

APPENDIX B: ADDITIONAL TABLES

Table B.1: Student Background Characteristics

	All	Male	Female	US Undergrad	Non-US Undergrad
Gender Identity					
Man	64.7%	100.0%	0.0%	63.9%	65.4%
Woman	34.7%	0.0%	100.0%	34.9%	34.6%
Other	0.6%	0.0%	0.0%	1.1%	0.0%
Age					
Younger than 20	0%	0%	0%	0%	0%
20-24	18.8%	18.8%	19.2%	23.0%	14.3%
25-29	66.9%	63.5%	72.3%	64.3%	69.6%
30-34	13.3%	16.7%	7.3%	11.2%	15.6%
35 or older	1.0%	0.9%	1.1%	1.5%	0.4%
Race					
American Indian or Alaska Native	0.5%	0.8%	0%	0.4%	0.8%
Asian or Asian American	26.0%	21.8%	34.2%	25.4%	26.5%
Hispanic or Latino	11.7%	12.1%	11.1%	5.3%	18.8%
Black or African American	0.5%	0.3%	1.1%	0.4%	0.8%
Native Hawaiian or Other Pacific Islander	0.2%	0%	0.5%	0.4%	0%
White	61.1%	65.0%	53.2%	68.2%	53.1%
US Citizenship					
US Citizen	46.3%	47.4%	43.2%	82.9%	5.1%
Non-US Citizen	53.7%	52.6%	56.8%	17.1%	94.9%
English Language					
English is first language	50.9%	53.5%	45.5%	83.3%	14.0%
English is not first language	49.1%	46.5%	54.5%	16.7%	86.0%
Disability					
Disability	1.6%	1.8%	0.6%	2.6%	0.4%
No disability	98.4%	98.2%	99.4%	97.4%	99.6%
Sexual Orientation					
Heterosexual	90.1%	89.7%	92.5%	89.6%	91.5%
Bisexual	4.9%	4.0%	6.9%	6.3%	3.0%
Gay or lesbian	4.3%	6.4%	0.6%	3.0%	5.6%
Relationship Status					
Single	31.3%	31.3%	30.9%	32.1%	30.1%
Casual	3.7%	4.3%	2.9%	4.1%	3.4%
Dating	9.3%	10.3%	7.4%	6.3%	12.3%
Long-term/Committed	36.4%	34.3%	40.6%	39.2%	33.5%
Married	18.7%	19.5%	17.1%	17.2%	20.8%
Divorced	0%	0%	0%	0%	0%
Other	0.6%	0.3%	1.1%	1.1%	0%
Living Alone					
Living alone	28.4%	28.0%	28.2%	24.1%	32.2%
Not living alone	71.6%	72.0%	71.8%	75.9%	67.8%
Children					
One or more	3.9%	4.3%	3.4%	3.7%	4.2%
None	96.1%	95.7%	96.6%	96.3%	95.8%
Undergraduate Institution					
Small liberal arts college (US)	11.0%	8.8%	14.7%	20.7%	0%
Public university (US)	12.7%	14.0%	10.2%	24.1%	0%
Private university (US)	29.2%	29.5%	28.2%	55.2%	0%
Non-U.S. university	46.5%	47.1%	46.3%	0%	100.0%
Other	0.6%	0.6%	0.6%	0%	0%

Table B.1: (Cont.) Student Background Statistics

	All	Male	Female	US Undergrad	Non-US Undergrad
Parental Relationship Status					
Never married	2.1%	1.5%	3.4%	0.4%	4.2%
Married	76.0%	75.8%	76.3%	79.3%	72.6%
Divorced or separated	18.8%	19.4%	17.5%	18.1%	19.0%
Other	3.1%	3.3%	2.8%	2.2%	4.2%
Father - Highest Degree Earned					
High school or below	9.2%	10.0%	8.0%	4.1%	14.4%
Associate	2.7%	3.0%	2.3%	1.5%	4.2%
Bachelor's	29.2%	30.9%	25.0%	24.4%	34.3%
Graduate degree	58.9%	56.1%	64.8%	70.0%	47.0%
Father w/Grad Degree - Degree Type					
MBA	13.3%	12.9%	14.2%	17.5%	5.9%
Other Master's	31.7%	32.7%	29.1%	26.9%	39.8%
MD	10.9%	12.4%	8.7%	9.4%	13.6%
JD	6.3%	7.9%	3.9%	7.1%	5.1%
Economics PhD	6.9%	5.9%	8.7%	6.6%	7.6%
Other PhD	27.8%	26.2%	30.7%	31.1%	22.0%
Other	3.0%	2.0%	4.7%	1.4%	5.9%
Mother - Highest Degree Earned					
High school or below	10.7%	12.1%	8.5%	5.2%	16.5%
Associate	6.6%	6.1%	7.9%	4.8%	8.4%
Bachelor's	33.8%	35.8%	30.5%	30.7%	37.1%
Graduate degree	48.8%	46.1%	53.1%	59.3%	38.0%
Mother w/Grad Degree - Degree Type					
MBA	10.4%	10.3%	10.0%	10.9%	9.5%
Other Master's	46.5%	48.5%	42.0%	47.7%	44.2%
MD	13.0%	13.9%	12.0%	12.6%	13.7%
JD	4.8%	4.8%	5.0%	4.6%	5.3%
Economics PhD	2.2%	1.8%	3.0%	2.9%	1.1%
Other PhD	20.1%	17.0%	26.0%	18.4%	23.2%
Other	3.0%	3.6%	2.0%	2.9%	3.2%
Math courses btw. start of undergrad & PhD					
0	2.9%	2.1%	4.5%	2.6%	3.4%
1 or 2	6.5%	6.4%	6.2%	4.5%	8.5%
3 or 4	18.6%	17.9%	20.5%	19.7%	17.4%
5 or 6	19.4%	17.3%	23.3%	17.5%	21.6%
7+	52.5%	56.2%	45.5%	55.8%	49.2%
Straight from undergraduate to PhD?					
Yes	24.3%	23.5%	26.0%	29.7%	18.1%
No	75.7%	76.5%	74.0%	70.3%	81.9%
Positions for compensation in the last two months					
Teaching Assistant	34.3%	33.9%	34.8%	28.7%	40.1%
Research Assistant	22.1%	23.3%	20.4%	22.2%	22.4%
Grader	6.1%	6.1%	6.3%	5.1%	7.4%
Resident Assistant	0.9%	1.2%	0.5%	0.9%	1.0%
Private tutor	6.3%	6.4%	6.3%	7.5%	5.1%
Non-academic data scientist	0.9%	0.9%	0.9%	1.2%	0.6%
Other	5.2%	5.4%	4.5%	6.0%	4.2%
Did not work for compensation	24.1%	22.8%	26.2%	28.4%	19.2%

Table B.2: Study participant comparison, by response behavior

Panel A: Took Only Fall 2017 Survey					
	All	Depression	Anxiety	Suicidality 2-weeks	Suicidality 1-year
Number	263	46	47	31	33
Percent Female	33.5%	32.6%	36.2%	25.8%	27.3%
Percent U.S. Undergrad	46.0%	52.2%	44.7%	32.3%	39.4%
Panel B: Took Both Fall 2017 & Spring 2018 Surveys					
Number	250	43	43	27	28
Percent Female	35.6%	39.5%	39.5%	37.0%	35.7%
<i>Diff w/only fall resp. p-val</i>	<i>0.720</i>	<i>0.633</i>	<i>0.898</i>	<i>0.512</i>	<i>0.580</i>
Percent U.S. Undergrad	59.6%	62.8%	62.8%	55.6%	46.4%
<i>Diff w/only fall resp. p-val</i>	<i>0.003</i>	<i>0.413</i>	<i>0.124</i>	<i>0.119</i>	<i>0.654</i>

Note: Panel A focuses on those who only took the main Fall 2017 survey and reports the number of such respondents and the number of such respondents who score above critical mental health thresholds. Percent female reports the percent of respondents scoring above critical mental health thresholds who are female; percent U.S. Undergrad reports the percent of respondents scoring above critical mental health thresholds who were U.S. undergraduates. Panel B reports the same figures, but for those who took both the main Fall 2017 survey and the Spring 2018 follow-up survey. Depression and Anxiety show those scoring 10 or higher on the PHQ-9 and GAD-7, respectively. Suicidality 2-weeks are those reporting contemplating suicide or self-harm on at least several days in the last two weeks, as captured by Item 9 on the PHQ-9. Suicidality 1-year are those scoring 7 or higher on the SBQR suicidality screening tool, which contains 1-year look-back questions. Panel B also shows p-values of chi-squared tests of differences in female percentage and U.S. undergraduate percentage between the sample in Panel A and the sample in Panel B.

Table B.3: Pearson correlations of Depression (PHQ-9) score and other mental health measures

Measure	Depression (PHQ-9)
Anxiety (GAD-7)	0.655 ***
Suicidality 2-weeks (PHQ-9 Item 9)	0.511 ***
Suicidality 1-year (SBQR)	0.304 ***
Loneliness (UCLA-3)	0.482 ***
Self-Esteem (Rosenberg)	-0.585 ***
Impostor Syndrome (Clance)	0.379 ***
Eating Disorder (ESP)	0.264 ***
ADHD	0.280 ***
Alcohol Use (AUDIT-C)	0.012
Physical Exercise, Moderate	-0.015
Sleep (Good Days)	-0.418 ***
Sleepiness	0.379 ***

Note: Higher scores mean worse outcomes, except for Self-Esteem (higher score=higher self-esteem), Physical Exercise (higher score=more exercise), and Sleep (higher score=more good days of sleep). For exact question wording, please see survey instrument in Appendix C1. * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$.

Table B.4: Students receiving treatment for depression, anxiety, or any mental health issue, by symptom severity

Panel A: Depression			
PHQ-9 Score	Category	Num. Students	Percent in Treatment
0 to 4	none-minimal	225	2.2%
5 to 9	mild	190	8.4%
10 to 14	moderate	60	18.3%
15 to 19	moderately-severe	22	18.2%
≥ 20	severe	7	28.6%
Panel B: Anxiety			
GAD-7 Score	Category	Num. Students	Percent in Treatment
0 to 4	none-minimal	261	4.2%
5 to 9	mild	159	11.9%
10 to 14	moderate	68	22.1%
≥ 15	severe	22	18.2%
Panel C: Suicidality			
PHQ-9 Item 9 Score	Category	Num. Students	Percent in Treatment
0	not at all	448	13.6%
≥ 1	more than zero days	56	26.8%

Note: PHQ-9 measures symptoms of depression. GAD-7 measures symptoms of anxiety. Symptom severity increases as PHQ-9 and GAD-7 scores increase. Mental health professionals use a score of 10 on the PHQ-9 and the GAD-7 as a cutoff when diagnosing individuals with depression or anxiety disorder, respectively. The PHQ-9 Item 9 measures suicidality by asking on how many days over the past two weeks a student was bothered by thoughts of wanting to be dead or wanting to hurt themselves. Treatment in Panel A refers to treatment for depression; in Panel B, treatment for anxiety; in Panel C, treatment for any mental health issue.

Table B.5: Faculty responses: meaningfulness of work

	Question and Answer	Percent
Opportunities to fully use your talents		
	Always	28.8%
	Most of the time	57.1%
	Sometimes	13.6%
	Rarely	0.5%
	Never	0.0%
Opportunities to make positive impact on community/society		
	Always	17.8%
	Most of the time	40.5%
	Sometimes	35.1%
	Rarely	5.9%
	Never	0.5%
Sense of personal accomplishment		
	Always	25.4%
	Most of the time	50.3%
	Sometimes	21.1%
	Rarely	3.2%
	Never	0.0%
Goals to aspire to		
	Always	43.2%
	Most of the time	41.6%
	Sometimes	12.4%
	Rarely	2.7%
	Never	0.0%
Satisfaction of work well done		
	Always	24.2%
	Most of the time	52.7%
	Sometimes	19.9%
	Rarely	3.2%
	Never	0.0%
Feeling of doing useful work		
	Always	19.5%
	Most of the time	51.4%
	Sometimes	24.9%
	Rarely	3.8%
	Never	0.5%

Note: These questions were borrowed from the RAND American Working Conditions Survey (Maestas et al. (2015)). Similar questions were asked of the students. For comparison with student responses, please see Table 8. For exact question wording, please see survey instrument in Appendix C2.

Table B.6: Faculty responses: work issues

	Question and Answer	Percent
Worried about work when not working		
	Always	19.5%
	Most of the time	40.5%
	Sometimes	34.1%
	Rarely	4.9%
	Never	1.1%
Were too tired for activities in private life		
	Always	2.7%
	Most of the time	20.1%
	Sometimes	46.2%
	Rarely	27.2%
	Never	3.8%
Were too tired to do household jobs		
	Always	0.5%
	Most of the time	13.6%
	Sometimes	47.3%
	Rarely	31.5%
	Never	7.1%
Had difficulty making ends meet financially		
	Always	0.0%
	Most of the time	0.5%
	Sometimes	3.8%
	Rarely	17.4%
	Never	78.3%
Had work prevent time with family or significant others		
	Always	1.6%
	Most of the time	21.1%
	Sometimes	52.4%
	Rarely	18.4%
	Never	6.5%

Note: These questions were borrowed from the RAND American Working Conditions Survey (Maestas et al. (2015)). Similar questions were asked of the students. For comparison with student responses, please see Table 9. For exact question wording, please see survey instrument in Appendix C2.

Table B.7: Faculty responses: perceptions of relationships with students

	Question and Answer	Percent
How easy do you think it would be for them to talk to you about non-academic career options?	Not easy at all	8.2%
	Somewhat easy	23.5%
	Moderately easy	41.5%
	Very easy	26.8%
How honest do you think they would be with you if they faced difficulties with research progress?	Not honest at all	0.5%
	Somewhat honest	13.2%
	Moderately honest	48.4%
	Very honest	37.9%
Presentations	Not honest at all	0.6%
	Somewhat honest	8.9%
	Moderately honest	45.6%
	Very honest	45.0%
Teaching	Not honest at all	2.4%
	Somewhat honest	20.0%
	Moderately honest	44.7%
	Very honest	32.9%
Refereeing	Not honest at all	0.8%
	Somewhat honest	13.2%
	Moderately honest	31.4%
	Very honest	54.5%
Co-authoring with other students	Not honest at all	0.0%
	Somewhat honest	25.3%
	Moderately honest	42.0%
	Very honest	32.7%
Co-authoring with you	Not honest at all	9.5%
	Somewhat honest	43.5%
	Moderately honest	32.7%
	Very honest	14.3%
Their other advisers	Not honest at all	8.4%
	Somewhat honest	41.9%
	Moderately honest	34.1%
	Very honest	15.6%
Preparing for the job market	Not honest at all	0.0%
	Somewhat honest	14.6%
	Moderately honest	40.4%
	Very honest	44.9%
Their decision to get a PhD in economics	Not honest at all	4.7%
	Somewhat honest	32.7%
	Moderately honest	41.5%
	Very honest	21.1%
Decisions related to starting a family	Not honest at all	11.3%
	Somewhat honest	45.3%
	Moderately honest	34.0%
	Very honest	9.3%
Their mental health	Not honest at all	19.4%
	Somewhat honest	53.5%
	Moderately honest	22.4%
	Very honest	4.7%
Other personal life issues	Not honest at all	12.9%
	Somewhat honest	54.7%
	Moderately honest	26.5%
	Very honest	5.9%

Note: Similar questions were asked of the students. For comparison with student responses, please see Table B.13. For exact question wording, see survey instrument in Appendix C2.

Table B.8: Seminar environment: experiences and correlations with mental health

	Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
	Comfortable voice a thought in a seminar setting?		-0.162***	-0.115***	-0.057
	Not comfortable at all	35.5%			
	Somewhat comfortable	35.2%			
	Moderately comfortable	19.3%			
	Very comfortable	10.0%			
	How certain about high quality of thought before sharing it in seminar setting?		0.056	0.044	-0.065
	Not certain at all	9.0%			
	Somewhat certain	13.6%			
	Moderately certain	26.1%			
	Very certain	51.3%			

Note: A higher response value indicates greater comfort and certainty. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.9: As of right now, how comfortable would you be voicing a thought in a seminar setting?

	All	Male	Female	US Undergrad	Non-US Undergrad
Moderately/Very Comfortable	29.3%	34.8%	19.3%	30.5%	28.3%

Table B.10: As of right now, how certain would you have to be about the high quality of a thought before you voiced it in a seminar setting?

	All	Male	Female	US Undergrad	Non-US Undergrad
Moderately/Very Certain	77.4%	77.0%	77.4%	81.1%	73.8%

Table B.11: Impediments to meeting with faculty: experiences and correlations with mental health

Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
Meetings are difficult to schedule		0.105**	0.062	0.042
Not significant at all	56.6%			
Somewhat significant	26.7%			
Moderately significant	11.0%			
Very significant	5.7%			
Meetings are too short		0.041	0.074	-0.021
Not significant at all	70.9%			
Somewhat significant	20.7%			
Moderately significant	6.8%			
Very significant	1.5%			
Meetings are not useful		0.178***	0.148***	0.131***
Not significant at all	70.4%			
Somewhat significant	21.7%			
Moderately significant	6.2%			
Very significant	1.8%			
Meetings are unpleasant		0.314***	0.322***	0.258***
Not significant at all	79.9%			
Somewhat significant	12.2%			
Moderately significant	5.8%			
Very significant	2.2%			
Fear of the consequences of a bad impression		0.285***	0.339***	0.151***
Not significant at all	32.3%			
Somewhat significant	30.8%			
Moderately significant	18.2%			
Very significant	18.7%			
Doubt about the quality of your ideas, questions, thoughts		0.215***	0.238***	0.088*
Not significant at all	24.8%			
Somewhat significant	26.6%			
Moderately significant	25.1%			
Very significant	23.5%			
Lack of progress on to-dos from previous meeting		0.180***	0.195***	0.100**
Not significant at all	30.1%			
Somewhat significant	24.6%			
Moderately significant	23.1%			
Very significant	22.2%			

Note: A higher response value indicates greater significance for each impediment. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.12: Faculty attention and role modeling: experiences and correlations with mental health

	Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
	Over last 2 months, # of faculty initiating informal conversation		-0.109**	-0.087*	-0.085*
	0	36.3%			
	1	31.9%			
	2	24.0%			
	3 or more	7.8%			
	# of faculty members in department you consider to be professional role models		-0.174***	-0.182***	-0.162***
	0	18.0%			
	1	18.8%			
	2	25.6%			
	3 or more	37.6%			

Note: A higher response value indicates more faculty informal conversations and more faculty professional role models. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.13: Discussing difficulties with advisers: Experiences and correlations with mental health

Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
How easy is it for you to talk to advisers about non-academic career options?		-0.193***	-0.272***	-0.184***
Not easy at all	49.7%			
Somewhat easy	22.6%			
Moderately easy	17.1%			
Very easy	10.6%			
How honest can you be with advisers about difficulties with research progress?		-0.160***	-0.248***	-0.172***
Not honest at all	4.0%			
Somewhat honest	20.0%			
Moderately honest	34.7%			
Very honest	41.3%			
Presentations		-0.257***	-0.310***	-0.223***
Not honest at all	3.0%			
Somewhat honest	18.8%			
Moderately honest	31.6%			
Very honest	46.5%			
Teaching		-0.215***	-0.326***	-0.183***
Not honest at all	4.0%			
Somewhat honest	15.9%			
Moderately honest	31.8%			
Very honest	48.4%			
Refereeing		-0.290***	-0.344***	-0.252***
Not honest at all	3.6%			
Somewhat honest	12.4%			
Moderately honest	31.4%			
Very honest	52.7%			
Co-authoring with other students		-0.146**	-0.191***	-0.235***
Not honest at all	6.0%			
Somewhat honest	19.2%			
Moderately honest	31.6%			
Very honest	43.2%			
Your mental health		-0.284***	-0.308***	-0.296***
Not honest at all	41.5%			
Somewhat honest	32.7%			
Moderately honest	14.6%			
Very honest	11.1%			
Your other advisers		-0.159***	-0.191***	-0.176***
Not honest at all	15.8%			
Somewhat honest	32.9%			
Moderately honest	25.8%			
Very honest	25.5%			
Preparing for the job market		-0.340***	-0.312***	-0.244***
Not honest at all	4.1%			
Somewhat honest	20.1%			
Moderately honest	30.1%			
Very honest	45.7%			
Your decision to get a PhD in economics		-0.293***	-0.271***	-0.195***
Not honest at all	22.6%			
Somewhat honest	22.6%			
Moderately honest	19.3%			
Very honest	35.4%			
Decisions related to starting a family		-0.234***	-0.239***	-0.133**
Not honest at all	31.0%			
Somewhat honest	30.2%			
Moderately honest	19.6%			
Very honest	19.2%			
Co-authoring with these faculty		-0.248***	-0.244***	-0.217***
Not honest at all	11.7%			
Somewhat honest	27.3%			
Moderately honest	27.3%			
Very honest	33.7%			
Other personal life issues		-0.261***	-0.313***	-0.198***
Not honest at all	38.7%			
Somewhat honest	32.7%			
Moderately honest	19.8%			
Very honest	8.9%			

Note: A higher response value indicates greater ease of discussing non-academic career options and greater honesty with difficulties in each question category. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.14: Symptom severity and mental health diagnoses

Panel A: Depression			
PHQ-9 Score	Category	Diagnosed Before	Diagnosed After
0 to 4	none-minimal	34.8%	27.9%
5 to 9	mild	39.4%	34.4%
10 to 14	moderate	16.7%	24.6%
15 to 19	moderately-severe	7.6%	9.8%
≥ 20	severe	1.5%	3.3%
Panel B: Anxiety			
GAD-7 Score	Category	Diagnosed Before	Diagnosed After
0 to 4	none-minimal	43.3%	36.1%
5 to 9	mild	34.3%	34.4%
10 to 14	moderate	17.9%	19.7%
≥ 15	severe	4.5%	9.8%
Panel C: Suicidality			
PHQ-9 Item 9 Score	Category	Diagnosed Before	Diagnosed After
0	not at all	89.4%	80.3%
≥ 1	more than zero days	10.6%	19.7%

Note: Table shows the percentage of students diagnosed with a mental health issue before starting the PhD program and percentage of students diagnosed after starting the PhD program who are scoring in each PHQ-9, GAD-7, and PHQ-9 Item 9 category. Those who score 10 or higher on the PHQ-9 or the GAD-7 would, with a 90% probability, be diagnosed with depression or anxiety disorder, respectively, upon seeing a mental health professional. PHQ-9 Item 9 measures suicidality by asking on how many days over the past two weeks a student was bothered by thoughts of wanting to be dead or wanting to hurt themselves.

Table B.15: How important are the following to your sense of success in life?

Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
Tenure at an academic institution		-0.094**	-0.064	-0.005
Not important at all	14.1%			
Somewhat important	28.0%			
Moderately important	32.9%			
Very important	25.0%			
Tenure at a top-ranked academic institution		-0.046	-0.098**	0.009
Not important at all	25.3%			
Somewhat important	36.8%			
Moderately important	25.3%			
Very important	12.5%			
High income		0.069	0.012	0.048
Not important at all	9.6%			
Somewhat important	37.3%			
Moderately important	37.9%			
Very important	15.2%			
Having your own family		-0.084*	0.001	-0.047
Not important at all	5.9%			
Somewhat important	13.1%			
Moderately important	21.7%			
Very important	59.3%			
Knowing that you have made a useful contribution to the world		-0.036	-0.032	-0.113**
Not important at all	3.9%			
Somewhat important	10.1%			
Moderately important	28.5%			
Very important	57.5%			
Recognition of your work by the general public		-0.022	-0.009	-0.029
Not important at all	16.2%			
Somewhat important	35.1%			
Moderately important	34.1%			
Very important	14.6%			

Note: A higher response value indicates greater importance to a respondent's sense of success in life. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.16: In this academic year, how successful do you think you will be...: experiences and correlations with mental health

Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
in your courses		-0.285***	-0.315***	-0.197***
Not successful at all	8.2%			
Somewhat successful	21.3%			
Moderately successful	51.1%			
Very successful	19.5%			
in your research process		-0.361***	-0.290***	-0.172***
Not successful at all	8.3%			
Somewhat successful	39.2%			
Moderately successful	41.8%			
Very successful	10.7%			
in your presentations		-0.325***	-0.259***	-0.158***
Not successful at all	10.3%			
Somewhat successful	30.5%			
Moderately successful	47.5%			
Very successful	11.6%			
in your teaching		-0.201***	-0.193***	-0.128**
Not successful at all	3.9%			
Somewhat successful	20.4%			
Moderately successful	47.4%			
Very successful	28.4%			

Note: A higher response value indicates greater belief in success in each endeavor. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.

Table B.17: Working with others: experiences and correlations with mental health

Question and Answer	Percent	PHQ-9 ρ	GAD-7 ρ	PHQ-9 Item 9 ρ
In 1st year, number of people worked with on problem sets		-0.016	0.013	-0.030
Worked alone	29.0%			
2 people	15.3%			
3 people	32.8%			
4+ people	22.9%			
Co-authoring with other PhD student?		-0.078*	0.020	-0.026
Yes	36.7%			
No	63.3%			
Co-authoring with faculty member?		-0.074	0.012	-0.043
Yes	39.1%			
No	60.9%			
Over the last 7 days, how many days did you work in the Economics Department?		-0.095**	-0.021	-0.077*
0 days	11.4%			
1 day	5.3%			
2 days	7.6%			
3 days	9.6%			
4 days	15.1%			
5 days	28.0%			
6 days	13.5%			
7 days	9.6%			

Note: A higher response value indicates a larger group, one or more projects co-authored, and more days worked in the Economics Department. Higher PHQ-9, GAD-7, and PHQ-9 Item 9 scores reflect worse mental health. PHQ-9 captures depressive symptoms, GAD-7 captures anxious symptoms, and PHQ-9 Item 9 captures thoughts of suicide and self-harm. Last three columns report Pearson correlation (ρ) between response to the question and each mental health measure. Statistical significance is denoted using * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. For exact question wording, please see survey instrument in Appendix C1.