**Time Discounting and Economic Decision-making**

**in the Older Population**

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**Online Appendix A. HRS Time Discounting Module**

*Asked only of nonproxy respondents older than age 70*

V051\_GIVEUP: FUTURE ORIENTED-- 0 TO 10 (HIGH)

First, how do you see yourself -- are you a person who is generally willing to give up something today in order to benefit from that in the future, or are you not willing to do so? Please use a scale from 0 to 10, where 0 means you are “completely unwilling to give up something today" and a 10 means you are “very willing to give up something today". Use the values in-between to indicate where you fall on the scale.

Scale range 0-10:

98. DK

99. RF

V052\_INTRO: INTRODUCTION TO PAYMENT CHOICES

Now, suppose you were given the choice between receiving a payment today or a payment in 12 months. We will now present to you 5 situations. The payment today is the same in each of these situations. The payment in 12 months differs in every situation. For each of these situations, we would like to know which you would choose.

V053\_100-154: 100 DOLLARS OR 154 DOLLARS

Would you rather receive 100 Dollars today or 154 Dollars in 12 months?

1. TODAY 🡪 GO TO V069

2. IN 12 MONTHS

8. DK

9. RF

V054\_100-125: 100 DOLLARS OR 125 DOLLARS

Would you rather receive 100 Dollars today or 125 Dollars in 12 months?

1. TODAY GO TO V062

2. IN 12 MONTHS

8. DK

9. RF

V055\_100-112: 100 DOLLARS OR 112 DOLLARS

Would you rather receive 100 Dollars today or 112 Dollars in 12 months?

1. TODAY 🡪 GO TO V059

2. IN 12 MONTHS

8. DK

9. RF

V056\_100-106: 100 DOLLARS OR 106 DOLLARS

Would you rather receive 100 Dollars today or 106 Dollars in 12 months?

1. TODAY 🡪 GO TO V058

2. IN 12 MONTHS

8. DK

9. RF

V057\_100-103: 100 DOLLARS OR 103 DOLLARS

Would you rather receive 100 Dollars today or 103 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V058\_100-109: 100 DOLLARS OR 109 DOLLARS

Would you rather receive 100 Dollars today or 109 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V059\_100-119: 100 DOLLARS OR 119 DOLLARS

Would you rather receive 100 Dollars today or 119 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS 🡪 GO TO V061

8. DK

9. RF

V060\_100-122: 100 DOLLARS OR 122 DOLLARS

Would you rather receive 100 Dollars today or 122 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V061\_100-116: 100 DOLLARS OR 116 DOLLARS

Would you rather receive 100 Dollars today or 116 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V062\_100-139: 100 DOLLARS OR 139 DOLLARS

Would you rather receive 100 Dollars today or 139 Dollars in 12 months?

1. TODAY 🡪 GO TO V066

2. IN 12 MONTHS

8. DK

9. RF

V063\_100-132: 100 DOLLARS OR 132 DOLLARS

Would you rather receive 100 Dollars today or 132 Dollars in 12 months?

1. TODAY 🡪 GO TO V065

2. IN 12 MONTHS

8. DK

9. RF

V064\_100-129: 100 DOLLARS OR 129 DOLLARS

Would you rather receive 100 Dollars today or 129 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V065\_100-136: 100 DOLLARS OR 136 DOLLARS

Would you rather receive 100 Dollars today or 136 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V066\_100-146: 100 DOLLARS OR 146 DOLLARS

Would you rather receive 100 Dollars today or 146 Dollars in 12 months?

1. TODAY 🡪 GO TO V068

2. IN 12 MONTHS

8. DK

9. RF

V067\_100-143: 100 DOLLARS OR 143 DOLLARS

Would you rather receive 100 Dollars today or 143 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084---------------------

V068\_100-150: 100 DOLLARS OR 150 DOLLARS

Would you rather receive 100 Dollars today or 150 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V069\_100-185: 100 DOLLARS OR 185 DOLLARS

Would you rather receive 100 Dollars today or 185 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS 🡪 GO TO V077

8. DK

9. RF

V070\_100-202: 100 DOLLARS OR 202 DOLLARS

Would you rather receive 100 Dollars today or 202 Dollars in 12 months?

1. TODAY 🡪 GO TO V074

2. IN 12 MONTHS

8. DK

9. RF

V071\_100-193: 100 DOLLARS OR 193 DOLLARS

Would you rather receive 100 Dollars today or 193 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS 🡪 GO TO V073

8. DK

9. RF

V072\_100-197: 100 DOLLARS OR 197 DOLLARS

Would you rather receive 100 Dollars today or 197 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V073\_100-189

100 DOLLARS OR 189 DOLLARS

Would you rather receive 100 Dollars today or 189 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V074\_100-210: 100 DOLLARS OR 210 DOLLARS

Would you rather receive 100 Dollars today or 210 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS 🡪 GO TO V076

8. DK

9. RF

V075\_100-215: 100 DOLLARS OR 215 DOLLARS

Would you rather receive 100 Dollars today or 215 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V076\_100-206: 100 DOLLARS OR 206 DOLLARS

Would you rather receive 100 Dollars today or 206 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V077\_100-169: 100 DOLLARS OR 169 DOLLARS

Would you rather receive 100 Dollars today or 169 Dollars in 12 months?

1. TODAY 🡪 GO TO V081

2. IN 12 MONTHS

8. DK

9. RF

V078\_100-161: 100 DOLLARS OR 161 DOLLARS

Would you rather receive 100 Dollars today or 161 Dollars in 12 months?

1. TODAY 🡪 GO TO V080

2. IN 12 MONTHS

8. DK

9. RF

V079\_100-158: 100 DOLLARS OR 158 DOLLARS

Would you rather receive 100 Dollars today or 158 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V080\_100-165: 100 DOLLARS OR 165 DOLLARS

Would you rather receive 100 Dollars today or 165 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V081\_100-177: 100 DOLLARS OR 177 DOLLARS

Would you rather receive 100 Dollars today or 177 Dollars in 12 months?

1. TODAY 🡪 GO TO V083

2. IN 12 MONTHS

8. DK

9. RF

V082\_100-173: 100 DOLLARS OR 173 DOLLARS

Would you rather receive 100 Dollars today or 173 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

--------------------- GO TO V084 ---------------------

V083\_100-181: 100 DOLLARS OR 181 DOLLARS

Would you rather receive 100 Dollars today or 181 Dollars in 12 months?

1. TODAY

2. IN 12 MONTHS

8. DK

9. RF

ASK EVERYONE

V084\_POSTPONER: DO YOU POSTPONE 0 TO 10-HIGH

How well does the following statement describe you as a person? I tend to postpone things even though it would be better to get them done right away. Use a scale from 0 to 10, where 0 means “does not describe me at all" and a 10 means “describes me perfectly". Use the values in-between to indicate where you fall on the scale.

Scale range 0-10: \_\_\_\_\_\_

98. DK

99. RF

V085\_LOTTERY: LOTTERY VS SURE PAYMENT AMOUNT

IWER: Read slowly.

Please imagine that you have won a prize in a contest. Now you can choose between two different payment methods, either a lottery or a sure payment. If you choose the lottery there is a 50 percent chance that you would receive $1,000, and an equally high chance that you would receive nothing.

What is the smallest sure payment that would make you prefer the sure payment over playing the lottery?

Amount $ \_\_\_\_\_\_\_\_\_\_\_ ($0-$99997)

99998. DK

99999. RF

**Online Appendix B. Generating Patience Scores and Time Discounting (Internal Rates of Return) Measures from Our Survey Module**

This document explains how we calculate Patience Scores and Internal Rates of Return (IRR) for all respondents in our data, using responses to the HRS module described above.

1. **Patience Scores**

Respondents’ patience scores were elicited using the Survey Module (see Appendix A) and coding responses as follows, depending on the skip logic each person’s answers traced.

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1. **How We Computed the Time Discount Rates**

The annual Internal Rate of Return (IRR) is the annual interest rate that makes it equally attractive to receive $100 now, or a larger amount $X in 12 months. If the interest rate is compounded once per year, the IRR satisfies this equation:

(1+IRR)\*$100 = $X

 We can solve for the IRR as:

IRR = ($X/$100) - 1

With compounding twice per year, the annual IRR satisfies:

(1+IRR/2)^2\*$100 = $X

IRR =2\*[ [($X/$100) ^(.5)]- 1 ]

With continuous compounding, the annual IRR satisfies:

(e^IRR)\*$100 = $X

IRR = ln([($X/$100)

Under the maintained assumptions, the IRR is informative about an individual’s rate of time discounting.

1. **Inferring Respondents’ Time Discount Rates from Responses to Time Preference Questions:**

A respondent’s choices in the time preference questions reveal something about the size of delayed payment $Z, received in 12 months that would make him willing to give up $100 received now. We cannot infer his exact $Z, but we infer lower and upper bounds for his true $Z. This in turn allows us to infer bounds for an individual’s IRR, i.e., the annual interest rate that solves (1+IRR)\*$100 = $Z for that person. The patience score derived from the survey is given as follows:

|  |  |
| --- | --- |
| Patience score | Size of delayed payment |
| 1 | $Z >= $215 |
| 2 | $215 >= $Z >= $210 |
| 3 | $210 >= $Z >= $206 |
| 4 | $206 >= $Z >= $202 |
| 5 | $2062>= $Z >= $197 |
| 6 | $197 >= $Z >= $193 |
| 7 | $193 >= $Z >= $189 |
| 8 | $189 >= $Z >= $185 |
| 9 | $185 >= $Z >= $181 |
| 10 | $181 >= $Z >= $177 |
| 11 | $177 >= $Z >= $173 |
| 12 | $173 >= $Z >= $169 |
| 13 | $169 >= $Z >= $165 |
| 14 | $165 >= $Z >= $161 |
| 15 | $161 >= $Z >= $158 |
| 16 | $158 >= $Z >= $154 |
| 17 | $154 >= $Z >= $150 |
| 18 | $150 >= $Z >= $146 |
| 19 | $146 >= $Z >= $143 |
| 20 | $143 >= $Z >= $139 |
| 21 | $139 >= $Z >= $136 |
| 22 | $136 >= $Z >= $132 |
| 23 | $132 >= $Z >= $129 |
| 24 | $129 >= $Z >= $125 |
| 25 | $125 >= $Z >= $122 |
| 26 | $122 >= $Z >= $119 |
| 27 | $119 >= $Z >= $116 |
| 28 | $116 >= $Z >= $112 |
| 29 | $112 >= $Z >= $109 |
| 30 | $109 >= $Z >= $106 |
| 31 | $106 >= $Z >= $103 |
| 32 | $103 >= $Z >= $0 |

For example, suppose someone has a patience score of 25. In this case we know:

$125 >= $Z >= $122. Thus, $Z is at least $122 and at most $125. If compounding occurred once per year, this means the person’s lower bound IRR is: IRRlower = ($122/$100) – 1 = 0.22. And the upper bound IRR is: IRRupper = ($125/$100) – 1 = 0.25. We take the midpoint to be the respondent’s IRR: IRR = (.22 + .25)/2 = 0.235. In the case of patience score of 1, we only have the lower bound, so we just use the lower bound.

The next table shows computed IRRs given three frequencies of compounding:

**Summary of IRRs as a function of Patience Score and Frequency of Compounding**

|  |  |  |  |
| --- | --- | --- | --- |
| Patience score | Annual compounding | Semi-annual compounding | Continuous compounding |
| 32 | 0.03 | 0.03 | 0.03 |
| 31 | 0.05 | 0.04 | 0.04 |
| 30 | 0.08 | 0.07 | 0.07 |
| 29 | 0.11 | 0.10 | 0.10 |
| 28 | 0.14 | 0.14 | 0.13 |
| 27 | 0.18 | 0.17 | 0.16 |
| 26 | 0.21 | 0.20 | 0.19 |
| 25 | 0.24 | 0.22 | 0.21 |
| 24 | 0.27 | 0.25 | 0.24 |
| 23 | 0.31 | 0.28 | 0.27 |
| 22 | 0.34 | 0.32 | 0.29 |
| 21 | 0.38 | 0.35 | 0.32 |
| 20 | 0.41 | 0.37 | 0.34 |
| 19 | 0.45 | 0.40 | 0.37 |
| 18 | 0.48 | 0.43 | 0.39 |
| 17 | 0.52 | 0.47 | 0.42 |
| 16 | 0.56 | 0.50 | 0.44 |
| 15 | 0.60 | 0.53 | 0.47 |
| 14 | 0.63 | 0.55 | 0.49 |
| 13 | 0.67 | 0.58 | 0.51 |
| 12 | 0.71 | 0.62 | 0.54 |
| 11 | 0.75 | 0.65 | 0.56 |
| 10 | 0.79 | 0.68 | 0.58 |
| 9 | 0.83 | 0.71 | 0.60 |
| 8 | 0.87 | 0.73 | 0.63 |
| 7 | 0.91 | 0.76 | 0.65 |
| 6 | 0.95 | 0.79 | 0.67 |
| 5 | 1.00 | 0.82 | 0.69 |
| 4 | 1.04 | 0.86 | 0.71 |
| 3 | 1.08 | 0.88 | 0.73 |
| 2 | 1.13 | 0.92 | 0.75 |
| 1 | 1.15 | 0.93 | 0.77 |

For our empirical analysis is the paper we use the Time Discount Rates (IRRs) calculated with semi-annual compounding.

**Online Appendix C. Additional Robustness Results**

In this section we offer two additional robustness analyses that takes into account right-censoring of the time discounting variable. First, we re-estimate Table 1 in the text using Tobit. Second, we re-do the analyses in Tables 2 through 5 with an alternative specification of the discounting variable: A dummy variable for right-censored discount rates and a variable for uncensored discount rates. For all models, the following apply: \* Significant at 0.10 level, \*\* Significant at 0.05 level, \*\*\* Significant at 0.01 level. OLS analysis; missing value dummies also included as relevant.

**Table 1. Tobit estimates: Correlates of the Time Discount Rate for Older HRS Respondents**

|  |  |
| --- | --- |
|   | Time Discount Rate |
| Age | 0.007 | \* | 0.008 | \*\* | 0.007 | \* |
|  | (0.004) |  | (0.004) |  | (0.004) |  |
| Male | 0.022 |  | 0.056 |  | 0.066 |  |
|  | (0.041) |  | (0.042) |  | (0.042) |  |
| White | -0.112 | \* | -0.104 | \* | -0.092 |  |
|  | (0.062) |  | (0.061) |  | (0.061) |  |
| Hispanic | 0.127 | \* | 0.105 |  | 0.098 |  |
|  | (0.075) |  | (0.074) |  | (0.073) |  |
| Education years | -0.011 |  | -0.010 |  | -0.006 |  |
|  | (0.008) |  | (0.008) |  | (0.008) |  |
| Married | -0.021 |  | -0.032 |  | -0.005 |  |
|  | (0.042) |  | (0.042) |  | (0.044) |  |
| Cognition score | -0.004 |  | -0.003 |  | -0.002 |  |
|  | (0.005) |  | (0.005) |  | (0.005) |  |
| Christian | 0.105  |  | 0.111  |  | 0.110  |  |
|  | (0.081) |  | (0.079) |  | (0.079) |  |
| Jewish | -0.013 |  | -0.026 |  | -0.010 |  |
|  | (0.146) |  | (0.142) |  | (0.143) |  |
| Procrastinator score | -0.006 |  | -0.005 |  | -0.005 |  |
|  | (0.006) |  | (0.006) |  | (0.006) |  |
| Optim. live 10+ years | -0.026 |  | -0.037 |  | -0.028 |  |
|  | (0.039) |  | (0.039) |  | (0.039) |  |
| Have living children | 0.099 |  | 0.101 |  | 0.112 |  |
|  | (0.073) |  | (0.071) |  | (0.070) |  |
| Leave any bequest | -0.154 | \*\*\* | -0.165 | \*\*\* | -0.145 | \*\*\* |
|  | (0.049) |  | (0.049) |  | (0.050) |  |
| Poor health index |  |  | -0.065 | \*\*\* | -0.063 | \*\*\* |
|  |  |  | (0.023) |  | (0.023) |  |
| Mental shortfall |  |  | 0.306 | \*\* | 0.295 | \*\* |
|  |  |  | (0.136) |  | (0.138) |  |
| Ln(HH income) |  |  |  |  | -0.050 | \*\*\* |
|  |  |  |  |  | (0.018) |  |
| Intercept | 0.289 |   | 0.256 |   | 0.736 | \* |
|   | (0.342) |   | (0.340) |   | (0.390) |   |
| N | 591 |  | 591 |  | 591 |  |
| Pseudo R-squared | 0.083 |  | 0.097 |  | 0.103 |  |
| Log pseudolikelihood | -400.1 |  | -393.9 |  | -391.3 |  |
| Mean of dep. Var. | 0.541 |  |  |  |  |  |
| Std.dev. of dep. Var. | 0.345 |   |   |   |   |   |

**Table C2. Association of Net Wealth and the Time Discount Rate for Older HRS Respondents**

|  |  |
| --- | --- |
|   | Net wealth ($1,000) |
| Discount rate | -346.885 | \*\* | -178.344 |   | -163.155 |   |
|  | (142.967) |  | (138.721) |  | (154.645) |  |
| =1 if disc. rate censored | -202.820 |  | -91.801 |  | -149.170 | \*\* |
|  | (155.225) |  | (139.443) |  | (71.055) |  |
| Age |  |  | -5.222 |  | -11.941 |  |
|  |  |  | (5.260) |  | (12.093) |  |
| Male |  |  | -9.519 |  | 58.088 |  |
|  |  |  | (103.918) |  | (92.099) |  |
| White |  |  | 221.231 | \*\* | 274.770 |  |
|  |  |  | (108.883) |  | (170.289) |  |
| Hispanic |  |  | 570.416 |  | 536.720 |  |
|  |  |  | (477.277) |  | (389.110) |  |
| Education years |  |  | 68.110 | \*\* | 87.746 | \* |
|  |  |  | (30.319) |  | (50.312) |  |
| Married |  |  | 107.182 |  | 269.169 |  |
|  |  |  | (88.179) |  | (190.319) |  |
| Cognition score |  |  | 12.440 |  | 15.105 |  |
|  |  |  | (14.249) |  | (16.941) |  |
| Christian |  |  | -137.339 |  | -191.487 |  |
|  |  |  | (233.015) |  | (255.336) |  |
| Jewish |  |  | 481.191 |  | 539.222 |  |
|  |  |  | (502.874) |  | (528.583) |  |
| Procrastinator score |  |  | 8.596 |  | 11.132 |  |
|  |  |  | (14.435) |  | (16.111) |  |
| Optim. live 10+ years |  |  | -139.073 |  | -84.662 |  |
|  |  |  | (128.901) |  | (105.376) |  |
| Have living children |  |  | 150.317 |  | 230.689 |  |
|  |  |  | (163.714) |  | (231.238) |  |
| Leave any bequest |  |  | 153.944 |  | 270.287 | \*\*\* |
|  |  |  | (158.421) |  | (78.541) |  |
| Poor health index |  |  |  |  | 38.763 |  |
|  |  |  |  |  | (63.612) |  |
| Mental shortfall |  |  |  |  | -258.357 |  |
|  |  |  |  |  | (209.425) |  |
| Ln(HH income) |  |  |  |  | -288.986 |  |
|  |  |  |  |  | (390.084) |  |
| Intercept | 672.955 | \*\*\* | -493.494 |   | 2430.360 |   |
|   | (95.682) |   | (533.003) |   | (3635.526) |   |
| N | 591 |  | 591 |  | 591 |  |
| R-squared | 0.007 |  | 0.056 |  | 0.094 |  |
| Mean of dep. vars | 482.537 |  |  |  |  |  |
| Std.dev. of dep. vars | 1,447.398 |   |   |   |   |   |

**Table C3. Association of Health Index with the Time Discount Rate for Older HRS Respondents**

|  |  |
| --- | --- |
|   | Healthy Behaviors Index |
| Discount rate  | -0.263 |  | -0.235 |  | -0.244 |   |
|  | (0.169) |  | (0.165) |  | (0.167) |  |
| =1 if disc. rate censored | -0.185 | \* | -0.167 | \* | -0.146 |  |
|  | (0.098) |  | (0.099) |  | (0.100) |  |
| Age |  |  | 0.039 | \*\*\* | 0.040 | \*\*\* |
|  |  |  | (0.008) |  | (0.008) |  |
| Male |  |  | -0.271 | \*\*\* | -0.311 | \*\*\* |
|  |  |  | (0.100) |  | (0.101) |  |
| White |  |  | 0.082 |  | 0.070 |  |
|  |  |  | (0.126) |  | (0.124) |  |
| Hispanic |  |  | 0.060 |  | 0.107 |  |
|  |  |  | (0.160) |  | (0.158) |  |
| Education years |  |  | 0.018 |  | 0.014 |  |
|  |  |  | (0.018) |  | (0.017) |  |
| Married |  |  | 0.108 |  | 0.067 |  |
|  |  |  | (0.094) |  | (0.098) |  |
| Cognition score |  |  | 0.012 |  | 0.011 |  |
|  |  |  | (0.011) |  | (0.011) |  |
| Christian |  |  | 0.309 |  | 0.306 |  |
|  |  |  | (0.224) |  | (0.232) |  |
| Jewish |  |  | 0.151 |  | 0.098 |  |
|  |  |  | (0.306) |  | (0.306) |  |
| Procrastinator score |  |  | -0.011 |  | -0.012 |  |
|  |  |  | (0.013) |  | (0.013) |  |
| Optim. live 10+ years |  |  | -0.127 |  | -0.141 |  |
|  |  |  | (0.088) |  | (0.088) |  |
| Have living children |  |  | -0.296 |  | -0.320 | \* |
|  |  |  | (0.187) |  | (0.184) |  |
| Leave any bequest |  |  | 0.139 |  | 0.133 |  |
|  |  |  | (0.108) |  | (0.110) |  |
| Poor health index |  |  |  |  | 0.045 |  |
|  |  |  |  |  | (0.050) |  |
| Mental shortfall |  |  |  |  | 0.261 |  |
|  |  |  |  |  | (0.175) |  |
| Ln(HH income) |  |  |  |  | 0.070 | \*\* |
|  |  |  |  |  | (0.033) |  |
| Intercept | 3.458 | \*\*\* | -0.167 |   | -0.915 |   |
|   | (0.084) |   | (0.772) |   | (0.834) |   |
| N | 514 |  | 514 |  | 514 |  |
| R-squared | 0.011 |  | 0.111 |  | 0.123 |  |
| Mean of dep. vars | 3.305 |  |  |  |  |  |
| Std.dev. of dep. vars | 0.970 |   |   |   |   |   |

**Table C4. Association of the End of Life Index with the Time Discount Rate for Older HRS Respondents**

|  |  |
| --- | --- |
|   | End of Life Index |
| Discount rate  | -0.379 |  | -0.111 |  | -0.112 |   |
|  | (0.252) |  | (0.229) |  | (0.231) |  |
| =1 if disc. rate censored | -0.438 | \*\*\* | -0.159 |  | -0.147 |  |
|  | (0.122) |  | (0.117) |  | (0.119) |  |
| Age |  |  | 0.030 | \*\* | 0.029 | \*\* |
|  |  |  | (0.012) |  | (0.012) |  |
| Male |  |  | -0.134 |  | -0.171 |  |
|  |  |  | (0.116) |  | (0.120) |  |
| White |  |  | 0.542 | \*\*\* | 0.519 | \*\*\* |
|  |  |  | (0.149) |  | (0.149) |  |
| Hispanic |  |  | -0.704 | \*\*\* | -0.656 | \*\*\* |
|  |  |  | (0.166) |  | (0.172) |  |
| Education years |  |  | 0.105 | \*\*\* | 0.101 | \*\*\* |
|  |  |  | (0.020) |  | (0.020) |  |
| Married |  |  | -0.321 | \*\*\* | -0.347 | \*\*\* |
|  |  |  | (0.112) |  | (0.116) |  |
| Cognition score |  |  | 0.021 |  | 0.019 |  |
|  |  |  | (0.014) |  | (0.014) |  |
| Christian |  |  | 0.337 |  | 0.304 |  |
|  |  |  | (0.261) |  | (0.256) |  |
| Jewish |  |  | 0.624 |  | 0.573 |  |
|  |  |  | (0.484) |  | (0.481) |  |
| Procrastinator score |  |  | -0.007 |  | -0.008 |  |
|  |  |  | (0.015) |  | (0.015) |  |
| Optim. live 10+ years |  |  | -0.029 |  | -0.031 |  |
|  |  |  | (0.106) |  | (0.108) |  |
| Have living children |  |  | 0.285 |  | 0.264 |  |
|  |  |  | (0.234) |  | (0.232) |  |
| Leave any bequest |  |  | 0.084 |  | 0.058 |  |
|  |  |  | (0.122) |  | (0.125) |  |
| Poor health index |  |  |  |  | 0.059 |  |
|  |  |  |  |  | (0.060) |  |
| Mental shortfall |  |  |  |  | 0.274 |  |
|  |  |  |  |  | (0.241) |  |
| Ln(HH income) |  |  |  |  | 0.069 |  |
|  |  |  |  |  | (0.054) |  |
| Intercept | 1.921 | \*\*\* | -3.150 | \*\*\* | -3.624 | \*\*\* |
|   | (0.115) |   | (1.065) |   | (1.181) |   |
| N | 487 |  | 487 |  | 487 |  |
| R-squared | 0.029 |  | 0.256 |  | 0.261 |  |
| Mean of dep. var. | 1.655 |  |  |  |  |  |
| Std.dev. of dep. var. | 1.264 |   |   |   |   |   |

**Table C5. Association of Social Security Claiming Age, the Difference between Expected and Actual Social Security Claiming Age, and the Time Discount Rate for Older HRS Respondents**

|  |  |  |
| --- | --- | --- |
|   | A. Age received Social Security | B. Actual - Expected Soc Sec Claim Age |
| Discount rate | -0.049 |  | -0.058 |  | -0.067 |   | 0.493 |  | 0.501 |  | 0.491 |  |
|  | (0.431) |  | (0.443) |  | (0.437) |  | (0.572) |  | (0.595) |  | (0.593) |  |
| =1 if disc. rate censored | -0.432 | \*\* | -0.421 | \* | -0.434 | \*\* | -0.307 |  | -0.294 |  | -0.310 |  |
|  | (0.205) |  | (0.218) |  | (0.220) |  | (0.272) |  | (0.308) |  | (0.325) |  |
| Age |  |  | 0.089 | \*\*\* | 0.098 | \*\*\* |   |  | 0.090 | \*\* | 0.093 | \*\* |
|  |  |  | (0.023) |  | (0.023) |  |   |  | (0.043) |  | (0.043) |  |
| Male |  |  | 0.229 |  | 0.311 |  |   |  | -0.174 |  | -0.128 |  |
|  |  |  | (0.205) |  | (0.207) |  |   |  | (0.304) |  | (0.314) |  |
| White |  |  | -0.248 |  | -0.288 |  |   |  | -0.384 |  | -0.377 |  |
|  |  |  | (0.315) |  | (0.313) |  |   |  | (0.423) |  | (0.427) |  |
| Hispanic |  |  | 0.545 |  | 0.531 |  |   |  | 0.481 |  | 0.404 |  |
|  |  |  | (0.345) |  | (0.359) |  |   |  | (0.554) |  | (0.569) |  |
| Education years |  |  | 0.105 | \*\*\* | 0.102 | \*\*\* |   |  | 0.011 |  | 0.014 |  |
|  |  |  | (0.034) |  | (0.035) |  |   |  | (0.052) |  | (0.053) |  |
| Married |  |  | -0.043 |  | -0.171 |  |   |  | -0.006 |  | -0.067 |  |
|  |  |  | (0.198) |  | (0.211) |  |   |  | (0.294) |  | (0.315) |  |
| Cognition score |  |  | -0.038 |  | -0.039 |  |   |  | 0.023 |  | 0.018 |  |
|  |  |  | (0.026) |  | (0.025) |  |   |  | (0.043) |  | (0.043) |  |
| Christian |  |  | -0.446 |  | -0.491 |  |   |  | -0.183 |  | -0.152 |  |
|  |  |  | (0.440) |  | (0.457) |  |   |  | (0.541) |  | (0.551) |  |
| Jewish |  |  | 1.122 |  | 1.019 |  |   |  | -2.773 | \*\*\* | -2.613 | \*\*\* |
|  |  |  | (0.923) |  | (0.909) |  |   |  | (0.959) |  | (0.970) |  |
| Procrastinator score |  |  | 0.001 |  | 0.008 |  |   |  | 0.036 |  | 0.038 |  |
|  |  |  | (0.029) |  | (0.029) |  |   |  | (0.046) |  | (0.046) |  |
| Optim. live 10+ years |  |  | 0.174 |  | 0.132 |  |   |  | 0.285 |  | 0.243 |  |
|  |  |  | (0.189) |  | (0.194) |  |   |  | (0.275) |  | (0.285) |  |
| Have living children |  |  | -0.435 |  | -0.407 |  |   |  | -0.245 |  | -0.222 |  |
|  |  |  | (0.605) |  | (0.613) |  |   |  | (0.952) |  | (0.953) |  |
| Leave any bequest |  |  | 0.124 |  | -0.015 |  |   |  | 0.497 |  | 0.447 |  |
|  |  |  | (0.256) |  | (0.278) |  |   |  | (0.442) |  | (0.469) |  |
| Poor health index |  |  |  |  | -0.220 | \*\* |   |  |  |  | -0.175 |  |
|  |  |  |  |  | (0.112) |  |   |  |  |  | (0.164) |  |
| Mental shortfall |  |  |  |  | -0.629 |  |   |  |  |  | -1.713 | \*\*\* |
|  |  |  |  |  | (0.764) |  |   |  |  |  | (0.484) |  |
| Ln(HH income) |  |  |  |  | 0.180 |  |   |  |  |  | 0.045 |  |
|  |  |  |  |  | (0.122) |  |   |  |  |  | (0.152) |  |
| Intercept | 63.558 | \*\*\* | 56.889 | \*\*\* | 54.734 | \*\*\* | -0.272 |   | -7.734 | \*\* | -8.179 | \*\* |
|   | (0.191) |   | (1.977) |   | (2.368) |   | (0.267) |   | (3.541) |   | (4.002) |   |
| N | 465 |  | 465 |  | 465 |  | 350 |  | 350 |  | 350 |  |
| R-squared | 0.009 |  | 0.100 |  | 0.119 |  | 0.005 |  | 0.068 |  | 0.074 |  |
| Mean of dep. vars | 63.413 |  |  |  |  |  | -0.181 |  |  |  |  |  |
| Std.dev. of dep. vars | 2.041 |   |   |   |   |   | 2.466 |   |   |   |   |   |