

Appendix A. Mixed Effects Models for Chronic Conditions, Work Limitations, Disability, Psychological Distress, and Body Mass Index

Mixed Effects Models for Number of Chronic Conditions

	Model 1	Model 2a	Model 2b	Model 3a	Model 3b	Model 4a	Model 4b
Black	.154 *	.098	-.359 *	-.358 *	-.328	-.304	-.291
Age	.052 ***	.053 ***	.054 ***	.056 ***	.057 ***	.059 ***	.059 ***
Age²	-.000 ***	-.000 ***	-.000 ***	-.000 ***	-.000 ***	-.000 ***	-.000 ***
Gender (1=female)	-.015	-.019	-.020	-.024	-.023	-.026	-.025
Black * Age	.013 *	.012 *	.011 *	.011 *	.010	.009	.009
Black * Age²	-.000 *	-.000 *	-.000 *	-.000 *	-.000 *	-.000	-.000
Region (1=South)	.090 **	.083 **	.083 **	.085 **	.084 **	.086 **	.085 **
Year	.008 **	.009 **	.009 **	.007 *	.007 *	.006	.006
Died	.022	.017	.018	.021	.020	.015	.014
Income		-.030 ***	-.053 ***	-.046 ***	-.044 ***	-.038 ***	-.037 ***
Black * Income			.043 **	.041 **	.038 **	.035 *	.034 *
Education							
High school		-.180 ***	-.148 **	-.139 *	-.138 *	-.125 *	-.123 *
Some college		-.181 **	-.185 *	-.174 *	-.172 *	-.154 *	-.151 *
Bachelors		-.322 ***	-.322 ***	-.306 ***	-.303 ***	-.271 ***	-.268 ***
Advanced		-.379 ***	-.365 ***	-.351 ***	-.349 ***	-.314 ***	-.311 ***
Black * Education							
Black * High school			-.081	-.072	-.077	-.078	-.083
Black * Some college			.021	.034	.027	.025	.018
Black * Bachelors			.071	.069	.063	.062	.052
Black * Advanced			.009	.007	.003	.002	-.005
Wealth (total net worth)				-.008 ***	-.010 ***	-.006 ***	-.006 **
Black * Wealth					.004	.004	.002
Wealth Components							
Own home (1=yes)						-.086 **	-.083 *
Home equity						-.000	-.001
Savings						-.006 **	-.008 **
Stocks						-.004 *	-.004
Debt						.007 ***	.008 **
Black * Wealth Components							
Black * Own home							-.012
Black * Home equity							.003
Black * Savings							.005
Black * Stocks							-.004

Black * Debt													-0.003	
Intercept	-1.919	***	-1.331	***	-1.079	***	-1.123	***	-1.136	***	-1.202	***	-1.207	***
AIC	72,422		72,335		72,328		72,281		72,280		72,250		72,258	

Note: Results of mixed effects Poisson models. Includes random intercepts for individuals and households Years of analysis = 2005-2011.
n=38,364 person-years; 11,031 unique individuals. Race reference category = White. Education reference category = Less than high school. All
wealth variables transformed via an inverse hyperbolic sine (IHS) and inflated to 2015 U.S. dollars via the Consumer Price Index.

Mixed Effects Models for Work Limitations

	Model 1	Model 2a	Model 2b	Model 3a	Model 3b	Model 4a	Model 4b
Black	-0.085	-0.384 **	-2.584 ***	-2.393 ***	-2.316 ***	-2.156 ***	-2.171 ***
Age	0.046	0.055 ***	0.060 ***	0.069 ***	0.070 ***	0.072 ***	0.071 ***
Age²	-0.000	-0.000 ***	-0.001 ***	-0.001 ***	-0.001 ***	-0.001 ***	-0.001 ***
Gender (1=female)	0.187	0.145 ***	0.143 ***	0.133 ***	0.135 ***	0.128 **	0.129 **
Black * Age	0.012	0.011	0.004	0.002	0.000	-0.002	0.001
Black * Age²	-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000
Region (1=South)	0.043	0.003	-0.009	0.008	0.006	0.001	0.004
Year	-0.004	-0.003	-0.002	-0.010	-0.010	-0.012	-0.011
Died	0.904	0.787 ***	0.774 ***	0.752 ***	0.753 ***	0.738 ***	0.736 ***
Income		-0.225 ***	-0.343 ***	-0.300 ***	-0.296 ***	-0.263 ***	-0.260 ***
Black * Income			0.203 ***	0.181 ***	0.174 ***	0.156 ***	0.148 ***
Education							
High school		-0.273 ***	-0.258 **	-0.236 **	-0.234 **	-0.185 *	-0.174
Some college		-0.343 ***	-0.355 **	-0.331 **	-0.330 **	-0.261 *	-0.246 *
Bachelors		-0.732 ***	-0.717 ***	-0.678 ***	-0.675 ***	-0.591 ***	-0.575 ***
Advanced		-0.785 ***	-0.708 ***	-0.675 ***	-0.673 ***	-0.579 ***	-0.563 ***
Black * Education							
Black * High school			-0.062	-0.031	-0.039	-0.045	-0.073
Black * Some college			0.039	0.082	0.072	0.079	0.022
Black * Bachelors			0.140	0.149	0.141	0.176	0.126
Black * Advanced			-0.162	-0.164	-0.168	-0.120	-0.180
Wealth (total net worth)				-0.027 ***	-0.029 ***	-0.016 ***	-0.019 ***
Black * Wealth					0.006	0.005	0.015 *
Wealth Components							
Own home (1=yes)						-0.162 *	-0.122
Home equity						0.001	0.006
Savings						-0.036 ***	-0.044 ***
Stocks						-0.003	-0.003
Debt						0.018 ***	0.014 **
Black * Wealth Components							
Black * Own home							-0.073
Black * Home equity							-0.019
Black * Savings							0.018
Black * Stocks							-0.001
Black * Debt							0.013
Intercepts							

Threshold=1	2.884	-0.172	-1.513 ***	-1.088 ***	-1.050 ***	-0.733 **	-0.746 **
Threshold=2	3.261	0.213	-1.126 ***	-0.700 **	-0.662 *	-0.343	-0.356
Threshold=3	3.924	0.888 ***	-0.449	-0.021	0.017	0.337	0.325
AIC	41,642	41,155	41,124	41,047	41,046	40,989	40,991

Note: Results of cumulative link mixed models. Includes random intercepts for individuals and households Years of analysis = 2005-2011.
n=38,510 person-years; 11,039 unique individuals. Race reference category = White. Education reference category = Less than high school. All
wealth variables transformed via an inverse hyperbolic sine (IHS) and inflated to 2015 U.S. dollars via the Consumer Price Index.

Mixed Effects Models for Disability

	Model 1		Model 2a		Model 2b		Model 3a		Model 3b		Model 4a		Model 4b	
Black	-0.649		-1.055	*	-3.236	***	-3.138	***	-3.088	***	-2.953	***	-2.929	***
Age	0.092	***	0.100	***	0.105	***	0.118	***	0.120	***	0.132	***	0.130	***
Age²	-0.001	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***
Gender (1=female)	-0.001		0.011		0.014		-0.007		-0.006		-0.035		-0.031	
Black * Age	0.111	***	0.109	***	0.101	**	0.094	**	0.091	**	0.085	**	0.088	**
Black * Age²	-0.002	**	-0.002	**	-0.001	*	-0.001	*	-0.001	*	-0.001	*	-0.001	*
Region (1=South)	0.315		0.263		0.241		0.272		0.268		0.282		0.286	*
Year	0.021		0.024		0.023		0.010		0.010		0.001		0.001	
Died	0.835	***	0.782	***	0.772	***	0.763	***	0.763	***	0.736	***	0.741	***
Income			-0.175	***	-0.295	***	-0.270	***	-0.267	***	-0.211	***	-0.207	***
Black * Income					0.190	***	0.176	**	0.172	**	0.142	**	0.138	*
Education														
High school			-1.037	***	-1.124	***	-1.085	***	-1.083	***	-0.927	***	-0.907	***
Some college			-1.376	***	-1.575	***	-1.529	***	-1.527	***	-1.275	***	-1.245	**
Bachelors			-2.418	***	-2.382	***	-2.298	***	-2.292	***	-1.945	***	-1.904	***
Advanced			-2.752	***	-2.554	***	-2.479	***	-2.475	***	-2.055	***	-2.000	***
Black * Education														
Black * High school					0.154		0.206		0.195		0.201		0.163	
Black * Some college					0.445		0.533		0.519		0.578		0.506	
Black * Bachelors					-0.184		-0.146		-0.160		-0.080		-0.193	
Black * Advanced					-1.213		-1.168		-1.178		-1.046		-1.177	
Wealth (total net worth)							-0.038	***	-0.042	***	-0.029	**	-0.026	*
Black * Wealth									0.008		0.007		-0.001	
Wealth Components														
Own home (1=yes)											-0.431	**	-0.215	
Home equity											-0.001		-0.012	
Savings											-0.055	***	-0.074	***
Stocks											-0.042	*	-0.045	*
Debt											-0.010		-0.009	
Black * Wealth Components														
Black * Own home													-0.533	
Black * Home equity													0.032	
Black * Savings													0.039	
Black * Stocks													0.028	
Black * Debt													-0.005	
Intercept	-6.330	***	-2.757	***	-1.324	*	-1.477	*	-1.504	*	-1.714	**	-1.744	**

AIC	10,147	9,753	9,730	9,653	9,654	9,552	9,553
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Note: Results of mixed effects logit models. Includes random intercepts for individuals and households. Years of analysis = 2005-2011. n=38,523 person-years; 11,039 unique individuals. Race reference category = White. Education reference category = Less than high school. All wealth variables transformed via an inverse hyperbolic sine (IHS) and inflated to 2015 U.S. dollars via the Consumer Price Index.

Mixed Effects Models for Psychological Distress

	Model 1		Model 2a		Model 2b		Model 3a		Model 3b		Model 4a		Model 4b	
Black	0.664	***	0.572	***	0.400	*	0.400	*	0.402	**	0.414	**	0.435	**
Age	-0.036	***	-0.036	***	-0.036	***	-0.035	***	-0.035	***	-0.033	***	-0.033	***
Age²	0.001	***	0.001	***	0.001	***	0.001	***	0.001	***	0.001	***	0.001	***
Gender (1=female)	-1.717	***	-1.692	***	-1.693	***	-1.693	***	-1.694	***	-1.694	***	-1.695	***
Black * Age	0.003		0.001		0.001		0.001		0.001		0.000		0.000	
Black * Age²	-0.000	*	-0.000	*	-0.000	*	-0.000	*	-0.000	*	-0.000	*	-0.000	*
Region (1=South)	-0.029		-0.040		-0.045		-0.045		-0.045		-0.041		-0.040	
Year	0.010	***	0.013	***	0.012	***	0.011	***	0.011	***	0.010	***	0.010	***
Died	-0.007		-0.007		-0.006		-0.004		-0.003		-0.007		-0.005	
Income			-0.030	***	-0.060	***	-0.059	***	-0.059	***	-0.055	***	-0.058	***
Black * Income					0.046	***	0.046	***	0.046	***	0.043	***	0.048	***
Education														
High school			-0.540	***	-0.355	***	-0.350	***	-0.350	***	-0.335	***	-0.347	***
Some college			-0.671	***	-0.406	***	-0.401	***	-0.401	***	-0.377	***	-0.394	***
Bachelors			-0.900	***	-0.697	***	-0.689	***	-0.689	***	-0.649	***	-0.670	***
Advanced			-1.005	***	-0.775	***	-0.768	***	-0.768	***	-0.725	***	-0.749	***
Black * Education														
Black * High school					-0.354	**	-0.351	**	-0.351	**	-0.347	**	-0.320	**
Black * Some college					-0.594	***	-0.591	***	-0.590	***	-0.582	***	-0.535	**
Black * Bachelors					-0.387	*	-0.390	*	-0.389	*	-0.387	*	-0.327	*
Black * Advanced					-0.538	**	-0.544	**	-0.545	**	-0.527	**	-0.458	*
Wealth (total net worth)							-0.003	***	-0.002	*	-0.002		-0.002	*
Black * Wealth									-0.002		-0.002		-0.001	
Wealth Components														
Own home (1=yes)											-0.088	***	-0.088	***
Home equity											0.002		0.003	
Savings											-0.003		0.003	
Stocks											-0.006	***	-0.006	**
Debt											-0.000		0.001	
Black * Wealth Components														
Black * Own home													0.006	
Black * Home equity													-0.003	
Black * Savings													-0.012	***
Black * Stocks													-0.002	
Black * Debt													-0.003	
Intercept	0.759	***	1.784	***	1.951	***	1.950	***	1.949	***	1.935	***	1.925	***

AIC	127,559	127,280	127,240	127,219	127,220	127,182	127,172
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Note: Results of mixed effects Poisson models. Includes random intercepts for individuals and households Years of analysis = 2005-2011.
n=37,672 person-years; 10,905 unique individuals. Race reference category = White. Education reference category = Less than high school. All
wealth variables transformed via an inverse hyperbolic sine (IHS) and inflated to 2015 U.S. dollars via the Consumer Price Index.

Mixed Effects Models for Body Mass Index

	Model 1		Model 2a		Model 2b		Model 3a		Model 3b		Model 4a		Model 4b	
Black	1.569	***	1.375	***	0.580		0.597		0.598		0.627		0.607	
Age	0.114	***	0.112	***	0.113	***	0.115	***	0.115	***	0.119	***	0.118	***
Age²	-0.002	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***	-0.002	***
Gender (1=female)	-0.609	***	-0.599	***	-0.603	***	-0.607	***	-0.606	***	-0.610	***	-0.608	***
Black * Age	0.035	*	0.034	*	0.034	*	0.033	*	0.033	*	0.031		0.033	*
Black * Age²	-0.001	***	-0.001	***	-0.001	**	-0.001	**	-0.001	**	-0.001	**	-0.001	**
Region (1=South)	0.277	**	0.269	**	0.270	**	0.269	**	0.267	**	0.270	**	0.269	**
Year	0.047	***	0.051	***	0.051	***	0.048	***	0.048	***	0.047	***	0.047	***
Died	-0.257	*	-0.261	*	-0.258	*	-0.256	*	-0.256	*	-0.261	*	-0.261	*
Income			-0.052	**	-0.094	***	-0.088	***	-0.087	***	-0.080	***	-0.078	**
Black * Income					0.074	*	0.071	*	0.070	*	0.066	*	0.063	
Education														
High school			0.193		0.327		0.341		0.341		0.357		0.366	
Some college			0.090		0.117		0.135		0.134		0.159		0.172	
Bachelors			-1.006	***	-1.150	***	-1.127	***	-1.126	***	-1.084	***	-1.067	***
Advanced			-1.354	***	-1.355	***	-1.339	***	-1.339	***	-1.298	***	-1.275	***
Black * Education														
Black * High school					-0.335		-0.328		-0.331		-0.329		-0.349	
Black * Some college					-0.041		-0.036		-0.038		-0.038		-0.074	
Black * Bachelors					0.985	*	0.975	*	0.972	*	0.969	*	0.917	
Black * Advanced					0.129		0.126		0.125		0.138		0.071	
Wealth (total net worth)							-0.010	***	-0.011	***	-0.009	**	-0.008	*
Black * Wealth									0.003		0.004		0.001	
Wealth Components														
Own home (1=yes)											-0.137	*	-0.082	
Home equity											0.004		0.000	
Savings											-0.009		-0.016	*
Stocks											-0.005		-0.006	
Debt											0.008	*	0.007	
Black * Wealth Components														
Black * Own home													-0.172	
Black * Home equity													0.012	
Black * Savings													0.015	
Black * Stocks													0.008	
Black * Debt													0.000	
Intercepts	26.696	***	27.653	***	28.124	***	28.100	***	28.099	***	28.048	***	28.054	***

AIC	198,292	198,201	198,196	198,194	198,204	198,241	198,278
Note: Results of linear mixed effects models. Includes random intercepts for individuals and households Years of analysis = 2005-2011. n=37,574 person-years; 10,953 unique individuals. Race reference category = White. Education reference category = Less than high school. All wealth variables transformed via an inverse hyperbolic sine (IHS) and inflated to 2015 U.S. dollars via the Consumer Price Index.							