

Online Appendix

The Effects of Vietnam-Era Military Service on the Long-Term Health of Veterans: A Bounds Analysis *

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A Additional Results

Table A.1: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 1974-1981)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
Sample size	9257	19824		1139	2883	
<i>General Health Outcomes</i>						
Activity Limitation	0.0830 [0.0032]	0.0793 [0.0020]	0.0037 [0.0038]	0.0972 [0.0102]	0.0888 [0.0054]	0.0083 [0.0115]
Activity Unable	0.0130 [0.0014]	0.0115 [0.0008]	0.0014 [0.0016]	0.0294 [0.0058]	0.0258 [0.0030]	0.0037 [0.0065]
Fair/Poor Health	0.0111 [0.0012]	0.0111 [0.0007]	0.0000 [0.0014]	0.0201 [0.0048]	0.0190 [0.0027]	0.0011 [0.0055]
<i>Risky Health Behavior</i>						
Sample size	1678	3543		178	485	
Current Smoker	0.5387 [0.0124]	0.4050 [0.0084]	0.1336*** [0.0150]	0.6140 [0.0383]	0.4790 [0.0230]	0.1350*** [0.0447]
<i>Activity-Limiting Chronic Conditions</i>						
Circulatory	0.0028 [0.0006]	0.0036 [0.0004]	-0.0008 [0.0007]	0.0043 [0.0020]	0.0057 [0.0014]	-0.0013 [0.0024]
Diabetes	0.0011 [0.0003]	0.0017 [0.0003]	-0.0006 [0.0005]	0.0010 [0.0010]	0.0012 [0.0006]	-0.0001 [0.0012]
Digestive	0.0034 [0.0006]	0.0048 [0.0005]	-0.0014* [0.0008]	0.0043 [0.0019]	0.0063 [0.0014]	-0.0020 [0.0024]
Endocrine, Nutritional, Metabolicand, Blood Disorders	0.0021 [0.0005]	0.0028 [0.0004]	-0.0007 [0.0006]	0.0030 [0.0017]	0.0026 [0.0009]	0.0004 [0.0019]
Eye and ear	0.0000 [0.0000]	0.0002 [0.0001]	-0.0002 [0.0001]	0.0000 [0.0000]	0.0007 [0.0005]	-0.0007 [0.0005]
Heart	0.0015 [0.0004]	0.0015 [0.0003]	0.0000 [0.0005]	0.0032 [0.0016]	0.0029 [0.0010]	0.0003 [0.0018]
Infective and	0.0005 [0.0003]	0.0005 [0.0002]	0.0000 [0.0003]	0.0015 [0.0010]	0.0012 [0.0007]	0.0003 [0.0012]
Injuries	0.0019 [0.0005]	0.0014 [0.0003]	0.0005 [0.0005]	0.0017 [0.0012]	0.0007 [0.0005]	0.0010 [0.0013]
Mental	0.0052 [0.0008]	0.0035 [0.0004]	0.0016* [0.0009]	0.0118 [0.0032]	0.0098 [0.0018]	0.0020 [0.0036]
Musculoskeletal	0.0108 [0.0011]	0.0100 [0.0007]	0.0008 [0.0013]	0.0075 [0.0025]	0.0071 [0.0019]	0.0004 [0.0032]
Neoplasms	0.0011 [0.0005]	0.0007 [0.0002]	0.0004 [0.0005]	0.0017 [0.0012]	0.0004 [0.0004]	0.0013 [0.0013]
Other	0.0093 [0.0011]	0.0117 [0.0008]	-0.0025* [0.0013]	0.0105 [0.0032]	0.0101 [0.0018]	0.0004 [0.0037]
Respiratory	0.0067 [0.0009]	0.0094 [0.0007]	-0.0028** [0.0012]	0.0125 [0.0032]	0.0038 [0.0011]	0.0087** [0.0034]
Skin	0.0021 [0.0005]	0.0028 [0.0004]	-0.0007 [0.0006]	0.0000 [0.0000]	0.0036 [0.0011]	-0.0036** [0.0011]
Certain symptoms and ill-defined conditions	0.0014 [0.0004]	0.0013 [0.0003]	0.0001 [0.0005]	0.0105 [0.0032]	0.0101 [0.0018]	0.0004 [0.0037]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.2: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 1982-1996)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
Sample size	14993	32370		2263	6925	
<i>General Health Outcomes</i>						
Activity Limitation	0.1326 [0.0033]	0.1188 [0.0021]	0.0138*** [0.0040]	0.1760 [0.0108]	0.1317 [0.0050]	0.0443*** [0.0119]
Activity Unable	0.0391 [0.0019]	0.0363 [0.0012]	0.0028 [0.0023]	0.0933 [0.0082]	0.0656 [0.0035]	0.0277*** [0.0089]
Fair/Poor Health	0.0689 [0.0025]	0.0661 [0.0016]	0.0028 [0.0030]	0.1354 [0.0090]	0.1260 [0.0048]	0.0094 [0.0102]
Work Limitation	0.0969 [0.0029]	0.0852 [0.0018]	0.0117*** [0.0035]	0.1441 [0.0097]	0.1067 [0.0045]	0.0374*** [0.0107]
Work Unable	0.0409 [0.0020]	0.0379 [0.0013]	0.0030 [0.0023]	0.0975 [0.0083]	0.0674 [0.0035]	0.0301*** [0.0090]
<i>Risky Health Behavior</i>						
Sample size	563	1187		73	206	
Current Smoker	0.4461 [0.0215]	0.3410 [0.0141]	0.1051*** [0.0257]	0.1649 [0.1511]	0.3433 [0.0225]	-0.1784 [0.1528]
<i>Activity-limiting Chronic Conditions</i>						
Circulatory	0.0058 [0.0007]	0.0060 [0.0005]	-0.0002 [0.0008]	0.0321 [0.0169]	0.0104 [0.0010]	0.0217 [0.0169]
Diabetes	0.0023 [0.0005]	0.0032 [0.0003]	-0.0009 [0.0006]	0.0000 [0.0000]	0.0056 [0.0007]	-0.0056*** [0.0007]
Digestive	0.0131 [0.0010]	0.0099 [0.0006]	0.0032*** [0.0012]	0.0345 [0.0151]	0.0122 [0.0011]	0.0223 [0.0151]
Endocrine, Nutritional, Metabolic and, Blood Disorders	0.0075 [0.0008]	0.0086 [0.0006]	-0.0010 [0.0009]	0.0218 [0.0109]	0.0186 [0.0013]	0.0033 [0.0110]
Eye and ear	0.0159 [0.0010]	0.0141 [0.0007]	0.0018 [0.0013]	0.0118 [0.0083]	0.0105 [0.0010]	0.0013 [0.0083]
Heart	0.0124 [0.0010]	0.0117 [0.0007]	0.0006 [0.0012]	0.0408 [0.0184]	0.0304 [0.0017]	0.0104 [0.0184]
Infective and	0.0024 [0.0004]	0.0021 [0.0003]	0.0003 [0.0005]	0.0068 [0.0067]	0.0055 [0.0008]	0.0012 [0.0068]
Injuries	0.0108 [0.0009]	0.0077 [0.0005]	0.0031*** [0.0011]	0.0147 [0.0104]	0.0075 [0.0008]	0.0072 [0.0104]
Mental	0.0260 [0.0014]	0.0234 [0.0009]	0.0026 [0.0016]	0.0365 [0.0142]	0.0331 [0.0018]	0.0034 [0.0143]
Musculoskeletal	0.0894 [0.0025]	0.0699 [0.0015]	0.0195*** [0.0029]	0.0724 [0.0234]	0.0664 [0.0025]	0.0060 [0.0236]
Neoplasms	0.0036 [0.0005]	0.0027 [0.0003]	0.0009 [0.0006]	0.0210 [0.0106]	0.0085 [0.0009]	0.0124 [0.0106]
Other	0.0022 [0.0004]	0.0020 [0.0003]	0.0002 [0.0005]	0.0093 [0.0069]	0.0014 [0.0003]	0.0079 [0.0069]
Respiratory	0.0228 [0.0013]	0.0199 [0.0009]	0.0030* [0.0016]	0.0600 [0.0199]	0.0329 [0.0017]	0.0271 [0.0200]
Skin	0.0061 [0.0007]	0.0056 [0.0005]	0.0005 [0.0008]	0.0104 [0.0083]	0.0089 [0.0009]	0.0014 [0.0083]
Certain symptoms and ill-defined conditions	0.0022 [0.0004]	0.0020 [0.0003]	0.0002 [0.0005]	0.0093 [0.0069]	0.0014 [0.0003]	0.0079 [0.0069]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.3: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 1997-2005; Part I)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
Sample size	5472	14235		999	3380	
<i>General Health Outcomes</i>						
Activity Limitation	0.1726 [0.0054]	0.1238 [0.0037]	0.0487*** [0.0063]	0.2082 [0.0136]	0.1515 [0.0074]	0.0566*** [0.0160]
Fair/Poor Health	0.1235 [0.0051]	0.1019 [0.0031]	0.0217*** [0.0056]	0.2054 [0.0145]	0.1824 [0.0076]	0.0230 [0.0156]
Work Limit	0.1404 [0.0051]	0.0992 [0.0031]	0.0412*** [0.0058]	0.1831 [0.0127]	0.1277 [0.0069]	0.0555*** [0.0145]
Work Unable	0.0855 [0.0039]	0.0636 [0.0024]	0.0219** [0.0043]	0.1271 [0.0100]	0.0894 [0.0058]	0.0377*** [0.0120]
<i>Risky Health Behavior</i>						
Sample size	2555	6131		500	1508	
Current Smoker	0.3516 [0.0100]	0.2563 [0.0062]	0.0953*** [0.0116]	0.3930 [0.0226]	0.3179 [0.0133]	0.0751*** [0.0247]
Current Drinker	0.7422 [0.0099]	0.7251 [0.0063]	0.0172 [0.0120]	0.6461 [0.0222]	0.5779 [0.0146]	0.0682*** [0.0255]
<i>Activity-Limiting Chronic Conditions</i>						
Sample size	5460	14220		997	3368	
Arthritis	0.0267 [0.0025]	0.0163 [0.0013]	0.0103*** [0.0028]	0.0446 [0.0065]	0.0228 [0.0028]	0.0219*** [0.0074]
Back/Neck Conditions	0.0624 [0.0035]	0.0360 [0.0018]	0.0264*** [0.0039]	0.0693 [0.0089]	0.0303 [0.0036]	0.0390*** [0.0098]
Cancer	0.0051 [0.0009]	0.0034 [0.0005]	0.0017 [0.0011]	0.0063 [0.0028]	0.0046 [0.0011]	0.0017 [0.0030]
Circulatory	0.0031 [0.0009]	0.0032 [0.0005]	-0.0001 [0.0010]	0.0085 [0.0036]	0.0052 [0.0014]	0.0033 [0.0043]
Depression	0.0291 [0.0024]	0.0146 [0.0010]	0.0144*** [0.0026]	0.0417 [0.0068]	0.0122 [0.0022]	0.0295*** [0.0072]
Diabetes	0.0124 [0.0016]	0.0148 [0.0011]	-0.0024 [0.0019]	0.0447 [0.0066]	0.0207 [0.0027]	0.0239*** [0.0068]
Digestive	0.0043 [0.0008]	0.0033 [0.0005]	0.0010 [0.0010]	0.0048 [0.0022]	0.0070 [0.0014]	-0.0021 [0.0026]
Fracture	0.0279 [0.0024]	0.0165 [0.0011]	0.0114*** [0.0025]	0.0307 [0.0056]	0.0152 [0.0024]	0.0155** [0.0061]
Heart	0.0218 [0.0021]	0.0175 [0.0012]	0.0043* [0.0023]	0.0746 [0.0144]	0.0474 [0.0060]	0.0273* [0.0153]
Hypertension	0.0132 [0.0017]	0.0109 [0.0009]	0.0022 [0.0019]	0.4217 [0.0278]	0.3321 [0.0159]	0.0897*** [0.0321]
Lung	0.0127 [0.0016]	0.0104 [0.0009]	0.0024 [0.0018]	0.0170 [0.0043]	0.0104 [0.0019]	0.0065 [0.0048]
Mental	0.0006 [0.0003]	0.0028 [0.0005]	-0.0022*** [0.0006]	0.0006 [0.0006]	0.0055 [0.0013]	-0.0049*** [0.0015]
Missing limb/finger	0.0020 [0.0006]	0.0010 [0.0003]	0.0010 [0.0007]	0.0038 [0.0019]	0.0016 [0.0007]	0.0022 [0.0021]
Skin	0.0010 [0.0004]	0.0000 [0.0000]	0.0010** [0.0004]	0.0000 [0.0000]	0.0003 [0.0003]	-0.0003 [0.0003]
Weight	0.0050 [0.0009]	0.0027 [0.0005]	0.0023** [0.0011]	0.0048 [0.0025]	0.0046 [0.0014]	0.0002 [0.0029]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.4: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 1997-2005; Part II)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
Sample size	2562	6161		503	1525	
<i>Other Chronic Conditions</i>						
Angina pectoris	0.0365 [0.0043]	0.0256 [0.0024]	0.0109** [0.0048]	0.0238 [0.0078]	0.0244 [0.0049]	-0.0007 [0.0094]
Asthma attack	0.0223 [0.0034]	0.0200 [0.0019]	0.0023 [0.0040]	0.0314 [0.0104]	0.0233 [0.0047]	0.0081 [0.0115]
Asthma	0.0646 [0.0058]	0.0770 [0.0036]	-0.0124* [0.0067]	0.0949 [0.0183]	0.0717 [0.0065]	0.0232 [0.0191]
Chronic bronchitis	0.0372 [0.0043]	0.0284 [0.0025]	0.0088* [0.0046]	0.0388 [0.0103]	0.0250 [0.0042]	0.0138 [0.0105]
Cancer	0.0562 [0.0052]	0.0481 [0.0035]	0.0081 [0.0063]	0.0063 [0.0028]	0.0046 [0.0011]	0.0017 [0.0030]
Diabetes	0.0792 [0.0064]	0.0681 [0.0036]	0.0111 [0.0073]	0.0447 [0.0066]	0.0207 [0.0027]	0.0239*** [0.0068]
Emphysema	0.0212 [0.0034]	0.0104 [0.0014]	0.0108*** [0.0037]	0.0102 [0.0046]	0.0113 [0.0033]	-0.0011 [0.0056]
Feelings interfere with life	0.0385 [0.0040]	0.0281 [0.0026]	0.0104** [0.0047]	0.0543 [0.0150]	0.0361 [0.0055]	0.0182 [0.0162]
Have trouble hearing	0.2803 [0.0112]	0.2229 [0.0070]	0.0574*** [0.0127]	0.1531 [0.0197]	0.1151 [0.0093]	0.0380* [0.0218]
Have trouble seeing	0.0883 [0.0065]	0.1025 [0.0048]	-0.0143* [0.0079]	0.1254 [0.0186]	0.1166 [0.0094]	0.0088 [0.0209]
Heart attack	0.0514 [0.0050]	0.0340 [0.0026]	0.0174*** [0.0058]	0.0586 [0.0129]	0.0356 [0.0059]	0.0230* [0.0139]
Heart conditions	0.0680 [0.0056]	0.0616 [0.0033]	0.0064 [0.0063]	0.0746 [0.0144]	0.0474 [0.0060]	0.0273* [0.0153]
Hypertension	0.3122 [0.0104]	0.2735 [0.0060]	0.0388*** [0.0117]	0.4217 [0.0278]	0.3321 [0.0159]	0.0897*** [0.0321]
Joint pain in the past 30 days	0.4019 [0.0116]	0.3408 [0.0072]	0.0611*** [0.0130]	0.3590 [0.0263]	0.2923 [0.0136]	0.0666** [0.0298]
Kidney conditions in the past 12 months	0.0107 [0.0025]	0.0139 [0.0019]	-0.0032 [0.0031]	0.0105 [0.0048]	0.0245 [0.0048]	-0.0139** [0.0066]
Liver conditions in the past 12 months	0.0269 [0.0035]	0.0193 [0.0020]	0.0076* [0.0040]	0.0282 [0.0081]	0.0313 [0.0050]	-0.0031 [0.0094]
Low back pain in the past 3 months	0.3308 [0.0106]	0.2914 [0.0070]	0.0394*** [0.0121]	0.3099 [0.0253]	0.2347 [0.0151]	0.0752*** [0.0293]
Neck pain in the past 3 months	0.1792 [0.0088]	0.1436 [0.0054]	0.0356*** [0.0102]	0.1852 [0.0225]	0.1127 [0.0102]	0.0724*** [0.0244]
Severe headache/migraine in the past 3 months	0.1035 [0.0068]	0.1031 [0.0045]	0.0004 [0.0082]	0.1022 [0.0178]	0.1008 [0.0093]	0.0014 [0.0205]
Sinusitis	0.1350 [0.0077]	0.1296 [0.0046]	0.0054 [0.0091]	0.1891 [0.0260]	0.1177 [0.0100]	0.0714** [0.0281]
Stroke	0.0143 [0.0026]	0.0145 [0.0018]	-0.0002 [0.0031]	0.0242 [0.0075]	0.0197 [0.0041]	0.0045 [0.0085]
Teeth	0.0759 [0.0064]	0.0600 [0.0034]	0.0159** [0.0072]	0.0663 [0.0169]	0.0635 [0.0089]	0.0029 [0.0191]
Ulcer	0.0971 [0.0065]	0.0814 [0.0041]	0.0156** [0.0079]	0.1064 [0.0174]	0.0642 [0.0075]	0.0422** [0.0189]
Worse health than 12 months ago	0.0926 [0.0068]	0.0792 [0.0040]	0.0133* [0.0076]	0.0979 [0.0170]	0.0824 [0.0088]	0.0155 [0.0189]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.5: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 2006-2013; Part I)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
<i>General Health Outcomes</i>						
Sample size	3875	9539		819	2596	
Activity Limitation	0.2430 [0.0075]	0.1915 [0.0052]	0.0515*** [0.0087]	0.3317 [0.0192]	0.2325 [0.0097]	0.0992*** [0.0206]
Fair/Poor Health	0.2016 [0.0071]	0.1653 [0.0048]	0.0363*** [0.0083]	0.2895 [0.0180]	0.2452 [0.0101]	0.0443*** [0.0201]
Work Limit	0.2111 [0.0071]	0.1649 [0.0046]	0.0462*** [0.0080]	0.2885 [0.0180]	0.2065 [0.0094]	0.0821*** [0.0190]
Work Unable	0.1423 [0.0064]	0.1174 [0.0039]	0.0250*** [0.0073]	0.2070 [0.0150]	0.1575 [0.0082]	0.0495*** [0.0164]
<i>Risky Health Behavior</i>						
Sample size	1841	4161		420	1176	
Current Smoker	0.2672 [0.0120]	0.1868 [0.0066]	0.0805*** [0.0134]	0.3473 [0.0275]	0.2291 [0.0130]	0.1181*** [0.0303]
Current Drinker	0.6839 [0.0121]	0.6942 [0.0082]	-0.0103 [0.0145]	0.6369 [0.0260]	0.5266 [0.0177]	0.1103*** [0.0308]
<i>Activity-Limiting Chronic Conditions</i>						
Sample size	3863	9524		813	2588	
Arthritis	0.0431 [0.0036]	0.0351 [0.0022]	0.0080** [0.0042]	0.0624 [0.0099]	0.0472 [0.0045]	0.0152 [0.0108]
Back/Neck Conditions	0.0844 [0.0052]	0.0567 [0.0030]	0.0277*** [0.0055]	0.1094 [0.0116]	0.0657 [0.0057]	0.0437*** [0.0131]
Cancer	0.0182 [0.0025]	0.0099 [0.0012]	0.0083*** [0.0027]	0.0175 [0.0054]	0.0117 [0.0020]	0.0059 [0.0057]
Circulatory	0.0089 [0.0016]	0.0071 [0.0010]	0.0018 [0.0018]	0.0116 [0.0038]	0.0068 [0.0017]	0.0048 [0.0038]
Depression	0.0432 [0.0037]	0.0185 [0.0016]	0.0247*** [0.0040]	0.0640 [0.0093]	0.0214 [0.0031]	0.0427*** [0.0095]
Diabetes	0.0329 [0.0029]	0.0260 [0.0018]	0.0069** [0.0034]	0.0561 [0.0092]	0.0437 [0.0045]	0.0124 [0.0099]
Digestive	0.0076 [0.0014]	0.0070 [0.0009]	0.0006 [0.0017]	0.0090 [0.0038]	0.0075 [0.0018]	0.0014 [0.0041]
Fracture	0.0365 [0.0036]	0.0220 [0.0017]	0.0145*** [0.0038]	0.0274 [0.0056]	0.0184 [0.0037]	0.0091 [0.0070]
Heart	0.0490 [0.0038]	0.0350 [0.0022]	0.0140*** [0.0045]	0.0481 [0.0083]	0.0408 [0.0046]	0.0073 [0.0095]
Hypertension	0.0330 [0.0034]	0.0243 [0.0018]	0.0087** [0.0039]	0.0444 [0.0087]	0.0507 [0.0046]	-0.0063 [0.0095]
Lung	0.0268 [0.0029]	0.0206 [0.0018]	0.0062* [0.0034]	0.0239 [0.0062]	0.0144 [0.0025]	0.0095 [0.0066]
Mental	0.0010 [0.0006]	0.0038 [0.0010]	-0.0028** [0.0011]	0.0013 [0.0010]	0.0020 [0.0009]	-0.0007 [0.0014]
Missing limb/finger	0.0038 [0.0011]	0.0047 [0.0009]	-0.0008 [0.0014]	0.0100 [0.0048]	0.0071 [0.0018]	0.0029 [0.0051]
Skin	0.0000 [0.0000]	0.0000 [0.0000]	0.0000 [0.0000]	0.0000 0	0.0003 [0.0003]	-0.0003 [0.0003]
Weight	0.0077 [0.0015]	0.0063 [0.0009]	0.0014 [0.0017]	0.0110 [0.0061]	0.0040 [0.0012]	0.0071 [0.0062]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.6: Summary Statistics of the 1948-1952 Born White and Nonwhite Males (NHIS 2006-2013; Part II)

Variable	Whites			Nonwhites		
	Veterans	Nonveterans	Difference	Veterans	Nonveterans	Difference
<i>Other Chronic Conditions</i>						
Sample size	1851	4172		421	1182	
Angina pectoris	0.0559 [0.0066]	0.0383 [0.0036]	0.0176** [0.0078]	0.0354 [0.0100]	0.0335 [0.0082]	0.0019 [0.0127]
Asthma attack	0.0200 [0.0038]	0.0282 [0.0032]	-0.0082* [0.0049]	0.0259 [0.0078]	0.0231 [0.0045]	0.0028 [0.0091]
Asthma	0.0897 [0.0078]	0.1004 [0.0061]	-0.0107 [0.0100]	0.0915 [0.0160]	0.0816 [0.0096]	0.0099 [0.0187]
Chronic bronchitis	0.0450 [0.0054]	0.0389 [0.0035]	0.0061 [0.0066]	0.0514 [0.0140]	0.0218 [0.0052]	0.0297* [0.0149]
Cancer	0.1333 [0.0097]	0.1045 [0.0056]	0.0289*** [0.0110]	0.1150 [0.0227]	0.0707 [0.0112]	0.0443* [0.0252]
Diabetes	0.1920 [0.0111]	0.1471 [0.0063]	0.0448*** [0.0125]	0.2532 [0.0271]	0.2256 [0.0171]	0.0276 [0.0315]
Emphysema	0.0531 [0.0061]	0.0354 [0.0034]	0.0177*** [0.0068]	0.0448 [0.0136]	0.0152 [0.0040]	0.0296** [0.0143]
Feelings interfere with life	0.0435 [0.0054]	0.0425 [0.0037]	0.0010 [0.0062]	0.0507 [0.0146]	0.0355 [0.0080]	0.0152 [0.0168]
Have trouble hearing	0.3857 [0.0135]	0.2770 [0.0085]	0.1087*** [0.0157]	0.2237 [0.0275]	0.1474 [0.0134]	0.0763** [0.0303]
Have trouble seeing	0.1071 [0.0088]	0.1025 [0.0060]	0.0047 [0.0107]	0.1177 [0.0198]	0.1404 [0.0136]	-0.0226 [0.0236]
Heart attack	0.0965 [0.0090]	0.0643 [0.0048]	0.0322*** [0.0108]	0.0948 [0.0192]	0.0593 [0.0081]	0.0355* [0.0208]
Heart conditions	0.1225 [0.0091]	0.0908 [0.0054]	0.0317*** [0.0106]	0.1021 [0.0186]	0.0671 [0.0082]	0.0350* [0.0197]
Hypertension	0.5104 [0.0143]	0.4509 [0.0102]	0.0595*** [0.0175]	0.6172 [0.0317]	0.5415 [0.0211]	0.0756** [0.0375]
Joint pain in the past 30 days	0.4536 [0.0147]	0.4040 [0.0091]	0.0496*** [0.0159]	0.4400 [0.0295]	0.3279 [0.0172]	0.1121*** [0.0352]
Kidney conditions in the past 12 months	0.0204 [0.0035]	0.0212 [0.0027]	-0.0009 [0.0046]	0.0401 [0.0111]	0.0443 [0.0078]	-0.0042 [0.0131]
Liver conditions in the past 12 months	0.0329 [0.0043]	0.0259 [0.0030]	0.0071 [0.0050]	0.0436 [0.0134]	0.0299 [0.0052]	0.0137 [0.0143]
Low back pain in the past 3 months	0.3531 [0.0146]	0.3074 [0.0088]	0.0456*** [0.0156]	0.3748 [0.0293]	0.2802 [0.0164]	0.0946*** [0.0332]
Neck pain in the past 3 months	0.1858 [0.0111]	0.1514 [0.0065]	0.0344*** [0.0126]	0.1772 [0.0224]	0.1348 [0.0121]	0.0424* [0.0246]
Severe headache/migraine in the past 3 months	0.0962 [0.0079]	0.0888 [0.0053]	0.0074 [0.0093]	0.1170 [0.0192]	0.0654 [0.0094]	0.0516** [0.0211]
Sinusitis	0.1223 [0.0096]	0.1165 [0.0064]	0.0058 [0.0114]	0.1466 [0.0191]	0.0935 [0.0101]	0.0531** [0.0211]
Stroke	0.0514 [0.0058]	0.0308 [0.0031]	0.0206*** [0.0067]	0.0420 [0.0105]	0.0468 [0.0073]	-0.0048 [0.0128]
Teeth	0.1337 [0.0099]	0.0952 [0.0057]	0.0385*** [0.0110]	0.1452 [0.0192]	0.1126 [0.0128]	0.0327 [0.0219]
Ulcer	0.1038 [0.0085]	0.0915 [0.0054]	0.0123 [0.0102]	0.1008 [0.0178]	0.0740 [0.0106]	0.0268 [0.0215]
Worse health than 12 months ago	0.1097 [0.0080]	0.0981 [0.0061]	0.0115 [0.0097]	0.1450 [0.0229]	0.1008 [0.0102]	0.0442* [0.0238]

Notes: Standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.7: Intention-To-Treat Effect of Eligibility to Draft for 1948-1952 Born
White and Nonwhite Males
(NHIS 1974-1981, 1982-1996; Estimates in Percentage Points)

Variable	NHIS 1974-1981		NHIS 1982-1996	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	29081	4022	47363	9188
Activity Limitation	1.37*** [0.39]	-0.06 [1.02]	0.10 [0.21]	0.79 [0.63]
Activity Unable	-0.02 [0.16]	-0.31 [0.59]	0.90** [0.36]	1.12 [0.87]
Fair/Poor Health	-0.05 [0.15]	-0.17 [0.48]	-0.01 [0.27]	1.18 [0.81]
Work Limitation	0.00 [0.00]	0.00 [0.00]	0.43 [0.31]	0.72 [0.79]
Work Unable	0.00 [0.00]	0.00 [0.00]	0.10 [0.21]	0.67 [0.64]
<i>Risky Health Behavior</i>				
Sample size	5221	663	1750	279
Current Smokers	-0.62 [1.76]	4.36 [4.69]	-1.02 [2.79]	4.68 [7.45]
<i>Chronic Health Conditions</i>				
Sample size	29081	4022	47363	9188
Circulatory	0.17** [0.07]	-0.34 [0.30]	0.06 [0.08]	-0.04 [0.16]
Diabetes	0.00 [0.05]	0.01 [0.09]	0.08 [0.06]	0.25 [0.21]
Digestive	0.04 [0.10]	-0.32 [0.23]	0.21* [0.11]	0.14 [0.26]
Heart	0.04 [0.05]	0.15 [0.19]	0.19 [0.12]	0.71** [0.34]
Mental	0.09 [0.07]	-0.27 [0.32]	0.11 [0.16]	0.28 [0.44]
Cancer	-0.01 [0.05]	0.18 [0.12]	0.03 [0.06]	0.00 [0.13]
Lung	0.07 [0.14]	0.70** [0.28]	0.42*** [0.15]	-0.03 [0.37]
Skin	0.04 [0.07]	0.09 [0.15]	0.02 [0.08]	0.04 [0.21]
Endocrine, Nutritional, Metabolic and Blood Disorders	0.03 [0.07]	0.04 [0.14]	0.06 [0.10]	0.24 [0.31]
Eyes and Ears	0.00 [0.01]	0.11 [0.08]	0.33** [0.13]	-0.47 [0.38]
Infective and Parasitic Diseases	0.02 [0.03]	-0.16 [0.22]	0.09 [0.05]	0.08 [0.14]
Injuries	-0.08 [0.06]	-0.09 [0.08]	0.16 [0.10]	-0.27 [0.22]
Musculoskeletal	0.02 [0.14]	0.27 [0.30]	0.61** [0.29]	0.42 [0.66]
Other	0.06 [0.14]	0.01 [0.40]	-0.06 [0.04]	-0.04 [0.11]
Certain Symptoms and ill-defined conditions	-0.01 [0.04]	0.27 [0.26]	0.07 [0.11]	-0.16 [0.29]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.8: Intention-To-Treat Effect of Eligibility to Draft for
1948-1952 Born White and Nonwhite Males
(NHIS 1997-2005 and 2006-2013; Part I; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	19764	4391	13439	3418
Activity Limitation	-0.69 [0.60]	-0.20 [1.29]	0.95 [0.85]	0.00 [1.91]
Fair/Poor Health	-0.83 [0.53]	0.82 [1.38]	2.77*** [0.81]	-1.78 [1.95]
Work Limitation	-0.93* [0.54]	0.13 [1.21]	1.12 [0.80]	0.36 [1.85]
Work Unable	-0.91** [0.42]	-0.41 [1.03]	0.83 [0.70]	-0.61 [1.64]
<i>Risky Health Behavior</i>				
Sample size	8686	2008	6002	1596
Current Smoker	0.00 [1.26]	-2.66 [2.77]	0.16 [1.24]	-5.05* [3.01]
Current Drinker	0.51 [1.32]	6.80** [2.99]	-0.67 [1.59]	2.95 [3.81]
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	19737	4377	13439	3418
Circulatory	-0.08 [0.10]	0.31 [0.27]	0.00 [0.19]	0.22 [0.42]
Diabetes	-0.22 [0.21]	-0.64 [0.49]	0.62* [0.34]	-0.30 [0.99]
Digestive	0.02 [0.10]	0.23 [0.24]	0.10 [0.18]	0.05 [0.36]
Heart	0.05 [0.20]	-0.35 [0.45]	0.31 [0.45]	0.70 [1.02]
Mental	0.00 [0.07]	-0.28 [0.20]	-0.02 [0.13]	-0.18 [0.14]
Cancer	0.01 [0.10]	-0.04 [0.20]	-0.27 [0.21]	0.13 [0.39]
Lung	-0.13 [0.18]	-0.02 [0.32]	-0.04 [0.32]	0.21 [0.59]
Skin	-0.03 [0.02]	-0.04 [0.04]	0.00 [0.00]	0.04 [0.04]
Arthritis	-0.22 [0.23]	0.15 [0.51]	0.08 [0.38]	0.15 [0.84]
Back and Neck	-0.17 [0.34]	-0.94 [0.64]	0.54 [0.54]	-0.35 [1.15]
Depression	-0.40* [0.22]	0.11 [0.48]	0.86** [0.36]	0.47 [0.74]
Fracture	0.03 [0.25]	-0.04 [0.45]	-0.01 [0.34]	0.57 [0.57]
Hypertension	0.18 [0.18]	0.36 [0.56]	0.57 [0.37]	0.33 [1.06]
Missing Limbs	0.00 [0.05]	0.08 [0.16]	0.06 [0.13]	-0.53 [0.65]
Weight	0.10 [0.09]	-0.15 [0.23]	-0.12 [0.25]	0.10 [0.45]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.9: Intention-To-Treat Effect of Eligibility to Draft for
1948-1952 Born White and Nonwhite Males
(NHIS 1997-2005 and 2006-2013; Part II; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>Other Chronic Conditions</i>				
Sample size	8723	2028	6023	1603
Angina Pectoris	0.49 [0.43]	0.14 [1.14]	1.94*** [0.63]	-2.43 [1.70]
Asthma	0.05 [0.87]	-2.84* [1.64]	2.23** [1.00]	1.08 [1.86]
Asthma Attack	-0.01 [0.44]	-0.47 [0.96]	1.28** [0.61]	-0.87 [0.95]
Chronic Bronchitis	-0.97 [0.70]	0.38 [0.96]	-0.01 [0.65]	0.78 [1.14]
Cancer	0.06 [0.64]	-0.81 [0.86]	0.01 [0.96]	-0.46 [1.81]
Diabetes	0.10 [0.82]	1.22 [2.04]	1.49 [1.27]	-5.42* [3.15]
Emphysema	-0.45 [0.39]	0.49 [0.73]	0.70 [0.62]	-0.68 [0.72]
Feelings interfere with Life	-0.72 [0.61]	0.78 [1.08]	-0.03 [0.71]	0.41 [1.43]
Headache Conditions	-1.85* [0.97]	-0.30 [1.88]	0.41 [0.99]	-2.85 [1.85]
Hearing Conditions	-2.05 [1.25]	3.05 [2.10]	2.96** [1.54]	3.06 [2.33]
Severe Hearing Conditions	-0.85 [0.62]	-0.12 [0.63]	-0.12 [0.64]	0.87 [0.94]
Heart Conditions	0.39 [0.64]	1.76 [1.31]	0.17 [1.03]	-1.62 [1.84]
Heart Attack	0.35 [0.51]	0.79 [1.38]	1.23 [0.88]	-3.07** [1.57]
Hypertension Conditions	2.36* [1.29]	0.03 [2.85]	2.11 [1.70]	5.29 [3.80]
Joints Conditions	-1.06 [1.41]	-0.55 [2.80]	0.34 [1.67]	-5.58 [3.56]
Kidney Conditions	-0.98* [0.59]	-0.01 [0.69]	0.73 [0.48]	-1.35 [2.06]
Liver Conditions	-0.89 [0.58]	-1.09 [0.80]	0.09 [0.55]	-0.42 [1.12]
Neck Pain	-2.29** [1.06]	-3.47* [2.09]	-1.10 [1.19]	-4.87* [2.64]
Lower Back Pain	-2.16 [1.36]	-1.53 [2.64]	-0.28 [1.62]	-6.05* [3.42]
Having Trouble Seeing	-0.19 [0.90]	-1.53 [2.01]	0.44 [1.02]	-2.56 [2.93]
Sinus Conditions	-0.40 [0.99]	1.68 [2.02]	1.41 [1.11]	0.32 [2.26]
Stroke	0.31 [0.32]	0.49 [0.73]	0.37 [0.62]	-1.22 [1.63]
Teeth Conditions	-0.48 [0.79]	0.01 [1.80]	-1.50 [1.10]	-2.08 [2.65]
Ulcer	-0.46 [0.80]	-2.04 [1.37]	1.97** [1.00]	-3.37** [1.60]
Worse Health than 12 Months Ago	-0.33 [0.87]	-2.27 [1.71]	-0.05 [1.03]	-4.45* [2.38]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.10: Estimated Local Effect of Military Service for the 1948-1952 Born
Complier Veterans
(NHIS 1974-1981, 1982-1996; Estimates in Percentage Points)

Variable	NHIS 1974-1981		NHIS 1982-1996	
	Whites	Nonwhites	Whites	Nonwhites
<i>Risky Health Behavior</i>				
Sample size	5221	663	1750	279
Current Smokers	-3.43 [1.76]	33.85 [222.45]	-6.48 [18.64]	58.91 [9,690.06]
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	29081	4022	47363	9188
Circulatory	0.94** [0.42]	-3.83 [3.59]	0.37 [0.50]	-0.47 [2.09]
Diabetes	-0.01 [0.30]	0.14 [1.06]	0.50 [0.39]	3.06 [2.77]
Digestive	0.23 [0.56]	-3.52 [2.76]	1.28 [0.70]	1.73 [3.31]
Heart	0.24 [0.26]	1.64 [2.25]	1.13 [0.71]	8.74** [4.38]
Mental	0.52 [0.41]	-2.99 [3.86]	0.64 [1.00]	3.41 [5.52]
Cancer	-0.08 [0.27]	2.02 [1.45]	0.15 [0.35]	-0.02 [1.64]
Lung	0.39 [0.77]	7.77 [3.63]	2.54*** [0.93]	-0.38 [4.69]
Skin	0.21 [0.38]	1.03 [1.77]	0.11 [0.50]	0.55 [2.64]
Endocrine, Nutritional, Metabolic and Blood Disorders	0.16 [0.38]	0.41 [1.62]	0.38 [0.60]	2.95 [3.97]
Eyes and Ears	-0.02 [0.06]	1.19 [0.94]	1.98** [0.80]	-5.79 [4.92]
Infective and Parasitic Diseases	0.09 [0.15]	-1.81 [2.60]	0.53 [0.32]	0.96 [1.78]
Injuries	-0.45 [0.32]	-1.00 [0.92]	0.98 [0.63]	-3.36 [2.82]
Musculoskeletal	0.10 [0.79]	2.97 [3.63]	3.72** [1.77]	5.17 [8.43]
Other	0.33 [0.80]	0.15 [4.69]	-0.34 [0.27]	-0.46 [1.44]
Certain Symptoms and ill-defined conditions	-0.08 [0.25]	3.04 [3.06]	0.40 [0.66]	-2.01 [3.66]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.11: Estimated Local Effect of Military Service for the
1948-1952 Born Complier Veterans
(NHIS 1997-2005 and 2006-2013; Part I; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>Risky Health Behavior</i>				
Sample size	8686	2008	6002	1596
Current Smoker	-0.02	-28.54	0.94	-58.67
	[8.01]	[36.87]	[7.28]	[725.90]
Current Drinker	3.22	70.82	-3.94	33.28
	[8.39]	[48.56]	[9.51]	[211.45]
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	19737	4377	13439	3418
Circulatory	-0.55	4.69	0.02	2.63
	[0.66]	[4.77]	[1.17]	[5.61]
Diabetes	-1.45	-9.62	3.78*	-3.54
	[1.34]	[8.88]	[2.08]	[13.50]
Digestive	0.13	3.49	0.63	0.63
	[0.64]	[4.20]	[1.08]	[4.82]
Heart	0.29	-5.36	1.89	8.40
	[1.32]	[7.88]	[2.73]	[13.42]
Mental	-0.03	-4.21	-0.10	-2.21
	[0.45]	[3.62]	[0.79]	[1.90]
Cancer	0.05	-0.59	-1.65	1.60
	[0.65]	[3.40]	[1.31]	[5.07]
Lung	-0.85	-0.29	-0.26	2.55
	[1.19]	[5.36]	[1.96]	[7.74]
Skin	-0.21	-0.66	-0.02	0.53
	[0.14]	[0.76]	[0.02]	[0.49]
Arthritis	-1.44	2.25	0.50	1.75
	[1.53]	[8.59]	[2.31]	[10.90]
Back and Neck	-1.09	-14.26	3.30	-4.22
	[2.23]	[12.69]	[3.26]	[15.15]
Depression	-2.56*	1.73	5.19**	5.64
	[1.45]	[8.10]	[2.24]	[9.68]
Fracture	0.23	-0.62	-0.07	6.84
	[1.62]	[7.77]	[2.06]	[7.77]
Hypertension	1.16	5.48	3.49	3.96
	[1.14]	[9.46]	[2.27]	[14.17]
Missing Limbs	-0.01	1.24	0.37	-6.38
	[0.32]	[2.67]	[0.81]	[9.70]
Weight	0.63	-2.34	-0.76	1.22
	[0.57]	[3.98]	[1.53]	[5.81]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.12: Estimated Local Effect of Military Service for the
1948-1952 Born Complier Veterans
(NHIS 1997-2005 and 2006-2013; Part II; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>Other Chronic Conditions</i>				
Sample size	8723	2028	6023	1603
Angina Pectoris	3.12 [2.73]	1.55 [19.98]	11.43*** [3.83]	-28.30 [457.79]
Asthma	0.32 [5.56]	-31.87 [36.76]	13.15** [6.13]	12.61 [70.28]
Asthma Attack	-0.07 [2.85]	-5.29 [17.85]	7.55** [3.70]	-10.17 [100.40]
Chronic Bronchitis	-6.18 [4.47]	4.23 [16.26]	-0.04 [3.87]	9.07 [53.86]
Cancer	0.40 [4.10]	-9.10 [13.66]	0.05 [5.73]	-5.37 [172.78]
Diabetes	0.62 [5.29]	13.72 [33.45]	8.82 [7.55]	-63.04 [755.65]
Emphysema	-2.83 [2.51]	5.49 [10.11]	4.16 [3.71]	-7.93 [53.23]
Feelings interfere with Life	-4.59 [3.95]	8.77 [16.88]	-0.20 [4.25]	4.78 [135.08]
Headache Conditions	-11.77* [6.25]	-3.35 [32.68]	2.44 [5.88]	-33.11 [558.34]
Hearing Conditions	-13.05 [8.14]	34.14 [38.62]	17.47* [9.18]	35.61 [383.32]
Severe Hearing Conditions	-5.42 [4.03]	-1.34 [8.98]	-0.69 [3.80]	10.06 [107.11]
Heart Conditions	2.49 [4.14]	19.77 [22.99]	1.02 [6.13]	-18.88 [933.11]
Heart Attack	2.21 [3.24]	8.90 [19.55]	7.24 [5.26]	-35.69 [435.62]
Hypertension Conditions	15.01* [8.37]	0.31 [41.90]	12.46 [10.19]	61.49 [768.67]
Joints Conditions	-6.77 [9.10]	-6.14 [40.33]	2.01 [9.96]	-64.95 [665.50]
Kidney Conditions	-6.23 [3.79]	-0.11 [9.90]	4.29 [2.91]	-15.74 [861.15]
Liver Conditions	-5.63 [3.70]	-12.18 [13.66]	0.56 [3.26]	-4.89 [54.27]
Neck Pain	-14.58** [6.88]	-38.89 [45.54]	-6.47 [7.16]	-56.65 [487.87]
Lower Back Pain	-13.74 [8.85]	-17.10 [40.53]	-1.65 [9.67]	-70.36 [189.33]
Having Trouble Seeing	-1.20 [5.76]	-17.13 [31.62]	2.62 [6.06]	-29.72 [609.04]
Sinus Conditions	-2.52 [6.35]	18.86 [36.92]	8.30 [6.66]	3.67 [190.92]
Stroke	1.95 [2.10]	5.45 [10.62]	2.16 [3.71]	-14.23 [312.19]
Teeth Conditions	-3.07 [5.09]	0.08 [30.16]	-8.85 [6.66]	-24.22 [435.19]
Ulcer	-2.95 [5.12]	-22.87 [26.74]	11.63** [6.05]	-39.20 [596.69]
Worse Health than 12 Months Ago	-2.12 [5.58]	-25.43 [30.16]	-0.31 [6.18]	-51.75 [733.06]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.13: Estimated Bounds on the Local Effect of Military Service on Activity-Limiting Chronic Conditions of White Volunteer Veterans
(Estimates in Percentage Points)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	29081	47363	19764	13439
Circulatory	(-0.26, 0.24) [-0.47, 0.38]	(-0.08, 0.61) [-0.33, 0.80]	(0.06, 0.35) [-0.21, 0.58]	(-0.06, 0.64) [-0.50, 0.96]
Diabetes	(-0.10, 0.09) [-0.23, 0.17]	(-0.21, 0.21) [-0.34, 0.33]	(-0.11, 1.13) [-0.57, 1.50]	(0.59, 3.51) [-0.54, 4.39]
Digestive	(-0.18, 0.40) [-0.50, 0.66]	(0.26, 1.41) [-0.10, 1.71]	(0.21, 0.62) [-0.29, 1.09]	(0.24, 1.14) [-0.54, 1.82]
Heart	(-0.05, 0.13) [-0.20, 0.23]	(-0.04, 1.24) [-0.40, 1.51]	(0.46, 2.18) [-0.23, 2.77]	(2.07, 5.71) [0.55, 6.99]
Mental	(0.06, 0.38) [-0.16, 0.56]	(0.32, 2.84) [-0.20, 3.28]	(-0.20, 0.07) [-0.37, 0.17]	(-0.22, 0.26) [-0.63, 0.54]
Cancer	(0.06, 0.14) [-0.06, 0.24]	(0.05, 0.33) [-0.16, 0.51]	(0.13, 0.40) [-0.17, 0.65]	(1.51, 2.37) [0.54, 3.29]
Lung	(-0.44, 0.66) [-0.86, 0.98]	(-0.05, 2.29) [-0.50, 2.64]	(0.59, 1.57) [-0.13, 2.24]	(1.54, 3.71) [0.25, 4.88]
Skin	(-0.09, 0.23) [-0.29, 0.39]	(0.12, 0.68) [-0.16, 0.93]	(0.19, 0.19) [0, 0.38]	— —
Endocrine, Nutritional Metabolic and, Blood Disorders	(-0.14, 0.18) [-0.32, 0.30]	(-0.12, 0.81) [-0.43, 1.04]	— —	— —
Eye and ear	(-0.02, 0) [-0.04, 0]	(-0.06, 1.62) [-0.44, 1.92]	— —	— —
Infective and parasitic diseases	(-0.03, 0.03) [-0.11, 0.09]	(-0.10, 0.14) [-0.23, 0.22]	— —	— —
Injuries	(0.12, 0.22) [-0.04, 0.35]	(0.32, 1.20) [-0.02, 1.49]	— —	— —
Musculoskeletal	(-0.05, 0.93) [-0.43, 1.23]	(2.17, 9.68) [1.29, 10.44]	— —	— —
Other	(-0.22, 1.15) [-0.72, 1.58]	(0.12, 0.26) [-0.06, 0.43]	— —	— —
Certain symptoms and ill-defined conditions	(0.04, 0.16) [-0.10, 0.28]	(0.29, 1.23) [-0.06, 1.53]	— —	— —
Arthritis	— —	— —	(1.82, 3.31) [0.86, 4.22]	(1.12, 4.52) [-0.16, 5.62]
Back Neck	— —	— —	(3.86, 7.18) [2.55, 8.14]	(4.17, 9.88) [2.36, 11.49]
Depression	— —	— —	(2.23, 3.51) [1.30, 4.38]	(2.14, 4.80) [0.79, 5.91]
Fracture	— —	— —	(0.92, 2.39) [0.22, 3.00]	(2.39, 4.57) [1.07, 5.78]
Hypertension	— —	— —	(0.04, 1.13) [-0.44, 1.53]	(0.89, 3.95) [-0.42, 4.98]
Missing Limbs	— —	— —	(0.15, 0.24) [-0.06, 0.43]	(-0.16, 0.30) [-0.56, 0.58]
Weight	— —	— —	(0.23, 0.53) [-0.09, 0.82]	(0.35, 1.21) [-0.47, 1.80]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.14: Estimated Bounds on the Local Effect of Military Service on Activity-Limiting Chronic Conditions of Nonwhite Volunteer Veterans
(Estimates in Percentage Points)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	4022	9188	4391	3418
Circulatory	(0.47, 1.10) [-0.82, 2.31]	(0.14, 0.47) [-0.28, 0.86]	(-0.04, 0.63) [-0.88, 1.34]	(-0.30, 0.45) [-1.31, 1.01]
Diabetes	(0.02, 0.17) [-0.36, 0.49]	(-0.84, 0.00) [-1.29, 0.00]	(3.49, 5.22) [1.16, 7.44]	(2.39, 6.56) [-3.14, 11.90]
Digestive	(0.00, 0.33) [-0.52, 0.78]	(0.08, 1.29) [-0.72, 2.01]	(-0.46, 0.29) [-1.07, 0.69]	(0.32, 1.00) [-1.13, 2.34]
Heart	(-0.28, 0.00) [-0.55, 0.00]	(-0.22, 1.74) [-1.19, 2.56]	(2.35, 3.90) [0.46, 5.67]	(1.01, 5.37) [-4.49, 10.69]
Mental	(0.76, 1.54) [-0.63, 2.84]	(0.95, 4.19) [-0.63, 5.61]	(-0.29, 0.00) [-0.51, 0.00]	(0.26, 0.34) [-0.44, 1.03]
Cancer	(-0.14, 0.00) [-0.41, 0.00]	(0.16, 0.51) [-0.39, 1.00]	(-0.02, 0.29) [-0.56, 0.73]	(0.06, 1.19) [-1.14, 2.22]
Lung	(0.17, 0.84) [-0.70, 1.58]	(1.04, 2.97) [-0.24, 4.12]	(0.48, 1.35) [-0.58, 2.31]	(0.21, 2.05) [-1.53, 3.36]
Endocrine, Nutritional, Metabolic and Blood Disorders	(0.01, 0.28) [-0.45, 0.66]	(-0.86, 0.75) [-1.63, 1.29]	—	—
Eyes and Ears	(-0.16, 0.00) [-0.37, 0.00]	(0.40, 1.61) [-0.53, 2.44]	—	—
Infective and Parasitic Diseases	(-0.01, 0.13) [-0.39, 0.39]	(0.20, 0.35) [-0.18, 0.71]	—	—
Injuries	(0.13, 0.13) [-0.12, 0.38]	(0.57, 1.18) [-0.13, 1.83]	—	—
Musculoskeletal	(0.45, 1.47) [-0.87, 2.60]	(3.66, 10.08) [1.22, 12.32]	—	—
Other	(0.33, 1.16) [-1.15, 2.56]	(0.22, 0.41) [-0.19, 0.79]	—	—
Certain Symptoms and ill-defined conditions	(0.46, 0.89) [-0.71, 2.01]	(-0.12, 1.18) [-1.09, 2.06]	—	—
Arthritis	—	—	(2.06, 4.23) [0.03, 6.11]	(-0.54, 3.53) [-2.54, 5.09]
Back and Neck	—	—	(4.80, 7.25) [1.87, 10.08]	(3.46, 9.01) [0.05, 12.05]
Depression	—	—	(2.43, 3.53) [0.54, 5.33]	(4.36, 6.97) [0.97, 10.05]
Fracture	—	—	(0.42, 1.50) [-0.68, 2.46]	(0.88, 2.77) [-0.88, 4.22]
Hypertension	—	—	(2.23, 4.83) [-0.09, 7.01]	(-0.17, 5.52) [-5.73, 10.82]
Missing Limbs	—	—	(0.02, 0.25) [-0.41, 0.60]	(2.82, 3.47) [-2.65, 8.92]
Weight	—	—	(0.04, 0.38) [-0.58, 0.91]	(-0.14, 0.00) [-0.30, 0.00]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.15: Estimated Bounds on the Local Effect of Military Service on Other Chronic Conditions of Volunteer Veterans
(Estimates in Percentage Points)

Variable	Whites Figure 6		Nonwhites Figure 7	
	NHIS 1997-2005	NHIS 2006-2013	NHIS 1997-2005	NHIS 2006-2013
Sample size	8723	2028	6023	1603
Angina Pectoris	(0.73, 3.35) [-0.76, 4.64]	(0.81, 5.43) [-1.27, 7.21]	(1.36, 4.31) [-3.88, 9.03]	(0.19, 1.91) [-1.94, 3.42]
Asthma	(-2.21, 6.21) [-4.54, 8.21]	(-2.31, 9.25) [-5.40, 11.72]	(8.97, 15.40) [1.28, 22.80]	(-3.36, 5.70) [-8.14, 9.42]
Asthma Attack	(0.35, 2.67) [-1.45, 4.34]	(-2.32, 1.46) [-3.78, 2.19]	(3.21, 5.69) [-1.99, 10.64]	(0.60, 2.77) [-2.65, 5.73]
Chronic Bronchitis	(1.40, 4.15) [-0.34, 5.74]	(1.24, 5.38) [-1.04, 7.39]	(1.53, 4.08) [-3.25, 8.66]	(1.84, 3.82) [-1.89, 7.33]
Cancer	(1.11, 5.69) [-0.83, 7.41]	(4.43, 14.62) [1.03, 17.65]	(2.61, 3.62) [-0.55, 6.60]	(3.93, 9.76) [-4.12, 17.31]
Diabetes	(0.89, 7.44) [-1.49, 9.57]	(5.10, 20.85) [0.95, 24.42]	(5.50, 18.83) [-2.33, 25.88]	(6.29, 25.53) [-4.86, 35.71]
Emphysema	(1.46, 2.21) [0.40, 3.21]	(2.14, 5.93) [-0.17, 7.95]	(0.04, 1.39) [-1.71, 2.87]	(1.75, 2.56) [-0.81, 4.99]
Feelings interfere with Life	(2.44, 5.00) [0.70, 6.62]	(0.97, 5.16) [-1.12, 6.86]	(-0.70, 2.78) [-3.43, 4.78]	(-0.07, 3.23) [-4.25, 6.79]
Headache Conditions	(1.46, 11.64) [-1.10, 13.86]	(2.05, 11.36) [-1.31, 14.28]	(-0.88, 8.17) [-5.87, 12.27]	(6.72, 11.57) [-1.49, 19.33]
Hearing Conditions	(7.60, 28.22) [4.03, 31.31]	(8.84, 35.89) [4.30, 39.76]	(-0.43, 12.10) [-5.97, 16.69]	(0.66, 14.19) [-6.41, 19.97]
Severe Hearing Conditions	(2.00, 5.18) [0.32, 6.64]	(4.07, 7.09) [1.43, 9.52]	(-0.43, 0.64) [-1.51, 1.42]	(0.24, 2.69) [-3.05, 5.16]
Heart Conditions	(0.68, 7.27) [-1.49, 9.17]	(4.57, 13.77) [1.05, 16.85]	(2.50, 8.62) [-3.27, 14.07]	(6.59, 11.47) [-3.14, 21.00]
Heart Attack	(3.18, 7.07) [0.72, 9.36]	(3.09, 9.99) [0.05, 12.63]	(1.51, 5.31) [-3.93, 10.05]	(6.39, 8.93) [0.18, 14.99]
Hypertension Conditions	(1.99, 30.23) [-1.71, 33.39]	(6.21, 52.80) [1.55, 56.66]	(14.14, 46.41) [5.54, 54.01]	(-4.21, 50.24) [-16.89, 61.66]
Joints Conditions	(8.06, 40.28) [4.15, 43.68]	(5.39, 44.25) [0.83, 48.04]	(7.32, 35.63) [-1.04, 42.82]	(10.85, 39.21) [-1.01, 49.86]
Kidney Conditions	(-0.02, 1.10) [-0.85, 1.81]	(-0.25, 2.48) [-1.84, 3.71]	(-1.69, 0.90) [-3.27, 1.85]	(3.50, 8.53) [-6.71, 18.09]
Liver Conditions	(1.80, 3.49) [0.43, 4.77]	(1.66, 4.69) [-0.41, 6.45]	(0.51, 2.55) [-2.06, 4.86]	(-0.10, 2.46) [-2.60, 4.28]
Neck Pain	(4.73, 17.28) [1.93, 19.71]	(6.31, 19.97) [2.16, 23.71]	(10.97, 20.41) [4.14, 26.46]	(8.87, 19.56) [-0.71, 28.32]
Lower Back Pain	(8.26, 37.34) [4.35, 40.76]	(7.17, 36.53) [2.45, 40.52]	(10.05, 32.00) [2.01, 38.99]	(8.60, 34.04) [-2.40, 43.86]
Having Trouble Seeing	(0.14, 10.88) [-2.77, 13.42]	(-0.11, 9.51) [-2.93, 11.72]	(-0.07, 11.19) [-5.95, 16.12]	(1.20, 16.24) [-9.37, 25.70]
Sinus	(-0.10, 12.72) [-2.83, 15.01]	(-0.16, 12.38) [-3.46, 15.04]	(5.21, 17.96) [-2.22, 24.73]	(2.84, 11.33) [-3.92, 17.23]
Stroke	(-0.18, 1.69) [-1.22, 2.47]	(3.97, 7.85) [1.00, 10.58]	(-0.47, 1.46) [-2.03, 2.66]	(-2.50, 2.09) [-5.22, 3.51]
Teeth Conditions	(1.73, 7.48) [-0.42, 9.38]	(6.71, 15.01) [3.14, 18.23]	(-1.22, 5.40) [-7.43, 10.68]	(5.32, 15.54) [-4.82, 24.97]
Ulcer	(2.38, 10.34) [0.03, 12.38]	(0.45, 11.48) [-2.71, 14.05]	(7.24, 12.48) [1.39, 18.06]	(3.72, 8.67) [-1.03, 12.87]
Worse Health than 12 Months Ago	(2.02, 10.08) [-0.52, 12.29]	(1.85, 11.24) [-1.48, 14.06]	(2.14, 9.24) [-2.88, 13.36]	(10.40, 17.79) [-0.11, 27.96]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.16: Estimated Bounds on the Military Service Effect for the 1948-1952 Born Population of Veterans
(NHIS 1974-1981, 1982-1996; Estimates in Percentage Points)

Variable	NHIS 1974-1981		NHIS 1982-1996	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	29081	4022	47363	9188
Activity Limitation	(0.72, 8.49) [-0.08, 9.43]	(0.45, 8.63) [-1.95, 11.57]	(0.86, 3.71) [0.42, 4.24]	(2.30, 8.55) [0.53, 10.64]
Activity Unable	(0.22, 1.25) [-0.15, 1.67]	(0.29, 2.64) [-1.18, 4.37]	(2.39, 12.19) [1.68, 13.05]	(4.09, 15.60) [1.75, 18.36]
Fair/Poor Health	(0.14, 1.13) [-0.18, 1.52]	(0.79, 2.12) [-0.44, 3.53]	(1.15, 6.20) [0.58, 6.88]	(1.18, 12.43) [-0.91, 14.99]
Work Limitation	—	—	(1.95, 8.77) [1.32, 9.52]	(3.21, 12.83) [1.07, 15.37]
Work Unable	—	—	(0.89, 3.85) [0.45, 4.38]	(2.13, 8.59) [0.36, 10.68]
<i>Risky Health Behavior</i>				
Sample size	5221	663	1750	279
Current Smokers	(11.26, 41.77) [7.66, 46.08]	(20.27, 59.76) [9.79, 73.47]	(9.74, 38.39) [4.11, 45.34]	(4.30, 42.03) [-14.71, 62.25]
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	29081	4022	47363	9188
Circulatory	(0.01, 0.40) [-0.13, 0.59]	(-0.07, 0.49) [-0.92, 1.47]	(0.02, 0.56) [-0.15, 0.77]	(0.06, 0.35) [-0.45, 0.90]
Diabetes	(-0.08, 0.07) [-0.19, 0.20]	(0.03, 0.17) [-0.17, 0.45]	(-0.06, 0.27) [-0.17, 0.43]	(-0.33, 0.41) [-0.75, 1.07]
Digestive	(-0.09, 0.36) [-0.30, 0.63]	(-0.44, -0.15) [-1.01, 0.48]	(0.48, 1.39) [0.23, 1.68]	(0.30, 1.35) [-0.43, 2.21]
Heart	(0.01, 0.16) [-0.08, 0.28]	(-0.04, 0.21) [-0.48, 0.71]	(0.21, 1.21) [-0.04, 1.51]	(0.96, 2.67) [0.07, 3.74]
Mental	(0.16, 0.41) [0.00, 0.60]	(0.29, 0.97) [-0.65, 2.01]	(0.39, 2.37) [0.03, 2.79]	(1.28, 4.09) [0.05, 5.55]
Cancer	(0.03, 0.09) [-0.09, 0.21]	(0.13, 0.25) [-0.05, 0.56]	(0.07, 0.29) [-0.07, 0.45]	(0.14, 0.44) [-0.23, 0.89]
Lung	(-0.25, 0.60) [-0.52, 0.94]	(1.11, 1.70) [0.39, 2.53]	(0.50, 2.34) [0.19, 2.73]	(0.85, 2.52) [-0.21, 3.76]
Skin	(-0.02, 0.23) [-0.16, 0.40]	(-0.23, 0.13) [-0.44, 0.52]	(0.12, 0.56) [-0.07, 0.78]	(0.67, 1.16) [-0.01, 1.92]
Endocrine, Nutritional, Metabolic and Blood Disorders	(-0.07, 0.17) [-0.21, 0.34]	(0.06, 0.30) [-0.26, 0.70]	(-0.02, 0.72) [-0.22, 0.97]	(-0.36, 1.04) [-1.10, 2.02]
Eyes and Ears	(-0.02, 0.00) [-0.04, 0.02]	(0.01, 0.15) [-0.01, 0.35]	(0.38, 1.70) [0.12, 2.03]	(-0.42, 0.63) [-1.57, 1.88]
Infective and Parasitic Diseases	(0.00, 0.04) [-0.05, 0.11]	(-0.24, -0.11) [-0.78, 0.49]	(0.03, 0.23) [-0.07, 0.36]	(0.30, 0.43) [-0.14, 0.90]
Injuries	(-0.01, 0.07) [-0.14, 0.22]	(-0.01, -0.01) [-0.25, 0.22]	(0.46, 1.15) [0.22, 1.42]	(0.05, 0.58) [-0.63, 1.32]
Musculoskeletal	(-0.01, 0.74) [-0.31, 1.10]	(0.76, 1.66) [0.06, 2.60]	(2.50, 8.40) [1.89, 9.12]	(3.86, 9.43) [1.99, 11.59]
Other	(-0.10, 0.97) [-0.42, 1.34]	(0.31, 1.04) [-0.83, 2.27]	(0.02, 0.13) [-0.10, 0.26]	(0.13, 0.30) [-0.23, 0.69]
Certain Symptoms and ill-defined conditions	(0.01, 0.10) [-0.09, 0.22]	(0.78, 1.16) [-0.03, 2.03]	(0.32, 1.05) [0.07, 1.34]	(-0.37, 0.76) [-1.19, 1.72]

Notes: Estimates are presented as percentage points; 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.17: Estimated Bounds on the Military Service Effect for the 1948-1952
Born Population of Veterans
(NHIS 1997-2005 and 2006-2013; Part I; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	19764	4391	13439	3418
Activity Limitation	(4.91, 14.23) [3.44, 15.87]	(4.37, 16.75) [0.66, 21.08]	(7.13, 21.99) [5.19, 24.34]	(10.93, 30.84) [5.93, 36.83]
Fair/Poor Health	(2.15, 9.90) [0.89, 11.36]	(0.69, 16.66) [-2.99, 21.11]	(6.23, 20.28) [4.48, 22.41]	(3.09, 23.27) [-2.21, 29.59]
Work Limitation	(3.82, 11.24) [2.48, 12.74]	(4.61, 15.26) [1.06, 19.36]	(6.52, 19.45) [4.68, 21.66]	(9.63, 27.59) [4.73, 33.42]
Work Unable	(1.64, 6.09) [0.60, 7.25]	(3.71, 11.36) [0.55, 14.99]	(3.60, 12.99) [2.02, 14.90]	(6.14, 19.68) [1.55, 25.06]
<i>Risky Health Behavior</i>				
Sample size	8686	2008	6002	1596
Current Smokers	(9.99, 28.34) [7.10, 31.71]	(6.21, 30.51) [-1.16, 39.62]	(7.88, 20.45) [5.07, 23.85]	(14.76, 32.57) [5.56, 43.11]
Current Drinkers	(3.31, 59.25) [0.57, 62.97]	(7.19, 58.92) [-0.48, 68.37]	(-2.43, 50.58) [-5.72, 55.13]	(18.31, 65.79) [9.94, 77.29]
<i>Activity-Limiting Chronic Conditions</i>				
Sample size	19737	4377	13412	3404
Circulatory	(-0.07, 0.16) [-0.33, 0.44]	(0.48, 1.07) [-0.30, 2.00]	(-0.04, 0.50) [-0.49, 1.02]	(0.07, 0.73) [-0.82, 1.99]
Diabetes	(-0.39, 0.58) [-0.90, 1.14]	(2.06, 3.61) [0.40, 5.45]	(1.32, 3.58) [0.61, 4.51]	(1.64, 5.27) [-2.01, 9.20]
Digestive	(0.20, 0.51) [-0.10, 0.85]	(-0.03, 0.64) [-0.58, 1.40]	(0.33, 1.02) [-0.09, 1.56]	(0.36, 0.95) [-0.73, 2.17]
Heart	(0.43, 1.77) [-0.06, 2.35]	(1.51, 2.89) [0.03, 4.54]	(2.03, 4.84) [0.99, 6.09]	(1.95, 5.75) [-1.67, 9.67]
Mental	(-0.16, 0.05) [-0.30, 0.24]	(-0.72, -0.46) [-1.29, 0.17]	(-0.19, 0.18) [-0.45, 0.54]	(-0.05, 0.02) [-0.55, 0.55]
Cancer	(0.11, 0.33) [-0.14, 0.62]	(-0.08, 0.20) [-0.65, 0.86]	(0.79, 1.46) [0.17, 2.15]	(0.26, 1.25) [-0.81, 2.49]
Lung	(0.28, 1.05) [-0.23, 1.61]	(0.40, 1.17) [-0.59, 2.29]	(1.13, 2.81) [0.30, 3.77]	(0.51, 2.12) [-0.86, 3.93]
Skin	(0.10, 0.10) [0.01, 0.20]	(-0.07, -0.07) [-0.21, 0.07]	(0.00, 0.00) [-0.01, 0.00]	(0.01, 0.07) [-0.01, 0.17]
Arthritis	(1.12, 2.30) [0.46, 3.02]	(2.09, 4.01) [0.51, 5.83]	(0.98, 3.61) [0.07, 4.66]	(-0.25, 3.31) [-2.35, 5.83]
Back and Neck	(2.80, 5.41) [1.87, 6.43]	(2.73, 4.92) [0.43, 7.41]	(3.98, 8.38) [2.67, 9.88]	(2.49, 7.33) [-0.71, 10.95]
Depression	(1.20, 2.21) [0.57, 2.90]	(2.36, 3.33) [0.73, 5.10]	(2.84, 4.89) [2.03, 5.94]	(4.52, 6.81) [2.33, 9.35]
Fracture	(0.77, 1.92) [0.14, 2.62]	(0.31, 1.27) [-1.06, 2.78]	(1.83, 3.51) [0.95, 4.52]	(1.64, 3.28) [0.17, 5.11]
Hypertension	(0.28, 1.14) [-0.14, 1.62]	(2.58, 4.91) [0.80, 6.91]	(1.48, 3.84) [0.72, 4.88]	(0.36, 5.32) [-3.22, 9.34]
Missing Limbs	(0.11, 0.18) [-0.03, 0.34]	(0.15, 0.36) [-0.28, 0.88]	(-0.04, 0.32) [-0.31, 0.69]	(1.66, 2.22) [-1.59, 5.53]
Weight	(0.32, 0.56) [0.09, 0.82]	(-0.22, 0.08) [-0.90, 0.86]	(0.10, 0.77) [-0.38, 1.47]	(0.03, 0.16) [-1.30, 1.50]

Notes: Estimates are presented as percentage points; 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.18: Estimated Bounds on the Military Service Effect for the 1948-1952
Born Population of Veterans
(NHIS 1997-2005 and 2006-2013; Part II; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>Other Chronic Conditions</i>				
Sample size	8723	2028	6023	1603
Angina Pectoris	(1.23, 3.31) [0.20, 4.48]	(1.39, 3.92) [-1.91, 8.07]	(3.28, 6.83) [1.79, 8.55]	(-2.99, -1.45) [-7.10, 2.93]
Asthma	(-1.68, 4.98) [-3.70, 7.32]	(3.21, 8.72) [-2.41, 15.07]	(1.28, 10.16) [-0.88, 12.87]	(-1.58, 6.48) [-5.73, 11.38]
Asthma Attack	(0.26, 2.10) [-0.93, 3.43]	(2.02, 4.14) [-1.19, 7.92]	(-0.03, 2.88) [-1.17, 4.46]	(-0.60, 1.33) [-3.21, 4.23]
Chronic Bronchitis	(-0.18, 2.00) [-1.98, 3.90]	(1.91, 4.10) [-1.32, 7.74]	(0.94, 4.12) [-0.62, 5.96]	(2.65, 4.41) [-0.58, 7.81]
Cancer	(0.96, 4.59) [-0.59, 6.34]	(0.95, 1.82) [-1.81, 4.84]	(3.42, 11.24) [1.07, 13.98]	(2.90, 8.07) [-2.71, 14.27]
Diabetes	(0.83, 6.02) [-1.18, 8.25]	(6.66, 18.11) [0.80, 25.11]	(5.96, 18.06) [3.02, 21.56]	(-1.44, 15.66) [-9.98, 25.58]
Emphysema	(0.56, 1.16) [-0.48, 2.24]	(0.81, 1.97) [-1.24, 4.24]	(2.61, 5.52) [1.14, 7.33]	(0.67, 1.39) [-1.46, 3.64]
Feelings interfere with Life	(0.97, 3.00) [-0.63, 4.69]	(0.64, 3.63) [-2.01, 7.01]	(0.70, 3.92) [-0.88, 5.81]	(0.47, 3.40) [-3.12, 7.50]
Headache Conditions	(-1.30, 6.76) [-3.56, 9.32]	(-1.23, 6.55) [-6.14, 12.51]	(2.14, 9.29) [-0.11, 12.01]	(2.28, 6.59) [-3.63, 13.13]
Hearing Conditions	(3.29, 19.62) [0.48, 22.89]	(4.45, 15.22) [-1.12, 21.85]	(10.84, 31.62) [7.41, 35.75]	(4.56, 16.58) [-0.91, 23.01]
Severe Hearing Conditions	(0.45, 2.97) [-1.10, 4.68]	(-0.56, 0.36) [-2.32, 2.30]	(2.97, 5.29) [1.25, 7.19]	(1.34, 3.51) [-0.55, 6.26]
Heart Conditions	(1.05, 6.27) [-0.49, 8.06]	(4.94, 10.20) [0.82, 14.92]	(3.75, 10.81) [1.30, 13.69]	(3.75, 8.08) [-3.29, 15.45]
Heart Attack	(2.98, 6.06) [1.55, 7.67]	(2.56, 5.82) [-1.19, 10.54]	(4.05, 9.36) [1.99, 11.83]	(1.70, 3.95) [-3.41, 9.24]
Hypertension Conditions	(4.71, 27.06) [1.81, 30.45]	(12.19, 39.90) [4.69, 49.18]	(7.66, 43.45) [4.07, 48.08]	(3.12, 51.50) [-6.90, 62.29]
Joints Conditions	(4.97, 30.48) [1.86, 34.20]	(5.42, 29.74) [-1.95, 38.93]	(4.61, 34.45) [1.08, 38.89]	(2.40, 27.59) [-6.49, 37.90]
Kidney Conditions	(-1.32, -0.42) [-2.83, 1.12]	(-1.47, 0.76) [-3.09, 2.86]	(0.80, 2.90) [-0.22, 4.22]	(1.36, 5.82) [-5.38, 13.52]
Liver Conditions	(0.25, 1.59) [-1.25, 3.17]	(-1.28, 0.47) [-3.65, 3.16]	(1.41, 3.73) [0.18, 5.28]	(-0.64, 1.64) [-3.14, 4.58]
Neck Pain	(0.71, 10.65) [-1.78, 13.46]	(3.93, 12.04) [-1.90, 19.06]	(3.34, 13.83) [0.50, 17.18]	(1.56, 11.06) [-5.88, 19.36]
Lower Back Pain	(3.68, 26.70) [0.68, 30.32]	(6.21, 25.07) [-0.71, 33.42]	(5.13, 27.67) [1.64, 31.97]	(-0.20, 22.40) [-8.80, 32.31]
Having Trouble Seeing	(-0.14, 8.36) [-2.25, 10.81]	(-2.48, 7.20) [-7.90, 13.73]	(0.52, 7.91) [-1.73, 10.56]	(-2.24, 11.12) [-10.12, 20.17]
Sinus Conditions	(-0.60, 9.55) [-2.82, 12.13]	(7.14, 18.09) [1.28, 25.06]	(1.80, 11.43) [-0.60, 14.34]	(2.93, 10.48) [-2.66, 16.80]
Stroke	(0.27, 1.75) [-0.42, 2.62]	(0.37, 2.03) [-1.62, 4.28]	(3.55, 6.53) [1.92, 8.51]	(-3.81, 0.27) [-7.30, 4.36]
Teeth Conditions	(0.73, 5.28) [-1.20, 7.43]	(-1.04, 4.65) [-5.58, 10.70]	(3.10, 9.47) [0.32, 12.57]	(2.03, 11.11) [-5.64, 19.71]
Ulcer	(1.27, 7.57) [-0.57, 9.67]	(2.98, 7.49) [-1.56, 12.54]	(3.05, 11.52) [0.91, 14.19]	(-1.07, 3.33) [-5.09, 7.99]
Worse Health than 12 Months Ago	(1.16, 7.54)	(-1.75, 4.35)	(1.35, 8.56)	(3.47, 10.03)

Notes: Estimates are presented as percentage points; 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.19: Estimated Bounds on the Local Effect of Military Service on
Health Outcomes of the Volunteer Veterans Without the Exclusion
Restriction
(Estimates in Percentage Points)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
White				
Sample size	29081	47363	19764	13439
Activity Limit	(-1.98, 12.36)	(-0.81, 18.23)	(2.90, 21.34)	(1.37, 31.06)
95% CI	[-2.64, 12.83]	[-1.44, 18.69]	[1.84, 22.17]	[-0.19, 32.28]
Activity Unable	(-0.16, 2.56)	(-0.22, 6.63)		
95% CI	[-0.44, 2.76]	[-0.59, 6.90]		
Work Limit		(-0.32, 13.74)	(2.44, 18.35)	(1.33, 27.74)
95% CI		[-0.86, 14.15]	[1.49, 19.12]	[-0.16, 28.89]
Work Unable		(-0.28, 6.87)	(1.11, 12.13)	(-0.08, 19.77)
95% CI		[-0.65, 7.14]	[0.34, 12.72]	[-1.31, 20.69]
Fair/ Poor Health	(-0.16, 2.32)	(-0.66, 10.88)	(-0.43, 18.79)	(-27.07, -0.44)
95% CI	[-0.42, 2.53]	[-1.13, 11.23]	[-0.52, 19.47]	[-28.14, 1.01]
Smoking	(6.42, 57.02)	(4.43, 55.92)	(5.73, 36.84)	(4.23, 30.71)
95% CI	[3.62, 59.02]	[-0.24, 59.08]	[3.63, 38.41]	[1.98, 32.32]
Nonwhite				
Sample size	4022	9188	4391	3418
Activity Limit	(-1.96, 17.59)	(2.21, 23.74)	(3.69, 29.09)	(7.61, 44.11)
95% CI	[-3.78, 18.86]	[0.57, 24.83]	[13.8, 30.75]	[4.39, 46.45]
Activity Unable	(-0.49, 9.06)	(0.86, 15.03)		
95% CI	[-1.51, 9.91]	[-0.35, 15.86]		
Work Limit		(1.48, 20.89)	(3.78, 27.61)	(6.07, 37.52)
95% CI		[-0.01, 21.90]	[1.55, 29.24]	[2.99, 39.78]
Work Unable		(0.74, 15.17)	(2.53, 22.47)	(2.50, 30.31)
95% CI		[-0.46, 16.01]	[0.60, 23.95]	[-0.28, 32.31]
Fair/ Poor Health	(-0.29, 6.42)	(-1.28, 20.35)	(-0.43, 34.02)	(-42.61, -1.78)
95% CI	[-0.75, 7.18]	[-2.71, 21.34]	[-1.96, 35.70]	[-44.88, 1.35]
Smoking	(8.05, 81.97)	(7.50, 93.56)	(5.49, 50.94)	(9.29, 59.83)
95% CI	[0.39, 88.73]	[-3.25, 105.78]	[1.13, 53.98]	[5.00, 64.08]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.20: Estimated Bounds on the Local Effect of Military Service on Health Outcomes of the Compliers Without the Exclusion Restriction
(Estimates in Percentage Points)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
White				
Sample size	29081	47363	19764	13439
Activity Limit	(-11.32, 11.50)	(-14.56, 18.04)	(-14.32, 22.60)	(-23.14, 32.10)
95% CI	[-11.81, 12.02]	[-15.13, 18.54]	[-15.34, 23.51]	[-24.74, 33.39]
Activity Unable	(-2.21, 2.48)	(-5.26, 6.57)		
95% CI	[-2.40, 2.69]	[-5.54, 6.87]		
Work Limit		(-10.80, 13.77)	(-12.55, 19.32)	(21.10, 28.53)
95% CI		[-11.28, 14.20]	[-13.42, 20.15]	[-22.46, 29.76]
Work Unable		(-5.49, 6.79)	(-8.77, 12.66)	(-15.71, 19.80)
95% CI		[-5.78, 7.09]	[-9.39, 13.33]	[-16.74, 20.83]
Self-Reported Health	(-2.21, 1.97)	(-10.62, 8.84)	(-18.73, 15.03)	(-21.06, 26.92)
95% CI	[-2.42, 2.14]	[-11.01, 9.23]	[-19.53, 15.77]	[-22.35, 28.15]
Smoking	(-38.44, 63.01)	(-95.74, 87.65)	(-22.85, 41.38)	(-21.06, 32.70)
95% CI	[-42.59, 65.14]	[-309.05, 102.94]	[-25.98, 43.10]	[-23.47, 34.54]
Nonwhite				
Sample size	4022	9188	4391	3418
Activity Limit	(-14.63, 17.07)	(-11.26, 25.98)	(-15.40, 31.87)	(-23.90, 46.92)
95% CI	[-17.46, 18.59]	[-15.23, 27.45]	[-21.05, 34.02]	[-30.90, 49.79]
Activity Unable	(-7.73, 8.61)	(-9.55, 15.82)		
95% CI	[-8.75, 9.51]	[-11.61, 16.88]		
Work Limit		(-11.65, 22.12)	(-14.85, 30.23)	(-21.34, 39.73)
95% CI		[-14.74, 23.44]	[-20.24, 32.34]	[-27.17, 42.44]
Work Unable		(-9.76, 15.85)	(-13.50, 24.02)	(-20.53, 31.11)
95% CI		[-11.78, 16.92]	[-17.52, 25.89]	[-24.97, 33.52]
Self-Reported Health	(-6.54, 4.75)	(-20.26, 15.61)	(-35.56, 23.13)	(-30.40, 43.83)
95% CI	[-7.45, 6.33]	[-21.49, 18.00]	[-37.70, 28.07]	[-35.98, 46.67]
Smoking	(-61.32, 85.77)	(-95.74, 87.65)	(-33.54, 52.46)	(-41.59, 60.29)
95% CI	[-74.40, 93.27]	[-309.05, 102.94]	[-42.39, 56.23]	[-47.91, 65.06]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

Table A.21: Military Service Effect on Complier Veterans' Health by High School Graduation
(Estimates in Percentage Points)

	White 1974- 1981	White 1982- 1996	White 1997- 2005	White 2006- 2013	Nonwhite 1974- 1981	Nonwhite 1982- 1996	Nonwhite 1997- 2005	Nonwhite 2006- 2013
Panel A: High School Graduates								
Observations	24942	41981	17049	11508	3060	7171	3421	2737
Fair/ Poor Health	0.33 [0.78]	-0.68 [1.46]	-2.95 [3.04]	14.66*** [4.39]	-4.68 [4.21]	6.74 [7.99]	7.83 [17.68]	-17.05 [23.68]
Activity Limitation	7.45*** [2.13]	4.74** [2.05]	-2.02 [3.64]	6.69 [4.83]	8.04 [9.83]	10.42 [9.28]	3.73 [16.93]	-12.65 [23.18]
Activity Unable	-0.39 [0.69]	1.51 [1.07]			1.42 [4.87]	4.05 [6.04]		
Smoking	4.07 [9.45]	-2.65 [15.35]	4.46 [7.93]	1.88 [6.90]	22.38 [35.31]	-14.56 [92.39]	-13.34 [30.94]	-63.43 [56.94]
Work Limitation		2.66 [1.73]	-2.89 [3.23]	6.35 [4.46]		5.72 [8.14]	10.39 [15.51]	-8.77 [22.02]
Work Unable		1.56 [1.08]	-3.20 [2.35]	3.93 [3.86]		3.49 [6.05]	-1.35 [12.84]	-21.99 [20.09]
First-stage	19.12*** [0.66]	17.54*** [0.52]	16.79*** [0.83]	18.27*** [1.02]	11.14*** [1.85]	10.02*** [1.25]	8.07*** [1.81]	9.28*** [2.19]
First stage F-test pvalues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Panel B: High School Non-graduates								
Observations	3938	5177	2631	1801	881	1910	889	634
Fair/ Poor Health	-6.52 [6.04]	11.44 [17.30]	-111.69 [69.70]	82.77 [80.70]	100.54 [253.75]	52.11 [93.40]	192.16 [296.53]	-124.32 [216.33]
Activity Limitation	9.19 [13.24]	17.82 [19.29]	-94.53 [65.36]	-28.92 [71.15]	-328.71 [799.60]	10.32 [91.06]	-19.54 [190.94]	217.69 [282.28]
Activity Unable	2.21 [8.14]	-15.23 [14.74]			-146.10 [376.44]	24.45 [78.60]		
Smoking	-43.79 [39.89]	-648.72 [4210.75]	-189.28 [121.37]	6.66 [51.55]	824.74 [2998.45]	174.74 [171.98]	-97.11 [262.08]	-198.47 [262.60]
Work Limitation		-0.34 [17.66]	-109.46 [66.92]	16.55 [68.23]		9.93 [87.38]	-65.86 [186.90]	220.53 [284.50]
Work Unable		-16.50 [14.76]	-92.96 [57.07]	35.99 [67.61]		14.56 [79.40]	8.59 [144.46]	205.52 [274.68]
First-stage	9.26*** [1.81]	7.33*** [1.34]	4.67*** [1.91]	4.29*** [2.25]	1.22 [2.88]	2.57* [1.51]	2.16 [2.57]	2.75 [2.85]
First stage F-test pvalues	0.00	0.00	0.00	0.00	1.00	0.00	0.96	0.63

Notes: 1. Standard errors shown in brackets; 2. * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.22: Health Outcome Differences between Volunteers and Never-takers—High School
Non-graduates
(Estimates in Percentage Points)

Whites		1974-1981			1982-1996			1997-2005			2006-2013		
		at	nt	<i>diff.</i>	at	nt	<i>diff.</i>	at	nt	<i>diff.</i>	at	nt	<i>diff.</i>
Fair/Health	Poor	0.02	0.18	-0.16	0.17	0.18	-0.02	0.41	0.25	0.16	0.47	0.43	0.05
S.E.		[0.982]	[0.011]	[0.018]	[0.834]	[0.011]	[0.019]	[0.587]	[0.017]	[0.037]	[0.527]	[0.025]	[0.051]
Observations		520	1762		523	1762		175	985		108	661	
Activity Limitation		0.14	0.22	-0.08	0.22	0.22	0.00	0.35	0.20	0.15	0.47	0.36	0.11
S.E.		[0.019]	[0.012]	[0.020]	[0.020]	[0.012]	[0.021]	[0.047]	[0.015]	[0.034]	[0.059]	[0.024]	[0.050]
Observations		520	1762		523	1762		173	976		108	661	
Activity Unable		0.04	0.05	0.00	0.12	0.11	0.01						
S.E.		[0.012]	[0.007]	[0.011]	[0.017]	[0.009]	[0.016]						
Observations		520	1161		523	1762							
Smoking		0.76	0.61	0.15	0.58	0.61	-0.03	0.63	0.37	0.26	0.52	0.27	0.25
S.E.		[0.048]	[0.039]	[0.062]	[0.108]	[0.070]	[0.119]	[0.085]	[0.029]	[0.066]	[0.079]	[0.034]	[0.071]
Observations		85	189		24	57		65	398		50	276	
Activity Limitation before 1965		0.03	0.04	-0.01				0.01	0.04	-0.03	0.01	0.06	-0.05
S.E.		[0.012]	[0.006]	[0.010]				[0.007]	[0.008]	[0.015]	[0.010]	[0.014]	[0.024]
Observations		516	1153					175	983		108	660	
Work limitation					0.19	0.19	0.00	0.31	0.18	0.13	0.42	0.34	0.08
S.E.					[0.020]	[0.011]	[0.020]	[0.045]	[0.015]	[0.033]	[0.059]	[0.024]	[0.049]
Observations					523	1762		174	980		108	661	
Work Unable					0.13	0.12	0.01	0.20	0.15	0.05	0.30	0.28	0.02
S.E.					[0.017]	[0.009]	[0.016]	[0.036]	[0.013]	[0.030]	[0.057]	[0.023]	[0.047]
Observations					523	1762		175	983		108	661	
Nonwhites		at	nt	<i>diff.</i>	at	nt	<i>diff.</i>	at	nt	<i>diff.</i>	at	nt	<i>diff.</i>
Fair/Health	Poor	0.05	0.25	-0.20	0.30	0.25	0.05	0.39	0.35	0.04	0.63	0.41	0.22
S.E.		[0.03]	[0.02]	[0.052]	[0.07]	[0.02]	[0.05]	[0.09]	[0.03]	[0.08]	[0.10]	[0.04]	[0.09]
Observations		71	792		86	792		42	339		32	244	
Activity Limitation		0.13	0.23	-0.10	0.37	0.23	0.13	0.36	0.27	0.09	0.55	0.46	0.10
S.E.		[0.05]	[0.02]	[0.052]	[0.07]	[0.02]	[0.05]	[0.09]	[0.03]	[0.07]	[0.11]	[0.04]	[0.09]
Observations		71	792		86	792		42	337		32	244	
Activity Unable		0.05	0.06	-0.01	0.20	0.15	0.05						
S.E.		[0.03]	[0.01]	[0.030]	[0.06]	[0.02]	[0.04]						
Observations		71	328		86	792							
Smoking		0.39	0.69	-0.30		0.82		0.41	0.44	-0.02	0.36	0.27	0.09
S.E.		[0.18]	[0.07]	[0.167]		[0.082]		[0.13]	[0.05]	[0.10]	[0.17]	[0.05]	[0.12]
Observations		10	47			24		27	151		17	122	
Activity Limitation before 1965		0.02	0.03	-0.02				0.00	0.05	-0.05	0.05	0.04	0.01
S.E.		[0.01]	[0.01]	[0.022]				[0.00]	[0.02]	[0.03]	[0.05]	[0.02]	[0.04]
Observations		71	327					42	337		32	244	
Work limitation					0.36	0.21	0.15	0.36	0.23	0.14	0.54	0.42	0.12
S.E.					[0.07]	[0.02]	[0.05]	[0.09]	[0.02]	[0.07]	[0.11]	[0.04]	[0.09]
Observations					86	792		42	336		32	244	
Work Unable					0.23	0.16	0.07	0.27	0.18	0.10	0.34	0.35	-0.01
S.E.					[0.06]	[0.02]	[0.04]	[0.09]	[0.02]	[0.06]	[0.12]	[0.04]	[0.09]
Observations					86	792		42	337		32	244	

Notes: 1. Standard errors shown in brackets; 2. Differences in bold are significant at 5% or 1% level.

Table A.23: Health Outcome Differences between Volunteers and Never-takers—High School Graduates
(Estimates in Percentage Points)

Whites			1974-1981			1982-1996			1997-2005			2006-2013		
			at	nt	diff.	at	nt	diff.	at	nt	diff.	at	nt	diff.
Fair or Poor Health S.E. Observations	0.01	0.01	0.00	0.07	0.05	0.03	0.12	0.07	0.05	0.19	0.14	0.05		
	[0.003]	[0.002]	[0.002]	[0.004]	[0.002]	[0.004]	[0.008]	[0.004]	[0.007]	[0.011]	[0.008]	[0.011]		
	3461	6318		6027	10828		2267	4633		1610	2974			
Activity Limitation S.E. Observations	0.08	0.09	-0.02	0.13	0.11	0.03	0.18	0.10	0.08	0.25	0.16	0.09		
	[0.005]	[0.004]	[0.006]	[0.005]	[0.003]	[0.005]	[0.010]	[0.005]	[0.009]	[0.013]	[0.008]	[0.012]		
	3461	6318		6027	10828		2244	4601		1610	2974			
Activity Unable S.E. Observations	0.01	0.01	0.01	0.04	0.02	0.02								
	[0.002]	[0.001]	[0.002]	[0.003]	[0.002]	[0.003]								
	3461	6318		6027	10828									
Smoking S.E. Observations	0.52	0.35	0.16	0.47	0.32	0.15	0.36	0.23	0.13	0.27	0.17	0.10		
	[0.022]	[0.016]	[0.024]	[0.038]	[0.026]	[0.040]	[0.019]	[0.011]	[0.017]	[0.019]	[0.013]	[0.019]		
	663	1147		225	404		1057	2039		747	1300			
Activity Limitation before 1965 S.E. Observations	0.01	0.02	-0.01				0.01	0.01	0.00	0.01	0.02	-0.01		
	[0.002]	[0.002]	[0.003]				[0.002]	[0.002]	[0.003]	[0.003]	[0.003]	[0.004]		
	3444	6277					2261	4627		1610	2970			
Work limitation S.E. Observations				0.10	0.07	0.03	0.15	0.08	0.07	0.22	0.14	0.08		
				[0.005]	[0.003]	[0.004]	[0.009]	[0.004]	[0.008]	[0.012]	[0.008]	[0.012]		
				6027	10828		2259	4624		1608	2972			
Work Unable S.E. Observations				0.04	0.02	0.02	0.08	0.04	0.04	0.14	0.09	0.05		
				[0.003]	[0.002]	[0.003]	[0.007]	[0.003]	[0.006]	[0.010]	[0.007]	[0.010]		
				6027	10828		2264	4631		1609	2974			
Nonwhites			at	nt	diff.	at	nt	diff.	at	nt	diff.			
Fair or Poor Health	0.02	0.01	0.01	0.11	0.09	0.02	0.15	0.14	0.02	0.27	0.18	0.09		
	[0.007]	[0.003]	[0.007]	[0.012]	[0.007]	[0.012]	[0.020]	[0.012]	[0.020]	[0.035]	[0.017]	[0.027]		
	443	861		968	2136		447	1056		370	806			
Activity Limitation	0.10	0.08	0.02	0.14	0.09	0.05	0.17	0.10	0.07	0.34	0.16	0.17		
	[0.017]	[0.010]	[0.016]	[0.014]	[0.007]	[0.012]	[0.022]	[0.010]	[0.019]	[0.035]	[0.016]	[0.026]		
	443	861		968	2136		442	1049		370	805			
Activity Unable	0.03	0.02	0.02	0.07	0.04	0.03								
	[0.010]	[0.005]	[0.008]	[0.011]	[0.005]	[0.009]								
	443	861		968	2136									
Smoking	0.59	0.45	0.15	0.60	0.32	0.28	0.40	0.26	0.14	0.44	0.20	0.24		
	[0.081]	[0.049]	[0.076]	[0.105]	[0.067]	[0.11]	[0.041]	[0.024]	[0.038]	[0.053]	[0.026]	[0.041]		
	63	144		29	62		216	463		185	356			
Activity Limitation before 1965	0.00	0.02	-0.02				0.01	0.01	0.00	0.02	0.00	0.02		
	[0.003]	[0.006]	[0.007]				[0.005]	[0.003]	[0.006]	[0.006]	[0.001]	[0.005]		
	442	859					446	1056		367	805			
Work limitation				0.12	0.07	0.04	0.15	0.09	0.06	0.29	0.15	0.14		
				[0.013]	[0.007]	[0.011]	[0.021]	[0.009]	[0.017]	[0.035]	[0.015]	[0.025]		
				968	2136		444	1053		370	805			
Work Unable				0.08	0.04	0.03	0.12	0.06	0.06	0.23	0.10	0.13		
				[0.011]	[0.005]	[0.009]	[0.020]	[0.008]	[0.015]	[0.034]	[0.012]	[0.022]		
				968	2136		447	1054		370	806			

Notes: 1. Standard errors shown in brackets; 2. Differences in bold are significant at 5% or 1% level.

Table A.24: Estimates on the Military Service Effect on Mortality by December 31, 2011
(Estimates in Percentage Points)

	ITT	OLS	LATE _c	LATE _{at}	ATT
Whites					
NHIS 1985-1996	0.03 [0.39]	2.06*** [0.44]	0.16 [2.40]	(2.73, 12.60) [1.56, 13.59]	(2.18, 9.95) [1.36, 10.93]
NHIS 1997-2005	0.47 [0.47]	1.24** [0.53]	3.07 [2.97]	(1.20, 8.60) [-0.24, 9.87]	(0.84, 7.42) [-0.53, 8.66]
NHIS 2006-2009	-0.25 [0.63]	-0.23 [0.69]	1.65 [4.19]	(0.66, 4.56) [-1.17, 6.12]	(0.18, 3.25) [-1.30, 4.98]
Nonwhites					
NHIS 1985-1996	0.64 [1.11]	1.69 [1.37]	7.78 [13.92]	(2.07, 18.69) [-1.55, 21.89]	(2.83, 17.25) [-0.08, 20.79]
NHIS 1997-2005	0.42 [1.15]	1.07 [1.39]	5.78 [17.21]	(1.05, 12.72) [-2.63, 15.88]	(1.63, 11.88) [-1.47, 15.69]
NHIS 2006-2009	2.29* [1.18]	-1.20 [1.04]	28.59 [97.24]	(-4.17, 0.93) [-6.49, 1.84]	(-0.72, 3.85) [-2.95, 6.82]

Notes: 1. Estimates are presented in percentage points; 2. Standard errors shown in brackets are based on 5000 rounds of bootstrap; 3. For point estimates, * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.25: Military Service Effect on Causes of Mortality by December 31, 2011
(NHIS 1985-1996 Whites; Estimates in Percentage Points)

	<i>ITT</i>	<i>LATE_c</i>	<i>OLS</i>	<i>ATT_a</i>	<i>LATE_{at}</i>
Infectious and parasitic	0.21 [0.81]	1.62 [6.28]	0.58 [0.93]	(0.63, 4.69) [-1.12, 6.66]	(0.46, 5.21) [-2.21, 7.50]
Malignant neoplasms	0.93 [1.92]	7.02 [15.10]	1.16 [2.09]	(1.39, 26.43) [-2.30, 30.72]	(0.44, 29.69) [-4.94, 34.10]
Other neoplasms	-0.05 [0.33]	-0.38 [2.59]	-0.06 [0.38]	(-0.03, 0.61) [-0.75, 1.49]	(0.03, 0.78) [-1.39, 1.95]
Anemia	-0.09 [0.09]	-0.71 [0.76]	0.19 [0.19]	(0.19, 0.19) [-0.18, 0.57]	(0.34, 0.35) [-0.33, 1.02]
Diabetes mellitus	0.28 [0.72]	2.11 [5.66]	-0.38 [0.76]	(-0.37, 2.40) [-1.84, 4.04]	(-0.79, 2.45) [-2.78, 4.03]
Nutritional Deficiencies	0.06 [0.06]	0.46 [0.48]	-0.03 [0.03]	(-0.02, 0.07) [-0.06, 0.19]	(-0.10, 0.00) [-0.30, 0.00]
Meningitis	-0.02 [0.07]	-0.14 [0.53]	-0.07 [0.06]	(-0.07, -0.02) [-0.20, 0.12]	(-0.06, 0.00) [-0.19, 0.00]
Parkinson's disease	0.06 [0.06]	0.48 [0.49]	-0.03 [0.03]	(-0.02, 0.07) [-0.06, 0.20]	(-0.11, 0.00) [-0.30, 0.00]
Alzheimer's disease	0 [0.05]	0.03 [0.39]	-0.05 [0.04]	(-0.05, 0.00) [-0.12, 0.11]	(-0.06, 0.00) [-0.18, 0.00]
Cardiovascular	0.07 [2.02]	0.54 [15.82]	-1.26 [2.19]	(-1.46, 23.88) [-5.36, 28.50]	(-1.79, 27.81) [-7.34, 32.36]
Hypertension	-0.06 [0.25]	-0.43 [1.96]	-0.03 [0.23]	(0.00, 0.58) [-0.44, 1.17]	(0.07, 0.75) [-0.81, 1.35]
Cerebrovascular	-0.19 [0.72]	-1.46 [5.69]	-0.89 [0.68]	(-0.96, 1.24) [-2.30, 2.77]	(-0.88, 1.69) [-2.33, 2.54]
Acute lower respiratory infections	-0.75 [0.44]	-5.64 [3.55]	-0.01 [0.53]	(-0.09, 0.52) [-1.16, 1.65]	(0.84, 1.55) [-0.55, 2.86]
Disease of the respiratory system	-0.41 [0.66]	-3.1 [5.21]	1.06 [0.71]	(1.07, 3.44) [-0.28, 4.98]	(1.77, 4.54) [-0.23, 6.14]
Digestive	0.42 [0.89]	3.21 [6.99]	1.19 [0.99]	(1.31, 5.52) [-0.52, 7.67]	(0.99, 5.91) [-2.09, 8.43]
Chronic liver disease and cirrhosis	0.68 [0.86]	5.15 [6.84]	0.91 [0.96]	(1.05, 5.15) [-0.72, 7.24]	(0.36, 5.15) [-2.61, 7.54]
Genitourinary system	0.4 [0.28]	3.05 [2.26]	-0.22 [0.24]	(-0.18, 0.59) [-0.64, 1.18]	(-0.73, 0.18) [-1.38, 0.45]
Perinatal and Conhenital	-0.57 [0.43]	-4.3 [3.41]	-0.37 [0.47]	(-0.41, 0.14) [-1.33, 1.18]	(0.25, 0.88) [-1.20, 2.07]
Unclassified and other disease	-0.13 [1.25]	-0.99 [9.85]	-0.85 [1.28]	(-0.93, 6.59) [-3.30, 9.34]	(-0.92, 7.86) [-4.36, 10.47]
Accidents	0.9 [1.16]	6.78 [9.13]	-0.36 [1.19]	(-0.36, 6.88) [-2.57, 9.33]	(-1.56, 6.89) [-4.39, 8.90]
Motor vehicle-related accidents	0.65 [0.82]	4.92 [6.42]	-0.1 [0.79]	(-0.07, 3.38) [-1.56, 5.13]	(-0.91, 3.12) [-2.95, 4.48]
Accidental discharge of firearms	-0.07 [0.04]	-0.56 [0.36]	0.08 [0.08]	(0.08, 0.08) [-0.08, 0.24]	(0.19, 0.19) [-0.08, 0.45]
Intentional self-harm by the discharge of firearms	-1.56 [0.65]	-11.76 [5.42]	-0.22 [0.74]	(-0.39, 1.00) [-1.86, 2.57]	(1.52, 3.15) [-0.33, 4.81]
Intentional self-harm by other and unspecified means	-0.05 [0.55]	-0.4 [4.27]	-0.42 [0.56]	(-0.46, 1.04) [-1.55, 2.28]	(-0.47, 1.29) [-1.80, 2.28]
Assault	0.23 [0.32]	1.7 [2.55]	-0.11 [0.31]	(-0.05, 0.93) [-0.63, 1.68]	(-0.35, 0.80) [-1.44, 1.56]
Legal Intervention	0.09 [0.07]	0.69 [0.55]	0.01 [0.05]	(0.01, 0.10) [-0.07, 0.24]	(-0.10, 0.00) [-0.29, 0.00]
Discharge of firearms, undetermined intent	-0.02 [0.02]	-0.17 [0.18]	-0.02 [0.02]	(-0.03, -0.02) [-0.07, 0.02]	(0.00, 0.00) [0.00, 0.00]
Other and unspecified events of undetermined intent	-0.21 [0.36]	-1.6 [2.82]	-0.01 [0.41]	(-0.05, 0.28) [-0.88, 1.15]	(0.21, 0.60) [-0.81, 1.52]
Complications of medical and surgical care	0.2 [0.19]	1.51 [1.48]	0.29 [0.21]	(0.29, 0.34) [-0.13, 0.77]	(0.08, 0.15) [-0.23, 0.43]

Notes: 1. Estimates are presented in percentage points; 2. Standard errors and the 95% CIs are shown in brackets; 3. For point estimates, * significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table A.26: Military Service Effect on Causes of Mortality by December 31, 2011
(NHIS 1985-1996 Nonwhites; Estimates in Percentage Points)

	<i>ITT</i>	<i>LATE_c</i>	<i>OLS</i>	<i>ATT_a</i>	<i>LATE_{at}</i>
Infectious and parasitic	-1.27 [2.28]	-27.72 [1109.47]	-2.63 [2.98]	(-2.97, 6.07) [-9.09, 12.98]	(-1.41, 8.20) [-9.03, 15.07]
Malignant neoplasms	1.67 [3.32]	36.31 [7533.08]	-0.77 [3.85]	(-1.67, 18.08) [-9.43, 26.74]	(-4.07, 16.92) [-12.20, 23.72]
Other neoplasms	1.58 [1.01]	34.40 [2135.65]	-0.42 [0.46]	(0.18, 2.05) [-0.53, 4.64]	(-1.99, 0.00) [-4.60, 0.00]
Anemia	-0.18 [0.39]	-3.97 [591.70]	-0.37 [0.28]	(-0.41, 0.00) [-1.04, 1.02]	(-0.19, 0.25) [-1.15, 0.73]
Diabetes mellitus	-0.41 [2.46]	-8.85 [2195.83]	-5.94 [1.97]	(-6.17, 0.39) [-11.24, 6.53]	(-6.00, 0.96) [-9.56, 2.14]
Nutritional Deficiencies	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Meningitis	0.46 [0.45]	10.10 [650.71]	-0.19 [0.19]	(0.00, 0.60) [-0.22, 1.75]	(-0.64, 0.00) [-1.83, 0.00]
Parkinson's disease	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Alzheimer's disease	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Cardiovascular	-8.63 [3.74]	-187.80 [17572.86]	0.50 [4.87]	(-1.97, 22.95) [-11.85, 34.32]	(9.77, 36.27) [-2.20, 47.11]
Hypertension	-1.23 [1.03]	-26.76 [1427.66]	-1.02 [1.02]	(-1.45, -0.55) [-4.04, 2.22]	(0.15, 1.11) [-1.72, 2.65]
Cerebrovascular	0.70 [1.35]	15.26 [1760.59]	0.71 [1.66]	(1.21, 5.61) [-2.16, 9.57]	(0.32, 5.00) [-4.28, 8.98]
Acute lower respiratory infections	-0.62 [1.33]	-13.50 [2031.22]	3.55 [3.20]	(3.61, 4.61) [-2.62, 10.97]	(4.68, 5.76) [-4.70, 15.08]
Disease of the respiratory system	0.79 [1.56]	17.16 [2848.93]	5.06 [3.33]	(5.52, 8.24) [-0.82, 14.82]	(4.78, 7.68) [-4.73, 17.02]
Digestive	2.00 [1.69]	43.57 [2554.84]	2.27 [2.21]	(2.40, 5.92) [-2.01, 10.65]	(-0.21, 3.54) [-4.94, 7.82]
Chronic liver disease and cirrhosis	1.72 [1.67]	37.44 [1625.39]	2.56 [2.20]	(2.56, 5.56) [-1.84, 10.24]	(0.36, 3.54) [-4.33, 7.84]
Genitourinary system	-0.14 [1.00]	-3.00 [1029.91]	1.71 [1.84]	(1.75, 3.09) [-1.91, 6.96]	(2.04, 3.48) [-3.20, 8.58]
Perinatal and Conhenital	0.50 [0.29]	10.86 [472.32]	0.21 [0.33]	(0.31, 0.65) [-0.32, 1.37]	(-0.35, 0.00) [-0.73, 0.00]
Unclassified and other disease	4.43 [2.26]	96.45 [6679.11]	-4.15 [1.81]	(-2.41, 8.89) [-6.54, 14.68]	(-8.66, 3.34) [-13.81, 5.90]
Accidents	-1.17 [2.09]	-25.38 [3517.46]	0.52 [3.01]	(0.37, 6.32) [-5.69, 13.23]	(1.99, 8.33) [-6.44, 16.13]
Motor vehicle-related accidents	-0.40 [1.62]	-8.74 [2324.36]	2.33 [2.74]	(2.52, 5.25) [-2.81, 11.20]	(3.22, 6.14) [-4.94, 13.83]
Accidental discharge of firearms	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Intentional self-harm by the discharge of firearms	-1.09 [0.88]	-23.80 [3000.36]	-0.80 [0.83]	(-1.25, -1.07) [-3.52, 1.23]	(0.18, 0.36) [-0.62, 1.09]
Intentional self-harm by other and unspecified means	0.77 [0.53]	16.67 [1911.35]	-0.16 [0.35]	(0.10, 1.20) [-0.57, 2.55]	(-0.95, 0.22) [-2.29, 0.65]
Assault	0.95 [1.19]	20.66 [1958.71]	1.92 [2.26]	(2.57, 5.53) [-1.72, 10.25]	(1.42, 4.57) [-5.37, 11.05]
Legal Intervention	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Discharge of firearms, undetermined intent	0.00 [0.00]	0.00 [0.00]	0.00 [0.00]	(0.00, 0.00) [0.00, 0.00]	(0.00, 0.00) [0.00, 0.00]
Other and unspecified events of undetermined intent	0.52 [0.65]	11.25 [466.99]	-0.18 [0.35]	(0.06, 0.97) [-0.49, 2.65]	(-0.65, 0.32) [-2.43, 0.94]
Complications of medical and surgical care	-0.16 [0.11]	-3.42 [474.46]	-0.14 [0.10]	(-0.20, -0.20) [-0.50, 0.09]	(0.00, 0.00) [0.00, 0.00]

Notes: 1. Estimates are presented in percentage points; 2. Standard errors and the 95% CIs are shown in brackets; 3. For point estimates, * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.27: Ordinary-Least-Squares Estimates of the Military Service Effect on Health Outcomes
(NHIS 1974-1981, 1982-1996; Estimates in Percentage Points)

Variable	NHIS 1974-1981		NHIS 1982-1996	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	29081	4022	47363	9188
Activity Limitation	0.11 [0.43]	0.36 [1.20]	0.73*** [0.23]	1.85** [0.83]
Activity Unable	0.18 [0.18]	0.30 [0.71]	1.84*** [0.39]	3.91*** [1.11]
Fair/Poor Health	0.09 [0.16]	0.90 [0.60]	0.99*** [0.30]	0.43 [0.96]
Work Limitation			1.63*** [0.34]	2.85*** [1.00]
Work Unable			0.75*** [0.23]	1.70** [0.82]
<i>Risky Health Behavior</i>				
Sample size	5221	663	1750	279
Current Smokers	11.96*** [1.97]	18.66*** [5.15]	9.78*** [3.05]	3.46 [9.42]
<i>Chronic Health Conditions</i>				
Sample size	29081	4022	47363	9188
Circulatory	-0.06 [0.07]	-0.02 [0.40]	-0.04 [0.08]	0.26 [0.22]
Diabetes	-0.08 [0.05]	0.00 [0.10]	-0.11 [0.06]	-0.53 [0.14]
Digestive	-0.12 [0.10]	-0.24 [0.24]	0.38*** [0.13]	0.28 [0.32]
Heart	-0.01 [0.05]	-0.03 [0.19]	0.12 [0.13]	0.81** [0.41]
Mental	0.15* [0.08]	0.37 [0.46]	0.29 [0.18]	1.11** [0.57]
Cancer	0.03 [0.06]	0.08 [0.10]	0.06 [0.07]	0.08 [0.16]
Lung	-0.31 [0.13]	0.91** [0.38]	0.29* [0.16]	0.93** [0.47]
Skin	-0.04 [0.07]	-0.30 [0.09]	0.11 [0.09]	0.68** [0.32]
Endocrine, Nutritional, Metabolic and Blood Disorders	-0.09 [0.06]	0.03 [0.16]	-0.06 [0.10]	-0.51 [0.29]
Eyes and Ears	-0.02 [0.01]	-0.05 [0.04]	0.22* [0.13]	0.13 [0.48]
Infective and Parasitic Diseases	-0.01 [0.03]	-0.15 [0.20]	0.02 [0.05]	0.36* [0.19]
Injuries	0.01 [0.06]	0.03 [0.10]	0.39*** [0.12]	0.27 [0.27]
Musculoskeletal	0.00 [0.14]	0.46 [0.37]	2.18*** [0.33]	3.92*** [0.88]
Other	-0.19 [0.16]	0.42 [0.55]	0.04 [0.06]	0.16 [0.16]
Certain Symptoms and ill-defined conditions	0.02 [0.05]	0.66 [0.42]	0.28** [0.12]	-0.17 [0.34]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.28: Ordinary-Least-Squares Estimates of the Military
Service Effect on Health Outcomes
(NHIS 1997-2005, 2006-2013; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	19707	4379	13414	3415
Activity Limitation	5.15*** [0.75]	5.33*** [1.68]	6.61*** [1.01]	11.06*** [2.48]
Fair/Poor Health	2.28*** [0.62]	0.89 [1.65]	4.81*** [0.92]	4.49* [2.53]
Work Limitation	4.07*** [0.67]	5.27*** [1.62]	5.88*** [0.96]	9.58*** [2.44]
Work Unable	2.05*** [0.51]	4.01*** [1.46]	3.15*** [0.81]	6.24*** [2.27]
<i>Risky Health Behavior</i>				
Sample size	8686	2008	6002	1596
Current Smoker	10.30*** [1.48]	7.97** [3.35]	7.77*** [1.41]	15.10*** [4.66]
Current Drinker	3.37** [1.44]	3.81 [3.59]	-2.04 [1.75]	16.83*** [4.36]
<i>Chronic Health Conditions</i>				
Sample size	19680	4365	13387	3401
Circulatory	-0.04 [0.11]	0.28 [0.36]	0.00 [0.19]	0.12 [0.39]
Diabetes	-0.27 [0.22]	2.25*** [0.79]	0.94** [0.37]	1.77 [1.81]
Digestive	0.16 [0.15]	-0.21 [0.22]	0.19 [0.22]	0.35 [0.53]
Heart	0.35 [0.24]	1.64** [0.68]	1.86*** [0.52]	1.64 [1.80]
Mental	-0.18*** [0.06]	-0.48*** [0.16]	-0.25** [0.11]	0.03 [0.22]
Cancer	0.14 [0.12]	0.02 [0.23]	0.84*** [0.29]	0.25 [0.49]
Lung	0.33 [0.24]	0.49 [0.44]	1.02** [0.41]	0.33 [0.61]
Skin	0.11** [0.05]	-0.04 [0.04]	0.00 [0.00]	-0.02 [0.02]
Arthritis	1.17*** [0.32]	1.96*** [0.72]	0.92** [0.44]	0.09 [0.92]
Back and Neck	2.92*** [0.46]	3.48*** [1.06]	3.81*** [0.66]	3.52** [1.43]
Depression	1.34*** [0.31]	2.61*** [0.76]	2.35*** [0.42]	4.10*** [1.12]
Fracture	0.92*** [0.29]	0.83 [0.56]	1.81*** [0.43]	1.33* [0.71]
Hypertension	0.25 [0.19]	2.22*** [0.85]	1.02** [0.40]	-0.09 [1.78]
Missing Limbs	0.11 [0.07]	0.10 [0.18]	-0.06 [0.13]	1.69 [1.66]
Weight	0.27** [0.11]	-0.08 [0.25]	0.04 [0.23]	0.39 [0.60]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

Table A.29: Ordinary-Least-Squares Estimates of the Military Service Effect on Non-activity-limiting Chronic Conditions (NHIS 1997-2005, 2006-2013; Estimates in Percentage Points)

Variable	NHIS 1997-2005		NHIS 2006-2013	
	Whites	Nonwhites	Whites	Nonwhites
<i>General Health Outcomes</i>				
Sample size	8723	2028	6023	1603
Angina Pectoris	1.10** [0.51]	1.00 [1.61]	2.46*** [0.76]	-1.83 [1.61]
Asthma	-1.84** [0.92]	4.14 [2.54]	0.06 [1.09]	-1.80 [1.91]
Asthma Attack	0.20 [0.57]	1.72 [1.57]	-0.65 [0.57]	-0.31 [1.21]
Chronic Bronchitis	0.14 [0.74]	1.74 [1.58]	0.86 [0.75]	2.74* [1.62]
Cancer	0.97 [0.73]	1.73 [1.26]	3.22*** [1.18]	3.14 [2.81]
Diabetes	0.95 [0.93]	5.17* [2.76]	5.23*** [1.48]	0.47 [4.15]
Emphysema	0.81* [0.44]	0.59 [0.98]	2.24*** [0.74]	1.03 [1.02]
Feelings interfere with Life	1.18* [0.69]	0.60 [1.19]	0.71 [0.76]	0.65 [1.76]
Headache Conditions	-0.73 [1.04]	-0.27 [2.13]	1.80 [1.12]	3.32 [2.89]
Hearing Conditions	4.37*** [1.41]	3.69 [2.49]	10.78*** [1.74]	4.16 [2.73]
Severe Hearing Conditions	0.88 [0.70]	-0.22 [0.63]	2.99*** [0.85]	0.93 [0.96]
Heart Conditions	0.81 [0.77]	3.45* [1.98]	3.69*** [1.21]	4.46 [3.46]
Heart Attack	2.55*** [0.75]	2.40 [1.84]	3.63*** [1.03]	3.10 [2.41]
Hypertension Conditions	3.93*** [1.49]	12.37*** [3.47]	6.76*** [1.85]	2.42 [5.20]
Joints Conditions	5.82*** [1.57]	6.34* [3.34]	5.45*** [1.78]	5.06 [4.59]
Kidney Conditions	-0.94* [0.56]	-1.64*** [0.58]	0.34 [0.52]	1.53 [3.39]
Liver Conditions	0.53 [0.62]	-0.33 [0.98]	1.15* [0.61]	-0.33 [1.13]
Neck Pain	1.88 [1.17]	6.38** [2.52]	4.06*** [1.40]	3.38 [3.59]
Lower Back Pain	4.01*** [1.53]	7.73** [3.14]	5.76*** [1.76]	2.04 [4.32]
Having Trouble Seeing	-0.47 [1.03]	-1.25 [2.29]	0.68 [1.09]	-1.95 [3.85]
Sinus Conditions	-0.37 [1.07]	6.38** [2.71]	1.15 [1.20]	3.70 [2.78]
Stroke	0.00 [0.33]	0.33 [0.87]	2.92*** [0.85]	-3.16** [1.44]
Teeth Conditions	1.03 [0.88]	-0.98 [1.95]	3.94*** [1.29]	2.72 [3.72]
Ulcer	1.44 [0.89]	4.17** [2.09]	1.75 [1.07]	0.15 [1.86]
Worse Health than 12 Months Ago	1.24 [0.97]	-0.19 [1.85]	1.60 [1.13]	5.20 [3.83]

Notes: Estimates are presented as percentage points; standard errors of estimates are shown in squared brackets; * significant at 10% level; ** significant at 5% level; *** significant at 1% level.

B Subpopulation Proportions

Table B.1: Estimated Subpopulation Proportions in NHIS Surveys, by Race

	Total Observation	Never Takers	Volunteers (Always Takers)	Compliers
NHIS 1974 - 1981 Whites				
Mean	29081	0.6020	0.2202	0.1778
SE		[0.0049]	[0.0038]	[0.0062]
NHIS 1974 - 1981 Nonwhites				
Mean	4022	0.6802	0.2300	0.0899
SE		[0.0122]	[0.0101]	[0.0160]
NHIS 1982 - 1996 Whites				
Mean	47363	0.6097	0.2261	0.1642
SE		[0.0039]	[0.0029]	[0.0049]
NHIS 1982 - 1996 Nonwhites				
Mean	9188	0.7190	0.2000	0.0810
SE		[0.0081]	[0.0067]	[0.0106]
NHIS 1997 - 2005 Whites				
Mean	19705	0.6321	0.2039	0.1540
SE		[0.0063]	[0.0048]	[0.0079]
NHIS 1997 - 2005 Nonwhites				
Mean	4374	0.7385	0.1933	0.0682
SE		[0.0122]	[0.0095]	[0.0155]
NHIS 2006 - 2013 Whites				
Mean	13430	0.6312	0.2038	0.1650
SE		[0.0078]	[0.0054]	[0.0095]
NHIS 2006 - 2013 Nonwhites				
Mean	3417	0.7191	0.1991	0.0818
SE		[0.0144]	[0.0118]	[0.0185]

Notes: Standard errors of estimates are shown in square brackets.

C Multiple Testing Procedure and Results

We conducted multiple testing using the sharpened False Discovery Rate (FDR) in Benjamini, Krieger, and Yekutieli (2006) and the Sequential Family-wise Error Rate in Holm (1979). In this Appendix, we explain the procedure and provide its results.

Sharpened False Discovery Rate (FDR)

(1) For each individual health outcome within a group, y_1, y_2, \dots, y_M , we obtain the lowest critical levels $\hat{\alpha}_1, \hat{\alpha}_2, \dots, \hat{\alpha}_M$, respectively, at which the confidence intervals of the bounds exclude zero.

(2) These critical levels in (1) are equal to the suprema of the probabilities that the null hypotheses (i.e., zero effect), H_1, H_2, \dots, H_M , are true, respectively.

(3) We rank the critical levels $\hat{\alpha}_1, \hat{\alpha}_2, \dots, \hat{\alpha}_M$ in ascending order, and denote them by $p^{(1)} \leq p^{(2)} \leq \dots \leq p^{(M)}$ and $H^{(1)}, H^{(2)}, \dots, H^{(M)}$ the corresponding hypotheses. We let the level of significance for the multiple testing procedure α be a fixed number, and $0 < \alpha < 1$. Let $\alpha' = \alpha / (1 + \alpha)$

(4) Let k be the largest i for which $p^{(i)} \leq \frac{i}{M} \times \alpha'$. Then we reject all $H^{(i)}$, where $i = 1, 2, \dots, k$. If none of the hypotheses is rejected, stop; otherwise, continue to Step (5).

(5) Let $\hat{m}_0 = M - i$. Apply Step (4) by replacing α' with $\alpha^* = \alpha' M / \hat{m}_0$.

(6) For example, after the second round in Step (5), if $k = 2$, we conclude that the estimated effects for health outcomes $y^{(1)}$ and $y^{(2)}$ remain statistically significant at the level of α after the sharpened FDR multiple testing procedure.

Sequential Family-wise Error Rate (FWER)

(1) For each individual health outcome within a group, y_1, y_2, \dots, y_M , we obtain the lowest critical levels $\hat{\alpha}_1, \hat{\alpha}_2, \dots, \hat{\alpha}_M$, respectively, at which the confidence intervals of the bounds exclude zero.

(2) These critical levels in (1) are equal to the suprema of the probabilities that the null hypotheses (i.e., zero effect), H_1, H_2, \dots, H_M , are true, respectively.

(3) We rank the critical levels $\hat{\alpha}_1, \hat{\alpha}_2, \dots, \hat{\alpha}_M$ in ascending order, and denote them by $p^{(1)} \leq p^{(2)} \leq \dots \leq p^{(M)}$ and $H^{(1)}, H^{(2)}, \dots, H^{(M)}$ the corresponding hypotheses. We let the level of significance for the multiple testing procedure α be a fixed number, and $0 < \alpha < 1$.

(4) In the first round of the procedure, we check whether $p^{(1)} \leq \alpha/M$. If not, we fail to reject $H^{(1)}$, $H^{(2)}$, ..., $H^{(M)}$, and stop. If yes, we reject $H^{(1)}$ and continue to the second round.

(5) In the second round of the procedure, we check whether $p^{(2)} \leq \alpha/(M-1)$. If not, we fail to reject $H^{(2)}$, $H^{(3)}$, ..., $H^{(M)}$, and stop. If yes, we reject $H^{(2)}$ and continue to the third round.

(6) In the third round of the procedure, we check whether $p^{(3)} \leq \alpha/(M-2)$. If not, we fail to reject $H^{(3)}$, $H^{(4)}$, ..., $H^{(M)}$, and stop. If yes, we reject $H^{(3)}$ and continue to the fourth round.

(7) Repeat similar process in (4)-(6), until either all $H^{(1)}$, $H^{(2)}$, ..., $H^{(M)}$ are rejected, or we stop and fail to reject one of the hypotheses.

(8) For example, if we are able to reject $H^{(1)}$ and $H^{(2)}$ in the procedure, we conclude that the estimated effects for health outcomes $y^{(1)}$ and $y^{(2)}$ remain statistically significant at the level of α after the sequential FWER multiple testing procedure.

We categorized health outcomes into four families: (1) general health outcomes (i.e., activity limitation, activity unable, work limitation, work unable, fair/poor health); (2) risky health behaviors (current smoker and current drinker; only for NHIS 1997-2005 and 2006-2013); (3) activity-limiting chronic conditions (as health outcomes in Figure 4 and Figure 5); (4) other chronic conditions (as health outcomes in Figure 6 and Figure 7; only for NHIS 1997-2005 and 2006-2013). We conducted multiple testing procedures within each survey period for whites and nonwhites, respectively across the health outcomes in each family.

In this appendix, we present the health outcomes for which the bounds estimates remain statistically significantly different from zero after the multiple testing procedure, at the indicated levels of statistical significance. The level of significance of the multiple testing procedure is shown at the top of each column.

References

- [1] Benjamini, Y., Krieger, A., and Yekutieli, D. (2006). Adaptive Linear Step-up False Discovery Rate Controlling Procedures. *Biometrika*, 57: pp. 289-300.
- [2] Holm, S. (1979) A Simple Sequentially Rejective Multiple Test Procedure. *Scandinavian Journal of Statistics*, 6(2): pp. 65-70.

Table C.1: Multiple Testing Results for Health Outcomes of Compliers (Figures 1 and 2)

Panel 1: Sharpened False Discovery Rate		
10%	5%	1%
Activity Unable (Whites; NHIS 1982-1996)	Activity Limitation (Whites; NHIS 1974-1981)	
Chronic Angina Pectoris (Whites; NHIS 2006 - 2013)		
Panel 2: Sequential Family-wise Error Rate		
10%	5%	1%
Activity Unable (Whites; NHIS 1982-1996)	Activity Limitation (Whites; NHIS 1974-1981)	
Activity-limiting Lung Condition (Whites; NHIS 1982 - 1996)		
Chronic Angina Pectoris (Whites; NHIS 2006 - 2013)		

Table C.2: Multiple Testing Results for General Health Outcomes of Volunteer Veterans (Figures 3 and 4)

Sharpened False Discovery Rate			Sequential Family-wise Error Rate		
10%	5%	1%	10%	5%	1%
Panel A: Whites					
		Activity Limitation (NHIS 1982-1996)		Activity Limitation (NHIS 1982-1996)	
		Activity Unable (NHIS 1982-1996)		Activity Unable (NHIS 1982-1996)	
		Work Limit (NHIS 1982-1996)			Work Limit (NHIS 1982-1996)
		Work Unable (NHIS 1982-1996)		Work Unable (NHIS 1982-1996)	
		Fair\Poor Health (NHIS 1982-1996)			Fair\Poor Health (NHIS 1982-1996)
		Fair\Poor Health (NHIS 1997-2005)			Fair\Poor Health (NHIS 1997-2005)
		Work Limitation (NHIS 1997-2005)			Work Limitation (NHIS 1997-2005)
		Activity Limitation (NHIS 1997-2005)			Activity Limitation (NHIS 1997-2005)
		Work Unable (NHIS 1997-2005)			Work Unable (NHIS 1997-2005)
		Activity Limitation (NHIS 2006-2013)			Activity Limitation (NHIS 2006-2013)
		Work Limitation (NHIS 2006-2013)			Work Limitation (NHIS 2006-2013)
		Work Unable (NHIS 2006-2013)		Work Unable (NHIS 2006-2013)	
		Fair\Poor Health (NHIS 2006-2013)		Fair\Poor Health (NHIS 2006-2013)	
Panel B: Nonwhites					
Activity Limitation (NHIS 1997-2005)			Activity Limitation (NHIS 1997-2005)		
Work Limitation (NHIS 1997-2005)			Work Limitation (NHIS 1997-2005)		
Work Unable (NHIS 1997-2005)			Work Unable (NHIS 1997-2005)		
		Activity Limitation (NHIS 2006-2013)			Activity Limitation (NHIS 2006-2013)
		Work Limitation (NHIS 2006-2013)			Work Limitation (NHIS 2006-2013)
		Work Unable (NHIS 2006-2013)		Work Unable (NHIS 2006-2013)	
Fair\Poor Health (NHIS 2006-2013)			Fair\Poor Health (NHIS 2006-2013)		

Table C.3: Multiple Testing Results for Smoking and Drinking of Volunteer Veterans (Figures 3 and 4)

Sharpened False Discovery Rate			Sequential Family-wise Error Rate		
10%	5%	1%	10%	5%	1%
Panel A: Whites					
Current Drinker (NHIS 1997-2005)	Current Smoker (NHIS 1997-2005)		Current Drinker (NHIS 1997-2005)		Current Smoker (NHIS 1997-2005)
Current Drinker (NHIS 2006-2013)		Current Smoker (NHIS 2006-2013)			
Panel A: Nonwhites					
Current Smoker (NHIS 1997-2005)			Current Smoker (NHIS 1997-2005)		
	Current Smoker (NHIS 2006-2013)			Current Smoker (NHIS 2006-2013)	
	Current Drinker (NHIS 2006-2013)			Current Drinker (NHIS 2006-2013)	

Table C.4: Multiple Testing Results for Activity Limiting Chronic Conditions of Volunteer Veterans (Tables A.13 - A.14)

Sharpened False Discovery Rate			Sequential Family-wise Error Rate		
10%	5%	1%	10%	5%	1%
Panel A: Whites					
	Musculoskeletal (NHIS 1982-1996)		Musculoskeletal (NHIS 1982-1996)		
	Arthritis (NHIS 1997-2005)		Heart (NHIS 2006-2013)	Arthritis (NHIS 1997-2005)	
	Back\neck conditions (NHIS 1997-2005)			Back\neck conditions (NHIS 1997-2005)	
	Depression (NHIS 1997-2005)			Depression (NHIS 1997-2005)	
	Fracture (NHIS 1997-2005)				
	Heart (NHIS 2006-2013)				
	Lung (NHIS 2006-2013)				
	Cancer (NHIS 2006-2013)			Cancer (NHIS 2006-2013)	
	Depression (NHIS 2006-2013)			Depression (NHIS 2006-2013)	
	Fracture (NHIS 2006-2013)			Fracture (NHIS 2006-2013)	
	Back\neck conditions (NHIS 2006-2013)			Back\neck conditions (NHIS 2006-2013)	
Panel B: Nonwhites					
Musculoskeletal (NHIS 1982-1996)	Diabetes (NHIS 1997-2005)	Back\neck conditions (NHIS 1997-2005)	Musculoskeletal (NHIS 1982-1996)		
Heart (NHIS 1997-2005)	Back\neck conditions (NHIS 1997-2005)		Diabetes (NHIS 1997-2005)	Back\neck conditions (NHIS 1997-2005)	
Depression (NHIS 1997-2005)					

Table C.5: Multiple Testing Results for Non-Activity Limiting Chronic Conditions of Volunteer Veterans (Table A.15)

Sharpened False Discovery Rate		Sequential Family-wise Error Rate	
10%	5%	10%	5%
Panel A: Whites			
Ulcer (NHIS 1997-2005)	Heart Attack (NHIS 1997-2005)	Severe Hearing Conditions (NHIS 2006-2013)	Neck Pain (NHIS 1997-2005)
Emphysema (NHIS 2006-2013)	Severe Hearing Conditions (NHIS 1997-2005; NHIS 2006-2013)		Hearing Conditions (NHIS 1997-2005; NHIS 2006-2013)
Heart Attack (NHIS 2006-2013)	Feelings interfere with Life (NHIS 1997-2005)		Joints Conditions (NHIS 1997-2005)
	Emphysema (NHIS 1997-2005)		Lower Back Pain (NHIS 1997-2005)
	Liver Conditions (NHIS 1997-2005)		Teeth Condition (NHIS 2006-2013)
	Neck Pain (NHIS 1997-2005)		
	Hearing Conditions (NHIS 1997-2005)		
	Joints Conditions (NHIS 1997-2005; NHIS 2006-2013)		
	Lower Back Pain (NHIS 1997-2005; NHIS 2006-2013)		
	Hypertension (NHIS 2006-2013)		
	Heart Condition (NHIS 2006-2013)		
	Diabetes (NHIS 2006-2013)		
	Stroke (NHIS 2006-2013)		
	Cancer (NHIS 2006-2013)		
	Teeth Condition (NHIS 2006-2013)		
	Hearing Condition (NHIS 2006-2013)		
	Panel B: Nonwhites		
Hypertension Conditions (NHIS 1997-2005)		Hypertension Conditions (NHIS 1997-2005)	
Neck Pain (NHIS 1997-2005)		Neck Pain (NHIS 1997-2005)	

Table C.6: Multiple Testing Results for General Health Outcomes of All Veterans (Tables A.16-17)

Sharpened False Discovery Rate			Sequential Family-wise Error Rate		
10%	5%	1%	10%	5%	1%
Panel A: Whites					
		Work Limit (1982-1996; 1997-2005; 2006-2013)			Work Limit (1982-1996; 1997-2005; ; 2006-2013)
		Fair/ Poor Health (1982-1996; 1997-2005; 2006-2013)			Fair/ Poor Health (1982-1996; 1997-2005; 2006-2013)
		Activity Unable (1982-1996)			Activity Unable (1982-1996)
		Work Unable (1982-1996; 1997-2005; 2006-2013)			Work Unable (1982-1996; 1997-2005; 2006-2013)
		Activity Limitation (1982-1996; 1997-2005; 2006-2013)			Activity Limitation (1982-1996; 1997-2005; 2006-2013)
Panel B: Nonwhites					
Work Limit (1997-2005)	Work Limit (1982-1996)	Work Limit (2006-2013)	Work Limit (1997-2005)	Work Limit (1982-1996)	Work Limit (2006-2013)
Fair/ Poor Health (1997-2005)	Fair/ Poor Health (1982-1996)	Activity Limitation (2006-2013)	Fair/ Poor Health (1997-2005)	Activity Unable (1982-1996)	Activity Limitation (2006-2013)
Work Unable (1997-2005)	Activity Unable (1982-1996)	Work Unable (2006-2013)	Work Unable (1997-2005)	Work Unable (1982-1996)	
Activity Limitation (1997-2005)	Work Unable (1982-1996)		Activity Limitation (1982-1996)	Activity Limitation (1982-1996)	
Fair/ Poor Health (2006-2013)	Activity Limitation (1982-1996)			Work Unable (2006-2013)	

Table C.7: Multiple Testing Results for Smoking and Drinking of All Veterans (Tables A.16-17)

Sharpened False Discovery Rate		Sequential Family-wise Error Rate	
5%	1%	5%	1%
Panel A: Whites			
Current Drinker (NHIS 1997-2005)	Current Smoker (NHIS 1997-2005)	Current Drinker (NHIS 1997-2005)	Current Smoker (NHIS 1997-2005)
	Current Smoker (NHIS 2006-2013)		Current Smoker (NHIS 2006-2013)
Panel A: Nonwhites			
	Current Smoker (NHIS 2006-2013)		Current Smoker (NHIS 2006-2013)
	Current Drinker (NHIS 2006-2013)		Current Drinker (NHIS 2006-2013)

Table C.8: Multiple Testing Results for Activity Limiting Chronic Conditions of All Veterans
(Tables A.16-17)

Sharpened False Discovery Rate			Sequential Family-wise Error Rate		
10%	5%	1%	10%	5%	1%
Panel A: Whites					
Skin (NHIS 1997-2005)	Lung (NHIS 1982-1996; NHIS 2006-2013)		Eyes and Ears (NHIS 1982-1996)	Lung (NHIS 1982-1996)	
Digestive (NHIS 1997-2005)	Digestive (NHIS 1982-1996)		Weight (NHIS 1997-2005)	Digestive (NHIS 1982-1996)	
	Musculoskeletal (NHIS 1982-1996)		Lung (NHIS 1997-2005)	Musculoskeletal (NHIS 1982-1996)	
	Injuries (NHIS 1982-1996)			Injuries (NHIS 1982-1996)	
	Mental (NHIS 1982-1996)			Arthritis (NHIS 1997-2005)	
	Undefined (NHIS 1982-1996)			Depression (NHIS 1997-2005)	
	Eyes and Ears (NHIS 1982-1996)			Back and Neck (NHIS 1997-2005; NHIS 2006-2013)	
	Arthritis (NHIS 1997-2005; NHIS 2006-2013)			Diabetes (NHIS 2006-2013)	
	Depression (NHIS 1997-2005; NHIS 2006-2013)			Fracture (NHIS 2006-2013)	
	Back and Neck (NHIS 1997-2005; NHIS 2006-2013)			Heart (NHIS 2006-2013)	
	Fracture (NHIS 1997-2005; NHIS 2006-2013)			Hypertension (NHIS 2006-2013)	
	Weight (NHIS 1997-2005)			Depression (NHIS 2006-2013)	
	Cancer (NHIS 2006-2013)				
	Diabetes (NHIS 2006-2013)				
	Heart (NHIS 2006-2013)				
	Hypertension (NHIS 2006-2013)				
Panel B: Nonwhites					
Hypertension (NHIS 1997-2005)	Lung (NHIS 1974-1981)		Hypertension (NHIS 1997-2005)	Lung (NHIS 1974-1981)	
Depression (NHIS 1997-2005)	Musculoskeletal (NHIS 1982-1996)		Depression (NHIS 1997-2005)	Musculoskeletal (NHIS 1982-1996)	
Heart (NHIS 1997-2005)	Depression (NHIS 2006-2013)			Depression (NHIS 2006-2013)	
Back and Neck (NHIS 1997-2005)					
Diabetes (NHIS 1997-2005)					
Arthritis (NHIS 1997-2005)					

Table C.9: Multiple Testing Results for Non-Activity Limiting Chronic Conditions of All Veterans
(Table A.18)

Sharpened False Discovery Rate		Sequential Family-wise Error Rate	
10%	5%	10%	5%
Panel A: Whites			
Asthma Attack (NHIS 2006-2013)	Joints Conditions (NHIS 1997-2005)	Joints Conditions (NHIS 1997-2005)	Heart Attack (NHIS 1997-2005; 2006-2013)
Trouble Seeing (NHIS 2006-2013)	Hypertension Conditions (NHIS 1997-2005)	Hypertension Conditions (NHIS 1997-2005)	Angina Pectoris (NHIS 2006-2013)
Feelings interfere with Life (NHIS 2006-2013)	Heart Attack (NHIS 1997-2005; NHIS 2006-2013)	Ulcer (NHIS 2006-2013)	Severe Hearing Conditions (NHIS 2006-2013)
Worse Health in 12 Months (NHIS 2006-2013)	Angina Pectoris (NHIS 2006-2013)	Cancer (NHIS 2006-2013)	Diabetes (NHIS 2006-2013)
Chronic Bronchitis (NHIS 2006-2013)	Severe Hearing Conditions (NHIS 2006-2013)	Lower Back Pain (NHIS 2006-2013)	Emphysema (NHIS 2006-2013)
Asthma (NHIS 2006-2013)	Diabetes (NHIS 2006-2013)	Heart Conditions (NHIS 2006-2013)	Stroke (NHIS 2006-2013)
Sinus Conditions (NHIS 2006-2013)	Emphysema (NHIS 2006-2013)		Hearing Conditions (NHIS 2006-2013)
Kidney Conditions (NHIS 2006-2013)	Stroke (NHIS 2006-2013)		Hypertension Conditions (NHIS 2006-2013)
Panel B: Nonwhites			
Hypertension (NHIS 1997-2005)		Hypertension (NHIS 1997-2005)	

D Numerical Values for the Figures in the Main Text

In this section, we present the numerical values of the estimated bounds in the figures of the paper.

Table D.1: Estimated Local Effect of Military Service on General Health Outcomes and Health Behaviors of Complier Veterans (Figure 1 and Figure 2)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
White (Figure 1)				
Sample size	29081	47363	19764	13439
Activity Limitation (Panel A)	7.69	0.61	-4.50	5.78
95% CI	(3.40, 11.97)	(-1.87, 3.09)	(-12.23, 3.23)	(-4.37, 15.94)
Activity Unable (Panel B)	-0.13	5.46	—	—
95% CI	(-1.85, 1.59)	(1.20, 9.73)	—	—
Fair and Poor Health (Panel C)	-0.26	-0.06	-5.42	16.81
95% CI	(-1.92, 1.40)	(-3.32, 3.21)	(-12.29, 1.44)	(7.03, 26.59)
Work Limit (Panel D)	—	2.59	-6.05	6.79
95% CI	—	(-1.11, 6.28)	(-13.04, 0.93)	(-2.68, 16.26)
Work Unable (Panel E)	—	0.62	-5.94	5.05
95% CI	—	(-1.87, 3.11)	(-11.32, -0.55)	(-3.25, 13.34)
Current Smoker (Panel F)	-3.43	-6.48	-0.02	0.94
95% CI	(-22.73, 15.87)	(-43.01, 30.04)	(-15.71, 15.68)	(-13.33, 15.21)
Current Drinker (Panel G)	—	—	3.22	-3.94
95% CI	—	—	(-13.23, 19.67)	(-22.58, 14.70)
Nonwhite (Figure 2)				
Sample size	4022	9188	4391	3418
Activity Limitation (Panel A)	-0.65	9.74	-2.91	0.02
95% CI	(-24.32, 23.03)	(-6.07, 25.54)	(-44.30, 38.49)	(-50.96, 51.00)
Activity Unable (Panel B)	-3.40	13.76	—	—
95% CI	(-17.07, 10.27)	(-7.88, 35.40)	—	—
Fair and Poor Health (Panel C)	-1.91	14.56	11.66	-21.76
95% CI	(-13.22, 9.41)	(-6.02, 35.14)	(-30.77, 54.10)	(-78.64, 35.12)
Work Limit (Panel D)	—	8.89	1.92	4.35
95% CI	—	(-10.80, 28.57)	(-36.47, 40.32)	(-44.71, 53.40)
Work Unable (Panel E)	—	8.30	-6.00	-7.41
95% CI	—	(-7.65, 24.25)	(-39.68, 27.67)	(-51.86, 37.04)
Current Smoker (Panel F)	33.85	58.91	-28.54	-58.67
95% CI	(-41.87, 109.58)	(-2911.26, 2969.94)	(-100.81, 43.72)	(-115.47, -1.87)
Current Drinker (Panel G)	—	—	70.82	33.28
95% CI	—	—	(-24.35, 166.00)	(-20.20, 86.76)

Notes: 95% confidence intervals shown in parentheses are based on 5000 rounds of bootstrap.

Table D.2: Estimated Bounds on the Local Effect of Military Service on General Health Outcomes and Behaviors of Volunteer Veterans (Figure 3 and Figure 4)

Variable	NHIS 1974-1981	NHIS 1982-1996	NHIS 1997-2005	NHIS 2006-2013
White (Figure 3)				
Sample size	29081	47363	19764	13439
Activity Limitation (Panel A)	(-1.29, 8.72)	(0.92, 4.55)	(7.46, 19.31)	(7.52, 26.75)
95% CI	[-2.38, 9.62]	[0.28, 5.10]	[5.47, 21.09]	[4.88, 29.01]
Activity Unable (Panel B)	(0.32, 1.65)	(1.56, 14.02)	—	—
95% CI	[-0.22, 2.12]	[0.53, 14.88]	—	—
Fair and Poor Health (Panel C)	(0.25, 1.53)	(1.48, 7.90)	(4.18, 14.01)	(3.12, 21.30)
95% CI	[-0.28, 1.97]	[0.66, 8.59]	[2.51, 15.49]	[0.66, 23.32]
Work Limit (Panel D)	—	(1.77, 10.45)	(6.50, 15.94)	(6.44, 23.17)
95% CI	—	[0.84, 11.24]	[4.66, 17.59]	[3.91, 25.32]
Work Unable (Panel E)	—	(0.97, 4.73)	(3.70, 9.36)	(3.18, 15.32)
95% CI	—	[0.31, 5.28]	[2.32, 10.59]	[1.01, 17.14]
Current Smoker (Panel F)	(15.26, 54.08)	(13.41, 48.53)	(12.63, 35.82)	(10.00, 26.42)
95% CI	[10.37, 58.18]	[5.36, 55.15]	[8.79, 39.23]	[5.95, 30.00]
Current Drinker (Panel G)	—	—	(3.33, 73.98)	(-1.98, 66.81)
95% CI	—	—	[0.12, 76.89]	[-6.29, 70.40]
Nonwhite (Figure 4)				
Sample size	4022	9188	4391	3418
Activity Limitation (Panel A)	(0.61, 9.95)	(1.17, 8.37)	(5.30, 19.27)	(12.46, 35.16)
95% CI	[-2.68, 12.8]	[-1.04, 10.36]	[1.01, 23.19]	[5.90, 41.06]
Activity Unable (Panel B)	(0.81, 3.50)	(2.62, 15.87)	—	—
95% CI	[-0.12, 5.21]	[-0.16, 18.37]	—	—
Fair and Poor Health (Panel C)	(1.17, 2.69)	(-0.85, 12.11)	(-0.76, 17.32)	(6.56, 29.57)
95% CI	[-0.46, 4.14]	[-3.32, 14.25]	[-4.75, 20.75]	[0.04, 35.44]
Work Limit (Panel D)	—	(2.34, 13.42)	(4.95, 16.97)	(10.37, 30.85)
95% CI	—	[-0.29, 15.78]	[0.83, 20.78]	[3.85, 36.75]
Work Unable (Panel E)	—	(1.19, 8.63)	(4.95, 13.58)	(8.03, 23.48)
95% CI	—	[-1.05, 10.64]	[0.99, 17.28]	[1.74, 29.25]
Current Smoker (Panel F)	(17.38, 65.26)	(-0.99, 40.40)	(12.21, 40.69)	(24.25, 44.36)
95% CI	[4.16, 76.31]	[-26.26, 62.56]	[3.80, 48.04]	[11.55, 56.27]
Current Drinker (Panel G)	—	—	(-3.98, 56.82)	(16.35, 70.04)
95% CI	—	—	[-12.48, 64.14]	[6.12, 78.69]

Notes: 95% confidence intervals shown in squared brackets are based on 5000 rounds of bootstrap.

E Implications of a Roy Model for Assumption A6

In this appendix, we illustrate and motivate that a standard Roy model and modifications of it do not produce sharp implications, for or against, Assumption A6. To fix ideas, we start by adopting the simple Roy model in Fiorini and Stevens (2021).

E.1 Set-up

Let $Y_i(0)$ be the potential health outcome without military service for individual i and $Y_i(1)$ be the potential health outcome with military service for individual i . To be consistent with the paper, we let $Y_i = 1$ if individual i has a health condition (a bad outcome), and $Y_i = 0$ otherwise. Let D_i be individual i 's binary indicator for military service.

Let $Y_i(1) = \alpha + \bar{\beta} + U_i(1)$ and $Y_i(0) = \alpha + U_i(0)$. Then, individual i 's treatment effect of military service on health is $\beta_i = Y_i(1) - Y_i(0) = \bar{\beta} + U_i(1) - U_i(0)$. Thus, the “gain” from military service is heterogeneous across individuals.

Based on the Roy model, individuals select into military service based on their perceived individual gain:

$$D_i = \begin{cases} 1 & \text{if } Y_i(1) - Y_i(0) + \gamma_i Z_i < 0 \iff \beta_i < -\gamma_i Z_i \\ 0 & \text{if } Y_i(1) - Y_i(0) + \gamma_i Z_i \geq 0 \iff \beta_i \geq -\gamma_i Z_i \end{cases} \quad (1)$$

where Z_i is the binary eligibility-to-draft status (the instrument) and $\gamma_i Z_i$ can be interpreted as an individual cost from military service. The β_i is then a cut-off value. When β_i is lower than the “cost” $-\gamma_i Z_i$, individuals join the military, and otherwise they do not. Equation 1 encapsulates the main implication of the Roy model: individuals decide whether to join military based on their idiosyncratic gain (and on the basis of the exogenously determined Z).

For simplicity, assume that $\gamma \in \{\gamma_L < 0, \gamma_H > 0\}$. The term $\gamma_i Z_i$ is individualized; depending on the value of γ_i , becoming eligible-to-draft pulls some individuals out of military service ($\gamma > 0$) and some people into military service ($\gamma < 0$). When β_i is lower than the “cost” $-\gamma_i Z_i$, individuals join the military, and otherwise they do not. In the following discussion, we will drop the subscript i for simplicity.

Under Assumptions A1-A4 in the paper (the IV assumptions), no one should have $\gamma_H > 0$. This is because, if this is the case, some individuals will have $Y(1) - Y(0) + \gamma_H \geq 0$ when $Z = 1$ (meaning they will not serve in military) and $Y(1) - Y(0) < 0$ when $Z = 0$ (meaning they will serve in military), thus implying a negative effect of the draft on military service for them. In other words, having $\gamma_H > 0$ would violate the monotonicity assumption in A3 by allowing the existence of “defiers”, using the terminology of Angrist et al. (1996). Therefore, with assumptions A1-A4, γ is always negative for all individuals.

The *at* stratum must have a positive return to military service, meaning a negative value of β (e.g., less activity limitations), so that for them, $Y(1) - Y(0) + \gamma Z$ is always negative.

The *nt* stratum must have a negative return to treatment, meaning a positive value of β (e.g., more activity limitations) and $\beta \geq -\gamma_L$. This is because *nt*'s need β to be sufficiently above zero to compensate for the impact of the IV so that $Y(1) - Y(0) + \gamma Z$ is always non-negative.

Individuals in the *c* stratum switch to treatment only when the IV changes from 0 to 1. They must have $\beta < -\gamma_L$ such that $Z = 1$ will push them into military service; but they must also have $\beta \geq 0$, so that when $Z = 0$, they will not serve in the military.

We summarize the β values and counterfactual choices in Table E.1.

Table E.1: Counterfactual Choices and the “Gain” of Military Service ($\gamma = \gamma_L < 0$)

Stratum Type:	Volunteers (<i>at</i>)	Compliers (<i>c</i>)	Never takers (<i>nt</i>)
	$\beta < 0$	$0 \leq \beta < -\gamma_L$	$\beta \geq -\gamma_L$
$Z = 0$	$D = 1$	$D = 0$	$D = 0$
$Z = 1$	$D = 1$	$D = 1$	$D = 0$

E.2 Implication of Roy Model for Assumption A6

Following the Roy model in the previous subsection, men choose military service if their (net) health impact from military service is positive (improves health), meaning a negative effect on Y (e.g., less activity limitations). Expressed using potential outcomes and ignoring the costs γ_i for simplicity, this means that:

$$D = \mathbf{1}\{E[Y(1)] - E[Y(0)] < 0\} = \mathbf{1}\{E[Y(1)] < E[Y(0)]\} \quad (2)$$

For never takers, the Roy model implies that $E[Y(1) - Y(0)|nt] \geq 0$, which means they are better off not serving. For volunteers, the Roy model implies that $E[Y(1) - Y(0)|at] < 0$, which means they are better off serving in the military.

Does the Roy model imply support or undermine Assumption A6?

Neither. Assumption A6 posits that $E[Y(0)|nt] \geq E[Y(0)|at]$. The Roy model implies $E[Y(1)|nt] \geq E[Y(0)|nt]$ and $E[Y(1)|at] < E[Y(0)|at]$ but **it does not** provide any implications for the relative magnitude between $E[Y(0)|nt]$ and $E[Y(0)|at]$. Therefore, the Roy model is consistent with Assumption A6.

Note that the Roy model in section E.1 does not take into account the stringent medical and physical screening examinations that the U.S. military performed before induction. In the next section we consider this institutional feature within the Roy model and discuss implications for Assumption A6.

E.3 Implications of Adding the Medical and Physical Screening Examinations to the Roy Model

In this section, we discuss heuristically the consequences of incorporating the medical and physical screening examinations by the military into the Roy model in section E.1. We assume that only individuals with pre-induction health outcome Y^{pre} better than (i.e., smaller than) a threshold τ are allowed to serve in the military. Since Y^{pre} is the individual's health upon the induction to military service, it can be related to later health outcomes $Y(0)$ through the documented correlation between adolescent health and adult health (e.g., Banks et al. 2012). Adding the medical examinations to the Roy model, we have:

$$D = 1 \text{ if } \{Y(1) - Y(0) < 0 \text{ and } Y^{pre} < \tau\}$$

$$D = 0 \text{ if } \{Y(1) - Y(0) \geq 0 \text{ or } Y^{pre} \geq \tau\}$$

Next, we discuss how the introduction of the physical and medical examinations would affect each of the stratum present in the Roy model in section E.1. First, we consider the individuals who would present for induction regardless of draft eligibility. In the absence of medical examinations, all

of these individuals would serve, and therefore, they represent the volunteer (always takers) stratum in the Roy model in section E.1. Denote this group of individuals by at^R . The main consequence of introducing the physical and medical examinations is that a fraction of the individuals who would present for induction regardless of draft eligibility —specifically, those with worse health than the threshold—do not pass the examinations and consequently do not serve. As a result, the group of individuals who present for induction, pass the examinations, and serve in the military regardless of draft eligibility will unambiguously have better average health than those in the at^R group. In other words, the group of always takers in a setting with medical examinations (denote it at^{RME}) will have better average health at the time of induction than the group of always takers in the Roy model in section E.1 (at^R) where medical examinations do not exist. Linking health at the time of induction to potential outcomes, we have that

$$E[Y(0)|at^R] \geq E[Y(0)|at^{RME}] \quad (3)$$

Note that the individuals who would present for induction regardless of draft eligibility and do not pass the examinations become never takers, as they do not serve regardless of draft eligibility. In the context of the stratification in terms of both veteran status and the decision to take the examinations in section 5.3.2 in the paper and further detailed in section F of this Appendix, these individuals belong to the *ntSS* stratum: individuals who take the examinations regardless of draft eligibility but do not serve (as they fail the examinations). Importantly, the health of these individuals will be below the pre-induction threshold.¹

Second, we consider the group of individuals who would present for induction only if drafted. In the absence of medical examinations, these are the compliers in the Roy model in section E.1, and thus the individuals in this group who are drafted will present for induction and serve. For our purposes, the main consequence of introducing the physical and medical examinations is that, like for always takers, a fraction of the individuals who would present for induction and take the examinations only if drafted would not pass the examinations because of their health being worse than the threshold. As before, these individuals become never takers because, even if drafted, they will not be healthy enough to pass the examinations and serve. In the context of the stratification in terms of both veteran status and the decision to take the examinations in section 5.3.2 in the paper, these individuals belong to the *ntNS* stratum: individuals who take the examinations only if drafted but do not serve because of failing the examinations.

Finally, consider the individuals who would not present for induction, and thus do not serve,

¹In principle, in the presence of medical examinations some individuals who would present for induction regardless of draft eligibility in the absence of examinations (at^R) and who have health worse than the threshold may decide not to present for induction if they know they will not pass the examinations. In such cases, it is likely that these individuals would present for induction only if drafted and would fail the examinations, thus becoming part of the *ntNS* stratum in the context of the stratification in section 5.3.2 in the paper (never takers who take the examinations only if drafted). For our purposes, the relevant feature is that these individuals would still become never takers and their health would be below the threshold.

regardless of draft eligibility. They represent the never takers stratum in the Roy model in section E.1, call it nt^R . Note that in the absence of medical examinations, the only way to not serve if drafted is by obtaining an allowable deferment or undertaking draft avoidance behaviors. In the presence of medical examinations, these individuals would also obtain deferments or engage in draft avoidance behaviors if drafted to avoid serving. In the context of the stratification in terms of both veteran status and the decision to take the examinations in section 5.3.2 in the paper, these individuals belong to the $ntNN$ stratum: individuals who do not take the examinations regardless of draft eligibility and therefore do not serve.² For the purposes of comparing the average health of the never takers in the Roy model in section E.1 (nt^R) to that of the never takers in a Roy model with medical examinations (call them nt^{RME}), the important aspect is that the newly added individuals to the group of never takers in the presence of medical examinations do not pass the physical examinations due to worse health, and thus have $Y^{pre} \geq \tau$. Specifically, these are the individuals who take and fail the examinations regardless of draft eligibility (the $ntSS$ stratum), and the individuals who would take and fail the examinations only if drafted (the $ntNS$ stratum).³ As a result, unless the average health of the individuals in the nt^R group is already worse than the threshold, the average health of the never takers in a Roy model with medical examinations (nt^{RME}) would be worse than the average health of the never takers in the Roy model in section E.1 (nt^R).⁴ Therefore, linking health at the time of induction to potential outcomes, we have that

$$E[Y(0)|nt^R] \leq E[Y(0)|nt^{RME}] \quad (4)$$

In sum, the Roy model with medical and physical screening examinations makes Assumption A6 more plausible relative to the Roy model without these examinations, as the average health of always takers at the time of induction is better than in the absence of medical and physical screening examinations, whereas the average health of never takers is worse. This makes it more likely that $E[Y(0)|nt] \geq E[Y(0)|at]$ in the presence of medical examinations (see equations (3) and (4)), given the strong association between early-life health and health later in life (e.g., Banks et al., 2012).

²Note that the presence of medical examinations may make some individuals who are never takers in the absence of examinations (nt^R) present for induction if drafted if they know that their health is bad enough that they will fail the examinations and thus not serve. In such cases, these individuals would become part of the $ntNS$ stratum. For us, the key point is that these individuals would still be never takers and their health would be worse than the threshold.

³Recall from the stratification in section 5.3.2 of the paper, that the group of never takers in the presence of medical examinations (nt^{RME}) comprises three strata: $ntSS$, $ntNS$ and $ntNN$.

⁴For completeness, note that in principle there could be some individuals in the group of compliers and never takers (nt^R) in the absence of medical examinations who, in the presence of medical examinations, if they were to be drafted they may hurt themselves or bribe doctors to certify a bogus medical condition to fail the examinations and avoid serving. In the context of the stratification in section 5.3.2 of the paper, these individuals would belong to the $ntNS$ stratum. As these individuals' health may not be worse than the threshold if not drafted, it is ambiguous whether adding them to the group of never takers in the presence of medical examinations (nt^{RME}) would worsen the average health of the latter group. However, the number of these individuals is likely very small relative to the other individuals added to the nt^{RME} group. While there is anecdotal evidence that those types of individuals existed (e.g., Baskir and Strauss, 1978), it is highly unlikely that there were so many of them as to reverse the conclusion that the average health of the never takers in the presence of medical examinations (nt^{RME}) is worse than that of the never takers without medical examinations (nt^R) given the discussion and empirical evidence presented in section 5.3.2 of the paper (e.g., the bounds on the proportions of the strata $ntSS$, $ntNS$ and $ntNN$; see also Table F.2 in this Appendix.)

To be clear, Assumption A6 is not implied by the Roy model with medical and physical screening examinations. This is because the examinations do not result in any sharp implications for the average potential outcomes under no military service (or $Y(0)$) between never takers and volunteers.

E.4 Conclusion

To summarize, the Roy model does not offer sharp predictions as to the validity of Assumption A6. Therefore, the Roy model is consistent with Assumption A6. Incorporating into the Roy model the institutional feature of the medical and physical screening examinations by the U.S. military makes Assumption A6 more plausible. However, this extended Roy model does not imply Assumption A6—the model is consistent with Assumption A6. The main reason is that these models do not provide sharp implications about the relative average health between always takers and never takers under no military service. Therefore, the plausibility of Assumption A6 is an empirical question. In Appendix F, we present an empirical analysis rooted on principal stratification to encompass selection into the military and selection into taking the examinations. The main insights of which are discussed in section 5.3.2 of the paper.

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F Principal Stratification with Endogenous Decision to Take the Military Screening Examinations

In this appendix, we use principal stratification to model both the selection-into-military service and the endogenous choice to take the military screening examinations performed by the US military before enlisting individuals. The goal is to shed light on the plausibility of Assumption A6, which relates the average health of never takers and volunteers under no military service: $E[Y(0)|nt] \geq E[Y(0)|at]$. This appendix contains the details on how we bound the “weights” for the different strata of never takers that were reported in Section 5.3.2 of the paper, which take into account the endogenous choice to take the military screening examinations.

F.1 Notation, Additional Assumptions, and Principal Stratification

We follow the same notation and assumptions employed in the paper. Hence, let D denote the military service indicator, and Z the eligibility-to-draft indicator. As in the paper, we introduce the following notation to apply principal stratification to the endogenous choice of taking the military screening examinations. Let S denote whether the individual decides to take the examinations, and let $S(z)$ be the associated potential values as a function of eligibility to draft Z . As discussed in the paper, we make use of two additional assumptions to model the endogenous decision to take the screening examinations in the analysis herein. The **first additional assumption** we employ is monotonicity of Z on S (which is analogous to Assumption A3 in the paper and is similarly justified). The **second additional assumption** is that never takers who obtain deferments or engage in draft-avoidance behaviors do not do so *after* having passed the examinations.⁵

Under monotonicity of Z on S , there are three principal strata with respect to S : NN (respectively, SS) comprises individuals who would never (always) take the examinations regardless of draft eligibility; and NS comprises individuals who would take the examinations only if drafted. Stratifying the population in terms of both D and S results in the following stratification: $\{nt, at, c\} \times \{NN, SS, NS\}$, where, for example, the stratum $ntNN$ comprises never takers who, regardless of draft eligibility, decide to never take the examinations. Comparisons of individuals within strata are free of endogeneity biases, just as with the compliance types in IV analysis (Angrist et al., 1996).

Note that, since volunteers (always takers) would serve in the military regardless of their eligibility to draft status, they would also choose to take the screening examinations—and would pass them—regardless of their eligibility to draft status. Therefore, strata $atNN$ and $atNS$ do not exist.

⁵Both of these assumptions are likely mild. The monotonicity assumption is justified along the same lines as the justification of Assumption A3 (monotonicity of Z on D). The second assumption is natural since deferments and draft avoidance would likely happen before engaging with the military by taking the military screening examinations. Indeed, the steps in the conscription process (see, e.g., Shapiro and Striker, 1970; 32 C.F.R. §§1622.2, 1623.2) provide for opportunities to obtain deferments before undergoing the examinations. Moreover, for men undertaking draft avoidance actions, it does not seem desirable to present themselves for pre-induction and induction, take the examinations, and subsequently engage in draft avoidance actions.

Since compliers would only serve in the military (and henceforth, take the screening examinations) when they are eligible-to-draft, strata cNN and cSS do not exist. Note that compliers would pass the screening examinations if they take them, as they serve if drafted. Therefore, the principal stratification $\{nt, at, c\} \times \{NN, SS, NS\}$ reduces to the following five strata: $ntSS$, $ntNS$, $ntNN$, $atSS$ and cNS . Table F.1 shows the five strata as a function of the observed values of Z , S , and D .

Finally, for the analysis below it is useful to let W be a binary indicator equal to one if the individual passes the military screening examinations, and zero otherwise.

Table F.1: Strata and Observed Values of (Z , D , S)

	$Z = 0$		$Z = 1$	
	S	D	S	D
$ntSS$	1	0	1	0
$ntNN$	0	0	0	0
$ntNS$	0	0	1	0
$atSS$	1	1	1	1
cNS	0	0	1	1

F.2 Relating the Proportions of $ntNN$, $ntNS$, and $ntSS$ to Other Stratum Proportions and Probabilities

Assumption A6 states that $E[Y(0)|nt] \geq E[Y(0)|at]$, which means that the never takers do not have better average health potential outcomes than the volunteers in the absence of military service for both groups. In the paper, we discuss that, by implication of the military screening examinations undertaken by the U.S. military, the average health of the volunteers at the time of the draft is above the threshold implied by said examinations. Given that the average health of the never takers at the time of the draft will be a weighted-average of the average health of the three strata of never takers ($ntNN$, $ntNS$, and $ntSS$), quantifying these three strata proportions in the overall group of never takers will help to illuminate the plausibility of Assumption A6. In this section, we relate the proportions of the $ntNN$, $ntNS$, and $ntSS$ strata to other stratum proportions and, importantly, to probabilities and conditional probabilities that are possible to quantify given the available data.

Let π denote population stratum proportions. The principal stratification in the previous subsection, illustrated in Table F.1, implies that the relation between the five principal strata with respect to both S and D ($ntSS$, $ntNS$, $ntNN$, $atSS$ and cNS) and the three principal strata with respect to only D (nt , at and c) is: $\pi_{nt} = \pi_{ntNN} + \pi_{ntSS} + \pi_{ntNS}$, $\pi_{at} = \pi_{atSS}$, and $\pi_c = \pi_{cNS}$. Similarly, the relation between the five strata in Table F.1 and the three principal strata with respect to only S (NN , SS and NS) is: $\pi_{NN} = \pi_{ntNN}$, $\pi_{SS} = \pi_{ntSS} + \pi_{atSS}$, and $\pi_{NS} = \pi_{ntNS} + \pi_{cNS}$.

To work towards quantifying the proportions of $ntNN$, $ntNS$, and $ntSS$, we relate these proportions to other probabilities and population proportions. We can break down the probability of

taking the screening examinations into the following:

$$\begin{aligned}
Pr(S = 1) &= Pr(Z = 0) \cdot \pi_{SS} + Pr(Z = 1) \cdot [\pi_{SS} + \pi_{NS}] \\
&= Pr(Z = 0) \cdot [\pi_{ntSS} + \pi_{atSS}] + Pr(Z = 1) \cdot [\pi_{ntSS} + \pi_{atSS} + \pi_{ntNS} + \pi_{cNS}] \\
&= Pr(Z = 0) \cdot \pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntSS} + Pr(Z = 0) \cdot \pi_{atSS} + Pr(Z = 1) \cdot \pi_{atSS} \quad (5) \\
&\quad + Pr(Z = 1) \cdot [\pi_{ntNS} + \pi_{cNS}] \\
&= \pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS} + \pi_{atSS} + Pr(Z = 1) \cdot \pi_c
\end{aligned}$$

For the first two terms in the last line in equation (5), *nt* will fail the examinations if they take them (since they do not serve, and under the second additional assumption in section F.1); while *at* and *c* will pass the examinations if they take them (since they serve). Hence, we can write:⁶

$$Pr(S = 1 \cap W = 0) = Pr(S = 1 \cap nt) = \pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS} \quad (6)$$

and,

$$Pr(S = 1 \cap W = 1) = Pr(S = 1 \cap at) + Pr(S = 1 \cap c) = \pi_{at} + Pr(Z = 1) \cdot \pi_c \quad (7)$$

Using equation (6), we can write the probability of failing the examinations given that they are taken as:

$$Pr(W = 0|S = 1) = \frac{Pr(S = 1 \cap W = 0)}{Pr(S = 1)} = \frac{\pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS}}{Pr(S = 1)}, \quad (8)$$

and using equation (7), we can write the probability of passing the examinations given that they are taken as:

$$Pr(W = 1|S = 1) = \frac{Pr(S = 1 \cap W = 1)}{Pr(S = 1)} = \frac{\pi_{at} + Pr(Z = 1) \cdot \pi_c}{Pr(S = 1)} \quad (9)$$

Using the second equality in equation (6), we can also derive the probabilities of taking and not taking the examinations given a person is a never taker:⁷

$$Pr(S = 1|nt) = \frac{Pr(S = 1 \cap nt)}{\pi_{nt}} = \frac{\pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS}}{\pi_{nt}} \quad (10)$$

and

$$Pr(S = 0|nt) = \frac{Pr(S = 0 \cap nt)}{\pi_{nt}} = \frac{\pi_{ntNN} + Pr(Z = 0) \cdot \pi_{ntNS}}{\pi_{nt}} \quad (11)$$

The expressions above will be used to quantify the stratum proportions of interest to learn about the average health of never takers at the time of the draft.

F.3 Quantifying the Stratum Proportions of Interest: π_{ntNN} , π_{ntNS} , π_{ntSS}

We now use existing estimates of components in equations (8) to (11) to quantify the stratum proportions of interest π_{ntNN} , π_{ntNS} , and π_{ntSS} . This allows us to assess the average health of never takers at the time of the draft. Given the strong association between early-life health and health

⁶In equations (6) and (7), the first equality follows from the second additional assumption in section F.1.

⁷Note that, as expected, $Pr(S = 1|nt) + Pr(S = 0|nt) = \frac{\pi_{ntSS} + Pr(Z=1) \cdot \pi_{ntNS} + \pi_{ntNN} + Pr(Z=0) \cdot \pi_{ntNS}}{\pi_{nt}} = \frac{\pi_{nt}}{\pi_{nt}} = 1$.

later in life (e.g., Banks et al., 2012), this exercise allows us in turn to shed light on the plausibility of Assumption A6, which involves the average potential health of never takers and always takers in the absence of military service for both groups.

Based on the Semiannual Report of the Director of the Selective Service (Selective Service System, 1970, 1971a, 1971b, 1972a, 1972b, and 1973), the failing rate of the pre-induction examinations in the three years of 1970, 1971, and 1972 are, respectively, 47.0%, 51.0%, and 57.3%. The failing rates of the induction examinations are, respectively 20.5%, 27.4%, 35.9%. We use the conservative 47% pre-induction failing rate and the 21% induction failing rate to calculate: $Pr(W = 0|S = 1) = 0.47 + [(1 - 0.47) * 0.21] = 0.58$ and $Pr(W = 1|S = 1) = 1 - Pr(W = 0|S = 1) = 0.42$.

Other estimates are taken or obtained from Table 1 in the paper and Table B.1 in this Appendix. We observe 10,396 veterans of whites and nonwhites total in NHIS 1974-1981 from Table 1. Based on the estimated passing rate of the screening examinations, the number of people screened is $\frac{10,396}{0.42} = 24,752$. Therefore, the number of people who failed the examinations is $24,752 - 10,396 = 14,356$. Note that all of these 14,356 individuals are never takers who decided to take the examinations. Based on estimates in Table B.1, the total number of never takers in NHIS 1974-1981 is $\pi_{nt}^{white} * 29,081 + \pi_{nt}^{nonwhite} * 4,022 = 0.60 * 29,081 + 0.68 * 4,022 = 20,184$, where 29,081 and 4,022 are the total number of white and nonwhite observations in NHIS 1974-1981; the total proportion of never takers in NHIS 1974-1981 is $\frac{20,184}{33,103} = 61\%$.

Therefore, the proportion of never takers who took the test is $Pr(S = 1|nt) = 14,356/20,184 = 71.1\%$, and the proportion who did not take the test is $Pr(S = 0|nt) = 1 - Pr(S = 1|nt) = 1 - 0.711 = 0.289$ or 28.9%. Further, given that 24,752 men took the examinations, we have $Pr(S = 1) = \frac{24,752}{33,103} = 74.8\%$.

Summarizing the information we have as a function of the stratum proportions of interest:

$$Pr(W = 0|S = 1) = \frac{\pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS}}{Pr(S = 1)} = 0.58 \quad (12)$$

$$Pr(W = 1|S = 1) = \frac{\pi_{at} + Pr(Z = 1) \cdot \pi_c}{Pr(S = 1)} = 0.42 \quad (13)$$

$$Pr(S = 1|nt) = \frac{\pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS}}{\pi_{nt}} = 0.711 \quad (14)$$

$$Pr(S = 0|nt) = \frac{\pi_{ntNN} + Pr(Z = 0) \cdot \pi_{ntNS}}{\pi_{nt}} = 0.289 \quad (15)$$

$$Pr(S = 1) = 0.748 \quad (16)$$

$$Pr(S = 0) = 0.252 \quad (17)$$

In addition, using equation (10) and the estimated proportion of $\pi_{nt} = 0.61$, we can write:

$$\pi_{ntSS} + Pr(Z = 1) \cdot \pi_{ntNS} = Pr(S = 1|nt) \cdot \pi_{nt} = 0.711 \times 0.61 = 0.434 \quad (18)$$

and from equation (11) and $\pi_{nt} = 0.61$ we have

$$\pi_{ntNN} + Pr(Z = 0) \cdot \pi_{ntNS} = Pr(S = 0|nt) \cdot \pi_{nt} = 0.289 \times 0.61 = 0.176 \quad (19)$$

Note that, as required by the properties of probabilities, $0.434 + 0.176 = 0.61$ (the proportion of never takers).

Bounding π_{ntSS} , π_{ntNN} , and π_{ntNS}

The information above can be used to bound the stratum proportions of interest, having in mind the properties of probabilities.

i. If $\pi_{ntSS} = 0$, then,

- Equation (18) gives $Pr(Z = 1) \cdot \pi_{ntNS} = 0.441 \times \pi_{ntNS} = 0.433$ and $\pi_{ntNS} = 0.982$.⁸
- Using equation (19), $\pi_{ntNN} + Pr(Z = 0) \cdot \pi_{ntNS} = \pi_{ntNN} + 0.559 \times 0.982 = 0.176$ and $\pi_{ntNN} = -0.373$. But since π_{ntNN} cannot be negative (should at least be 0), this implies that π_{ntSS} cannot be zero.

ii. If $\pi_{ntNS} = 0$, then,

- From equation (18), $\pi_{ntSS} = 0.434$; and from equation (19), $\pi_{ntNN} = 0.176$.

iii. If $\pi_{ntNN} = 0$, then,

- Based on equation (19), $\pi_{ntNS} = \frac{0.176}{Pr(Z=0)} = \frac{0.176}{0.559} = 0.315$
- Then, using equation (18), $\pi_{ntSS} = 0.434 - 0.441 \times 0.315 = 0.295$.

Summarizing the implications of the cases above, we have the bounds for π_{ntSS} , π_{ntNN} , and π_{ntNS} presented in Table F.2. The first column of the table provides the bounds relative to the male population, while the second column scales these to make them relative to the subpopulation of never takers. The latter are the bounds described in section 5.1.2 in the paper.

As discussed in section 5.1.2 in the paper, the strata $ntSS$ and $ntNS$ have worse average health than volunteers at the time of the draft. For the stratum $ntNN$, it is hard to say whether they have better, worse or similar health relative to the volunteers at the time of the draft, given that they do not take the screening examinations and the actions taken to avoid them can improve or harm their

⁸The estimate for $Pr(Z = 1)$ is computed using the draft eligible proportions in Table 1. Specifically, $Pr(Z = 1) = \frac{9257 \times 0.5731 + 19824 \times 0.3791 + 1139 \times 0.5315 + 2883 \times 0.4108}{33103} = 0.441$. Correspondingly, we estimate $Pr(Z = 0) = 1 - 0.441 = 0.559$

Table F.2: Bounds on the Proportion of the Strata $ntNN$, $ntSS$, and $ntNS$ Relative to the Population and All Never Takers

	Proportion in the Population	Proportion Among the Never Takers (Proportion in the Population Divided by π_{nt})
$ntNN$	[0, 0.176]	[0, 0.289]
$ntSS$	[0.295, 0.434]	[0.484, 0.711]
$ntNS$	[0, 0.315]	[0, 0.516]

health. Thus, it is relevant that π_{ntNN} can be at most 28.9% of the group of never takers. Moreover, π_{ntNN} is likely lower than the upper bound of 28.9% because reaching this high value would require that $\pi_{ntNS} = 0$ (case ii above), which would rule out the existence of never takers who would take the examinations only if drafted. In other words, it would require that all individuals who would present for induction and take the screening examinations only if drafted would pass them (so that $\pi_{NS} = \pi_{ntNS} + \pi_{cNS} = \pi_{cNS}$), which seems highly unlikely.

In conclusion, this analysis sheds light on the plausibility of Assumption A6, as the only stratum of never takers that could potentially have better health than volunteers at the time of the draft represents a relatively small proportion of never takers. Therefore, the average health of the $ntNN$ stratum would have to be substantially better than that of the volunteers to push the overall average health of never takers above that of volunteers, which seems very unlikely. As a result, it is very likely that the group of never takers as a whole has lower average health relative to the group of volunteers at the time of the draft.⁹ Given the strong association between early-life health and health later in life (e.g., Banks et al., 2012), we would expect the average potential health outcomes of volunteers, had they not served, to be no worse than that of never takers, lending support to assumption A6. Consequently, as discussed in the paper, we regard assumption A6 as plausible given the available data and the institutional context.

F.4 An Extreme Worst-Case Scenario for the Plausibility of Assumption A6 and Its Implications

Based on the prior quantification of the proportions of the different latent types of never takers, we consider an extreme worst-case scenario for the plausibility of assumption A6 and its implications. This worst-case scenario pertains to the presence of some high-opportunity-cost (i.e., high socioeconomic status) never takers who might have had the same or better health than the average volunteer. These high-SES never takers may have been well positioned to avoid the draft via e.g., educational deferments or by bribing physicians to certify a bogus medical condition to fail the examinations. Assumption A6 does allow for the existence of such high-SES never takers; it just requires that they are not such a large proportion of the never takers as to make the average health of the

⁹This conclusion is consistent with the extant literature arguing that individuals who self-select into the military are “positively selected” in the sense that they are healthier on average than individuals who do not self-select into the military (e.g., Seltzer and Jablon, 1974; Bedard and Deschênes, 2006; Eisenberg and Rowe, 2009).

entire never-taker group better than that of the volunteers had they not served. As discussed in the paper, the available empirical evidence is consistent with this notion. Moreover, taking into account the entire US population, the percentage of sufficiently high-SES individuals in a position to avoid the draft (e.g., via educational deferments or by bribing physicians) is unlikely to be very large or even account for the majority. Despite this, in this section we consider the (implausibly) extreme scenario in which all the never takers who are not in the group with unarguably worse health than the volunteer veterans (*ntSS* stratum) are high-SES individuals who are well-resourced to avoid the draft by either using educational deferments (belonging to *ntNN* stratum) or by bribing doctors to certify a bogus condition (belonging to *ntNS* stratum). As explained below, even in this implausible and extreme scenario (which rules out the existence of *any* other type of deferment, draft-avoidance behavior, and individuals who, if drafted, would present themselves for induction and truthfully fail the examinations), these high-SES individuals would represent at most about one half of all never takers.

First consider the case where we assume that the only way high-SES Individuals can avoid serving if drafted is via educational deferments, which is the case considered in the paper. Never takers who take educational deferments belong to the *ntNN* stratum, which represents at most 28.9% of never takers. Thus, in this case, the most unfavorable scenario for the plausibility of A6 in which all never takers in the *ntNN* stratum would take educational deferments if drafted, they would still represent less than 30% of never takers. Moreover, such extreme scenario (the 28.9%) is highly implausible, as it would require that: (i) there are no other types of individuals in the *ntNN* group, such as those taking any other type of deferments (e.g., paternity) or engaging in other draft-avoidance behaviors; and (ii) there are no individuals in the *ntNS* group, that is, no never takers who take (and fail) the examinations only if drafted (this requirement comes from the discussion in the previous section).

Now, consider the case in which we also allow for high-SES never takers to take actions like bribing doctors when drafted. These never takers would not take the examinations if undrafted, and would bribe physicians to certify a false condition to fail the examinations if drafted. Thus, they would belong to the *ntNS* stratum. To take this exercise to the most extreme, assume that all the never takers not in the *ntSS* stratum (for which it is certain they have worse health than volunteers) are high-SES never takers who take educational deferments (belonging to *ntNN* stratum) or bribe physicians (belonging to *ntNS* stratum). Note that this scenario is already quite unrealistic because it is ruling out the existence of never takers who take and truthfully fail the examinations only if drafted (likely the majority of those in the *ntNS* stratum), and those using other types of deferments (e.g., paternity) or undertaking draft-avoidance behaviors (e.g., being in jail, not reporting for induction if drafted) who also belong to the *ntNN* stratum. Even in this absolutely worst-case scenario for the plausibility of Assumption A6, these high-SES never takers would represent *at most* about one-half (51.6%) of the never takers. Moreover, attaining this upper bound on the proportion of high-SES never takers is unrealistic for the following reasons:

- (a) For the *ntSS*-stratum proportion to reach its lower bound of 48.4% (see Table F.2), the *ntNN*-stratum proportion must equal zero (implying *nobody* takes educational deferments) *and* the *ntNS* proportion must equal its upper bound of 51.6% (implying *all* never takers who would take the examinations only if drafted would fail them due to having a false medical note). This is unrealistic. Intuitively, the reason is that the proportions of the *ntSS* and *ntNS* strata, which comprise those never takers who take the examinations, must balance out in a way to match the observed failing rate of the examinations in the entire population, as well as the failing rate of the entire group of never takers.¹⁰
- (b) Suppose that we wanted to make the case in part (a) more realistic by increasing the number of never takers who take educational deferments and decreasing the number of those bribing physicians. The equation that represents the balancing that must occur between the strata proportions and the observed failing rate of the examinations in the entire population implies the following (see previous section). That, if we decrease the *ntNS*-stratum proportion from its upper bound of 51.6% by 1pp, then the *ntSS*-stratum proportion will increase by 0.44 pp and the *ntNN*-stratum proportion by 0.56 pp. Hence, in trying to make the extreme case in (a) more realistic, as we decrease the proportion of people bribing physicians (*ntNS*-stratum proportion) from its upper bound by 1 pp to increase the proportion of people taking educational deferments (*ntNN*-stratum proportion) by 0.56 pp, we also need to increase the proportion of the never takers with certain worse health than the volunteers (*ntSS*-stratum proportion) by 0.44 pp. As a result, the *ntSS* stratum quickly becomes the majority of never takers. For example, when the *ntNN*-stratum proportion equals 25% and the *ntNS*-stratum proportion equals 6.8% (a more balanced “educational-deferments-vs-bribing-physicians” case), the *ntSS*-stratum proportion equals 68.2%, or more than two-thirds of all never takers.

In conclusion, even in implausibly extreme scenarios in which we allow the presence of a very high number of high-SES individuals that might have better health than the average volunteer, this group fails to be a large fraction of the entire group of never takers. This is consistent with the plausibility of Assumption A6 and it also helps to explain what is behind the empirical evidence presented in the paper.

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¹⁰Specifically, taking into account that which never-taker individuals take the examinations depend on their draft-eligibility status (Z) and endogenous decisions, it must hold (see equation (14) in section F.3) that the *ntSS*-stratum proportion plus the probability of being drafted ($Pr(Z = 1)$) times the *ntNS*-stratum proportion equals 71.1%, the percentage of never takers who take (and fail) the examinations. In other words, it is not possible to have, for example, that the *ntSS*-stratum proportion reaches its lower bound (48.7%), the *ntNN* stratum proportion reaches its upper bound (28.9%) and the rest of the never takers are *ntNS*, because in this case the failing rate of the medical examinations would be lower than the one observed.

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G Supportive Empirical Evidence for Assumption A6

G.1 Construction of NHIS Pre-draft Characteristics

In section 5.1.2., we present evidence based on two characteristics to support Assumption A.6. The variable “activity limitations before 1965” is constructed by using two available variables in the 1974-1981 survey period: “limitation of activity” and “duration of limitation”. We assign the value of one to the variable activity limitations before 1965 if the duration of the limitation is larger than the corresponding survey year response subtracted by 1965, and assign the value of zero otherwise (including if the respondent is not limited in any way). Unfortunately, we cannot construct this variable for the 1982-1996 survey period because the duration of limitation variable is not available in this survey. The variable high school incompleteness is constructed based on individuals who have not completed 12 years of education and above.

G.2 Pre-draft Average Characteristics from the Health and Retirement Survey (HRS)

In Table G.1, we present pre-draft average characteristics from the Health and Retirement Survey for males born between 1948 and 1952 (same as our cohorts) who were interviewed at least once between 2008 and 2020 (the waves with childhood information). The fraction of veterans is 31.58%, which is quite comparable to those from the NHIS data used in the paper (e.g., 31.41% in survey period 1974-1981). Unfortunately, due to the lack of birth date and draft eligibility information, we cannot identify always-takers and never-takers from compliers. We compromise by estimating the pre-draft average characteristics of the veterans and nonveterans to gauge whether veterans overall are positively selected in health relative to the nonveterans. Recall that, given the small proportion of compliers, veterans consist primarily of always-takers (over 70%), while the vast majority of non-veterans consist of never-takers.

The results in Table G.1 are overall in support of a positive selection into the military on health. On average, compared to the nonveterans, veterans report higher average childhood health before age 16 by 14.4%, fewer sight problems before age 16 by 42.8%, fewer respiratory problems before age 16 by 43.9%, and fewer learning problems before age 16 by 37.7%. These differences are all statistically significant.

In addition, veterans also show better socio-economic status than nonveterans. Veterans had better financial situation before age 16 by 6.8% relative to nonveterans. Veterans also had mothers with higher education relative to nonveterans by about 1 year.

These differences are suggestive of a positive selection into the military on health. Moreover, since childhood health and childhood socioeconomic status have been linked to better health in adult life

(e.g., Bornhorst et al., 2019; Case et al., 2002; Behrman and Rosenzweig, 2002; Li et al., 2017), then this evidence appears consistent with the plausibility of our assumption A6.

Lastly, from Table G.1, veterans show higher likelihood of contracting measles, mumps, and chicken pox before age 16, relative to nonveterans. We do not regard these as signs of a negative selection into the military on health because contracting those transmissible diseases during childhood might as well be indicative of a healthy and active childhood.

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Table G.1: Veteran versus Nonveteran Pre-Draft Average Characteristics from the Health and Retirement Survey (HRS)

Variable	Veterans	Nonveterans	Difference	T-Stat ⁵	Veteran Response Rate	Nonveteran Response Rate
Panel 1: Childhood Health						
Childhood Health Rating Before Age 16 ²	1.55	1.81	-0.260	-4.50***	0.75	0.83
Missed School Due to Health Before Age 16 ³	0.085	0.102	-0.017	-0.91	0.75	0.83
Measles Before Age 16	0.824	0.714	0.110	4.01***	0.73	0.80
Mumps Before Age 16	0.701	0.538	0.163	5.29***	0.72	0.80
Chicken Pox Before Age 16	0.772	0.659	0.113	3.86***	0.72	0.80
Sight Problems Before Age 16	0.043	0.075	-0.032	-2.10**	0.75	0.83
Parents Smoked as Child	0.612	0.566	0.046	1.28	0.59	0.66
Asthma Before Age 16	0.053	0.059	-0.006	-0.41	0.76	0.83
Diabetes Before Age 16	0.000	0.002	-0.002	-0.94	0.76	0.83
Respiratory Problems Before Age 16	0.061	0.109	-0.048	-2.63**	0.75	0.83
Speech Impediment Before Age 16	0.067	0.060	0.006	0.42	0.76	0.83
Allergies Before Age 16	0.093	0.090	0.003	0.18	0.75	0.83
Heart Trouble Before Age 16	0.021	0.028	-0.007	-0.71	0.75	0.83
Ear Problems Before Age 16	0.037	0.054	-0.017	-1.27	0.75	0.83
Epilepsy Before Age 16	0.008	0.012	-0.004	-0.60	0.76	0.83
Migraines Before Age 16	0.051	0.039	0.012	0.93	0.75	0.83
Stomach Problems Before Age 16	0.032	0.045	-0.013	-1.06	0.76	0.83
High Blood Pressure Before Age 16	0.003	0.009	-0.007	-1.28	0.75	0.83
Depression Before Age 16	0.029	0.031	-0.001	-0.13	0.75	0.83
Drug or Alcohol Problems Before Age 16	0.019	0.018	0.001	0.11	0.76	0.83
Other Emotional/Psychological Problems Before Age 16	0.032	0.025	0.007	0.71	0.75	0.83
Concussion Before Age 16	0.153	0.134	0.019	0.99	0.93	0.95
Disability Before Age 16	0.044	0.036	0.007	0.68	0.93	0.95
Learning Problems Before Age 16	0.039	0.063	-0.024	-1.89*	0.93	0.95
Any Other Problem/Condition Before Age 16	0.14	0.144	-0.004	-0.20	0.93	0.95
Panel 2: Childhood Socio-Economic Status						
Financial Situation Before Age 16 ⁴	2.61	2.8	-0.190	-1.67*	0.24	0.43
Father's Highest Education (years)	10.2	9.82	0.380	1.35	0.86	0.82
Mother's Highest Education (years)	10.9	9.85	1.050	4.45***	0.91	0.90

Notes: 1. The Sample consists of all males born between 1948-1952 who were interviewed at least once between 2008 and 2020 and with non-missing information on veteran status. Sample size: 1,637 individuals; 570 veterans and 1,120 nonveterans; 2. "Childhood Health Rating Before Age 16" is based on a 5-point scale – 1 excellent, 2 very good, 3 good, 4 fair, 5 poor; 3. "Missed School Due to Health Before Age 16" is a binary variable with 1 indicating having missed school for a month or more due to health issues, and 0 otherwise; 4. "Financial Situation Before Age 16" is based on a 4-point scale – 1 well off, 2 not bad, 3 volatile, 4 poor; 5. In the column of t-stat, *, **, *** indicate statistical significance at the level of 10%, 5%, and 1%.

H Information About the Inverse Probability Weighting Procedure

We provide in this section the details about the inverse weighting procedure employed to adjust for the correlation between the birth month-by-year dummies and draft eligibility.

The approach we use is based on inverse probability weighting (IPW) (Horvitz and Thompson, 1952). Draft eligibility is randomly assigned conditional on the birth month-by-year dummies. Thus, we implement propensity score inverse-probability-weighting methods analogous to those used when estimating effects when the treatment (in our case “draft eligibility”) is exogenous conditional on a set of covariates (in our case the birth month-by-year dummies), such as those discussed in Imbens (2004). Intuitively, after reweighting observations by the propensity score, we create a sample in which the birth month-by-year dummies are balanced between the draft-eligible and draft-ineligible individuals.

To be more specific, we use a logit model to predict an individual’s probability of being draft-eligible given the birth month-by-year dummies and survey-year dummies. Denote this predicted probability or propensity score by $p(x_i) = Pr(Z_i = 1|X_i = x_i)$ (“hats” omitted for simplicity), where X_i denotes the covariates used in the logit. To get a weighted sample in which these covariates are balanced between draft-eligible and draft-ineligible groups, we weight each draft-eligible individual by $1/p(x_i)$ and each draft-ineligible individual by $1/[1 - p(x_i)]$. To further incorporate the sampling weights in the NHIS, we multiply these weights by the sampling weights in the NHIS and create a new set of weights. We use these new weights throughout our analysis to account for both the potential randomization failure of the draft lotteries and the NHIS sampling design.

Horvitz, D. G., and D. J. Thompson. (1952). A Generalization of Sampling without Replacement from a Finite Universe. *Journal of the American Statistical Association*, 47(260): 663–85.

Imbens, Guido W. (2004). “Nonparametric Estimation of Average Treatment Effects under Exogeneity: A Review.” *Review of Economics and Statistics*, 86(1): 4–29.

I Implications on Health Results of Nonzero Effects of Military Service on Mortality for Volunteers and the Veteran Population

We provide here details about the implications of finding a non-zero mortality effect of military service for volunteers and the veteran population on the health results presented in the paper.

The main points (to be explained below) are:

- Our analysis at any given period has to be interpreted conditional on the individuals who are alive at that period of time. Regardless of whether military service affects mortality, unless mortality happens completely at random, the individuals in the different periods analyzed will not be comparable in general, and the same applies to the subpopulations of volunteers, compliers, and veterans. Therefore, even if military service did not affect mortality, care should be taken when interpreting our results (and those in the literature), as our analyses apply conditional on the period being considered. Specifically, our parameters of interest are to be interpreted as effects of military service on the health of, e.g., volunteers who are alive at that period of time—e.g., in the 1974-1981 survey period. Assumption A6 would be similarly interpreted—e.g., that, on average, the health of volunteers who are alive in the period 1974-1981 would be no worse, had they not served, than that of never takers who are alive in the period 1974-1981.
- For the above parameter, for volunteers our bounds are estimated *without* bias regardless of whether or not draft eligibility or military service affects mortality. For compliers, health effects are estimated without bias as long as draft eligibility does not affect mortality (which our results cannot statistically reject). Given unbiased statistical inference for volunteers and compliers, the estimated bounds for the veteran population are also unbiased.
- Focusing on volunteers, the estimated lower bounds on the health effects of military service for volunteers in later survey periods can be seen as conservative for the effects in later period surveys of volunteers in previous periods, under the assumption that unhealthier individuals die at a higher rate than healthier ones and a slightly-modified (but still plausible) version of Assumption 6. This point would be relevant for making comparisons of the results over time for the same set of individuals—for example, when comparing results for volunteers from the 1974-1981 survey period over all four survey periods (1974-1981, 1982-1996, 1997-2005, and 2006-2013). The slightly-modified version of assumption A6 states that the average potential health in a future period (e.g., 1997-2005) of volunteers in a previous period (e.g., 1982-1996) had all of them still be alive is not worse than that of never takers alive in 1997-2005, had both groups not served. The estimated upper bounds for volunteers in later periods cannot be interpreted as being conservative for the effects in later periods of volunteers in previous periods under the same assumptions. However, recall that in our paper the lower bound is our main focus as it is the one used to rule out zero effects.

We now explain each of the points above in detail.

The first point is that not-completely-at-random mortality implies that the populations of volunteers, compliers, and veterans are not comparable over time. Even if mortality was not affected by military service and military service was randomly assigned, the fact that individuals die over time due to non-random reasons (e.g., unhealthier individuals likely dying at a higher rate) make the later populations different from the earlier ones. Therefore, the analysis at a given period applies only to those individuals alive at that point in time, and comparisons over time cannot be directly made on a single “population”. This applies to the results in our paper as well as the literature analyzing only compliers.

Second, we expand on the issue of possible survivor bias. Consider the canonical case of estimating the effect of military service on long-term health for all the individuals who enrolled in the military at baseline. Even if military service were randomly assigned, if military service increased mortality and unhealthier individuals died at a faster rate (both veterans and non-veterans), we would expect the estimates of the effect to have attenuation bias. Two key distinctions with respect to our bounds on volunteers are that (i) we focus on the effect on volunteers who are alive at a given period, as explained above; and (ii) we do not aim to point-identify the effect, just to bound it.

To be more specific, consider bounding our parameter of interest in the period 1982-1996, $LATE_{at} = E[Y(1)|at] - E[Y(0)|at]$. To avoid introducing further notation, we omit the conditioning on a given period (1982-1996), but as discussed above, the effect is to be interpreted as the effect for volunteers who were alive in that period. Under assumptions A1 to A6, the first term of $LATE_{at}$ is point identified from the group of draft-ineligible individuals who are veterans and are alive in that period: $E[Y(1)|at] = E[Y|Z = 0, D = 1]$. Also, note that even if the draft (Z) affected mortality, $E[Y|Z = 0, D = 1]$ would still be an unbiased estimate of $E[Y(1)|at]$. The reason is that all the volunteers served (i.e., all have $D = 1$) and, by the exclusion restriction, the draft does not have a direct effect on the mortality of volunteers, so the volunteers with $Z = 0$ and $Z = 1$ are comparable. Given that our outcomes are binary, our upper bound on $LATE_{at}$ is constructed by replacing $E[Y(0)|at]$ with its lower bound of zero, leading to an unbiased estimate of the upper bound. Regarding the lower bound, A6 states that $E[Y(0)|at] \leq E[Y(0)|nt]$, so that on average the health of volunteers alive in 1982-1996 would be no worse than that of never takers alive in 1982-1996, had both groups not served. By the same prior arguments to point identify $E[Y(1)|at]$ without bias, we have that $E[Y(0)|nt]$ is also point identified without bias from the group of draft-eligible non-veterans alive in 1982-1996, or $E[Y(0)|nt] = E[Y|Z = 1, D = 0]$. As a result, the lower bound is also estimated without bias. Thus, our bounds on the effect on volunteers are unbiased.

Contrary to the bounds on volunteers, unbiased estimation of the health effects for compliers alive in a given period does require the draft to not affect mortality. The reason is that if the draft (which equals military service for compliers) affects mortality, then the compliers in the $Z = 0$ and $Z = 1$

groups are not comparable, leading to bias in the estimation of their effects. Note that we do not find statistically significant evidence that the draft affects mortality. Thus, following prior literature, we interpret the estimated effects for compliers as being unbiased. Finally, given unbiased statistical evidence for volunteers and compliers, the estimated bounds for the entire veteran population are also unbiased.

Third, consider the issue of whether the bounds on the effect of volunteers in later periods are conservative for volunteers in previous periods. Bounds would be conservative if they are wider than the true bounds, so that there is a smaller probability of leaving outside the true value of the effect. Hence, a conservative lower (respectively, upper) bound would be smaller (larger) in magnitude than the true lower (upper) bound. In the following discussion, we assume that unhealthier individuals die at a faster rate than healthier ones. In this setting, our main points are that (i) we can not conclude in general that the lower bounds on the effects of volunteers in later periods are conservative for the effects of volunteers in previous periods; (ii) under a plausible slightly-modified version of A6, the lower bounds are indeed conservative; (iii) the upper bounds are not conservative (but these are less important in our empirical setting).

To explain the reasons, consider the bounds on the health effects in 1997-2005 of military service for volunteers alive in 1997-2005 to bound the same health effects in 1997-2005 but for volunteers who were alive in 1982-1996 had all of them lived up to 1997-2005. To avoid introducing further notation, all the following outcomes are measured in 1997-2005 and we include the period in the conditioning set to indicate whether the volunteers (those with $Z = 0$ and $D = 1$) or never takers (those with $Z = 1$ and $D = 0$) are those alive in 1982-1996 or in 1997-2005. Let the unbiased estimate of the lower bound on the health effects in 1997-2005 of military service for volunteers alive in 1997-2005 be given by: $LB' = E[Y|Z = 0, D = 1, 1997 - 2005] - E[Y|Z = 1, D = 0, 1997 - 2005]$. We now assess whether this bound is conservative for the health effects in 1997-2005 of volunteers in 1982-1996 had all of them lived up to 1997-2005. Naturally, the difficulty in bounding this effect is that the average health in 1997-2005 of all volunteers or never takers who were alive in 1982-1996 cannot be estimated, as some of these individuals died. First, under the assumption that unhealthier individuals die at a faster rate, we have that the volunteers alive in 1997-2005 would be healthier (i.e., lower Y , e.g., “fair or poor health” indicator) relative to volunteers in 1982-1996 had all of them lived up to 1997-2005. In other words, $E[Y|Z = 0, D = 1, 1997 - 2005] \leq E[Y|Z = 0, D = 1, 1982 - 1996]$ (recall that both outcomes are measured in 1997-2005). While this points towards the lower bound LB' being conservative, for never takers we also have that if unhealthier individuals die at a faster rate, never takers alive in 1997-2005 would be healthier (i.e., lower Y) relative to never takers in 1982-1996 had all they lived up to 1997-2005, or $E[Y|Z = 1, D = 0, 1997 - 2005] \leq E[Y|Z = 1, D = 0, 1982 - 1996]$. As a result, we cannot conclude that the lower bound LB' is conservative for the lower bound of the health effects in 1997-2005 of volunteers alive in 1982-1996 had they lived up to 1997-2005.

However, under a slightly modified version of A6, we can ensure that LB' is a conservative bound

for that effect: that the average potential health in a future period (1997-2005) of volunteers in a previous period (1982-1996) had all of them still be alive is not worse than that of never takers alive in 1997-2005, had both groups not served. Allowing some abuse of notation, it would state that $E[Y(0)|at's from 1982 - 1996] \leq E[Y(0)|nt's from 1997 - 2005]$, where both potential outcomes refer to health in 1997-2005. While this assumption is slightly stronger than A6, we think it is plausible given the evidence of large disparities in average health at baseline between always takers and never takers. Under this assumption, the bound LB' is a conservative lower bound of the health effects in 1997-2005 of volunteers alive in 1982-1996 had all of them lived up to 1997-2005. The reason is that, as explained above, under the assumption that unhealthier individuals die at a faster rate, the first term of LB' is no greater than the average potential health in 1997-2005 under military service of volunteers from 1982-1996 had all of them be alive in 1997-2005, i.e., $E[Y|Z = 0, D = 1, 1997 - 2005] \leq E[Y|Z = 0, D = 1, 1982 - 1996] = E[Y(1)|at's from 1982 - 1996]$. At the same time, under the modified-version of A6 the second term of LB' directly bounds the average potential health in 1997-2005 under no military service for the same set of volunteers, i.e., $E[Y(0)|at's from 1982 - 1996] \leq E[Y(0)|nt's from 1997 - 2005] = E[Y|Z = 1, D = 0, 1997 - 2005]$. As a result, LB' is a conservative lower bound.

Lastly, consider the upper bound on the health effects in 1997-2005 of military service of volunteers in 1997-2005 (i.e., the one we estimate) as an upper bound for the same health effect for volunteers in 1982-1996 had all of them lived up to 1997-2005. This upper bound is given by $UB' = E[Y|Z = 0, D = 1, 1997 - 2005]$. In this case, as discussed above, under the assumption that unhealthier individuals die at a faster rate, we would have that the volunteers alive in 1997-2005 would be healthier (i.e., lower Y) relative to volunteers in 1982-1996 had all of them lived up to 1997-2005, or $E[Y|Z = 0, D = 1, 1997 - 2005] \leq E[Y|Z = 0, D = 1, 1982 - 1996]$ (recall that both outcomes are measured in 1997-2005). Therefore, the upper bound $UB' = E[Y|Z = 0, D = 1, 1997 - 2005]$ would be smaller than the true upper bound, resulting in an upper bound that is not conservative. However, as noted above and in the paper, our focus is mostly on the lower bound as it is the one used to rule out zero effects.