

# Dynamic Implications of Subjective Expectations: Evidence from Adult

Smokers

Online Appendix

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## Appendix Tables and Figures

Table 1: Special Cases of Subjective Probabilities of living to Ages 75 and 85

Cases	Percentage
Live to 75 = 0	6.4
Live to 85 = 0	16.3
Live to 75 = 1	19.1
Live to 85 = 1	8.5
$P_{75} < P_{85}$	2.0
$P_{75} = P_{85}$	27.7

Percentages of special subjective expectations in the data.

Table 2: Sample Construction Process: Numbers of Observations Remaining in the Sample after Excluding Those with Missing Information on Important Variables at Each Step

Variables	Number of Observations Remained
9 Waves of Current and Former Smokers Pooled	29,345
Self-Rated Health Status in Period One	29,336
Household Income in Period One	29,282
Self-Rated Health Status in Period Two	29,269
Same-Gender Parent's Longevity	28,414
Subjective Expectations of Living to Age 75	25,654
Subjective Expectations of Living to Age 85	25,431
Final Analysis Sample	25,431

Numbers of observations remaining in the sample selection process after dropping those with missing information on important variables.

Table 3: Comparing the Final Analysis Sample with the Sample which Includes Those in the Final Analysis Sample and Those with Missing Subjective Expectations

Variables	Final Sample		Missing Expectations	
	Mean	Std. Dev.	Mean	Std. Dev.
Age	56.50	3.01	56.55*	3.01
Female	0.53	0.50	0.51**	0.50
Non-Hispanic White	0.82	0.39	0.80**	0.40
Current smoker at period 1	0.38	0.49	0.38	0.49
Former smoker at period 1	0.62	0.49	0.62	0.49
Same gender parent alive or died at age > 70	0.74	0.44	0.74	0.44
Self-rated health at period 1	2.67	1.16	2.71**	1.17
Household income at period 1 ('\$k)	53.67	67.33	53.24	78.17
Self-rated health at period 2	2.72	1.14	2.75**	1.15
Household income at period 2 ('\$k)	56.70	173.77	55.95	166.29
Observed deaths in two years	0.02	0.14	0.02	0.15
N	25,431		28,414	

Differences in means between the final analysis sample and the sample which includes those in the final analysis sample and those with missing subjective expectations are statistically significant at the 5% (\*) or 1% (\*\*) level.

Table 4: Summary Statistics by HRS Waves

Variables	1992		1994		1996		1998		2000		2002		2004		2006	
	Mean	SD														
Currently smoke	0.42	0.49	0.39	0.49	0.39	0.49	0.37	0.48	0.36	0.48	0.33	0.47	0.37	0.48	0.36	0.48
Prob(Live to 75)	0.63	0.31	0.62	0.29	0.63	0.31	0.64	0.30	0.65	0.29	0.66	0.28	0.62	0.30	0.61	0.30
Prob(Live to 85)	0.41	0.32	0.40	0.31	0.42	0.33	0.41	0.32	0.48	0.31	0.40	0.31	0.48	0.32	0.40	0.31
N	5,075		4,104		3,193		3,460		2,821		2,091		2,528		2,159	

Table 5: Within-Sample Goodness of Fit

	Subjective	Objective	Data	95% Confidence Interval
Parents Lived Long	37.27%	36.18%	37.59%	36.88% - 38.29%
Parents Died Early	39.25	38.83	39.50	38.30 - 40.71
Bad Health	52.92	51.52	46.72	45.44 - 48.00
Good Health	33.04	32.27	35.37	34.68 - 36.06
Non-Hispanic White	36.73	35.67	37.23	36.56 - 37.90
Non White	42.44	42.17	41.86	40.42 - 43.30
Female	38.88	41.21	41.17	40.32 - 42.02
Male	36.57	32.04	34.66	33.79 - 35.52

Numbers reported are percentages of current smokers in each group. For example, the first entry, 37.27%, means that 37.27% of those whose parents were still alive at the interview time or died after age 70 were predicted to be current smokers by the subjective model. The first two columns report smoking rates predicted by subjective and objective models, respectively. The last three columns show the smoking rates observed in the data and their 95% confidence interval.

Table 6: Smoking Rates Observed in the Data v.s. Smoking Rates Predicted by the Counterfactual Experiment

	Data	Counterfactual	Change in %
Parents Lived Long	37.59%	29.58%	21.31
Parents Died Early	39.50	29.85	24.43
Bad Health	46.72	32.33	30.80
Good Health	35.37	28.81	18.55
Non-Hispanic White	37.23	29.17	21.65
Non White	41.86	31.78	24.08
Female	41.17	33.75	18.02
Male	34.66	25.09	27.61

The first column shows smoking rates predicted by the counterfactual experiment where subjective survival probabilities for both types are set to be exactly the same as the objective ones. The second column shows the actual smoking rates observed in the data. The third column shows the changes in smoking rates predicted by the experiment:  $(\text{Data} - \text{Counterfactual})/\text{Data} \times 100\%$ .

Table 7: Robustness Check: Use 15 Percentage Point Wide Interval Responses

Variables	Type I		Type II	
	Coefficient	Std. Err.	Coefficient	Std. Err.
<i>Panel A: Two-Year Survival Probabilities</i>				
Currently smoke	-0.048**	0.017	-0.048**	0.023
Same-gender parent's longevity	0.167**	0.018	0.081**	0.024
Bad health	-0.238**	0.023	-0.216**	0.027
Log(household income)	0.053**	0.011	0.030**	0.013
Non-Hispanic White	-0.042	0.022	0.026	0.027
Female	-0.06**	0.017	0.126**	0.028
Age	-0.125**	0.003	-0.142**	0.003
Constant	11.197**	0.233	10.363**	0.189
<i>Panel B: Utility and Time Preferences</i>				
Bad health	-0.280**	0.005	-1.160**	0.003
Log(household income)	1.393**	0.001	1.297**	0.002
Constant	-3.612**	0.051	-2.499**	0.077
$\beta$	0.920**	0.009	0.800**	0.020
Share (%)	80		20	

Estimation results reported in this table are based on method described in Section ??.

\*Statistically significant at the 5% level; \*\*statistically significant at the 1% level.

Table 8: Robustness Check: Use Five Cells to Discretize Interval Responses

Variables	Type I		Type II	
	Coefficient	Std. Err.	Coefficient	Std. Err.
<i>Panel A: Two-Year Survival Probabilities</i>				
Currently smoke	-0.150**	0.020	-0.178**	0.032
Same-gender parent's longevity	0.148**	0.022	0.164**	0.037
Bad health	-0.606**	0.024	-0.458**	0.036
Log(household income)	0.131**	0.009	0.097**	0.020
Non-Hispanic White	0.033	0.027	0.026	0.042
Female	-0.055**	0.019	-0.083**	0.035
Age	-0.097**	0.003	-0.136**	0.004
Constant	8.761**	0.187	9.541**	0.433
<i>Panel B: Utility and Time Preferences</i>				
Bad health	-0.145**	0.043	-1.515**	0.024
Log(household income)	1.415**	0.008	1.230**	0.010
Constant	-4.667**	0.137	-2.215**	0.206
$\beta$	0.980**	0.016	0.920**	0.023
Share (%)	91		09	

Estimation results reported in this table are based on method described in Section ??.

\*Statistically significant at the 5% level; \*\*statistically significant at the 1% level.

Table 9: Robustness Check: Without Those Whose Subjective Expectations of Living to Ages 75 and 85 are Both 0, 50, or 100%

Variables	Type I		Type II	
	Coefficient	Std. Err.	Coefficient	Std. Err.
<i>Panel A: Two-Year Survival Probabilities</i>				
Currently smoke	-0.078**	0.019	-0.317**	0.109
Same-gender parent's longevity	0.169**	0.021	0.206**	0.107
Bad health	-0.310**	0.024	-0.686**	0.117
Log(household income)	0.097**	0.009	0.171**	0.047
Non-Hispanic White	-0.002	0.027	0.340**	0.104
Female	0.078**	0.018	0.167	0.107
Age	-0.039	0.004	-0.188**	0.031
Constant	5.552**	0.245	11.734**	1.977
<i>Panel B: Utility and Time Preferences</i>				
Bad health	-0.124**	0.046	-0.232**	0.031
Log(household income)	1.396**	0.007	1.473**	0.016
Constant	-3.949**	0.099	-4.818**	0.486
$\beta$	0.960**	0.009	0.910**	0.277
Share (%)	90		10	
N	18,337			

Estimation results reported in this table are based on method described in Section ??.

\*Statistically significant at the 5% level; \*\*statistically significant at the 1% level.