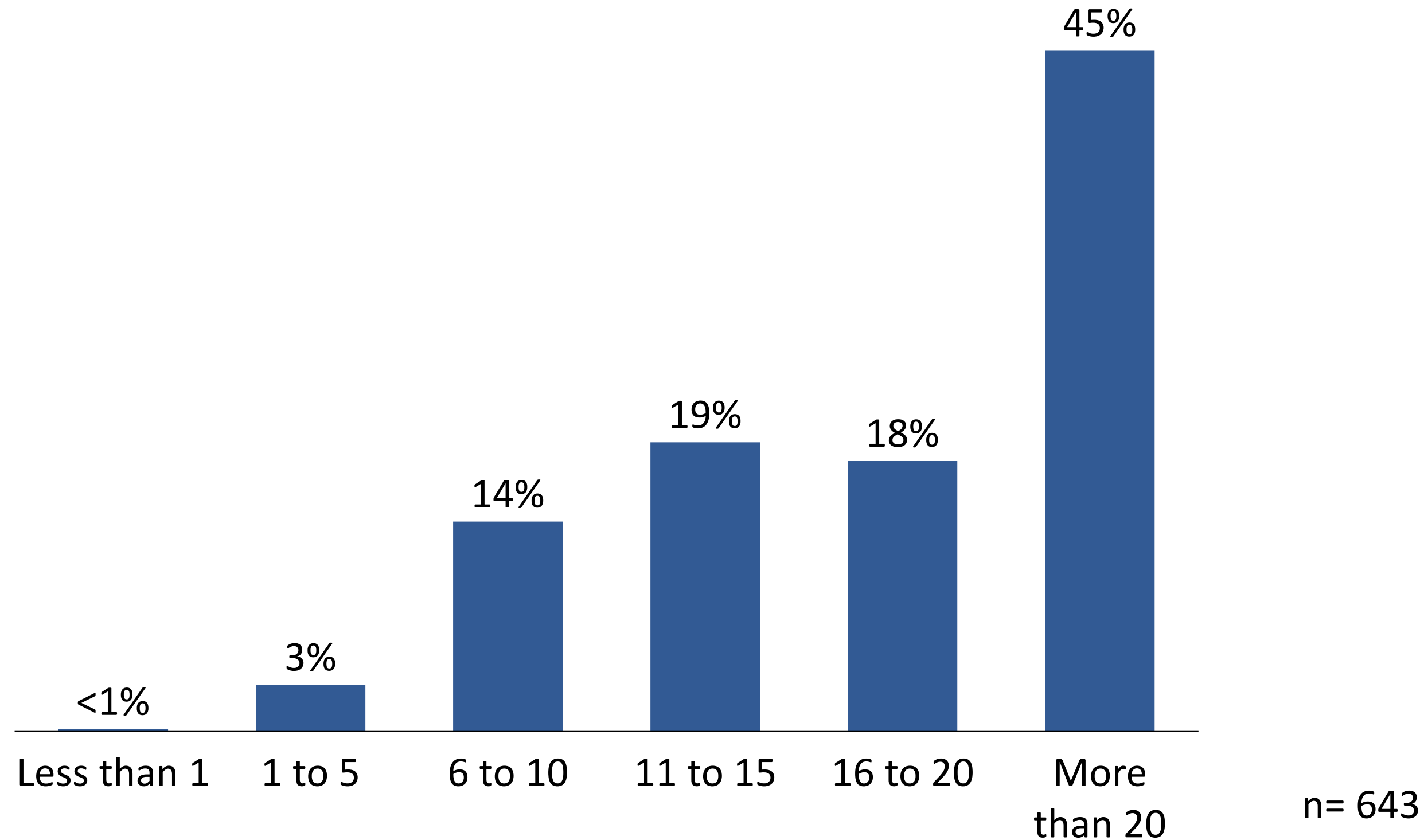
### From SAB Member’s Perspective:

- *“It’s one of the only fields that offers **autonomy, challenge, and potential for intellectual stimulation and growth.**”*
- *“Life sciences is one field where there is **immense potential for innovation at every level compared to any other field.**”*
- *“I find my career to be incredibly **rewarding, intellectually and personally.** I have a great deal of autonomy and the compensation is fine for me.”*
- *“**Science is my passion** and I am happy with my involvement and career. Would maybe try to correct a few mistakes but I would do it all over again.”*
- *“I am fulfilling my **childhood dream** and a scientific career has brought me **great joy and happiness.**”*
- *“Because **I was lucky** and have had valuable supporters.”*
- *“Despite all the setbacks from administrators/peers, it is **still great to interact with young people with new ideas.**”*
- *“I think this it is the best discipline for me and I enjoy doing it. **Maybe compensation and recognition is less than what I expected. But I still think this is the best among the lots.**”*

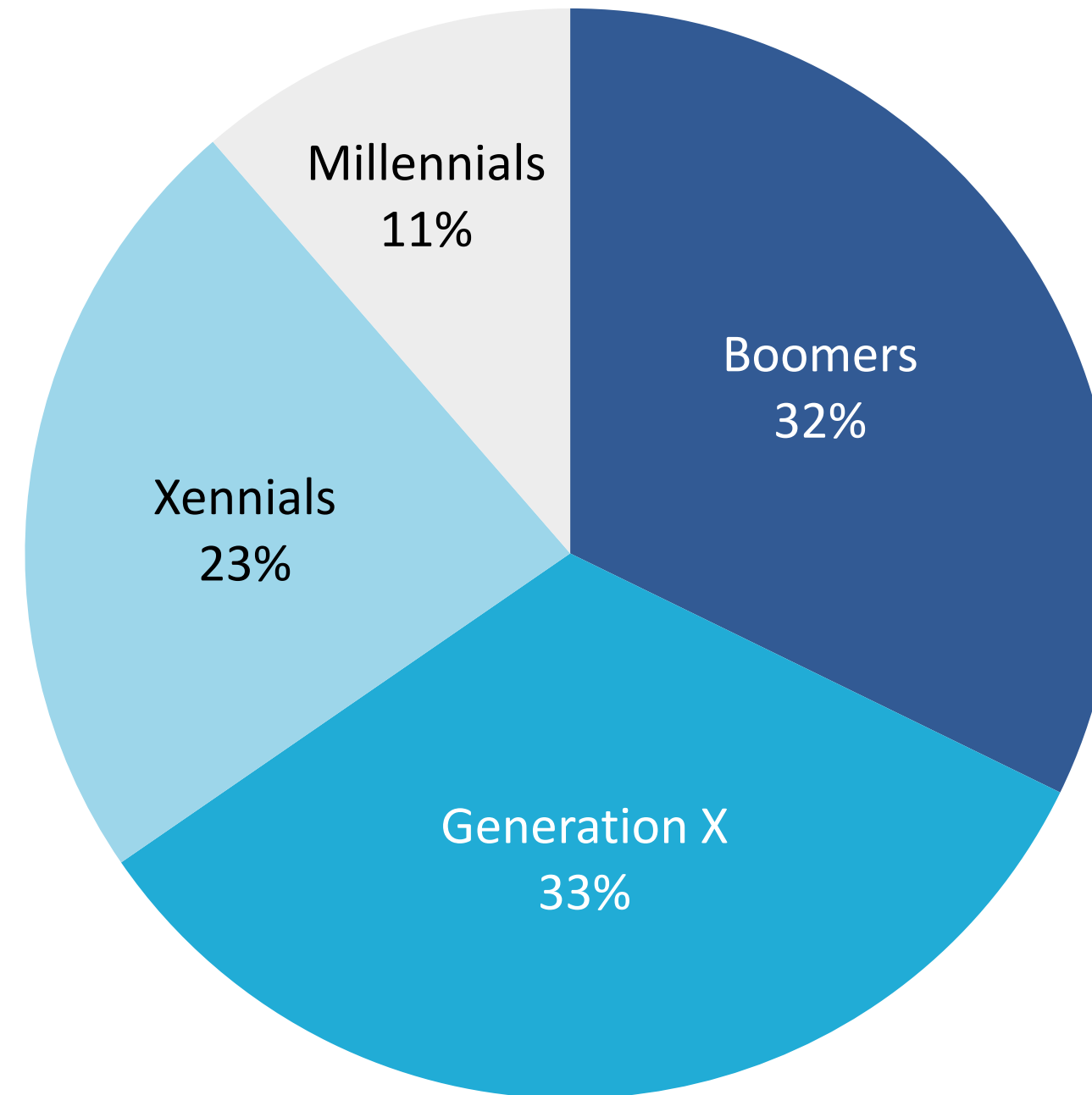


# Demographics

## Number of Years that Respondents have been in a Science-Related Career:

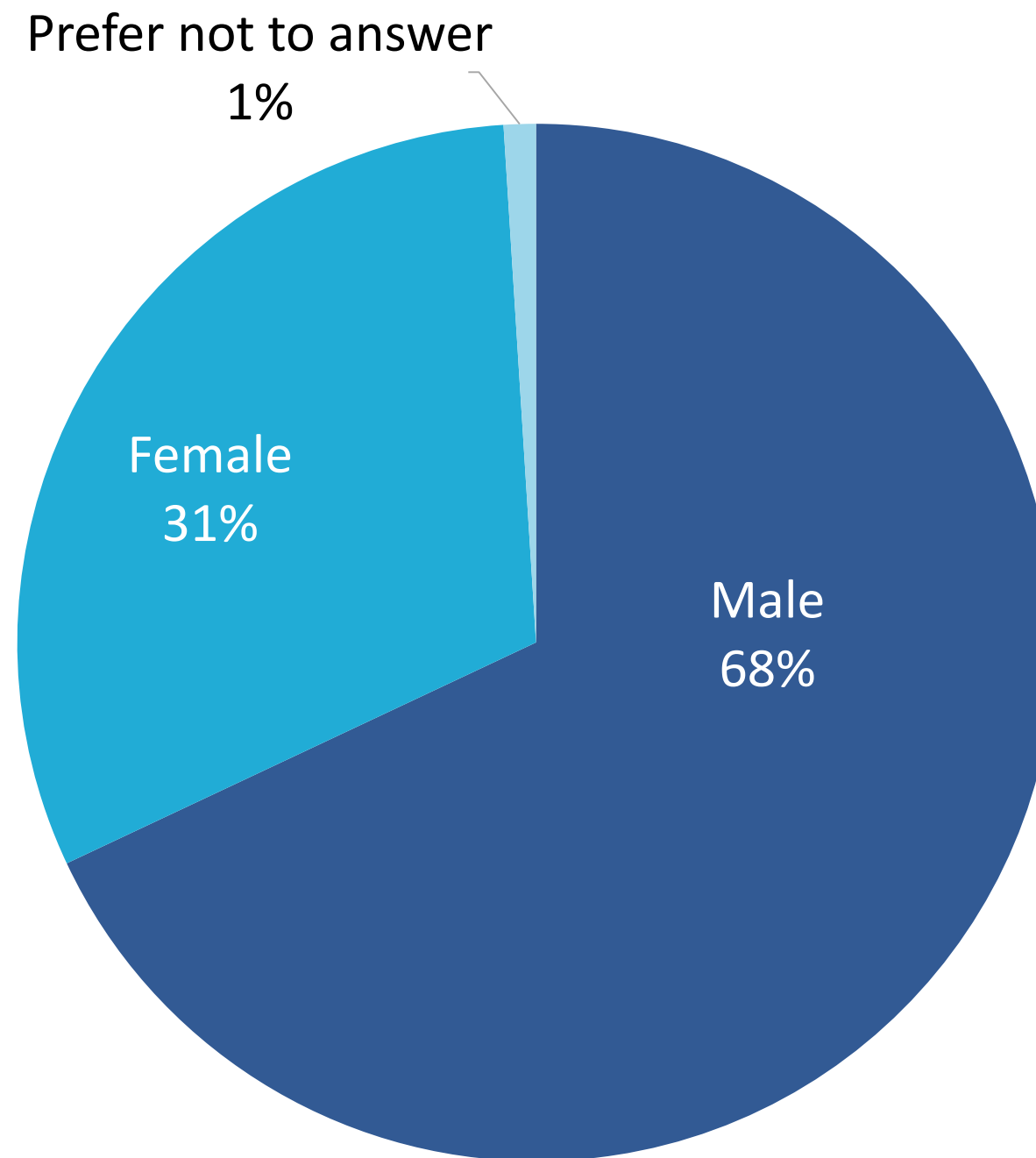


## Age Group of Respondents:



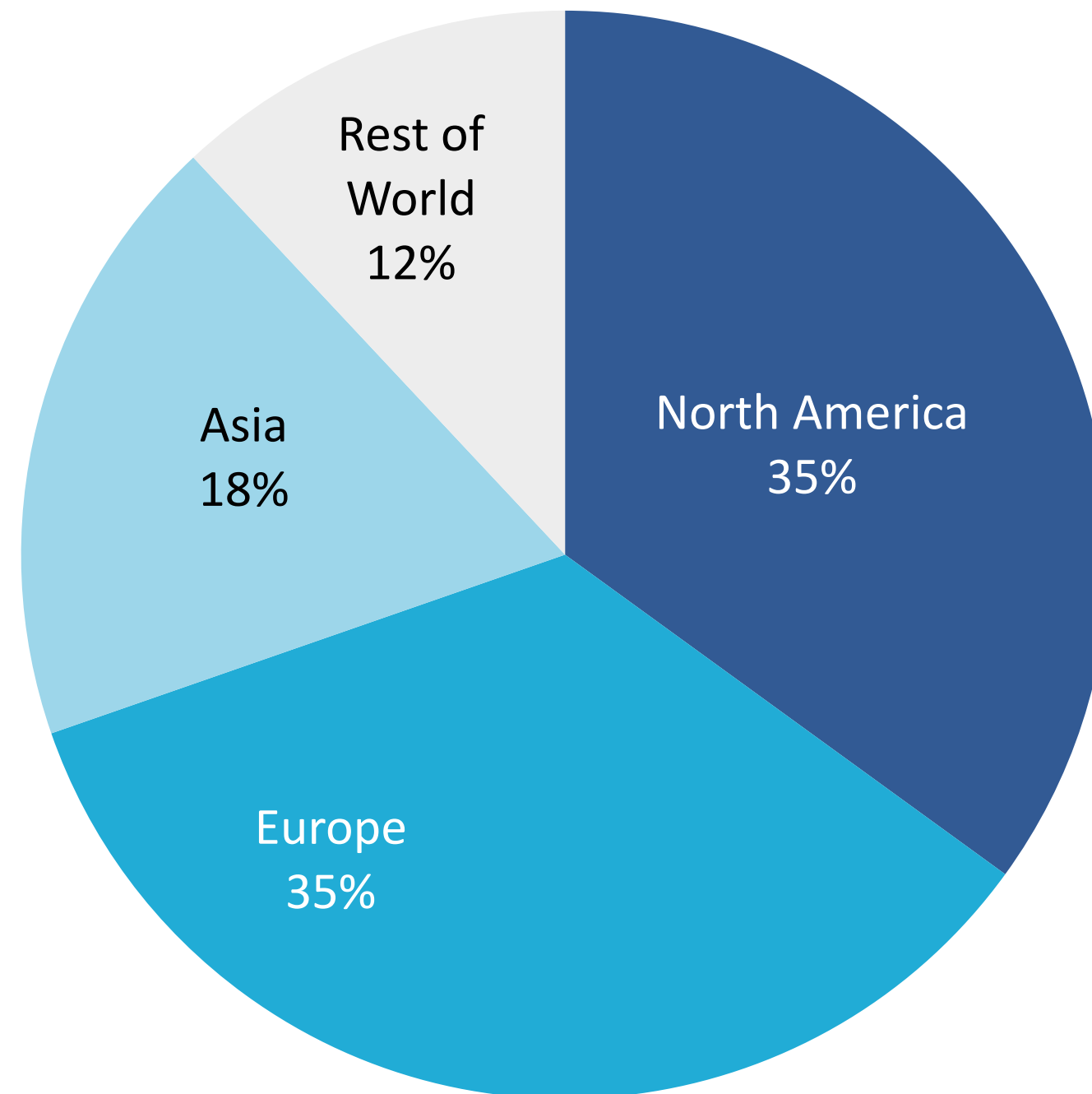
n= 643

## Gender of Respondents:



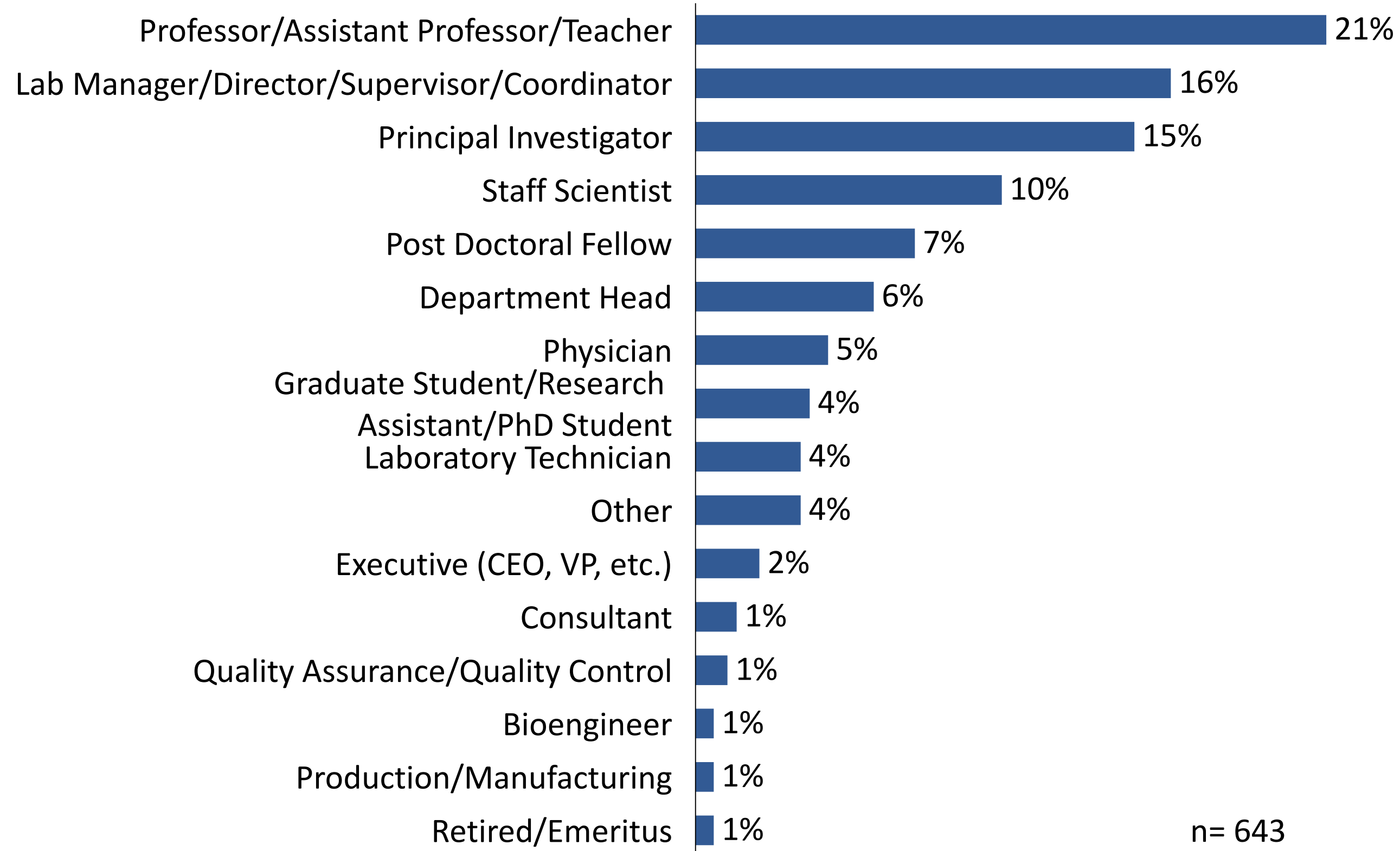
n= 643

## Region of Respondents:



n= 643

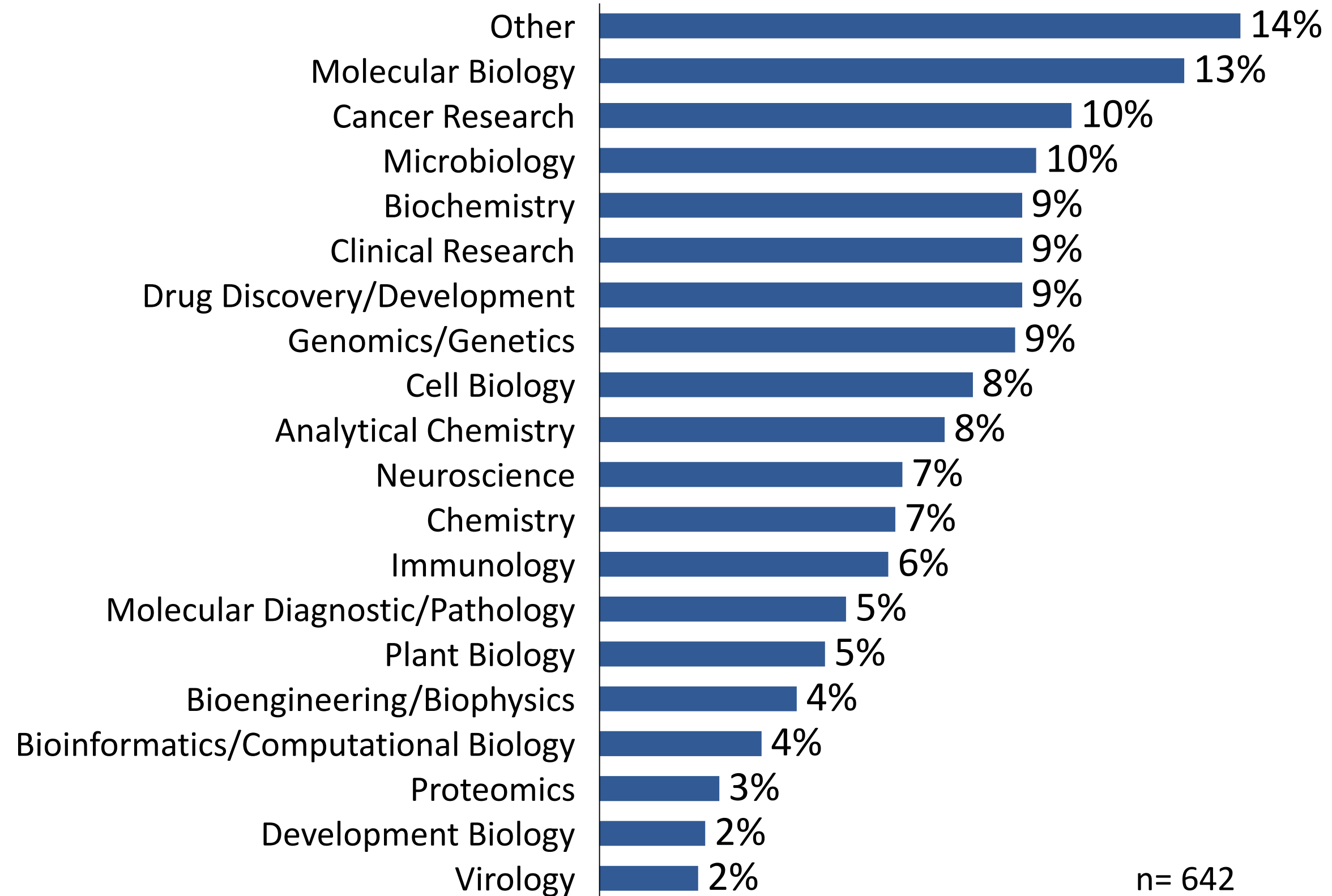
## Current Job Positions Respondents:



## Respondents Area of Research/Work:

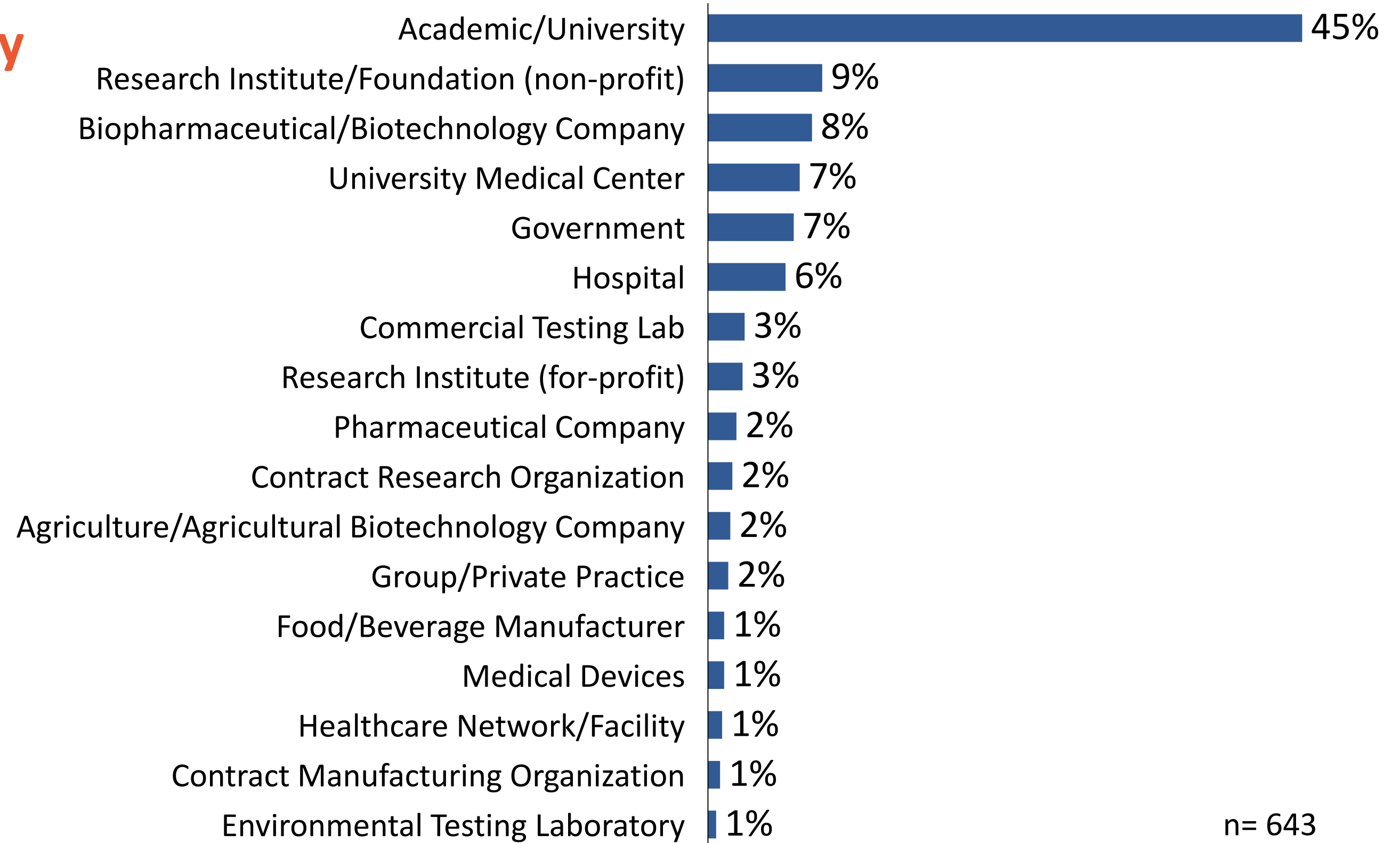
### Some Other Areas of Research/Work According to SAB Members:

- Bioinformatics
- Environmental
- Food Science
- Toxicology
- Zoology



n= 642

## Institution/Company of Respondents:





# Methodology and References

## Methodology

- A total of 643 respondents completed the survey between July 5<sup>th</sup> and July 10<sup>th</sup>, 2018.
  - Respondents were from 38 different countries.
- Agreement was measured on an 11-point scale where 10=“Strongly Agree” and 0=“Strongly Disagree”. Values of 9 and 10 were grouped to indicate “Highly Agree”, 7 and 8 to indicate “Neither Agree nor Disagree” and 0 through 6 to indicate “Highly Disagree”.

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