Youth Subjective Life Expectancy and Early Labor Market Choices

Lucas Finamor

(Institute for Fiscal Studies)

Disclaimer

"This research uses information from the Chilean Social Protection Survey (Encuesta de Protección Social). I thank the Undersecretary of Social Protection, the intellectual owner of the survey, for the authorization to use the de-identified dataset. ***All the results from this research are the responsibility of the author and do not implicate the Chilean Undersecretary of Social Protection."***

Motivation

- Survival probabilities are an essential ingredient in any dynamic decision

Motivation

- Survival probabilities are an essential ingredient in any dynamic decision

- Survey-elicited subjective life expectancy (SLE) correlates well with health, lifestyle behaviors, and future mortality

Motivation

- Survival probabilities are an essential ingredient in any dynamic decision
- Survey-elicited subjective life expectancy (SLE) correlates well with health, lifestyle behaviors, and future mortality
- SLE is associated with savings, retirement, and purchase of annuities
  - Mostly for individuals aged 50+

Motivation

- Survival probabilities are an essential ingredient in any dynamic decision
- Survey-elicited subjective life expectancy (SLE) correlates well with health, lifestyle behaviors, and future mortality
- SLE is associated with savings, retirement, and purchase of annuities
  - Mostly for individuals aged 50+
- Impactful decisions are taken much earlier on (Altonji et al. 2016, Arellano-Bover 2020)

This paper: Youth SLE and early labor market choices

Q. **Does beliefs on life spam play a role more broadly over the life cycle?**

... particularly at the onset of labor market trajectories

This paper: Youth SLE and early labor market choices

Q. **Does beliefs on life spam play a role more broadly over the life cycle?**

... particularly at the onset of labor market trajectories

1. Combine longitudinal survey and administrative pension data (Chile)

This paper: Youth SLE and early labor market choices

Q. **Does beliefs on life spam play a role more broadly over the life cycle?**

... particularly at the onset of labor market trajectories

1. Combine longitudinal survey and administrative pension data (Chile)

2. Document good properties of SLE, even when measured at young ages

This paper: Youth SLE and early labor market choices

Q. **Does beliefs on life spam play a role more broadly over the life cycle?**

... particularly at the onset of labor market trajectories

1. Combine longitudinal survey and administrative pension data (Chile)
2. Document good properties of SLE, even when measured at young ages
3. Explore SLE and future labor market outcomes (pension + employment type)
   - Exploring cross-section variation in SLE
   - Using IV strategy to correct for measurement error
   - Explore panel dimension (within-individual variation + revisions)

Main Results

- SLE predicts future mortality and displays substantial variation (80% unexplained variation)
- 10-years higher SLE (0.8std) is associated with 10.7% higher pension wealth (15 years later)
- Employment type – working formally, explains the pension wealth gap
- Evidence that individuals revise their actions with revisions of SLE.

Literature

1. SLE and economic decisions

   Hurd, Smith and Zissimopoulos (2004), Bloom, Canning, Moore and Song (2006), O'Donnell, Teppa, Van Doorslaer et al. (2008), Van der Klaauw and Wolpin (2008), Salm (2010), Gan, Gong, Hurd and McFadden (2015), Wu, Stevens and Thorp (2015), Bissonnette, Hurd and Michaud (2017), Heimer, Myrseth and Schoenle (2019), Bresser (2021), O'Dea and Sturrock (2023)

   - Early beliefs are strongly associated with labor market choices/pension contributions
   - SLE and employment type
   - Not relying solely on self-reported outcomes

2. Informal labor markets

   - SLE and formal/informal choice

Institutional Setting and Data

Data - Chile

Encuesta de Protección Social (EPS)

- Panel survey at the individual level
- 7 waves (2002-2020)
- Labor market, health, expectations,...

Data - Chile

Encuesta de Protección Social (EPS)

- Panel survey at the individual level
- 7 waves (2002-2020)
- Labor market, health, expectations,...

+

Historia Previsional de Afiliados (HPA)

- Panel (1981-2019)
- Administrative data on the pension system

Data - Chile

Encuesta de Protección Social (EPS)

- Panel survey at the individual level
- 7 waves (2002-2020)
- Labor market, health, expectations,...

+

Historia Previsional de Afiliados (HPA)

- Panel (1981-2019)
- Administrative data on the pension system

Sample:

- All surveyed individuals aged 18–26 in 2004
- Surveyed at least once after 2009 (81%)

$\Rightarrow$ 1,417 individuals

Institutional Setting – Pension System

- Individual capitalization accounts — illiquid until retirement
- Normal retirement age is 65 (men) and 60 (women)
- Employees are required to contribute at 10% of their wages monthly
- Non-employees can contribute voluntarily (e.g. self-employed)

Descriptive Statistics

		Men			Women		
		N Obs	Prop	SLE (mean)	N Obs	Prop	SLE (mean)
Total	-	710	-	75.983	707	-	73.663
Educational level	Primary	68	0.096	72.603	74	0.105	74.149
	High School	382	0.538	76.031	361	0.511	73.022
	Vocational	100	0.141	76.100	109	0.154	73.339
	College	160	0.225	77.231	163	0.231	75.080
Region	MR Santiago	276	0.389	75.967	280	0.396	74.289
	Other	434	0.611	75.993	427	0.604	73.253
Mother education	Less than HS	337	0.491	74.644	354	0.516	72.452
	High School	290	0.423	77.234	269	0.392	74.431
	More than HS	59	0.086	77.458	63	0.092	77.810
Father Education	Less than HS	305	0.457	75.148	321	0.488	72.327
	High School	292	0.437	76.712	272	0.413	74.893
	More than HS	71	0.106	77.620	65	0.099	77.369

Life Expectancy

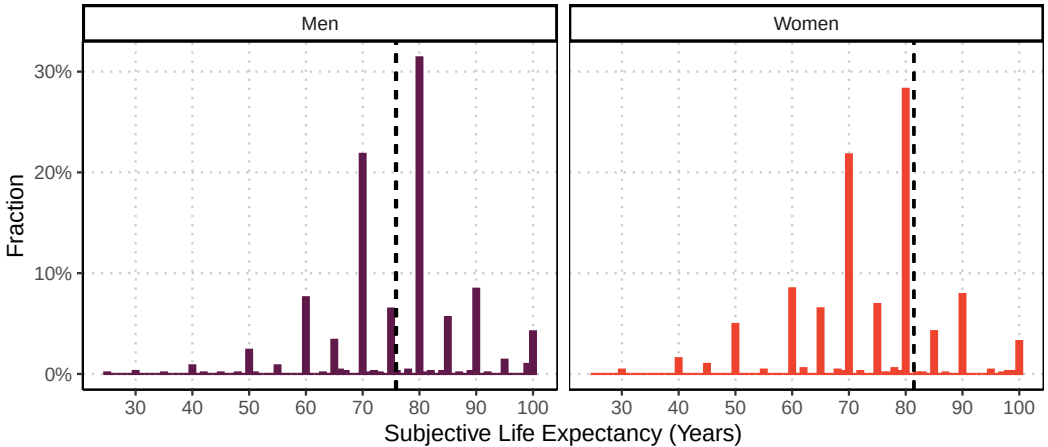
Life Expectancy

Two questions were asked on life-expectancy

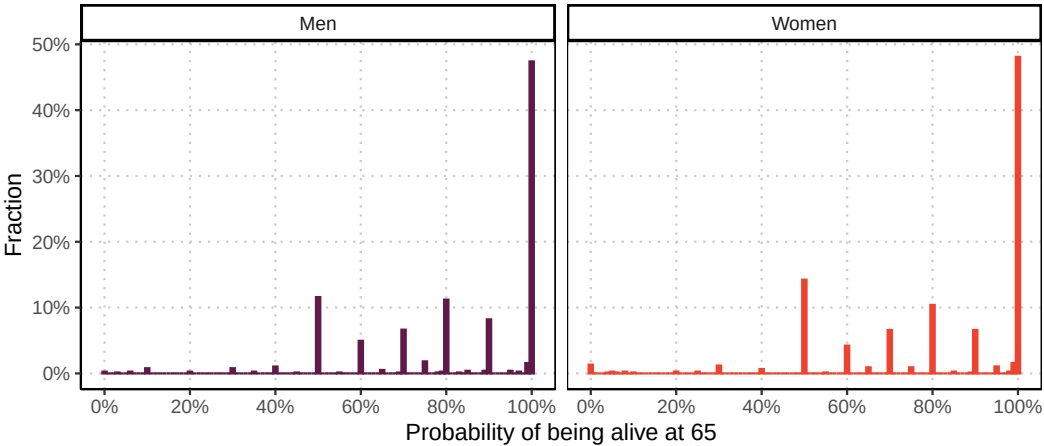
1. How long do you think you will live? *(Hasta qué edad cree usted que va a vivir?)*

2. What are the chances you will live until 65? *(Cualés son sus posibilidades de vivir hasta los 65 años?)*

SLE distribution — 1st Question Corr



SLE distribution — 2nd Question Corr



SLE measure

- SLE correlates with: more
  - smoking (-)
  - physical activities (+)
  - self-reported good health (+)
  - diagnosed diseases (-)
  - BMI (-)
  - deceased parents (-)
  - education (+) and parental education (+)

SLE measure

- SLE correlates with: more
  - smoking (-)
  - physical activities (+)
  - self-reported good health (+)
  - diagnosed diseases (-)
  - BMI (-)
  - deceased parents (-)
  - education (+) and parental education (+)

- All above + geography + age + gender, only explains 20% of SLE variation

SLE measure

- SLE correlates with: more
  - smoking (-)
  - physical activities (+)
  - self-reported good health (+)
  - diagnosed diseases (-)
  - BMI (-)
  - deceased parents (-)
  - education (+) and parental education (+)

- All above + geography + age + gender, only explains 20% of SLE variation

- Uncorrelated with risk-aversion and numeracy more

SLE measure

- SLE correlates with: more
  - smoking (-)
  - physical activities (+)
  - self-reported good health (+)
  - diagnosed diseases (-)
  - BMI (-)
  - deceased parents (-)
  - education (+) and parental education (+)
- All above + geography + age + gender, only explains 20% of SLE variation
- Uncorrelated with risk-aversion and numeracy more
- For older samples, it predicts mortality more

Empirical Strategy

Empirical Strategy

$$Y_{it} = \beta \text{SLE}_i + \eta_{d(i)} + \nu_{r(i)} + \varphi_{p(i)} + \theta_t + \varepsilon_{it}$$

- $\eta_{d(i)}$ is the demographic FE, Age-Gender-Educ
- $\nu_{r(i)}$ are the fixed effects for region
- $\varphi_{p(i)}$ are the fixed effects for parental education

Empirical Strategy

$$Y_{it} = \beta \text{SLE}_i + \eta_{d(i)} + \nu_{r(i)} + \varphi_{p(i)} + \theta_t + \varepsilon_{it}$$

- $\eta_{d(i)}$ is the demographic FE, Age-Gender-Educ
- $\nu_{r(i)}$ are the fixed effects for region
- $\varphi_{p(i)}$ are the fixed effects for parental education

IV strategy to deal with measurement error

$$\text{(First Stage) } SLE_i = \alpha P_i^{65} + \eta_{d(i)} + \nu_{r(i)} + \varphi_{p(i)} + \epsilon_{it}$$
$$\text{(Second Stage) } Y_{it} = \beta_{IV} SLE_i + \eta_{d(i)} + \nu_{r(i)} + \varphi_{p(i)} + \theta_t + \zeta_{it}$$

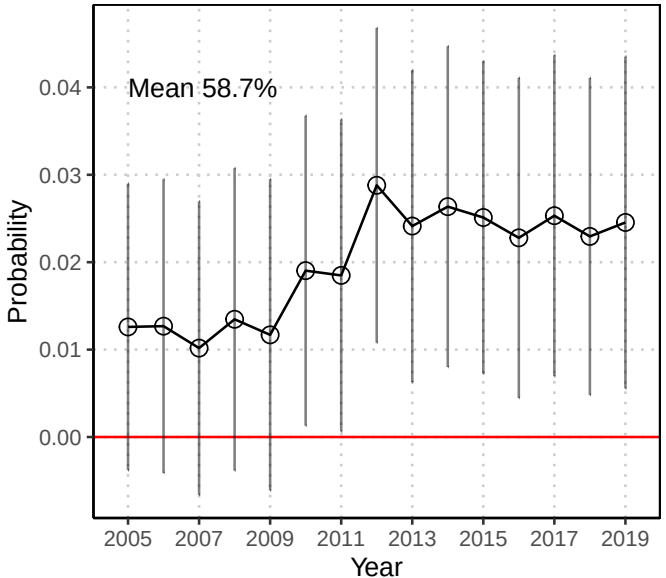
Interpretation

I report the coefficient of **10** years of SLE:

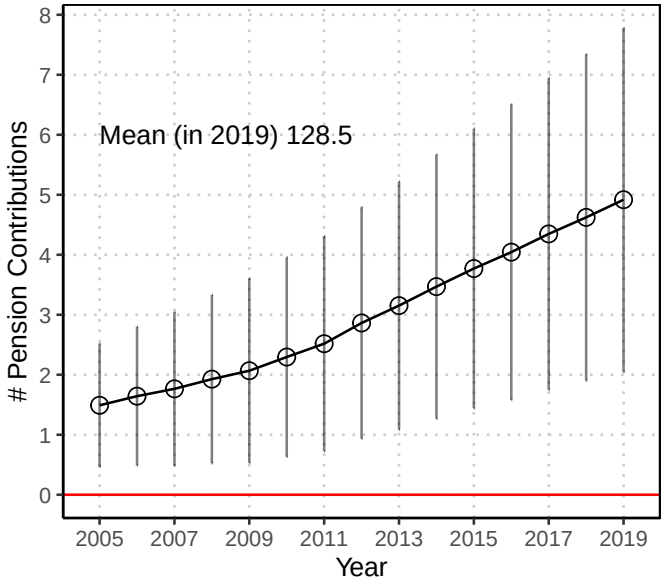
- Moving from 10th to 90th percentile, increase SLE by $\sim$ **30** years
- Moving from 25th to 75th percentile, increase SLE by $\sim$ **10** years
- One standard deviation is $\sim$ **12** years

Life Expectancy and Future Labor Market Outcomes

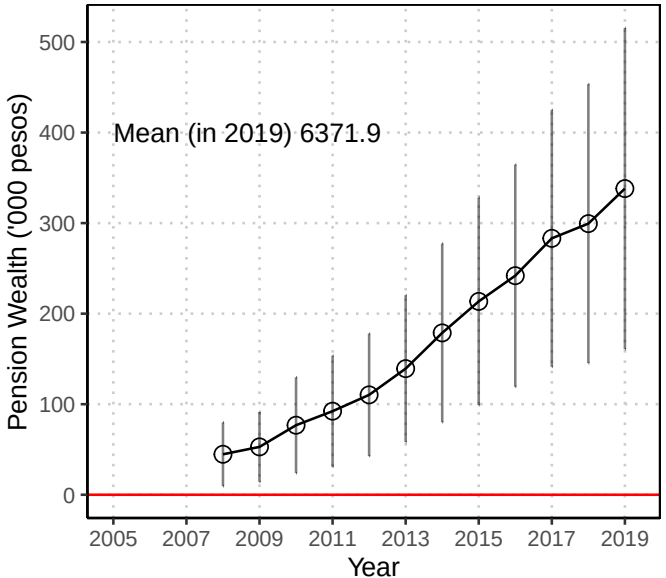
Probability of Making Pension Contributions



of Pension Contributions



Pension Wealth



SLE and Pension

IV 1st stage

	All			Men	Women
	Mean	OLS	IV		
	(1)	(2)	(3)		
Panel A. # Pension Contributions (stock) in Dec2019					
SLE	128.478	4.917	7.860		
		(1.461)	(3.136)		
# Obs		1417	1408		
# Individuals		1417	1408		
Panel B. Pension Wealth ('000 pesos) in Dec2019					
SLE	6371.9	362.5	685.5		
		(101.2)	(224.1)		
# Obs		1417	1408		
# Individuals		1417	1408		

SLE and Pension

IV 1st stage

	All			Men	Women
	Mean	OLS	IV		
	(1)	(2)	(3)		
Panel A. # Pension Contributions (stock) in Dec2019					
SLE	128.478	4.917	7.860		
		(1.461)	(3.136)		
# Obs		1417	1408		
# Individuals		1417	1408		
Panel B. Pension Wealth ('000 pesos) in Dec2019					
SLE	6371.9	362.5	685.5		
		(101.2)	(224.1)		
# Obs		1417	1408		
# Individuals		1417	1408		

SLE and Pension

IV 1st stage

	All			Men	Women
	Mean	OLS	IV		
	(1)	(2)	(3)		
Panel A. # Pension Contributions (stock) in Dec2019					
SLE	128.478	4.917	7.860		
		(1.461)	(3.136)		
# Obs		1417	1408		
# Individuals		1417	1408		
Panel B. Pension Wealth ('000 pesos) in Dec2019					
SLE	6371.9	362.5	685.5		
		(101.2)	(224.1)		
# Obs		1417	1408		
# Individuals		1417	1408		

SLE and Pension

IV 1st stage

	All			Men			Women		
	Mean	OLS	IV	Mean	OLS	IV	Mean	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. # Pension Contributions (stock) in Dec2019									
SLE	128.478	4.917	7.860	144.239	7.306	9.581	112.778	2.649	6.583
		(1.461)	(3.136)		(2.060)	(4.920)		(2.011)	(4.036)
# Obs		1417	1408		710	706		707	702
# Individuals		1417	1408		710	706		707	702
Panel B. Pension Wealth ('000 pesos) in Dec2019									
SLE	6371.9	362.5	685.5	7500.8	511.4	927.0	5247.4	202.7	488.7
		(101.2)	(224.1)		(157.8)	(389.7)		(128.1)	(266.1)
# Obs		1417	1408		710	706		707	702
# Individuals		1417	1408		710	706		707	702

SLE and Labor Market

IV 1st stage

	All			Men			Women		
	Mean	OLS	IV	Mean	OLS	IV	Mean	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel C. Labor Force Participation									
SLE	0.834	0.006	0.016	0.935	0.009	0.026	0.744	0.002	0.008
		(0.006)	(0.014)		(0.006)	(0.018)		(0.010)	(0.019)
# Obs		41,004	40,765		19,498	19,384		21,506	21,381
# Individuals		1417	1408		710	706		707	702
Panel D. Formal Sector									
SLE	0.566	0.015	0.042	0.650	0.024	0.074	0.491	0.006	0.022
		(0.008)	(0.019)		(0.012)	(0.032)		(0.011)	(0.022)
# Obs		41,004	40,765		19,498	19,384		21,506	21,381
# Individuals		1417	1408		710	706		707	702

SLE and Labor Market

IV 1st stage

	All			Men			Women		
	Mean	OLS	IV	Mean	OLS	IV	Mean	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel C. Labor Force Participation									
SLE	0.834	0.006	0.016	0.935	0.009	0.026	0.744	0.002	0.008
		(0.006)	(0.014)		(0.006)	(0.018)		(0.010)	(0.019)
# Obs		41,004	40,765		19,498	19,384		21,506	21,381
# Individuals		1417	1408		710	706		707	702
Panel D. Formal Sector									
SLE	0.566	0.015	0.042	0.650	0.024	0.074	0.491	0.006	0.022
		(0.008)	(0.019)		(0.012)	(0.032)		(0.011)	(0.022)
# Obs		41,004	40,765		19,498	19,384		21,506	21,381
# Individuals		1417	1408		710	706		707	702

Revisions of Subjective Life Expectancy

Diagnostic of diseases and ex-post Life Expectancy

Outcome: Subj Life Expectancy $t+1$

Model:	(1)	(2)	(3)
SLE	0.331***	0.330***	0.330***
	(0.026)	(0.026)	(0.026)
New Diag G1	-0.909		
	(1.710)		
New Diag G2		-5.226***	
		(1.768)	
New Diag G3			-2.908**
			(1.372)
Observations	2,007	2,010	2,010
R^2	0.178	0.184	0.180

- Group 1: Asthma, Diabetes, and Arthritis
- Group 2: Hypertension, Heart, Cancer, Kidney, Stroke, and AIDS
- Group 3: Depression and Mental Disorders

Revision

	# Pension Contributions (stock) in Dec2019						
	OLS				IV		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SLE in 2004	4.917	3.212	3.463	4.450	7.860	3.476	2.251
	(1.461)	(1.858)	(1.854)	(1.871)	(3.136)	(4.853)	(4.415)
SLE in 2006		2.762				4.594	
		(1.805)				(5.606)	
SLE in 2009			2.152				12.868
			(2.089)				(6.143)
SLE in 2012				4.011			
				(2.191)			
Observations	1,417	1,088	1,008	828	1,408	1,080	1,001

Robustness

- Within-individual variation
- Sequential Controls
- More Controls
- Age range
- Prob 65 measure
- Non-linear

Theoretical Framework

Simple theoretical framework

- Two-period model
- Period 1: individuals have Y income, pay τa to obtain a in Period 2

Simple theoretical framework

- Two-period model
- Period 1: individuals have Y income, pay τa to obtain a in Period 2
- Period 2: Two states
  - Bad state, live only that period
  - Good state (living longer) happens with probability π, has a higher weight $H > 1$

$$\max_{a \in [0, Y/\tau]} \left\{ u(Y - \tau a) + \beta(\pi H u(a) + (1 - \pi) u(a)) \right\}$$

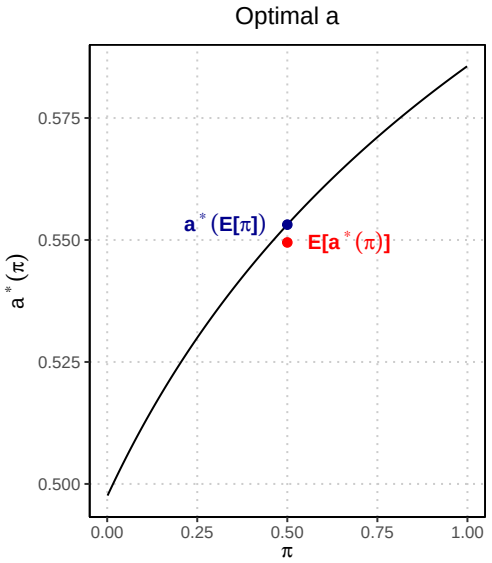
Simple theoretical framework

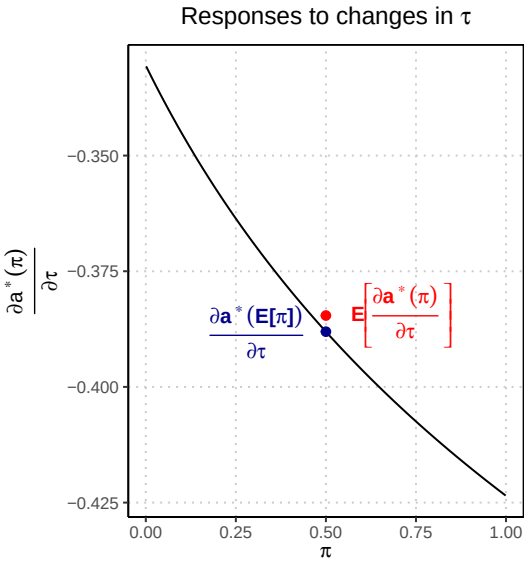
- Two-period model
- Period 1: individuals have Y income, pay τa to obtain a in Period 2
- Period 2: Two states
  - Bad state, live only that period
  - Good state (living longer) happens with probability π, has a higher weight $H > 1$

$$\max_{a \in [0, Y/\tau]} \left\{ u(Y - \tau a) + \beta(\pi H u(a) + (1 - \pi) u(a)) \right\}$$

- Living two periods in the good state would be equivalent to setting $H = 1 + \beta$

Biases from ignoring heterogeneity on π





Conclusion

- Survival probabilities are an essential ingredient in dynamic problems
- Exploring survey-admin linked data, I show:
  - SLE measured at young ages have good properties
  - SLE is correlated with early labor market decisions
    - Employment type
    - Pension contributions

Thank you

Lucas Finamor
lucas.finamor@ifs.org.uk

Appendix

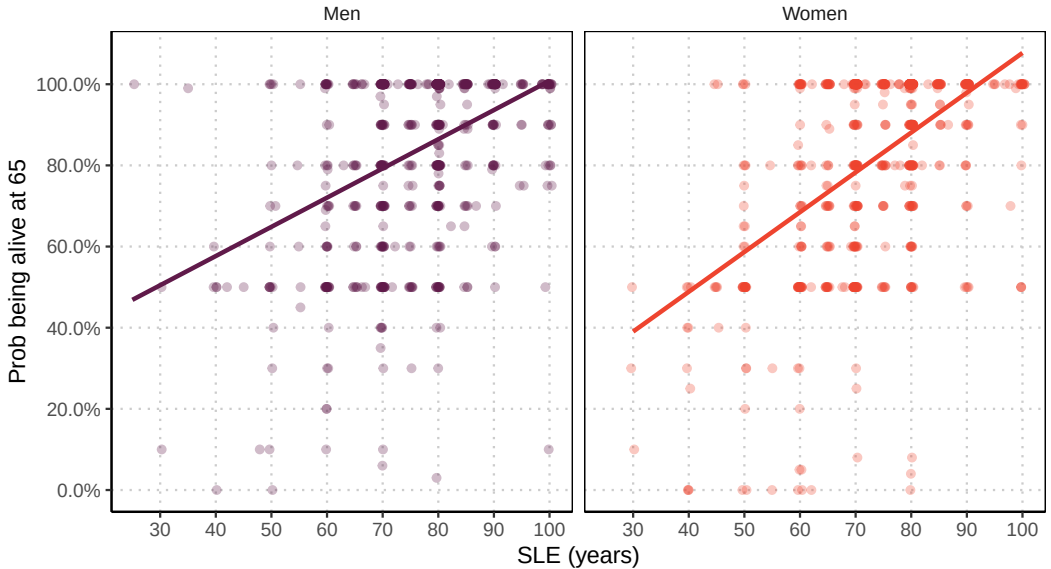
Presentation

- Introduction
- Data
- SLE measure
- Empirical Stretegy
- Main Results
- Panel Results
- Theoretical Framework
- Appendix

- SLE and risk-aversion
- SLE and mortality
- Robustness

SLE correlation

Back



Back

	Outcome: SLE								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Smoking		-1.646							-1.350
		(0.669)							(0.723)
Regular Physical Activities			1.484						1.844
			(0.855)						(0.889)
Good Health				2.776					2.090
				(1.008)					(1.061)
Any Diagnosis (Diseases)					-1.560				-0.988
					(1.150)				(1.254)
BMI						-0.224			-0.264
						(0.089)			(0.095)
Deceased Mother							-1.545		0.258
							(2.595)		(2.612)
Deceased Father								-2.169	-1.959
								(1.367)	(1.397)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1,417	1,417	1,416	1,417	1,414	1,416	1,412	1,239	1,231
R^2	0.163	0.167	0.165	0.168	0.164	0.168	0.163	0.179	0.196

SLE, risk-aversion, and numeracy

Back

	Outcome: SLE			
	(1)	(2)	(3)	(4)
Risk aversion 25	0.004			
	(0.008)			
Risk aversion 50		0.006		
		(0.007)		
Risk aversion 75			0.011	
			(0.007)	
Numeracy				0.001
				(0.003)
Observations	1,411	1,410	1,410	1,397
R^2	0.164	0.165	0.166	0.164

SLE and mortality

Back

Outcome:	Men		Women	
	Registered (1)	Deceased in 2019 (2)	Registered (3)	Deceased in 2019 (4)
Panel A - Aged 35–45				
SLE	0.005	-0.013	0.009	0.000
	(0.003)	(0.006)	(0.005)	(0.003)
Observations	1,876	1,823	1,931	1,749
Mean	0.970	0.043	0.903	0.028
Panel B - Aged 45–55				
SLE	0.015	-0.031	0.013	-0.009
	(0.006)	(0.009)	(0.011)	(0.005)
Observations	1,531	1,383	1,574	1,198
Mean	0.894	0.101	0.757	0.061

Missing SLE

Table: Proportion of missing values for SLE

	(1)	(2)
Constant	0.090	0.114
	(0.007)	(0.027)
Women		0.007
		(0.014)
High School		-0.022
		(0.027)
Vocational		-0.007
		(0.033)
College		-0.071
		(0.028)
Observations	1,557	1,557

Missing SLE

Table: Missing SLE and main outcomes

Outcomes	# Pension Contrib (1)	Pension Wealth (2)	LFP (3)	Formal (4)
Panel A. Men				
Missing SLE	-3.496	-593.673	0.006	-0.079
	(9.017)	(611.025)	(0.023)	(0.059)
Observations	777	777	21,149	21,149
Panel B. Women				
Missing SLE	3.665	327.677	0.007	0.026
	(8.188)	(494.260)	(0.042)	(0.046)
Observations	780	780	23,598	23,598

IV – first stage

Back

	Outcome: SLE		
	All	Men	Women
	(1)	(2)	(3)
Prob Living 65	0.245	0.220	0.266
	(0.016)	(0.023)	(0.021)
Observations	1,408	706	702
F-stat	341.4	116.6	225.5

SLE and risk-aversion

	Outcome: # Pension Contributions (stock) in Dec2019					
	OLS			IV		
	Risk25 (1)	Risk50 (2)	Risk75 (3)	Risk25 (4)	Risk50 (5)	Risk75 (6)
SLE	2.081	2.612	3.184	2.332	1.663	5.836
	(2.930)	(2.455)	(2.155)	(6.637)	(5.499)	(4.642)
SLE x Risk Aversion	3.417	3.218	2.590	6.807	8.603	2.849
	(3.298)	(2.953)	(2.789)	(7.421)	(6.513)	(6.091)
Observations	1411	1410	1410	1402	1401	1401

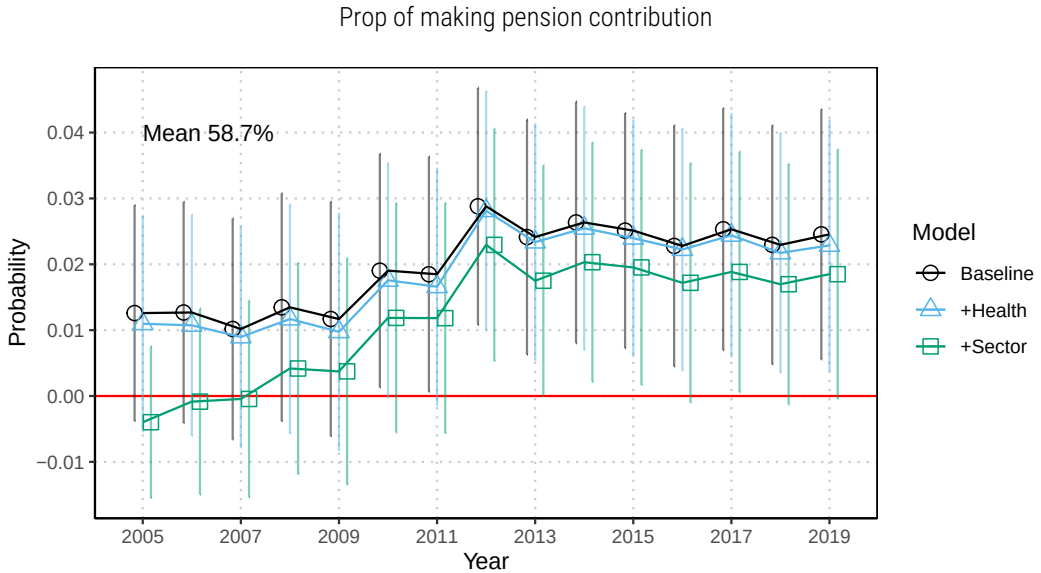
Within-individual variation

Outcome: # Pension Contributions		
	OLS	IV
	(1)	(2)
SLE	0.224	2.121
	(0.387)	(1.317)
Observations	2271	2270

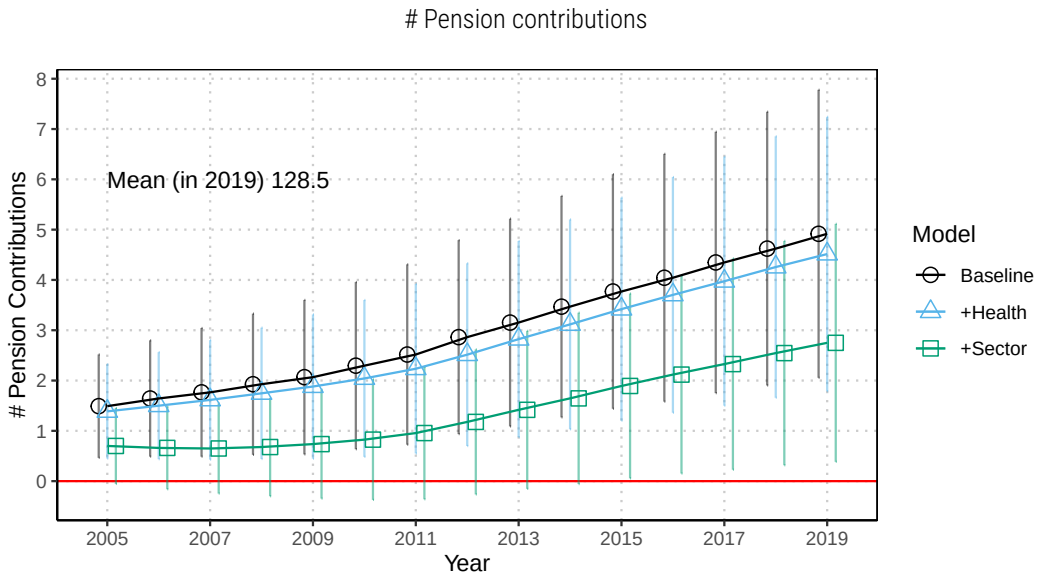
Sequential Controls

	Outcome: # Pension Contributions in December 2019 (stock)					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Men						
SLE	6.241	7.275	7.293	7.346	7.412	7.306
	(2.201)	(2.117)	(2.064)	(2.060)	(2.064)	(2.060)
Observations	710	710	710	710	710	710
R^2	0.012	0.111	0.179	0.199	0.213	0.216
Controls	None	+Age	+Age-Educ	+Region	+ Mother Educ	+Father Educ
Panel B. Women						
SLE	2.621	2.486	2.268	2.324	2.842	2.649
	(2.123)	(2.136)	(2.080)	(2.032)	(2.026)	(2.011)
Observations	707	707	707	707	707	707
R^2	0.002	0.028	0.178	0.199	0.203	0.205
Controls	None	+Age	+Age-Educ	+Region	+ Mother Educ	+Father Educ

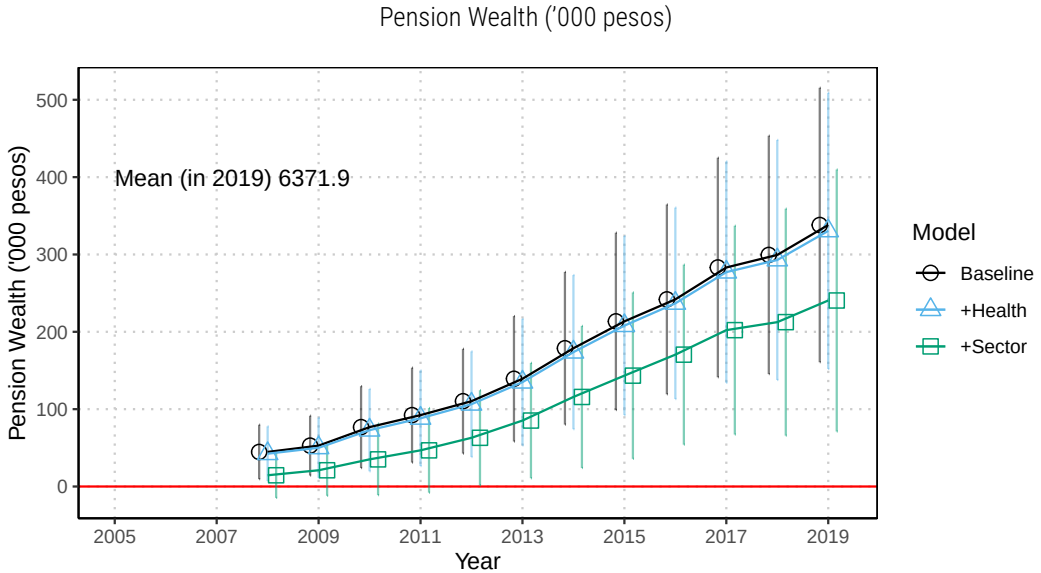
Additional Controls



Additional Controls



Additional Controls



Additional Controls

	All			Men			Women		
	Mean	OLS	IV	Mean	OLS	IV	Mean	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. # Pension Contributions (stock) in Dec2019									
SLE	128.478	2.857	4.570	144.239	4.390	4.230	112.778	1.590	5.037
		(1.281)	(2.775)		(1.868)	(4.656)		(1.770)	(3.411)
Obs		1415	1406		708	704		707	702
Panel B. Pension Wealth ('000 pesos) in Dec2019									
SLE	6371.9	257.3	539.6	7500.8	335.8	691.8	5247.4	156.6	414.4
		(96.9)	(216.7)		(153.7)	(392.8)		(124.2)	(249.0)
Obs		1415	1406		708	704		707	702

Additional Controls

	All			Men			Women		
	Mean	OLS	IV	Mean	OLS	IV	Mean	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel C. Labor Force Participation									
SLE	0.834	0.003	0.011	0.935	0.006	0.014	0.744	0.001	0.008
		(0.006)	(0.013)		(0.006)	(0.018)		(0.010)	(0.018)
Obs		40,954	40,715		19,448	19,334		21,506	21,381
Panel D. Formal Sector									
SLE	0.566	0.008	0.033	0.650	0.016	0.058	0.491	0.001	0.018
		(0.008)	(0.018)		(0.012)	(0.033)		(0.011)	(0.021)
Obs		40,954	40,715		19,448	19,334		21,506	21,381

Age Range

	Outcome: # Pension Contributions in December 2019 (stock)						
Age range	18–26	18–24	18–22	18–28	18–30	20–26	22–26
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A. Men							
SLE	7.306	7.520	7.056	6.512	5.246	7.818	6.250
	(2.060)	(2.405)	(3.424)	(1.877)	(1.802)	(2.158)	(2.431)
Observations	710	517	268	947	1,207	653	543
Panel B. Women							
SLE	2.649	2.903	2.857	1.820	0.340	2.825	4.221
	(2.011)	(2.285)	(3.108)	(1.935)	(1.841)	(2.073)	(2.352)
Observations	707	486	266	926	1,191	664	533

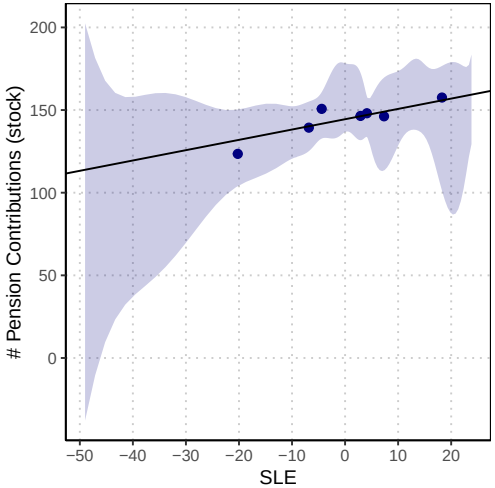
Prob65 measure

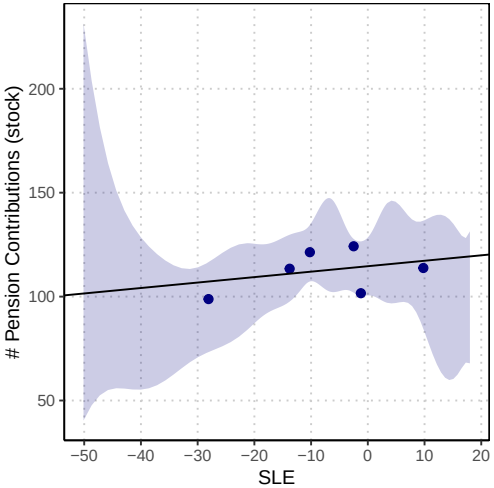
	SLE			Prob Age 65		
	All (1)	Men (2)	Women (3)	All (4)	Men (5)	Women (6)
Panel A. # Pension Contributions (stock) in Dec2019						
SLE	4.917	7.306	2.649	4.965	5.594	4.279
	(1.461)	(2.060)	(2.011)	(2.188)	(3.097)	(3.054)
Obs	1417	710	707	1527	768	759
Panel B. Pension Wealth ('000 pesos) in Dec2019						
SLE	362.508	511.362	202.683	493.554	606.195	376.252
	(101.156)	(157.831)	(128.131)	(154.542)	(238.283)	(201.593)
Obs	1417	710	707	1527	768	759

Prob65 measure

	SLE			Prob Age 65		
	All (1)	Men (2)	Women (3)	All (4)	Men (5)	Women (6)
Panel C. Labor Force Participation						
SLE	0.006	0.009	0.002	0.010	0.015	0.007
	(0.006)	(0.006)	(0.010)	(0.009)	(0.010)	(0.015)
Obs	41,004	19,498	21,506	43,906	20,861	23,045
Panel D. Formal Sector						
SLE	0.015	0.024	0.006	0.029	0.039	0.021
	(0.008)	(0.012)	(0.011)	(0.013)	(0.019)	(0.017)
Obs	41,004	19,498	21,506	43,906	20,861	23,045

Non-linear


Pension Contributions (stock)
200
150
100
50
0
−50
−40
−30
−20
−10
0
10
20
SLE


Pension Contributions (stock)
200
150
100
50
−50
−40
−30
−20
−10
0
10
20
SLE

Reordering