## The Consequences of Claiming Social Security Benefits at Age 62

## Online Appendix B: Estimates for Alternative Samples Using Less Restrictive Matching

In this appendix, we present robustness estimates for our main specification using less restrictive matching, which enables the use of a larger portion of the original sample. As noted in the main text, our main matching specification uses exact matching on liquid wealth quintile and nearest matching on value. The less restrictive match, as noted in Table 1, replaces exact matching on liquid wealth quintile with matching on nearest wealth quintile and does not attempt to match on the value of liquid wealth. The less restrictive match leads to greater variation in match quality on liquid wealth.

A major benefit of the less restrictive match is that it also enables matching on other samples as a check on the robustness of our results on post-62 age differences in outcomes from claiming social security at age 62. We consider eight alternative samples with less restrictive matching:

- 1. Married (Male Filer), Main Specification
- 2. Divorced Men
- 3. Divorced Women
- 4. Widowed Women
- 5. Married (Male Filer), No Health Shocks
- 6. Married (Male Filer), Already Retired
- 7. Married (Male Filer), Only Post-62 Claimants
- 8. Married (Male Filer), Only Respondents with 50/50 survival expectation

Table B1 compares standardized differences before and after the match using the less restrictive matching specification. Figures B1 to B6 provide parallel representations of the outcomes presented in Figures 3, 4 and 5 in the main text. Figures for divorced men and widowed women were omitted because the number of individuals claiming at age 62 was less than 40, our threshold for inclusion of any results. Other samples have fewer years before and after age 62 representing in Figures B1 to B6 for similar reasons. Ultimately, the additional analyses in this appendix are primarily aimed at addressing potential concerns with our main findings, namely:

- a. Age-62 claimants, when compared to otherwise similar individuals, were substantially more likely to stop working at age 62, cash out their DC plans, and begin receiving pension and annuity income
- b. Age-62 claimants, when compared to otherwise similar individuals, were not associated with a number of negative outcomes, including mortality and financial hardship measures, such as whether respondents reported having skipped meals or not having enough food in the house, whether they took on new debt, their overall debt level, and whether they had difficulty paying bills.

In the following subsections, we briefly compare each of the alternative samples for which we have at least 40 matched age-62 claimants (or in the case of post-62 claimants, those that retire before the normal retirement age) to the sample in the main paper and discuss the quality of the match and consistency of the findings.

Married men claiming at 62 (less restrictive match)

Table B1 demonstrates that variance ratio of liquid wealth is 0.72 with the less restrictive match described in Table 1, compared to 1.01 in our main specification. A variance ratio less than 1 suggests that individuals claiming at age 62 exhibit substantially less variation in their

liquid wealth than their matched counterparts. As liquid wealth is a potentially important predictor of claiming behavior, we use exact matching in the main text. However, this restriction results in substantial sample loss – the number of married male age 62 claimants decreases from 754 to 572. Along most other dimensions, the match quality using the less restrictive match for our main specification of married male age 62 claimants is similar. Two exceptions are individuals in excellent health at age 60 and homeownership – the match quality on these dimensions is made worse with the less restrictive match. Overall, the quality of the match is good, and Figure B1 demonstrated that there are generally no differences in pre-claiming outcomes.

Consistent with our main findings, age-62 claimants have:

- more social security income before age 66 and less income after age 66 (this reflects that early claiming results in a permanently lower benefit); a similar but smaller and generally insignificant pattern exists for pension and annuity income
- lower probability of working, having a DC plan, and lower household income
- similar IRA assets and liquid wealth immediately after age 62, with a negative difference arising at later ages that is not consistently significant
- no statistically significant differences in mortality or other negative outcomes (i.e., having debt, debt level, having low liquidity, and self-reported probability of having enough food)
- sporadic significant differences by age for zero liquidity, however, the overall trend indicates no persistent difference

## Divorced women

Table B1 demonstrates that the match specification is largely good at addressing major differences between age-62 claimants and post-age-62 claimants, with major exceptions including liquid wealth, total household income, and any government transfers (volatility ratios = 1.91, 1.80, and 1.73, respectively). Due to sample size, Figure B2 only presents most outcomes through age 72, but the patterns largely follow those for married men. Two exceptions are household income, which is lower but not significantly so, and mortality, which is significantly higher at ages 72 and 74. The difference in household income may reflect that divorced women's social security income more closely replaces their income before age 62, reflecting the lower average annual earnings of divorced women relative to married men (\$26,900 versus \$38,200) and the progressivity of the social security benefit. The latter difference may reflect the weak match on expected likelihood of living to 75 and could be addressed if this factor was more exactly matched on.

Married men claiming at 62 with no health or marital shocks

It is plausible that the sample used in our main analysis might reflect age-62 claimants that are claiming out of necessity due to changing health and marital circumstance around age 62. In this analysis, we restrict our main sample to men that (a) do not exhibit poor health or working limiting health conditions at their interview immediately prior to reaching age 62 or their first interview after age 62 and (b) remain married through their first interview after age 62. This restriction reduces the less restrictive sample from 754 age 62 claimants to 531.

Table B1 demonstrates that the match specification is good at addressing major differences between age-62 claimants and post-age-62 claimants. Figure B3 demonstrate that the patterns largely follow findings for married men. One exception is that in this sample, aged-62

claimants are less likely to have a DC plan prior to age-62, however, similar to the main analysis, there is a decline in DC plan participation starting at age 62.

Married men claiming at 62 that were retired at the last interview prior to age 62

Many age-62 claimants were not working prior to age 62. For simplicity, we refer to these individuals as having retired by 62. Individuals retired by 62 may differ from our main sample in important ways: by retiring at a young age, they may have accumulated sufficient retirement saving to fund their needs, making social security claiming more of a financial decision (e.g., claim later to increase monthly benefits) and less one about current need. Alternatively, individuals may have retired early because of a job loss or inability to work, in which case claiming at age 62 could be more about need. In this analysis, we restrict our main sample to men that are not working for pay at their interview immediately prior to reaching age 62.

Table B1 demonstrates that our main match specification is slightly poorer at addressing some major differences between age-62 claimants and post-age-62 claimants in this group.

Those claiming age 62 who were not working prior to 62 are more likely to be in excellent health and have higher liquid wealth. Importantly, the match specification cannot fully address these differences. As a result of the sample differences and poorer match, Figure B4 demonstrate that outcomes for the already retired group differ. For example, not only are social security earnings for age-62 claimant significantly greater before the normal retirement age, but they remain greater after the normal retirement age. Despite differences in the outcomes, there is nothing to suggest that age-62 claimants in this matched sample are worse off between ages 62 and 72, nor are they significantly better off.

Married men claiming before FRA relative to delaying claiming later

As mentioned in the introduction, a motivation for recent efforts to promote delayed claiming is to promote retirement security, but age-62 claimants may represent a particular group of earlier claimers. In this analysis, we change our definition of early claimers: individuals that claim after age 62, and define early claimers as individuals that claim prior to their FRA (i.e., generally ages 63 and 64) from those that claim later. Individuals that claim after the FRA may receive delay retirement credits that permanently increase their permanent monthly benefit once they do claim. Age-62 claimants are excluded from the analysis.

Table B1 demonstrates that the match specification is generally good at addressing major differences between early and late claimants. Figure B5 demonstrate that the patterns largely follow findings comparing age-62 claimant to post-age-62 claimants. The main exceptions are (a.) differences that arose at 62 are delayed, typically arising at ages 64-66 rather than 62-64, and (b) differences in income are smaller and do not persist into the 70s, and (c) there are no differences in wealth that emerge in the 70s. Our findings using this alternative definition of early claimants are consistent with our main sample and analysis and suggest that additional years of work narrow gaps in household income and wealth that emerge after age 62 between age-62 claimants and later claimants.

Married men with a 50% self-reported probability of surviving to 75

One of the main exceptions to the common advice to delay claiming is that individuals with a limited life expectancy may wish to claim early. Figure 1 notes that regardless of one's discount rate, individuals dying by 75 would receive greater lifetime benefits by claiming at age 62 rather than age 66. In this analysis, we restrict our original sample to individuals that report a 50% probability of surviving to age 75 to fully control for differences in expected survival.

Table B1 demonstrates that the match specification is poorer at addressing major differences between age-62 and post-age-62 claimants. Even after the match, age 62 claimants are more likely at the interview prior to reaching age 62 to report having short financial planning horizons, report being in poor or fair health, not have a DC plan, have lower earnings, and be receiving government transfers. Despite these differences, Figure B6 demonstrates that the patterns largely follow findings comparing age-62 claimant to post-age-62 claimants. The main exception is declines in liquid wealth are more accentuated and are statistically significant by age 66 (compared to age 74 in Figure 4), potentially reflecting the poor match on the short financial planning horizons. Regarding negative outcomes after age 62, such as mortality, being in debt, or having enough to eat, we do not see any significant difference between age-62 claimants and later claimants.

Table B1. Age 60/61 Household Characteristics Differences with Matched Later Claimants, Alternative Household Samples

		Standardized Differences		Variance Ratios	
		Raw	Matched	Raw	Matched
Birth Year	Married (Male Filer), Main Specification	-0.32	-0.16	0.79	0.84
	Less restrictive matching				
	Married (Male Filer), Main Specification	-0.34	-0.15	0.76	0.89
	Divorced Men	-0.45	-0.22	0.54	0.61
	Divorced Women	-0.31	-0.26	0.91	1.05
	Widowed Women	-0.10	0.15	0.79	0.91
	Married (Male Filer), No Health Shocks	-0.33	-0.12	0.75	0.93
	Married (Male Filer), Already Retired	-0.52	-0.34	0.68	0.87
	Married (Male Filer), Only Post-62 Claimants	-0.28	-0.15	0.58	0.66
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.31	-0.15	0.84	0.94
Years of	Married (Male Filer), Main Specification	-0.30	-0.14	0.92	0.94
Education	Less restrictive matching				
	Married (Male Filer), Main Specification	-0.24	-0.17	0.84	0.96
	Divorced Men	-0.78	-0.69	1.21	1.31
	Divorced Women	-0.33	0.02	1.37	1.43
	Widowed Women	-0.43	-0.35	1.02	1.00
	Married (Male Filer), No Health Shocks	-0.29	-0.14	0.90	1.05
	Married (Male Filer), Already Retired	0.00	-0.20	0.91	1.06
	Married (Male Filer), Only Post-62 Claimants	-0.14	-0.22	0.96	1.10
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.32	-0.21	0.80	0.80
Financial	Married (Male Filer), Main Specification	0.09	0.16	1.17	1.36
Planning	Less restrictive matching				

Horizon One	Married (Male Filer), Main Specification	0.07	0.16	1.13	1.36
Year or Less	Divorced Men	0.27	0.65	1.59	7.05
	Divorced Women	0.15	0.29	1.20	1.49
	Widowed Women	0.08	0.00	1.09	1.00
	Married (Male Filer), No Health Shocks	0.10	0.20	1.21	1.49
	Married (Male Filer), Already Retired	-0.22	-0.06	0.70	0.89
	Married (Male Filer), Only Post-62 Claimants	-0.09	0.05	0.84	1.12
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.17	0.48	1.38	3.95
Job Tenure	Married (Male Filer), Main Specification	-0.05	-0.04	1.17	1.19
	Less restrictive matching				
	Married (Male Filer), Main Specification	-0.03	0.00	1.18	1.24
	Divorced Men	-0.04	0.28	1.10	1.41
	Divorced Women	-0.03	0.17	1.05	1.33
	Widowed Women	0.02	-0.02	1.21	0.92
	Married (Male Filer), No Health Shocks	-0.02	0.02	1.16	1.21
	Married (Male Filer), Already Retired		•		
	Married (Male Filer), Only Post-62 Claimants	-0.06	-0.08	1.10	1.14
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.12	0.12	1.19	1.07
Earnings	Married (Male Filer), Main Specification	-0.39	-0.18	0.77	0.80
	Less restrictive matching				
	Married (Male Filer), Main Specification	-0.36	-0.13	0.78	0.86
	Divorced Men	0.12	0.31	1.01	1.00
	Divorced Women	-0.48	-0.05	0.81	0.92
	Widowed Women	-0.65	-0.36	0.45	0.52
	Married (Male Filer), No Health Shocks	-0.40	-0.11	0.79	0.92
	Married (Male Filer), Already Retired	0.03	0.10	0.90	0.99

	Married (Male Filer), Only Post-62 Claimants	-0.05	0.01	0.86	0.85
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.44	-0.18	0.88	0.76
Job Effort	Married (Male Filer), Main Specification	-0.24	-0.09	0.78	0.90
Requires No Physical Effort	Less restrictive matching				
111,51001 211010	Married (Male Filer), Main Specification	-0.20	-0.05	0.82	0.94
	Divorced Men	-0.80	-0.85	0.31	0.30
	Divorced Women	-0.06	0.00	0.97	1.00
	Widowed Women	0.00	0.00	1.02	1.00
	Married (Male Filer), No Health Shocks	-0.21	-0.02	0.81	0.97
	Married (Male Filer), Already Retired				ė
	Married (Male Filer), Only Post-62 Claimants	-0.10	-0.09	0.92	0.93
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.21	0.02	0.77	1.03
Job Requires	Married (Male Filer), Main Specification	0.20	0.10	1.08	1.03
Physical Effort Most/All of	Less restrictive matching				
Time	Married (Male Filer), Main Specification	0.14	0.08	1.06	1.03
	Divorced Men	0.33	0.00	1.12	1.00
	Divorced Women	0.08	0.00	1.04	1.00
	Widowed Women	0.09	0.14	1.08	1.10
	Married (Male Filer), No Health Shocks	0.17	0.05	1.08	1.02
	Married (Male Filer), Already Retired				•
	Married (Male Filer), Only Post-62 Claimants	0.07	0.10	1.04	1.06
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.22	0.05	1.07	1.01
Job Stressful	Married (Male Filer), Main Specification	-0.07	-0.06	1.01	1.01
	Less restrictive matching				

	Married (Male Filer), Main Specification	-0.08	-0.04	1.01	1.00
	Divorced Men	-0.52	-0.61	1.18	1.28
	Divorced Women	-0.10	-0.14	1.06	1.10
	Widowed Women	-0.04	0.27	1.03	0.98
	Married (Male Filer), No Health Shocks	-0.08	0.05	1.01	1.00
	Married (Male Filer), Already Retired				
	Married (Male Filer), Only Post-62 Claimants	0.02	-0.01	1.00	1.00
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.01	-0.03	1.00	1.00
Work-Limited	Married (Male Filer), Main Specification	0.04	0.11	1.05	1.19
	Less restrictive matching				
	Married (Male Filer), Main Specification	0.08	0.14	1.11	1.22
	Divorced Men	0.26	0.23	1.29	1.25
	Divorced Women	0.33	0.09	1.36	1.06
	Widowed Women	0.26	0.52	1.38	2.31
	Married (Male Filer), No Health Shocks	n/a	n/a		
	Married (Male Filer), Already Retired	-0.28	-0.11	0.92	0.95
	Married (Male Filer), Only Post-62 Claimants	0.07	0.20	1.11	1.39
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.08	0.13	1.12	1.21
Expected Likelihood of	Married (Male Filer), Main Specification	-0.10	-0.15	1.07	1.27
Living to 75	Less restrictive matching				
6	Married (Male Filer), Main Specification	-0.11	-0.15	1.06	1.33
	Divorced Men	-0.43	-0.59	1.45	2.62
	Divorced Women	-0.13	0.03	0.95	0.85
	Widowed Women	0.21	0.17	0.70	0.99
	Married (Male Filer), No Health Shocks	-0.10	-0.14	1.10	1.42
	Married (Male Filer), Already Retired	0.02	0.00	0.79	0.88

	Married (Male Filer), Only Post-62 Claimants		-0.04	-0.09	1.13	1.40
	Married (Male Filer), Only Respondents with 50/50 survival expectation	n/a		n/a		
Poor Health	Married (Male Filer), Main Specification		0.01	0.06	1.07	1.79
	Less restrictive matching					
	Married (Male Filer), Main Specification		0.01	0.06	1.05	1.61
	Divorced Men		0.41	0.41		
	Divorced Women		0.06	0.06	1.55	1.49
	Widowed Women		0.26	0.26		
	Married (Male Filer), No Health Shocks	n/a		n/a		
	Married (Male Filer), Already Retired		-0.26	0.03	0.35	1.16
	Married (Male Filer), Only Post-62 Claimants		0.01	0.07	1.05	1.79
	Married (Male Filer), Only Respondents with 50/50 survival expectation		-0.06	0.12	0.53	
Fair Health	Married (Male Filer), Main Specification		0.13	0.22	1.34	1.71
	Less restrictive matching					
	Married (Male Filer), Main Specification		0.10	0.18	1.26	1.53
	Divorced Men		0.41	0.60	3.69	
	Divorced Women		0.20	0.15	1.42	1.29
	Widowed Women		-0.26	-0.10	0.60	0.78
	Married (Male Filer), No Health Shocks		0.09	0.20	1.28	1.96
	Married (Male Filer), Already Retired		-0.19	-0.03	0.68	0.94
	Married (Male Filer), Only Post-62 Claimants		0.01	0.17	1.03	1.68
	Married (Male Filer), Only Respondents with 50/50 survival expectation		0.25	0.27	1.67	1.73
Excellent	Married (Male Filer), Main Specification		-0.13	0.09	0.79	1.24
Health	Less restrictive matching					

	Married (Male Filer), Main Specification	-0.07	0.12	0.88	1.27
	Divorced Men	-0.22	-0.31	0.57	0.48
	Divorced Women	-0.10	0.16	0.83	1.46
	Widowed Women	0.28	0.20	2.00	1.54
	Married (Male Filer), No Health Shocks	-0.05	0.12	0.93	1.23
	Married (Male Filer), Already Retired	0.32	0.29	1.85	1.73
	Married (Male Filer), Only Post-62 Claimants	0.02	0.08	1.04	1.15
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.08	0.05	0.82	1.14
Covered by	Married (Male Filer), Main Specification	0.03	0.10	1.02	1.07
Retiree Health Insurance	Less restrictive matching				
	Married (Male Filer), Main Specification	0.12	0.10	1.06	1.05
	Divorced Men	0.40	-0.10	1.24	1.00
	Divorced Women	-0.08	0.27	0.94	1.46
	Widowed Women	-0.16	-0.16	0.84	0.82
	Married (Male Filer), No Health Shocks	0.13	0.02	1.06	1.01
	Married (Male Filer), Already Retired	0.20	0.01	1.00	1.00
	Married (Male Filer), Only Post-62 Claimants	0.17	0.20	1.11	1.14
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.01	0.13	1.00	1.11
Defined	Married (Male Filer), Main Specification	-0.30	-0.10	0.86	0.93
Contribution Pension	Less restrictive matching				
Entitlement	Married (Male Filer), Main Specification	-0.31	-0.11	0.86	0.93
	Divorced Men	-0.09	0.00	1.00	1.00
	Divorced Women	-0.37	-0.16	0.83	0.89
	Widowed Women	-0.21	0.00	0.90	1.00
	Married (Male Filer), No Health Shocks	-0.35	-0.17	0.87	0.90
	Married (Male Filer), Already Retired	-0.10	0.08	0.84	1.19

	Married (Male Filer), Only Post-62 Claimants	-0.17	-0.11	0.97	0.97
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.36	-0.13	0.81	0.89
Homeowner	Married (Male Filer), Main Specification	0.05	-0.06	0.88	1.19
	Less restrictive matching				
	Married (Male Filer), Main Specification	0.08	-0.09	0.83	1.28
	Divorced Men	-0.05	0.48	1.03	1.08
	Divorced Women	-0.12	0.10	1.05	0.99
	Widowed Women	-0.44	-0.07	1.13	0.99
	Married (Male Filer), No Health Shocks	0.12	-0.11	0.75	1.44
	Married (Male Filer), Already Retired	0.24	-0.06	0.59	1.20
	Married (Male Filer), Only Post-62 Claimants	0.03	-0.04	0.95	1.09
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.14	0.03	0.68	0.92
Housing Wealth	Married (Male Filer), Main Specification	-0.11	-0.18	0.83	0.92
	Less restrictive matching				
	Married (Male Filer), Main Specification	-0.05	-0.09	0.80	0.95
	Divorced Men	-0.03	0.22	1.07	1.26
	Divorced Women	-0.19	0.05	0.75	1.14
	Widowed Women	-0.28	0.01	0.65	0.92
	Married (Male Filer), No Health Shocks	-0.09	-0.17	0.77	0.91
	Married (Male Filer), Already Retired	0.19	-0.14	0.79	0.68
	Married (Male Filer), Only Post-62 Claimants	0.01	-0.10	1.05	0.97
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.02	-0.08	1.09	1.15
Liquid Wealth	Married (Male Filer), Main Specification	-0.11	0.00	0.78	1.01
	Less restrictive matching				

	Married (Male Filer), Main Specification	-0.06	-0.04	0.83	0.72
	Divorced Men	-0.39	-0.08	0.29	0.92
	Divorced Women	0.04	0.11	1.58	1.91
	Widowed Women	-0.47	-0.31	0.09	0.48
	Married (Male Filer), No Health Shocks	-0.09	-0.11	0.84	0.66
	Married (Male Filer), Already Retired	0.20	0.24	1.23	1.71
	Married (Male Filer), Only Post-62 Claimants	0.04	-0.05	1.00	0.95
	Married (Male Filer), Only Respondents with 50/50 survival expectation	0.01	0.00	1.11	1.33
Total	Married (Male Filer), Main Specification	-0.30	0.00	0.69	0.91
Household Income	Less restrictive matching				
meeme	Married (Male Filer), Main Specification	-0.28	-0.02	0.73	0.87
	Divorced Men	-0.34	0.03	1.14	1.04
	Divorced Women	-0.36	0.07	1.31	1.80
	Widowed Women	-0.26	0.08	0.88	1.34
	Married (Male Filer), No Health Shocks	-0.35	-0.02	0.69	0.91
	Married (Male Filer), Already Retired	0.11	0.08	1.26	1.57
	Married (Male Filer), Only Post-62 Claimants	-0.02	-0.01	0.92	1.01
	Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.28	0.00	0.80	0.90
Any	Married (Male Filer), Main Specification	0.18	0.26	1.30	1.52
Government Cash Benefits	Less restrictive matching				
Cash Delicitis	Married (Male Filer), Main Specification	0.12	0.23	1.21	1.51
	Divorced Men	0.26	0.17	2.16	1.57
	Divorced Women	0.19	0.25	1.49	1.73
	Widowed Women	0.36	0.52	1.64	2.31
	Married (Male Filer), No Health Shocks	0.13	0.22	1.24	1.49

Married (Male Filer), Already Retired	-0.12	0.09	0.88	1.12
Married (Male Filer), Only Post-62 Claimants	0.15	0.29	1.31	1.85
Married (Male Filer), Only Respondents with 50/50 survival expectation	-0.04	0.21	0.95	1.51

Notes: Sample sizes are as follows:

Married (Male Filer), Main Specification: Sample size = 1524, Number claiming at 62 = 572

Less restrictive matching

Married (Male Filer), Main Specification: Sample size = 2029, Number claiming at 62 = 754

Divorced Men: Sample size = 91, Number claiming at 62 = 38

Divorced Women: Sample size = 425, Number claiming at 62 = 118

Widowed Women: Sample size = 80, Number claiming at 62 = 29

Married (Male Filer), No Health Shocks: Sample size = 1426, Number claiming at 62 = 531

Married (Male Filer), Already Retired: Sample size = 365, Number claiming at 62 = 227

Married (Male Filer), Only Post-62 Claimants: Sample size = 1246, Number claiming before NRA = 547

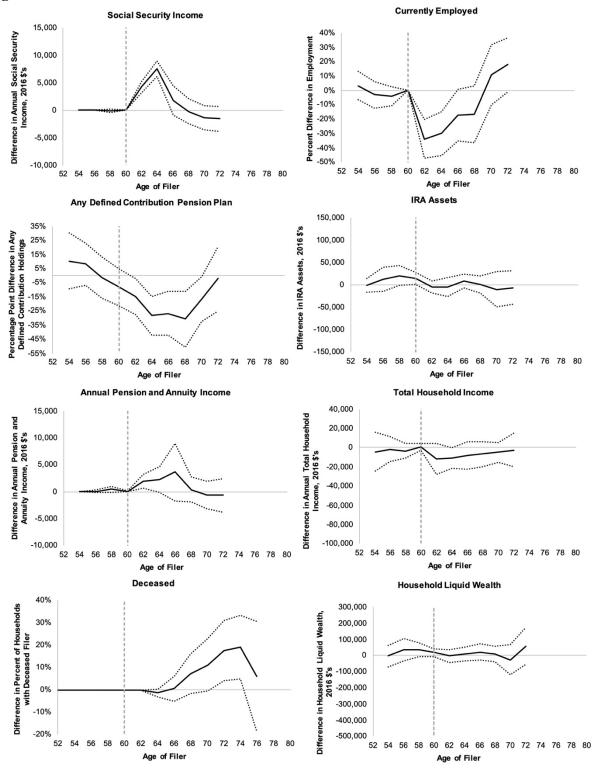
Married (Male Filer), Only Respondents with 50/50 survival expectation: Sample size = 386, Number claiming at 62 = 149

**Currently Employed** Social Security Income 15,000 10% Difference in Annual Social Security Income, 2016 \$'s Percent Difference in Employmen 10,000 -10% 5,000 -20% -30% -5,000 -40% -10,000 66 68 70 72 74 76 78 80 62 64 66 68 70 72 74 76 78 80 Age of Filer **IRA Assets** Any Defined Contribution Pension Plan 150,000 15% Difference in IRA Assets, 2016 \$'s 100,000 50,000 -50,000 -100,000 -150,000 66 68 70 72 74 76 78 80 52 54 58 60 62 64 66 68 70 72 74 76 78 80 52 58 **Annual Pension and Annuity Income** Total Household Income 40,000 15,000 Difference in Annual Total Household Income, 2016 \$'s Difference in Annual Pension and Annuity Income, 2016 \$'s 20,000 10,000 5,000 -20,000 -40,000 -60,000 -5,000 -80,000 -100,000 -10,000 70 72 74 76 78 80 52 62 64 66 68 70 72 74 76 78 80 **Household Liquid Wealth** 20% 300,000 Difference in Percent of Households with Deceased Male Filer Difference in Household Liquid Wealth, 2016 \$'s 200,000 15% 100,000 10% 5% -100,000 -200,000 0% -300,000 -400,000 -500,000 52 58 60 62 64 66 68 70 72 74 76 78 80

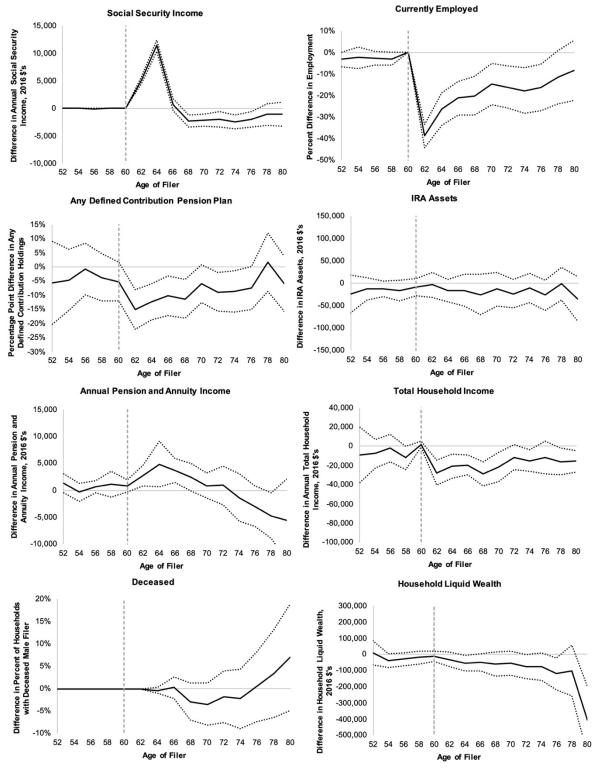
Figure B1: Married (Male Filer), Main Specification with Less Restrictive Sample

Notes: Model estimates by age for the sample using the less restrictive match noted in Table 1.

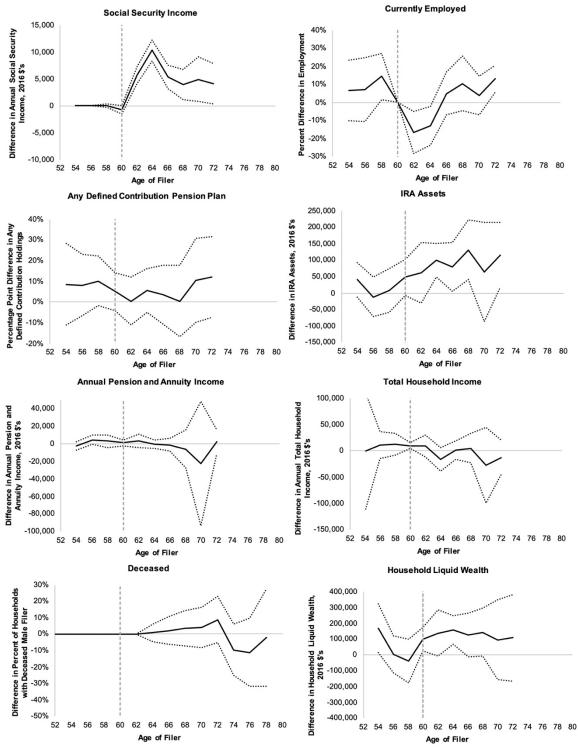
Figure B2. Divorced Women

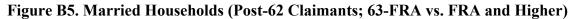


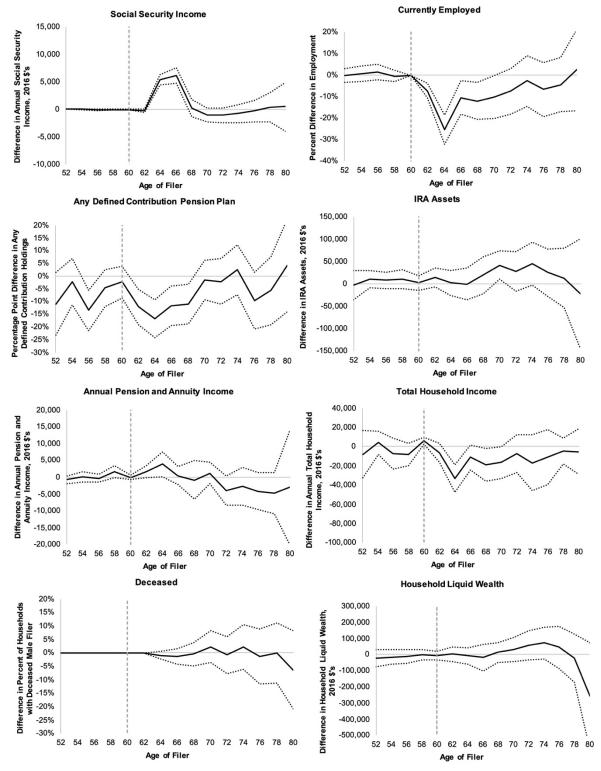












Currently Employed Social Security Income 15,000 30% Difference in Annual Social Security Income, 2016 \$'s Percent Difference in Employmen 20% 10,000 10% 0% 5,000 -10% -20% -30% -5,000 -40% -10,000 52 56 62 64 66 68 70 72 74 76 78 80 62 64 66 68 70 72 74 76 78 80 Age of Filer **IRA Assets** Any Defined Contribution Pension Plan 150,000 20% Percentage Point Difference in Any
Defined Contribution Holdings
Defined Contribution Holdings
-20.%
-40.%
-40.% Difference in IRA Assets, 2016 \$'s 100,000 50,000 -50,000 -100,000 -150,000 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 52 56 58 60 66 68 70 72 74 76 **Annual Pension and Annuity Income** Total Household Income 40,000 15,000 Difference in Annual Total Household Income, 2016 \$'s Difference in Annual Pension and Annuity Income, 2016 \$'s 20,000 10,000 5,000 -20,000 -40,000 -60,000 -5,000 -80,000 -100,000 -10,000 60 62 64 66 68 70 72 74 76 78 80 52 54 56 58 66 68 70 72 74 76 78 80 52 54 Age of Filer **Household Liquid Wealth** 30% 300,000 Difference in Household Liquid Wealth, 2016 \$'s 200,000 100,000 -100,000 -200,000 -300,000 -400,000 -500,000 -600,000 -700,000 52 56 58 60 62 64 66 68 70 72 74 76 78 80 62 64 66 68 70 72 74 76 78 80

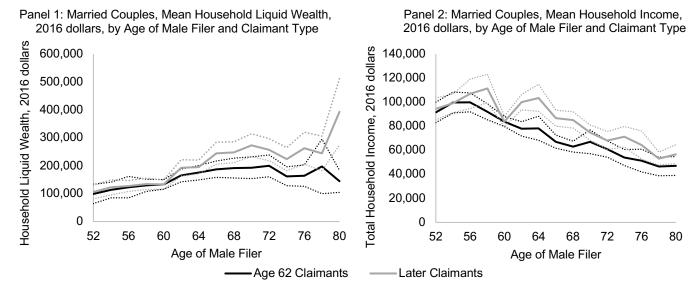
Figure B6: Married Men with a 50% Self-Reported Probability of Surviving to 75

Notes: Model estimates by age for the sample using the less restrictive match noted in Table 1.

## Online Appendix C. Supplementary Figures

Figure C1 presents an alternative version of household liquid wealth restricted to the main analytical sample after trimmed individuals with incomes and assets above the 98<sup>th</sup> percentile at age 60 and after applying the match algorithm described in the main text.

Figure C1: Average Levels of Household Liquid Wealth or Household Income, Married Couples, by Claimant Type, Ages 52 to 80



Source: Authors' calculations from Health and Retirement Study interviews. Sample restricted to matched observations in our main analysis. See Appendix A for additional details on sample selection.

Figure C2: Average Difference in Financial Hardship Measures Between Age 62 Claimants and Matched Controls, 2016 Dollars Where Applicable, Married Households, by Age of Husband

