Appendices for "Carving Out: Isolating the True Effect of Self Interest on Policy Attitudes"

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Appendix A Medicare Questionnaire (Online)

- We want to ask your opinion on a hypothetical proposal to reform the Medicare program to make it more fiscally sustainable over the long term. Under this proposal, Medicare beneficiaries would be moved out of traditional Medicare into a ?premium support? system where they can choose their own private health insurance plan. Medicare would pay a portion of the premiums, and seniors themselves would pay the rest. Under this plan, most seniors would pay higher premiums than they currently pay, and may also pay higher out-of-pocket costs. This change would apply to all current and future Medicare beneficiaries / would only apply to people who were born after December 31, 1955. People born on or before December 31, 1955 would still be eligible for the current Medicare program. Would you approve or disapprove of this proposal? [7 point scale]
- 2. If you had to guess, would you say that this plan was proposed by a Democrat, a Republican, or an Independent?
 - Democrat
 - Republican
 - Independent
- 3. Do you think of yourself as a Democrat, a Republican, and Independent, or what?
 - Democrat

- $\bullet~{\rm Republican}$
- Independent
- Other
- No preference
- 4. (If answered "Democrat" or "Republican" to question 3) Would you call yourself a strong Democrat/Republican, or a not very strong Democrat/Republican?
 - Strong
 - Not very strong
- 5. (If answered "Independent," "Other," or "No preference" to question3) Do you think of yourself as closer to the Republican Party or the Democratic Party?
 - Closer to Republican
 - Closer to Democratic
 - Neither
- 6. Where would you place yourself on this scale?
 - Extremely liberal
 - Liberal
 - Slightly liberal
 - Moderate; middle of the road
 - Slightly conservative

- Conservative
- Extremely conservative
- 7. What is your date of birth?
- 8. What racial or ethnic group best describes you? ("race" from CCES)
 - White
 - Black
 - Hispanic
 - Asian
 - Native American
 - Mixed
 - Middle Eastern
 - Other
- 9. What is your gender?
 - Male
 - Female
- 10. Thinking back over the last year, what was your family's income?
 - Less than \$10,000
 - \$10,000 \$19,999
 - \$20,000 \$29,999
 - \$30,000 \$39,999

- \$40,000 \$49,999
- \$50,000 \$59,999
- \$60,000 \$69,999
- \$70,000 \$79,999
- \$80,000 \$89,999
- \$90,000 \$99,999
- \$100,000 \$149,999
- More than 150,000
- 11. What is the highest level of education you have completed?
 - No high school
 - High school graduate
 - Some college
 - 2-year degree
 - 4-year degree
 - Post-graduate degree
- 12. Are you currently married?
 - Yes
 - No
- 13. (Only for those that answered yes to question 12) What is the birth date of your spouse or significant other? (If you are not certain of the exact date, please provide your best guess.)

- 14. Would you say your health in general is excellent, very good, good, fair, or poor?
 - Excellent
 - Very good
 - Good
 - Fair
 - Poor
- 15. How confident are you that you will have enough money to take care of your medical expenses during your retirement?
 - Very confident
 - Somewhat confident
 - $\bullet\,$ Not too confident
 - $\bullet\,$ Not at all confident
- 16. Overall, how confident are you that you will have enough money to live comfortably throughout your retirement years?
 - Very confident
 - Somewhat confident
 - Not too confident
 - Not at all confident

Appendix B Student Debt Questionnaire (Online)

- We would like to ask your opinion about a hypothetical proposal to help people with federal student loans pay them off more easily. Under this proposal, the student loan interest rate would be cut almost in half, from its current rate of 4.32 percent to 2.32 percent. With this change, the typical borrower could expect to pay several thousand dollars less to repay their loans,? depending on the size of their debt and other factors. This lower rate would be available to all current and future borrowers / only be available to people born after June 30, 1992. Would you approve or disapprove of this proposal? [7 point scale]
- 2. If you had to guess, would you say that this plan was proposed by a Democrat, a Republican, or an Independent?
 - Democrat
 - Republican
 - Independent
- 3. Now, we'd like to ask you about another hypothetical proposal that would help people more people attend college without going into debt. Under this proposal, all public colleges and universities would be made tuition-free, meaning that students could attend at no cost. Only people who have not attended college before would be eligible for tuition-

free college under this proposal. Would you approve or disapprove of this proposal? [7 point scale]

- 4. Do you think of yourself as a Democrat, a Republican, and Independent, or what?
 - Democrat
 - Republican
 - Independent
 - Other
 - No preference
- 5. (If answered "Democrat" or "Republican" to question 4) Would you call yourself a strong Democrat/Republican, or a not very strong Democrat/Republican?
 - Strong
 - Not very strong
- 6. (If answered "Indpendent," "Other," or "No preference" to question4) Do you think of yourself as closer to the Republican Party or the Democratic Party?
 - Closer to Republican
 - Closer to Democratic
 - Neither
- 7. Where would you place yourself on this scale?

- Extremely liberal
- \bullet Liberal
- Slightly liberal
- Moderate; middle of the road
- Slightly conservative
- Conservative
- Extremely conservative
- 8. What is your date of birth?
- 9. What racial or ethnic group best describes you? ("race" from CCES)
 - White
 - Black
 - Hispanic
 - Asian
 - Native American
 - Mixed
 - Middle Eastern
 - Other
- 10. What is your gender?
 - Male
 - Female

- 11. Thinking back over the last year, what was your family's income?
 - Less than \$10,000
 - \$10,000 \$19,999
 - \$20,000 \$29,999
 - \$30,000 \$39,999
 - \$40,000 \$49,999
 - \$50,000 \$59,999
 - \$60,000 \$69,999
 - \$70,000 \$79,999
 - \$80,000 \$89,999
 - \$90,000 \$99,999
 - \$100,000 \$149,999
 - More than 150,000
- 12. What is the highest level of education you have completed?
 - No high school
 - High school graduate
 - Some college
 - 2-year degree
 - 4-year degree
 - Post-graduate degree

- 13. Are you currently married?
 - \bullet Yes
 - No
- 14. (Only for those who answered "yes" to question 13) What is the birth date of your spouse or significant other? (If you are not certain of the exact date, please provide your best guess.)
- 15. How much do you agree with the following statement? "I will be able to pay off my student loans."
 - Strongly agree
 - Agree
 - Not sure
 - Disagree
 - Strongly disagree
- 16. How much do you owe in student loans? If you're not sure, please just give us your best estimate.
 - \$0-10,000
 - \$10,001-\$20,000
 - \$20,001-\$30,000
 - \$30,001-\$40,000
 - \$40,001-\$50,000
 - \$50,001-\$60,000

• More than \$60,000

Appendix C Descriptive Data (Online)

	Mean/Proportion (Std. Dev.)	Median	Range			
Age	60.1 (.60)	60.1	58.6 - 61.3			
Party ID (7-point scale)	3.9(2.2)	4 (Neither)	1 (Strong Democrat) - 7 (Strong Republican)			
Conservatism (7-point scale)	4.2(1.7)	4 (Moderate)	1 (Very liberal) - 7 (Very conservative)			
Income (12-point scale)	6.2(3.4)	6 (\$50,000 - \$59,999)	$1~(<\$10,\!000)$ - $12~(>\$150,\!000)$			
Education (6-point scale)	3.8(1.4)	4 (2-year degree)	1 (No HS) - 6 (Post-grad degree)			
Female	.57	1	0,1			
White	.87	1	0,1			
Black	.06	0	0,1			
Hispanic	.02	0	0,1			
Asian	.02	0	0,1			
Health	3.2(1.0)	$3 \pmod{1}$	1 (Poor) - 5 (Excellent)			
Medical expenses confidence	2.4(0.9)	2 (Not too confident)	1 (Not at all confident) - 4 (Very confident)			
Retirement confidence	2.4(0.9)	2 (Not too confident)	1 (Not at all confident) - 4 (Very confident)			
Health and retirement insecurity scale	1.5(0.7)	1.5	0 - 3			

Table C.1. Descriptive Statistics for Selected Covariates, Medicare Study

	Mean/Proportion (Std. Dev.)	Median	Range		
Age	24.0(0.6)	24.0	22.9 - 25.5		
Party ID (7-point scale)	3.2(1.9)	3 (Leans Democratic)	1 (Strong Democrat) - 7 (Strong Republican)		
Conservatism (7-point scale)	3.4(1.6)	4 (Moderate)	1 (Very liberal) - 7 (Very conservative)		
Income (12-point scale)	5.9(3.0)	5 (\$40,000 - \$49,999)	$1~(<\$10,\!000)$ - $12~(>\$150,\!000)$		
Education (6-point scale)	4.8(0.5)	5 (4-year degree)	3 (Some college) - 5 (4-year degree)		
Female	.71	1	0,1		
White	.71	1	0,1		
Black	.08	0	0,1		
Hispanic	.09	0	0,1		
Asian	.07	0	0,1		
Able to pay off loans	2.3(1.1)	2 (Agree)	1 (Strongly agree) - 5 (Strongly disagree)		
Amount owed	3.5(1.9)	3 (\$20,001-\$30,000)	1 (\$0-\$10,000) - 7 (> \$60,000)		

 Table C.2. Descriptive Statistics for Selected Covariates, Student Debt Relief Study

Appendix D Difference in Discontinuity Analyses (Online)

This section reports the results of analyses combining the randomly assigned experimental treatments in each study with regression discontinuity analyses using respondent birth date (expressed as the number of days before or after the cutoff birth date) as the assignment variable. These analyses consider the possibility that empathy for others grows with proximity in age even over the narrow age ranges considered in these studies. This could bias the estimates of the self-interest effects displayed in the main body of the manuscript, which are calculated on the assumption that differences in the "carveout" treatment effect between younger and older respondents are due to respondents' personal stake in the policy rather than their concern about others. Regression discontinuity analysis can offer reassurance by distinguishing between gradual and discontinuous changes in the dependent variable. Figure D.1 and Figure D.2 suggest this is probably not a concern: in both studies, large discontinuities are visible at the age cutoff in the conditions including an age cutoff, and not in the control groups. Both figures display the results of local linear regressions with interaction terms to allow for differences in slope before and after the cutoff.

Tables D.1 and D.2 present results of "difference-in-discontinuity" (Grembi, Nannicini and Troiano 2016) models including all observations and those within bandwidths of 300 and 200 days on either side of the cutoffs. The quantity of interest in these results (the difference-in-discontinuity estimator) is the interaction of the "before cutoff" and carveout variables. As the tables demonstrate, the difference is statistically significant at all three bandwidths in the student debt study and with all observations and the 300-day bandwidth in the Medicare study, but falls short of statistical significance (p=.21) at the 200-day bandwidth in the latter. This is perhaps unsurprising given that regression discontinuity designs are a great deal more demanding in terms of statistical power than randomized designs, particularly in cases like this where the R-squared is relatively low (Deke and Dragoset 2012).

Figure D.1. Regression Discontinuity of Medicare Proposal Approval Across Experimental and Age Groups.

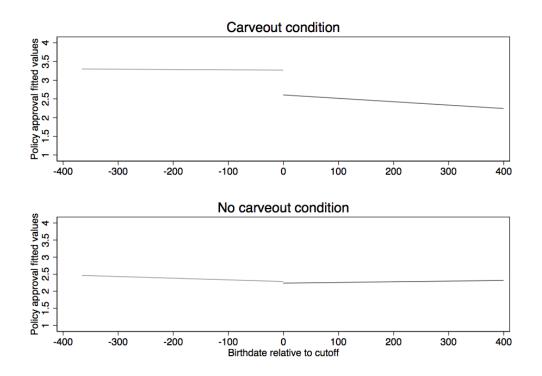
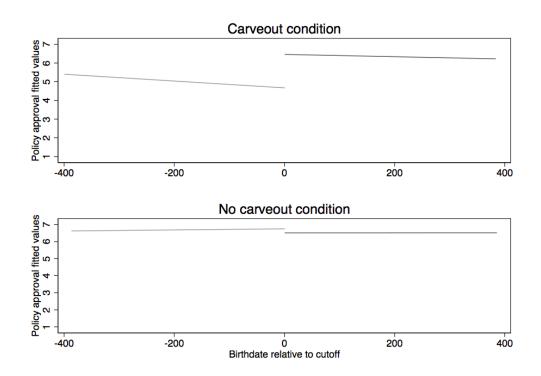


Figure D.2. Regression Discontinuity of Student Debt Relief Proposal Approval Across Experimental and Age Groups.



	All	w/in 300 days	w/in 200 days
Carveout treatment	0.25	0.29	0.18
	(0.18)	(0.23)	(0.28)
	0.00	0.15	0.01
Born before cutoff	0.00	-0.15	-0.24
	(0.21)	(0.24)	(0.28)
Carveout \times Before cutoff	0.73**	0.75**	0.50
	(0.30)	(0.34)	(0.40)
Birthdate	-0.00	-0.00	-0.00*
Difficult	(0.00)	(0.00)	(0.00)
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Carveout \times Birthdate	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)
Before cutoff \times Birthdate	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)
Carveout \times Before cutoff \times Birthdate	0.00	0.00	-0.01
	(0.00)	(0.00)	(0.00)
Constant	2.28^{***}	2.38***	2.52***
Oustant	(0.13)	(0.16)	
Observe	· · ·	· /	(0.20)
Observations	2020	1593	1181
R-squared	0.04	0.05	0.07

Table D.1.Difference-In-Discontinuity Regressions of MedicareReform Policy Approval by Birthdate and Treatment Group

Standard errors in parentheses

Higher values of the dependent variable indicate higher levels of approval * p<.1, ** p<.05, *** p<.01

	All	w/in 300 days	w/in 200 days
Carveout treatment	-0.09	-0.01	0.07
	(0.18)	(0.22)	(0.25)
	0.00	0.10	0.01
Born before cutoff	0.20	0.16	0.21
	(0.19)	(0.22)	(0.26)
Carveout \times Before cutoff	-1.99***	-2.01***	-2.11***
	(0.26)	(0.30)	(0.36)
Birthdate	-0.00	-0.00	0.00
Direitate	(0.00)	(0.00)	(0.00)
	()	()	()
Carveout \times Birthdate	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)
Before cutoff \times Birthdate	0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)
Carveout \times Before cutoff \times Birthdate	-0.00	-0.00	0.00
Carveout × Defore cutori × Dirtildate	(0.00)	(0.00)	(0.00)
	(0.00)	(0.00)	(0.00)
Constant	6.53***	6.52^{***}	6.46^{***}
	(0.13)	(0.16)	(0.18)
Observations	1210	951	636
R-squared	0.23	0.25	0.28
Standard among in naronthagag			

Table D.2.Difference-In-Discontinuity Regressions of StudentDebt Relief Policy Approval by Birthdate and Treatment Group

Standard errors in parentheses

Higher values of the dependent variable indicate higher levels of approval * p<.1, ** p<.05, *** p<.01

Appendix E Follow-Up Studies with Manipulation Checks (Online)

Data and Methods

To explore the mechanisms through which the experimental treatments worked on attitudes, I conducted a small follow-up study for each experiment in March of 2020. The chief difference between the original and follow-up surveys was the inclusion of a series of manipulation checks after the experimental question. While mediation between the treatment and dependent variable (policy approval) using such checks is problematic, due to the potential for post-treatment bias (Montgomery, Nyhan and Torres 2018), simple analyses of experimental effects on manipulation check responses can offer some insights on how the treatments affect respondents' thinking about these policy proposals. One manipulation check simply asked respondents, "Do you believe the Medicare/student loan policy change you just read about would affect you personally?", with response options of "yes," "no," and "not sure." Another series of checks was presented in a grid format, with respondents asked to predict what kind of effect the policy change would have on a series of groups or items, with responses ranging from "very positive" to "very negative" on a five-point Likert scale. In the Medicare reform study, the items were: "you personally," "people like you," "retired people," "people who are retiring soon," "younger generations," "the country as a whole," and "the federal budget." In the student debt study, a similar list was presented, with "people who are paying back student loans" and "people who are in college

now" replacing the retirement-related items.

The only other change of note in either survey was the inclusion of an additional question measuring policy reliance in the student debt study. This question ("How concerned are you about being able to pay off your student loans?", with a 5-point Likert scale ranging from "Not at all concerned" to "Extremely concerned") offers a somewhat more subjective measure of policy reliance than the original question measuring "confidence" in being able to pay off loans. Using multiple measures of reliance also brings the student debt study more in line with the Medicare study (which still uses the same three-question battery).

I once again worked with Dynata (formerly SSI) to recruit the samples, which were similar to the original samples (58 to 62 for the Medicare study, 22 to 25 with student loan debt for the student debt study), though smaller (504 respondents in the Medicare study, 502 in the student debt study). Due to the passage of time, I had to adjust the carve-out dates in each question to be relevant to the new samples (December 31, 1959 in the Medicare study and December 31, 1996 for the student debt study). I also updated the interest rates in the student debt study to reflect changes in real-life rates (the proposal would cut rates from 4.58 to 2.58, rather than 4.32 to 2.32). All other elements of the original questions remained the same.

Medicare Reform Follow-Up Results

Table E.1 summarizes the results of the Medicare reform follow-up study for all dependent variables, using simple regressions of the variables on the carveout treatment, an indicator for respondents born before the cutoff, and an interaction of the two. Figure E.1 displays the mean experimental results for policy approval, which very closely replicate the findings of the original study in Figure 1.

Figure E.2 (which displays proportions of respondents in each subgroup who answered "yes" to the question about whether the policy change would affect them personally) demonstrates that the experimental manipulation was very effective in communicating the desired message to subsets of respondents about whether the policy would personally affect them or not. Similarly, Figure E.3 demonstrates that older respondents in the carveout condition offered significantly more neutral (less negative) assessments of how the policy would affect them personally than the other older respondents in the no-carveout condition or younger respondents in either condition.

Analysis of the remaining questions about the positive or negative effects of policies beyond the respondents themselves suggests that there is spillover of self-interest in these responses. The carveout significantly improved older respondents' assessments of how the policy would affect "people like you" (Figure E.5), "retired people" (Figure E.5), "people who will retire soon" (Figure E.6), and "the country as a whole" (Figure E.8). There is no significant spillover effect of self-interest for assessments of how the policy would affect "younger generations" (Figure E.8) or "the federal budget" (Figure E.8).

Focusing on younger respondents who have no personal stake in the carveout treatment is a useful way of assessing its effects beyond self-interest. The carveout had a statistically significant (p=.08) and positive effect on younger respondents' assessments of how the policy would affect "retired people," suggesting that respondents with no personal stake still understood the implications of the carveout for the currently retired. Notably, the treatment had a statistically significant negative effect (p < .10) on the assessment of how the policy would affect "younger generations," perhaps because making age salient led respondents to think about the people who would not be exempted from change. The treatment had no effect on younger respondents' assessments of how the policy would impact the country as a whole or the federal budget.

Overall, the findings suggest that the experiment did trigger self-interest considerations in the intended manner. They also suggest that the treatment had very limited effects on other considerations: aside from communicating the desired information that the currently retired would be exempt, it seems to have triggered some elevated concern about younger people that was not present in the control group. The fact that the carveout treatment had such strikingly different effects for slightly older and younger respondents on assessments of impacts beyond the self suggests that self-interest has the power to shape not just direct attitudes, but the justifications underlying them.

Before moving on, I test for an interaction between health and retirement insecurity and the self-interest effect, as in Figure 2. As Figure E.11 demonstrates, this finding was not replicated in the follow-up study. It is possible that the original interaction findings were tainted by post-treatment bias: the health and retirement insecurity questions were presented before the treatment in the follow-up study, while they were presented afterwards in the original study. While I cannot definitively rule out this possibility, analysis of the insecurity variable in the original study suggests it is highly unlikely: the difference in the scale between treatment groups was statistically insignificant (p=.59), vanishingly small (0.017, less than one-fortieth of a standard deviation), and tightly estimated (95% confidence interval: -0.08 to 0.05). It is more likely that the difference in findings is due to some unforeseen priming effect of placing these questions before the experiment in the follow-up, or to simple random chance.

			Effect on						
	Approval	Affect me?	Me personally	People like me	Retired people	People retiring soon	Younger genera- tions	Country as a whole	Federal budget
Carveout treatment	0.26	0.21	0.02	0.01	0.28^{*}	0.10	-0.25*	0.03	0.03
	(0.23)	(0.31)	(0.15)	(0.15)	(0.16)	(0.16)	(0.15)	(0.15)	(0.15)
Born before cutoff	0.22	0.05	0.16	0.16	0.18	0.17	0.08	0.21	0.06
	(0.22)	(0.29)	(0.14)	(0.14)	(0.15)	(0.15)	(0.15)	(0.14)	(0.15)
Carveout \times	0.62**	-2.47***	0.72^{***}	0.63***	0.52^{**}	0.36^{*}	0.13	0.41^{**}	0.25
Before cutoff	(0.31)	(0.42)	(0.20)	(0.20)	(0.21)	(0.21)	(0.20)	(0.20)	(0.21)
Constant	2.44***	1.00***	2.00***	1.99***	1.75***	1.91***	2.39***	2.01***	2.85***
	(0.17)	(0.22)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Observations	504	500	499	499	499	499	499	499	499
R-squared	0.0611		0.111	0.0863	0.102	0.0464	0.0112	0.0533	0.0160

Table E.1. Medicare Reform Experimental Results by Age for All Dependent Variables (Follow-UpStudy)

Standard errors in parentheses

Affect me? results from a logistic regression

* p < .1, ** p < .05, *** p < .01

Figure E.1. Mean Medicare Proposal Approval Ratings Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

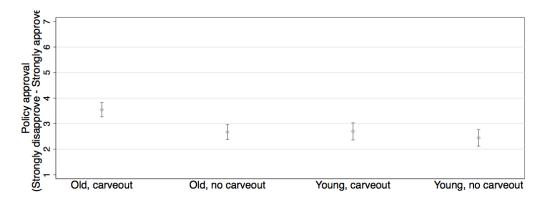


Figure E.2. Perception That the Medicare Proposal "Would Affect You Personally" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

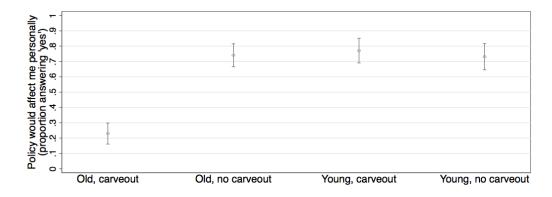


Figure E.3. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "You Personally" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

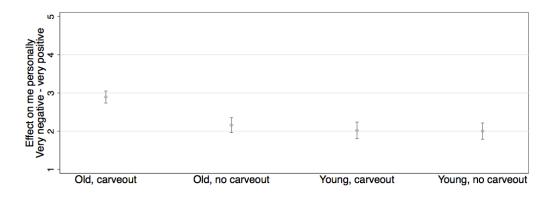


Figure E.4. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "People Like You" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

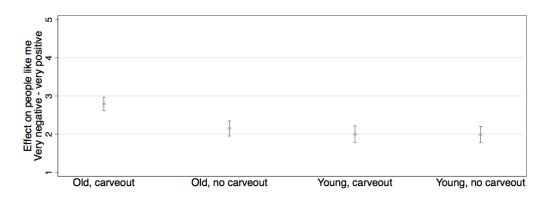


Figure E.5. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "Retired People" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

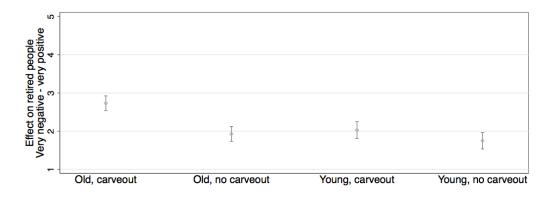


Figure E.6. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "People Who Are Retiring Soon" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

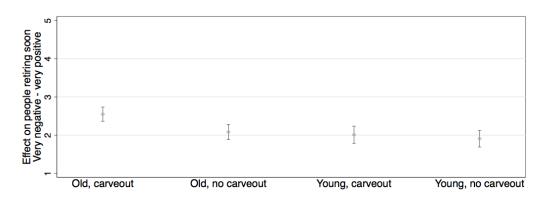


Figure E.7. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "Younger Generations" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

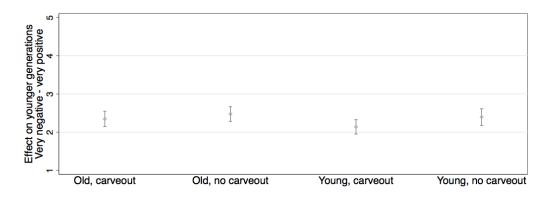


Figure E.8. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "the Country as a Whole" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

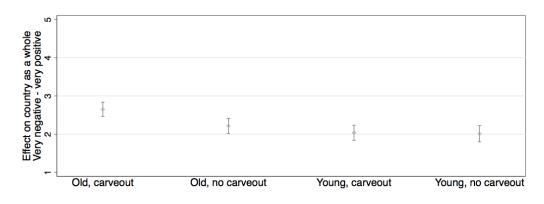


Figure E.9. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "the Federal Budget" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

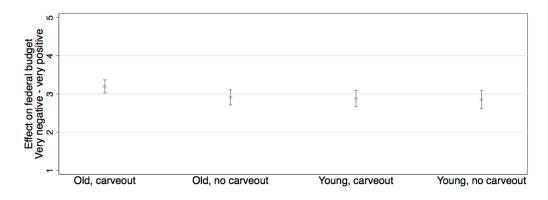


Figure E.10. Respondent Beliefs About the Likely Effect of the Medicare Reform Proposal on "the Federal Budget" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

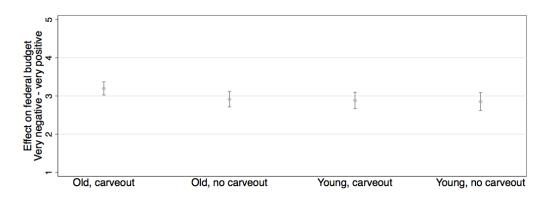
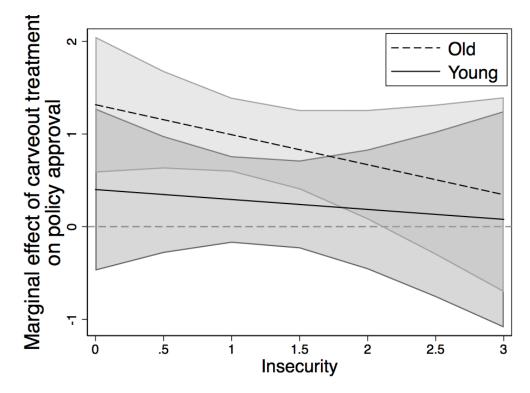


Figure E.11. Marginal Effect of the Carveout Treatment on Medicare Proposal Approval by Age Group and Health and Retirement Insecurity, with 95 Percent Confidence Intervals (Follow-Up Study).



Student Debt Relief Follow-Up Results

Table E.2 summarizes the basic results of the student debt relief followup study for all dependent variables. The results for policy approval (Figure E.12) closely replicate those in the main study (Figure 3), including significant effects for both self-interest and group-oriented sociotropism.

Turning to the manipulation checks, it is clear that the carveout treatment was successful in triggering self-interested considerations for the relevant age group (Figures E.13 and E.14). To a lesser degree the treatment also significantly worsened older respondents' assessments of how the policy change would impact "people like you" (Figure E.15) and those who are currently paying back loans (Figure E.16), both of which make logical sense. Much less logical is the significant negative effect of the carveout treatment among older respondents on the effect on the federal budget, which suggests that self-interest spilled over into respondents' assessments of fiscal impact (Figure E.20). There was no such spillover effect on responses regarding people currently in college (Figure E.17), younger generations (Figure E.18), or the country as a whole (Figure E.19). Notably, the carveout treatment did have a negative and statistically significant main effect on the "country as a whole" rating (p=.002 in a simple t-test), but this effect appears to be consistent across the two age groups.

Lastly, I explore heterogeneous effects using the "unable to pay off loans" measure from the original study and the new measure of "concern" about being able to pay back loans. While the interaction term is not statistically significant in this smaller sample, the pattern visible in Figure E.21 is con-

sistent with the findings of the original study (Figure 4). While the concern measure is positively and significantly correlated with the "unable to pay off measure" (r=.36, p<.001 in a bivariate regression), it does not produce a similar pattern when interacted with age and the carveout treatment. As Figure E.22 demonstrates, the effects of the treatment across the older and younger groups converge at higher levels of concern, rather than diverging (though the interaction is not statistically significant). This adds uncertainty to the findings regarding H6 on policy reliance, since the interaction effect does not appear to be robust to all measures of reliance.

Effect on... People Younger Country People People paying Me genera-Federal as a Approval Affect me? personally like me back loans in college tions whole budget -0.10 Carveout treatment -0.35^{*} 0.26 -0.01 0.01 -0.00 -0.05 -0.16 0.11 (0.34)(0.19)(0.14)(0.14)(0.15)(0.14)(0.15)(0.15)(0.16)Born before cutoff 0.170.23 0.060.08 0.110.180.180.170.18(0.17)(0.30)(0.12)(0.13)(0.13)(0.12)(0.13)(0.14)(0.14)-0.93*** -1.80*** -1.02^{***} -0.66*** -0.43** Carveout \times -0.90*** -0.03 -0.00 -0.20 Before cutoff (0.25)(0.18)(0.20)(0.20)(0.42)(0.18)(0.19)(0.18)(0.19)6.10*** 1.11*** 4.27*** 4.13*** 4.18*** 3.50*** Constant 4.23*** 4.11*** 3.98*** (0.14)(0.23)(0.10)(0.10)(0.11)(0.10)(0.11)(0.10)(0.11)Observations 501 500 502500 500500500500 500R-squared 0.1310.1680.126 0.0570 0.00879 0.00860 0.0220 0.0134

Table E.2. Student Debt Relief Experimental Results by Age for All Dependent Variables (Follow-UpStudy)

Standard errors in parentheses

Affect me? results from a logistic regression

* p < .1, ** p < .05, *** p < .01

Figure E.12. Mean Student Debt Proposal Approval Ratings Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

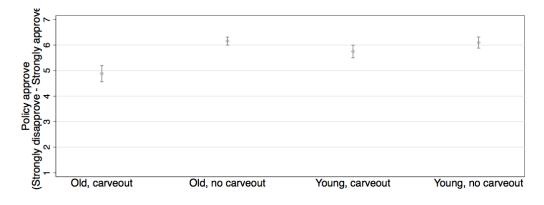


Figure E.13. Perception That the Student Debt Proposal "Would Affect You Personally" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

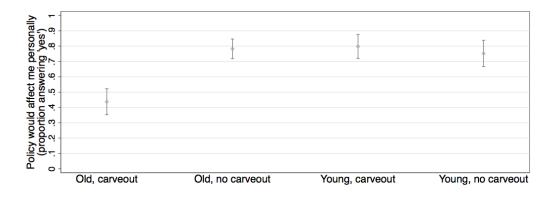


Figure E.14. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "You Personally" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

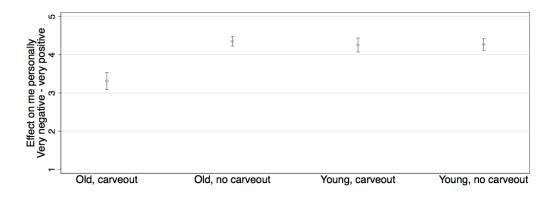


Figure E.15. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "People Like You" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

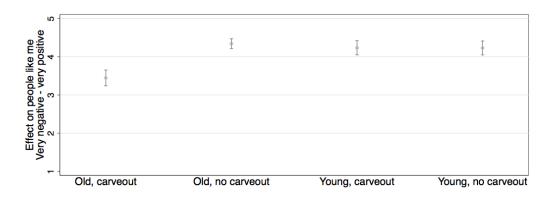


Figure E.16. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "People Who are Paying Back Student Loans" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

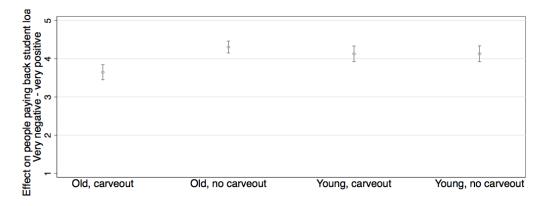


Figure E.17. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "People Who are In College Now" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

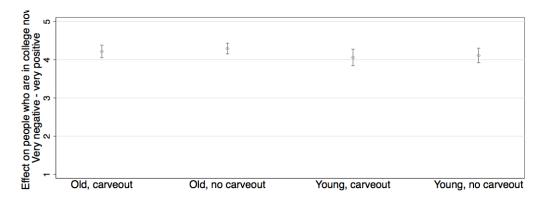


Figure E.18. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "Younger Generations" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

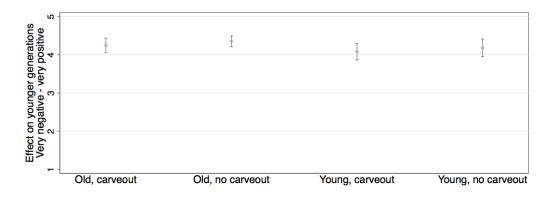


Figure E.19. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "the Country as a Whole" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

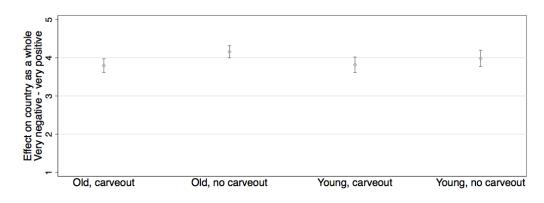


Figure E.20. Respondent Beliefs About the Likely Effect of the Student Debt Proposal on "the Federal Budget" Across Experimental Conditions and Age Groups, with 95% Confidence Intervals (Follow-Up Study).

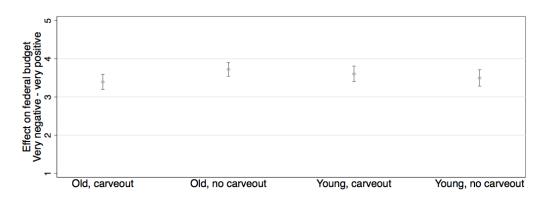


Figure E.21. Marginal Effect of the Carveout Treatment on Student Debt Relief Proposal Approval by Age Group and Ability to Pay Off Student Loans, with 95 Percent Confidence Intervals (Follow-Up Study).

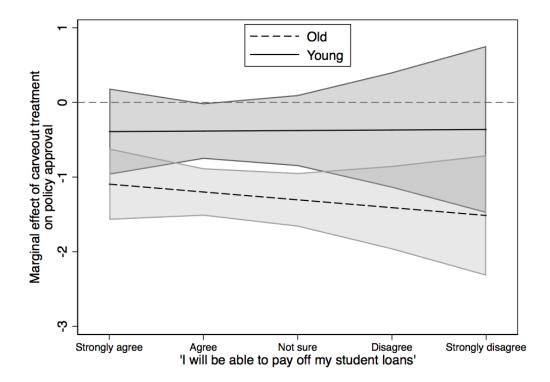
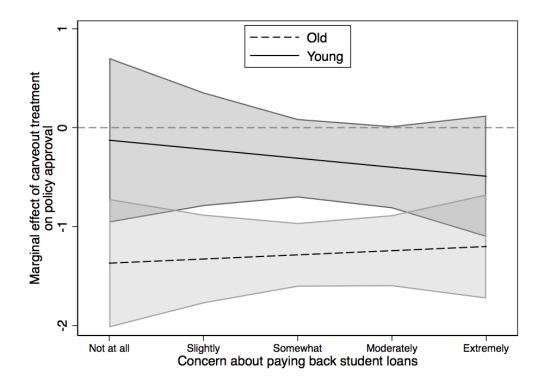


Figure E.22. Marginal Effect of the Carveout Treatment on Student Debt Relief Proposal Approval by Age Group and Concern about being Able to Pay Off Student Loans, with 95 Percent Confidence Intervals (Follow-Up Study).



References

- Deke, John and Lisa Dragoset. 2012. Statistical Power for Regression Discontinuity Designs in Education: Empirical Estimates of Design Effects Relative to Randomized Controlled Trials. Technical report Mathematica Policy Research.
- Grembi, Veronica, Tommaso Nannicini and Ugo Troiano. 2016. "Do Fiscal Rules Matter?" American Economic Journal: Applied Economics 8(3):1– 30.
- Montgomery, Jacob M., Brendan Nyhan and Michelle Torres. 2018. "How Conditioning on Posttreatment Variables Can Ruin Your Experiment and What to Do about It." *American Journal of Political Science* 62(3):760– 775.