

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

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## A Appendix Tables

This Appendix contains information on innovation measures, summary statistics, and additional regression results for Jeon and Pohl, 2019, “Medical Innovation, Education, and Labor Market Outcomes of Cancer Patients.” Tables A.1 to A.3 list drugs and patents used in the innovation measures. Tables A.4 to A.6 show summary statistics for three samples: men aged 49 to 60, women aged 35 to 60, and women aged 35 to 44. Tables A.7 to A.10 and Tables A.11 to A.14 contain robustness checks using zero-year and ten-year lags, respectively, of the medical innovation measures. Tables A.15 and A.16 show robustness checks involving off-label use of drugs and separate measures for treatment and diagnostic patents. Tables A.17 to A.20 contain upper and lower bounds for the regression coefficients that account for selective mortality.

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Table A.1: Prostate and Breast Cancer Drugs

Drug	Year	Type of cancer		Type of drug			
		Breast	Prostate	Chemo.	Hormone	Other	Side eff.
Cyproterone	1987		X		X		
Buserelin	1988		X		X		
Ifosfamide	1989	X	X	X			
Erythropoietin	1990	X	X			X	
Fluconazole	1990	X	X	X			
Vinblastine	1992	X	X	X			
Paclitaxel	1992	X		X			
Nilutamide	1992		X		X		
Pamidronic acid	1992	X				X	
Estramustine	1993		X		X		
Vinorelbine	1994	X	X	X			
Goserelin	1994	X			X		
Formestane	1994	X	X		X		
Docetaxel	1995	X		X			
Dexrazoxane	1995	X			X		
Gemcitabine	1996	X		X			
Bicalutamide	1996		X				X
Anastrozole	1996	X					X
Letrozole	1997	X			X		
Ibandronic acid	1997	X				X	
Capecitabine	1998	X		X			
Trastuzumab	1999	X		X			
Triptorelin	1999		X		X		
Exemestane	2000	X			X		
Zoledronic acid	2000	X	X			X	
Darbepoetin alfa	2002	X	X				X
Fulvestrant	2003	X			X		
Bevacizumab	2005	X				X	

*Source:* Lichtenberg (2015, Appendix Table 1).

*Note:* This table lists the drugs that were approved for the treatment of breast and prostate cancer in Canada from 1987 to 2005.

Table A.2: Prostate Cancer Patents

Patent No.	Patent Title	Year	Index
5843144	Method for treating benign prostatic hyperplasia with thermal therapy	1995	3.815
6360116	Brachytherapy system for prostate cancer treatment with computer implemented systems and processes to facilitate pre-operative planning and post-operative evaluations	1999	2.804
5981209	Use of NAALADase activity to identify prostate cancer and benign prostatic hyperplasia	1997	2.674
5843902	Methods for treating prostate cancer with LHRH antagonists	1996	2.570
5599677	Immunoassays for prostate specific antigen	1993	2.296
5588965	Device for slowly dilating the prostatic urethra	1995	2.177
6200573	Method of medical management for lower urinary tract symptoms and benign prostatic hyperplasia	2000	1.797
5403847	Use of $\alpha$ - $^{125}\text{I}$ specific compounds to treat benign prostatic hyperplasia	1992	1.772
5474071	Therapeutic endo-rectal probe and apparatus constituting an application thereof for destroying cancer tissue, in particular of the prostate, and preferably in combination with an imaging endo-cavitary-probe	1994	1.677
5501983	Assay of free and complexed prostate-specific antigen	1993	1.499
5666954	Therapeutic endo-rectal probe, and apparatus constituting an application thereof for destroying cancer tissue, in particular of the prostate, and preferably in combination with an imaging endo-cavitary-probe	1995	1.498
6107090	Treatment and diagnosis of prostate cancer with antibodies to extracellular PSMA domains	1997	1.332
5938583	Precision implant needle and method of using same in seed implant treatment of prostate cancer	1997	1.331
6225308	Tissue selective compounds in the treatment of prostate cancer or benign prostate hypertrophy	1999	1.287
5464437	Benign prostatic hyperplasia treatment catheter with urethral cooling	1993	1.282
5489525	Monoclonal antibodies to prostate cells	1992	1.236
5162504	Monoclonal antibodies to a new antigenic marker in epithelial prostatic cells and serum of prostatic cancer patients	1988	1.203
7105159	Antibodies to prostate-specific membrane antigen	1995	1.201
5981206	Dry analytical element and method for the detection of prostatic acid phosphatase	1992	1.106
6010446	Spacer element for radioactive seed implant treatment of prostate cancer	1998	1.048

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Patent No.	Patent Title	Year	Index
6019957	Non-steroidal radiolabeled agonist/antagonist compounds and their use in prostate cancer imaging	1998	1.010
5698402	Methods for diagnosing benign prostatic hyperplasia	1995	0.954
6015819	Use of alpha-1C specific compounds to treat benign prostatic hyperplasia	1997	0.944
5871726	Tissue specific and tumor growth suppression by adenovirus comprising prostate specific antigen	1996	0.938
6361487	Method and apparatus for brachytherapy treatment of prostate disease	2000	0.867
5133713	Apparatus of a spinning type of resectoscope for prostatectomy	1990	0.804
6300088	Method of detecting prostate specific antigen	1998	0.785
5178148	Method of automatically measuring the volume of a tumor or of a gland, in particular the prostate, a measuring device, and a method and apparatus constituting and application thereof	1991	0.784
6200765	Non-invasive methods to detect prostate cancer	1998	0.766
6025128	Prediction of prostate cancer progression by analysis of selected predictive parameters	1994	0.722
5610136	Method for treatment of benign prostatic hypertrophy	1996	0.721
5614372	Early detection of prostate cancer (CAP) by employing prostate specific antigen (PSA) and human glandular kallikrein (hGK-1)	1995	0.720
6150508	Monoclonal antibodies specific for the extracellular domain of prostate-specific membrane antigen	1998	0.693
5516639	Antibodies specific for human prostate glandular kallikrein	1993	0.677
5810007	Ultrasound localization and image fusion for the treatment of prostate cancer	1995	0.642
6004267	Method for diagnosing and staging prostate cancer	1998	0.585
7102134	Dedicated apparatus and method for Positron Emission Tomography of the prostate	2004	0.562
5389613	Method of treating prostate adenocarcinoma, prostate benign hypertrophy and endometriosis	1993	0.538
5780485	Use of alpha-1c specific compounds to treat benign prostatic hyperplasia	1995	0.537
5807978	Immunogenic peptides of prostate specific antigen	1995	0.534
5424192	Markers for invasive prostatic neoplasia	1993	0.527
5780435	Methods for treating prostate cancer with LHRH-R antagonists	1995	0.514
5990128	alpha-1C specific compounds to treat benign prostatic hyperplasia	1996	0.509

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Patent No.	Patent Title	Year	Index
5595985	Combination therapy for prophylaxis and/or treatment of benign prostatic hyperplasia	1993	0.496
5817649	Combination therapy for the prophylaxis and/or treatment of benign prostatic hyperplasia	1995	0.482
5629007	Method of preventing prostatic cancer development	1995	0.446
5795882	Method of treating prostatic diseases using delayed and/or sustained release vitamin D formulations	1996	0.441
5786148	Polynucleotides encoding a novel prostate-specific kallikrein	1996	0.400
6218529	Biomarkers and targets for diagnosis, prognosis and management of prostate, breast and bladder cancer	1998	0.392
5635197	Treatment and prevention of prostatic cancer metastasis	1995	0.387

*Source:* USPTO: Cancer Moonshot Data, <https://www.uspto.gov/learning-and-resources/electronic-data-products/cancer-moonshot-patent-data>.

*Note:* This table lists the 50 patents related to breast cancer with the highest quality index.

Table A.3: Breast Cancer Patents

Patent No.	Patent Title	Year	Index
5362720	Methods of treating or preventing breast or endometrial cancer with low dose non-masculinizing androgenic compounds	1993	2.790
5795308	Apparatus for coaxial breast biopsy	1996	2.764
4945239	Early detection of breast cancer using transillumination	1989	2.546
6517513	Intraductal breast fluid aspiration device	2000	1.783
5555885	Examination of breast tissue using time-resolved spectroscopy	1993	1.772
5260871	Method and apparatus for diagnosis of breast tumors	1991	1.541
7094775	Method of treating breast cancer using a combination of vitamin D analogues and other agents	2004	1.433
5304489	DNA sequences to target proteins to the mammary gland for efficient secretion	1990	1.375
6480565	Apparatus and method for cone beam volume computed tomography breast imaging	2000	1.347
5540737	Minimally invasive monopole phased array hyperthermia applicators and method for treating breast carcinomas	1993	1.253
5196435	Melatonin derivatives and combinations with antiestrogen compounds for treating mammalian breast carcinoma	1991	1.236
4882270	Monoclonal antibodies to placental isoferritin for use in detecting oncofetal ferritin associated with breast cancer and Hodgkins disease	1988	1.232
6080114	Method for coaxial breast biopsy	1998	1.203
5899865	Localization of abnormal breast tissue using time-resolved spectroscopy	1995	1.150
5079698	Transillumination method apparatus for the diagnosis of breast tumors and other breast lesions by normalization of an electronic image of the breast	1989	1.116
6235486	Method for detection of breast cancer	1998	1.032
5798266	Methods and kits for obtaining and assaying mammary fluid samples for breast diseases, including cancer	1996	0.989
5099848	Method and apparatus for breast imaging and tumor detection using modal vibration analysis	1990	0.971
6086247	Differential temperature sensor device for use in the detection of breast cancer and breast disease	1998	0.878
6562380	Methods for treating or reducing prediposition to breast cancer, pre-menstrual syndrome or symptoms associated with menopause by administration of phyto-estrogen	1997	0.856
5188964	Method and kit for the prognostication of breast cancer patient via heat shock/stress protein determination	1990	0.841

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Patent No.	Patent Title	Year	Index
6057105	Detection of melanoma or breast metastasis with a multiple marker assay	1997	0.826
5799656	Optical imaging of breast tissues to enable the detection therein of calcification regions suggestive of cancer	1996	0.751
6117080	Ultrasonic imaging apparatus and method for breast cancer diagnosis with the use of volume rendering	1997	0.713
5301681	Device for detecting cancerous and precancerous conditions in a breast	1991	0.701
5860934	Method and device for mechanical imaging of breast	1996	0.696
6962928	Tetrahydroquinoline derivatives for the inhibition of osteoporosis, estrogen dependent breast cancer, endometriosis and uterine fibrosis	2003	0.657
5668267	Polynucleotides encoding mammaglobin, a mammary-specific breast cancer protein	1995	0.651
5648223	Methods for enriching breast tumor cells	1994	0.650
5704355	Non-invasive system for breast cancer detection	1995	0.590
5895640	Nuclear medicine techniques for detecting carcinoma in the dense breast	1996	0.557
6282305	Method and system for the computerized assessment of breast cancer risk	1998	0.542
5652114	Diagnostic immunoassay methods using monoclonal antibody F36/22 which is specific for human breast carcinoma cells	1989	0.513
5833633	Device for breast haptic examination	1997	0.483
5003979	System and method for the noninvasive identification and display of breast lesions and the like	1989	0.470
5914238	Materials and methods for detection of breast cancer	1996	0.469
4839155	Iodotamoxifen derivatives and use for estrogen receptor-positive breast cancer detection and therapy	1987	0.447
6179766	Methods of breast cancer treatment	1999	0.446
5415996	Prognostic markers in human breast cancer	1993	0.435
6470217	Method for heating ductal and glandular carcinomas and other breast lesions to perform thermal downsizing and a thermal lumpectomy	2000	0.409
6218529	Biomarkers and targets for diagnosis, prognosis and management of prostate, breast and bladder cancer	1998	0.392
6669483	Instrumented breast model	2001	0.390
5384260	Detection of onset of antiestrogen resistance in breast cancer	1993	0.334
6566063	Methods for determining metastatic potential of breast cancer cells by detecting GSEF gene product expression	2000	0.330

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Patent No.	Patent Title	Year	Index
5961952	.sup.99m Tc-tertiary-butyl isonitrile as breast tumor imaging agents	1997	0.329
6004756	Method for detecting the presence of breast cancer by detecting an increase in mammaglobin mRNA expression	1998	0.298
6179786	System for thermometry-based breast cancer risk-assessment	1999	0.289
6400837	Location head for an apparatus for detecting very small breast anomalies	2001	0.278
6351549	Detection head for an apparatus for detecting very small breast anomalies	1999	0.262
5437280	Magnetic resonance breast localizer	1993	0.253

*Source:* USPTO: Cancer Moonshot Data, <https://www.uspto.gov/learning-and-resources/electronic-data-products/cancer-moonshot-patent-data>.

*Note:* This table lists the 50 patents related to breast cancer with the highest quality index.



Table A.4: 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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	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	

Notes: Dollar amounts are in 2010 Canadian dollars.

Table A.5: 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 $s - 1$						
Working at $s - 1$	0.859	0.86	−0.003	0.859	0.859	0
Not working at $s - 2$						
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 A.5 – 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	

Notes: Dollar amounts are in 2010 Canadian dollars.

Table A.6: 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 A.6 – 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	

Notes: Dollar amounts are in 2010 Canadian dollars.

Table A.7: Prostate Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 49 to 60. Robustness Check: Innovation Measure Not Lagged

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
<i>(A) Employment</i>			
Post × Cancer	−0.0179*** (0.00302)	−0.115** (0.0462)	−0.0416*** (0.0148)
Post × Cancer × Drugs		0.00370** (0.00175)	
Post × Cancer × Patents			0.000400* (0.000241)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0665	0.0671	0.0670
Number of unique persons	535,723	535,723	535,723
Person-year observations	19,743,677	19,743,677	19,743,677
<i>(B) Earnings</i>			
Post × Cancer	−0.273*** (0.0365)	−1.348** (0.555)	−0.514*** (0.176)
Post × Cancer × Drugs		0.0410* (0.0211)	
Post × Cancer × Patents			0.00407 (0.00287)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.113	0.114	0.114
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 in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 0 years (see regression (3) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.8: Breast Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 35 to 44. Robustness Check: Innovation Measure Not Lagged

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
<i>(A) Employment</i>			
Post × Cancer	−0.0329*** (0.00407)	−0.101*** (0.0266)	−0.0802*** (0.0183)
Post × Cancer × Drugs		0.00204*** (0.000780)	
Post × Cancer × Patents			0.00100*** (0.000373)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.00862	0.00863	0.00865
Number of unique persons	381,871	381,871	381,871
Person-year observations	10,512,459	10,512,459	10,512,459
<i>(B) Earnings</i>			
Post × Cancer	−0.644*** (0.0463)	−1.030*** (0.293)	−0.923*** (0.200)
Post × Cancer × Drugs		0.0116 (0.00875)	
Post × Cancer × Patents			0.00591 (0.00416)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0115	0.0115	0.0116
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 in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 0 years (see regression (3) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table A.9: Prostate Cancer Employment Regressions with Time-Invariant Effects by Education, Age 49 to 60. Robustness Check: Innovation Measures Not Lagged

	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*** (0.00654)	-0.0180*** (0.00477)	-0.0119** (0.00483)	0.0184 (0.0812)	-0.133* (0.0769)	-0.218** (0.0854)	-0.0201 (0.0238)	-0.0327 (0.0248)	-0.0818*** (0.0293)
Post × Cancer × Drugs				-0.00177 (0.00315)	0.00439 (0.00290)	0.00783** (0.00322)			
Post × Cancer × Patents							-0.000125 (0.000407)	0.000244 (0.000401)	0.00115** (0.000470)
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	0.0656	0.0727	0.0655	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 0 years (see regression (3) 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 A.10: Breast Cancer Employment Regressions with Time-Invariant Effects by Education, Age 35 to 44. Robustness Check: Innovation Measures Not Lagged.

	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)	-0.181 <sup>**</sup> (0.0721)	-0.0386 (0.0418)	-0.118 <sup>***</sup> (0.0348)	-0.146 <sup>***</sup> (0.0502)	-0.0390 (0.0287)	-0.0844 <sup>***</sup> (0.0236)
Post × Cancer × Drugs				0.00410 <sup>*</sup> (0.00214)	-0.000103 (0.00123)	0.00302 <sup>***</sup> (0.00102)			
Post × Cancer × Patents							0.00216 <sup>**</sup> (0.00104)	-0.0000645 (0.000588)	0.00141 <sup>***</sup> (0.000480)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0224	0.0105	0.00268	0.0225	0.0105	0.00270	0.0225	0.0105	0.00279
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 0 years (see regression (3) 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 A.11: Prostate Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 49 to 60. Robustness Check: Innovation Measure Lagged by Ten Years

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
<i>(A) Employment</i>			
Post × Cancer	−0.0179*** (0.00302)	−0.0496*** (0.0143)	−0.0261*** (0.00488)
Post × Cancer × Drugs		0.00155** (0.000670)	
Post × Cancer × 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
<i>(B) Earnings</i>			
Post × Cancer	−0.273*** (0.0365)	−0.670*** (0.172)	−0.385*** (0.0591)
Post × Cancer × Drugs		0.0194** (0.00808)	
Post × Cancer × Patents			0.00416** (0.00162)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.113	0.114	0.114
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 in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.12: Breast Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 35 to 44. Robustness Check: Innovation Measure Lagged by Ten Years

	Diff-in-Diff	Triple-Difference	
	(1)	(2)	(3)
<i>(A) Employment</i>			
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
<i>(B) Earnings</i>			
Post $\times$ Cancer	-0.644*** (0.0463)	-0.773*** (0.173)	-0.696*** (0.0845)
Post $\times$ Cancer $\times$ Drugs		0.00633 (0.00818)	
Post $\times$ Cancer $\times$ Patents			0.00267 (0.00364)
Individual fixed effects	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Within- $R^2$	0.0115	0.0115	0.0115
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 in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.13: Prostate Cancer Employment Regressions with Time-Invariant Effects by Education, Age 49 to 60. Robustness Check: Innovation Measures Lagged by Ten Years

	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*** (0.00654)	-0.0180*** (0.00477)	-0.0119** (0.00483)	-0.0152 (0.0256)	-0.0570** (0.0236)	-0.0696*** (0.0254)	-0.0230** (0.00940)	-0.0299*** (0.00807)	-0.0244*** (0.00806)
Post × Cancer × Drugs				-0.000619 (0.00128)	0.00188* (0.00109)	0.00277** (0.00118)			
Post × Cancer × Patents							-0.000180 (0.000293)	0.000412* (0.000211)	0.000446** (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 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 A.14: Breast Cancer Employment Regressions with Time-Invariant Effects by Education, Age 35 to 44. Robustness Check: Innovation Measures Lagged by Ten Years

	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	Yes
Year dummies	Yes	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 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 A.15: Prostate Cancer Employment Regressions with Time-Invariant Effects, Age 49 to 60

	Triple-Difference	
	(1)	(2)
Post×Cancer	−0.0544*** (0.0185)	−0.0297*** (0.00861)
Post×Cancer×All Cancer Drugs	0.000494** (0.000207)	
Post×Cancer×Treatment Patents		0.00204 (0.00301)
Post×Cancer×Diagnostic Patents		−0.000382 (0.00208)
Individual fixed effects	Yes	Yes
Year dummies	Yes	Yes
Within- $R^2$	0.0669	0.0668
Number of unique persons	535,723	535,723
Person-year observations	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. *All Cancer Drugs* is the number of drugs approved for the treatment of any type of cancer and *Treatment Patents* and *Diagnostic Patents* are the cumulative patent index for cancer treatment and diagnostic procedures in the year of the diagnosis, lagged by 5 years (see regression (3) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.16: Breast Cancer Employment Regressions with Time-Invariant Effects, Age 35 to 44

	Triple-Difference	
	(1)	(2)
Post×Cancer	−0.0759*** (0.0173)	−0.0526*** (0.0102)
Post×Cancer×All Cancer Drugs	0.000643** (0.000258)	
Post×Cancer×Treatment Patents		−0.00305 (0.0123)
Post×Cancer×Diagnostic Patents		0.00132 (0.00110)
Individual fixed effects	Yes	Yes
Year dummies	Yes	Yes
Within- $R^2$	0.00863	0.00865
Number of unique persons	381,871	381,871
Person-year observations	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. *All Cancer Drugs* is the number of drugs approved for the treatment of any type of cancer and *Treatment Patents* and *Diagnostic Patents* are the cumulative patent index for cancer treatment and diagnostic procedures in the year of the diagnosis, lagged by 5 years (see regression (3) in the text). \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.17: Prostate Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 49 to 60. Robustness Check: Bounds Accounting for Mortality

	Diff-in-Diff		Triple-Difference			
	Upper Bound (1)	Lower Bound (2)	Upper Bound (3)	Lower Bound (4)	Upper Bound (5)	Lower Bound (6)
<i>(A) Employment</i>						
Post×Cancer	−0.0213*** (0.00308)	−0.0123*** (0.00297)	−0.0721*** (0.0231)	−0.0326 (0.0222)	−0.0368*** (0.00756)	−0.0199*** (0.00728)
Post×Cancer×Drugs			0.00212** (0.000942)	0.000845 (0.000905)		
Post×Cancer×Patents					0.000332** (0.000142)	0.000163 (0.000137)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0682	0.0635	0.0687	0.0640	0.0685	0.0638
Number of unique persons	535,723	535,723	535,723	535,723	535,723	535,723
Person-year observations	19,826,184	19,826,184	19,826,184	19,826,184	19,826,184	19,826,184
<i>(B) Earnings</i>						
Post×Cancer	−0.317*** (0.0369)	−0.189*** (0.0359)	−0.957*** (0.273)	−0.368 (0.267)	−0.525*** (0.0903)	−0.273*** (0.0884)
Post×Cancer×Drugs			0.0267** (0.0111)	0.00745 (0.0109)		
Post×Cancer×Patents					0.00447*** (0.00169)	0.00180 (0.00166)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.116	0.109	0.116	0.109	0.116	0.109
Number of unique persons	535,723	535,723	535,723	535,723	535,723	535,723
Person-year observations	19,826,184	19,826,184	19,826,184	19,826,184	19,826,184	19,826,184

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 (3) in the text). “Upper Bound” refers to regressions where unobserved (due to mortality) outcome variables are replaced by their respective within-individual minimum and “Lower Bound” refers to regression where they are replaced with within-individual maximums. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table A.18: Breast Cancer Labor Market Outcome Regressions with Time-Invariant Effects, Age 35 to 44. Robustness Check: Bounds Accounting for Mortality

	Diff-in-Diff		Triple-Difference			
	Upper Bound (1)	Lower Bound (2)	Upper Bound (3)	Lower Bound (4)	Upper Bound (5)	Lower Bound (6)
<i>(A) Employment</i>						
Post×Cancer	-0.0492*** (0.00432)	-0.0247*** (0.00394)	-0.112*** (0.0176)	-0.0474*** (0.0158)	-0.0845*** (0.0110)	-0.0372*** (0.00986)
Post×Cancer×Drugs			0.00234*** (0.000622)	0.000850 (0.000562)		
Post×Cancer×Patents					0.00104*** (0.000287)	0.000371 (0.000259)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.00852	0.00866	0.00854	0.00867	0.00855	0.00868
Number of unique persons	381,871	381,871	381,871	381,871	381,871	381,871
Person-year observations	10,519,244	10,519,244	10,519,244	10,519,244	10,519,244	10,519,244
<i>(B) Earnings</i>						
Post×Cancer	-0.848*** (0.0488)	-0.526*** (0.0443)	-1.308*** (0.196)	-0.563*** (0.176)	-1.096*** (0.121)	-0.539*** (0.108)
Post×Cancer×Drugs			0.0172** (0.00707)	0.00141 (0.00646)		
Post×Cancer×Patents					0.00735** (0.00326)	0.000389 (0.00298)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0114	0.0116	0.0114	0.0116	0.0114	0.0116
Number of unique persons	381,871	381,871	381,871	381,871	381,871	381,871
Person-year observations	10,519,244	10,519,244	10,519,244	10,519,244	10,519,244	10,519,244

*Notes:* Estimated coefficients and standard errors (clustered on the unique person level) from regressions with time-invariant effects. The dependent variable in panel (A) is an indicator for annual employment status that equals one if the person had non-zero earnings in a given year and in panel (B) it is the inverse hyperbolic sine of annual 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 (3) in the text). “Upper Bound” refers to regressions where unobserved (due to mortality) outcome variables are replaced by their respective within-individual minimum and “Lower Bound” refers to regression where they are replaced with within-individual maximums. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.19: Prostate Cancer Employment Regressions with Time-Invariant Effects by Education, Age 49 to 60. Robustness Check: Bounds Accounting for Mortality

	Bounds Based on Minimum			Bounds Based on Maximum		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS
Post×Cancer	-0.0216 (0.0408)	-0.0656* (0.0383)	-0.123*** (0.0422)	0.0339 (0.0392)	-0.0292 (0.0366)	-0.104** (0.0406)
Post×Cancer×Drugs	-0.000408 (0.00173)	0.00179 (0.00155)	0.00449*** (0.00170)	-0.00225 (0.00166)	0.000719 (0.00148)	0.00387*** (0.00164)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0754	0.0671	0.0665	0.0675	0.0628	0.0637
Number of unique persons	145,385	231,645	158,693	145,385	231,645	158,693
Person-year observations	4,575,005	9,127,553	6,123,626	4,575,005	9,127,553	6,123,626

*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 (3) 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 A.20: Breast Cancer Employment Regressions with Time-Invariant Effects by Education, Age 35 to 44. Robustness Check: Bounds Accounting for Mortality

	Bounds Based on Minimum			Bounds Based on Maximum		
	(1) < HS	(2) = HS	(3) > HS	(4) < HS	(5) = HS	(6) > HS
Post×Cancer	-0.167*** (0.0478)	-0.0872*** (0.0269)	-0.105*** (0.0241)	-0.0675 (0.0431)	-0.0198 (0.0248)	-0.0647*** (0.0209)
Post×Cancer×Drugs	0.00380** (0.00173)	0.00107 (0.000953)	0.00276*** (0.000845)	0.00144 (0.00156)	-0.000572 (0.000880)	0.00198*** (0.000742)
Individual fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Within- $R^2$	0.0223	0.0104	0.00268	0.0226	0.0105	0.00271
Number of unique persons	75,224	177,250	129,397	75,224	177,250	129,397
Person-year observations	1,645,114	5,374,405	3,499,725	1,645,114	5,374,405	3,499,725

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 (3) 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. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .