Framing Effects, Earnings Expectations, and the Design of Student Loan Repayment Schemes

Online Appendices: Not for Publication

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Appendix A Survey Experiment Treatment Parameters

No.	Type of IDR Plan	Framing of Alternative Plan	Amount Borrowed	Order of Income Percent Paid Under Alternative Plan
1	Fixed amount	Neutral	\$30,000	High/low
2	Fixed amount	Neutral	\$30,000	Low/high
3	Fixed amount	Neutral	\$60,000	High/low
4	Fixed amount	Neutral	\$60,000	Low/high
5	Fixed amount	Cost	\$30,000	High/low
6	Fixed amount	Cost	\$30,000	Low/high
7	Fixed amount	Cost	\$60,000	High/low
8	Fixed amount	Cost	\$60,000	Low/high
9	Fixed amount	Insurance	\$30,000	High/low
10	Fixed amount	Insurance	\$30,000	Low/high
11	Fixed amount	Insurance	\$60,000	High/low
12	Fixed amount	Insurance	\$60,000	Low/high
13	Fixed length	Neutral	\$30,000	High/low
14	Fixed length	Neutral	\$30,000	Low/high
15	Fixed length	Neutral	\$60,000	High/low
16	Fixed length	Neutral	\$60,000	Low/high
17	Fixed length	Cost	\$30,000	High/low
18	Fixed length	Cost	\$30,000	Low/high
19	Fixed length	Cost	\$60,000	High/low
20	Fixed length	Cost	\$60,000	Low/high
21	Fixed length	Insurance	\$30,000	High/low
22	Fixed length	Insurance	\$30,000	Low/high
23	Fixed length	Insurance	\$60,000	High/low
24	Fixed length	Insurance	\$60,000	Low/high

Notes: Monthly payments under the standard plan when the amount borrowed is \$30,000 equal \$318. When the amount borrowed is \$60,000, monthly payments for the standard plan equal \$636.

Appendix B Survey Instrument

Demographics

The purpose of this survey is to better understand student choices about how to pay back money they borrow for college. Some major changes to the repayment plans available to student borrowers have been proposed. The information you provide will help us to evaluate how the new plans might work in practice and inform attempts to improve repayment options for student borrowers.

The survey is being conducted on behalf of the University of Maryland. Your answers will remain confidential. Your participation is voluntary and should take approximately 10 minutes. At the end of the survey, you will have the opportunity to be entered into a sweepstakes drawing for three iPad Air 2s that will be awarded as prizes.

Thank you in advance for your help. Let's get started! To begin the survey, please click the forward arrow below.

What year in school are you?
○ Freshman
○ Sophomore
Junior
○ Senior
Do you have a major?
○ Yes
○ No
What is your major? Please select the category from the list below that includes your major.
Click here for a detailed list of majors included in each category.
Agriculture, agricultural sciences, natural resources, and conservation
Area, ethnic, cultural, gender, and group studies
 Arts and architecture
Biological sciences
Business, economics, and management
Communications, journalism, and related programs
 Computer and information sciences
Engineering (including computer engineering)
Education
Foreign languages, literatures, and linguistics
English language and literature, history, and philosophy
Health professions and related programs
Mathematics and physical sciences
 Social sciences (excluding economics)

Demographics

What is your likely major? Please select the category from the list below that includes your most likely choice of major.

Click here for a detailed list of majors included in each category.

Agriculture, agricultural sciences, natural resources, and conservation

Area, ethnic, cultural, gender, and group studies

Arts and architecture

Biological sciences

Business, economics, and management

Communication, journalism, and related programs

Computer and information sciences

Engineering (including computer engineering)

English language and literature, history, and philosophy

Do you plan to obtain a graduate or professional degree after completing your bachelor's degree?

		Yes,	very	likely
--	--	------	------	--------

Education

- Yes, somewhat likely
- No, not at all likely
- Definitely not

Earnings 1 point

The next few questions relate to what you expect to be earning at different points in the future.

What do you expect to earn in the first full calendar year after you graduate from college?

Please round to the nearest thousand.

Foreign languages, literatures, and linguistics
 Health professions and related programs
 Mathematics and physical sciences
 Social sciences (excluding economics)

\$,000 per year

Earnings 1 %

What do you think the chances are that you will be unemployed or not working for pay, earn up to \$35,000, earn \$35,001 to \$75,000 or earn more than \$75,000 in your first full calendar year out of college?

The percentages you give should add up to 100 percent.

0

- · · ·	0 %
Percent chance your annual earnings will be \$35,001 to \$75,000	0 %
Percent chance your annual earnings will be more than \$75,000	0 %
Total	0 %
Earnings 2 point	
How much do you expect to earn in a year when you are 30 years old?	
Please answer in thousands of today's dollars. Don't try to adjust for inflation	between now and age 30.
,000 per year	
Earnings 2 %	
What do you think the chances are that you will be unemployed or not worki \$35,000, earn \$35,001 to \$75,000 or earn more than \$75,000 when you are	ng for pay, earn up to re 30 years old ?
Please answer in terms of today's dollars. The percentages you give should a	dd up to 100 percent.
Percent chance you will be unemployed or not working for pay	0 9
Percent chance your annual earnings will be \$35,000 or less	0 %
Percent chance your annual earnings will be \$35,001 to \$75,000	0 %
Percent chance your annual earnings will be more than \$75,000	0 %
Earnings 3 point	0 %
How much do you expect to earn in a year when you are 40 years old? Please answer in thousands of today's dollars. Don't try to adjust for inflation \$	between now and age 40.
What do you think the chances are that you will be unemployed or not worki \$35,000, earn \$35,001 to \$75,000 or earn more than \$75,000 when you a	
Please answer in terms of today's dollars. The percentages you give should a	
Percent chance you will be unemployed or not working for pay	0 %
Percent chance your annual earnings will be \$35,000 or less	0 %
Percent chance your annual earnings will be \$35,001 to \$75,000	0 %
Percent chance your annual earnings will be more than \$75,000	0 %
Total	0 %

Loan repayment plan preferences

Now we would like you to read a scenario relating to the repayment of your student debt. You will be asked to assume that you are about to graduate from the University of Maryland and that you have borrowed a specific amount of money to pay for your education. All you need to do is read the descriptions of the two options and tell us which one you prefer. There is no right or wrong answer—we just want to understand how you would think about what to do in this situation given your expectations about your earnings.

To keep things as simple as possible, when you are making your choice please assume that:

- Once you have chosen a repayment plan, you cannot change it later.
- You will not be required to make payments in the first six months after you graduate.
- If you go to graduate school, your repayment obligations will be paused.
- You are answering just for yourself, not thinking about how a spouse's income or debt might affect your answers.

You will graduate from the University of Maryland this May. You have borrowed \$30,000 at an interest rate of 5% per year to pay for your education. You will not be required to begin making payments until December 2016.

You will need to choose one of the following repayment plans:

Plan A	Plan B
You will pay back the money you owe over the next 10 years.	You will make monthly payments on your loan for up to the next 20 years. Your payments will stop once you have paid off your loan. Any money that you still owe after 20 years will be forgiven.
You will make a fixed monthly payment of \$318 per month, which will cover both the interest that you owe and your loan principal.	 You will not make payments in any month in which your income is less than \$1,000 (in 2016 dollars). In months when your income exceeds \$1,000, your payments will equal 20% of the amount you earn above \$1,000. If you make no payment or if your payment isn't enough to cover the interest you owe, any unpaid interest will be added to your loan balance.
With this plan, you know exactly how much you will have to pay each month for the next 10 years. Over the life of the loan, in addition to repaying the amount you borrowed, you will pay a total of \$8,184 in interest.	With this plan, you could end up paying substantially more than you would pay under Plan A and you could be required to make payments for a longer period of time.

Which of these repayment options would you prefer? Strongly prefer Plan A Slightly prefer Plan A Indifferent between Plan A and Plan B Strongly prefer Plan B Strongly prefer Plan B Now we would like you to consider the same repayment options, except Plan B requires you to pay 15% of your income above \$1,000 per month (instead of 20% of your income above \$1,000 per month). You will graduate from the University of Maryland this May. You have borrowed \$30,000 at an interest rate of 5% per year to pay for your education. You will not be required to begin making payments until December 2016. You will need to choose one of the following repayment plans: Plan A Plan B You will make monthly payments on your loan for up to the next 20 years. Your payments will stop once you have paid off your loan. Any

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You will pay back the money you owe over the next 10 years.	You will make monthly payments on your loan for up to the next 20 years. Your payments will stop once you have paid off your loan. Any money that you still owe after 20 years will be forgiven.
You will make a fixed monthly payment of \$318 per month, which will cover both the interest that you owe and your loan principal.	 You will not make payments in any month in which your income is less than \$1,000 (in 2016 dollars). In months when your income exceeds \$1,000, your payments will equal 15% of the amount you earn above \$1,000. If you make no payment or if your payment isn't enough to cover the interest you owe, any unpaid interest will be added to your loan balance.
With this plan, you know exactly how much you will have to pay each month for the next 10 years. Over the life of the loan, in addition to repaying the amount you borrowed, you will pay a total of \$8,184 in interest.	With this plan, you could end up paying substantially more than you would pay under Plan A and you could be required to make payments for a longer period of time.

Which of these repayment options would you prefer?

- Strongly prefer Plan A
- Slightly prefer Plan A
- Indifferent between Plan A and Plan B

oan	repayment ind
	Strongly prefer Plan B
\bigcirc	Slightly prefer Plan B

Loan repayment indifference question

Now we would like you to think about whether there is a percentage of your income above \$1,000 per month that you would pay under Plan B that would make you indifferent between the two plans.

You will graduate from the University of Maryland this May. You have borrowed \$30,000 at an interest rate of 5% per year to pay for your education. You will not be required to begin making payments until December 2016.

You will need to choose one of the following repayment plans:

Plan A	Plan B
You will pay back the money you owe over the next 10 years.	You will make monthly payments on your loan for up to the next 20 years. Your payments will stop once you have paid off your loan. Any money that you still owe after 20 years will be forgiven.
You will make a fixed monthly payment of \$318 per month, which will cover both the interest that you owe and your loan principal.	 You will not make payments in any month in which your income is less than \$1,000 (in 2016 dollars). In months when your income exceeds \$1,000, your payments will equal% of the amount you earn above \$1,000. If you make no payment or if your payment isn't enough to cover the interest you owe, any unpaid interest will be added to your loan balance.
 With this plan, you know exactly how much you will have to pay each month for the next 10 years. Over the life of the loan, in addition to repaying the amount you borrowed, you will pay a total of \$8,184 in interest. 	With this plan, you could end up paying substantially more than you would pay under Plan A and you could be required to make payments for a longer period of time.

Setting payments under Plan B to equal % of my monthly earnings above \$1,000 in Plan B would make me indifferent between

Current Debt

Plan A and Plan B.

% of earnings over \$1,000 per month

Do you have any st private loans)?	tudent loan debt in your name (e.g., federal direct or FFEL loans, federal Perkins loans
Do not consider loa	ans your parents may have taken out.
Yes	
○ No	
	nt outstanding student loan balance, counting student loans from all sources? Only ns taken out in your name, not any taken out by your parents.
Please answer in w	hole dollars.
\$	
Do you have any d	ebt other than student loan debt?
O Yes	
O No	
	ner debt do you have?
	er than balances you pay off every month)
Auto Ioan	
Mortgage on a home	
Other (please specify)	
nancial Literacy	
	\$1,000 on your credit card and the interest rate you are charged is 20% per year ally. If you didn't pay anything off, at this interest rate, how many years would it take owe to double?
compounded annua	ally. If you didn't pay anything off, at this interest rate, how many years would it take
compounded annuation for the amount you	ally. If you didn't pay anything off, at this interest rate, how many years would it take
compounded annua for the amount you Less than 2 years	ally. If you didn't pay anything off, at this interest rate, how many years would it take
compounded annual for the amount you Less than 2 years 2 to 4 years	ally. If you didn't pay anything off, at this interest rate, how many years would it take

Suppose you owe \$3,000 on your credit card. The Annual Percentage Rate (APR) on the balance owed is 12% (or 1% per month). You make a payment of \$30 each month. How many years would it take to eliminate your credit card debt if you made no additional new charges?

	Less than	5 years									
	5 to 10 ye	ars									
	11 to 15 y	ears									
	More than	15 years									
	Never, you	will continue	e to be in del	ot							
	Not sure										
Ri	sk Aversio				-						
	Suppose the winning \$1										: Of
	Please ente	er a value	in dollars	i.							
	\$										
	In general, value 0 me										
	Not at all willin	g to take risk	S							Very willing	g to take risks
	0	1	2	3	4	5	6	7	8	9	10
De	emographi What is yo		?								
	Female										
	Male										
	In what ye	ar were yo	ou born?								
		▼									
Dı	rawing Sta	tement									
	As a thank iPad Air 2s		ompleting	the surv	ey, you ar	e eligible	to be ente	red in a d	rawing to	win one o	of three
	Please click	c "Yes" be	low if you	would lik	ke to be er	ntered in t	he drawin	g.			
	Yes, please	e enter me in	the drawing								
				awina							
	No, please	do not enter	me in the di	awing							

If you are a winner of one of the three iPads, we will contact you at the email address at which you received the invitation to participate in this survey.

If you would prefer that we use a different email address or call you on the telephone, please enter the contact information you would like us to use here:
Thank you for participating in our survey about student loan debt. Your answers will be very helpful.
Please click the forward arrow below to exit the survey.

Appendix C Invitation and Reminder Emails

Figure C.1: Initial Invitation

Subject: Please complete a short survey on student loan repayment plans

Dear [First Name],

I am writing to ask for your help with a short survey regarding student loan debt. The purpose of the survey is to better understand student choices about how to pay back money they borrow for college. Some major changes to the repayment plans available to student borrowers have been proposed. The information you provide will help us to evaluate how the new plans might work in practice. To ensure that the conclusions drawn from the survey are valid, we need to hear from you even if you do not have any student loan debt.

The survey is being conducted on behalf of the University of Maryland. Your answers will remain confidential. Your participation is voluntary and should take approximately 10 minutes. At the end of the survey, you will have the opportunity to be entered into a sweepstakes drawing for three iPad Air 2s that will be awarded as prizes.

Please click here to access the survey: [Survey Link].

If you would like more information about this survey, please contact the principal investigator, Lesley Turner (email: turner@econ.umd.edu; phone: 301-405-3512).

Thank you in advance for your assistance with this important study!

Follow the link to opt out of future emails: [Link]

Figure C.2: First Reminder Email

Subject: Reminder: Please respond to a short survey about student loan repayment plans

Dear [First Name].

A few days ago, I wrote to you regarding an important survey about student loan debt. If you have already completed the survey, thank you. If not, I hope you will do so now. It should take only about 10 minutes of your time.

The purpose of the survey is to better understand student choices about how to pay back money they borrow for college. Some major changes to the repayment plans available to student borrowers have been proposed. The information you provide will help us to evaluate how the new plans might work in practice. To ensure that the conclusions drawn from the survey are valid, we need to hear from you even if you do not have any student loan debt.

The survey is being conducted on behalf of the University of Maryland. Your participation is voluntary and your answers will remain confidential. At the end of the survey, you will have the opportunity to be entered into a sweepstakes drawing for three iPad Air 2s that will be awarded as prizes.

Please click here to access the survey: [Link].

If you would like more information about this survey, please contact the principal investigator, Lesley Turner (email: turner@econ.umd.edu; phone: 301-405-3512).

Thank you in advance for your assistance with this important study!

Follow the link to opt out of future emails: [Link]

Figure C.3: Second Reminder Email

Subject: Reminder: We need your help with short survey about student loan repayment

Dear [First Name],

Time is running out to complete the survey about student loan debt being conducted on behalf of the University of Maryland. I am writing to you again because it is important that we hear from you, whether or not you have any student debt. If you have already completed the survey, thank you. If not, I hope you will do so now. It should take only about 10 minutes of your time.

The purpose of the survey is to better understand student choices about how to pay back money they borrow for college. Some major changes to the repayment plans available to student borrowers have been proposed. The information you provide will help us to evaluate how the new plans might work in practice.

Your participation in the survey is voluntary. Your answers will be kept confidential. At the end of the survey, you will have the opportunity to be entered into a sweepstakes drawing for three iPad Air 2s that will be awarded as prizes.

Please click here to access the survey: [Link].

If you would like more information about this survey, please contact the principal investigator, Lesley Turner (email: turner@econ.umd.edu; phone: 301-405-3512).

Thank you in advance for your assistance with this important study!

Follow the link to opt out of future emails: [Link]

Figure C.4: Third Reminder Email

Subject: Last chance to win iPad Air: Student loan survey will close this Thursday

Dear [First Name],

The survey about student loan debt being conducted on behalf of the University of Maryland will close on this Thursday, March 10th and I would like to be sure you have a chance to respond before it does. **If you have already completed the survey, thank you. If not, I hope you will do so now, as it is important that we hear from you even if you do not have any student debt**. Completing the survey should take only about 10 minutes of your time.

The purpose of the survey is to better understand student choices about how to pay back money they borrow for college. Some major changes to the repayment plans available to student borrowers have been proposed. The information you provide will help us to evaluate how the new plans might work in practice.

Your participation in the survey is voluntary. Your answers will be kept confidential. At the end of the survey, you will have the opportunity to be entered into a sweepstakes drawing for three iPad Air 2s that will be awarded as prizes.

Please click here to access the survey: [Link].

If you would like more information about this survey, please contact the principal investigator, Lesley Turner (email: turner@econ.umd.edu; phone: 301-405-3512).

Thank you in advance for your assistance with this important study!

Follow the link to opt out of future emails: [Link]

Appendix D Additional Figures and Tables

Figure D.1: Expanded Output from ED's Repayment Plan Comparison Tool

Standard You will pay a total of \$3	38,184 over 120 mon	ıths	\$318 - \$318	3/month
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$318	\$318	\$38,184	4	120 months
More Information 🗖				
Graduated You will pay a total of \$4	40,294 over 120 mor	nths	\$180 - \$540	O/month
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$180	\$540	\$40,294	-	120 months
More Information 🗀				
wood and only the state of the state of				
Revised Pay As You Earn		nths	\$94 - \$413,	/month
Revised Pay As You Earn		nths Total Amount Paid	\$94 - \$413, Projected Loan Forgiveness	/month Repayment Period
Revised Pay As You Earr You will pay a total of \$5 First Monthly	53,168 over 244 mor	Andre Control	Projected Loan	
Revised Pay As You Earn You will pay a total of \$5 First Monthly Payment \$94	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
Revised Pay As You Earn You will pay a total of \$5 First Monthly Payment \$94 More Information (Last Monthly Payment \$413	Total Amount Paid \$53,168	Projected Loan Forgiveness	Repayment Period 244 months
Revised Pay As You Earn You will pay a total of \$5 First Monthly Payment \$94 More Information (Last Monthly Payment \$413	Total Amount Paid \$53,168	Projected Loan Forgiveness \$0	Repayment Period 244 months
Revised Pay As You Earn You will pay a total of \$5 First Monthly Payment \$94 More Information (Last Monthly Payment \$413 50,278 over 240 mor	Total Amount Paid \$53,168	Projected Loan Forgiveness \$0 \$94 - \$318, Projected Loan	Repayment Period 244 months

Figure D.1, cont.

Standard You will pay a total of \$3	38,184 over 120 mor	nths	\$318 - \$318	3/month —
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$318 More Information	\$318	\$38,184	-	120 months
Graduated You will pay a total of \$4	40,294 over 120 mor	nths	\$180 - \$540	O/month —
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$180 More Information	\$540	\$40,294	-	120 months
Revised Pay As You Earn You will pay a total of \$5		nths	\$94 - \$41 3,	/month —
		nths Total Amount Paid	\$94 - \$413, Projected Loan Forgiveness	Repayment Period
You will pay a total of \$5	53,168 over 244 mor	A SUP	Projected Loan	•
You will pay a total of \$5 First Monthly Payment \$94	Last Monthly Payment \$413	Total Amount Paid \$53,168	Projected Loan Forgiveness	Repayment Period 244 months
First Monthly Payment \$94 More Information Pay As You Earn (PAYE)	Last Monthly Payment \$413	Total Amount Paid \$53,168	Projected Loan Forgiveness \$0	Repayment Period 244 months

Notes: Output from the Department of Education's Repayment Estimator (generated July 6, 2019). The Repayment Estimator is available at: https://studentloans.gov/myDirectLoan/mobile/repayment/repaymentEstimator.action. Calculations are for a \$30,000 unsubsidized loan with 5 percent interest for a single individual with an initial adjusted gross income equal to \$30,000. The estimator assumes a zero discount rate, income growth of 5 percent per year, and no risk of unemployment. See Figure 1 for unexpanded output.

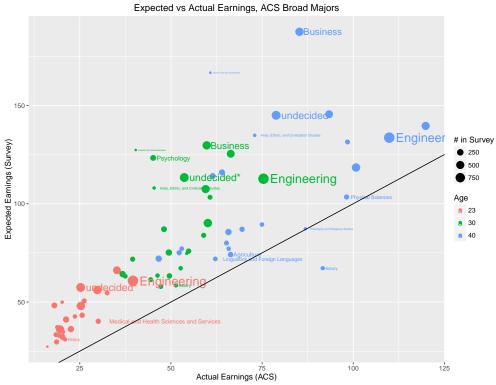
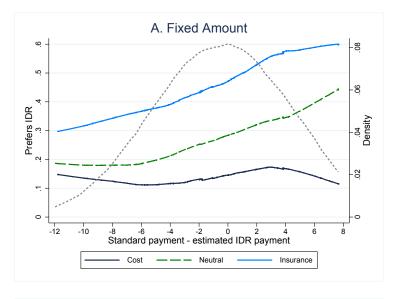
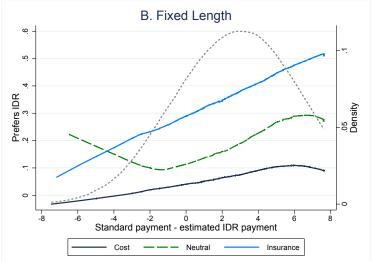


Figure D.2: Respondents Expected Earnings versus Population Average Earnings

Notes: Each marker represents the relationship between average population earnings for graduates in the specified major using data from the American Community Survey and the average expected earning for survey respondents in the specified major. Larger markers represent a larger underlying survey respondent sample size. The black diagonal line represents 45 degrees.

Figure D.3: Share Choosing IDR by Framing and Difference in Expected Payment between Standard Plan and IDR at Graduation





Notes: Each figure displays local linear regressions of the probability of preferring IDR on the expected difference in annual payments (\$1k) for the standard plan and IDR at graduation, separately by framing. Students for whom the expected payment difference exceeded \$12,000 in magnitude are excluded. The short-dashed gray line represents the density of observations with respect to the difference in payments (corresponding to the left y-axis).

Table D.1: Characteristics of Students by Treatment Arm: Fixed Payment Amount

			Loan Amou				III. FIACO			int = \$30,000	0	
	Interes	t frame	Neutra	1 frame	Insuran	ce frame	Interest	framing	Neutra	al frame	Insuran	ce frame
	(1) High	(2) Low	(3) High	(4) Low	(5) High	(6) Low	(7) High	(8) Low	(9) High	(10) Low	(11) High	(12) Low
Number of students	173	186	169	191	203	184	171	171	163	213	217	179
Administrative data												
Age	19.9	20.3	20.0	20.1	20.1	20.0	20.1	20.1	20.1	20.3	20.1	20.0
Female	0.51	0.52	0.41	0.52	0.49	0.49	0.49	0.50	0.47	0.45	0.51	0.49
Race/ethnicity												
Asian	0.27	0.20	0.21	0.14	0.24	0.21	0.23	0.23	0.20	0.20	0.18	0.20
Black	0.09	0.11	0.15	0.13	0.11	0.11	0.17	0.12	0.15	0.15	0.10	0.10
Hispanic	0.07	0.11	0.09	0.10	0.07	0.14	0.09	0.12	0.13	0.03	0.12	0.14
Other/multi-racial	0.02	0.08	0.08	0.05	0.04	0.07	0.07	0.05	0.05	0.05	0.08	0.06
Class standing												
New transfer student	0.08	0.05	0.09	0.08	0.05	0.07	0.11	0.08	0.10	0.08	0.07	0.08
Sophomore	0.14	0.13	0.13	0.16	0.20	0.18	0.16	0.15	0.13	0.15	0.18	0.14
Junior	0.20	0.31	0.23	0.30	0.27	0.23	0.25	0.23	0.23	0.25	0.26	0.26
Senior	0.35	0.32	0.30	0.29	0.32	0.28	0.30	0.35	0.32	0.31	0.33	0.31
STEM/business/econ. major	0.61	0.51	0.54	0.54	0.58	0.54	0.55	0.57	0.50	0.55	0.51	0.60
Undecided major	0.09	0.09	0.14	0.12	0.08	0.15	0.10	0.09	0.16	0.10	0.10	0.09
SAT percentile (if nonmissing)	84	82	83	82	83	83	81	83	81	81	84	82
GPA (if nonmissing)	3.29	3.25	3.20	3.29	3.18	3.25	3.22	3.33	3.14	3.24	3.25	3.27
First generation student	0.20	0.23	0.21	0.23	0.27	0.24	0.29	0.22	0.31	0.21	0.20	0.26
Maryland resident	0.86	0.80	0.86	0.81	0.84	0.80	0.81	0.85	0.85	0.83	0.80	0.79
Completed 2015-16 FAFSA	0.86	0.86	0.87	0.88	0.87	0.84	0.89	0.85	0.88	0.90	0.88	0.85
2015-16 EFC (\$1k; if nonmissing)	21.9	20.4	18.7	21.9	17.9	20.6	19.3	18.9	18.5	21.4	19.7	20.4
Any loan at UMD	0.46	0.49	0.52	0.51	0.50	0.46	0.49	0.46	0.57	0.50	0.47	0.49
Cumulative loans (\$1k)	7.4	10.6	8.5	12.5	8.1	7.1	9.0	9.5	11.4	8.8	8.9	8.5
Cumulative grants (\$1k)	6.1	6.4	7.4	5.6	7.9	6.3	7.5	6.5	8.2	6.2	6.6	7.1
Survey data												
Expected earnings at graduation (\$1k)	59.6	55.6	55.8	61.2	55.8	57.8	58.4	57.4	55.4	59.7	57.4	56.1
At age 30 (\$1k)	106.8	94.7	100.2	101.6	100.3	99.7	104.1	95.6	99.7	109.0	98.9	107.8
At age 40 (\$1k)	132.7	118.6	124.7	126.5	132.8	126.0	128.6	121.7	126.8	139.2	126.3	140.1
Expected pr(unemp) at graduation	0.15	0.14	0.16	0.16	0.18	0.15	0.12	0.17	0.13	0.15	0.17	0.13
At age 30	0.04	0.04	0.03	0.04	0.04	0.03	0.04	0.05	0.04	0.03	0.04	0.03
At age 40	0.02	0.03	0.02	0.03	0.04	0.02	0.03	0.04	0.03	0.03	0.03	0.02
Has student loan	0.38	0.41	0.49	0.43	0.44	0.41	0.43	0.42	0.45	0.44	0.45	0.44
Outstanding loan debt (\$1k)	8.2	9.6	8.1	9.4	8.6	7.3	9.7	8.5	10.9	9.6	8.0	8.7
Has other debt	0.10	0.10	0.08	0.10	0.11	0.13	0.12	0.10	0.14	0.13	0.09	0.09
Financial literacy: num. correct (0-2)	0.7	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.8
Willingness to take risks (1-10)	4.8	4.5	4.6	4.7	5.0	4.6	4.8	4.7	5.2	4.9	4.8	5.0

Notes: Expected earnings are conditional on having nonzero earnings. Skipped financial literacy questions are considered incorrect. Survey data measures reported for students that did not skip the specified question.

Table D.2: Characteristics of Students by Treatment Arm: Fixed Payment Length

	D.2. CI		Loan Amou				Loan Amount = \$30,000					
	Interes	t frame		l frame	_	ce frame	Interest framing Neutral frame				Insurance frame	
	(1) High	(2) Low	(3) High	(4) Low	(5) High	(6) Low	(7) High	(8) Low	(9) High	(10) Low		(12) Low
Number of students	166	207	203	183	190	168	178	161	175	170	185	191
Administrative data												
Age	19.9	20.3	20.0	20.2	19.9	20.2	20.2	19.9	20.1	20.1	20.2	20.1
Female	0.48	0.55	0.51	0.46	0.48	0.51	0.50	0.60	0.53	0.48	0.49	0.49
Race/ethnicity												
Asian	0.20	0.19	0.18	0.16	0.17	0.18	0.15	0.22	0.23	0.21	0.22	0.20
Black	0.08	0.12	0.12	0.16	0.16	0.14	0.12	0.11	0.15	0.14	0.14	0.14
Hispanic	0.09	0.13	0.09	0.09	0.07	0.10	0.13	0.09	0.09	0.09	0.10	0.10
Other/multi-racial	0.05	0.07	0.07	0.02	0.08	0.08	0.08	0.04	0.03	0.08	0.04	0.07
Class standing												
Sophomore	0.17	0.17	0.18	0.23	0.16	0.18	0.16	0.20	0.14	0.15	0.17	0.15
Junior	0.22	0.20	0.21	0.25	0.23	0.24	0.24	0.20	0.24	0.26	0.27	0.26
Senior	0.29	0.31	0.39	0.30	0.31	0.35	0.35	0.30	0.33	0.28	0.32	0.31
New transfer student	0.10	0.12	0.07	0.09	0.12	0.05	0.10	0.09	0.09	0.08	0.06	0.07
STEM/business/econ. major	0.62	0.57	0.60	0.56	0.52	0.55	0.65	0.57	0.57	0.56	0.55	0.53
Undecided major	0.10	0.09	0.08	0.10	0.13	0.09	0.06	0.11	0.07	0.15	0.08	0.10
SAT percentile (if nonmissing)	82	83	84	80	83	84	82	82	82	80	84	83
GPA (if nonmissing)	3.29	3.23	3.21	3.20	3.26	3.29	3.22	3.26	3.29	3.17	3.24	3.18
First generation student	0.21	0.23	0.25	0.25	0.2	0.3	0.25	0.23	0.23	0.28	0.23	0.26
Maryland resident	0.82	0.86	0.81	0.90	0.86	0.81	0.84	0.84	0.91	0.79	0.8	0.8
2015-16 EFC (\$1k)	18.4	18.3	17.9	18.0	18.9	18.1	16.7	21.1	18.6	17.9	17.7	16.3
Any loan at UMD	0.46	0.48	0.52	0.49	0.54	0.54	0.49	0.49	0.44	0.55	0.49	0.50
Cumulative loans (\$1k)	7.8	8.2	10.2	8.6	8.4	9.5	8.4	7.9	6.9	10.6	9.8	9.9
Cumulative grants (\$1k)	5.0	7.7	6.9	5.7	5.5	7.5	7.9	4.4	6.3	7.4	7.1	8.0
Survey data												
Expected earnings at graduation (\$1k)	50.1	47.5	47.6	50.7	49.8	47.5	48.6	46.5	49.7	47.3	48.4	49.2
At age 30 (\$1k)	103.2	92.6	100.3	95.5	112.3	92.5	105.1	107.4	98.4	101.1	101.9	94.6
At age 40 (\$1k)	136.3	121.7	144.9	117.9	145.1	111.3	133.5	136.3	127.9	130.3	137.8	123.5
Ann. earnings growth (linear term)	8.9	7.6	8.2	7.5	9.9	7.9	9.4	10.0	8.6	9.4	8.9	7.5
Expected pr(unemp) at graduation	0.14	0.18	0.16	0.14	0.15	0.16	0.17	0.17	0.13	0.13	0.16	0.17
At age 30	0.04	0.04	0.03	0.04	0.04	0.05	0.03	0.03	0.04	0.02	0.04	0.04
At age 40	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.03
Has student loan	0.40	0.46	0.45	0.44	0.46	0.43	0.44	0.40	0.39	0.45	0.44	0.46
Outstanding loan debt (\$1k)	7.7	9.5	9.2	9.5	6.6	8.5	7.3	6.5	5.3	9.6	9.6	8.9
Has other debt	0.10	0.13	0.08	0.13	0.10	0.10	0.12	0.06	0.12	0.12	0.12	0.13
Financial literacy: num. correct (0-2)	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.6	0.8	0.8	0.8	0.7
Willingness to take risks (1-10)	4.7	4.8	4.9	5.0	5.0	4.7	4.5	4.8	4.9	4.9	5.0	4.6

Notes: See Table D.2 notes.

Table D.3: Student Characteristics Correlated with Selection into the Analysis Sample

	(1) Analysis sample	(2) Other students	(3) Pr(analysis sample)
Demographic characteristics			
Age	20.1	20.5	-0.009
			(0.001)**
Female	0.50	0.45	0.026
			(0.005)**
Race (relative to white)	0.20	0.16	0.017
Asian	0.20	0.16	0.017
Dlask	0.13	0.13	(0.007)* -0.021
Black	0.13	0.13	(0.008)**
Hispanic	0.10	0.10	-0.005
mspanie	0.10	0.10	(0.008)
Other/multi	0.06	0.06	0.001
Other/marci	0.00	0.00	(0.010)
Class standing (rel. to freshmen)			(0.010)
New transfer	0.08	0.07	0.021
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	****	****	(0.012)+
Sophomore	0.16	0.18	-0.030
1			(0.008)**
\times GPA ($\mu = 0$)	0.01	-0.002	0.032
			(0.009)**
Junior	0.24	0.26	-0.024
			(0.008)**
\times GPA ($\mu = 0$)	0.01	-0.002	0.025
			(0.008)**
Senior	0.32	0.31	-0.006
			(0.008)
\times GPA ($\mu = 0$)	0.03	-0.01	0.063
			(0.009)**
STEM/business/econ major	0.56	0.50	0.035
			(0.006)**
Undecided major	0.10	0.12	-0.010
			(0.008)
Nonmissing SAT scores	0.87	0.86	-0.035
XCAT 4 (1 (0 100)		70.0	(0.015)*
* SAT math percentile (0-100)	71.5	70.2	0.0003
Fi d d d d	0.24	0.21	(0.0002)
First generation student	0.24	0.21	0.014
Maryland resident	0.83	0.78	(0.007)* 0.041
Maryland resident	0.83	0.78	(0.006)**
Financial aid			(0.000)
FAFSA submitted in 2015-16	0.88	0.81	0.037
1711 571 Submitted in 2013 10	0.00	0.01	(0.007)**
× 2015-16 EFC (\$1k)	\$17.7	\$17.3	-0.0001
,	•	• • • • • • • • • • • • • • • • • • • •	(0.0001)
Any UMD loans?	0.50	0.42	0.030
3			(0.007)**
Cumulative loans (\$1k)	\$9.0	\$7.6	0.001
•			(0.0002)**
Cumulative grants (\$1k)	\$6.7	\$5.2	0.001
			(0.0003)**
Students	4,399	21,036	25,435

Notes: Columns 1 and 2 display the mean characteristics of students in the analysis sample and of students who were invited to complete the survey but did not provide sufficient information or were otherwise ineligible to be included in the analysis sample, respectively. Column 3 displays coefficients from a linear probability regression in which the dependent variable is 1 if the person is included in the analysis sample, 0 otherwise and the listed characteristics are included as explanatory variables. GPA standardized to have mean = 0 within class levels. Robust standard errors in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.4: Correlations between Student Characteristics, Treatment Parameters, and Selection into the Analysis Sample for Students who Opened the Survey

Age	-0.039	STEM/business/econ major	0.035
_	(0.002)**		(0.013)**
Female	-0.047	Undecided major	-0.010
	(0.011)**		(0.020)
Race (relative to white)		Class standing (relative to freshma	n)
Asian	0.001	New transfer	0.084
	(0.014)		(0.025)**
Black	-0.043	Sophomore	0.027
	(0.018)*		(0.018)
Hispanic	-0.017	\times GPA ($\mu = 0$)	-0.029
	(0.019)		(0.027)
Other/multi	-0.007	Junior	0.094
	(0.023)		(0.017)**
Nonmissing SAT scores	-0.015	\times GPA ($\mu = 0$)	-0.027
	(0.036)		(0.021)
* SAT math percentile (0-100)	0.0002	Senior	0.114
	(0.0004)		(0.018)**
First generation student	0.023	\times GPA ($\mu = 0$)	0.003
	(0.014)+		(0.020)
Maryland resident	0.033		
	(0.015)*		
3. Financial aid			
FAFSA submitted in 2015-16	-0.0001	Any loans?	0.005
	(0.0003)		(0.014)
× 2015-16 EFC (\$1k)	0.0004	Cumulative loans (\$1k)	0.0004
	(0.0005)		(0.0004)
	(******)	Cumulative grants (\$1k)	0.0004
			(0.001)
C. Treatment parameters			
Framing (rel. to neutral)		Alternate plan = fixed length IDR	-0.012
Cost	-0.015	1 2	(0.010)
	(0.013)	Loan amount = \$60K	0.002
Insurance	-0.012		(0.010)
Hisurance			` /
msurance	(0.012)	Lower interest rate presented first	-0.004

Notes: Coefficients from linear probability regression of probability of being in the analysis sample on student characteristics and survey treatment parameters for students who opened the survey (N=5,500). GPA standardized to have mean = 0 within class levels. Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1.

Table D.5: Characteristics of Consistent and Inconsistent Survey Respondents for Fixed Amount and Fixed Length IDR

	Fixed am	ount IDR	Fixed lea	ngth IDR
	Incons	istent?	Incons	istent?
	No	Yes	No	Yes
Age	20.0	20.3	20.1	20.2
Female	0.47	0.53	0.48	0.56
URM	0.21	0.26	0.21	0.27
Class standing				
Freshman	0.20	0.19	0.19	0.18
Sophomore	0.17	0.13	0.17	0.18
New tranfer	0.07	0.09	0.08	0.10
Junior	0.25	0.26	0.24	0.23
Senior	0.31	0.32	0.33	0.30
Major				
STEM, business, econ	0.56	0.53	0.59	0.53
Other major	0.01	0.02	0.02	0.02
Undecided	0.11	0.11	0.09	0.11
SAT math percentile rank	83.6	79.9	83.5	80.1
GPA	3.12	2.99	3.12	3.04
First generation college student	0.23	0.26	0.23	0.26
In-state student	0.82	0.83	0.83	0.85
EFC	\$20,848	\$18,060	\$20,858	\$19,765
Grant aid	\$6,266	\$7,978	\$6,475	\$7,071
Expected pr nonemp at:				
Graduation	0.15	0.15	0.17	0.13
Age 30	0.04	0.04	0.04	0.03
Age 40	0.03	0.03	0.03	0.02
Expected earnings at:				
Graduation	\$49,078	\$47,592	\$48,246	\$49,441
Age 30	\$96,943	\$101,069	\$99,635	\$101,741
Age 40	\$125,098	\$138,890	\$130,940	\$129,883
<5 minutes on survey	0.12	0.16	0.13	0.16
Any student loan				
UMD admin data	0.49	0.49	0.48	0.53
Self reported	0.44	0.41	0.44	0.43
Financial literacy (# correct/3)	0.79	0.61	0.82	0.58
Willingness to take risks (1-10)	4.7	5.0	4.8	4.9
Observations	1,526	694	1,514	665

Notes: Students are classified as inconsistent if they report a willingness to pay for IDR that is inconsistent with at least one of their answers to the two hypothetical loan repayment scenarios, if their answers to the two scenarios are in conflict, or if they do not answer the willingness to pay question. SAT percentile rank, GPA, EFC, and willingness to take risks values are limited to respondents with nonmissing values for these variables.

Table D.6: Correlations between Treatment Parameters and Classification as Inconsistent

	(1) Fixed payment amount	(2) Fixed payment length
Framing (rel. to neutral)		
Cost	-0.0004	-0.005
	(0.024)	(0.024)
Insurance	0.004	-0.014
	(0.024)	(0.024)
Loan = \$60k	0.003	-0.005
	(0.020)	(0.020)
Low payment in 1st scenario	-0.029	0.031
	(0.020)	(0.020)
Observations	2,220	2,179

Notes: Coefficients from linear probability regression of probability of being classified as inconsistent and survey treatment parameters. See Table D.5 notes for definition of inconsistent. Robust standard errors in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.7: Correlations between Expected Earnings, Population Earnings, and Student Characteristics

	-	ected earnings (\$1k	
	(1) Graduation	(3) Age 40	
Population (conditional) earnings (\$1k) at:	. ,	(2) Age 30	(-7 8 -
Graduation	0.99	0.42	0.08
	(0.10)**	(0.22)+	(0.40)
Age 30	0.27	0.09	0.28
	(0.08)**	(0.24)	(0.43)
Age 40	-0.15	0.25	0.44
	(0.04)**	(0.08)**	(0.15)**
Female	-3.38	-14.62	-28.53
	(1.25)**	(2.41)**	(4.11)**
Underrepresented minority	-0.11	4.63	9.62
o nacroprosonica minerty	(0.99)	(2.58)+	(4.79)*
First generation student	-2.05	-8.49	-14.08
First generation student	(0.91)*	(2.30)**	(4.15)**
Age	-0.95	-4.70	-4.13
	(0.44)*	(0.92)**	(1.72)*
In-state student	-1.50	-7.33	-16.30
	(1.05)	(2.62)**	(5.14)**
Class standing (rel. to freshman)			
New transfer	-1.18	-0.41	-0.09
	(1.96)	(5.17)	(9.05)
Sophomore	-0.05	13.61	34.63
	(3.42)	(9.88)	(16.33)*
Junior	-3.96	8.30	20.44
	(4.32)	(9.93)	(15.55)
Senior	-6.06	15.46	37.63
	(4.40)	(10.37)	(16.61)*
SAT percentile	-8.26	-5.48	-6.97
	(3.98)*	(7.93)	(13.44)
Sophomore, junior, senior			
* GPA	0.41	-4.27	-9.00
	(1.24)	(2.88)	(4.54)*
Parent income (\$1k)	-0.01	0.02	0.01
	(0.00)+	(0.01)+	(0.02)
Student income (\$10k)	0.21	0.20	0.61
	(0.07)**	(0.14)	(0.39)
More risk averse	-3.19	-12.75	-26.97
_, , , , , ,	(0.92)**	(2.11)**	(3.86)**
Financially literate	0.46	-4.41	-7.26
37 17 1	(1.02)	(2.12)*	(3.64)*
Very likely to attend grad school	-2.50	12.57	18.34
	(1.22)*	(1.98)**	(3.57)**
Observations	3,945	3,945	3,945

Notes: Expected and population earnings conditioned on employment. Undecided majors are excluded. Population earnings (conditional on any earnings) within broad major categories. See Section 3 for details. All regressions also include indicators for nonmissing SAT score, nonmissing parent income, nonmissing student income, and whether the student skipped the risk aversion question. More risk averse are student who chose value of 4 or less on a scale of 0 to 10 where 0 is "not willing to take risks" and 10 is "very willing to take risks." Financially literate are students who answered at least one of the two financial literacy survey questions correctly (skipped questions are considered incorrect answers). Robust standard errors, clustered at the student level in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.8: Correlations between Expected Probability of Nonemployment, Student Characteristics, and Population Nonemployment Rates

	<u>Expe</u>	cted Pr(\$0 earnings	s) at:
	(1) Graduation	(2) Age 30	(3) Age 40
Population Pr(\$0 earnings) at:			
Graduation	0.294	-0.068	-0.033
	(0.136)*	(0.054)	(0.055)
Age 30	0.538	0.233	0.179
	(0.268)*	(0.107)*	(0.113)
Age 40	-0.149	0.202	0.279
	(0.330)	(0.144)	(0.140)*
Female	0.033	0.005	0.007
	(0.008)**	(0.003)	(0.003)*
Underrepresented minority	0.001	-0.001	-0.003
, and a part of the part of th	(0.009)	(0.004)	(0.004)
First generation student	0.003	0.004	-0.001
Ü	(0.009)	(0.004)	(0.004)
Age	0.006	0.008	0.003
	(0.003)+	(0.002)**	(0.002)+
In-state student	0.025	0.007	0.005
	(0.009)**	(0.003)*	(0.003)+
Class standing (rel. to freshman)			
New transfer	0.029	0.012	-0.003
	(0.017)+	(0.009)	(0.007)
Sophomore	0.012	-0.007	-0.016
	(0.032)	(0.013)	(0.013)
Junior	0.016	-0.011	-0.015
	(0.031)	(0.013)	(0.013)
Senior	0.019	-0.016	-0.019
	(0.032)	(0.014)	(0.013)
SAT percentile	0.029	0.002	-0.010
P	(0.029)	(0.012)	(0.011)
Sophomore, junior, senior	(333.2)	,	,
*GPA	0.001	0.003	0.004
	(0.009)	(0.004)	(0.004)
Parent income (\$1k)	-0.00002	-0.00002	-0.00002
. ,	(0.00001)	(0.00001)	(0.00001)
Student income (\$10k)	-0.0005	0.0001	-0.0004
,	(0.0005)	(0.0004)	(0.0003)
More risk averse	0.027	0.005	0.001
	(0.007)**	(0.003)+	(0.003)
Financially literate	-0.022	0.001	0.004
-	(0.008)**	(0.003)	(0.003)
Very likely to attend grad school	0.056	-0.005	-0.012
	(0.008)**	(0.003)	(0.003)**
Observations	3,945	3,945	3,945

Notes: Undecided majors are excluded. Population probability of 0 earnings within broad major categories. See Section 3 for details. All regressions also includes indicators for nonmissing SAT score, nonmissing parent income, nonmissing student income, and whether the student skipped the risk aversion question. More risk averse are students who chose value of 4 or less on a scale of 0 to 10 where 0 is "not willing to take risks" and 10 is "very willing to take risks." Financially literate = answered at least one of the two financial literacy survey questions correctly (skipped questions are considered incorrect answers). Robust standard errors, clustered at the student level in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.9: Correlations between Expected Probability of Low Earnings, Student Characteristics, and Population Rates of Low Earnings

	Expected	Pr(income in (\$0, \$	35k]) at:
	(1) Graduation	(2) Age 30	(3) Age 40
Population Pr(income in (\$0,\$35k]) at:			
Graduation	0.647	0.115	0.073
	(0.046)**	(0.026)**	(0.020)**
Age 30	0.059	0.278	0.149
	(0.134)	(0.077)**	(0.059)*
Age 40	-0.001	-0.043	0.020
	(0.155)	(0.086)	(0.062)
Female	0.027	0.011	0.009
	(0.009)**	(0.005)*	(0.004)*
Underrepresented minority	0.002	0.003	-0.002
	(0.011)	(0.006)	(0.005)
First generation student	0.012	0.010	0.009
That generation student	(0.012)	(0.006)	(0.005)*
			` '
Age	0.002	0.015	0.008
	(0.004)	(0.003)**	(0.002)**
In-state student	0.019	0.017	0.013
	(0.010)+	(0.005)**	(0.004)**
Class standing (rel. to freshman)			
New transfer	0.009	-0.023	-0.011
	(0.020)	(0.013)+	(0.010)
Sophomore	0.104	-0.031	-0.024
•	(0.036)**	(0.021)	(0.016)
Junior	0.122	-0.047	-0.030
	(0.037)**	(0.022)*	(0.017)+
Senior	0.136	-0.072	-0.052
	(0.039)**	(0.024)**	(0.018)**
SAT percentile	0.054	0.043	0.012
_	(0.032)+	(0.020)*	(0.015)
Sophomore, junior, senior			
× GPA	-0.036	0.003	0.002
	(0.010)**	(0.006)	(0.004)
Parent income (\$1k)	-0.00002	-0.0001	-0.00003
	(0.00005)	(0.00003)**	(0.00002)
Student income (\$10k)	-0.002	-0.000	-0.000
	(0.001)**	(0.001)	(0.000)
More risk averse	0.029	0.015	0.012
	(0.008)**	(0.004)**	(0.003)**
Financially literate	0.004	-0.003	-0.002
	(0.008)	(0.005)	(0.004)
Very likely to attend grad school	0.013	-0.023	-0.025
	(0.008)	(0.005)**	(0.004)**
Observations	3,945	3,945	3,945

Notes: Undecided majors are excluded. Population probability of positive earnings < \$35,000 within broad major categories. See Section 3 for details. All regressions also includes indicators for nonmissing SAT score, nonmissing parent income, nonmissing student income, and whether the student skipped the risk aversion question. More risk averse are students who chose value of 4 or less on a scale of 0 to 10 where 0 is "not willing to take risks" and 10 is "very willing to take risks." Financially literate are students who answered at least one of the two financial literacy survey questions correctly (skipped questions are considered incorrect answers). Robust standard errors, clustered at the student level in parentheses; ** p<0.01, * p<0.05, + p<0.1.

Table D.10: Robustness of the Effect of Framing on Willingness to Pay for IDR

	(1) No controls	(2) Adtl. admin conts	(3) RA, debt, FL	(4) Drop low FL	(5) UMD borrowers	(6) At least 5 minutes	(7) Drop outliers	(8) Raked weights
A. Fixed amount Framing								
Cost	-3.93	-3.93	-3.95	-3.55	-4.34	-4.22	-4.04	-3.90
Insurance	(0.71)** 4.90 (0.80)**	(0.72)** 4.95 (0.80)**	(0.72)** 5.01 (0.80)**	(1.05)** 4.39 (1.07)**	(0.98)** 5.62 (1.09)**	(0.78)** 5.12 (0.87)**	(0.73)** 4.75 (0.83)**	(1.30)** 5.06 (1.41)**
Test of eq. (p-val.)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Loan = \$60k	1.86 (0.63)**	1.91 (0.63)**	1.83 (0.63)**	2.04 (0.88)*	1.81 (0.87)*	2.03 (0.69)**	2.05 (0.64)**	1.61 (1.05)
Observations	1,526	1,526	1,526	883	753	1,341	1,397	1,526
B. Fixed length Framing								
Cost	-0.118 (0.015)**	-0.114 (0.015)**	-0.117 (0.015)**	-0.107 (0.020)**	-0.144 (0.023)**	-0.115 (0.016)**	-0.111 (0.016)**	-0.119 (0.028)**
Insurance	0.181 (0.020)**	0.177 (0.020)**	0.180 (0.020)**	0.153 (0.027)**	0.179 (0.029)**	0.185 (0.022)**	0.188 (0.021)**	0.155 (0.035)**
Test of eq. (p-val.)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Loan = \$60k	1.89 (0.43)**	1.97 (0.43)**	1.94 (0.43)**	2.05 (0.56)**	3.30 (0.71)**	2.05 (0.46)**	1.87 (0.44)**	2.76 (0.86)**
Observations	1,514	1,514	1,514	901	734	1,322	1,375	1,514

Notes: Dependent variable: payment as a percentage of income that would make student in different between standard plan and IDR. Students reporting a willingness to pay that conflicts with earlier answers or a equal to 100 percent of income are excluded. See Table 3 for descriptions of various specifications and sample limitations. Robust standard errors in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.11: Expected Labor Market Outcomes and Preferences for IDR: Robustness to Alternate Specifications & Sample Restrictions

		Fixed	l payment ar	nount			Fixed payment length				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Expected earnings (\$10k)											
At graduation	-0.006	0.002	-0.001	-0.004	-0.006	-0.001	0.002	-0.001	-0.013	-0.010	
	(0.006)	(0.003)	(0.005)	(0.007)	(0.007)	(0.015)	(0.003)	(0.005)	(0.006)*	(0.006)	
Age 30	-0.001	-0.002	-0.0002	0.002	0.005	-0.0005	-0.0002	-0.001	0.001	-0.0002	
	(0.014)	(0.002)	(0.002)	(0.004)	(0.004)	(0.011)	(0.002)	(0.002)	(0.003)	(0.003)	
Age 40	-0.001	0.001	0.00001	-0.002	-0.003	-0.004	-0.001	-0.0001	-0.0003	0.0001	
	(0.014)	(0.002)	(0.001)	(0.002)	(0.002)	(0.012)	(0.001)	(0.001)	(0.002)	(0.002)	
Probability of \$0 earnings											
At graduation	0.158	0.170	0.159	0.194	0.209	0.035	0.039	-0.006	0.029	0.013	
	(0.045)**	(0.043)**	(0.054)**	(0.062)**	(0.066)**	(0.043)	(0.035)	(0.045)	(0.050)	(0.056)	
Age 30	0.102	0.075	0.069	0.168	0.040	0.051	0.038	0.208	0.071	0.136	
	(0.175)	(0.174)	(0.181)	(0.220)	(0.234)	(0.142)	(0.143)	(0.137)	(0.160)	(0.170)	
Age 40	-0.012	-0.003	0.032	0.007	0.105	-0.064	-0.058	-0.211	-0.095	-0.189	
	(0.164)	(0.162)	(0.170)	(0.195)	(0.204)	(0.126)	(0.125)	(0.111)+	(0.125)	(0.134)	
Probability of earnings < \$35,000											
At graduation	0.090	0.111	0.123	0.094	0.120	0.121	0.134	0.130	0.074	0.091	
	(0.037)*	(0.038)**	(0.045)**	(0.048) +	(0.054)*	(0.041)**	(0.037)**	(0.044)**	(0.044)+	(0.049)+	
Age 30	0.140	0.132	0.107	0.130	0.092	0.149	0.144	0.115	0.129	0.148	
	(0.098)	(0.098)	(0.105)	(0.104)	(0.112)	(0.095)	(0.096)	(0.102)	(0.110)	(0.120)	
Age 40	-0.027	-0.017	0.008	-0.045	0.000	0.027	0.027	0.043	0.038	0.013	
	(0.124)	(0.124)	(0.138)	(0.132)	(0.148)	(0.127)	(0.127)	(0.139)	(0.140)	(0.153)	
Framing (rel. to neutral)											
Cost	-0.138	-0.138	-0.148	-0.135	-0.145	-0.116	-0.116	-0.115	-0.110	-0.115	
	(0.019)**	(0.019)**	(0.020)**	(0.019)**	(0.021)**	(0.015)**	(0.015)**	(0.016)**	(0.016)**	(0.017)**	
Insurance	0.186	0.187	0.190	0.193	0.195	0.180	0.180	0.188	0.192	0.194	
	(0.022)**	(0.022)**	(0.023)**	(0.023)**	(0.024)**	(0.020)**	(0.020)**	(0.021)**	(0.021)**	(0.023)**	
Observations	4,440	4,440	3,844	4,058	3,518	4,358	4,358	3,762	3,972	3,460	
Specification:											
Standardized earnings ($\mu = 0, \sigma = 1$)	Χ					X					
Unconditional earnings (\$10k)		Χ					Χ				
Conditional earnings (\$10k)			Х	Χ	Χ			X	Χ	Χ	
Sample restrictions:											
At least 5 minutes on survey			Χ		Χ			Χ		Χ	
Dropping outliers				Χ	Χ				Χ	Χ	

Notes: Dependent variable: prefers or strongly prefers IDR plan. All regressions also include controls for treatment parameters (loan size, payment as a percentage of income, scenario order, and framing), major (STEM/business/economics, undecided, or other major), gender, class standing (freshman, sophomore, junior, senior, or new transfer), an indicator for missing SAT scores, and SAT math percentile. Robust standard errors, clustered at the student level in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.12: Heterogeneity in the Effects of Framing by Expected Labor Market Outcomes at Graduation

	Fixed payn	Fixed payment amount		Fixed payment length	
	(1)	(2)	(3)	(4)	
Framing (rel. to neutral)					
Interest	-0.109	-0.101	-0.039	-0.053	
	(0.050)*	(0.028)**	(0.054)	(0.021)*	
Insurance	0.108	0.132	0.128	0.134	
	(0.058)+	(0.033)**	(0.064)*	(0.029)**	
Earnings employment at graduation	on				
* Interest framing	0.002		0.000		
	(0.004)		(0.003)		
* Neutral framing	0.001		0.002		
	(0.004)		(0.006)		
* Insurance framing	0.004		0.004		
	(0.005)		(0.005)		
Test of equality (p-value)	0.882		0.887		
Pr(earnings = \$0)					
* Interest framing	0.092	0.091	-0.002	-0.002	
	(0.064)	(0.064)	(0.034)	(0.034)	
* Neutral framing	0.254	0.256	0.094	0.096	
	(0.073)**	(0.072)**	(0.065)	(0.065)	
* Insurance framing	0.225	0.222	0.109	0.110	
	(0.067)**	(0.068)**	(0.067)	(0.067)	
Test of equality (p-value)	0.181	0.179	0.194	0.188	
$Pr(\text{earnings} > \$0, \le \$35k)$					
* Interest framing	0.026	0.018	-0.026	-0.027	
C	(0.049)	(0.043)	(0.038)	(0.035)	
* Neutral framing	0.068	0.066	0.177	0.165	
	(0.061)	(0.057)	(0.062)**	(0.055)**	
* Insurance framing	0.305	0.286	0.349	0.332	
Č	(0.066)**	(0.060)**	(0.068)**	(0.061)**	
Test of equality (p-value)	0.002	0.001	< 0.001	< 0.001	
Observations	4,440	4,440	4,358	4,358	

Notes: Dependent variable = prefers or strongly prefers IDR plan. All regressions also include controls for major, gender, class standing, missing SAT scores, SAT math percentile, and whether the high cost IDR option was presented first.. Robust standard errors, clustered at the student level in parentheses; ** p < 0.01, * p < 0.05, + p < 0.1.

Table D.13: Heterogeneity in the Effects of Framing by Class Standing, GPA, and Family Income

Interaction term:	(1) Junior or senior	(2) GPA < 3.0	(3) Low income family
A. Fixed payment amount			
Cost framing	-0.115	-0.174	-0.143
	(0.027)**	(0.026)**	(0.026)**
Insurance framing	0.203	0.155	0.194
	(0.032)**	(0.031)**	(0.031)**
Interaction term * Interest framing	-0.004	0.078	0.024
	(0.024)	(0.035)*	(0.023)
* Neutral framing	0.040	0.022	0.019
	(0.030)	(0.040)	(0.030)
* Insurance framing	0.009	0.063	0.001
	(0.033)	(0.042)	(0.032)
Test of eq. (p-value)	0.499	0.560	0.841
Observations	4,440	3,208	4,440
B. Fixed payment length			
Cost framing	-0.104	-0.108	-0.129
	(0.022)**	(0.021)**	(0.017)**
Insurance framing	0.173	0.188	0.173
	(0.030)**	(0.028)**	(0.023)**
Interaction term * Cost framing	0.020	0.029	0.024
	(0.017)	(0.025)	(0.023)
* Neutral framing	0.042	0.083	-0.048
	(0.026)	(0.035)*	(0.030)
* Insurance framing	0.053	0.055	-0.010
	(0.032)+	(0.042)	(0.041)
Test of eq. (p-value)	0.567	0.438	0.160
Observations	4,358	3,170	4,358

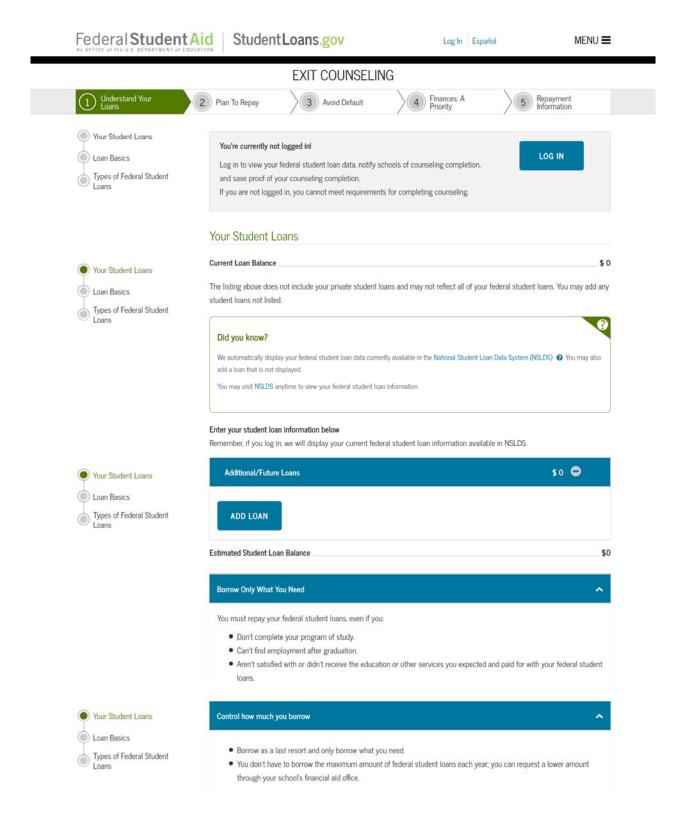
Notes: Dependent variable: prefers or strongly prefers IDR (relative to standard plan). All regressions also include controls for major, gender, class standing, missing SAT scores, SAT math percentile, and whether the high cost IDR option was presented first. Freshmen and new transfer students, who do not have GPAs, are excluded from column 2 specification. The median GPA for students with a nonmissing GPA is 3.27 and the median is 3.09. Students are classified as having low family income if they received a 00 expected family contribution. Robust standard errors, clustered at the student level in parentheses; ** p<0.01, * p<0.05, + p<0.1.

Appendix E Federal Direct Loan Exit Counseling

This appendix contains screenshots from the federal direct loan exit counseling.¹ Section E.1 displays all information provided to borrowers that is not specific to their circumstances. Section E.2 displays a subset of the exit counseling screenshots that a single borrower with \$30,000 in unsubsidized direct loans who expects to earn \$30,000 per year would see.

 $^{^{1}} A vailable \ at: \ https://studentloans.gov/myDirectLoan/counselingInstructions.action?counselingType=exit; \ accessed September 3, 2018.$

E.1 Information Provided to all borrowers



Loan Basics

Direct and FFEL Loans - Loans made under the William D. Ford Federal Direct Loan (Direct Loan) Program and the Federal Family Education Loan Program (FFEL Program) generally have the same terms and conditions. Depending on which loan program(s) the school(s) you attended participated in, you may have received Direct Loans, FFEL Loans, or both.

William D. Ford Federal Direct Loan (Direct Loan) Program

- Student loans provided by the U.S. Department of Education to enable a student to pay for education after high school.
- . Eligible students borrow directly from the U.S. Department of Education to attend participating schools.
- Direct Loans include the following types of federal student loans: Direct Subsidized Loans, Direct Unsubsidized Loans, Direct PLUS Loans, and Direct Consolidation Loans.
- You repay your Direct Loan(s) to the U.S. Department of Education through your federal loan servicer.

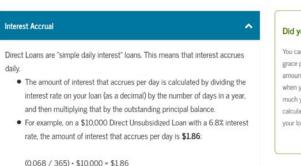
Federal Family Education Loan (FFEL) Program - Federal student loans borrowed through private lenders and guaranteed by the federal government. FFEL Loans include the following types of federal student loans: Subsidized Stafford Loans, Unsubsidized Stafford Loans, FFEL PLUS Loans, and FFEL Consolidation Loans. You repay your FFEL Loan to the lender, secondary market, guaranty agency or the U.S. Department of Education.

Note: The FFEL Program ended June 30, 2010 and no new loans have been made under the FFEL Program since that date.



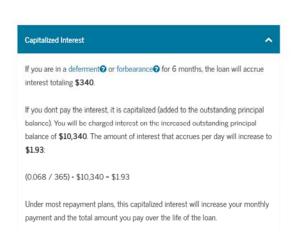
Example assuming Direct Unsubsidized Loans at 6.8% interest using a standard 10 year repayment plan. Loan fee=1%.

Other Terms You Need to Know













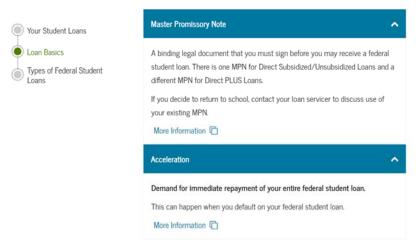
Loan Basics



Your Student Loans

Loan Basics

Types of Federal Student





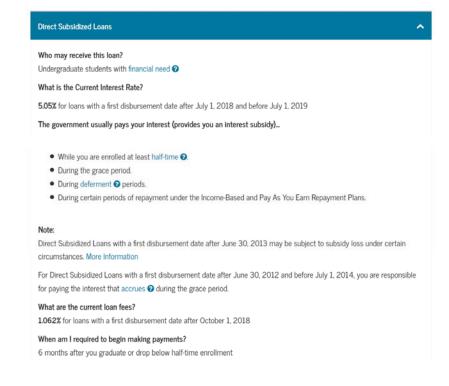
Your Student Loans

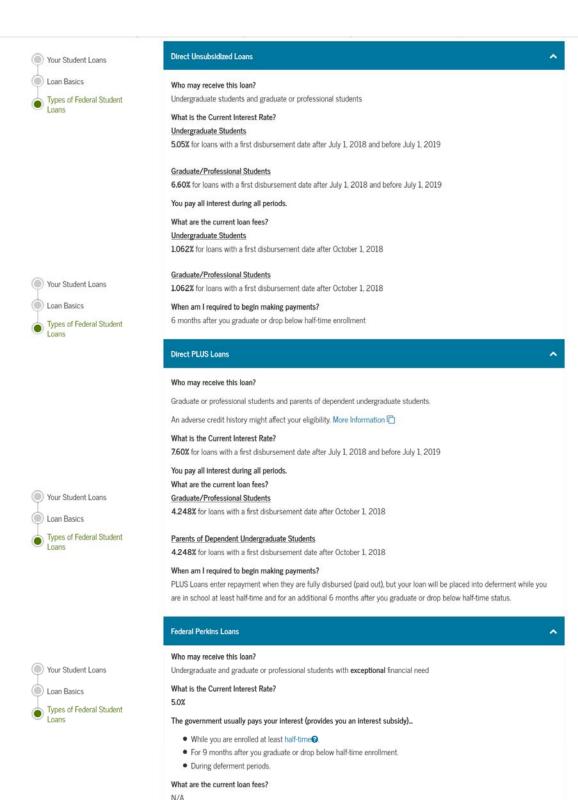
Types of Federal Student

Loan Basics

Types of Federal Student Loans

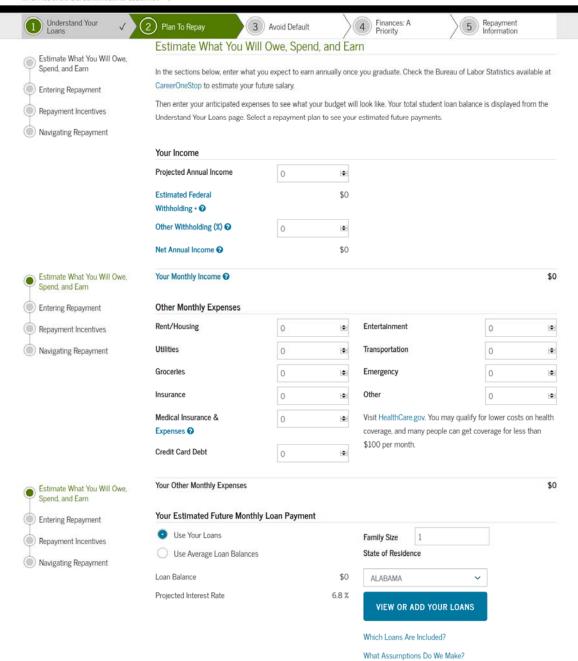
Note: The FFEL Program ended June 30, 2010 and no new loans have been made under the FFEL Program since that date.





When am I required to begin making payments?

9 months after you graduate or drop below half-time enrollment



•	Estimate What You Will Ow Spend, and Earn
	Entering Repayment
	Repayment Incentives
	Navigating Repayment
•	Estimate What You Will Ow Spend, and Earn

Entering Repayment
Repayment Incentives
Navigating Repayment

Estimate What You Will Owe, Spend, and Earn
Entering Repayment
Repayment Incentives

Navigating Repayment

Estimate What You Will Owe,

Entering Repayment

Repayment Incentives

Navigating Repayment

	Initial Monthly Payment	Total Amount Paid	Repayment Period	
Standard	\$0	\$0	10 years	See Payment Guidelines
Graduated	\$ 0	\$0	10 years	See Payment Guidelines
Extended, Fixed	Extended only available for amounts greater than \$30,000.	Extended only available for amounts greater than \$30,000.	25 years	See Payment Guidelines
Extended, Graduated	Extended only available for amounts greater than \$30,000.	Extended only available for amounts greater than \$30,000.	25 years	See Payment Guidelines
Revised Pay As You Earn	You're not eligible for this plan based on the information entered above.	You're not eligible for this plan based on the information entered above.	20 years	See Payment Guidelines
Pay As You Earn	You're not eligible for this plan based on the information entered above.	You're not eligible for this plan based on the Information entered above.	20 years	See Payment Guidelines
Income-Based Repayment	You're not eligible for this plan based on the information entered above.	You're not eligible for this plan based on the information entered above.	25 years	See Payment Guidelines
IBR for New Borrowers	You're not eligible for this plan based on the information entered above.	You're not eligible for this plan based on the information entered above.	20 years	See Payment Guidelines
Income- Contingent Repayment	You're not eligible for this plan based on the information entered above.	You're not eligible for this plan based on the information entered above.	25 years	See Payment Guidelines

[•]These estimated monthly payments are based on your inputs and may not be exact. Contact your loan servicer to see if you qualify for an income-driven repayment plan.

Print

Financial Summary

Based on what you entered, you will have enough funds to pay your expenses.



Estimated Student Loan Debt Burden

Suggested Minimum Gross Income \$0

To maintain a low student loan debt burden ②, the Consumer Financial Protection Bureau (CFPB) suggests your estimated loan payments should not exceed 8% of your gross income ②.

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

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Estimated Student Loan Debt Burden

Suggested Minimum Gross Income \$0

To maintain a low student loan debt burden ②, the Consumer Financial Protection Bureau (CFPB) suggests your estimated loan payments should not exceed 8% of your gross income ②.

Estimated Student Loan Debt Burden

Based on your projected annual income, your student loan debt burden will be: high

Consider selecting a plan with a lower monthly payment, such as an income-driven repayment plan.



10-year public service loan forgiveness 3 - If you work full-time in public service and have reduced payments under a qualifying plan the balance remaining after 120 qualifying payments could be forgiven. For more information about Public Service Loan Forgiveness, visit StudentAid.gov.

Owe, Income-Sensitive Repayment Plan

If you need to make lower payments on your FFEL Loans and do not qualify for IBR, consider the Income-Sensitive Repayment Plan. Under this plan, your monthly payments:

- · increase or decrease based on your annual income and
- · are made for a maximum period of 10 years.

Entering Repayment



Entering Repayment

Repayment Incentives

Navigating Repayment

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

When do I need to start making payments?

Direct and FFEL Subsidized and Unsubsidized Loans have a 6-month grace period, which begins after you leave school or drop below half-time attendance. These loans enter repayment when your grace period ends, and you will start making payments not more than 60 days after your grace period ends.

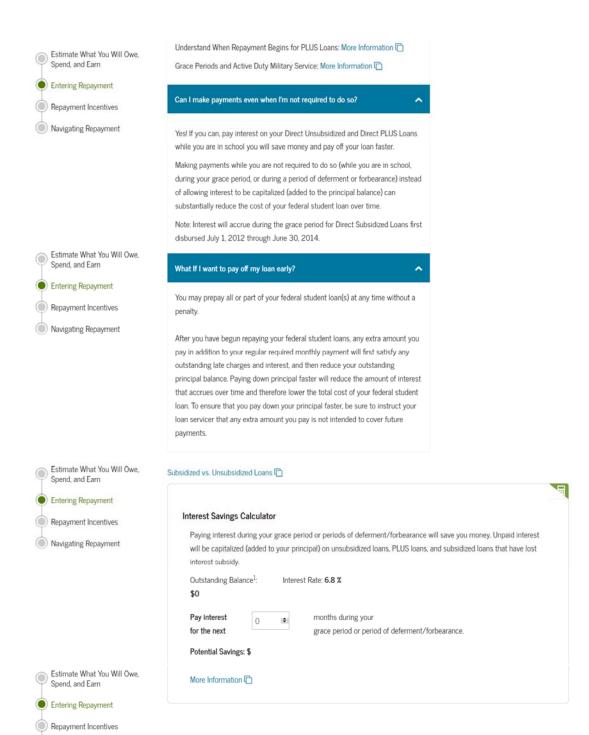
Most PLUS loans require you to start making payments 6 months after you leave school or drop below half-time attendance.

Direct and FFEL PLUS loans do not have a grace period. However, graduate and professional student borrowers with Direct and FFEL PLUS loans that were first disbursed on or after July 1, 2008 receive an automatic deferment while in school and a 6-month deferment after they graduate, leave school, or drop below half-time enrollment, which is comparable to a grace period. Graduate and professional student borrowers will start making payments not more than 60 days after their last deferment ends. Parent borrowers of PLUS loans must specifically request a PLUS loan deferment while the student for whom they borrower is in-school and during the 6-month period after the student leaves school.

If you resume enrollment on at least a half-time basis before the end of the 6-month grace period or deferment, your federal student loan will return to an "in-school" status or deferment, and you will be eligible for a full 6-month grace period or deferment when you leave school or drop below half-time enrollment

Remember!

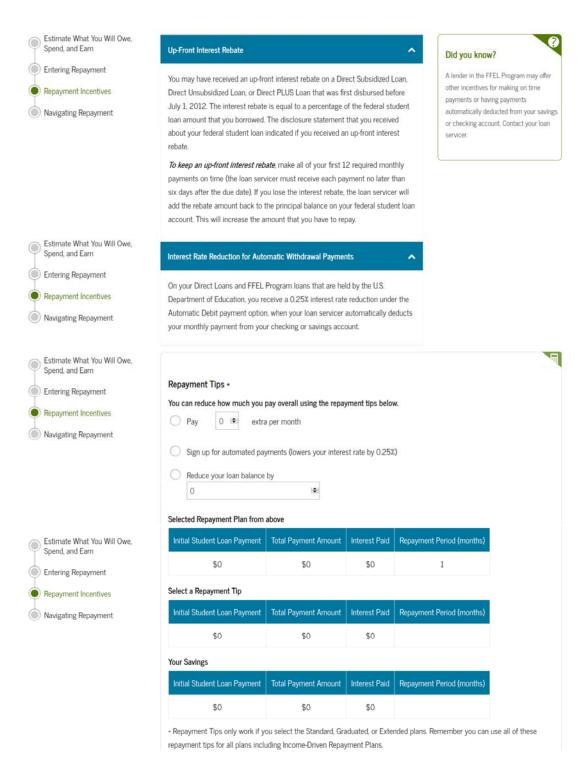
A scheduled break in enrollment, such as summer break, is not considered an interruption in your enrollment if you are planning to return to school during the next regularly scheduled enrollment period.



Repayment Incentives

Navigating Repayment

Take advantage of these incentives for federal student loan repayment.



Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Estimate What You Will Owe, Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Navigating Repayment

Who do I make my payments to?

Each Direct Loan you obtain is assigned to a federal loan servicer, for handling payments and other administrative functions.

In the FFEL Program, you may send payments to and interact directly with your loan holder, or your loan holder may have assigned your federal student loan to a loan servicer.

When do I contact my federal loan servicer?

Contact your federal loan servicer when you:

- Fail to enroll at least half time at the school that determined you were eligible to receive your loan
- Transfer schools
- Drop below half-time enrollment
- · Leave school
- · Change your name, address, or phone number
- Graduate
- Have questions about your loan
- Need help making your monthly federal student loan payments
- · Want to change repayment plans
- If you are a reservist called to active duty with the U.S. Armed Forces for more than 30 days.

How do I change my repayment plan?

Contact your federal loan servicer to select or change your repayment plan:

- Your federal loan servicer can advise which repayment plans are available to you.
- If you do not select a repayment plan, your federal loan servicer will place you on the standard repayment plan with fixed payments over a maximum of 10 years.
- · You can change your repayment plan at any time.

How do I avoid student loan scams?

You never have to pay for help with your student loans. Free assistance with managing your loans is provided by your federal loan servicer. However, some private companies provide (or claim to provide) student loan management services for a fee. Often these companies are fraudsters. There is nothing these companies can do for you that you cannot do for free by contacting your federal loan servicer. For more information on avoiding loan scams, visit StudentAid.gov.

Check out our video on YouTube.



Repayment: What To Expect

Remember!

You must make payments on your federal student loan even if you do not receive a bill or repayment notice. You are responsible for staying in touch with your loan servicer and making payments on your federal student loans, even if you do not receive a bill.



Records and Disputes

Loan Consolidation

Avoiding Default

Trouble Making Payments

Delinquency and Default

Records and Disputes

Loan Consolidation

Avoiding Default

Your Debts

Trouble Making Payments

Delinquency and Default

Records and Disputes

Loan Consolidation

Forgive, Cancel or Discharge

Forgive, Cancel or Discharge



career path can also ensure you have the resources to meet your federal

student loan obligations. Loan Consolidation Graduation before exceeding your maximum eligibility period protects Direct Subsidized Loans received from interest subsidy loss. More Information

It's important to graduate! According to U.S. Census Bureau Data, the average college graduate from a 4-year degree program earns almost \$1,000,000 more over a lifetime than a high school

 Avoiding Default Pay on Time Trouble Making Payments It is very important that you make your federal student loan payments on time. If you are having trouble making your monthly Forgive, Cancel or Discharge payment, you should immediately contact your federal loan servicer for assistance. Your Debts Delinquency and Default

Stay In Touch With Your Federal Loan Servicer

Open all your mail and read everything pertaining to your federal student loans. Signing up for electronic correspondence can help you ensure that you never miss a letter or bill

unable to make your Perkins loan payment, contact your school's financial aid office.

Did you know?

There is a growing number of so-called commercial student loan debt relief companies claiming to offer assistance in managing your federal student loans for a fee. Despite what these companies claim, there's nothing a student loan debt relief company can do for you that you can't do yourself for free. If you ever need assistance, ED and our federal loan servicers will help you at no cost!

Contact your loan servicer BEFORE you miss a payment on your federal student loan. They can help review and advise you of your repayment options. If you are

Trouble Making Payments

Even if you're having trouble, keep making your federal student loan payments whenever possible to reduce your debt and the amount of interest you pay over the life of the loan. See Plan to Repay for more details regarding repayment options. If you need to lower your payments, consider one of the income-driven repayment plans in Plan to Repay.

However, if you cannot afford to make any payments, or your difficulty is temporary, you can temporarily postpone or lower your payments with a deferment or forbearance.

Remember!

You MUST continue making payments on your federal student loan until you have been notified that your deferment or forbearance has been granted. If you don't, and it is not approved, you will become delinquent and may default @ on your federal student loans.

Deferment



Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinquency and Default Records and Disputes Loan Consolidation Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinquency and Default Records and Disputes Loan Consolidation Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Delinquency and Default Records and Disputes Loan Consolidation

Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinquency and Default Records and Disputes Loan Consolidation

Overview

- Allows you to temporarily stop making payments on your federal student loans.
- In most cases, you are not charged interest on subsidized loans during deferment. More Information
- . Interest will continue to be charged on your unsubsidized and PLUS loans, and on Direct Subsidized Loans that have lost interest subsidy. If you do not pay this interest during the deferment, it will be capitalized at the end of the deferment.

Periods of deferment or forbearance generally do not count toward the maximum length of time you have to repay your federal student loans.

More information on deferment and forbearance conditions.

You may qualify for a deferment if you are:

Enrolled at least half-time at an eligible postsecondary school.

- In a full-time course of study in a graduate fellowship program.
- In an approved full-time rehabilitation program for individuals with disabilities.
- Unemployed or unable to find full-time employment (for a maximum of three years).
- · Experiencing an economic hardship (including Peace Corps service) as defined by federal regulations.
- · Serving on active duty during a war or other military operation or national emergency and, if you were serving on or after October 1, 2007, for an additional 180-day period following the demobilization date for your qualifying service.
- Performing qualifying National Guard duty during a war or other military operation or national emergency and, if you were serving on or after October 1, 2007, for an additional 180-day period following the demobilization date for your qualifying service.
- · A member of the National Guard or other reserve component of the U.S. Armed Forces (current or retired) and you are called or ordered to active duty while you are enrolled at least half-time at an eligible school or within 6 months of having been enrolled at least half-time, during the 13 months following the conclusion of your active duty service, or until you return to enrolled student status on at least a half-time basis, whichever is earlier.

Forbearance

Overview

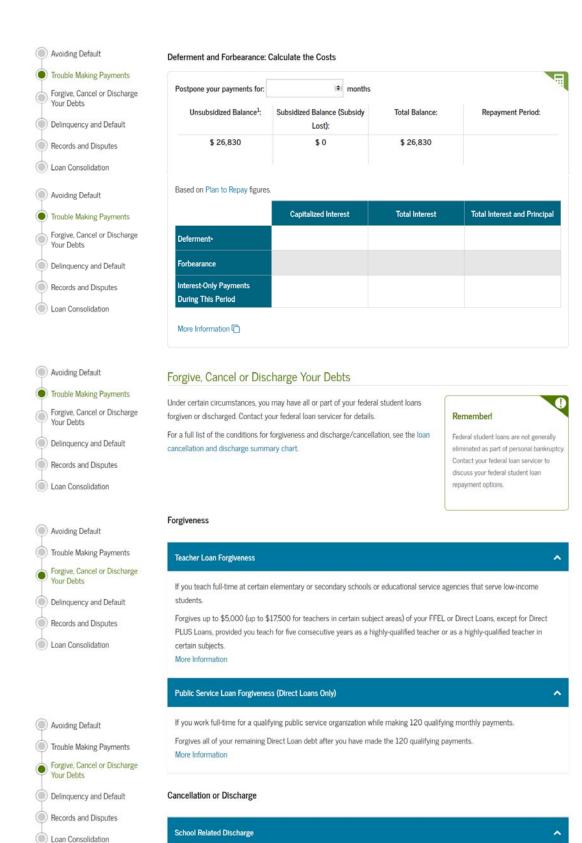
- · Allows you to temporarily stop making payments or reduce your monthly payment.
- Interest will continue to be charged. If you do not pay this interest during the forbearance, it will be capitalized ② at the end of the forhearance

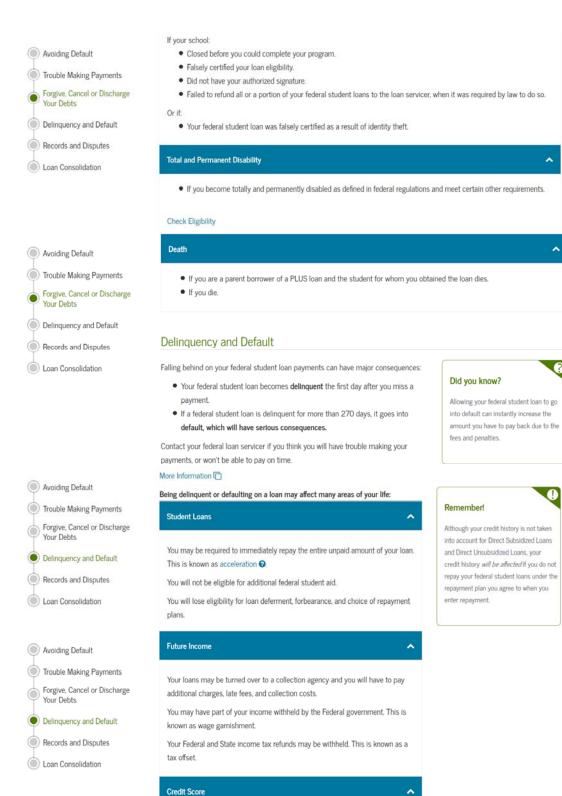
Periods of deferment or forbearance generally do not count toward the maximum length of time you have to repay your federal student loans

More information on deferment and forbearance conditions.

Forbearance is another option for temporarily postponing or reducing loan payments if you do not qualify for a deferment. A forbearance may be granted if you meet one of the following requirements

- You are unable to make your scheduled loan payments for reasons including, but not limited to, financial hardship and
- You are serving in a medical or dental internship or residency program, and you meet specific requirements.
- The total amount you owe each month for all of the student loans you received under Title IV of the Act 20 is 20% or more of your total monthly gross income (for a maximum of three years).
- You are serving in an approved AmeriCorps position.
- You are performing teaching service that would qualify for loan forgiveness under the requirements of the Teacher Loan Forgiveness Program.
- You qualify for partial repayment of your loans under the Student Loan Repayment Program, as administered by the Department of Defense.
- · You are called to active duty in the U.S. Armed Forces.





Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinquency and Default Records and Disputes Loan Consolidation Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinguency and Default Records and Disputes Loan Consolidation Avoiding Default Trouble Making Payments Forgive, Cancel or Discharge Your Debts Delinquency and Default Records and Disputes Loan Consolidation

Avoiding Default

Trouble Making Payments

Forgive, Cancel or Discharge Your Debts

Delinquency and Default

Records and Disputes

Loan Consolidation

Your credit score will be damaged.

You may have difficulty qualifying for credit cards, car loans, or mortgages, and may be charged much higher interest rates.

You may have difficulty signing up for utilities, getting car or home owner's insurance, or getting a cell phone plan.

You may have difficulty getting approval to rent an apartment (credit checks may be required).

Records and Disputes

Keep Your Loan Papers

Keep your loan paperwork in a safe place, including your promissory note, disclosure notices, and billing statements.

- These provide you with a record of the terms of your federal student loan(s) and how much you have borrowed.
- Copies of your Master Promissory Note are available from this Web site if you complete your MPN electronically.
- If you choose to receive electronic correspondence regarding your federal student loan(s), copies of that correspondence will be available from this Web site or your loan servicer's Web site.
- You can find information about all of your Direct Loans and Federal Perkins Loans on the National Student Loan Data System (NSLDS).
- NSLDS does not include information about any private loans you may have received.

Resolving Student Loan Disputes

If you think there might be an issue with your federal student loan, first collect and review all of your loan paperwork, then identify and document what you think the problem is. Call your loan servicer to discuss the issue.

Your loan servicer is listed in the Plan to Repay section.

As a last resort, if you are unable to resolve the issue by working with your loan servicer, you may contact the Federal Student Aid (FSA) Ombudsman for assistance. The FSA Ombudsman works with federal student loan borrowers to resolve disputes or issues from an impartial, independent viewpoint.

You can reach FSA's Ombudsman at:

US Department of Education

FSA Ombudsman Group

P.O. Box 1843

Monticello, KY 42633

Fax: 606-396-4821

StudentAid.gov/ombudsman

If you would like additional information to guide you through the problem resolution process, please visit the Resolving Disputes section of StudentAid.gov.

Did you know?

Federal Family Education Loans (FFEL) consolidated into a Direct Consolidation Loan are eligible for repayment under the Pay As You Earn and ICR plans. Loan consolidation information is available at StudentAldgov.

Avoiding Default

Trouble Making Payments

Forgive, Cancel or Discharge Your Debts

Delinquency and Default

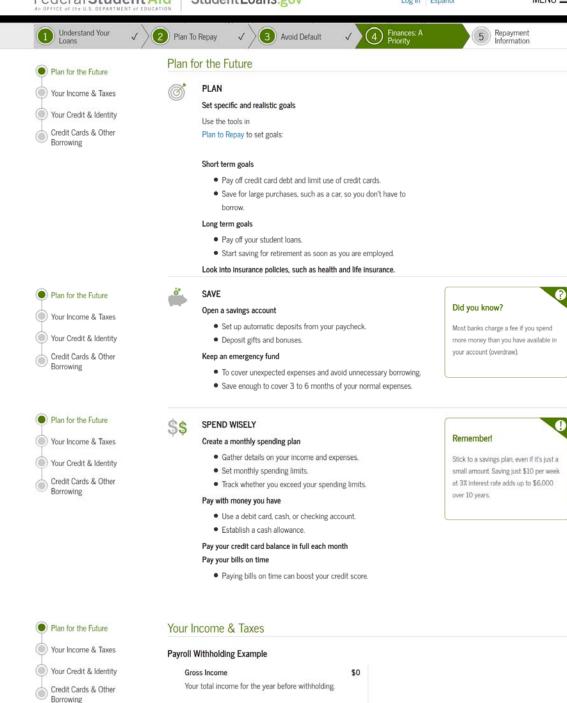
Records and Disputes

Loan Consolidation

Loan Consolidation

- If you have multiple federal student loans, you can consolidate them into a single Direct Consolidation Loan.
- A Direct Consolidation Loan will simplify repayment if you are making separate loan payments to different loan servicers, as
 you'll only have one monthly payment to make.
- There may be trade-offs, however, so you'll want to learn about the advantages and possible disadvantages of consolidation before you consolidate.
- More Direct Consolidation Loan information is available on StudentAid.gov.

More Information



Payroll Withholdings

Net Income

receive your paycheck.

Your take-home pay.

Money withheld from your gross income before you

\$0

\$0

Plan for the Future

Your Income & Taxes

Your Credit & Identity
Credit Cards & Other

Note: These estimates should not be used for personal financial planning; to estimate the amount of Federal taxes that will be withheld from your own pay check, use the IRS Withholding Calculator.

Educational Tax Incentives

In addition to paying your taxes through payroll deductions, you must also file a tax return \mathbf{Q} with the Internal Revenue Service (IRS) on your taxable income \mathbf{Q} .

The federal government offers:

- Tax deductions of for educational expenses and on interest you pay on your federal student loans.
- Tax credits @ for educational expenses while attending school.

You should contact a tax advisor or visit IRS Tax Benefits for Education and IRS Information for Students for detailed information on tax credits, deductions or other tax benefits for postsecondary students.

Do the math!

A tax deduction reduces your taxable income:

Income - Deduction = Taxable Income \$45,000 - \$5,000 = \$40,000

A tax credit reduces the amount of taxes owed:

Tax - Tax Credit = Taxes Owed \$1,000 - \$250 = \$750



Your Income & Taxes













Your Credit & Identity

Establish and Maintain Good Credit

A **credit report** is a collection of information about you and your credit history, kept by the three major credit bureaus **Q**:

- Equifax
- Transunion
- Experian

These credit bureaus track and store information on your credit history such as:

- · How promptly you pay your bills.
- The total amount of debt you owe.
- How many credit cards you have.

Credit bureaus also report your credit score ②. Lenders use your credit score to decide whether to lend you money, and what interest rate to charge you. Employers, landlords, and insurance companies may also check your credit score.

To maintain a good credit score:

- Review your credit report. You are entitled to check your credit report once per year for free. Learn more at AnnualCreditReport.com.
- Contact the credit bureau to correct inaccurate information.
- Pay all bills on time, including federal student loan payments.

Remember!

Borrowers with higher credit scores are charged lower interest rates than those with lower credit scores. This does not apply to federal student loans.

Did you know?

Visit the Federal Trade Commission (FTC)
Web site for more information on credit
reports and credit scores.







- Your Credit & Identity
- Credit Cards & Other Borrowing

- Plan for the Future
- Your Income & Taxes
- Your Credit & Identity
- Credit Cards & Other Borrowing

- Never give your personal information (i.e. SSN, Date of Birth, Account Numbers, etc.) to anyone you did not contact.
- Store documents containing your personal information in a safe location or shred unnecessary documents.
- Protect your passwords.
- . Monitor your bank and credit card statements.

Credit Cards & Other Borrowing

Credit Cards

- · Spend only what you can pay back immediately.
- Pay your balance in full each month to avoid interest and fees.
- Look for the lowest annual interest rate (APR 2) and fees.
- · Read the fine print!
- Limit your number of credit cards.

Visit Money Matters and MyMoney.gov for more information on how to choose a credit card.

Other Borrowing

To reduce the amount borrowed for large purchases (e.g. a car):

- Plan ahead, and try to save for large purchases.
- Borrow only what you can afford to repay. (Use the calculator in the previous topics)

EXIT

Look for low interest rate and fees.

Did you know?

Making only the minimum payment on a balance of \$1,000 at an interest rate of 18.9% will take 5 years to pay off, for a total \$1,563!

Remember!

\Q

Credit cards aren't the only way to build credit - making your federal student loan payments on time will help you build up a credit history.

CONTINUE

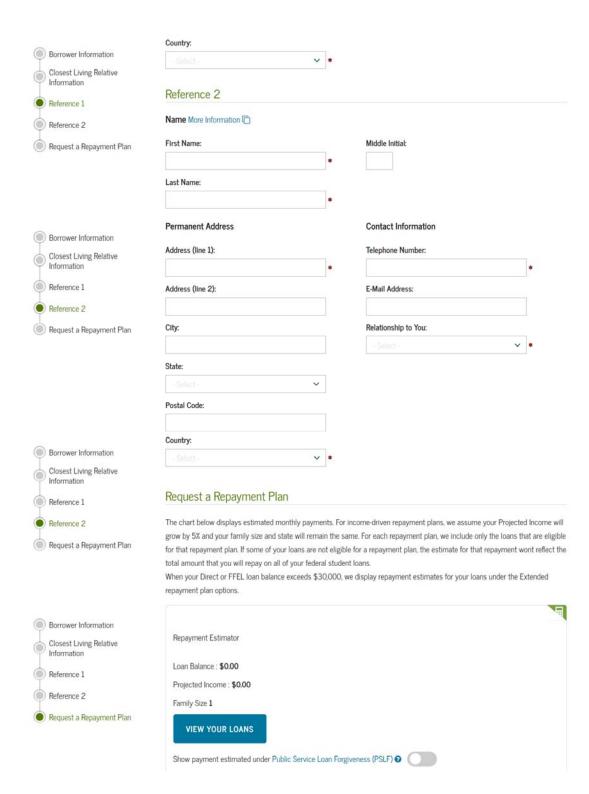


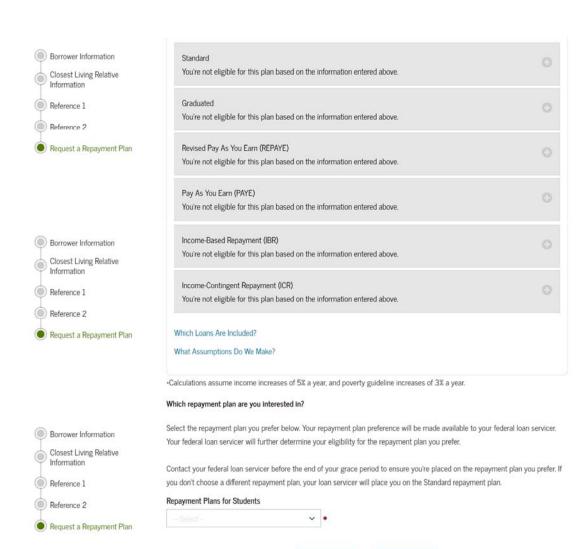


MENU **≡**

Borrower Information	Borrower Information		
Closest Living Relative	Driver's License State:		Driver's License Number:
Information	- Select -		
Reference 1	Permanent Address More Information		
Reference 2	Address (line 1):		State:
Request a Repayment Plan	Address fille 1/.	*	- Select -
	Address (line 2):		Postal Code:
	City:	1	Country:
			- Select -
Closest Living Relative Information	Contact Information E-Mail Address: More Information		
Request a Repayment Plan	Confirm E-Mail Address:		
	Confirm E-Mail Address: Telephone Number:		
		•	
	Telephone Number:	•	
Request a Repayment Plan Borrower Information Closest Living Relative	Telephone Number: Mobile Phone Number: Employer's Information More Information I am not employed	•	
Request a Repayment Plan Borrower Information Closest Living Relative Information	Telephone Number: Mobile Phone Number: Employer's Information More Information	•	Work Number:
Borrower Information Closest Living Relative Information Reference 1	Telephone Number: Mobile Phone Number: Employer's Information More Information I am not employed Employer's Name:	•	
Borrower Information Closest Living Relative Information Reference 1 Reference 2	Telephone Number: Mobile Phone Number: Employer's Information More Information I am not employed	•	State:
Borrower Information Closest Living Relative Information Reference 1	Telephone Number: Mobile Phone Number: Employer's Information More Information I am not employed Employer's Name:]•]•	

Borrower Information	Closest Living Relative Information			
Closest Living Relative	Name			
Information	First Name:		Middle Initial:	
Reference 1		*		
Reference 2	Last Name:			
Request a Repayment Plan	Last Haine,	*		
Borrower Information	Permanent Address		Contact Information	
Closest Living Relative	Address (line 1):		Telephone Number:	
Information		*		*
Reference 1	Address (line 2):		E-Mail Address:	
Reference 2				
Request a Repayment Plan	City:			
	State:			
	- Select -			
	Postal Code:			
	rostal code.			
	Country:			
Borrower Information	- Select -	*		
Closest Living Relative				
	Reference 1			
Reference 1	Name Many Information Ex			
Reference 2	Name More Information			
Request a Repayment Plan	First Name:		Middle Initial:	
		•		
	Last Name:			
		*		
Borrower Information	Permanent Address		Contact Information	
Closest Living Relative	Address (line 1):		Telephone Number:	
Information		*		*
	Address (line 2):		E-Mail Address:	
Reference 1			E-Mail Address:	
Reference 1	Address (line 2):		E-Mail Address: Relationship to You:	
Reference 1 Reference 2			Relationship to You:	× *
Reference 1 Reference 2	Address (line 2): City:			v *
Reference 1 Reference 2	Address (line 2): City: State:		Relationship to You:	·
Reference 1 Reference 2	Address (line 2): City:		Relationship to You:	v *

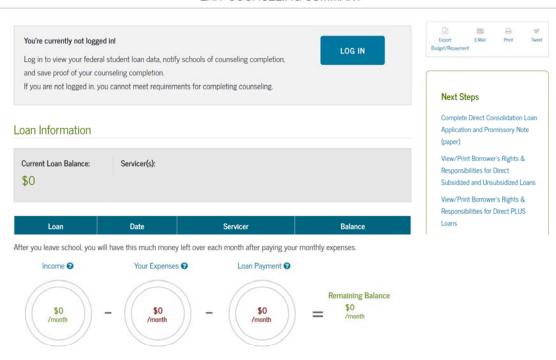




CONTINUE

EXIT

EXIT COUNSELING SUMMARY



The net monthly income above is based on:

Estimated annual salary: \$0

Approximate Federal Withholding: \$0

Other Withholding: \$0

Your student loan payment is part of your monthly expenses.

Repayment Plan







This is the repayment plan you indicated in the Repayment Plan section. Your preference will be made available to your loan servicer and you may be contacted with further information.

If you don't receive confirmation of your repayment plan preference from your loan servicer before the end of your grace period, contact your loan servicer to ensure you are placed on the repayment plan you prefer.

Additional Resources

College Planning

- College Navigator
- StudentAid.gov

Career Planning

Department of Labor Employment Statistics

Financial Planning

- Financial Awareness Counseling
- Money Matters
- MyMoney.gov
- AnnualCreditReport.com
- National Student Loan Database System (NSLDS)





Myths About Financial Aid

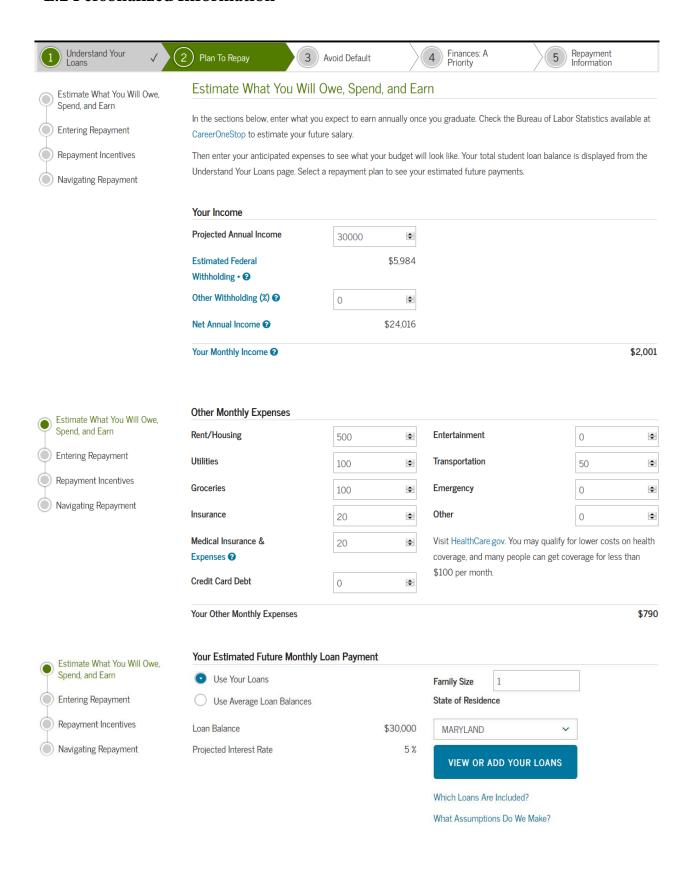


Overview of the Financial Aid Process





E.2 Personalized Information





	Estimate What You Will Owe, Spend, and Farn
\vee	Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

	Initial Monthly Payment	Total Amount Paid	Repayment Period	
• Standard	\$ 318	\$38,184	10 years	See Payment Guidelines
Graduated	\$ 180	\$40,294	10 years	See Payment Guidelines
Extended, Fixed	Extended only available for amounts greater than \$30,000.	Extended only available for amounts greater than \$30,000.	25 years	See Payment Guidelines
Extended, Graduated	Extended only available for amounts greater than \$30,000.	Extended only available for amounts greater than \$30,000.	25 years	See Payment Guidelines
Revised Pay As You Earn	\$ 98	\$52,604	20 years	See Payment Guidelines
Pay As You Earn	\$ 98	\$51,289	20 years	See Payment Guidelines
☐ Income-Based Repayment	\$ 147	\$44,944	25 years	See Payment Guidelines
IBR for New Borrowers	\$ 98	\$51,289	20 years	See Payment Guidelines
	\$ 203	\$44,656	25 years	See Payment Guidelines

^{*}These estimated monthly payments are based on your inputs and may not be exact. Contact your loan servicer to see if you qualify for an income-driven repayment plan.



Navigating Repayment

Estimate What You Will Owe,

Spend, and Earn

Entering Repayment

Repayment Incentives

Navigating Repayment

Financial Summary

Print

Based on what you entered, you will have enough funds to pay your expenses.



Estimated Student Loan Debt Burden

Suggested Minimum Gross Income \$47,700

To maintain a low student loan debt burden ②, the Consumer Financial Protection Bureau (CFPB) suggests your estimated loan payments should not exceed 8% of your gross income ③.

Estimated Student Loan Debt Burden

Based on your projected annual income, your student loan debt burden will be: **med**

Consider selecting a plan with a lower monthly payment, such as an income-driven repayment plan.

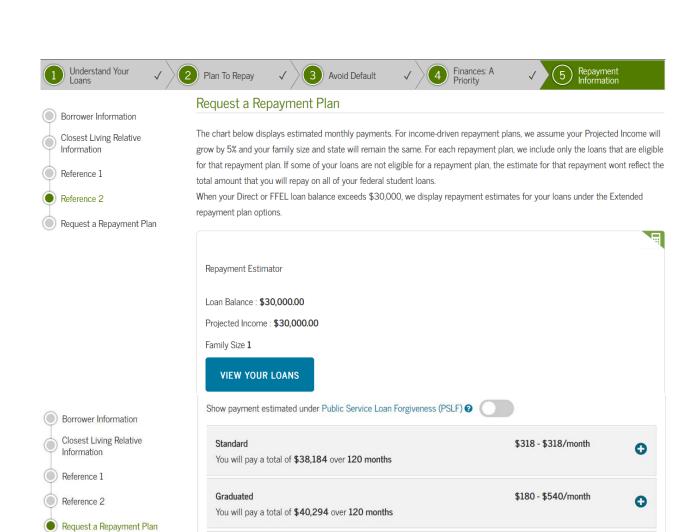


10-year public service loan forgiveness If you work full-time in public service and have reduced payments under a qualifying plan the balance remaining after 120 qualifying payments could be forgiven. For more information about Public Service Loan Forgiveness, visit StudentAid.gov.

Income-Sensitive Repayment Plan

If you need to make lower payments on your FFEL Loans and do not qualify for IBR, consider the Income-Sensitive Repayment Plan. Under this plan, your monthly payments:

- increase or decrease based on your annual income and
- are made for a maximum period of 10 years.



\$98 - \$394/month

\$98 - \$318/month

\$147 - \$318/month

\$203 - \$250/month

Revised Pay As You Earn (REPAYE)

Pay As You Earn (PAYE)

Income-Based Repayment (IBR)

Income-Contingent Repayment (ICR)

You will pay a total of \$52,604 over 239 months

You will pay a total of \$51,289 over 240 months

You will pay a total of \$44,944 over 179 months

You will pay a total of \$44,656 over 197 months

Standard You will pay a total of \$	38,184 over 120 mont	hs	\$318 - \$318/m	onth –
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$318	\$318	\$38,184	-	120 months
More Information 🗀				

Yay As You Earn (PAYE) You will pay a total of \$51,289 over 240 months			\$98 - \$318/mo	onth —
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$98	\$318	\$51,289	\$2,077	240 months
More Information 🗀				

ncome-Based Repayment (IBR) You will pay a total of \$44,944 over 179 months			\$147 - \$318/m	onth
First Monthly Payment	Last Monthly Payment	Total Amount Paid	Projected Loan Forgiveness	Repayment Period
\$147	\$318	\$44,944	\$0	179 months
More Information 🗀				

Which repayment plan are you interested in?

Select the repayment plan you prefer below. Your repayment plan preference will be made available to your federal loan servicer. Your federal loan servicer will further determine your eligibility for the repayment plan you prefer.

Contact your federal loan servicer before the end of your grace period to ensure you're placed on the repayment plan you prefer. If you don't choose a different repayment plan, your loan servicer will place you on the Standard repayment plan.

Repayment Plans for Students



Appendix F Simulation Exercise

This appendix first provides additional details about the simulation process. The next subsection explores the extent to which simulation results are robust to varying the assumptions about students' experience-earnings profiles and default triggers. Finally, we present results from simulations for fixed-length IDR.

Appendix F.1 Simulation procedure

We first generate frequency weights via raking to match characteristics of bachelor's degree-seeking borrowers in the nationally representative 2012 National Postsecondary Student Aid Study (NPSAS). The characteristics used to generate weights are: indicators for eligibility for the maximum Pell Grant, eligibility for a Pell Grant less than the maximum (versus ineligible), class standing (lower level versus upper level), missing SAT score, race (Asian, Black, Hispanic, White, or Other), first generation student, in-state student, 11 major categories (science and math, business and economics, computer and information sciences, education, engineering, general studies, social sciences excluding economics, humanities, applied health-related, other applied field, or undecided), gender, and age (less than 20 years old versus 20 and older). We also match based on outstanding debt assigned to survey respondents in the hypothetical loan repayment scenarios. Given that our hypothetical scenarios only provide us with two different loan amounts (\$30,000 and \$60,000), we use the midpoint between these amounts (\$45,000) to generate a dichotomous indicator for large estimated loans at graduation. For NPSAS sample members, we predict outstanding debt at graduation by multiplying current debt by 4 for freshmen, 2 for sophomores, and $\frac{4}{3}$ for juniors. Weights were restricted to values between 1 and 8,000, and large loan balance (\$45,000 or higher).

Appendix Table F.1 shows that the reweighted analysis sample matches the NPSAS sample along all dimensions used to generate the weights. When it comes to other characteristics, the reweighted sample of UMD students is also similar to the nationally representative sample in terms of parental income and SAT scores but differs by being younger and having higher EFCs than bachelor's degree-seeking borrowers nationwide.

For our main results, we broadly follow Wiswall and Zafar (2015) and estimate parameters for each sample member's potential experience-earnings profile, assuming that a borrower with potential experience a has earnings equal to $\ln{(earn_a)} \sim N\left(\mu_a, \sigma_a\right)$, $\mu_a = \mu_0 + \mu_1 exp + \mu_2 exp^2$, and $\sigma_a = \sigma_0 + \sigma_1 exp$. Age is measured at the beginning of the academic year. We assume that seniors' age at graduation is their current age plus one year, juniors are two years older at graduation, sophomores are three years older at graduation, and freshmen are four years older at graduation. We use new transfer students' self-reported class level and the above logic to generate an expected age at graduation.

We estimate the parameter vector $\theta = \{\mu_0, \mu_1, \mu_2, \sigma_0, \sigma_1\}$ via simulated method of moments, weighting by the inverse variance of sample moments. Finally, we interpolate the expected probability of zero earnings for each student across the three reported expected probabilities (at graduation, age 30, and age 40).

For each sample member, we draw a sequence of earnings and nonemployment probabilities from their parameterized experience-earnings profile and interpolated nonemployment profile, setting earnings to zero if the sample member is not employed at age a. The number of draws for a given sample member is determined by their raked frequency weight, so that the final data set has a distribution of characteristics that matches those of all bachelor's degree-seeking borrowers.

Once we have generated this sample of borrowers, we allow each borrower's choice of repayment plan to be determined by the IDR rate. For instance, if a student reports that a 6 percent payment rate would make them indifferent between IDR and the standard plan, we assume that for any rate below 6 percent, they would choose IDR and for any rate at or higher than 6 percent, they would choose the standard plan. Payments are calculated following the description of each plan in Section 3.1.

At a given point in time after entering repayment, a borrower who chooses the standard plan is assumed to default on their loan if their payment exceeds 50 percent of their income for two years in a row. Students who choose IDR never enter into default. When a standard plan borrower's payment exceeds 50 percent of their income, we assume that they pay half of their income (which could be \$0 if they have \$0 earnings) towards their loan. Any unpaid interest is added to the principal and future interest payments are based off this new amount owed (i.e., interest is capitalized into loan principal). In the next period, the borrower either meets their payment obligation or, if their payment obligation again exceeds 50 percent of their income, they again pays 50 percent of their income towards their loan obligation and are classified as defaulting. There are no additional fees added to a borrower's balance if they default and their payment obligation doesn't increase. This abstracts from fees associated with defaulting, other costs that would come from the corresponding reduction in credit score, and any behavioral responses (e.g., the borrower fails to resume paying when their income goes back up).

For each IDR payment rate and frame, we calculate the IDR take-up rate, total payments per borrower over the 10 and 20 year periods following entry into repayment, and the share of borrowers who ever default on their loan in the 20 years after entering repayment (although very few defaults occur outside of the first 10 years of repayment). We provide a measure of the degree of adverse selection into IDR by calculating the difference between total IDR payments per borrower that the government would have received had the students who chose the standard plan instead chosen IDR and the total payments per borrower received by students who did choose IDR. We use a student loan interest rate of 5 percent (as stated in the hypothetical

survey scenarios). We set the government's discount rate to 3 percent.²

Under a universal standard repayment plan, the present discounted value of payments over the first 10 years of repayment by borrowers with average debt of approximately \$35,000 at graduation is \$34,300 over the first 10 years of repayment; the present discounted value of payments over the first 20 years of repayment is \$38,700. We project that approximately 28 percent of borrowers would default on their loan at some point during the 20 years following entry into repayment if only the standard repayment plan was available (with the vast majority of defaults occurring in the first 9 years of repayment). While the projected share of students ever defaulting is larger than the average three-year cohort default rates of around 10 percent reported by the federal government in recent years, it is consistent with the five-year default rate of 28 percent for students in the 2008-09 repayment cohort reported by Looney and Yannelis (2015). While smaller than the projected 40 percent lifetime default rate for students in the 2003-04 repayment cohort reported by Scott-Clayton (2018), our simulation sample is only representative of bachelor's degree seeking borrowers, who default at lower rates than sub-baccalaureate students. It is also important to note that our measure represents the share of borrowers who we project to default on their loan at any point in the 20 years after leaving college, and is substantially larger than the share of borrowers that we predict will default in any given year (i.e., between 1 and 7 percent over the first 10 years of repayment).

Appendix F.2 Alternative models

We replicate the simulation exercise under alternative assumptions about the functional form of students' potential experience-earnings profiles and the factors triggering loan default. We explore two alternative functional forms of students' potential experience-earnings profiles, assuming that (1) earnings are normally (rather than log-normally) distributed and (2) earnings are normally distributed and that student reported their expected levels of earnings not conditional on employment. We explore two alternative triggers for default, assuming that a student participating in the standard repayment plan defaults if (1) their payments exceed 75 percent of their earnings for two years in a row and (2) their payments exceed 50 percent of their income for three consecutive years.

Table F.2 compares predicted differences in IDR take-up, selection, total payments, and defaults by frame for IDR rates of 10, 15, and 20 percent. Panels A through D of specification (1) - our baseline specification - reproduce the results shown in Figures 8 through 11, while Panels E and F show predicted differences in defaults using the two alternative definitions. Predicted defaults are more sensitive to the number of periods of low earnings than to the ratio of payment obligations to income, but the patterns documented using our

²The Federal Credit Reform Act of 1990 requires that estimated net payments on federal loans be discounted at a rate equal to the interest rate for U.S. Treasury securities of the same maturity as the loan (between 1.5 and 3 percent for 10-20 year Treasury notes in recent years).

baseline definition remain. Moving from the cost to the neutral to the insurance frame for a given IDR payment rate reduces defaults as does moving from higher to lower IDR payment rates within a given IDR frame.

Patterns of predicted IDR take-up, selection, and total payments across IDR rates and frames are very similar between our baseline simulation and simulations assuming earnings are normally distributed. Likewise, whether we assume students reported expected earnings conditional or not conditioning on employment does not appear to alter how these predicted outcomes vary with payment rates and framing.

Appendix F.3 Simulation results for fixed length IDR

Figure F.1 displays the simulated IDR take-up rate by IDR frame and payment rate in the case of fixed-length IDR. We focus on a smaller range of payment rates - shown by the shaded region - as most proposed fixed-length IDR plans do not involve payments that exceed 10 percent.³ As is the case for fixed amount IDR, take-up is substantially higher under the insurance frame at every price, although differences are smaller at lower, more generous payment rates.

In contrast our finding of advantageous selection into fixed amount IDR under the insurance frame, borrowers adversely select into fixed length IDR under the neutral and insurance frames for most payment rates. The insurance and neutral frames generate approximately the same degree of adverse selection, which is increasing in the payment rate (Figure F.2). For payment rates below 9 percent, selection into fixed-length IDR under the cost frame is slightly advantageous or neutral.⁴

Similar to our findings in the case of fixed amount IDR, for every IDR payment rate, defaults are lowest when IDR is framed as insurance, and highest when the costs of IDR are emphasized (Figure F.3). Cumulative payments at 20 years do not vary substantially across frames for payment rates below 5 percent (Figure F.4). The 20-year break-even point relative to a universal standard repayment plan is approximately 3 percent of income for all three frames. At higher IDR prices, our simulation predicts that federal revenue is substantially greater than what would be obtained under universal participation in the standard repayment plan, with the largest amount collected under the insurance frame. Even with adverse selection into IDR, we predict that on average, borrowers' earnings will not be so low as to generate a loss.

³For example, the original Oregon "Pay it Forward" income share agreement proposal set payment rates at 0.75 percent per year of college (e.g., 3 percent of income over a 20 year period in exchange for four years of college tuition).

⁴This is somewhat in contrast to Mumford (2018), who finds that, within a give major, Back a Boiler applicants at Purdue University do not appear to adversely select into participation based on ability. This could be attributable to the differences in the structure of Purdue's program (which was only available to juniors and seniors, set payment rates based on major and the amount of funding provided, and involved a cap on the total amount paid) and our fixed-length IDR.

Appendix F.4 Figures and Tables

Figure F.1: Fixed Length IDR Take-up by Frame and Payment Rate

Notes: Simulated take-up of fixed-length IDR by payment rate and framing (see Section 6 for details). Payment rate is the IDR payment as a percent of disposable income. The shaded region represents IDR payment rates that currently exist or have been considered in proposed fixed-length IDR plans.

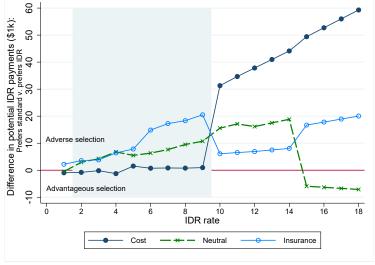
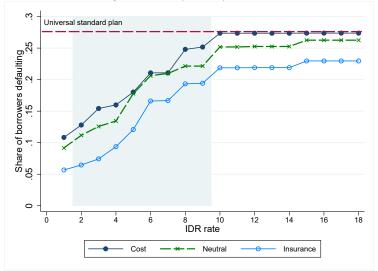


Figure F.2: Selection into Fixed Length IDR by Frame and Payment Rate

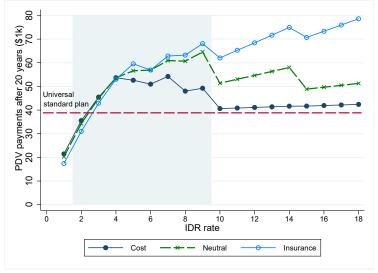
Notes: Simulated difference in average fixed-length IDR payments for borrowers that chose the standard plan and borrowers that chose IDR, by payment rate and framing (see Section 6 for details). Payment rate is the IDR payment as a percent of disposable income. The shaded region represents IDR payment rates that currently exist or have been considered in proposed fixed-length IDR plans.

Figure F.3: Share of borrowers defaulting within 20 years by Frame and Fixed Amount IDR Payment Rate



Notes: Simulated probability of defaulting within 20 years of entering repayment, by payment rate and framing (see Section 6 for details). A borrower defaults if her required loan payment exceeds 50 percent of her income for two consecutive years. Students choosing IDR are assumed to never default. Payment rate is the IDR payment as a percent of disposable income. The shaded region represents IDR payment rates that currently exist or have been considered in proposed fixed-length IDR plans.

Figure F.4: Present Discounted Value of Payments by Frame and Fixed Length IDR Payment Rate



Notes: Simulated average present discounted value of loan payments after 20 years, by payment rate and framing, using a 3 percent discount rate (see Section 6 for details). Payment rate is the fixed length IDR payment as a percent of disposable income. The shaded region represents IDR payment rates that currently exist or have been considered in proposed fixed-length IDR plans.

Table F.1: Characteristics of the UMD Survey Respondent Sample used in Simulations and 2012 Bachelor's Degree-Seeking Borrowers Nationwide

	UMD survey r			
	1. Unweighted	2. Weighted	3. NPSAS	
Age	20.0	20.6	23.5	
First generation student	0.22	0.30	0.30	
Parent income	\$114,551	\$82,444	\$80,338	
In-state student	0.82	0.76	0.76	
Expected family contribution	\$18,857	\$12,477	\$8,903	
EFC = 0	0.17	0.33	0.33	
Pell Grant eligible	0.36	0.57	0.57	
Female	0.48	0.57	0.57	
Class standing = junior or senior	0.59	0.59	0.59	
Race				
Asian	0.19	0.05	0.05	
Black	0.11	0.17	0.17	
Hispanic	0.09	0.13	0.13	
White	0.55	0.61	0.61	
SAT score	1157	1084	1019	
Missing SAT scores	0.11	0.19	0.19	
Major				
Science, math, health	0.18	0.21	0.21	
Business and economics	0.13	0.19	0.19	
Computer/information sciences	0.09	0.04	0.04	
Education	0.04	0.07	0.07	
Engineering	0.18	0.05	0.05	
General studies	0.01	0.03	0.03	
Humanities	0.05	0.10	0.10	
Other applied fields	0.10	0.17	0.17	
Social sciences	0.10	0.11	0.11	
Undecided	0.10	0.02	0.02	

Notes: Column 1 displays average characteristics of UMD survey respondents who gave a consistent response to the survey question asking what IDR payment as a percentage of income would make them indifferent between IDR and the standard plan and for whom it was possible to obtain parameterized experience-earnings profile parameter estimates (N=2539). Column 2 contains average characteristics of the reweighted UMD survey sample, where weights generated via raking to represent the 4.5 million bachelor's degree-seeking borrowers enrolled in college in 2012. Column 3 displays average characteristics of bachelor's degree-seeking borrowers in the 2012 NPSAS using the NPSAS sampling weights. Average parent income and SAT scores are only reported for students with nonmissing values.

Table F.2: Robustness of Simulated Effects of Fixed Amount IDR Frame and Payment Rate

	(1) Baseline	(earnings ~	Lognormal)	(2) E	(2) Earnings ~ Normal			(3) Earnings ~ N, assume uncond		
	10% IDR	15% IDR	20% IDR	10% IDR	15% IDR	20% IDR	10% IDR	15% IDR	20% IDR	
A. Take-up										
Cost	0.41	0.26	0.06	0.37	0.24	0.06	0.38	0.27	0.05	
Neutral - Cost	0.04	0.06	0.10	0.08	0.09	0.12	0.07	0.07	0.10	
Insurance - Cost	0.31	0.30	0.30	0.37	0.32	0.32	0.34	0.29	0.30	
B. Selection										
Cost	\$502	-\$64	-\$636	\$524	-\$44	-\$441	\$378	\$219	-\$368	
Neutral - Cost	-\$66	\$203	\$68	\$526	\$491	-\$76	\$524	\$126	-\$34	
Insurance - Cost	-\$568	\$267	\$704	\$2	\$535	\$364	\$146	-\$93	\$333	
C. Payments/borrower										
Universal standard	\$38,735	\$38,735	\$38,735	\$38,548	\$38,548	\$38,548	\$39,116	\$39,116	\$39,116	
Cost	\$38,339	\$38,529	\$38,681	\$38,087	\$38,271	\$38,465	\$38,550	\$38,667	\$39,042	
Neutral - Cost	\$8	-\$191	-\$163	-\$21	-\$16	-\$66	-\$53	\$16	-\$144	
Insurance - Cost	-\$131	-\$202	-\$423	-\$367	-\$367	-\$506	-\$276	-\$268	-\$519	
D. Defaults - baseline defi	nition									
Lifetime default rate										
Universal standard	0.28	0.28	0.28	0.29	0.29	0.29	0.24	0.24	0.24	
Cost	0.16	0.20	0.25	0.20	0.23	0.27	0.15	0.18	0.23	
Neutral - Cost	-0.01	-0.02	-0.04	-0.06	-0.07	-0.05	-0.02	-0.02	-0.02	
Insurance - Cost	-0.08	-0.07	-0.09	-0.11	-0.09	-0.10	-0.09	-0.07	-0.07	
E. Defaults - alternative de	efinition 1									
Lifetime default rate										
Universal standard	0.12	0.12	0.12	0.15	0.15	0.15	0.12	0.12	0.12	
Cost	0.07	0.09	0.11	0.11	0.12	0.14	0.08	0.09	0.11	
Neutral - Cost	-0.003	-0.01	-0.01	-0.04	-0.03	-0.03	-0.01	-0.02	-0.01	
Insurance - Cost	-0.02	-0.02	-0.03	-0.05	-0.04	-0.04	-0.03	-0.03	-0.03	
F. Defaults - alternative de	efinition 2									
Lifetime default rate										
Universal standard	0.24	0.24	0.24	0.27	0.27	0.27	0.23	0.23	0.23	
Cost	0.14	0.17	0.22	0.19	0.21	0.25	0.14	0.17	0.21	
Neutral - Cost	-0.01	-0.02	-0.03	-0.06	-0.07	-0.05	-0.02	-0.02	-0.02	
Insurance - Cost	-0.06	-0.06	-0.08	-0.10	-0.09	-0.09	-0.08	-0.07	-0.07	

Notes: Alternative default definition 1: standard plan participants default if payments exceed 50 percent of income for three consecutive years. Alternative default definition 2: standard plan participants default if payments exceed 75 percent of income for two consecutive years. See Section Appendix F.2 for additional details.

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