Appendix Tables: Multigenerational Effects of Early Life Health Shocks

Cook, Forgues, and Fletcher (2018)

For Online Availability, Not for Publication

Contents

First generation income

Appendix Table 1. First Generation Flu Exposure Effect on Family Income

Dependent Variable: Family Income ($100s), 1957		
	(1)	(2)
Ind. for First Gen. Flu Exposure (Male)	-3.366	
	(2.592)	
Ind. for First Gen. Flu Exposure (Female)		-5.363**
		(2.390)
Birth Year Time Trends	Y	Y
Observations	7440	7456
R Sqr.	0.013	0.004

Summary & Notes: This table replaces the index of socioeconomic status with family income (in $100s) in 1957. All estimation is performed with OLS with robust standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Additional controls

Appendix Table 2. Marriage Market Effects: Controlling for Own Year of Birth

Dependent Variable:	Male		Female	
	Years of Sch.	Job Prestige	Years of Sch.	Job Prestige
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Male)	-0.052	-21.182	-0.198	-0.374
	(0.203)	(13.130)	(0.161)	(1.438)
Ind. for First Gen. Flu Exposure (Female)	-0.346***	-24.497***	-0.103	-1.388
	(0.116)	(7.688)	(0.094)	(0.854)
Birth Year Time Trends (Male and Female)	Y	Y	Y	Y
Observations	8348	8279	8348	6587
R Sqr.	0.040	0.022	0.025	0.004

Summary & Notes: This table re-estimates Table 3 while controlling for year of birth and flu indicators associated with the spouse in the dependent variable. All estimation is performed with OLS with robust standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 3. 2nd Gen. Economic Effects Controlling for 1st Gen. Outcomes

Dependent Variable: By Panel				
	(1)	(2)	(3)	(4)
Panel A. Years of Schooling				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.088 (0.070)			
Ind. for First Gen. Flu Exposure (Male)		-0.005 (0.119)		0.008 (0.119)
Ind. for First Gen. Flu Exposure (Female)			-0.116 (0.072)	-0.117 (0.072)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
R Sqr.	0.206	0.206	0.206	0.206
Panel B. ln Family Income, 1992				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.193* (0.111)			
Ind. for First Gen. Flu Exposure (Male)		-0.080 (0.184)		-0.050 (0.184)
Ind. for First Gen. Flu Exposure (Female)			-0.240** (0.116)	-0.238** (0.116)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12112	12112	12112	12112
R Sqr.	0.024	0.024	0.024	0.024
Panel C. Std. Normal Net Worth, 2004				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.003 (0.021)			
Ind. for First Gen. Flu Exposure (Male)		0.047 (0.046)		0.049 (0.047)
Ind. for First Gen. Flu Exposure (Female)			-0.019 (0.020)	-0.021 (0.020)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	10498	10498	10498	10498
R Sqr.	0.033	0.033	0.033	0.033

Summary & Notes: This table re-estimates table 4 while controlling for generation one economic outcomes: father's years of schooling, mother's years of schooling, and family SES in 1957. First generation time trends are given by year of birth and its square for both WLS parents (i.e., gen.1 males and females). Second generation controls inlcude an indicator for sex, second generation year of birth and its square, and birth order. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 4. 2nd Gen. Health Effects Controlling for 1st Gen. Outcomes

Dependent Variable: By Panel				
	(1)	(2)	(3)	(4)
Panel A. BMI				
Ind. for First Gen. Flu Exposure (Either Sex)	0.352*			
	(0.190)			
Ind. for First Gen. Flu Exposure (Male)		0.051		-0.001
		(0.342)		(0.344)
Ind. for First Gen. Flu Exposure (Female)			0.372*	0.372*
			(0.192)	(0.193)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	9671	9671	9671	9671
R Sqr.	0.035	0.035	0.035	0.035
Panel B. Count of Illnesses				
Ind. for First Gen. Flu Exposure (Either Sex)	0.122*			
	(0.065)			
Ind. for First Gen. Flu Exposure (Male)		-0.076		-0.096
		(0.102)		(0.102)
Ind. for First Gen. Flu Exposure (Female)			0.139**	0.144**
			(0.067)	(0.068)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	9921	9921	9921	9921
R Sqr.	0.046	0.046	0.046	0.046

Summary & Notes: This table re-estimates table 5 while controlling for generation one economic outcomes: father's years of schooling, mother's years of schooling, and family SES in 1957. First generation time trends are given by year of birth and its square for both WLS parents (i.e., gen.1 males and females). Second generation controls inlcude an indicator for sex, second generation year of birth and its square, and birth order. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 5. Generation three's years of schooling: Controlling for previous generation economic well-being

	(1)	(2)	(3)	(4)
Dependent Variable: Years of Schooling for Gen. 3				
Panel A. First Generation Controls				
Ind. for First Gen. Flu Exposure (Either Sex	-0.069 (0.076)			
Ind. for First Gen. Flu Exposure (Male)		0.022 (0.133)		0.034 (0.133)
Ind. for First Gen. Flu Exposure (Female)			-0.102 (0.077)	-0.104 (0.078)
First Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Third Gen. Controls	Y	Y	Y	Y
Observations	19913	19913	19913	19913
R Sqr.	0.117	0.117	0.117	0.117
Panel B. Second Generation Controls				
Ind. for First Gen. Flu Exposure (Either Sex	-0.025 (0.072)			
Ind. for First Gen. Flu Exposure (Male)		0.008 (0.122)		0.013 (0.122)
Ind. for First Gen. Flu Exposure (Female)			-0.038 (0.073)	-0.039 (0.073)
Second Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Third Gen. Controls	Y	Y	Y	Y
Observations	18449	18449	18449	18449
R Sqr.	0.190	0.190	0.190	0.190
Panel C. First and Second Generation Controls				
Ind. for First Gen. Flu Exposure (Either Sex	-0.008 (0.072)			
Ind. for First Gen. Flu Exposure (Male)		0.016 (0.122)		0.019 (0.122)
Ind. for First Gen. Flu Exposure (Female)			-0.028 (0.073)	-0.029 (0.073)
First Gen. Economic Outcomes	Y	Y	Y	Y
Second Gen. Economic Outcomes	Y	Y	Y	Y
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Third Gen. Controls	Y	Y	Y	Y
Observations	18449	18449	18449	18449
R Sqr.	0.196	0.196	0.196	0.196

Summary & Notes: This table re-estimates table 6 while controlling for generation one and two's economic outcomes. For generation one, these include father's years of schooling, mother's years of schooling, and family SES in 1957; generation two controls include the WLS graduate/sibling's years of schooling, family income in 1992, and net worth in 2004. First generation time trends are year of birth measures for each parent and their square. Second generation controls inlcude an indicator for sex, second generation year of birth and its square, and birth order. Third generation controls include a sex indicator, year of birth and its square, and birth order. Given the focus on years of schooling, the sample is restricted to those third generation individuals 35 years of age and older, or born during or before 1970 (data were collected in 2005). All estimation is performed with OLS with family (second generation) clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Alternative measures of schooling

Appendix Table 6. Alternative measures of schooling in the second generation

Dependent Variable: By Panel	(1)	(2)	(3)	(4)
Panel A. Indicator for any college (years of schooling >12)				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.044***			
	(0.017)			
Ind. for First Gen. Flu Exposure (Male)		-0.011		-0.006
		(0.029)		(0.029)
Ind. for First Gen. Flu Exposure (Female)			-0.044**	-0.043**
			(0.017)	(0.017)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
R Sqr.	0.071	0.070	0.071	0.071
Panel B. Indicator for incomplete college (years of schooling >12 & < 16)				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.008			
	(0.013)			
Ind. for First Gen. Flu Exposure (Male)		-0.002		-0.001
		(0.022)		(0.022)
Ind. for First Gen. Flu Exposure (Female)			-0.008	-0.008
			(0.013)	(0.013)
Base Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
R Sqr.	0.005	0.005	0.005	0.005
Panel C. Indicator for college graduate (years of schooling = 16)				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.022**			
	(0.011)			
Ind. for First Gen. Flu Exposure (Male)		0.003		0.006
		(0.020)		(0.020)
Ind. for First Gen. Flu Exposure (Female)			-0.021*	-0.021**
			(0.011)	(0.011)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
R Sqr.	0.019	0.019	0.019	0.019
Panel D. Indicator for post-college education (years of schooling > 16)				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.014			
	(0.010)			
Ind. for First Gen. Flu Exposure (Male)		-0.013		-0.011
		(0.018)		(0.018)
Ind. for First Gen. Flu Exposure (Female)			-0.014	-0.014
			(0.010)	(0.010)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
R Sqr.	0.039	0.039	0.039	0.039

Summary & Notes: This table replaces our continuous measure of years of schooling with specified dummy variables. First generation time trends are given by year of birth and its square for both WLS parents (i.e., gen.1 males and females). Second generation controls inlcude an indicator for sex, second generation year of birth and its square, and birth order. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Effect driven by young mothers?

Appendix Table 7. Young mothers? Direct effect on Gen. 1 Females.

Dependent Variable:	Years of Sch.	Job Prestige	Family SES
	(1)	(2)	(3)
Ind. for First Gen. Female Flu Exposure (1918-1919)	-0.325**	-0.841	-1.749***
	(0.137)	(1.015)	(0.584)
Ind. for mother born during 1920-1921	-0.567***	0.745	-1.157
	(0.206)	(1.515)	(0.914)
Ind. for mother born during 1922-1923	-0.666**	0.098	-2.113
	(0.330)	(2.210)	(1.298)
Ind. for mother born after 1924	-0.392	5.682	0.384
	(0.486)	(3.705)	(2.126)
Birth Year Time Trends	Y	Y	Y
Observations	8487	6683	8487
R Sqr.	0.014	0.005	0.014

Summary & Notes: This table includes indicators for alternative years of birth. Younger mothers are shown to have less years of schooling. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 8. Young mothers? Generation 2 and 3 effects

Dependent Variable:	Gen. 2						Gen. 3
	Years of Sch.	ln Fam. Inc., 1992	Std. NW, 2004	Self-rep. health	Height	BMI	Years of Sch.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ind. for First Gen. Female Flu Exposure (1918-1919)	-0.201**	-0.295**	-0.045	-0.073**	-0.090	0.207	-0.086
	(0.092)	(0.132)	(0.032)	(0.032)	(0.122)	(0.225)	(0.094)
Ind. for mother born during 1920-1921	-0.022	-0.040	-0.010	-0.061	0.133	-0.410	0.113
	(0.137)	(0.174)	(0.051)	(0.043)	(0.180)	(0.311)	(0.141)
Ind. for mother born during 1922-1923	-0.096	-0.188	-0.057	0.020	0.461	-1.129**	0.155
	(0.184)	(0.320)	(0.061)	(0.075)	(0.283)	(0.451)	(0.223)
Ind. for mother born after 1924	0.458	-0.187	0.001	-0.027	0.312	-0.885	0.399
	(0.306)	(0.394)	(0.087)	(0.127)	(0.494)	(1.070)	(0.321)
Base Controls	Y	Y	Y	Y	Y	Y	Y
Observations	12459	12112	10498	9888	9783	9671	19913
R Sqr.	0.085	0.021	0.008	0.009	0.586	0.029	0.079

Summary & Notes: This table includes indicators for alternative years of birth. Being born to a younger mother generally is not associated with generation 2 or 3's outcomes of interest; instead, negative effects are only observed for those born during the flu. All estimation is performed with OLS with family (2nd generation) clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Heterogeneity from generation 2's sex

Appendix Table 9. Summary Statistics by Gen. 2 Sex

Variable	N	Mean	Std. Deviation
Female			
Years of Schooling	6607	13.352	2.088
ln Family Income (1992 wave)	6411	9.424	3.577
ln Family Income (excl. non-earners)	5654	10.686	1.010
Std. Net Worth (2004 wave)	5612	-0.047	0.539
Self-reported Health (1993 wave)	5313	4.164	0.670
Height (inches)	5231	6466.35	247.936
BMI	5124	26.073	5.114
Gen. 3			
Years of Schooling	11947	14.240	2.291
Male			
Years of Schooling	5852	14.047	2.587
ln Family Income (1992 wave)	5701	10.139	3.030
ln Family Income (excl. non-earners)	5264	10.981	0.836
Std. Net Worth (2004 wave)	4886	0.059	1.159
Self-reported Health (1993 wave)	4575	4.133	0.665
Height (inches)	4554	7055.484	255.96
BMI	4547	27.496	3.948
Gen. 3			
Years of Schooling	8046	14.371	2.332

Appendix Table 10A. Results by sex: Generation 2 Females

Dependent Variable: Years of schooling				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.090 (0.086)			
Ind. for First Gen. Flu Exposure (Male)		0.198 (0.169)		0.214 (0.169)
Ind. for First Gen. Flu Exposure (Female)			-0.104 (0.087)	-0.114 (0.087)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	6607	6607	6607	6607
R Sqr.	0.075	0.075	0.075	0.075

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10B. Results by sex: Generation 2 Females

Dependent Variable: ln Family Income, 1992				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.523*** (0.170)			
Ind. for First Gen. Flu Exposure (Male)		-0.483 (0.321)		-0.410 (0.323)
Ind. for First Gen. Flu Exposure (Female)			-0.512*** (0.179)	-0.491*** (0.180)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	6411	6411	6411	6411
R Sqr.	0.015	0.013	0.014	0.015

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10C. Results by sex: Generation 2 Females

Dependent Variable: Std Normal Net Worth, 2004				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	0.007 (0.024)			
Ind. for First Gen. Flu Exposure (Male)		0.078* (0.048)		0.078 (0.048)
Ind. for First Gen. Flu Exposure (Female)			0.008 (0.025)	0.005 (0.025)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5612	5612	5612	5612
R Sqr.	0.007	0.007	0.007	0.007

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10D. Results by sex: Generation 2 Females

Dependent Variable: Self-Reported Health				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.027 (0.036)			
Ind. for First Gen. Flu Exposure (Male)		-0.004 (0.071)		-0.001 (0.071)
Ind. for First Gen. Flu Exposure (Female)			-0.022 (0.037)	-0.022 (0.037)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5313	5313	5313	5313
r2	0.009	0.009	0.009	0.009

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10E. Results by sex: Generation 2 Females

	(1)	(2)	(3)	(4)
Dependent Variable: Height				
Ind. for First Gen. Flu Exposure (Either Sex)	-2.382			
	(13.366)			
Ind. for First Gen. Flu Exposure (Male)		44.280**		46.351**
		(22.343)		(22.480)
Ind. for First Gen. Flu Exposure (Female)			-12.253	-14.428
			(13.485)	(13.561)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5231	5231	5231	5231
r2	0.015	0.016	0.015	0.016

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10F. Results by sex: Generation 2 Females

	(1)	(2)	(3)	(4)
Dependent Variable: BMI				
Ind. for First Gen. Flu Exposure (Either Sex)	0.353			
	(0.286)			
Ind. for First Gen. Flu Exposure (Male)		0.105		0.060
		(0.514)		(0.516)
Ind. for First Gen. Flu Exposure (Female)			0.326	0.323
			(0.289)	(0.290)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5124	5124	5124	5124
R Sqr.	0.010	0.010	0.010	0.010

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 10G. Results by sex: Gen. 3's Years of Schooling for Gen. 2 Females

Dependent Variable: Years of schooling in generation 3				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.087 (0.096)			
Ind. for First Gen. Flu Exposure (Male)		-0.104 (0.190)		-0.101 (0.190)
Ind. for First Gen. Flu Exposure (Female)			-0.042 (0.098)	-0.039 (0.098)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	11906	11906	11906	11906
R Sqr.	0.086	0.086	0.086	0.086

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11A. Results by sex: Generation 2 Males

Dependent Variable: Years of schooling				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.322*** (0.116)			
Ind. for First Gen. Flu Exposure (Male)		-0.369** (0.181)		-0.338* (0.180)
Ind. for First Gen. Flu Exposure (Female)			-0.309*** (0.119)	-0.297** (0.119)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5852	5852	5852	5852
R Sqr.	0.060	0.059	0.060	0.060

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11B. RResults by sex: Generation 2 Males

Dependent Variable: ln Family Income, 1992				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	0.116			
	(0.138)			
Ind. for First Gen. Flu Exposure (Male)		0.262		0.261
		(0.200)		(0.199)
Ind. for First Gen. Flu Exposure (Female)			0.024	0.014
			(0.141)	(0.140)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	5701	5701	5701	5701
R Sqr.	0.009	0.009	0.008	0.009

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11C. Results by sex: Generation 2 Males

	(1)	(2)	(3)	(4)
Dependent Variable: Std Normal Net Worth, 2004				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.065*			
	(0.038)			
Ind. for First Gen. Flu Exposure (Male)		-0.013		-0.001
		(0.081)		(0.081)
Ind. for First Gen. Flu Exposure (Female)			-0.094***	-0.094***
			(0.034)	(0.035)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	4886	4886	4886	4886
R Sqr.	0.004	0.004	0.004	0.004

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11D. Results by sex: Generation 2 Males

	(1)	(2)	(3)	(4)
Dependent Variable: Self-Reported Health				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.083**			
	(0.039)			
Ind. for First Gen. Flu Exposure (Male)		-0.002		0.012
		(0.062)		(0.062)
Ind. for First Gen. Flu Exposure (Female)			-0.104***	-0.105***
			(0.040)	(0.041)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	4575	4575	4575	4575
r2	0.010	0.009	0.010	0.010

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11E. Results by sex: Generation 2 Males

	(1)	(2)	(3)	(4)
Dependent Variable: Height				
Ind. for First Gen. Flu Exposure (Either Sex)	-15.122			
	(14.275)			
Ind. for First Gen. Flu Exposure (Male)		-22.991		-20.537
		(23.287)		(23.176)
Ind. for First Gen. Flu Exposure (Female)			-18.595	-17.540
			(14.734)	(14.751)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	4554	4554	4554	4554
r2	0.011	0.011	0.011	0.011

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11F. Results by sex: Generation 2 Males

Dependent Variable: BMI				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	0.465*			
	(0.238)			
Ind. for First Gen. Flu Exposure (Male)		0.079		0.006
		(0.403)		(0.405)
Ind. for First Gen. Flu Exposure (Female)			0.520**	0.520**
			(0.245)	(0.246)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	4547	4547	4547	4547
R Sqr.	0.006	0.005	0.006	0.006

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 11G. Results by sex: Gen. 3's Years of Schooling for Gen. 2 Males

Dependent Variable: Years of schooling in generation 3				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.177			
	(0.123)			
Ind. for First Gen. Flu Exposure (Male)		0.098		0.144
		(0.194)		(0.192)
Ind. for First Gen. Flu Exposure (Female)			-0.293**	-0.302**
			(0.125)	(0.126)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	8007	8007	8007	8007
R Sqr.	0.067	0.067	0.068	0.068

Summary & Notes: This table repeats our base analysis while limiting the sample by sex of the second generation WLS respondent. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12A. Heterogeneity by gender?

Dependent Variable: Years of schooling				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.253** (0.107)			
Ind. for First Gen. Flu Exposure (Male)		-0.252 (0.170)		-0.226 (0.172)
Ind. for First Gen. Flu Exposure (Female)			-0.263** (0.113)	-0.242** (0.115)
First Gen. Flu Exposure (Either Sex)× Female	0.084 (0.120)			
First Gen. Flu Exposure (Male)× Female		0.341 (0.216)		0.339 (0.219)
First Gen. Flu Exposure (Female)× Female			0.096 (0.130)	0.056 (0.132)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12459	12459	12459	12459
r2	0.085	0.085	0.085	0.085

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12B. Heterogeneity by gender?

Dependent Variable: ln Family Income, 1992				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.019 (0.128)			
Ind. for First Gen. Flu Exposure (Male)		0.196 (0.190)		0.169 (0.189)
Ind. for First Gen. Flu Exposure (Female)			-0.081 (0.135)	-0.104 (0.135)
First Gen. Flu Exposure (Either Sex)× Female	-0.383** (0.189)			
First Gen. Flu Exposure (Male)× Female		-0.594* (0.349)		-0.474 (0.355)
First Gen. Flu Exposure (Female)× Female			-0.339* (0.204)	-0.283 (0.207)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	12112	12112	12112	12112
r2	0.021	0.021	0.021	0.021

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12C. Heterogeneity by sex?

	(1)	(2)	(3)	(4)
Dependent Variable: Std Normal Net Worth, 2004				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.065*			
	(0.034)			
Ind. for First Gen. Flu Exposure (Male)		-0.004		0.019
		(0.077)		(0.079)
Ind. for First Gen. Flu Exposure (Female)			-0.095***	-0.094***
			(0.030)	(0.031)
First Gen. Flu Exposure (Either Sex)× Female	0.071*			
	(0.038)			
First Gen. Flu Exposure (Male)× Female		0.072		0.039
		(0.087)		(0.089)
First Gen. Flu Exposure (Female)× Female			0.104***	0.100***
			(0.035)	(0.037)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	10498	10498	10498	10498
r2	0.008	0.007	0.008	0.008

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12D. Heterogeneity by sex?

	(1)	(2)	(3)	(4)
Dependent Variable: Self-Reported Health				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.071*			
	(0.036)			
[1em] Ind. for First Gen. Flu Exposure (Male)		0.012		0.031
		(0.058)		(0.059)
Ind. for First Gen. Flu Exposure (Female)			-0.093**	-0.097**
			(0.039)	(0.039)
First Gen. Flu Exposure (Either Sex)× Female	0.030			
	(0.045)			
First Gen. Flu Exposure (Male)× Female		-0.031		-0.051
		(0.087)		(0.088)
First Gen. Flu Exposure (Female)× Female			0.059	0.065
			(0.048)	(0.049)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	9888	9888	9888	9888
r2	0.009	0.009	0.009	0.009

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12E. Heterogeneity by sex?

Dependent Variable: Height				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.102			
	(0.133)			
Ind. for First Gen. Flu Exposure (Male)		-0.129		-0.125
		(0.223)		(0.224)
Ind. for First Gen. Flu Exposure (Female)			-0.152	-0.129
			(0.141)	(0.142)
First Gen. Flu Exposure (Either Sex)$\times$ Female	-0.000			
	(0.158)			
First Gen. Flu Exposure (Male)$\times$ Female		0.454		0.495*
		(0.279)		(0.287)
First Gen. Flu Exposure (Female)$\times$ Female			-0.031	-0.090
			(0.170)	(0.175)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	9783	9783	9783	9783
n				
r2	0.586	0.586	0.586	0.586

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12F. Heterogeneity by sex?

	(1)	(2)	(3)	(4)
Dependent Variable: BMI				
Ind. for First Gen. Flu Exposure (Either Sex)	0.376			
	(0.231)			
[1em] Ind. for First Gen. Flu Exposure (Male)		-0.059		-0.122
		(0.402)		(0.407)
Ind. for First Gen. Flu Exposure (Female)			0.441*	0.457*
			(0.240)	(0.243)
First Gen. Flu Exposure (Either Sex)× Female	0.068			
	(0.316)			
First Gen. Flu Exposure (Male)× Female		0.282		0.288
		(0.573)		(0.589)
First Gen. Flu Exposure (Female)× Female			-0.035	-0.069
			(0.340)	(0.350)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	9671	9671	9671	9671
r2	0.028	0.028	0.028	0.028

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 12G. Heterogeneity by sex?

Dependent Variable: Years of schooling in generation 3				
	(1)	(2)	(3)	(4)
Ind. for First Gen. Flu Exposure (Either Sex)	-0.131			
	(0.114)			
Ind. for First Gen. Flu Exposure (Male		0.114		0.175
		(0.185)		(0.188)
Ind. for First Gen. Flu Exposure (Female)			-0.237**	-0.261**
			(0.118)	(0.121)
First Gen. Flu Exposure (Either Sex)× Female	0.009			
	(0.133)			
First Gen. Flu Exposure (Male)× Female		-0.225		-0.292
		(0.249)		(0.254)
First Gen. Flu Exposure (Female)× Female			0.152	0.189
			(0.141)	(0.145)
First Gen. Birth Year Time Trends	Y	Y	Y	Y
Second Gen. Controls	Y	Y	Y	Y
Observations	19913	19913	19913	19913
r2	0.079	0.078	0.079	0.079

Summary & Notes: This table estimates the interaction between an indicator for gen.1 flu exposure and gen.2's sex to further examine the sex differences shown in Appendix Tables 10 and 11. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Additional SES outcomes

Appendix Table 13. Family Income 1992, excluding non-earners (i.e., fam. inc. $= 0$)

	(1)	(2)	(3)	(4)
Dependent Variable: ln Family Income, 1992 wave (excluding those reporting 0)				
Panel A. Full Sample				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.095***			
	(0.033)			
Ind. for First Gen. Flu Exposure (Male)		-0.031		-0.019
		(0.053)		(0.053)
Ind. for First Gen. Flu Exposure (Female)			-0.101***	-0.100***
			(0.034)	(0.034)
Base Controls	Y	Y	Y	Y
Observations	10918	10918	10918	10918
r2	0.050	0.049	0.050	0.050
Panel B. Females Only				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.084*			
	(0.050)			
Ind. for First Gen. Flu Exposure (Male)		-0.019		-0.007
		(0.089)		(0.090)
Ind. for First Gen. Flu Exposure (Female)			-0.083	-0.083
			(0.053)	(0.054)
Base Controls	Y	Y	Y	Y
Observations	5654	5654	5654	5654
r2	0.026	0.026	0.026	0.026
Panel C. Males Only				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.102***			
	(0.039)			
Ind. for First Gen. Flu Exposure (Male)		-0.051		-0.040
		(0.060)		(0.059)
Ind. for First Gen. Flu Exposure (Female)			-0.113***	-0.112***
			(0.040)	(0.040)
Base Controls	Y	Y	Y	Y
Observations	5264	5264	5264	5264
r2	0.029	0.028	0.029	0.029

Summary & Notes: This table repeats the estimation of Panel B in Table 4, excluding those who report $0 for family income. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 14. Net Worth, 2011 Wave

Dependent Variable: Std. Net Worth, 2011 Wave of WLS				
	(1)	(2)	(3)	(4)
Panel A. Full Sample				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.032***			
	(0.011)			
Ind. for First Gen. Flu Exposure (Male)		-0.023*		-0.021*
		(0.012)		(0.011)
Ind. for First Gen. Flu Exposure (Female)			-0.032***	-0.031***
			(0.010)	(0.010)
Base Controls	Y	Y	Y	Y
Observations	9435	9435	9435	9435
r2	0.002	0.002	0.002	0.002
Panel B. Females Only				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.012*			
	(0.006)			
Ind. for First Gen. Flu Exposure (Male)		-0.009		-0.008
		(0.009)		(0.009)
Ind. for First Gen. Flu Exposure (Female)			-0.012**	-0.011**
			(0.006)	(0.006)
Base Controls	Y	Y	Y	Y
Observations	5026	5026	5026	5026
r2	0.007	0.006	0.007	0.007
Panel C. Males Only				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.057**			
	(0.024)			
Ind. for First Gen. Flu Exposure (Male)		-0.040*		-0.036*
		(0.023)		(0.021)
Ind. for First Gen. Flu Exposure (Female)			-0.057**	-0.056**
			(0.023)	(0.022)
Base Controls	Y	Y	Y	Y
Observations	4409	4409	4409	4409
r2	0.001	0.001	0.001	0.001

Summary & Notes: This table repeats the estimation of Panel C in Table 4, replacing the net worth measure from the 2004 wave with an identical measure from the 2011 wave of the WLS. All estimation is performed with OLS with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Additional health outcomes

Appendix Table 15A. Gen. 2 Specific Health Indicators, 1992 Wave

Dependent Variable: By Panel				
	(1)	(2)	(3)	(4)
Panel A. Heart trouble				
Ind. for First Gen. Flu Exposure (Either Sex)	0.243			
	(0.152)			
Ind. for First Gen. Flu Exposure (Male)		0.107		0.039
		(0.252)		(0.255)
Ind. for First Gen. Flu Exposure (Female)			0.285*	0.282*
			(0.158)	(0.160)
Base Controls	Y	Y	Y	Y
Observations	9849	9849	9849	9849
Panel B. Hypertension				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.007			
	(0.091)			
Ind. for First Gen. Flu Exposure (Male)		-0.210		-0.216
		(0.170)		(0.173)
Ind. for First Gen. Flu Exposure (Female)			0.007	0.024
			(0.095)	(0.097)
Base Controls	Y	Y	Y	Y
Observations	9858	9858	9858	9858
Panel C. Diabetes				
Ind. for First Gen. Flu Exposure (Either Sex)	0.255			
	(0.184)			
Ind. for First Gen. Flu Exposure (Male)		-0.107		-0.169
		(0.328)		(0.338)
Ind. for First Gen. Flu Exposure (Female)			0.237	0.252
			(0.193)	(0.198)
Base Controls	Y	Y	Y	Y
Observations	9845	9845	9845	9845

Summary & Notes: This table examines the association of gen. 1 flu exposure with specific self-reported health conditions. Logistic estimation for all columns with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 15B. Gen. 2 Specific Health Indicators, 2004 Wave

Dependent Variable: By Panel	(1)	(2)	(3)	(4)
Panel A. Heart trouble				
Ind. for First Gen. Flu Exposure (Either Sex)	0.018			
	(0.096)			
Ind. for First Gen. Flu Exposure (Male)		0.190		0.207
		(0.160)		(0.162)
Ind. for First Gen. Flu Exposure (Female)			-0.066	-0.083
			(0.102)	(0.104)
Base Controls	Y	Y	Y	Y
Observations	10672	10672	10672	10672
Panel B. Hypertension				
Ind. for First Gen. Flu Exposure (Either Sex)	-0.019			
	(0.072)			
Ind. for First Gen. Flu Exposure (Male)		0.096		0.108
		(0.124)		(0.125)
Ind. for First Gen. Flu Exposure (Female)			-0.051	-0.059
			(0.076)	(0.077)
Base Controls	Y	Y	Y	Y
Observations	10619	10619	10619	10619
Panel C. Diabetes				
Ind. for First Gen. Flu Exposure (Either Sex)	0.108			
	(0.110)			
Ind. for First Gen. Flu Exposure (Male)		0.064		0.027
		(0.186)		(0.186)
Ind. for First Gen. Flu Exposure (Female)			0.181	0.179
			(0.113)	(0.113)
Base Controls	Y	Y	Y	Y
Observations	10617	10617	10617	10617

Summary & Notes: This table examines the association of gen. 1 flu exposure with specific self-reported health conditions. Logistic estimation for all columns with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.

Appendix Table 15C. Gen. 2 Specific Health Indicators, 2011 Wave

Dependent Variable: By Panel	(1)	(2)	(3)	(4)
Panel A. Heart trouble				
Ind. for First Gen. Flu Exposure (Either Sex)	0.099 (0.092)			
Ind. for First Gen. Flu Exposure (Male)		0.244 (0.154)		0.242 (0.155)
Ind. for First Gen. Flu Exposure (Female)			0.033 (0.099)	0.016 (0.100)
Base Controls	Y	Y	Y	Y
Observations	8710	8710	8710	8710
Panel B. Hypertension				
Ind. for First Gen. Flu Exposure (Either Sex)	0.021 (0.081)			
Ind. for First Gen. Flu Exposure (Male)		0.095 (0.138)		0.097 (0.139)
Ind. for First Gen. Flu Exposure (Female)			-0.004 (0.085)	-0.011 (0.086)
Base Controls	Y	Y	Y	Y
Observations	8710	8710	8710	8710
Panel C. Diabetes				
Ind. for First Gen. Flu Exposure (Either Sex)	0.134 (0.102)			
Ind. for First Gen. Flu Exposure (Male)		0.203 (0.175)		0.181 (0.176)
Ind. for First Gen. Flu Exposure (Female)			0.140 (0.107)	0.127 (0.107)
Base Controls	Y	Y	Y	Y
Observations	8709	8709	8709	8709

Summary & Notes: This table examines the association of gen. 1 flu exposure with specific self-reported health conditions. Logistic estimation for all columns with family clustered standard errors reported in parenthesis. Statistical significance is denoted by *, **, and ***, representing significance at the 10, 5, and 1% levels, respectively.