

# Medical Innovation, Education, and Labor Market Outcomes of Cancer Patients (Online Appendix)

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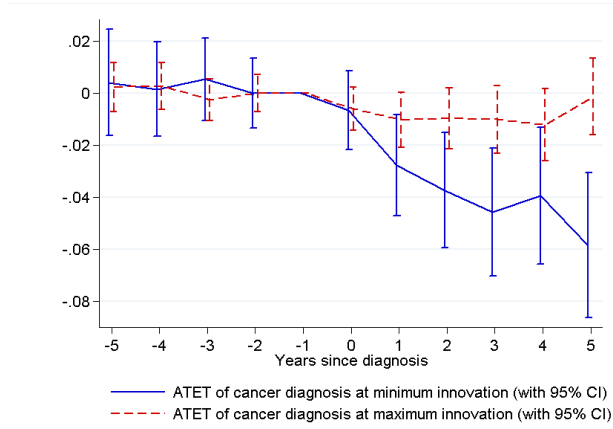
January 2019

This Appendix contains summary statistics and additional regression results for Jeon and Pohl, 2019, “Medical Innovation, Education, and Labor Market Outcomes of Cancer Patients.” Tables 1 to 3 show summary statistics for three samples: men aged 49 to 60, women aged 35 to 60, and women aged 35 to 44. Figures 1 and 2 and Tables 4 to 10 contain robustness checks using ten-year lags of the medical innovation measures number of approved drugs and the quality-adjusted patent index. Figures 3 and 4 and Tables 11 to 17 show robustness checks using samples of individuals who survived at least five years after the (placebo) diagnosis.

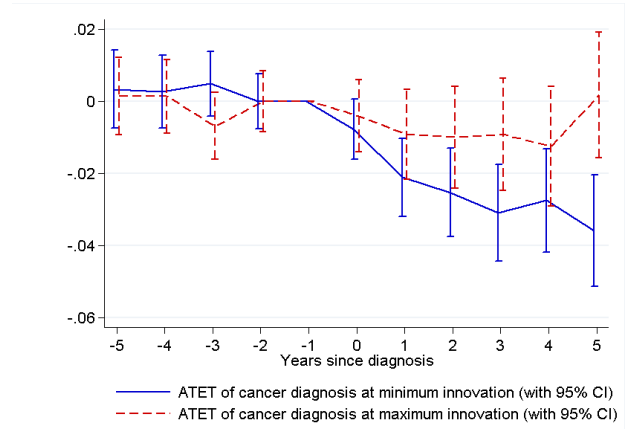
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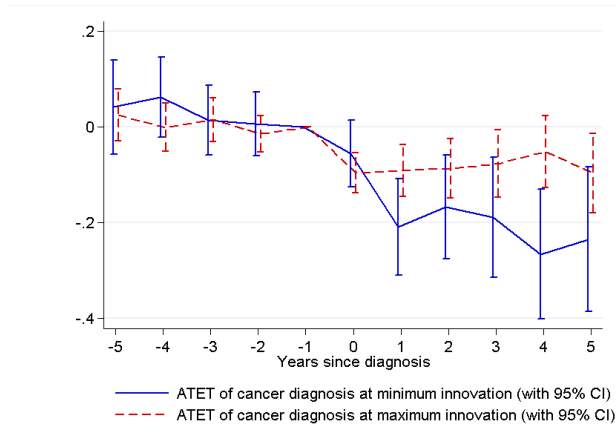
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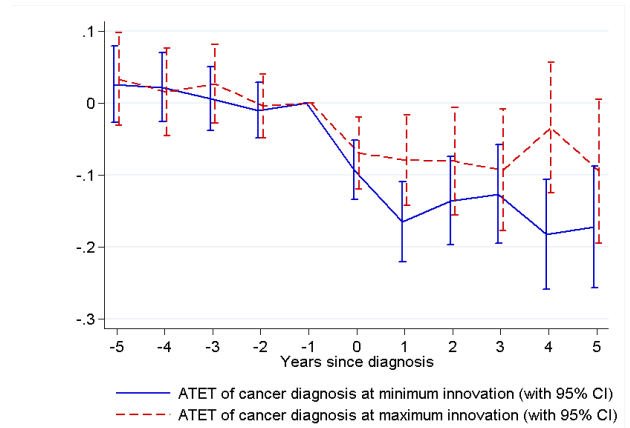
(a) Employment—Innovation Measure: Number of Drugs



(b) Employment—Innovation Measure: Patent Index

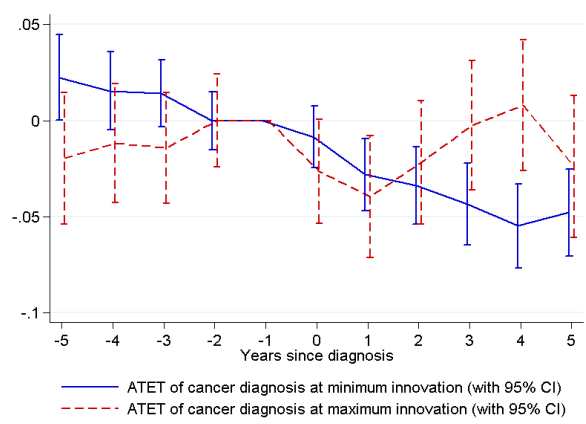


(c) Annual Log-Earnings—Innovation Measure: Number of Drugs

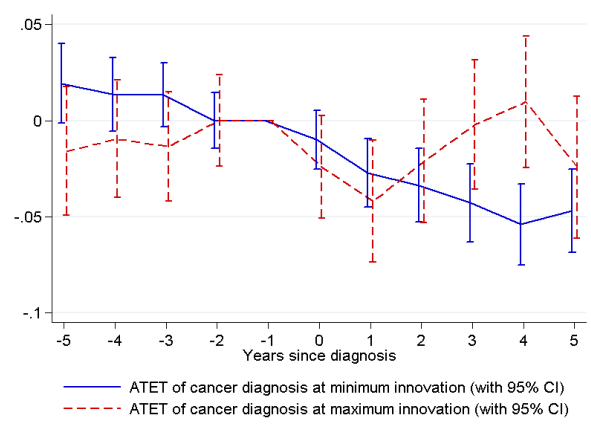


(d) Annual Log-Earnings—Innovation Measure: Patent Index

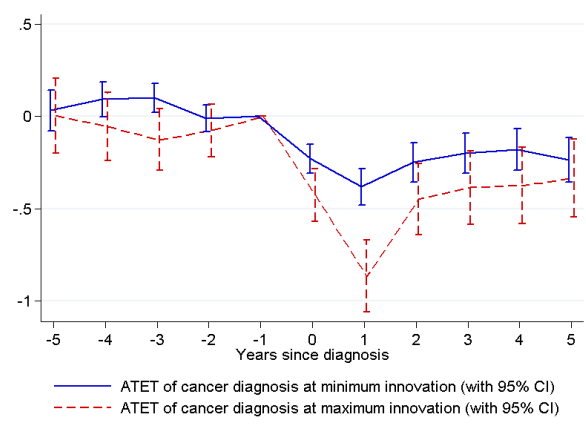
Figure 1: Dynamic Treatment Effects of Prostate Cancer Diagnosis on Labor Market Outcomes, Age 49 to 60, by Level of Innovation (10-Year Lag)



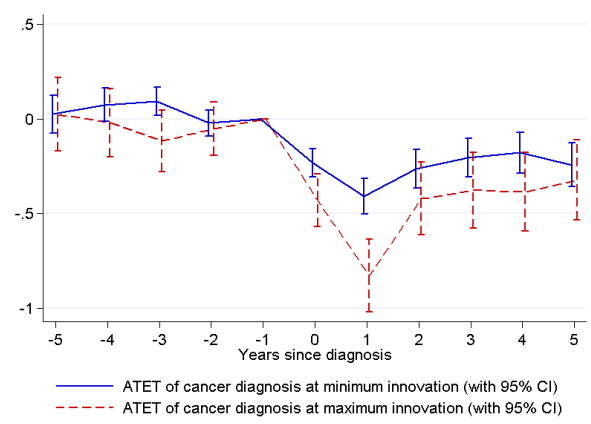
(a) Employment—Innovation Measure: Number of Drugs



(b) Employment—Innovation Measure: Patent Index

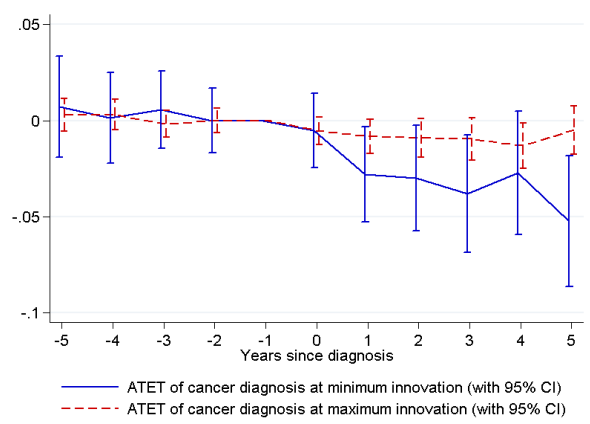


(c) Annual Log-Earnings—Innovation Measure: Number of Drugs

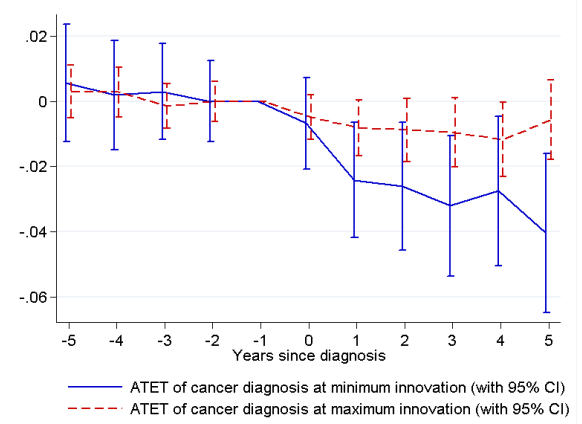


(d) Annual Log-Earnings—Innovation Measure: Patent Index

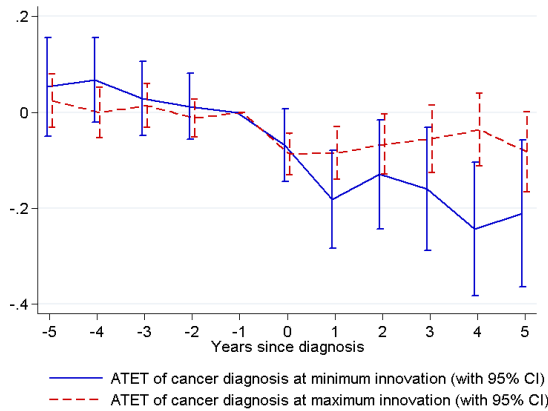
Figure 2: Dynamic Treatment Effects of Breast Cancer Diagnosis on Labor Market Outcomes, Age 35 to 44, by Level of Innovation (10-Year Lag)



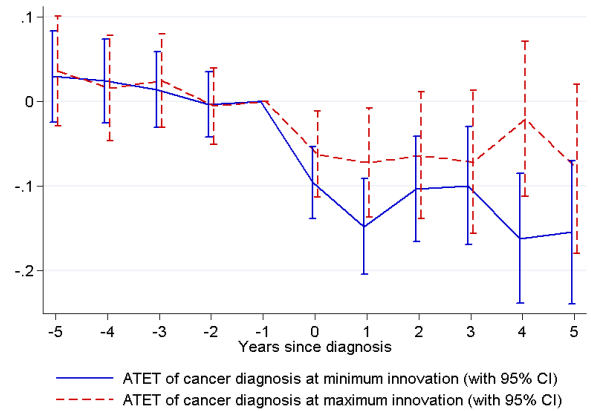
(a) Employment—Innovation Measure: Number of Drugs



(b) Employment—Innovation Measure: Patent Index

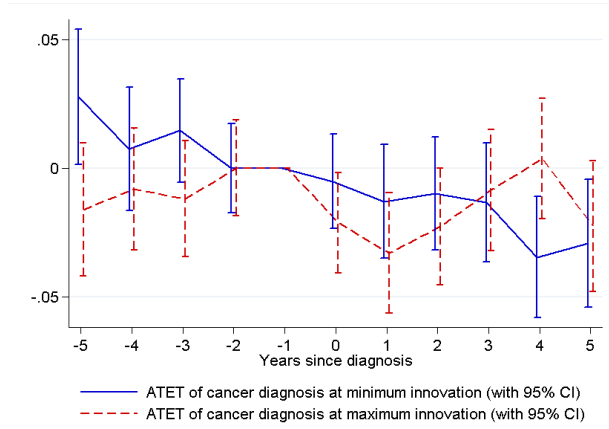


(c) Annual Log-Earnings—Innovation Measure: Number of Drugs

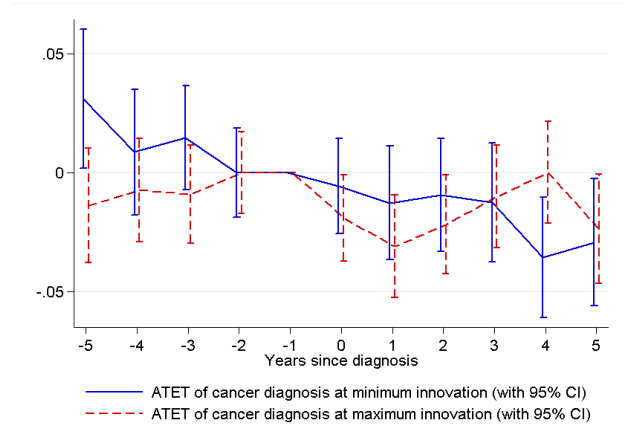


(d) Annual Log-Earnings—Innovation Measure: Patent Index

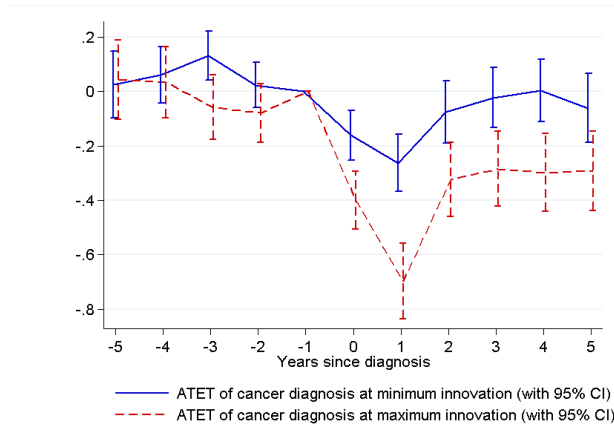
Figure 3: Dynamic Treatment Effects of Prostate Cancer Diagnosis on Labor Market Outcomes, Age 49 to 60, by Level of Innovation (5-Year Survivors Only, 5-Year Lag)



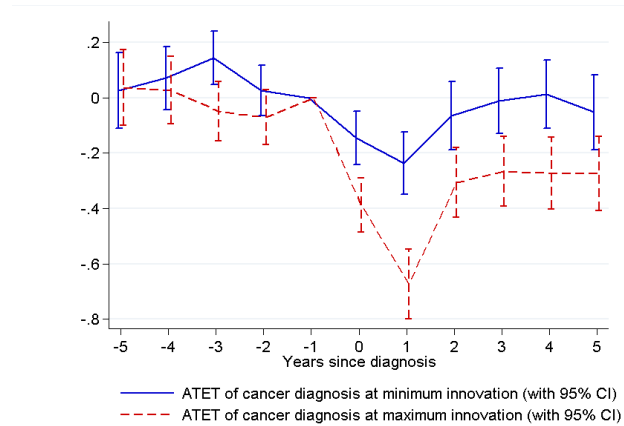
(a) Employment—Innovation Measure: Number of Drugs



(b) Employment—Innovation Measure: Patent Index



(c) Annual Log-Earnings—Innovation Measure: Number of Drugs



(d) Annual Log-Earnings—Innovation Measure: Patent Index

Figure 4: Dynamic Treatment Effects of Breast Cancer Diagnosis on Labor Market Outcomes, Age 35 to 44, by Level of Innovation (5-Year Survivors Only, 5-Year Lag)

Table 1: Summary Statistics: Prostate Cancer Sample, Age 49 to 60

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
Coarsened age at $s$						
49–52	0.143	0.389	−0.579	0.144	0.144	0
53–55	0.219	0.256	−0.087	0.22	0.22	0
56–58	0.344	0.223	0.27	0.344	0.344	0
59–60	0.294	0.132	0.404	0.293	0.293	0
Highest level of schooling at $s$						
No high school	0.241	0.273	−0.073	0.242	0.242	0
HS (w/wo trades cert)	0.391	0.403	−0.025	0.392	0.392	0
Postsec non-university	0.147	0.142	0.014	0.145	0.145	0
University degree	0.222	0.183	0.097	0.221	0.221	0
Visible minority						
Not a visible minority	0.928	0.919	0.034	0.932	0.932	0
Asian	0.03	0.053	−0.118	0.028	0.028	0
Other	0.042	0.027	0.08	0.039	0.039	0
Province/territory at $s$						
Newfoundland	0.021	0.021	0	0.021	0.021	0
Prince of Edward Island	0.007	0.005	0.031	0.007	0.007	0
Nova Scotia	0.036	0.033	0.021	0.035	0.035	0
New Brunswick	0.033	0.026	0.038	0.033	0.033	0
Quebec	0.187	0.272	−0.203	0.188	0.188	0
Ontario	0.409	0.345	0.131	0.411	0.411	0
Manitoba	0.034	0.04	−0.031	0.033	0.033	0
Saskatchewan	0.035	0.033	0.008	0.034	0.034	0
Alberta	0.11	0.094	0.051	0.109	0.109	0
British Columbia	0.124	0.122	0.007	0.124	0.124	0
YK&NWT&NNV	0.004	0.008	−0.055	0.003	0.003	0
Missing	0.001	0.001	−0.003	0.001	0.001	0
Not Working at $s - 1$	0.101	0.098	0.009	0.1	0.1	0
Working at $s - 1$	0.899	0.902	−0.009	0.9	0.9	0
Not working at $s - 2$	0.091	0.088	0.012	0.09	0.09	0
Working at $s - 2$	0.909	0.912	−0.012	0.91	0.91	0
Quintiles of earnings at $s - 1$						
Not working at $s - 1$	0.101	0.098	0.009	0.1	0.1	0
Quintile 1 (lowest)	0.201	0.19	0.027	0.201	0.201	0
Quintile 2	0.148	0.174	−0.069	0.149	0.149	0
Quintile 3	0.158	0.171	−0.033	0.158	0.158	0
Quintile 4	0.178	0.176	0.006	0.178	0.178	0
Quintile 5 (highest)	0.214	0.192	0.055	0.215	0.215	0
Quintiles of earnings at $s - 2$						
Not working at $s - 2$	0.091	0.088	0.012	0.09	0.09	0
Quintile 1 (lowest)	0.181	0.187	−0.016	0.181	0.181	0
Quintile 2	0.154	0.173	−0.053	0.154	0.154	0
Quintile 3	0.161	0.172	−0.032	0.16	0.16	0
Quintile 4	0.183	0.18	0.007	0.183	0.183	0
Quintile 5 (highest)	0.231	0.199	0.076	0.231	0.231	0
Year at $s$ (year of diagnosis)						
1992	0.018	0.034	−0.103	0.018	0.018	0
1993	0.025	0.036	−0.062	0.025	0.025	0
1994	0.032	0.037	−0.031	0.032	0.032	0
1995	0.027	0.039	−0.07	0.027	0.027	0
1996	0.029	0.042	−0.067	0.029	0.029	0
1997	0.03	0.044	−0.074	0.03	0.03	0
1998	0.039	0.046	−0.035	0.039	0.039	0
1999	0.042	0.049	−0.032	0.042	0.042	0
2000	0.05	0.051	−0.004	0.05	0.05	0
2001	0.061	0.053	0.033	0.061	0.061	0
2002	0.061	0.056	0.022	0.061	0.061	0
2003	0.06	0.058	0.01	0.06	0.06	0
2004	0.071	0.06	0.044	0.071	0.071	0
2005	0.07	0.062	0.03	0.07	0.07	0

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Table 1-- continued from previous page

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
2006	0.083	0.064	0.072	0.083	0.083	0
2007	0.083	0.066	0.066	0.083	0.083	0
2008	0.077	0.067	0.042	0.078	0.078	0
2009	0.07	0.068	0.01	0.07	0.07	0
2010	0.071	0.069	0.011	0.071	0.071	0
Number of children at $s - 1$						
No children	0.532	0.453	0.16	0.533	0.512	0.042
1-2 children	0.393	0.448	-0.112	0.392	0.409	-0.035
3+ children	0.061	0.079	-0.071	0.061	0.059	0.008
Missing	0.014	0.02	-0.05	0.013	0.019	-0.046
Age of youngest child at $s - 1$						
No children	0.532	0.453	0.16	0.533	0.512	0.042
Age 0-6	0.014	0.022	-0.06	0.014	0.015	-0.012
Age 7-17	0.14	0.214	-0.193	0.141	0.152	-0.033
Age 18+	0.3	0.292	0.018	0.299	0.301	-0.005
Missing	0.014	0.02	-0.05	0.013	0.019	-0.046
Number of children aged 0-17 at $s - 1$						
No child aged 0-17	0.832	0.744	0.216	0.832	0.813	0.049
1 child	0.104	0.146	-0.127	0.104	0.11	-0.018
2+ children	0.05	0.09	-0.155	0.05	0.058	-0.033
Missing	0.014	0.02	-0.05	0.013	0.019	-0.046
Union status: no	0.544	0.527	0.034	0.543	0.544	-0.002
Union status: yes	0.456	0.473	-0.034	0.457	0.456	0.002
Marital status: single	0.144	0.177	-0.091	0.144	0.163	-0.054
Marital status: couple	0.843	0.803	0.105	0.843	0.817	0.068
Marital status: missing	0.014	0.02	-0.05	0.013	0.019	-0.046
Self-employed: no	0.787	0.794	-0.018	0.787	0.789	-0.006
Self-employed: yes	0.198	0.183	0.038	0.198	0.19	0.022
Self-employed: missing	0.015	0.023	-0.056	0.015	0.021	-0.049
Age	56.258	54	0.699	56.25	56.109	0.046
Earnings at $s - 1$	56,866.84	53,577.44	0.053	57,019.53	56,820.94	0.003
Earnings at $s - 2$	59,032.98	54,665.93	0.069	59,123.13	58,957.41	0.002
Earnings at $s - 1$ conditional on working	63,222.69	59,391.41	0.061	63,323.61	63,103.06	0.003
earnings at $s - 2$ conditional on working	64,946.14	59,908.14	0.079	64,959.99	64,777.91	0.003
Number of dependents at $s - 1$	0.759	0.929	-0.164	0.759	0.786	-0.027
Age of youngest dependents at $s - 1$	20.133	18.751	0.177	20.121	20.102	0.002
Number of dependents aged 0-17 at $s - 1$	0.219	0.361	-0.213	0.22	0.248	-0.046
Observations	7,908	5,362,573		7,835	1,814,546	
Number of unique persons	7,908	726,280		7,835	527,888	

Table 2: Summary Statistics: Breast Cancer Sample, Age 35 to 60

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
Coarsened age at $s$						
35–39	0.048	0.162	−0.379	0.048	0.048	0
40–44	0.132	0.222	−0.237	0.132	0.132	0
45–48	0.183	0.192	−0.025	0.184	0.184	0
49–52	0.218	0.169	0.125	0.219	0.219	0
53–55	0.159	0.108	0.15	0.159	0.159	0
56–58	0.153	0.093	0.184	0.152	0.152	0
59–60	0.108	0.054	0.197	0.107	0.107	0
Highest level of schooling at $s$						
No high school	0.227	0.242	−0.035	0.228	0.228	0
HS (w/wo trades cert)	0.383	0.395	−0.025	0.385	0.385	0
Postsec non-university	0.218	0.215	0.006	0.217	0.217	0
University degree	0.172	0.147	0.066	0.17	0.17	0
Visible minority						
Not a visible minority	0.919	0.914	0.019	0.926	0.926	0
Asian	0.054	0.056	−0.01	0.051	0.051	0
Other	0.027	0.03	−0.017	0.024	0.024	0
Province/territory at $s$						
Newfoundland	0.02	0.023	−0.02	0.019	0.019	0
Prince of Edward Island	0.006	0.005	0.008	0.005	0.005	0
Nova Scotia	0.033	0.032	0.006	0.033	0.033	0
New Brunswick	0.025	0.026	−0.009	0.024	0.024	0
Quebec	0.244	0.264	−0.046	0.247	0.247	0
Ontario	0.372	0.349	0.048	0.377	0.377	0
Manitoba	0.04	0.04	−0.002	0.039	0.039	0
Saskatchewan	0.034	0.036	−0.011	0.033	0.033	0
Alberta	0.095	0.096	−0.004	0.094	0.094	0
British Columbia	0.124	0.119	0.014	0.124	0.124	0
YK&NWT&NNV	0.007	0.008	−0.013	0.006	0.006	0
Missing	0	0	−0.007	0	0	.
Not Working at $s - 1$	0.141	0.14	0.003	0.141	0.141	0
Working at $s - 1$	0.859	0.86	−0.003	0.859	0.859	0
Not working at $s - 2$	0.134	0.137	−0.009	0.135	0.135	0
Working at $s - 2$	0.866	0.863	0.009	0.865	0.865	0
Quintiles of earnings at $s - 1$						
Not working at $s - 1$	0.141	0.14	0.003	0.141	0.141	0
Quintile 1 (lowest)	0.16	0.168	−0.023	0.16	0.16	0
Quintile 2	0.159	0.171	−0.032	0.159	0.159	0
Quintile 3	0.166	0.173	−0.017	0.166	0.166	0
Quintile 4	0.176	0.173	0.006	0.176	0.176	0
Quintile 5 (highest)	0.198	0.175	0.059	0.198	0.198	0
Quintiles of earnings at $s - 2$						
Not working at $s - 2$	0.134	0.137	−0.009	0.135	0.135	0
Quintile 1 (lowest)	0.158	0.169	−0.031	0.157	0.157	0
Quintile 2	0.162	0.172	−0.025	0.162	0.162	0
Quintile 3	0.168	0.173	−0.014	0.167	0.167	0
Quintile 4	0.178	0.174	0.011	0.178	0.178	0
Quintile 5 (highest)	0.2	0.175	0.064	0.2	0.2	0
Year at $s$ (year of diagnosis)						
1992	0.038	0.047	−0.043	0.038	0.038	0
1993	0.038	0.049	−0.052	0.038	0.038	0
1994	0.046	0.051	−0.021	0.046	0.046	0
1995	0.047	0.052	−0.023	0.047	0.047	0
1996	0.047	0.054	−0.034	0.047	0.047	0
1997	0.052	0.056	−0.017	0.051	0.051	0
1998	0.054	0.057	−0.011	0.055	0.055	0
1999	0.058	0.058	−0.002	0.058	0.058	0
2000	0.056	0.06	−0.016	0.056	0.056	0
2001	0.058	0.059	−0.005	0.058	0.058	0
2002	0.058	0.058	0	0.058	0.058	0

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Table 2— continued from previous page

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
2003	0.054	0.056	−0.01	0.054	0.054	0
2004	0.057	0.055	0.012	0.057	0.057	0
2005	0.058	0.053	0.023	0.059	0.059	0
2006	0.062	0.051	0.046	0.062	0.062	0
2007	0.058	0.049	0.037	0.058	0.058	0
2008	0.056	0.047	0.041	0.056	0.056	0
2009	0.051	0.045	0.027	0.051	0.051	0
2010	0.051	0.043	0.038	0.051	0.051	0
Number of children at $s - 1$						
No children	0.428	0.346	0.167	0.429	0.429	0
1–2 children	0.487	0.521	−0.068	0.488	0.488	0
3+ children	0.086	0.133	−0.152	0.083	0.083	0
Missing						
Age of youngest child at $s - 1$						
No children	0.428	0.346	0.167	0.429	0.429	0
Age 0–6	0.056	0.108	−0.193	0.055	0.051	0.019
Age 7–17	0.276	0.356	−0.173	0.275	0.275	0.002
Age 18+	0.241	0.189	0.126	0.24	0.245	−0.012
Missing						
Number of children aged 0–17 at $s - 1$						
No child aged 0–17	0.668	0.535	0.274	0.669	0.674	−0.011
1 child	0.175	0.198	−0.058	0.175	0.169	0.016
2+ children	0.157	0.267	−0.272	0.156	0.157	−0.003
Missing						
Union status: no	0.562	0.544	0.036	0.562	0.547	0.03
Union status: yes	0.438	0.456	−0.036	0.438	0.453	−0.03
Marital status: single	0.247	0.252	−0.011	0.248	0.258	−0.024
Marital status: couple	0.753	0.748	0.011	0.752	0.742	0.024
Marital status: missing						
Self-employed: no	0.881	0.882	−0.005	0.881	0.88	0.003
Self-employed: yes	0.118	0.116	0.005	0.118	0.119	−0.003
Self-employed: missing	0.001	0.001	0.002	0.001	0.001	0
Age	50.599	47.16	0.527	50.579	50.503	0.012
Earnings at $s - 1$	31,789.77	29,861.21	0.065	31,909.57	31,745.95	0.005
Earnings at $s - 2$	31,888.17	29,547.40	0.08	31,942.91	31,706.48	0.008
Earnings at $s - 1$ conditional on working	37,025.92	34,730.70	0.078	37,135.86	36,945.44	0.006
Earnings at $s - 2$ conditional on working	36,831.59	34,254.84	0.089	36,907.98	36,634.80	0.009
Number of dependents at $s - 1$	0.999	1.246	−0.219	0.992	0.997	−0.005
Age of youngest dependents at $s - 1$	16.696	14.168	0.305	16.709	16.813	−0.012
Number of dependents aged 0–17 at $s - 1$	0.539	0.841	−0.303	0.537	0.534	0.003
Observations	19,163	12,076,907		18,844	3,455,120	
Number of unique persons	19,163	896,717		18,844	702,533	

Table 3: Summary Statistics: Breast Cancer Sample, Age 35 to 44

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
Coarsened age at $s$						
35–39	0.265	0.422	-0.334	0.266	0.266	0
40–44	0.735	0.578	0.334	0.734	0.734	0
Highest level of schooling at $s$						
No high school	0.192	0.219	-0.067	0.193	0.193	0
HS (w/wo trades cert)	0.411	0.41	0.003	0.415	0.415	0
Postsec non-university	0.221	0.221	0	0.219	0.219	0
University degree	0.175	0.15	0.07	0.172	0.172	0
Visible minority						
Not a visible minority	0.905	0.915	-0.036	0.913	0.913	0
Asian	0.064	0.056	0.036	0.059	0.059	0
Other	0.031	0.03	0.01	0.028	0.028	0
Province/territory at $s$						
Newfoundland	0.025	0.027	-0.012	0.025	0.025	0
Prince of Edward Island	0.005	0.005	0.001	0.004	0.004	0
Nova Scotia	0.038	0.033	0.026	0.038	0.038	0
New Brunswick	0.022	0.027	-0.028	0.022	0.022	0
Quebec	0.249	0.262	-0.029	0.251	0.251	0
Ontario	0.365	0.344	0.045	0.37	0.37	0
Manitoba	0.039	0.042	-0.015	0.036	0.036	0
Saskatchewan	0.032	0.038	-0.032	0.031	0.031	0
Alberta	0.089	0.1	-0.035	0.088	0.088	0
British Columbia	0.127	0.115	0.037	0.127	0.127	0
YK&NWT&NNV	0.008	0.009	-0.01	0.007	0.007	0
Missing	0.001	0	0.006	0	0	.
Not Working at $s - 1$	0.114	0.129	-0.044	0.113	0.113	0
Working at $s - 1$	0.886	0.871	0.044	0.887	0.887	0
Not working at $s - 2$	0.123	0.134	-0.035	0.122	0.122	0
Working at $s - 2$	0.877	0.866	0.035	0.878	0.878	0
Quintiles of earnings at $s - 1$						
Not working at $s - 1$	0.114	0.129	-0.044	0.113	0.113	0
Quintile 1 (lowest)	0.169	0.18	-0.028	0.17	0.17	0
Quintile 2	0.162	0.173	-0.031	0.16	0.16	0
Quintile 3	0.169	0.176	-0.017	0.169	0.169	0
Quintile 4	0.187	0.175	0.029	0.187	0.187	0
Quintile 5 (highest)	0.199	0.168	0.082	0.2	0.2	0
Quintiles of earnings at $s - 2$						
Not working at $s - 2$	0.123	0.134	-0.035	0.122	0.122	0
Quintile 1 (lowest)	0.167	0.184	-0.043	0.167	0.167	0
Quintile 2	0.159	0.173	-0.037	0.16	0.16	0
Quintile 3	0.177	0.174	0.007	0.175	0.175	0
Quintile 4	0.182	0.173	0.026	0.183	0.183	0
Quintile 5 (highest)	0.192	0.163	0.077	0.192	0.192	0
Year at $s$ (year of diagnosis)						
1992	0.058	0.067	-0.037	0.059	0.059	0
1993	0.055	0.069	-0.061	0.055	0.055	0
1994	0.073	0.071	0.005	0.073	0.073	0
1995	0.066	0.073	-0.028	0.066	0.066	0
1996	0.066	0.074	-0.031	0.067	0.067	0
1997	0.066	0.075	-0.034	0.066	0.066	0
1998	0.075	0.075	0.001	0.076	0.076	0
1999	0.075	0.075	0.003	0.076	0.076	0
2000	0.066	0.074	-0.029	0.066	0.066	0
2001	0.062	0.069	-0.028	0.062	0.062	0
2002	0.062	0.061	0.003	0.063	0.063	0
2003	0.06	0.053	0.028	0.06	0.06	0
2004	0.059	0.046	0.06	0.059	0.059	0
2005	0.045	0.038	0.037	0.046	0.046	0
2006	0.041	0.03	0.057	0.041	0.041	0
2007	0.028	0.023	0.033	0.027	0.027	0

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Table 3 – continued from previous page

	Unweighted			Weighted by CEM Weights		
	Treat.	Control	Normal. Diff.	Treat.	Control	Normal. Diff.
2008	0.024	0.016	0.059	0.023	0.023	0
2009	0.012	0.009	0.034	0.012	0.012	0
2010	0.006	0.002	0.057	0.006	0.006	0
Number of children at $s - 1$						
No children	0.202	0.183	0.048	0.2	0.2	0
1–2 children	0.621	0.604	0.035	0.625	0.625	0
3+ children	0.177	0.213	-0.091	0.176	0.176	0
Missing						
Age of youngest child at $s - 1$						
No children	0.202	0.183	0.048	0.2	0.2	0
Age 0–6	0.24	0.251	-0.027	0.24	0.212	0.065
Age 7–17	0.496	0.51	-0.028	0.497	0.525	-0.056
Age 18+	0.063	0.056	0.029	0.064	0.063	0.003
Missing						
Number of children aged 0–17 at $s - 1$						
No child aged 0–17	0.265	0.239	0.059	0.263	0.262	0.002
1 child	0.256	0.239	0.041	0.258	0.252	0.014
2+ children	0.479	0.522	-0.087	0.479	0.486	-0.013
Missing						
Union status: no	0.538	0.523	0.031	0.539	0.508	0.062
Union status: yes	0.462	0.477	-0.031	0.461	0.492	-0.062
Marital status: single	0.225	0.242	-0.039	0.224	0.247	-0.054
Marital status: couple	0.775	0.758	0.039	0.776	0.753	0.054
Marital status: missing						
Self-employed: no	0.877	0.884	-0.023	0.878	0.882	-0.014
Self-employed: yes	0.122	0.115	0.021	0.121	0.117	0.013
Self-employed: missing	0.002	0.001	0.014	0.001	0.001	0.01
Age	41.029	40.016	0.375	41.02	40.813	0.08
Earnings at $s - 1$	31,450.16	28,525.68	0.104	31,539.28	31,275.48	0.009
Earnings at $s - 2$	30,470.82	27,597.94	0.105	30,513.04	30,309.84	0.007
Earnings at $s - 1$ conditional on working	35,500.24	32,733.09	0.101	35,567.13	35,269.65	0.011
Earnings at $s - 2$ conditional on working	34,725.61	31,878.10	0.107	34,769.24	34,537.69	0.008
Number of dependents at $s - 1$	1.606	1.715	-0.094	1.607	1.613	-0.006
Age of youngest dependents at $s - 1$	10.146	9.871	0.042	10.18	10.46	-0.043
Number of dependents aged 0–17 at $s - 1$	1.4	1.518	-0.102	1.4	1.405	-0.004
Observations	3,436	4,628,999		3,382	975,214	
Number of unique persons		623,375			378,489	

Table 4: Prostate Cancer Employment Regressions with Time-Invariant Effects, Age 49 to 60 (10-Year Lag of Innovation Measures)

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
Post $\times$ Cancer	−0.0179*** (0.00302)	−0.0496*** (0.0143)	−0.0261*** (0.00488)
Post $\times$ Cancer $\times$ Drugs		0.00155** (0.000670)	
Post $\times$ Cancer $\times$ Patents			0.000306** (0.000133)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0665	0.0670	0.0669
Number of unique persons	535,723	535,723	535,723
Person-year observations	19,743,677	19,743,677	19,743,677

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 5: Prostate Cancer Log-Earnings Regressions with Time-Invariant Effects, Age 49 to 60 (10-Year Lag of Innovation Measures)

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
Post $\times$ Cancer	−0.123*** (0.0161)	−0.249*** (0.0720)	−0.149*** (0.0252)
Post $\times$ Cancer $\times$ Drugs		0.00607* (0.00344)	
Post $\times$ Cancer $\times$ Patents			0.000911 (0.000711)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0708	0.0710	0.0711
Number of unique persons	521,311	521,311	521,311
Person-year observations	17,500,524	17,500,524	17,500,524

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is annual log-earnings. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 6: Breast Cancer Employment Regressions with Time-Invariant Effects, Age 35 to 60 (10-Year Lag of Innovation Measures)

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
Post $\times$ Cancer	−0.0386*** (0.00209)	−0.0386*** (0.00739)	−0.0388*** (0.00417)
Post $\times$ Cancer $\times$ Drugs		−0.000000574 (0.000298)	
Post $\times$ Cancer $\times$ Patents			0.00000919 (0.000134)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0286	0.0288	0.0288
Number of unique persons	721,377	721,377	721,377
Person-year observations	37,451,015	37,451,015	37,451,015

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 7: Breast Cancer Employment Regressions with Time-Invariant Effects, Age 35 to 44 (10-Year Lag of Innovation Measures)

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
Post $\times$ Cancer	−0.0329*** (0.00407)	−0.0622*** (0.0149)	−0.0451*** (0.00756)
Post $\times$ Cancer $\times$ Drugs		0.00143** (0.000684)	
Post $\times$ Cancer $\times$ Patents			0.000622** (0.000305)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.00862	0.00863	0.00863
Number of unique persons	381,871	381,871	381,871
Person-year observations	10,512,459	10,512,459	10,512,459

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 8: Breast Cancer Log-Earnings Regressions with Time-Invariant Effects, Age 35 to 44 (10-Year Lag of Innovation Measures)

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
Post $\times$ Cancer	−0.336*** (0.0230)	−0.215** (0.0866)	−0.280*** (0.0398)
Post $\times$ Cancer $\times$ Drugs		−0.00587 (0.00431)	
Post $\times$ Cancer $\times$ Patents			−0.00281 (0.00192)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0112	0.0112	0.0112
Number of unique persons	374,865	374,865	374,865
Person-year observations	9,374,112	9,374,112	9,374,112

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is annual log-earnings. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 9: Prostate Cancer Employment Regressions with Time-Invariant Effects by Education, Age 49 to 60 (10-Year Lag of Innovation Measures)

	Diff-in-Diff			Triple-Diff: Drugs			Triple-Diff: Patents		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS	(7) < HS	(8) = HS	(9) > HS
Post×Cancer	−0.0270 <sup>****</sup> (0.00654)	−0.0180 <sup>****</sup> (0.00477)	−0.0119 <sup>**</sup> (0.00483)	−0.0152 (0.0256)	−0.0570 <sup>**</sup> (0.0236)	−0.0696 <sup>****</sup> (0.0254)	−0.0230 <sup>**</sup> (0.00940)	−0.0299 <sup>****</sup> (0.00807)	−0.0244 <sup>****</sup> (0.00806)
Post×Cancer×Drugs				−0.000619 (0.00128)	0.00188 <sup>*</sup> (0.00109)	0.00277 <sup>**</sup> (0.00118)			
Post×Cancer×Patents							−0.000180 (0.000293)	0.000412 <sup>*</sup> (0.000211)	0.000446 <sup>**</sup> (0.000216)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0722	0.0648	0.0653	0.0727	0.0655	0.0655	0.0725	0.0654	0.0655
Number of unique persons	145,385	231,645	158,693	145,385	231,645	158,693	145,385	231,645	158,693
Person-year observations	4,542,765	9,090,921	6,109,991	4,542,765	9,090,921	6,109,991	4,542,765	9,090,921	6,109,991

Notes: Estimated coefficients and standard errors (clustered on the unique person level) from difference-in-differences and triple-difference regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). Regressions are by educational attainment: < *HS* refers to no high school degree, = *HS* to a high school degree, and > *HS* indicates more than high school education. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 10: Breast Cancer Employment Regressions with Time-Invariant Effects by Education, Age 35 to 44 (10-Year Lag of Innovation Measures)

	Diff-in-Diff			Triple-Diff: Drugs			Triple-Diff: Patents		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS	(7) < HS	(8) = HS	(9) > HS
Post×Cancer	−0.0455 <sup>****</sup> (0.0117)	−0.0420 <sup>****</sup> (0.00641)	−0.0170 <sup>****</sup> (0.00530)	−0.0971 <sup>**</sup> (0.0416)	−0.0436 <sup>*</sup> (0.0236)	−0.0640 <sup>****</sup> (0.0194)	−0.0712 <sup>****</sup> (0.0210)	−0.0406 <sup>****</sup> (0.0118)	−0.0365 <sup>****</sup> (0.00988)
Post×Cancer×Drugs				0.00255 (0.00193)	0.0000765 (0.00108)	0.00228 <sup>****</sup> (0.000883)			
Post×Cancer×Patents							0.00135 (0.000873)	−0.0000740 (0.000475)	0.000975 <sup>**</sup> (0.000397)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Within- $R^2$	0.0224	0.0105	0.00268	0.0225	0.0105	0.00269	0.0225	0.0105	0.00271
Number of unique persons	75,224	177,250	129,397	75,224	177,250	129,397	75,224	177,250	129,397
Person-year observations	1,643,251	5,370,960	3,498,248	1,643,251	5,370,960	3,498,248	1,643,251	5,370,960	3,498,248

Notes: Estimated coefficients and standard errors (clustered on the unique person level) from difference-in-differences and triple-difference regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 10 years (see regression (3) in the main text). Regressions are by educational attainment: < *HS* refers to no high school degree, = *HS* to a high school degree, and > *HS* indicates more than high school education. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table 11: Prostate Cancer Employment Regressions with Time-Invariant Effects, Age 49 to 60 (5-Year Survivors Only)

	Diff-in-Diff	Triple-Difference		
	(1)	(2)	(3)	(4)
Post×Cancer	−0.0144*** (0.00311)	−0.0577** (0.0243)	−0.0285*** (0.00796)	−0.00217 (0.0599)
Post×Cancer×Drugs		0.00180* (0.000986)		−0.00152 (0.00343)
Post×Cancer×Patents			0.000299** (0.000148)	0.000516 (0.000513)
Individual fixed effects	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Within- $R^2$	0.0661	0.0666	0.0664	0.0667
Number of unique persons	511,024	511,024	511,024	511,024
Person-year observations	18,480,678	18,480,678	18,480,678	18,480,678

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 12: Prostate Cancer Log-Earnings Regressions with Time-Invariant Effects, Age 49 to 60 (5-Year Survivors Only)

	Diff-in-Diff	Triple-Difference		
	(1)	(2)	(3)	(4)
Post×Cancer	−0.111*** (0.0166)	−0.353*** (0.122)	−0.179*** (0.0395)	−0.372 (0.308)
Post×Cancer×Drugs		0.00997** (0.00499)		0.0111 (0.0177)
Post×Cancer×Patents			0.00141* (0.000751)	−0.000178 (0.00266)
Individual fixed effects	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Within- $R^2$	0.0698	0.0700	0.0699	0.0700
Number of unique persons	498,681	498,681	498,681	498,681
Person-year observations	16,534,765	16,534,765	16,534,765	16,534,765

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is annual log-earnings. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (??) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 13: Breast Cancer Employment Regressions with Time-Invariant Effects, Age 35 to 60 (5-Year Survivors Only)

	Diff-in-Diff	Triple-Difference		
	(1)	(2)	(3)	(4)
Post×Cancer	−0.0301*** (0.00222)	−0.0292*** (0.00964)	−0.0291*** (0.00640)	−0.0422 (0.0280)
Post×Cancer×Drugs		−0.0000310 (0.000310)		0.00120 (0.00247)
Post×Cancer×Patents			−0.0000244 (0.000146)	−0.000588 (0.00116)
Individual fixed effects	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Within- $R^2$	0.0292	0.0294	0.0295	0.0295
Number of unique persons	693,452	693,452	693,452	693,452
Person-year observations	33,774,502	33,774,502	33,774,502	33,774,502

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 14: Breast Cancer Employment Regressions with Time-Invariant Effects, Age 35 to 44 (5-Year Survivors Only)

	Diff-in-Diff	Triple-Difference		
	(1)	(2)	(3)	(4)
Post×Cancer	−0.0191*** (0.00426)	−0.0379** (0.0176)	−0.0296*** (0.0110)	−0.0559 (0.0526)
Post×Cancer×Drugs		0.000691 (0.000616)		0.00237 (0.00455)
Post×Cancer×Patents			0.000302 (0.000285)	−0.000790 (0.00210)
Individual fixed effects	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Within- $R^2$	0.00873	0.00877	0.00879	0.00880
Number of unique persons	357,699	357,699	357,699	357,699
Person-year observations	9,253,368	9,253,368	9,253,368	9,253,368

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (3) in the main text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 15: Breast Cancer Log-Earnings Regressions with Time-Invariant Effects, Age 35 to 44 (5-Year Survivors Only)

	Diff-in-Diff	Triple-Difference		
	(1)	(2)	(3)	(4)
Post $\times$ Cancer	−0.250*** (0.0238)	0.0248 (0.0917)	−0.0926* (0.0550)	0.169 (0.250)
Post $\times$ Cancer $\times$ Drugs		−0.0101*** (0.00352)		−0.0235 (0.0218)
Post $\times$ Cancer $\times$ Patents			−0.00452*** (0.00164)	0.00629 (0.0102)
Individual fixed effects	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Within- $R^2$	0.0116	0.0116	0.0116	0.0116
Number of unique persons	351,506	351,506	351,506	351,506
Person-year observations	8,312,438	8,312,438	8,312,438	8,312,438

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable is annual log-earnings. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (??) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 16: Prostate Cancer Employment Regressions with Time-Invariant Effects by Education, Age 49 to 60 (5-Year Survivors Only)

	Diff-in-Diff			Triple-Diff: Drugs			Triple-Diff: Patents		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS	(7) < HS	(8) = HS	(9) > HS
Post×Cancer	-0.0233*** (0.00687)	-0.0125** (0.00491)	-0.0109** (0.00492)	0.00385 (0.0432)	-0.0498 (0.0401)	-0.122*** (0.0441)	-0.0201 (0.0141)	-0.0284** (0.0134)	-0.0362*** (0.0138)
Post×Cancer×Drugs				-0.00117 (0.00182)	0.00153 (0.00161)	0.00454** (0.00177)			
Post×Cancer×Patents							-0.0000767 (0.000285)	0.000327 (0.000243)	0.000510** (0.000252)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0719	0.0646	0.0646	0.0725	0.0653	0.0649	0.0722	0.0651	0.0648
Number of unique persons	133,565	223,398	154,061	133,565	223,398	154,061	133,565	223,398	154,061
Person-year observations	4,065,619	8,502,102	5,912,957	4,065,619	8,502,102	5,912,957	4,065,619	8,502,102	5,912,957

Notes: Estimated coefficients and standard errors (clustered on the unique person level) from difference-in-differences and triple-difference regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of approved drugs and the cumulative patent index in the year of the diagnosis, lagged by 5 years (see regression (??) in the text). Regressions are by educational attainment: < *HS* refers to no high school degree, = *HS* to a high school degree, and > *HS* indicates more than high school education. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 17: Breast Cancer Employment Regressions with Time-Invariant Effects by Education, Age 35 to 44 (5-Year Survivors Only)

	Diff-in-Diff			Triple-Diff: Drugs			Triple-Diff: Patents		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS	(7) < HS	(8) = HS	(9) > HS
Post×Cancer	−0.0347*** (0.0128)	−0.0275*** (0.00670)	−0.00301 (0.00536)	−0.0828 (0.0504)	−0.0127 (0.0276)	−0.0395* (0.0221)	−0.0631** (0.0314)	−0.0176 (0.0175)	−0.0247* (0.0137)
Post×Cancer×Drugs				0.00179 (0.00180)	−0.000547 (0.000966)	0.00134* (0.000777)			
Post×Cancer×Patents							0.000829 (0.000829)	−0.000286 (0.000449)	0.000617* (0.000357)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0230	0.0103	0.00290	0.0231	0.0103	0.00293	0.0231	0.0103	0.00300
Number of unique persons	67,066	168,741	121,892	67,066	168,741	121,892	67,066	168,741	121,892
Person-year observations	1,334,269	4,793,780	3,125,319	1,334,269	4,793,780	3,125,319	1,334,269	4,793,780	3,125,319

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from difference-in-differences and triple-difference regressions with time-invariant effects. The dependent variable is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year. *Post* is a dummy variable that equals one after the (placebo) cancer diagnosis, *Cancer* is a cancer diagnosis indicator, and *Drugs* and *Patents* are the amount of lagged approved drugs and the cumulative patent index in the year of the diagnosis (see regression (??) in the text). The innovation measures are described in Section ???. Regressions are by educational attainment: < *HS* refers to no high school degree, = *HS* to a high school degree, and > *HS* indicates more than high school education. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .