

Table A1
Estimated Treatment Effects on Initial Fall Term Grades [0-100], With Additional Control Variables

(1)	Outcome Variable						
	(2) Missing Fall Grade	(3) Fall Term Grade	(4) Grade>50	(5) Grade>60	(6) Grade>70	(7) Grade>80	(8) Grade>90
Goal Setting	-0.010 [0.015]	0.681 [0.734]	0.018 [0.015]	0.015 [0.022]	0.027 [0.027]	0.019 [0.023]	0.001 [0.009]
Mindset	0.000 [0.007]	0.651 [0.332]**	0.010 [0.007]	0.021 [0.010]**	0.013 [0.012]	0.019 [0.010]*	0.011 [0.004]**
Online Coaching Only	0.001 [0.007]	-0.006 [0.317]	-0.009 [0.006]	0.011 [0.010]	0.011 [0.012]	-0.004 [0.010]	0.002 [0.004]
Online and One-Way Text Coaching	0.009 [0.008]	0.103 [0.353]	0.006 [0.007]	0.009 [0.011]	0.003 [0.013]	-0.005 [0.011]	0.002 [0.005]
Online and Two-Way Text Coaching	-0.005 [0.006]	-0.212 [0.252]	-0.002 [0.005]	-0.004 [0.008]	0.001 [0.009]	0.003 [0.008]	-0.001 [0.003]
Online and Face-to-Face Coaching	-0.021 [0.032]	-0.483 [1.447]	-0.007 [0.029]	-0.055 [0.044]	-0.037 [0.054]	-0.011 [0.045]	-0.012 [0.019]
Control Mean [& st.dev.]	0.131	68.8 [13.5]	0.924	0.795	0.517	0.2	0.025
Sample Size	23,581	21,305	21,305	21,305	21,305	21,305	21,305

Notes: The table shows coefficient estimates from regressing the indicated outcome variable on the different treatment categories plus fixed effects for each randomized group listed in Table 1. The regressions also include the following conditional variables: a set of cubic polynomial terms for father and mother's education and for age; indicator variables for: English as a second language, any parent with more than an undergraduate degree, high school admissions grade, interacted with whether high school grade is missing from the administrative data. Grades are measured as a percent at the end of the fall term averaged over all courses completed in the first year of each experiment. Grade>X is an indicator variable for whether the Fall Term Grade average exceeds X. Control means, standard deviations and sample sizes are also shown at the bottom. One, two, and three asterisks indicate statistical significance at the 10, 5, and 1 percent level respectively.

Table A2
Estimated Treatment Effects on Initial Fall Term Grades [0-100]
by Campus

(1)	(2)	(3)	(4)	(5)
	All UofT	St. George Campus	Mississauga Campus	Scarborough Campus
Goal Setting	0.254 [0.781]		0.254 [0.808]	
Mindset	0.655 [0.353]*	0.499 [0.447]	0.016 [1.162]	0.864 [0.639]
Online Coaching Only	0.072 [0.337]	-0.612 [0.432]	1.232 [0.987]	0.791 [0.632]
Online and One-Way Text Coaching	0.199 [0.376]	-0.028 [0.573]	0.828 [0.613]	-1.176 [0.919]
Online and Two-Way Text Coaching	-0.191 [0.269]	-0.403 [0.333]	-0.142 [0.548]	0.086 [0.811]
Online and Face-to-Face Coaching	-0.456 [1.539]		0.729 [1.615]	
Control Mean [& st.dev.]	68.8 [13.5]	71.8 [13.0]	65.4 [13.9]	67.8 [13.8]
Sample Size	21,305	10,291	6,431	4,583

Notes: Same as in Table 4.

Table A3
Estimated Treatment Effects on Initial Full Year Math Grades [0-100]

(1)	Outcome Variable						
	(2) Missing Yr1 Math Grade	(3) Year 1 Math Grade	(4) Grade>50	(5) Grade>60	(6) Grade>70	(7) Grade>80	(8) Grade>90
Goal Setting	-0.025 [0.024]	-0.996 [1.371]	0.007 [0.026]	-0.019 [0.035]	-0.036 [0.038]	-0.049 [0.033]	-0.018 [0.021]
Mindset	0.003 [0.012]	0.286 [0.533]	-0.003 [0.010]	0.005 [0.014]	0.003 [0.015]	0.012 [0.013]	0.001 [0.008]
Online Coaching Only	-0.011 [0.011]	1.218 [0.507]**	0.003 [0.010]	0.028 [0.013]**	0.043 [0.014]***	0.026 [0.012]**	0.011 [0.008]
Online and One-Way Text Coaching	-0.004 [0.012]	-0.116 [0.578]	-0.013 [0.011]	-0.011 [0.015]	0.016 [0.016]	0.015 [0.014]	-0.002 [0.009]
Online and Two-Way Text Coaching	-0.005 [0.009]	0.174 [0.471]	0.006 [0.009]	-0.014 [0.012]	0.009 [0.013]	0.004 [0.012]	0.006 [0.007]
Online and Face-to-Face Coaching	-0.021 [0.051]	2.704 [2.551]	-0.021 [0.048]	0.116 [0.066]*	0.153 [0.071]**	0.150 [0.062]**	0.014 [0.039]
Control Mean [& st.dev.]	0.467	66.1 [17.9]	0.869	0.691	0.465	0.242	0.075
Sample Size	24,772	13,728	13,728	13,728	13,728	13,728	13,728

Notes: Same as in Table 4, but outcome is course average only for math courses taken over first year of experiment.

Table A4
Estimated Treatment Effects on Initial Full Year Economics Grades [0-100]

(1)	Outcome Variable						
	(2) Missing Yr1 Econ Grade	(3) Year 1 Econ Grade	(4) Grade>50	(5) Grade>60	(6) Grade>70	(7) Grade>80	(8) Grade>90
Goal Setting	-0.016 [0.022]	-0.209 [0.994]	-0.001 [0.019]	0.002 [0.027]	0.011 [0.031]	-0.006 [0.026]	-0.026 [0.030]
Mindset	0.006 [0.011]	0.492 [0.440]	0.013 [0.008]	0.008 [0.012]	0.003 [0.014]	0.004 [0.012]	0.013 [0.012]
Online Coaching Only	0.007 [0.010]	0.512 [0.421]	0.002 [0.008]	0.009 [0.012]	0.016 [0.013]	0.020 [0.011]*	0.019 [0.011]*
Online and One-Way Text Coaching	0.009 [0.011]	0.069 [0.476]	0.003 [0.009]	-0.008 [0.013]	0.003 [0.015]	0.004 [0.013]	0.013 [0.013]
Online and Two-Way Text Coaching	0.001 [0.008]	-0.493 [0.385]	-0.007 [0.007]	-0.008 [0.011]	-0.016 [0.012]	-0.007 [0.010]	0.008 [0.010]
Online and Face-to-Face Coaching	0.001 [0.047]	-0.679 [2.101]	-0.024 [0.040]	-0.010 [0.058]	-0.007 [0.065]	0.022 [0.056]	0.038 [0.057]
Control Mean [& st.dev.]	0.32	67.0 [16.0]	0.894	0.733	0.497	0.236	0.196
Sample Size	24,772	17,216	17,216	17,216	17,216	17,216	17,216

Notes: Same as in Table 4, but outcome is course average only for economics courses taken over first year of experiment.

Table A5
Estimated Treatment Effects on Academic Performance and Persistence
For Select At-Risk Populations

First Generation Non-International Students							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fall Grade	Winter Grade	Credits Earned	Final Grade	Persisted	Credits Earned	Final Grade
	Year 1	Year 1	Year 1	Year 1	Year 2	Year 2	Year 2
Goal Setting	0.903	-2.248	-1.484	-0.118	0.002	-0.042	0.09
	[1.204]	[1.466]	[1.132]	[0.117]	[0.033]	[1.150]	[0.139]
Mindset	0.927	-0.257	0.524	0.096	0.007	-0.404	0.047
	[0.853]	[0.996]	[0.844]	[0.088]	[0.025]	[0.888]	[0.104]
Online Coaching Only	0.349	0.088	0.193	-0.073	0	0.666	-0.025
	[0.807]	[0.944]	[0.790]	[0.083]	[0.024]	[0.817]	[0.098]
Online and One-Way Text Coaching	0.496	0.491	0.075	0.017	-0.02	-0.601	0.085
	[0.847]	[0.990]	[0.831]	[0.087]	[0.025]	[0.870]	[0.105]
Online and Two-Way Text Coaching	-0.455	-1.695	-0.525	-0.061	-0.012	-2.353	-0.01
	[0.597]	[1.187]	[0.605]	[0.062]	[0.030]	[1.077]**	[0.126]
Online and Face-to-Face Coaching	-3.777	-3.006	-7.765	-0.948	0.169	-4.001	-0.165
	[3.585]	[4.430]	[3.688]**	[0.386]**	[0.113]	[3.644]	[0.443]
Non-English Speaking UTM and UTSC Students							
	Fall Grade	Winter Grade	Credits Earned	Final Grade	Persisted	Credits Earned	Final Grade
	Year 1	Year 1	Year 1	Year 1	Year 2	Year 2	Year 2
Goal Setting	-0.078	-1.239	-1.356	0.026	-0.006	0.419	0.217
	[1.155]	[1.340]	[1.064]	[0.099]	[0.025]	[0.991]	[0.112]*
Mindset	0.577	0.518	0.567	-0.032	0.001	1.232	-0.035
	[0.771]	[0.893]	[0.796]	[0.075]	[0.020]	[0.742]*	[0.082]
Online Coaching Only	1.186	2.129	1.556	0.024	0.035	0.602	-0.03
	[0.755]	[0.871]**	[0.773]**	[0.073]	[0.019]*	[0.716]	[0.080]
Online and One-Way Text Coaching	0.155	0.396	-0.155	-0.029	0.006	-0.021	-0.067
	[0.709]	[0.818]	[0.711]	[0.067]	[0.017]	[0.670]	[0.076]
Online and Two-Way Text Coaching	-0.016	0.278	-0.297	0.012	0.008	-0.059	-0.079
	[0.588]	[1.151]	[0.600]	[0.055]	[0.025]	[1.004]	[0.110]
Online and Face-to-Face Coaching	0.516	0.355	1.04	0.074	0.049	2.55	0.375
	[2.026]	[2.320]	[2.085]	[0.197]	[0.051]	[1.959]	[0.222]*

Notes: Same as Table 5

Table A6
Treatment Effects on Academic Performance and Persistence
Estimated Separately for All SAL Experiments

(1)	First-Generation Non-International Students						
	(2) Fall Grade Year 1	(3) Winter Grade Year 1	(4) Credits Earned Year 1	(5) Final Grade Year 1	(6) Persisted Year 2	(7) Credits Earned Year 2	(8) Final Grade Year 2
Goal Setting without Follow-Up	-0.756 [0.922]	-0.877 [1.100]	-1.18 [0.878]	-0.058 [0.090]	-0.02 [0.024]	0.146 [0.895]	0.128 [0.101]
Goal Setting with Follow-Up	1.235 [0.915]	-0.346 [1.078]	-0.023 [0.872]	-0.011 [0.089]	-0.006 [0.024]	0.516 [0.879]	0.089 [0.099]
Social Belonging Mindset	1.605 [0.582]***	1.327 [0.660]**	1.098 [0.559]**	0.068 [0.058]	0.024 [0.016]	0.971 [0.559]*	0.062 [0.063]
International Student Mindset	0.431 [0.576]	-0.093 [0.679]	0.485 [0.579]	0.165 [0.060]***	0.026 [0.016]	0.195 [0.629]	0.06 [0.067]
Economics Student Mindset	0.395 [0.704]	-0.006 [0.815]	0.444 [0.718]	-0.003 [0.074]	-0.029 [0.020]	0.913 [0.730]	-0.024 [0.080]
Online General Coaching without Follow-Up	-0.245 [0.533]	0.282 [0.608]	-0.052 [0.513]	-0.082 [0.053]	-0.002 [0.014]	0.292 [0.515]	0.038 [0.058]
Online General Coaching with Text Follow-Up	-0.018 [0.477]	-0.094 [0.544]	-0.362 [0.458]	-0.085 [0.047]*	-0.031 [0.013]**	-0.204 [0.464]	0.036 [0.052]
Online General Coaching with F2F Follow-Up	5.184 [3.017]*	6.915 [3.429]**	5.575 [2.889]*	0.497 [0.298]*	0.013 [0.081]	4.943 [2.942]*	0.996 [0.332]***
Customized Coaching without Follow-Up	0.479 [0.485]	1.254 [0.554]**	0.799 [0.481]*	0.023 [0.050]	0 [0.013]	0.509 [0.484]	-0.027 [0.054]
Customized Coaching with Text Follow-Up	0.279 [0.592]	0.385 [0.671]	0.499 [0.581]	0.003 [0.060]	-0.016 [0.016]	-0.089 [0.583]	-0.056 [0.065]
Customized Coaching with F2F Follow-Up	-1.419 [1.803]	-0.943 [2.086]	-0.711 [1.818]	-0.067 [0.188]	0.067 [0.051]	0.411 [1.825]	0.051 [0.206]
Customized Coaching with For-Profit Text Follow-Up	0.062 [0.759]	0.484 [0.882]	0.548 [0.749]	0.073 [0.077]	0.013 [0.021]	0.058 [0.785]	0.012 [0.088]
Time Management Coaching with Follow-Up	-0.304 [0.303]	-0.838 [0.557]	-0.459 [0.307]	-0.022 [0.031]	0.007 [0.013]	-0.01 [0.513]	0.017 [0.056]
Control Mean [& st.dev.]	68.8 [13.5]	68.3 [15.3]	3.1 [1.8]	67.6 [13.8]	0.804	3.0 [1.9]	69.2 [13.0]

Notes: Same as Table 5.

Table A7
Information Updating Revisions in Study Times and Grade Expectations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Actual - Expected Study Time in Economics		Actual - Expected Study Time in All Courses		Difference in Expected Econ Grades: At Follow-up – At Baseline		Actual Econ Grade - Expected Econ Grade at Baseline	
<u>Outcomes and Changes in Implied Expected Grade Based on Changes in Student Study Gradients</u>								
$\Delta E(y_i s_{i0})$	-0.076*** [0.012]	-0.066*** [0.010]	-0.131*** [0.037]	-0.066** [0.031]	0.545*** [0.042]	0.461*** [0.042]	0.451*** [0.044]	0.367*** [0.042]
Observations	1,773	1,672	1,773	1,672	1,773	1,672	916	916
Controls?	N	Y	N	Y	N	Y	N	Y

Notes: Each regression is estimated at the student level and the dependent variable indicated in the column headings. Control variables include age, expected weekly study time across all courses reported during the baseline survey, expected weekly study time in economics reported during the baseline survey, the number of days it took for the student to start the online warmup exercise, campus fixed effects, commute time to campus (in minutes), cubic functions of students' initially expected economics grade, initially expected weekly study time in economics, and initially expected study time across all courses, indicators for expected performance categories, English as a second language, gender, first-year status, first-generation status, international student status, intending to earn more than a BA, self-reported enjoyment of studying, frequent use of a calendar, believing the first midterm in a course determines subsequent outcomes, the belief that grades do not matter as long as one graduates, managing time well, and having a strong tendency to study at the last minute. Robust standard errors are reported in brackets. *** indicates significance at the 1 percent level; ** indicates significance at the 5 percent level; * indicates significance at the 10 percent level.

Figure A1
Screen Shot of 2016 Online Program

General Instructions

The University of Toronto and the Department of Economics want to better understand our students' thoughts about transitioning into university. We will use this information to evaluate the resources we plan to provide for future students.

This exercise involves 2 parts:

- In Part 1, **you will be asked to think about your own** education and future. This will help us understand how students think about various strategies for having a good year and working towards their goals.
- In Part 2, **you will be asked to tell us why you think other students** struggle and to suggest ways your peers might overcome challenges. This section is intended to help us understand how UofT can support future students to overcome barriers

The exercise should take about 45 to 90 minutes to complete. Please try your best to write for the amount of time specified and feel free to take longer if you need to. Please take your time and be thoughtful. If you need a few minutes to walk around and take a break, please feel free to do so.



You'll be asked to help us understand your thoughts and feelings about getting the most out of university.

At the end of the exercise, we will email a copy of your notes to your account address. Reflect on them at a later time, as you may have additional thoughts.

If you need to take a break or two to get up and walk around or help you think, please feel free to do so. Thank-you and Enjoy!

Proceed through the exercise by clicking the [Next \(Save\)](#) button. You can go back to previous pages by clicking [Previous \(Save\)](#). Each time you click Next or Previous, the data you have entered on that page will be saved.

Save

Next (Save)

General Instructions

Part 1: How to Succeed at U of T

Study enough
Study effectively
Get help when you don't understand
Keep up and go to class
Stay motivated
Be patient and take a long-term perspective

Part II

Identifying the Barriers to Success
Digging Deeper Into the Top 2 Issues

One last thing...

Congratulations! You are finished

Figure A2
Screen Shot of 2016 Online Program

5) Staying Motivated

It's not always easy to study with so many other activities competing for students' time. Spending time with friends, watching videos, or even cleaning can seem preferable. Students can help stay committed to learning by frequently reminding themselves what motivates them.

- 1) For some, motivation comes from thinking about how their education can be used to help achieve their long-term career and family related goals.
- 2) For others, who may not have a clear sense of their long-term goals yet, it comes from wanting to keep their options open. Good grades often open doors to graduate school and help impress potential employers after graduation.
- 3) For others, it's about challenging themselves to do their best and focusing on learning as much as they can about how the world works.
- 4) Or, for others, motivation comes from the idea of using their education one day to help others and make a real difference in the world.

Click on the number above corresponding to what you think is the strongest source of motivation for doing well in school for most incoming UofT students.

Please tell us what motivates you to do well at UofT and why

0 word(s)

Previous (Save)

Save

Next (Save)

[General Instructions](#)

[Part 1: How to Succeed at U of T](#)

[Study enough](#)

[Study effectively](#)

[Get help when you don't understand](#)

[Keep up and go to class](#)

[Stay motivated](#)

[Be patient and take a long-term perspective](#)

[Part II](#)

[Identifying the Barriers to Success](#)

[Digging Deeper Into the Top 2 Issues](#)

[One last thing...](#)

[Congratulations! You are finished](#)

**Figure A3:
Screen Shot of One-Way Coaching Manager**

Chatting with [REDACTED]

Mon Jan 14 2019 22:34:22 GMT-0500 Automated System (System)

AS Hello [REDACTED] Thanks for completing the ECON warm-up exercise and welcome to You@MSU! Our team is looking forward to helping you stay on track towards your study and personal goals. We'll be reaching out now and then to check-in with messages of advice, reminders, and support. Stay awesome and have a great year! 😊

Successfully delivered message.

Wed Jan 23 2019 09:32:24 GMT-0500 Automated System (System)

AS Hi [REDACTED] and welcome to You@MSU! Every Wednesday this semester we'll send one study tip. You can always get more by texting back 'MORE'. Have a great week!

Successfully delivered message.

Wed Jan 23 2019 15:22:09 GMT-0500 Automated System (System)

AS TIP: Treat a full-course load like a full-time job: Students who spend about 3 hours of studying per 1 hour of lecture tend to perform really well. Focus on trying to understand and enjoy the material - good grades will follow. [txt MORE]

Successfully delivered message.

Fri Jan 25 2019 13:07:18 GMT-0500 Automated System (System)

AS Happy Friday [REDACTED] Every Friday this semester we'll be sending a short text of support to have a great semester. You can also text back the word 'TIP' if for specific or general study advice. Stay awesome!

Successfully delivered message.

[REDACTED] (Student) Fri Jan 25 2019 13:09:57 GMT-0500

I love you JK

Successfully received message.

Wed Jan 30 2019 15:08:06 GMT-0500 Automated System (System)

AS TIP: Even if you don't have any immediate deadlines, there's still lots to do to help your learning: e.g. read ahead; rewrite lectures in your own words; review hard stuff; download past exams and practice problems; study slower for a deeper understanding [txt MORE]

Successfully delivered message.

Fri Feb 01 2019 11:08:06 GMT-0500 Automated System (System)

AS CHECK-IN: Hi [REDACTED] these first few weeks of school are key for finding a routine that works for you. It can sometimes take time, but keep experimenting until you find the right places, times, and approaches that work best.

Successfully delivered message.

STUDENT INFORMATION
SPECIAL SITUATIONS >

Mark as Read

ID
253

Coach
You@MSU Support Team

name ✎
[REDACTED]

personalization ✎
Green

first_name
[REDACTED]

last_name
[REDACTED]

is_first_year
No

is_international
No

Figure A4
Screen Shot of Two-Way Coaching Manager

Text Chat

Student Information
Best Practices
Special Situations
General Information

Thu Oct 04 2018 18:31:53 GMT-0400 Automated System (System)

AS Hey [redacted] Hibah here. With Thanksgiving around the corner, I'm thankful today for having a chance to try to help others, like you. What are you thankful for?

Successfully delivered message.

[redacted] (Student) Thu Oct 04 2018 18:35:57 GMT-0400

Hi Hibah :) and I'm thankful for just having the opportunity to attend university and having friends and family

Successfully received message.

Thu Oct 04 2018 18:38:27 GMT-0400 Hibah Hashmi (Coach)

HH That's definitely something to be thankful for, be proud of your accomplishment and I'm glad to hear you have a good support system!

Successfully delivered message.

Thu Oct 04 2018 18:38:41 GMT-0400 Hibah Hashmi (Coach)

HH How has school been going? :)

Successfully delivered message.

[redacted] (Student) Thu Oct 04 2018 18:41:54 GMT-0400

Yeah. School's been going okay so far. I've met so many people and have been making friends along the way. I actually failed my first econ test which threw me off a bit

Successfully received message.

Thu Oct 04 2018 18:47:01 GMT-0400 Hibah Hashmi (Coach)

HH Oh no I'm sorry to hear that, but given that it's still early enough I know you can catch up! Just keep at it, ask questions as soon as possible, attend office hours, and make the most of your time

Successfully delivered message.

Thu Oct 04 2018 18:47:15 GMT-0400 Hibah Hashmi (Coach)

HH You can do this ☺

Successfully delivered message.

Thu Oct 04 2018 18:47:59 GMT-0400 Hibah Hashmi (Coach)

HH Glad to hear you've been making friends, it's important to keep a balance between school and your personal life

Successfully delivered message.

[redacted] (Student) Thu Oct 04 2018 18:53:34 GMT-0400

Okay thanks! I will for sure try my best

Successfully received message.

Thu Oct 04 2018 18:55:02 GMT-0400 Hibah Hashmi (Coach)

HH Sounds good, keep at it!

Successfully delivered message.

Mark as Unread

ID
4698

Coach
Hibah

name ✎
[redacted]

personalization ✎
Green

study_goal ✎
25

first_name
[redacted]

last_name
[redacted]

campus
UTM

Figure A5
Screen Shot of Planning Treatment

Scheduling Study Time

You're doing great. Now here's the most important part:

Think about a study routine that you can stick with from the beginning of a term - a regular routine that works for you. Your routine can be flexible to accommodate special events, things that take longer than anticipated, and extra time for tests. But, for now, think about putting together a general plan that will be your starting point each week. Start with a plan that you think will help you meet your goals and balance your priorities.

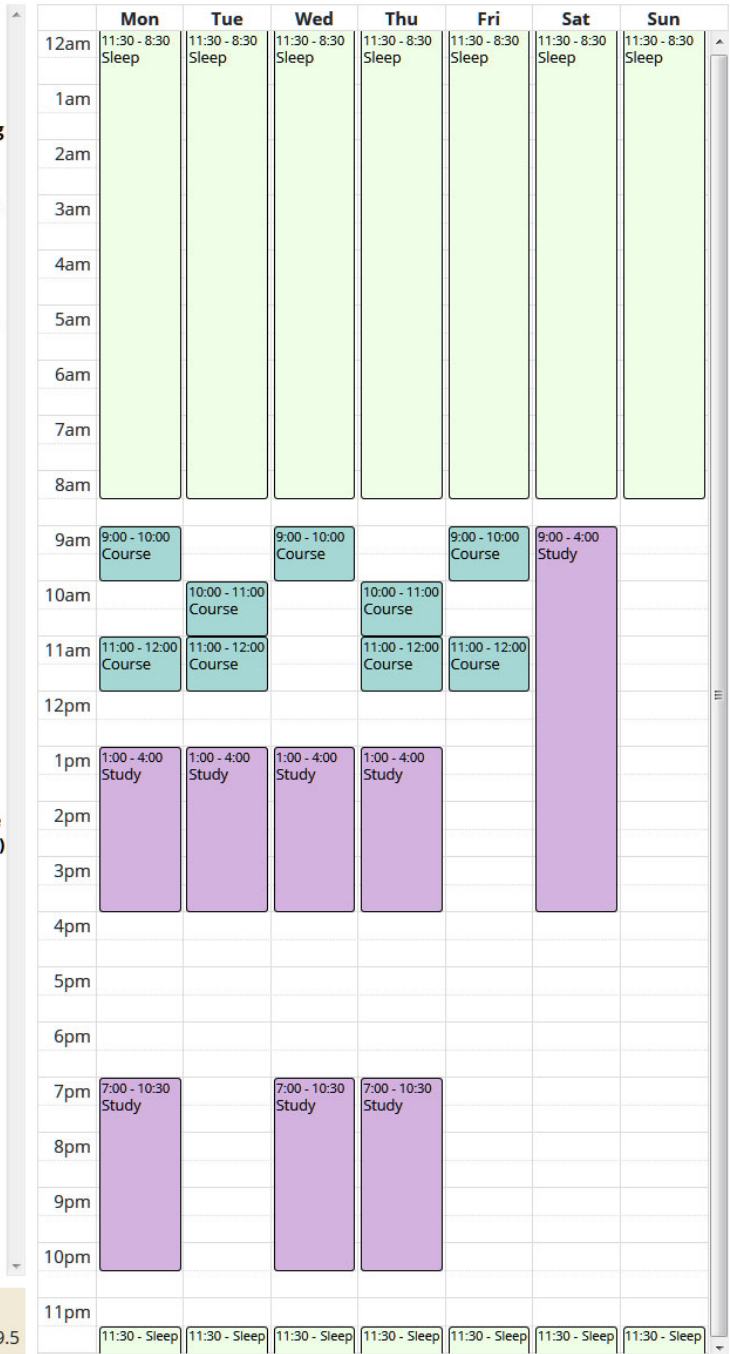
Students like you aiming for a A average do very well when they spend at least 20 hours a week regularly preparing and studying for each course - like a full-time job. This allows them to study slowly, which lets them learn until they feel they understand.

Studying includes reading, note-taking, writing, completing assignments, special workshops, getting help from instructors or teaching assistants, and visiting help desks.

Your best studying is often done during blocks of time of 3 hours or more with short breaks in between, such as after dinner and during weekends. But you can also use shorter periods productively by reviewing notes, thinking about problems, and meeting with instructors, study groups, or teaching assistants. It's a good idea to schedule at least some studying each day as it will help you keep the material in your mind.

Think about how you will prioritize studying and make a realistic plan for how much you will study each day. Click and drag below to indicate on each day when and how much you generally plan to study (in hours) as part of your regular routine.

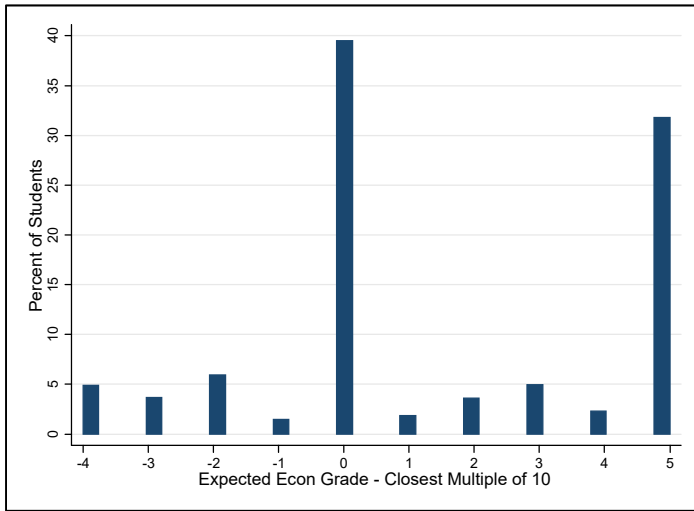
Match your weekly study hour goal (you can adjust this) with your actual planned study hours.



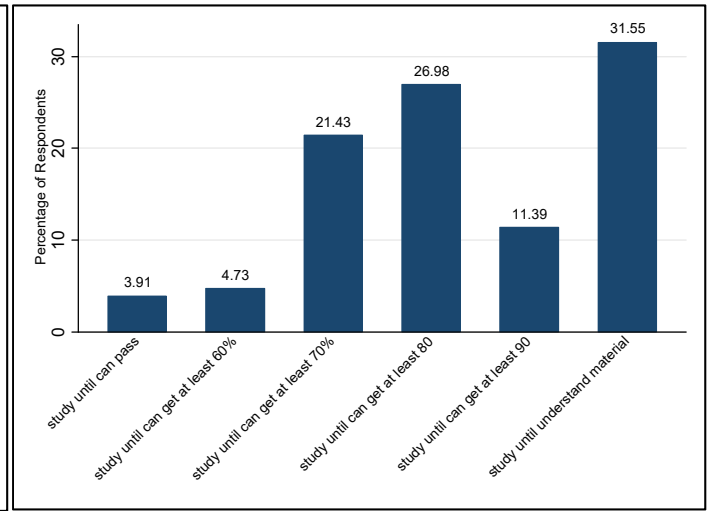
Enter on your calendar when you will study

Target Weekly Study Hours Current Weekly Study Hours 29.5

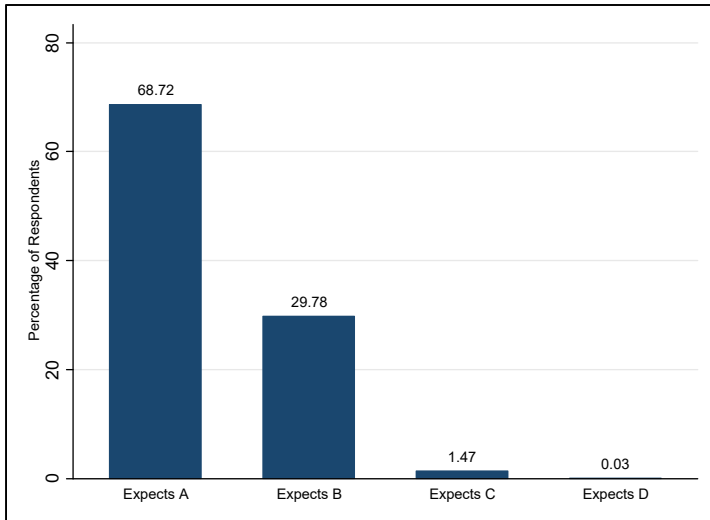
Figure A6: Supporting the Modelling Assumptions



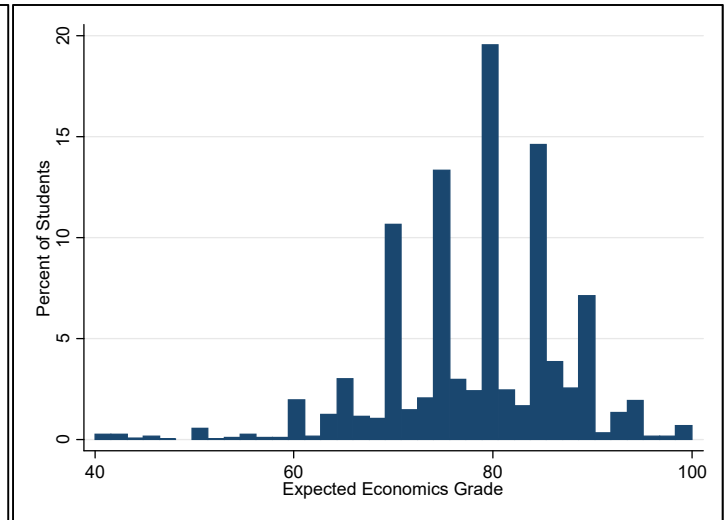
(a): Distance Between Expected Econ Grade and Multiple of Ten



(b): Test Preparation Strategies



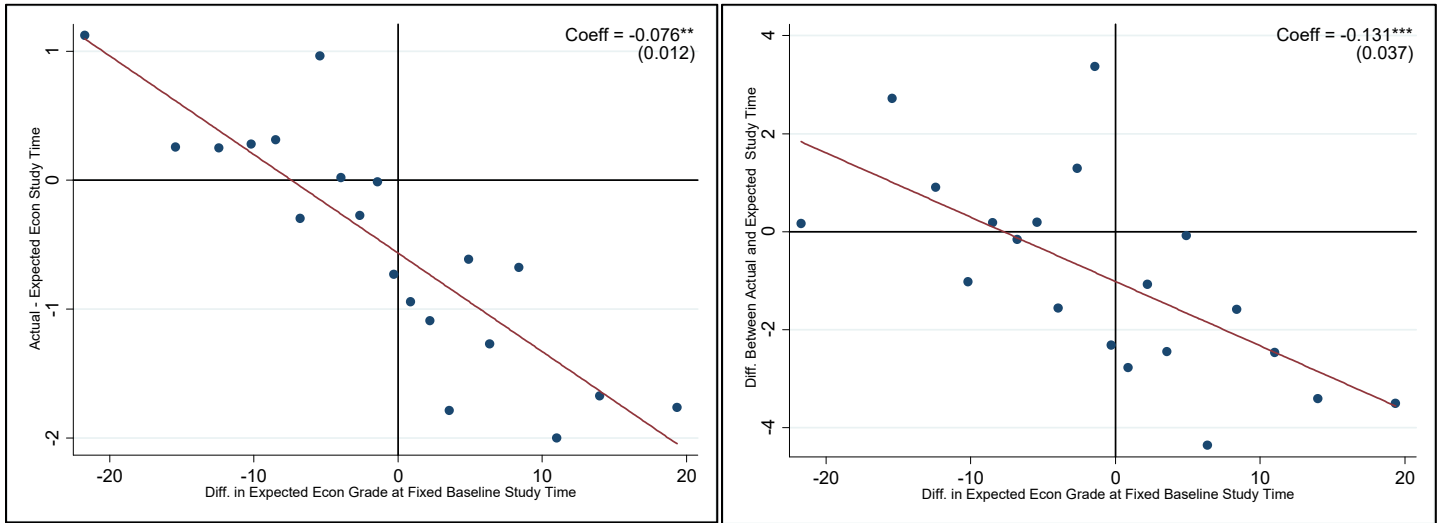
(c): Grade Expectations Over All Courses



(d): Distribution of Expected Grades in Economics

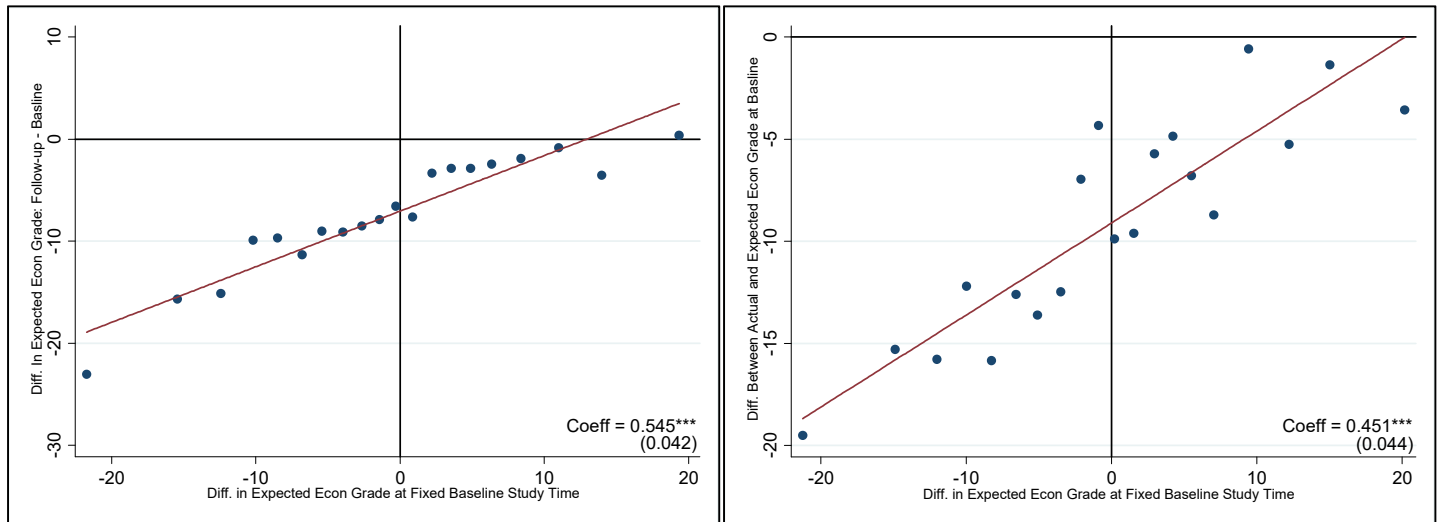
Notes: Panel (a) shows the percentage of students whose expected economics grade (reported during the baseline survey) is a distance from a multiple of 10 that is indicated by the values on the horizontal axis. Panel (b) shows the percentage of students who report (during the follow-up survey) having each of the test preparation strategies listed on the horizontal axis. Panel (c) shows the percentage of students who expect to earn each letter grade on the horizontal axis in their economics course (reported during the baseline survey). Panel (d) shows the full distribution of expected economics grades (at baseline).

Figure A7: Study Time and Grade Expectation Revisions and an Alternative Measure of Information Updating



(a): Change in Econ Study Hours vs. Change in Implied Grade

(b): Change in All Study Hours vs. Change in Implied Grade



(c): Change in Econ Grade Expectation vs. Change in Implied Grade

(d): Actual - Expected Econ Grade vs. Change in Implied Grade

Notes: Panels (a) and (b) show the relationships between changes in students' study times and measures of changes in students' beliefs about their academic abilities. Panels (c) and (d) show the relationships between changes in students' expected and realized economics grades and measures of changes in students' beliefs about their academic abilities. Each binned scatter plot is created by first grouping students into 20 equal-width bins (vingtiles) in the distribution of the variable on the x-axis and calculating the mean of both the y- and x-axis variables within each bin. The circles represent these means, while the lines represent the associated linear fit from the underlying student-level data.