# Online Appendix to

"Do doctors improve the health care of their parents? Evidence from admission lotteries"

Elisabeth Artmann

Hessel Oosterbeek

Bas van der Klaauw

# A Additional tables

### A.1 Balancing tests

Table A1: Balancing of applicants' characteristics by outcome of the first medical school lottery application

	Lottery winners	Lottery losers	p-value
Lottery category B			
Female	60.1%	62.3%	0.33
Age at first application	18.0	17.9	0.58
Non-Western immigrant	5.3%	4.6%	0.83
N	154	12	
Lottery category C			
Female	63.1%	64.1%	0.40
Age at first application	18.0	18.0	0.11
Non-Western immigrant	4.3%	4.3%	0.65
N	235	59	
Lottery category D			
Female	60.0%	61.4%	0.31
Age at first application	18.2	18.2	0.91
Non-Western immigrant	5.8%	5.9%	0.75
N	531	5	
Lottery category E			
Female	58.7%	60.4%	0.20
Age at first application	18.4	18.3	0.18
Non-Western immigrant	8.2%	7.8%	0.23
N	560	)4	
Lottery category F			
Female	56.9%	57.3%	0.59
Age at first application	18.6	18.5	0.07
Non-Western immigrant	11.7%	11.2%	0.20
N	738	37	

Note: The p-values in the final column are weighted by the admittance probabilities for students in different years of lottery application.

#### A.2 IV-estimates for specific types of health care use

Table A2: IV-estimates of the effects of being a doctor on parental specialist visits

	Complier mean	$\hat{\delta}$	s.e.	<i>p</i> -value	FDR q-value			
Panel A. Fathers								
Surgery	0.0876	0.0101	(0.0080)	0.206	0.503			
Neurosurgery	0.0082	0.0044	(0.0027)	0.102	0.441			
Gastroenterology	0.0525	0.0006	(0.0062)	0.919	0.920			
Lung specialist	0.0574	0.0064	(0.0075)	0.395	0.643			
Internal medicine	0.1170	-0.0027	(0.0106)	0.797	0.890			
Cardiology	0.1718	0.0120	(0.0132)	0.362	0.643			
Neurology	0.0771	0.0023	(0.0076)	0.760	0.890			
Rheumatology	0.0223	0.0019	(0.0053)	0.724	0.890			
Geriatrics	0.0118	0.0048	(0.0027)	0.082	0.441			
Ophthalmology	0.1546	-0.0132	(0.0111)	0.232	0.503			
Ear, nose & throat	0.0680	0.0016	(0.0069)	0.821	0.890			
Orthopedics	0.0599	0.0096	(0.0069)	0.162	0.503			
Dermatology	0.1111	0.0227	(0.0102)	0.026	0.343			
	Par	nel B. Moth	ners					
Surgery	0.1174	-0.0044	(0.0087)	0.615	0.875			
Neurosurgery	0.0081	0.0004	(0.0023)	0.874	0.875			
Gastroenterology	0.0536	0.0128	(0.0061)	0.034	0.440			
Lung specialist	0.0514	-0.0012	(0.0065)	0.849	0.875			
Internal medicine	0.1131	0.0102	(0.0100)	0.311	0.875			
Cardiology	0.1031	0.0084	(0.0094)	0.374	0.875			
Neurology	0.0730	-0.0025	(0.0066)	0.706	0.875			
Rheumatology	0.0373	0.0043	(0.0062)	0.493	0.875			
Geriatrics	0.0083	0.0008	(0.0020)	0.695	0.875			
Ophthalmology	0.1536	0.0157	(0.0108)	0.147	0.875			
Ear, nose & throat	0.0536	0.0041	(0.0061)	0.503	0.875			
Orthopedics	0.1003	-0.0018	(0.0080)	0.820	0.875			
Dermatology	0.1030	0.0113	(0.0095)	0.232	0.875			

Note: Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for fathers and mothers. All specifications include controls for gender, ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

Table A3: IV-estimates of the effects of being a doctor on parental hospitalizations

	$\hat{\delta}$	s.e.	<i>p</i> -value	FDR $q$ -value			
	Panel A	. Fathers					
Hospital stay							
Duration hospitalization	0.0030	0.0000	(0.0002)	0.848	0.849		
Acute admission	0.0479	0.0021	(0.0029)	0.479	0.639		
Top clinical	0.0597	0.0073	(0.0040)	0.070	0.238		
University medical center	0.0243	0.0040	(0.0026)	0.119	0.238		
	Main o	liagnosis					
Respiratory diseases	0.0075	-0.0002	(0.0011)	0.833	0.833		
Abdominal hernia	0.0076	-0.0008	(0.0009)	0.395	0.833		
Cholelthiasis & cholecystitis	0.0018	0.0001	(0.0004)	0.773	0.833		
Lung cancer	0.0025	0.0001	(0.0005)	0.784	0.833		
Prostate cancer	0.0024	0.0013	(0.0006)	0.044	0.175		
Cancers	0.0192	0.0044	(0.0017)	0.010	0.122		
Liver cirrhosis	0.00002	-0.0004	(0.0002)	0.038	0.175		
Circulatory diseases	0.0290	-0.0010	(0.0025)	0.675	0.833		
Hypert. & cerebrovasc. dis.	0.0030	0.0006	(0.0007)	0.377	0.833		
Heart failure	0.0014	0.0001	(0.0005)	0.769	0.833		
Heart attack	0.0035	-0.0002	(0.0006)	0.700	0.833		
Other ischemic heart dis.	0.0083	-0.0005	(0.0013)	0.680	0.833		
	Panel B	. Mothers					
	Hospi	tal stay					
Duration hospitalization	0.0021	0.0003	(0.0002)	0.073	0.262		
Acute admission	0.0314	0.0035	(0.0023)	0.131	0.262		
Top clinical	0.0514	0.0030	(0.0036)	0.403	0.538		
University medical center	0.0194	0.0000	(0.0022)	0.999	0.999		
	Main o	liagnosis					
Respiratory diseases	0.0056	-0.0002	(0.0008)	0.769	0.951		
Abdominal hernia	0.0012	0.0001	(0.0004)	0.871	0.951		
Cholelthiasis & cholecystitis	0.0021	-0.0004	(0.0005)	0.436	0.754		
Lung cancer	0.0014	-0.0001	(0.0003)	0.661	0.951		
Breast cancer	0.0042	-0.0005	(0.0006)	0.440	0.754		
Cancers	0.0185	-0.0001	(0.0016)	0.974	0.974		
Liver cirrhosis	0.0002	0.0000	(0.0002)	0.833	0.951		
Circulatory diseases	0.0135	0.0026	(0.0016)	0.113	0.610		
Hypert. & cerebrovasc. dis.	0.0022	-0.0005	(0.0006)	0.407	0.754		
Heart failure	0.0001	0.0008	(0.0003)	0.003	0.042		
Heart attack	0.0006	0.0004	(0.0003)	0.203	0.610		
Other ischemic heart dis.	0.0025	0.0009	(0.0007)	0.171	0.610		

Note: Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for fathers and mothers, and for two groups, characteristics of the hospital stay and main diagnosis. All specifications include controls for gender, ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

Table A4: IV-estimates of the effects of being a doctor on parental medicine use

	Complier mea	an $\hat{\delta}$	s.e.	<i>p</i> -value	FDR q-value
	Panel A.	Fathers			
Peptic ulcer med.	0.1943	0.0237	(0.0130)	0.069	0.390
Diabetes medication	0.0899	-0.0104	(0.0108)	0.338	0.820
Antithrombotic agents	0.2505	0.0030	(0.0158)	0.851	0.952
Diuretics	0.1179	-0.0065	(0.0106)	0.540	0.876
Beta-blocking agents	0.1917	0.0009	(0.0145)	0.948	0.952
Lipid-modifying agents	0.2772	-0.0010	(0.0169)	0.952	0.952
Corticosteroids	0.1498	0.0091	(0.0091)	0.318	0.820
Penicillins	0.1326	0.0018	(0.0063)	0.775	0.952
Anti-inflamm./anti-rheum. med.	0.1643	0.0251	(0.0085)	0.003	0.053
Opioids	0.0538	0.0090	(0.0046)	0.052	0.390
Psycholeptics	0.0592	0.0009	(0.0057)	0.876	0.952
Antidepressants	0.0461	0.0042	(0.0074)	0.567	0.876
Dementia medication	0.0048	-0.0022	(0.0018)	0.206	0.820
Nasal preparations	0.0933	-0.0071	(0.0087)	0.415	0.820
Obstructive airway disease med.	0.0983	0.0077	(0.0099)	0.434	0.820
Antihistamines	0.0549	0.0012	(0.0067)	0.856	0.952
Anti-infectives	0.0437	-0.0029	(0.0036)	0.422	0.820
	Panel B.	Mothers			
Peptic ulcer med.	0.2273	0.0234	(0.0130)	0.072	0.244
Diabetes medication	0.0474	0.0205	(0.0084)	0.015	0.128
Antithrombotic agents	0.1308	0.0062	(0.0112)	0.583	0.788
Diuretics	0.1164	0.0122	(0.0109)	0.265	0.564
Beta-blocking agents	0.1683	-0.0069	(0.0134)	0.607	0.788
Lipid-modifying agents	0.1795	0.0159	(0.0137)	0.246	0.564
Corticosteroids	0.1517	0.0065	(0.0086)	0.452	0.768
Penicillins	0.1355	0.0049	(0.0064)	0.446	0.768
Anti-inflamm./anti-rheum. med.	0.2135	0.0031	(0.0091)	0.731	0.828
Opioids	0.0694	-0.0035	(0.0056)	0.526	0.788
Psycholeptics	0.0835	0.0011	(0.0070)	0.872	0.873
Antidepressants	0.0944	0.0019	(0.0099)	0.847	0.873
Dementia medication	0.0042	-0.0024	(0.0013)	0.063	0.244
Nasal preparations	0.0996	0.0192	(0.0089)	0.031	0.178
Obstructive airway disease med.	0.0968	0.0248	(0.0100)	0.014	0.128
Antihistamines	0.0804	0.0109	(0.0082)	0.182	0.517
Anti-infectives	0.0522	-0.0018	(0.0039)	0.648	0.788

Note: Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for fathers and mothers. All specifications include controls for gender, ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

#### A.3 Heterogeneity analysis

Table A5: IV-estimates of the effects of being a doctor on parental health care by gender of the child

	Sons					Da	ughters	
	$\hat{\delta}$	s.e.	<i>p</i> -value	FDR $q$ -value	$\hat{\delta}$	s.e.	<i>p</i> -value	FDR $q$ -value
			Panel	A. Fathers				
Mortality (by 31.12.201	9)-0.0015	(0.0229)	0.948	-	-0.0058	(0.0200)	0.773	-
Total costs	218.46	(373.86)	0.559	-	-59.11	(288.70)	0.838	-
GP visit	-0.0094	(0.0137)	0.491	0.966	-0.0168	(0.0123)	0.170	0.228
GP costs	-4.87	(5.40)	0.367	0.368	-4.86	(4.77)	0.308	0.797
Specialist visit $(0/1)$	-0.0010	(0.0227)	0.966	0.966	0.0508	(0.0202)	0.012	0.049
Specialist treatment cos	sts 702.14	(398.99)	0.078	0.314	-52.75	(204.40)	0.796	0.797
Any medication	0.0010	(0.0163)	0.951	0.966	0.0058	(0.0149)	0.695	0.696
Pharmacy costs	-106.99	(99.48)	0.282	0.368	38.30	(64.75)	0.554	0.797
Hospitalization $(0/1)$	0.0041	(0.0083)	0.623	0.966	0.0159	(0.0073)	0.028	0.057
Hospital costs	307.35	(285.53)	0.282	0.368	-60.06	(217.23)	0.782	0.797
			Panel	B. Mothers				
Mortality (by 31.12.201	9) 0.0026	(0.0184)	0.886	-	-0.0008	(0.0161)	0.960	-
Total costs	280.59	(298.71)	0.348	-	372.38	(253.53)	0.142	-
GP visit	-0.0235	(0.0126)	0.063	0.252	0.0129	(0.0112)	0.248	0.331
GP costs	-7.64	(5.40)	0.157	0.627	0.93	(4.61)	0.841	0.841
Specialist visit $(0/1)$	-0.0083	(0.0219)	0.707	0.775	0.0180	(0.0192)	0.349	0.350
Specialist treatment cos	sts-136.77	(176.23)	0.438	0.666	421.10	(243.38)	0.084	0.335
Any medication	-0.0065	(0.0145)	0.657	0.775	0.0240	(0.0133)	0.072	0.145
Pharmacy costs	30.53	(71.13)	0.668	0.668	60.19	(72.79)	0.408	0.545
Hospitalization $(0/1)$	0.0023	(0.0081)	0.774	0.775	0.0154	(0.0069)	0.026	0.104
Hospital costs	136.48	(202.06)	0.499	0.666	215.97	(178.78)	0.227	0.455

Note: Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for the four parent-child pairs and within these groups for two subgroups, use indicators (GP visit, specialist visit, any medication, hospitalization) and cost factors (GP costs, specialist treatment costs, pharmacy costs, hospital costs). All specifications include controls for ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

Table A6: IV-estimates of the effects of being a doctor on parental health care by lottery category of the child

Categories B, C & D					Categories E & F			
	$\hat{\delta}$	s.e.	$p ext{-value}$	FDR $q$ -value	$\hat{\delta}$	s.e.	$p ext{-value}$	FDR $q$ -value
Panel A. Fathers								
Mortality (by 31.12.201	9)-0.0237	(0.0261)	0.364	-	0.0086	(0.0186)	0.645	-
Total costs	149.41	(387.65)	0.700	-	31.41	(287.94)	0.913	-
GP visit	-0.0192	(0.0164)	0.240	0.439	-0.0092	(0.0110)	0.403	0.404
GP costs	-2.11	(6.12)	0.730	0.764	-6.35	(4.37)	0.146	0.459
Specialist visit $(0/1)$	0.0209	(0.0269)	0.438	0.439	0.0353	(0.0182)	0.052	0.209
Specialist treatment co	sts 134.44	(279.38)	0.630	0.764	239.18	(229.97)	0.298	0.459
Any medication	-0.0167	(0.0204)	0.413	0.439	0.0145	(0.0129)	0.263	0.351
Pharmacy costs	61.99	(99.99)	0.535	0.764	-65.81	(69.50)	0.344	0.459
Hospitalization $(0/1)$	0.0117	(0.0095)	0.219	0.439	0.0096	(0.0067)	0.148	0.297
Hospital costs	88.86	(295.96)	0.764	0.764	102.30	(217.30)	0.638	0.638
			Panel	B. Mothers				
Mortality (by 31.12.201	9) 0.0164	(0.0210)	0.436	-	-0.0088	(0.0149)	0.554	-
Total costs	68.24	(302.29)	0.821	-	486.74	(245.05)	0.047	-
GP visit	-0.0183	(0.0152)	0.228	0.671	0.0047	(0.0100)	0.639	0.640
GP costs	-9.02	(5.97)	0.131	0.525	0.10	(4.26)	0.982	0.983
Specialist visit $(0/1)$	-0.0119	(0.0259)	0.647	0.863	0.0144	(0.0172)	0.402	0.536
Specialist treatment cos	sts 163.55	(193.34)	0.398	0.564	201.33	(227.91)	0.377	0.503
Any medication	-0.0177	(0.0184)	0.335	0.671	0.0255	(0.0114)	0.026	0.060
Pharmacy costs	-59.33	(73.96)	0.422	0.564	105.80	(68.22)	0.121	0.242
Hospitalization $(0/1)$	-0.0002	(0.0092)	0.984	0.984	0.0139	(0.0064)	0.030	0.060
Hospital costs	39.70	(208.67)	0.849	0.850	262.71	(168.16)	0.118	0.242

Note:Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for fathers and mothers and grouped lottery category and within these four groups for two subgroups, use indicators (GP visit, specialist visit, any medication, hospitalization) and cost factors (GP costs, specialist treatment costs, pharmacy costs, hospital costs). All specifications include controls for gender, ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

Table A7: IV-estimates of the effects of being a doctor on parental health care by living distance

$Distance \leq 40 km$					Distance $> 40 \text{km}$			
	$\hat{\delta}$	s.e.	$p ext{-value}$	FDR $q$ -value	$\hat{\delta}$	s.e.	$p ext{-value}$	FDR $q$ -value
			Panel	A. Fathers				
Mortality (by 31.12.201	9) 0.0011	(0.0136)	0.937	-	0.0086	(0.0140)	0.541	_
Total costs	-113.02	(318.28)	0.723	-	192.36	(322.28)	0.551	-
GP visit	-0.0041	(0.0129)	0.754	0.754	-0.0234	(0.0131)	0.073	0.208
GP costs	-4.46	(4.93)	0.366	0.732	-5.54	(5.20)	0.287	0.574
Specialist visit $(0/1)$	0.0266	(0.0213)	0.213	0.427	0.0320	(0.0215)	0.137	0.208
Specialist treatment cos	sts -3.66	(231.12)	0.987	0.988	353.20	(263.41)	0.180	0.574
Any medication	0.0058	(0.0153)	0.705	0.754	0.0014	(0.0159)	0.928	0.929
Pharmacy costs	-106.49	(79.94)	0.183	0.732	47.96	(74.82)	0.522	0.578
Hospitalization $(0/1)$	0.0099	(0.0077)	0.197	0.427	0.0111	(0.0078)	0.156	0.208
Hospital costs	7.69	(245.01)	0.975	0.988	134.18	(241.05)	0.578	0.578
			Panel	A. Mothers				
Mortality (by 31.12.201	9)-0.0038	(0.0092)	0.682	-	-0.0140	(0.0101)	0.167	-
Total costs	195.77	(267.33)	0.464	-	477.75	(276.77)	0.084	-
GP visit	0.0021	(0.0116)	0.858	0.859	-0.0070	(0.0121)	0.566	0.567
GP costs	-2.77	(4.63)	0.550	0.682	-2.95	(5.22)	0.572	0.572
Specialist visit $(0/1)$	-0.0091	(0.0198)	0.645	0.859	0.0205	(0.0210)	0.331	0.471
Specialist treatment cos	sts 222.34	(245.15)	0.364	0.682	95.71	(158.55)	0.546	0.572
Any medication	0.0093	(0.0133)	0.482	0.859	0.0136	(0.0146)	0.353	0.471
Pharmacy costs	34.58	(84.14)	0.681	0.682	67.67	(60.25)	0.261	0.523
Hospitalization $(0/1)$	0.0044	(0.0073)	0.547	0.859	0.0140	(0.0076)	0.066	0.263
Hospital costs	83.74	(179.00)	0.640	0.682	282.97	(197.04)	0.151	0.523

Note: Cluster-robust standard errors in parentheses. FDR q-values are false-discovery-rate adjusted p-values following Anderson (2008). The FDR q-values are computed separately for fathers and mothers and by living distance and within these four groups for two subgroups, use indicators (GP visit, specialist visit, any medication, hospitalization) and cost factors (GP costs, specialist treatment costs, pharmacy costs, hospital costs). All specifications include controls for gender, ethnicity, age at the first lottery application, fixed effects of the birth year of the applicant and parent, and fixed effects for the lottery category interacted with the year of first lottery.

# A.4 Classification of hospital diagnoses and prescription drugs

Table A8: ICD10-codes used to determine main diagnosis in case of hospitalization

Condition	ICD10-code
Respiratory diseases	J00-J99
Abdominal hernia	K40-K46
Chollelthiasis and cholecystitis	K80, K81
Lung cancer	C33, C34
Breast cancer	C50
Prostate cancer	C61
All cancers	C00-C97
Liver cirrhosis	K70, K74.3-K74.6
All circulatory diseases	I00-I99
Hypertensive and cerebrovascular diseases	I10-I15, I60-I69
Heart failure	I11.0, I13.0, I13.2, I13.9, I50
Heart attack	I21, I22, I23
Other ischemic heart diseases	I20, I24, I25

Table A9: ATC4-codes used to identify prescription drug use

Medication	ATC4-code
Peptic ulcer & gastro-oesophageal reflux disease med.	A02B
Diabetes medication	A10A, A10B, A10X
Antithrombotic agents	B01A
Diuretics	C03
Beta-blocking agents	C07
Lipid-modifying agents	C10A, C10B
Corticosteroids	D07A, D07B, D07C, D07X
Penicillins	J01C
Anti-inflammatory/anti-rheumatic medication	M01
Opioids	N02A
Psycholeptics	N05
Antidepressants	N06A
Dementia medication	N06D
Nasal preparations	R01A
Obstructive airway disease medication	R03
Antihistamines	R06A
Anti-infectives	S01A

#### B Event study analysis

Chen et al. (2019) have data on admission lotteries to medical school in Sweden in the years from 2002 to 2010. In those years, 188 applicants were admitted to medical school on the basis of a lottery and 555 applicants were rejected. To study impacts beyond the first eight years after enrollment, they complement the results based on admission lotteries with an event study that compares the health outcomes of doctors' relatives with those of relatives of graduates from law school. Law school graduates are chosen as comparison group because they are similar on dimensions such as income, years of education, secondary school GPA, prestige of the study program and working hours. There may, however, also be dimensions in which they differ, such as interest in study subjects (law vs health), (health-related) lifestyle, partner choice, fertility, etc. Chen et al. (2019) show that in the event study, pre-trends of health outcomes are mostly similar and differences arise around six years after enrolling in medical school. Twenty-five years after starting the study, doctors' relatives have 2 percentage points lower mortality rates than relatives of lawyers.

To assess whether the differences in findings from the admission lottery design between Chen et al's study and ours, carry over to the event study design, we also conducted an event study comparing health care use and mortality of the parents of doctors to those of the parents of lawyers. We focus on the parents of registered doctors born between 1967 and 1996 and construct a control group of parents of lawyers born in the same years. We exclude families where at least one child has a law degree and at least one child is a doctor. If more than one child of the remaining families has a law degree or is a doctor, we only include the oldest sibling in the sample.

For the outcome  $Y_{it}$  of parent i in year t, whose oldest child started university education in year  $\tau_i$  we specify the following regression equation

(B.1) 
$$Y_{it} = \alpha_t + \delta_{t-\tau_i} D_i + \gamma_{t-\tau_i} + \eta_i + U_{it}$$

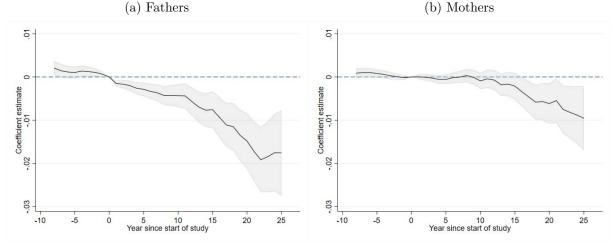
where  $D_i$  denotes the child enrolling in medical school compared to law school. Our parameters of interest are  $\delta_{t-\tau_i}$ , where we normalize  $\delta_0 = 0$ . We take the year  $\tau_i$  of enrolling when the child is 19 years old. The general time trend in outcomes is described by  $\gamma_{t-\tau_i}$ , and  $\alpha_t$  are time fixed effects and  $\eta_i$  parent fixed effects. Because mortality is defective, individual fixed effects cannot be used, so we replace  $\eta_i$  by  $\theta D_i + X_i \beta$ . The vector  $X_i$  includes controls for gender and ethnicity of the child and fixed effects for the child's and parent's year of birth. Standard errors are clustered at the level of the parent.

Figure B1 shows the event study results for mortality of the father and mother up to 25 years after matriculation. The results show that after the child started to study, mortality is always significantly lower among the fathers of doctors than among the fathers of lawyers. Mortality is lower among the mothers of doctors than among the mothers of

lawyers 16 years after starting the study. These results are very different from the results based on the admission lotteries where we found no effect on parental mortality.

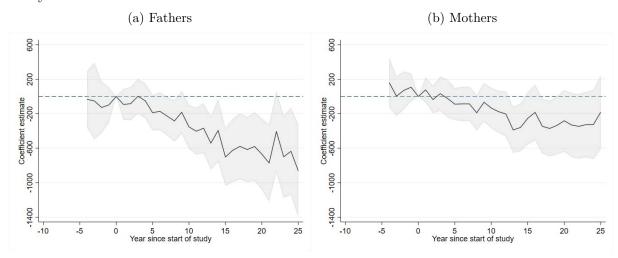
Next, we present similar graphs for total health care costs (Figure B2), hospitalization (Figure B3) and use of prescription medication (Figure B4). The event study shows significant negative effects for total health care costs of fathers and to a lesser extent for mothers. This is not in line with the results from the admission lotteries that did not show an effect on total health care costs for fathers and a positive effect for mothers that is significant at the 10%-level. We do not find effects on the probability to be hospitalized, which concurs with our findings using the admission lotteries. For prescription medication use, the event study shows no effects for fathers, but significantly positive effects for mothers, though not consistently. These findings are again in contrast to the ones we found in Tables 8 and A4 which show no significant differences.

Figure B1: Parents' mortality by year since start study of their child - event study



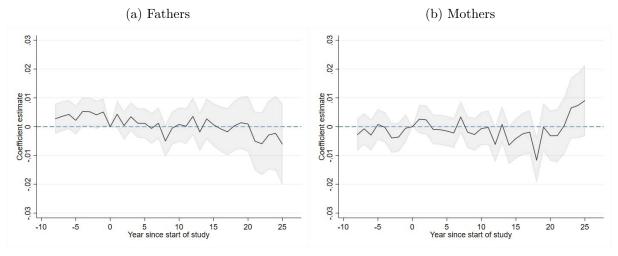
Note: Estimates (with confidence intervals) from an event study comparing the parents of doctors and lawyers.

Figure B2: Parents' total health care costs by year since start study of their child - event study



Note: Estimates (with confidence intervals) from an event study comparing the parents of doctors and lawyers.

Figure B3: Parents' hospitalization by year since start study of their child - event study

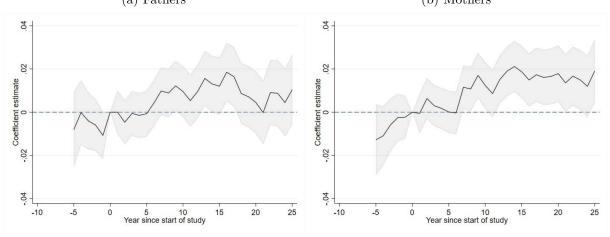


Note: Estimates (with confidence intervals) from an event study comparing the parents of doctors and lawyers.

Figure B4: Parents' medication use by year since start study of their child - event study

(a) Fathers

(b) Mothers



Note: Estimates (with confidence intervals) from an event study comparing the parents of doctors and lawyers.

### References

**Anderson, Michael L.** 2008. "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of the American Statistical Association*, 103(484): 1481–1495.

Chen, Yiqun, Petra Persson, and Maria Polyakova. 2019. "The Roots of Health Inequality and The Value of Intra-Family Expertise." National Bureau of Economic Research Working Paper 25618.