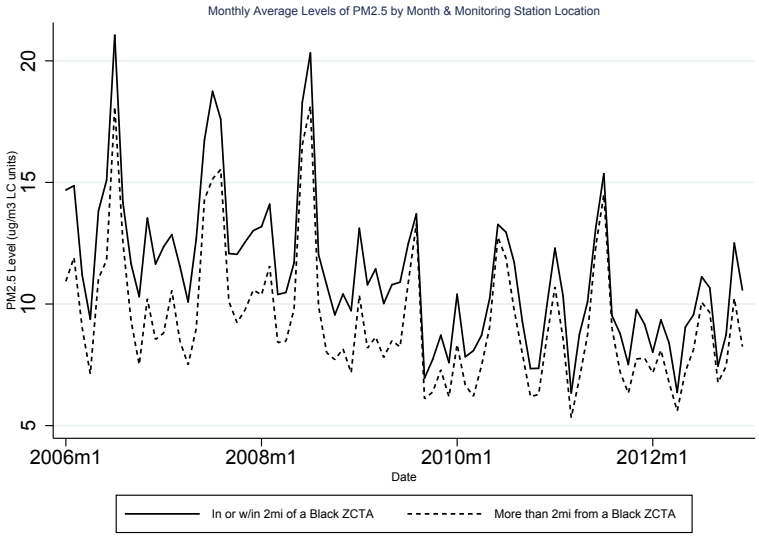
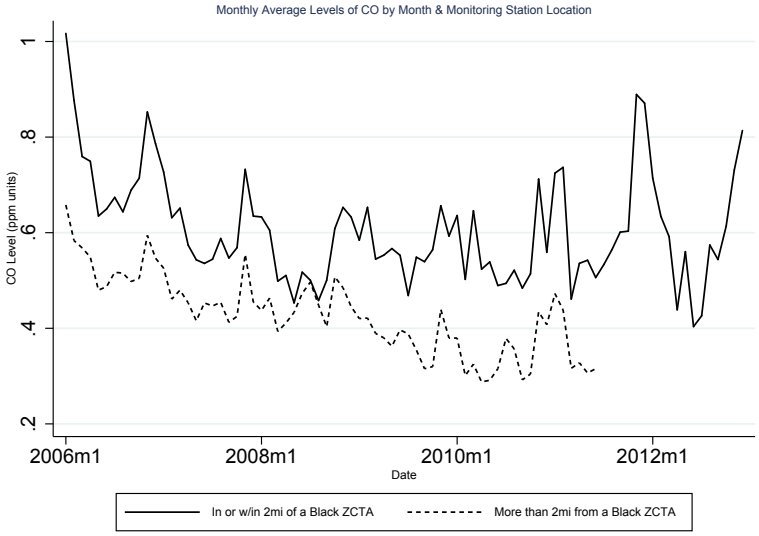
11 Appendix Figures

Figure A.1: Pollution Levels by Distance to Black Zip Code: PM 2.5



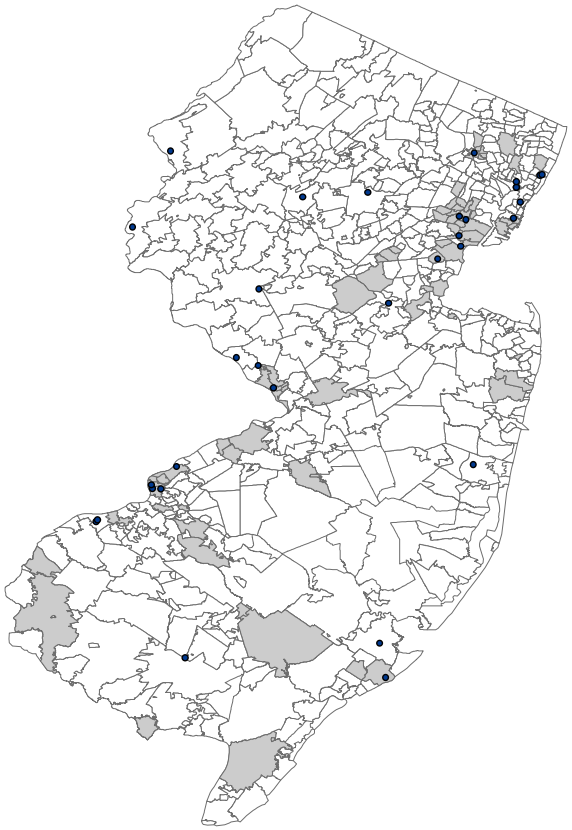
Notes: Black zip codes are zip codes with the highest fraction of black children, up until the point where there are approximately the same number of black children and non-black children in the black zip codes. The remaining zip codes are defined as other zip codes. Black zip codes are mapped to census zip code tabulation areas for calculating distance.

Figure A.2: Pollution Levels by Distance to Black Zip Code: CO



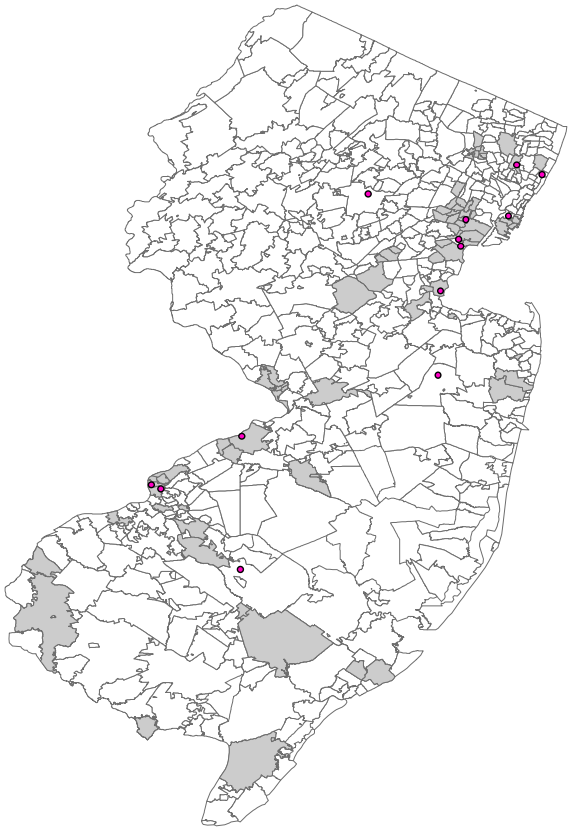
Notes: Black zip codes are zip codes with the highest fraction of black children, up until the point where there are approximately the same number of black children and non-black children in the black zip codes. The remaining zip codes are defined as other zip codes. Black zip codes are mapped to census zip code tabulation areas for calculating distance.

Figure A.3: Pollution Monitoring Stations: PM 2.5



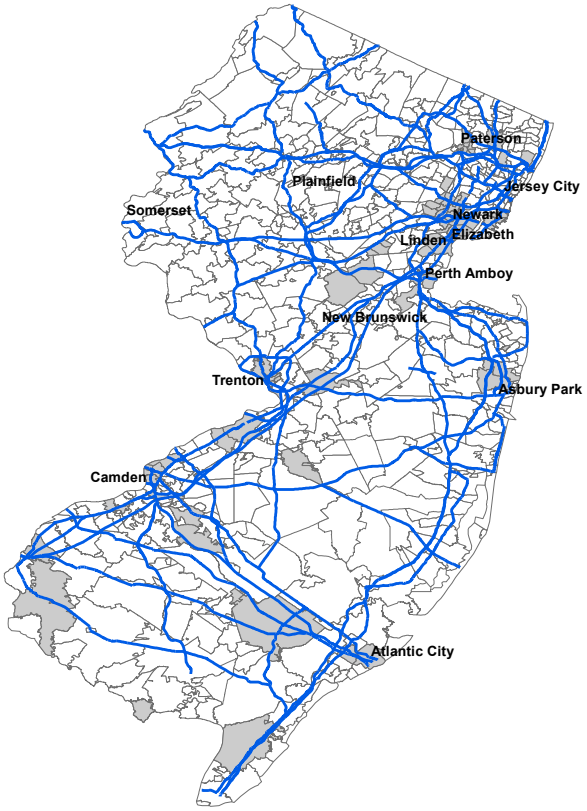
Notes: Grey denotes black zip codes, white denotes other zip codes. Black zip codes are zip codes with the highest fraction of black children, up until the point where there are approximately the same number of black children and non-black children in the black zip codes. The remaining zip codes are defined as other zip codes. As US Postal Service zip codes do not represent contiguous geographic boundaries, we map zip codes to census zip code tabulation areas for the purpose of this figure.

Figure A.4: Pollution Monitoring Stations: CO



Notes: Grey denotes black zip codes, white denotes other zip codes. Black zip codes are zip codes with the highest fraction of black children, up until the point where there are approximately the same number of black children and non-black children in the black zip codes. The remaining zip codes are defined as other zip codes. As US Postal Service zip codes do not represent contiguous geographic boundaries, we map zip codes to census zip code tabulation areas for the purpose of this figure.

Figure A.5: NJ Federal and Limited Access Highways



Notes: Grey denotes black zip codes, white denotes other zip codes. Black zip codes are zip codes with the highest fraction of black children, up until the point where there are approximately the same number of black children and non-black children in the black zip codes. The remaining zip codes are defined as other zip codes. As US Postal Service zip codes do not represent contiguous geographic boundaries, we map zip codes to census zip code tabulation areas for the purpose of this figure.

12 Appendix Tables

Table A.1: Asthma and Low Birthweight: by Black Zip Code (22% Threshold)

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
	Black Zips	Other Zips	Black Zips	Other Zips
500-999	0.219***	0.128***	0.738***	0.306***
	(0.030)	(0.013)	(0.202)	(0.045)
1000-1499	0.128***	0.076***	0.450***	0.157***
	(0.018)	(0.008)	(0.085)	(0.020)
1500-1999	0.083***	0.049***	0.279***	0.110***
	(0.012)	(0.005)	(0.052)	(0.013)
2000-2499	0.031***	0.021***	0.136***	0.055***
	(0.006)	(0.002)	(0.025)	(0.008)
2500-2999	0.016***	0.008***	0.048***	0.018***
	(0.003)	(0.001)	(0.011)	(0.003)
3500-3999	-0.002	-0.003***	0.001	-0.003
	(0.003)	(0.001)	(0.009)	(0.003)
4000-4499	-0.007	-0.007***	-0.030**	-0.010***
	(0.005)	(0.002)	(0.013)	(0.004)
4500-4999	0.001	-0.005	-0.026	-0.014
	(0.014)	(0.005)	(0.030)	(0.010)
Black	0.036***	0.046***	0.088***	0.129***
	(0.003)	(0.003)	(0.012)	(0.011)
500-999 * black	0.035	0.090**	0.165	0.583***
	(0.036)	(0.037)	(0.225)	(0.199)
1000-1499 * black	0.015	0.063**	0.038	0.394***
	(0.024)	(0.027)	(0.111)	(0.129)
1500-1999 * black	0.009	0.017	0.120	0.196**
	(0.017)	(0.018)	(0.080)	(0.087)
2000-2499 * black	0.010	0.021**	0.059	0.033
	(0.009)	(0.010)	(0.040)	(0.034)
2500-2999 * black	-0.003	0.007	0.021	0.002
	(0.005)	(0.006)	(0.020)	(0.020)
3500-3999 * black	-0.009*	0.002	-0.012	0.008
	(0.005)	(0.006)	(0.018)	(0.020)
4000-4499 * black	0.001	-0.004	0.054	-0.016
	(0.009)	(0.010)	(0.034)	(0.033)
4500-4999 * black	-0.021	-0.046**	-0.035	-0.136***
	(0.024)	(0.023)	(0.071)	(0.049)
Individual/census vars	x	x	x	x
Hospital fixed effects	x	x	x	x
Observations	117,137	329,015	117,137	329,015
R-squared	0.071	0.047	0.057	0.041
Mean dep. var.	0.138	0.065	0.336	0.123
Clusters	101,568	270,630	101,568	270,630
F-statistic	0.646	3.851	1.184	5.842
P-value	0.630	0.004	0.315	0.000

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.2: Asthma and Low Birth Weight: by Black Zip Codes, with Mother Fixed Effects (22% Threshold)

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
	Black Zips	Other Zips	Black Zips	Other Zips
500-999	0.237***	0.116***	1.439*	0.432***
	(0.077)	(0.031)	(0.789)	(0.118)
1000-1499	0.141***	0.066***	0.661***	0.174***
	(0.041)	(0.015)	(0.212)	(0.035)
1500-1999	0.115***	0.035***	0.367***	0.100***
	(0.031)	(0.009)	(0.130)	(0.024)
2000-2499	0.018	0.012**	0.132**	0.027**
	(0.015)	(0.005)	(0.061)	(0.013)
2500-2999	0.026***	0.006*	0.110***	0.011
	(0.010)	(0.003)	(0.035)	(0.007)
3500-3999	0.014	-0.002	0.066**	-0.008
	(0.008)	(0.002)	(0.030)	(0.005)
4000-4499	0.004	-0.007*	0.007	-0.011
	(0.014)	(0.004)	(0.043)	(0.008)
4500-4999	-0.005	-0.008	0.052	-0.033
	(0.039)	(0.010)	(0.098)	(0.022)
500-999 * black	0.014	-0.058	-0.240	-0.109
	(0.088)	(0.108)	(0.821)	(0.388)
1000-1499 * black	-0.002	-0.062	-0.034	-0.100
	(0.057)	(0.068)	(0.289)	(0.160)
1500-1999 * black	-0.020	0.043	0.121	0.194
	(0.041)	(0.041)	(0.201)	(0.152)
2000-2499 * black	0.016	0.021	0.046	0.046
	(0.023)	(0.025)	(0.096)	(0.090)
2500-2999 * black	-0.023	0.008	-0.099*	0.017
	(0.015)	(0.015)	(0.053)	(0.047)
3500-3999 * black	-0.030**	0.034**	-0.068	0.073
	(0.014)	(0.015)	(0.050)	(0.053)
4000-4499 * black	-0.004	-0.007	0.080	-0.042
	(0.027)	(0.029)	(0.088)	(0.087)
4500-4999 * black	-0.036	0.043	-0.208	0.177
	(0.077)	(0.061)	(0.179)	(0.121)
Individual/census vars	x	x	x	x
Hospital fixed effects	x	x	x	x
Mother fixed effects	x	x	x	x
Observations	117,137	329,015	117,137	329,015
R-squared	0.045	0.018	0.039	0.016
Mean dep. var.	0.084	0.084	0.179	0.179
Clusters	101,568	270,630	101,568	270,630
F-statistic	0.261	0.829	0.176	0.695
P-value	0.903	0.506	0.951	0.595

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499, black, and 3000-3499 * black.

Table A.3: Asthma and Low Birthweight: by Black Zip Code (32% Threshold)

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
	Black Zips	Other Zips	Black Zips	Other Zips
500-999	0.262***	0.136***	1.137***	0.319***
	(0.045)	(0.013)	(0.415)	(0.042)
1000-1499	0.121***	0.085***	0.579***	0.187***
	(0.027)	(0.008)	(0.141)	(0.022)
1500-1999	0.110***	0.050***	0.362***	0.123***
	(0.019)	(0.005)	(0.089)	(0.013)
2000-2499	0.036***	0.022***	0.154***	0.064***
	(0.010)	(0.002)	(0.039)	(0.008)
2500-2999	0.023***	0.008***	0.064***	0.020***
	(0.005)	(0.001)	(0.018)	(0.003)
3500-3999	-0.003	-0.003***	0.004	-0.003
	(0.005)	(0.001)	(0.016)	(0.003)
4000-4499	-0.004	-0.007***	-0.038*	-0.012***
	(0.008)	(0.002)	(0.021)	(0.004)
4500-4999	0.010	-0.006	-0.016	-0.017*
	(0.024)	(0.004)	(0.057)	(0.009)
Black	0.039***	0.043***	0.112***	0.114***
	(0.005)	(0.003)	(0.016)	(0.009)
500-999 * black	0.002	0.088***	-0.153	0.462***
	(0.050)	(0.029)	(0.432)	(0.133)
1000-1499 * black	0.029	0.046**	-0.058	0.291***
	(0.033)	(0.021)	(0.164)	(0.095)
1500-1999 * black	-0.017	0.023	0.061	0.175***
	(0.024)	(0.015)	(0.114)	(0.068)
2000-2499 * black	0.004	0.020**	0.049	0.047*
	(0.013)	(0.008)	(0.056)	(0.028)
2500-2999 * black	-0.011	0.007	0.009	0.012
	(0.007)	(0.005)	(0.027)	(0.016)
3500-3999 * black	-0.010	0.002	-0.009	0.001
	(0.007)	(0.005)	(0.025)	(0.016)
4000-4499 * black	0.001	-0.004	0.076*	-0.008
	(0.012)	(0.008)	(0.046)	(0.026)
4500-4999 * black	-0.031	-0.034*	-0.045	-0.096**
	(0.034)	(0.020)	(0.099)	(0.043)
Individual/census vars	x	x	x	x
Hospital fixed effects	x	x	x	x
Observations	69,177	376,975	69,177	376,975
R-squared	0.069	0.050	0.056	0.042
Mean dep. var.	0.162	0.070	0.416	0.136
Clusters	60,302	310,887	60,302	310,887
F-statistic	0.368	5.189	0.322	7.486
P-value	0.832	0.000	0.863	0.000

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.4: Asthma and Low Birth Weight: by Black Zip Codes, with Mother Fixed Effects (32% Threshold)

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
	Black Zips	Other Zips	Black Zips	Other Zips
500-999	0.356***	0.100***	3.288	0.386***
	(0.121)	(0.030)	(2.124)	(0.104)
1000-1499	0.123*	0.072***	0.887**	0.194***
	(0.067)	(0.015)	(0.405)	(0.036)
1500-1999	0.198***	0.033***	0.519***	0.104***
	(0.048)	(0.009)	(0.182)	(0.026)
2000-2499	0.023	0.012**	0.236**	0.029**
	(0.025)	(0.005)	(0.121)	(0.013)
2500-2999	0.029*	0.006**	0.150**	0.014**
	(0.016)	(0.003)	(0.065)	(0.007)
3500-3999	0.007	-0.001	0.071	-0.005
	(0.013)	(0.002)	(0.053)	(0.005)
4000-4499	0.009	-0.005	-0.021	-0.008
	(0.023)	(0.004)	(0.070)	(0.009)
4500-4999	-0.066	-0.007	-0.097	-0.024
	(0.075)	(0.010)	(0.194)	(0.022)
500-999 * black	-0.063	0.018	-1.772	0.182
	(0.132)	(0.075)	(2.136)	(0.279)
1000-1499 * black	0.034	-0.040	-0.074	-0.111
	(0.080)	(0.054)	(0.470)	(0.142)
1500-1999 * black	-0.089	0.038	0.011	0.193
	(0.058)	(0.033)	(0.263)	(0.139)
2000-2499 * black	0.022	0.012	-0.038	0.066
	(0.033)	(0.020)	(0.156)	(0.068)
2500-2999 * black	-0.014	-0.006	-0.121	0.003
	(0.021)	(0.012)	(0.082)	(0.040)
3500-3999 * black	-0.019	0.024**	-0.059	0.031
	(0.020)	(0.012)	(0.071)	(0.041)
4000-4499 * black	0.000	-0.002	0.171	-0.025
	(0.035)	(0.023)	(0.118)	(0.070)
4500-4999 * black	0.046	0.032	-0.040	0.125
	(0.111)	(0.046)	(0.264)	(0.092)
Individual/census vars	x	x	x	x
Hospital fixed effects	x	x	x	x
Mother fixed effects	x	x	x	x
Observations	69,177	376,975	69,177	376,975
R-squared	0.056	0.018	0.052	0.017
Mean dep. var.	0.084	0.084	0.179	0.179
Clusters	60,302	310,887	60,302	310,887
F-statistic	1.089	0.687	0.222	1.129
P-value	0.360	0.601	0.926	0.341

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499, black, and 3000-3499 * black.

Table A.5: Total Number of Visits for Asthma and Low Birth Weight: Zero-Inflated Negative Binomial Models

	(1) Baseline	(2) With Controls	(3) Black Zips	(4) Other Zips
500-999	0.641***	0.957***	1.062***	1.031***
	(0.114)	(0.094)	(0.165)	(0.116)
1000-1499	0.372***	0.561***	0.706***	0.583***
	(0.107)	(0.075)	(0.164)	(0.089)
1500-1999	0.317***	0.356***	0.485***	0.355***
	(0.090)	(0.091)	(0.163)	(0.108)
2000-2499	0.316***	0.257***	0.231*	0.258***
	(0.068)	(0.067)	(0.127)	(0.077)
2500-2999	0.099**	0.071*	-0.018	0.115**
	(0.040)	(0.043)	(0.081)	(0.051)
3500-3999	0.024	-0.010	-0.009	-0.011
	(0.037)	(0.037)	(0.078)	(0.042)
4000-4499	-0.060	-0.010	-0.139	0.016
	(0.059)	(0.062)	(0.118)	(0.071)
4500-4999	-0.190	0.011	0.075	0.021
	(0.136)	(0.146)	(0.343)	(0.164)
Black	0.534***	0.155***	0.024	0.381***
	(0.036)	(0.040)	(0.062)	(0.064)
500-999 * black	0.341***	0.365***	0.170	0.312
	(0.131)	(0.127)	(0.187)	(0.202)
1000-1499 * black	0.270**	0.244**	-0.023	0.346*
	(0.132)	(0.109)	(0.187)	(0.186)
1500-1999 * black	0.156	0.265**	0.194	0.164
	(0.127)	(0.119)	(0.198)	(0.173)
2000-2499 * black	-0.070	0.027	0.088	-0.015
	(0.096)	(0.088)	(0.150)	(0.128)
2500-2999 * black	0.024	0.058	0.230**	-0.078
	(0.060)	(0.065)	(0.100)	(0.094)
3500-3999 * black	0.016	0.083	0.114	0.005
	(0.062)	(0.066)	(0.100)	(0.109)
4000-4499 * black	0.132	0.163	0.346**	0.143
	(0.112)	(0.123)	(0.166)	(0.226)
4500-4999 * black	0.020	-0.282	-0.222	-0.084
	(0.297)	(0.309)	(0.433)	(0.949)
Individual/census vars	-	x	x	x
Hospital fixed effects	-	x	x	x
Observations	448,036	446,152	99,647	346,505
Mean dep. var.	0.179	0.179	0.179	0.179
P-value	0.011	0.004	0.751	0.188

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. Standard errors clustered at mother. Birth weight bins, an indicator for black, and their interaction are used in the first stage to predict whether or not the count is zero. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.6: Asthma and Low Birthweight: Sequential Addition of Covariate Groups

	Ever Diagnosed with Asthma				No. Times Diagnosed with Asthma			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
500-999	0.154***	0.153***	0.153***	0.148***	0.411***	0.415***	0.413***	0.398***
	(0.013)	(0.012)	(0.012)	(0.012)	(0.058)	(0.057)	(0.057)	(0.057)
1000-1499	0.091***	0.093***	0.091***	0.088***	0.225***	0.236***	0.232***	0.223***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.025)	(0.024)	(0.024)	(0.024)
1500-1999	0.051***	0.059***	0.058***	0.056***	0.127***	0.153***	0.151***	0.145***
	(0.004)	(0.005)	(0.005)	(0.004)	(0.014)	(0.015)	(0.015)	(0.015)
2000-2499	0.020***	0.025***	0.024***	0.023***	0.062***	0.077***	0.076***	0.073***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.007)	(0.008)	(0.008)	(0.008)
2500-2999	0.008***	0.010***	0.009***	0.009***	0.021***	0.025***	0.024***	0.024***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)	(0.003)
3500-3999	-0.002**	-0.003***	-0.003***	-0.003***	-0.003	-0.004	-0.004	-0.004
	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)	(0.003)
4000-4499	-0.006***	-0.008***	-0.008***	-0.007***	-0.013***	-0.016***	-0.016***	-0.014***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)	(0.004)
4500-4999	-0.002	-0.006	-0.005	-0.005	-0.013	-0.020**	-0.019**	-0.018*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.010)	(0.010)	(0.010)	(0.010)
Black	0.091***	0.056***	0.046***	0.045***	0.250***	0.153***	0.122***	0.113***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.007)	(0.007)	(0.008)	(0.008)
500-999 * black	0.086***	0.092***	0.092***	0.096***	0.471***	0.482***	0.483***	0.489***
	(0.022)	(0.021)	(0.021)	(0.021)	(0.107)	(0.106)	(0.106)	(0.106)
1000-1499 * black	0.057***	0.054***	0.053***	0.054***	0.309***	0.295***	0.281***	0.277***
	(0.016)	(0.016)	(0.016)	(0.016)	(0.069)	(0.069)	(0.067)	(0.067)
1500-1999 * black	0.036***	0.028**	0.029***	0.028***	0.253***	0.228***	0.228***	0.222***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.053)	(0.053)	(0.053)	(0.052)
2000-2499 * black	0.024***	0.019***	0.019***	0.018***	0.112***	0.096***	0.093***	0.089***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.027)	(0.026)	(0.026)	(0.026)
2500-2999 * black	0.008**	0.005	0.005	0.004	0.045***	0.037***	0.035**	0.029**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.014)	(0.014)	(0.013)	(0.013)
3500-3999 * black	-0.008**	-0.005	-0.005	-0.004	-0.013	-0.005	-0.003	-0.001
	(0.004)	(0.004)	(0.004)	(0.003)	(0.013)	(0.013)	(0.013)	(0.013)
4000-4499 * black	-0.007	-0.001	-0.001	-0.001	-0.001	0.017	0.019	0.021
	(0.006)	(0.006)	(0.006)	(0.006)	(0.024)	(0.024)	(0.024)	(0.024)
4500-4999 * black	-0.035**	-0.029*	-0.028*	-0.027*	-0.099**	-0.079*	-0.078*	-0.074
	(0.016)	(0.016)	(0.016)	(0.016)	(0.047)	(0.046)	(0.046)	(0.046)
Individual vars	-	x	x	x	-	x	x	x
Census vars	-	-	x	x	-	-	x	x
Hospital fixed effects	-	-	-	x	-	-	-	x
Observations	448,036	447,251	446,152	446,152	448,036	447,251	446,152	446,152
R-squared	0.026	0.055	0.058	0.066	0.024	0.045	0.047	0.056
Mean dep. var.	0.084	0.084	0.084	0.084	0.179	0.179	0.179	0.179
Clusters	369,797	369,214	368,295	368,295	369,797	369,214	368,295	368,295
F-statistic	11.958	10.204	10.392	10.714	18.506	16.399	16.005	15.718
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: All regressions include dummy variables for child's age at end of sample in quarters. Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), and indicator for child ever used public insurance; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.7: Asthma and Low Birthweight: Zip Code Fixed Effects

	Ever Diagnosed with Asthma (1)	No. Times Diagnosed with Asthma (2)
500-999	0.148***	0.402***
	(0.012)	(0.057)
1000-1499	0.088***	0.224***
	(0.007)	(0.024)
1500-1999	0.056***	0.146***
	(0.004)	(0.015)
2000-2499	0.023***	0.073***
	(0.002)	(0.008)
2500-2999	0.009***	0.024***
	(0.001)	(0.003)
3500-3999	-0.003***	-0.003
	(0.001)	(0.003)
4000-4499	-0.007***	-0.014***
	(0.002)	(0.004)
4500-4999	-0.005	-0.018*
	(0.004)	(0.010)
Black	0.040***	0.103***
	(0.002)	(0.008)
500-999 * black	0.095***	0.484***
	(0.021)	(0.106)
1000-1499 * black	0.053***	0.275***
	(0.016)	(0.067)
1500-1999 * black	0.029***	0.222***
	(0.011)	(0.052)
2000-2499 * black	0.018***	0.087***
	(0.006)	(0.026)
2500-2999 * black	0.004	0.029**
	(0.004)	(0.013)
3500-3999 * black	-0.004	-0.001
	(0.003)	(0.013)
4000-4499 * black	-0.001	0.023
	(0.006)	(0.024)
4500-4999 * black	-0.026	-0.069
	(0.016)	(0.046)
Individual/census vars	x	x
Hospital fixed effects	x	x
Zip code fixed effects	x	x
Observations	446,152	446,152
R-squared	0.070	0.060
Mean dep. var.	0.084	0.179
Clusters	368,295	368,295
F-statistic	10.546	15.410
P-value	0.000	0.000

Notes: All regressions include dummy variables for child's age at end of sample in quarters. Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), and indicator for child ever used public insurance; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.8: Asthma and Low Birthweight: Reporting Coefficients on Census Variables

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
500-999	0.148***	0.127***	0.398***	0.599***
	(0.012)	(0.029)	(0.057)	(0.179)
1000-1499	0.088***	0.078***	0.223***	0.240***
	(0.007)	(0.014)	(0.024)	(0.045)
1500-1999	0.056***	0.043***	0.145***	0.133***
	(0.004)	(0.009)	(0.015)	(0.028)
2000-2499	0.023***	0.014***	0.073***	0.052***
	(0.002)	(0.005)	(0.008)	(0.015)
2500-2999	0.009***	0.009***	0.024***	0.027***
	(0.001)	(0.003)	(0.003)	(0.008)
3500-3999	-0.003***	-0.000	-0.004	-0.001
	(0.001)	(0.002)	(0.003)	(0.006)
4000-4499	-0.007***	-0.005	-0.014***	-0.007
	(0.002)	(0.004)	(0.004)	(0.009)
4500-4999	-0.005	-0.008	-0.018*	-0.026
	(0.004)	(0.010)	(0.010)	(0.023)
Black	0.045***	0.000	0.113***	0.000
	(0.002)	(.)	(0.008)	(.)
500-999 * black	0.096***	0.091*	0.489***	0.419
	(0.021)	(0.049)	(0.106)	(0.267)
1000-1499 * black	0.054***	0.035	0.277***	0.234
	(0.016)	(0.036)	(0.067)	(0.157)
1500-1999 * black	0.028***	0.047**	0.222***	0.319***
	(0.011)	(0.024)	(0.052)	(0.119)
2000-2499 * black	0.018***	0.031**	0.089***	0.106*
	(0.006)	(0.015)	(0.026)	(0.058)
2500-2999 * black	0.004	-0.001	0.029**	-0.002
	(0.004)	(0.009)	(0.013)	(0.031)
3500-3999 * black	-0.004	0.005	-0.001	0.015
	(0.003)	(0.009)	(0.013)	(0.031)
4000-4499 * black	-0.001	0.004	0.021	0.043
	(0.006)	(0.017)	(0.024)	(0.054)
4500-4999 * black	-0.027*	0.017	-0.074	0.033
	(0.016)	(0.045)	(0.046)	(0.096)
Population density	0.000***	0.000	0.000*	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Median age	0.001***	-0.001	0.001*	0.001
	(0.000)	(0.001)	(0.001)	(0.003)
Avg. household size	-0.007**	-0.016	-0.027***	0.045
	(0.003)	(0.014)	(0.009)	(0.047)
Pct. < high school	0.000**	-0.000	-0.001	-0.002
	(0.000)	(0.001)	(0.000)	(0.002)
Pct. college +	-0.000***	-0.001***	-0.000**	-0.002
	(0.000)	(0.000)	(0.000)	(0.001)
Pct. in labor force	0.001***	-0.000	0.003***	-0.002
	(0.000)	(0.001)	(0.000)	(0.002)
Pct. households < $20k	0.002***	-0.000	0.006***	-0.004
	(0.000)	(0.001)	(0.001)	(0.004)
Pct. households > $200k	0.001***	0.002**	0.003***	0.004
	(0.000)	(0.001)	(0.001)	(0.003)
Median year structure built	0.000*	0.000	0.000***	0.001
	(0.000)	(0.000)	(0.000)	(0.001)
Pct. owner occupied	0.000*	0.000	0.000*	-0.001
	(0.000)	(0.000)	(0.000)	(0.001)
Pct. vacant	-0.000**	-0.000	-0.000	0.003
	(0.000)	(0.000)	(0.000)	(0.002)
Median value (owner occ.)	-0.000***	-0.000	-0.000**	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Pct. below poverty	-0.001***	0.000	0.000	0.001
	(0.000)	(0.001)	(0.001)	(0.004)
Avg. commute	0.000	-0.001	-0.000	-0.001
	(0.000)	(0.001)	(0.000)	(0.002)
Total population	-0.000***	-0.000**	-0.000***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Individual/census vars & hospital fixed effects	x	x	x	x
Mother fixed effects	-	x	-	x
Observations	446,152	446,152	446,152	446,152
R-squared	0.066	0.023	0.056	0.022
Mean dep. var.	0.084	0.084	0.179	0.179
Clusters	368,295	368,295	368,295	368,295
F-statistic	10.714	2.282	15.718	2.515
P-value	0.000	0.058	0.000	0.039

Notes: All regressions include dummy variables for child's age at end of sample in quarters. Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), and indicator for child ever used public insurance. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.9: Asthma and Low Birthweight: Only Nonhispanic Black and White Children

	Ever Diagnosed with Asthma			No. Times Diagnosed with Asthma		
	(1)	(2)	(3)	(4)	(5)	(6)
500-999	0.112***	0.108***	0.083**	0.230***	0.227***	0.253**
	(0.015)	(0.015)	(0.034)	(0.046)	(0.046)	(0.125)
1000-1499	0.067***	0.066***	0.062***	0.147***	0.151***	0.155***
	(0.009)	(0.009)	(0.016)	(0.025)	(0.025)	(0.045)
1500-1999	0.042***	0.045***	0.023**	0.079***	0.095***	0.060**
	(0.005)	(0.005)	(0.010)	(0.013)	(0.014)	(0.026)
2000-2499	0.022***	0.023***	0.019***	0.049***	0.056***	0.055***
	(0.003)	(0.003)	(0.006)	(0.008)	(0.008)	(0.015)
2500-2999	0.007***	0.007***	0.007**	0.016***	0.016***	0.015*
	(0.001)	(0.001)	(0.003)	(0.004)	(0.004)	(0.008)
3500-3999	-0.002*	-0.003***	0.001	-0.002	-0.005*	-0.009
	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)	(0.005)
4000-4499	-0.003*	-0.006***	-0.006*	-0.007*	-0.013***	-0.018**
	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)	(0.009)
4500-4999	0.003	-0.002	-0.001	0.001	-0.010	-0.022
	(0.005)	(0.005)	(0.010)	(0.010)	(0.010)	(0.022)
Black	0.108***	0.052***	0.000	0.300***	0.126***	0.000
	(0.002)	(0.003)	(.)	(0.008)	(0.009)	(.)
500-999 * black	0.118***	0.125***	0.129**	0.609***	0.618***	0.786***
	(0.024)	(0.024)	(0.054)	(0.104)	(0.103)	(0.252)
1000-1499 * black	0.083***	0.077***	0.045	0.379***	0.349***	0.334*
	(0.017)	(0.017)	(0.039)	(0.071)	(0.070)	(0.172)
1500-1999 * black	0.045***	0.038***	0.052**	0.314***	0.281***	0.401***
	(0.012)	(0.012)	(0.026)	(0.057)	(0.057)	(0.134)
2000-2499 * black	0.018***	0.014**	0.023	0.112***	0.093***	0.093
	(0.007)	(0.007)	(0.016)	(0.029)	(0.028)	(0.064)
2500-2999 * black	0.010**	0.006	-0.006	0.047***	0.031**	-0.014
	(0.004)	(0.004)	(0.010)	(0.015)	(0.015)	(0.035)
3500-3999 * black	-0.009**	-0.005	-0.003	-0.011	0.003	0.019
	(0.004)	(0.004)	(0.010)	(0.015)	(0.015)	(0.037)
4000-4499 * black	-0.013*	-0.003	0.008	-0.016	0.018	0.077
	(0.007)	(0.007)	(0.019)	(0.027)	(0.027)	(0.064)
4500-4999 * black	-0.039**	-0.028	0.014	-0.123**	-0.089*	0.016
	(0.018)	(0.018)	(0.053)	(0.052)	(0.050)	(0.116)
Individual/census vars	-	x	x	-	x	x
Hospital fixed effects	-	x	x	-	x	x
Observations	288,912	287,443	287,443	288,912	287,443	287,443
R-squared	0.041	0.076	0.023	0.037	0.067	0.023
Mean dep. var.	0.079	0.079	0.079	0.171	0.171	0.171
Clusters	233,047	231,881	231,881	233,047	231,881	231,881
F-statistic	15.470	14.402	2.368	24.920	22.077	4.495
P-value	0.000	0.000	0.050	0.000	0.000	0.001

Notes: All regressions include dummy variables for child's age at end of sample in quarters. Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), and indicator for child ever used public insurance; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.10: Asthma and Low Birthweight: Triple Difference

	Ever Diagnosed with Asthma (1)	No. Times Diagnosed with Asthma (2)
Black	0.045***	0.120***
	(0.002)	(0.008)
Low birth weight (< 2500g)	0.034***	0.085***
	(0.002)	(0.007)
Black zip	0.009***	0.011**
	(0.002)	(0.005)
Black * Low birth weight (< 2500g)	0.034***	0.139***
	(0.008)	(0.031)
Black * Black zip	-0.002	0.007
	(0.003)	(0.011)
Low birth weight (< 2500g) * Black zip	0.029***	0.142***
	(0.006)	(0.028)
Black * Low birth weight (< 2500g) * Black zip	-0.016	-0.040
	(0.011)	(0.050)
Individual/census vars	x	x
Hospital fixed effects	x	x
Observations	446,152	446,152
R-squared	0.064	0.054
Mean dep. var.	0.084	0.179
Clusters	368,295	368,295
F-statistic	20.223	20.394
P-value	0.000	0.000

Notes: All regressions include dummy variables for child's age at end of sample in quarters. Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), and indicator for child ever used public insurance; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother.

Table A.11: Asthma and Low Birthweight: Movers

	Ever Diagnosed with Asthma			No. Times Diagnosed with Asthma		
	(1)	(2)	(3)	(4)	(5)	(6)
	All Mothers	Black Mothers	Other Mothers	All Mothers	Black Mothers	Other Mothers
500-999	0.189**	0.239**	0.153	0.157	0.271	-0.024
	(0.095)	(0.100)	(0.170)	(0.534)	(0.764)	(0.241)
1000-1499	0.071	0.108	0.039	-0.062	0.270	-0.709
	(0.087)	(0.117)	(0.116)	(0.334)	(0.251)	(0.803)
1500-1999	0.029	0.100	-0.044	0.247	0.520	-0.031
	(0.057)	(0.097)	(0.066)	(0.247)	(0.397)	(0.303)
2000-2499	0.021	0.053	-0.003	0.081	-0.034	0.218
	(0.031)	(0.052)	(0.037)	(0.147)	(0.150)	(0.228)
2500-2999	-0.002	-0.007	-0.007	0.059	0.124	0.014
	(0.019)	(0.033)	(0.023)	(0.057)	(0.106)	(0.065)
3500-3999	0.011	0.006	0.002	-0.007	0.009	-0.031
	(0.016)	(0.031)	(0.019)	(0.067)	(0.178)	(0.057)
4000-4499	-0.008	-0.051	0.013	0.094	-0.131	0.173
	(0.026)	(0.047)	(0.030)	(0.082)	(0.125)	(0.107)
4500-4999	0.072	0.456	0.037	0.185	0.366	0.179
	(0.068)	(0.318)	(0.064)	(0.179)	(0.444)	(0.190)
Black zip	-0.016	-0.005	-0.024	-0.062	-0.059	-0.046
	(0.016)	(0.029)	(0.019)	(0.052)	(0.104)	(0.059)
500-999 * black zip	-0.138	-0.127	-0.171	0.008	-0.125	0.250
	(0.127)	(0.143)	(0.229)	(0.590)	(0.829)	(0.380)
1000-1499 * black zip	0.079	0.096	0.073	0.190	-0.210	0.833
	(0.110)	(0.164)	(0.145)	(0.364)	(0.474)	(0.813)
1500-1999 * black zip	-0.029	-0.058	0.014	-0.110	-0.176	-0.165
	(0.069)	(0.118)	(0.075)	(0.321)	(0.497)	(0.379)
2000-2499 * black zip	0.042	0.074	0.011	0.052	0.218	-0.133
	(0.044)	(0.072)	(0.056)	(0.191)	(0.249)	(0.278)
2500-2999 * black zip	0.023	0.034	0.034	-0.001	-0.114	0.115
	(0.026)	(0.046)	(0.031)	(0.086)	(0.148)	(0.104)
3500-3999 * black zip	0.005	0.043	-0.001	0.007	-0.062	0.046
	(0.021)	(0.042)	(0.024)	(0.076)	(0.175)	(0.078)
4000-4499 * black zip	0.041	0.094	0.013	-0.031	0.151	-0.131
	(0.034)	(0.072)	(0.038)	(0.106)	(0.172)	(0.136)
4500-4999 * black zip	-0.090	-0.553*	-0.074	-0.236	-0.689	-0.197
	(0.103)	(0.324)	(0.115)	(0.229)	(0.486)	(0.256)
Individual/census vars	x	x	x	x	x	x
Hospital fixed effects	x	x	x	x	x	x
Mother fixed effects	x	x	x	x	x	x
Observations	8,003	2,913	5,090	8,003	2,913	5,090
R-squared	0.072	0.127	0.092	0.051	0.110	0.067
Mean dep. var.	0.123	0.123	0.123	0.282	0.282	0.282
Clusters	3,568	1,279	2,289	3,568	1,279	2,289
F-statistic	0.713	0.673	0.205	0.135	0.287	0.393
P-value	0.583	0.611	0.936	0.970	0.887	0.814

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

Table A.12: Asthma and Low Birth Weight: by Poverty

	Ever Diagnosed with Asthma		No. Times Diagnosed with Asthma	
	(1)	(2)	(3)	(4)
	High Poverty Zips	Other Zips	High Poverty Zips	Other Zips
500-999	0.251***	0.126***	0.616***	0.354***
	(0.034)	(0.013)	(0.119)	(0.064)
1000-1499	0.167***	0.071***	0.572***	0.147***
	(0.022)	(0.008)	(0.102)	(0.020)
1500-1999	0.109***	0.045***	0.383***	0.097***
	(0.015)	(0.005)	(0.068)	(0.012)
2000-2499	0.033***	0.020***	0.138***	0.057***
	(0.007)	(0.002)	(0.028)	(0.007)
2500-2999	0.018***	0.007***	0.051***	0.018***
	(0.003)	(0.001)	(0.011)	(0.003)
3500-3999	-0.003	-0.003***	-0.003	-0.003
	(0.003)	(0.001)	(0.009)	(0.003)
4000-4499	-0.005	-0.007***	-0.012	-0.013***
	(0.005)	(0.002)	(0.013)	(0.004)
4500-4999	0.010	-0.006	-0.031	-0.013
	(0.014)	(0.005)	(0.028)	(0.010)
Black	0.040***	0.043***	0.108***	0.111***
	(0.004)	(0.003)	(0.015)	(0.009)
500-999 * black	0.018	0.094***	0.395**	0.418***
	(0.042)	(0.027)	(0.176)	(0.138)
1000-1499 * black	-0.022	0.067***	-0.000	0.275***
	(0.030)	(0.020)	(0.142)	(0.078)
1500-1999 * black	-0.010	0.025*	0.095	0.163***
	(0.021)	(0.014)	(0.107)	(0.058)
2000-2499 * black	0.011	0.018**	0.060	0.065**
	(0.011)	(0.008)	(0.050)	(0.029)
2500-2999 * black	-0.005	0.006	0.017	0.021
	(0.006)	(0.005)	(0.024)	(0.016)
3500-3999 * black	-0.012**	0.003	-0.033	0.027*
	(0.006)	(0.004)	(0.021)	(0.016)
4000-4499 * black	-0.001	-0.002	0.031	0.014
	(0.011)	(0.008)	(0.041)	(0.030)
4500-4999 * black	-0.043	-0.021	-0.091	-0.045
	(0.027)	(0.021)	(0.074)	(0.059)
Individual/census vars	x	x	x	x
Hospital fixed effects	x	x	x	x
Observations	97,995	348,157	97,995	348,157
R-squared	0.079	0.052	0.060	0.045
Mean dep. var.	0.084	0.084	0.179	0.179
Clusters	81,568	289,877	81,568	289,877
F-statistic	0.508	7.232	1.785	8.211
P-value	0.730	0.000	0.129	0.000

Notes: Other included controls: other race, mother smoked during pregnancy, mother's education (in years: 0-11, 12, 13-16, 16+), mother's age (<20, 20-24, 25-29, 30-34, 35+), mother married at birth, sex, birth-3499 order (1, 2, 3, 4+), multiple birth indicator, indicator for other race (non-white, non-black), indicator for child ever used public insurance, and dummy variables for child's age at end of sample in quarters; zip code level variables: population, population density, median age, average household size, pct. with less than high school (25+), pct. with bachelor's degree or more (25+), pct. in labor force (16+), pct. of households making <20k, pct. of households making >200k, median year structure built, pct. of housing owner occupied, pct. of housing vacant, median value of owner occupied housing, pct. of families below poverty. F-statistic/P-value from a test that the coefficients on the first 4 birthweight bins interacted with black are jointly equal to zero. Standard errors clustered at mother. The omitted categories are 3000-3499 and 3000-3499 * black.

13 Data Appendix

Information on Coding Medicaid/NJ FamilyCare HMOs

We categorize the payer information into two groups based on the primary payer: Medicaid, NJ FamilyCare, indigent, and other government (Medicaid, Medicaid HMOs, FamilyCare HMOs, Title XIX Medicaid, other government, and indigent which comes from the "other" category), and private (Commercial, Blue Cross, non Medicaid/FamilyCare HMOs, Champus, and New Jersey State Health Benefits).

The HMO category is broken into Medicaid/FamilyCare and non-Medicaid/FamilyCare HMOs based on information about product lines from New Jersey HMO contracts. Six HMOs with Medicaid/NJ FamilyCare product lines were identified to be in operation during the time period. Four of these HMOs had no commercial product lines, and were easily classified as Medicaid/FamilyCare HMOs. The other two have both Medicaid/FamilyCare and Commercial product lines, and in the data there is no way to distinguish which patients are Medicaid/FamilyCare and which are not. All patients with these HMOs as primary payers were coded as Medicaid/FamilyCare, though some are likely private. The results are robust to whether these patients are coded as Medicaid/FamilyCare or private.

HMO Contracts with Medicaid Product Lines	06	07	08	09	10	11	12	Commercial
AmeriChoice of NJK/UnitedHealthcare	x	x	x	x	x	x	x	
AMERIGROUP New Jersey/Americaid	x	x	x	x	x	x	x	
Healthfirst Health Plan of New Jersey, Inc				x	x	x	x	
Health Net of New Jersey, Inc.	x	x	x	x				x
Horizon Healthcare of New Jersey/HMO Blue	x	x	x	x	x	x	x	x
University Health Plans, Inc.	x	x	x	x				

Commercial refers to a commercial product line. Information on HMO contracts and product lines from the 2006-2012 New Jersey HMO Performance Reports (Report Cards) http://www.state.nj.us/dobi/lifehealthactuarial/hmo2007/index.html

Information on the String Matching Algorithm

The matching algorithm creates a patient identifier by finding records with the same date of birth and the same or very similar first and last names. Specifically, the Levenshtein edit distance is used to match names, because of problems with typos and misspellings (stata command strgroup). While it is possible that we are picking up a few cases of different people with the same name and birthday, it does not seem to be a large problem.

The main worry is that there may be many children with similar names and the same birthday, who are being aggregated by the algorithm. In order to assess whether this was a concern, we looked at people with the most common first and last name combinations. We took first and last name combinations that the algorithm assigned to at least eight children, and called this the sample of "common names".

In order to assess the match quality, we looked at the three-digit zip code of residence reported for each visit. Of this sample of children with extremely common names, those with more than ten visits reported all visits in the same three-digit zip code. This suggests that the algorithm did not mistakenly aggregate people with common first and last name combinations – otherwise we would expect the people with common name combinations and many visits to report multiple zip codes. Of all people with these common names, 92.49% reported just one three-digit zip, 6.94% reported two, and 0.58% reported three.

Furthermore, we manually inspected all patients in the top 1% of number of visits. None of these children had "common names", as defined above, and almost all reported either just one three-digit zip code, or a combination of neighboring three digit zip codes.