

Graduate Students in Science Survey

You are being asked to participate in a short survey that is part of a larger study of Science, Technology, Mathematics, and Engineering (STEM) graduate students in the United States. UCSB's NSF-funded Center for Nanotechnology in Society is conducting this research, which is part of a larger project that compares the national innovation capacity of the United States with its peers in Asia, Latin America, and Europe. We will ask you questions about your reasons for choosing your field of study, your educational background, and about your future career aspirations.

While investigators will have access to individual level data, reports will be shared only in the aggregate. There are no foreseeable risks to your participation.

Your participation is entirely voluntary. The survey will last approximately 10 minutes. Your response is confidential, and will not be associated in any way with your identity. Summary of results may be presented to a wider public in the form of future presentations and publications, however data will be reported only the aggregate.

There are no right or wrong answers. You are free to skip any question you do not wish to answer, and you may terminate the survey and your participation in the study at any time. You may change your mind about being in the study and quit after the study has started.

If you have any questions about this research project or if you think you may have been injured as a result of your participation, please contact: [contact information of authors].

If you have any questions regarding your rights and participation as a research subject, please contact the Human Subjects Committee at [IRB contact information].

Thank you for your participation.

Q1 Please select the option that best describes your status.

- ☐ I am a US citizen or permanent resident
- ☐ I am an international student

Q2 Please select your age

- ☐ < 18
- ☐ 18-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41-45
- ☐ 45+

Q3 What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other
- ☐ I do not wish to respond

Q4 What degree are you currently pursuing?

- ☐ Master's level
- ☐ PhD level

Q5 Please select the discipline in which you are currently pursuing your graduate degree.

- ☐ Life sciences
- ☐ Physical sciences
- ☐ Engineering
- ☐ Mathematics
- ☐ Computer science
- ☐ Other (please specify): _____

The next question was only asked of those who answered “PhD level” on question 4

Q6 Have you advanced to candidacy?

- ☐ Yes
 - ☐ No
-
-

Q7 What year are you in your graduate studies?

- ☐ 1st year
- ☐ 2nd year
- ☐ 3rd year
- ☐ 4th year
- ☐ 5th year
- ☐ 6th year
- ☐ > 6 years

Q8 What field is your father employed in?

- ☐ Government party officials (e.g., state-owned enterprise heads, agency heads, high-ranking party officials)
- ☐ Professionals (e.g., engineers, lawyers, accountants)
- ☐ Educators and Researchers (e.g., teachers, university professors, scientific researchers)
- ☐ Service workers (e.g., administrative office staff, firefighters, policemen, post office workers)
- ☐ Commercial and retail workers (e.g., sales, restaurant servers, nurses, caretakers, social workers)
- ☐ Agriculture (e.g., farmers, fishermen, foresters)
- ☐ Technical workers (e.g., miners, production line workers, mechanics, electricians, construction workers)
- ☐ Retired/currently not working
- ☐ NA
- ☐ Other (please specify): _____

Q9 What is the highest level of education that your father received?

- ☐ Up through high school
- ☐ High school graduate
- ☐ Some college
- ☐ Bachelor's degree
- ☐ Professional degree (e.g., MA, JD)
- ☐ PhD
- ☐ NA

Q10 What field is your mother employed in?

- ☐ Government party officials (e.g., state-owned enterprise heads, agency heads, high-ranking party officials)
- ☐ Professionals (e.g., engineers, lawyers, accountants)
- ☐ Educators and Researchers (e.g., teachers, university professors, scientific researchers)
- ☐ Service workers (e.g., administrative office staff, firefighters, policemen, post office workers)

- ☐ Commercial and retail workers (e.g., sales, restaurant servers, nurses, caretakers, social workers)
- ☐ Agriculture (e.g., farmers, fishermen, foresters)
- ☐ Technical workers (e.g., miners, production line workers, mechanics, electricians, construction workers)
- ☐ Retired/currently not working
- ☐ NA
- ☐ Other (please specify): _____

Q11 What is the highest level of education that your mother received?

- ☐ Up through high school
- ☐ High school graduate
- ☐ Some college
- ☐ Bachelor's degree
- ☐ Professional degree (e.g., MA, JD)
- ☐ PhD
- ☐ NA

The next 4 questions were only asked of those who answered “I am a US citizen or permanent resident” on question 1

Q12 What are your plans after graduation? (Please choose only one of the following)

- ☐ Continue conducting research and/or teach through a post-doc or other academic position
- ☐ Work for a government
- ☐ Work for a non-governmental organization
- ☐ Seek employment with a company
- ☐ Start a company
- ☐ Do not know/not sure
- ☐ Other (please specify): _____

The next question was only asked of those who answered “Continue conducting research and/or teach through a post-doc or other academic position” on question 12

Q13 You told us in the previous question that you plan to conduct research after graduation. In which country do you plan to do so?

- ☐ [218 country choices]
-

Q14 We would welcome the opportunity to have a brief follow-up interview. Please let us know if you are willing to do so.

- ☐ Yes
- ☐ No

The next question was only asked of those who answered “Yes” on question 14

Q15 Please fill in the following information

- ☐ First name _____
 - ☐ Last name _____
 - ☐ Email _____
-
-

All remaining questions were only asked of those who answered “I am an international student” on question 1

Q16 Did you study in the US for any part of your undergraduate degree?

- ☐ Yes
 - ☐ No
-
-

The next 4 questions were only asked of those who answered “Yes” on question 16

Q17 How long did you study at an American university during your undergraduate career?

- ☐ Less than 1 year
- ☐ 1 year
- ☐ 1-2 years
- ☐ 3+ years

Q18 Did you receive your undergraduate degree in the US?

- ☐ Yes
 - ☐ No
-

The next 2 questions were only asked of those who answered “Yes” on question 18

Q19 What university did you complete your undergraduate degree at?

Q20 If you completed any other degrees, what degrees did you complete and at which universities did you do so?

Q21 When did you first enter the United States for your studies?

- ☐ Before elementary school
- ☐ To attend elementary school (grades 1-5)
- ☐ To attend middle school (grades 6-8)
- ☐ To attend high school (grades 9-12)
- ☐ To attend college
- ☐ To attend graduate school
- ☐ Other (please specify): _____

Q22 What is your home country?

- ☐ [218 country choices]

Q23 What visa are you currently on?

- ☐ F1
- ☐ J1
- ☐ Other (please specify): _____

Q24 How did you apply to the graduate program at your current university? (Please choose only one of the following)

- ☐ Applied through an agency
- ☐ Applied through a governmental program in your home country
- ☐ Self-application
- ☐ Transferred from another graduate program in the US
- ☐ Other (please specify): _____

Q25 What factors influenced your decision to do your graduate studies in the US? (Please check all that apply)

- ☐ Higher quality of education
- ☐ Lower cost
- ☐ Opportunity to work with specific faculty
- ☐ Future career opportunities
- ☐ Wanted to live in the United States
- ☐ Proximity to friends/family
- ☐ Wanted to experience living abroad
- ☐ Other (please specify): _____

Q26 What are your plans after graduation? (Please choose only one of the following)

- ☐ Continue conducting research and/or teach through a post-doc or other academic position
- ☐ Work for a government
- ☐ Work for a non-governmental organization
- ☐ Seek employment with a company
- ☐ Start a company
- ☐ Do not know/not sure
- ☐ Other (please specify): _____

The next question was only asked of those who answered “Continue conducting research and/or teach through a post-doc or other academic position” on question 26

Q27 You told us in the previous question that you plan to conduct research after graduation. In which country do you plan to do so?

☐ [218 country choices]

Q28 Do you hope to remain in the US after graduation?

☐ Yes

☐ No

☐ Do not know/not sure

The next 2 questions were only asked of those who answered “Yes” on question 28

Q29 Why do you want to stay in the US? (Please select all that apply)

☐ Job opportunities for myself

☐ Opportunities for family members

☐ Salary

☐ Overall quality of life

☐ Geographic location

☐ Family

☐ Friends

☐ Professional network

☐ Cultural reasons

☐ Social reasons

☐ Other (please specify): _____

Q30 How long do you plan on staying in the US?

☐ 0-2 years

☐ 3-4 years

☐ 4-6 years

☐ 6-8 years

☐ 8-10 years

☐ > 10 years

☐ Don't know/not sure

The next 3 questions were only asked of those who answered “No” on question 28

Q31 Why do you wish to leave the US? (Please select all that apply)

- ☐ Job opportunities for myself
- ☐ Opportunities for family members
- ☐ Salary
- ☐ Overall quality of life
- ☐ Geographic location
- ☐ Family
- ☐ Friends
- ☐ Professional network
- ☐ Cultural reasons
- ☐ Social reasons
- ☐ Other (please specify): _____

Q32 Do you know which country you plan to go after graduation?

- ☐ Yes
- ☐ No/not sure

The next question was only asked of those who answered “Yes” on question 32

Q33 Which country do you plan to go to after graduation?

- ☐ [218 country choices]
-

Q34 Will your US education give you any advantages in your career?

	Definitely yes	Probably yes	Maybe	Probably not	Definitely not
Please choose the appropriate response for the given question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q35 In comparison with your home country, what advantages, if any, do you feel a US education provides? (Please select all that apply)

- ☐ Better education/knowledge of your field
- ☐ Better advisors/mentorship
- ☐ Better professional network
- ☐ Better job opportunity
- ☐ None
- ☐ Do not know/not sure
- ☐ Other (please specify): _____

Q36 Are you aware of any programs, incentives, or opportunities that are provided by your home country that are intended to encourage you to return after you get your degree?

- ☐ Yes
- ☐ No

The next 2 questions were only asked of those who answered “Yes” on question 36

Q37 What kinds of programs, incentives, or opportunities are you familiar with? Please briefly list:

Q38 Please list any programs you have considered.

Q39 With regard to your academic experience, how would you rate each of the following in comparison with your home country:

	Very much worse (1)	(2)	(3)	(4)	Very much better (5)
Open classroom discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professors' teaching styles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject teaching matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to books, magazines, journals, and databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freedom to openly debate established theories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freedom to pursue new, self-proposed research directions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration with other grad students in your lab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q40 How do you feel you are treated by your colleagues and professors in the US in comparison with those in your home country?

	Treated much worse (1)	(2)	(3)	(4)	Treated much better (5)
Please choose the appropriate response for the given question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q41 How do you feel you would be treated by your colleagues and professors in your home country if you returned?

	Treated much worse (1)	(2)	(3)	(4)	Treated much better (5)
Please choose the appropriate response for the given question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q42 How successfully do you feel you have adjusted to American educational culture?

	Did not adjust well (1)	(2)	(3)	(4)	Adjusted well (5)
Please choose the appropriate response for the given question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q43 Please select any challenges you may have encountered while adjusting (select all that apply):

- ☐ Cultural challenges
 - ☐ Social challenges
 - ☐ Academic challenges
 - ☐ Racial challenges
 - ☐ Financial challenges
 - ☐ I did not encounter any challenges
 - ☐ Other (please specify): _____
-

The next 6 questions were only asked of those who answered “China” on question 22

Q44 Did you take the Chinese College Entrance Exam (Gaokao)?

- ☐ Yes
 - ☐ No
-

The next 3 questions were only asked of those who answered “Yes” on question 44

Q45 What year did you take the Gaokao? Each answer must be between 1900 and 2013

Q46 What was your TOTAL score? (If you do not remember, please enter 0)

Q47 What did you score in each of the following subsections? (If you do not remember, please enter 0)

- ☐ Chinese _____
 - ☐ Mathematics _____
 - ☐ English _____
-

Q48 Did you take the TOEFL?

- ☐ Yes
 - ☐ No
-

The next question was only asked of those who answered “Yes” on question 48

Q49 What were your scores in the following sections? (If you do not remember, please enter 0)

- ☐ Reading _____
 - ☐ Listening _____
 - ☐ Speaking _____
 - ☐ Writing _____
-
-

Q50 We would welcome the opportunity to have a brief follow-up interview. Please let us know if you are willing to do so.

- ☐ Yes
- ☐ No

The next question was only asked of those who answered “Yes” on question 14

Q51 Please fill in the following information

- ☐ First name _____
- ☐ Last name _____
- ☐ Email _____

End of survey.