

<b>Online Table 1: Numbers of counties and their populations by voting pattern during the study period</b>					
	<b>Election Year</b>				
<b>Counties Won (n)</b>	<b>2000</b>	<b>2004</b>	<b>2008</b>	<b>2012</b>	<b>2016</b>
Democratic	673 (132,833,397)	584 (130,865,951)	874 (186,156,072)	696 (180,198,911)	490 (176,971,611)
Republican	2439 (147,957,141)	2529 (161,279,944)	2239 (117,250,340)	2417 (132,983,590)	2622 (145,413,920)
Total	3112	3113	3113	3113	3112
<b>Large Metro</b>					
Democratic	143 (91,809,974)	128 (92,057,876)	179 (125,389,900)	166 (127,306,324)	156 (133,796,619)
Republican	292 (61,407,202)	308 (68,208,618)	257 (41,135,274)	270 (45,976,701)	280 (46,244,883)
<b>Medium Metro</b>					
Democratic	176 (30,901,916)	152 (30,462,421)	246 (48,019,226)	204 (43,451,908)	147 (37,730,408)
Republican	551 (52,116,112)	575 (56,347,313)	481 (42,991,836)	523 (50,436,610)	579 (58,741,769)
<b>Rural</b>					
Democratic	354 (10,121,507)	304 (8,345,654)	449 (12,746,946)	326 (9,440,679)	187 (5,444,584)
Republican	1596 (34,433,827)	1646 (36,724,013)	1501 (33,123,230)	1624 (36,570,279)	1763 (40,427,268)
<b>Note: Bedford “city”</b> which was an independent city in Virginia later joined Bedford “county” in July 2013. Onwards from 2014 it was officially counted within county. <b>Broomfield, Colorado</b> was added as a county in Colorado on Nov, 2001 (post 2000 elections)					

<b>Online Table 2: Population Characteristics of Democratic and Republican Counties in 2001 and 2019</b>				
	<b>2001</b>		<b>2019</b>	
	Democratic	Republican	Democratic	Republican
Age less than 45	86,980,183	97,758,185	107,053,336	83,342,984
Age 45 or more	46,937,362	52,659,373	71,905,070	65,206,502
Female	68,762,074	76,009,742	91,293,960	74,938,067
Male	65,155,471	74,407,816	87,664,446	73,611,419
Black	22,005,190	13,607,951	29,698,855	13,504,924
White	82,449,996	114,950,793	88,169,670	112,271,563
Hispanic	20,419,105	16,696,996	43,166,828	17,352,196
<b>Total</b>	<b>133917545</b>	<b>150417558</b>	<b>178958406</b>	<b>148549486</b>

<b>Online Table 3: Joinpoint Analysis Assessing Inflection Point of AAMR per 100K Population Trends for Democratic and Republican Counties from 2001 to 2019</b>					
	<b>Trend 1</b>		<b>Trend 2</b>		
	<b>Years</b>	<b>APC (CI)</b>	<b>Years</b>	<b>APC (CI)</b>	<b>AAPC (CI)</b>
<b>Overall</b>	2001-10	-1.7* (-1.9, -1.5)	2010-19	-0.3* (-0.5, -0.1)	-1.0* (-1.2, -0.9)
Democratic	2001-09	-2.1* (-2.3, -1.9)	2009-19	-0.8* (-1, -0.6)	-1.4* (-1.5, -1.2)
Republican	2001-08	-1.4* (-1.8, -1)	2008-19	-0.2* (-0.4, 0)	-0.7* (-0.9, -0.5)
Dem Male	2001-10	-2.2* (-2.4, -2)	2010-19	-0.7* (-0.9, -0.5)	-1.4* (-1.6, -1.3)
Dem Female	2001-09	-2.0* (-2.3, -1.7)	2009-19	-0.9* (-1.1, -0.7)	-1.4* (-1.5, -1.2)
Rep Male	2001-07	-1.7* (-2.2, -1.3)	2007-14	-0.6* (-1.1, -0.2)	-0.8* (-1, -0.5)
Rep Female	2001-07	-1.4* (-1.9, -1)	2007-19	-0.3* (-0.4, -0.1)	-0.7* (-0.8, -0.5)
Dem Black	2001-12	-2.3* (-2.5, -2.1)	2012-19	-0.2 (-0.5, 0.1)	-1.5* (-1.6, -1.3)
Dem White	2001-09	-1.8* (-2.1, -1.5)	2009-19	-0.5* (-0.7, -0.3)	-1.1* (-1.2, -0.9)
Dem Hispanic	2001-12	-1.8* (-2, -1.5)	2012-19	-0.4 (-0.8, 0)	-1.2* (-1.4, -1)
Rep Black	2001-13	-2.1* (-2.3, -1.9)	2013-19	0.3 (-0.2, 0.9)	-1.3* (-1.5, -1.1)
Rep White	2001-07	-1.3* (-1.8, -0.9)	2007-19	-0.1 (-0.3, 0)	-0.5* (-0.7, -0.4)
Rep Hispanic	2001-13	-2.4* (-2.6, -2.2)	2013-19	0.3 (-0.3, 0.9)	-1.5* (-1.7, -1.3)
Dem Large Metro	2001-10	-2.1* (-2.3, -2)	2010-19	-0.7* (-0.9, -0.5)	-1.4* (-1.6, -1.3)
Dem Medium Metro	2001-09	-1.7* (-2, -1.5)	2009-19	-0.4* (-0.6, -0.2)	-1.0* (-1.1, -0.8)
Dem Rural	2001-10	-2.1* (-2.5, -1.7)	2010-19	0.1 (-0.4, 0.5)	-1.0* (-1.3, -0.8)
Rep Large Metro	2001-11	-1.7* (-1.9, -1.4)	2011-19	0 (-0.3, 0.4)	-0.9* (-1.1, -0.7)
Rep Medium Metro	2001-09	-1.3* (-1.6, -1)	2009-19	-0.2 (-0.4, 0.1)	-0.7* (-0.9, -0.5)
Rep Rural	2001-07	-0.9* (-1.4, -0.5)	2007-19	-0.2 (-0.3, 0)	-0.4* (-0.6, -0.2)

\*APC/AAPC is significantly different from zero, with p<0.05; + Rep Male Trend 3: 2014-2019, 0.2 (-0.4,0.8)

**Online Table 4: Age Adjusted Mortality Rates per 100K Population and Averaged Annual Percentage Change (AAPC) in Counties that were Exclusively Democratic or Republican from 2001 to 2019**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	AMMR Difference (95% CI)	AAPC (%) (95% CI)
Democratic	838.4	829.9	815	786.1	782.4	761.2	743	736.9	711.1	704.4	698.6	688.1	684.9	675.4	683.3	680.6	678.8	671.3	663.8	174.6 (173.2, 176)	-1.3 (-1.4,-1.2)
Republican	882.5	887.4	878.7	846.6	853.7	826.7	812	816.7	791.9	794	787.3	781.2	781.2	776.6	785.2	778.8	785.3	776.8	767.3	115.2 (114.7, 115.7)	-0.8 (-0.9,-0.6)
<b>Democratic</b>																					
Male	1012.2	1002.7	981.3	946.4	938.7	914.4	892.9	881.9	853.3	844.7	834.1	822.2	816.6	807	814.6	815.6	812.4	804.3	796.9	215.3 (213.5, 217.1)	-1.3 (-1.4,-1.2)
Female	709.3	701.6	690	665.7	663.3	644.1	628.1	624.7	601.6	595.9	592.5	582.5	580.7	570.8	577.7	571.2	569.7	562.2	553.9	155.4 (149.5, 161.3)	-1.4 (-1.5,-1.2)
<b>Republican</b>																					
Male	1063.3	1065	1048	1007.2	1013	977.6	958.7	960.8	933.9	935.6	920.3	912.1	911.5	906.2	914.2	908.7	916.9	906.5	897.1	166.2 (165.4, 167)	-1.0 (-1.1,-0.8)
Female	743	749.5	744.6	718.5	725.5	703.6	691.3	697.5	674.7	676.7	675.1	670.1	669.4	664.8	672.7	665.2	669.7	662.3	652.2	90.8 (90.2, 91.4)	-0.7 (-0.9,-0.6)
<b>Democratic</b>																					
Black	1112.8	1103.6	1086.6	1052.2	1038.4	1013.4	987.6	963.3	923.3	902.6	888.6	875.2	871	857.2	861.9	872.2	866.7	868.1	860.6	252.2 (248.9, 255.5)	-1.4 (-1.7,-1.1)
White	817.4	811.1	796.2	771.7	768.5	749.4	733.7	731.3	708.6	704.9	704.9	692.9	692.4	687.3	696.5	692.4	694.9	685.2	676.4	141 (139.5, 142.5)	-1.0 (-1.1,-0.9)
Hispanic	650	636.1	637.3	603.3	619.9	600	579.2	578.1	556.9	551.8	538.1	536.6	529.5	516.7	519.4	523.7	516.5	514.3	516.9	133.1 (131.8, 134.4)	-1.3 (-1.5,-1.1)
<b>Republican</b>																					
Black	1140.9	1138.8	1131	1088.7	1084	1038.4	1018.4	993	971.4	965.5	930	918	919.8	899	906.8	909.6	910	912.8	900	240.9 (237.5, 244.3)	-1.4 (-1.6,-1.2)
White	871.4	877.1	869.5	838.6	846.8	821.6	808.6	816.2	791.4	795.5	792.7	787	788.4	785.3	795.1	789.8	797.1	788.4	778.8	92.6 (92.2, 93)	-0.6 (-0.8,-0.5)
Hispanic	689.8	695.3	666.2	640.8	644.9	604.9	596.3	586.4	566.1	566.1	541.1	541.7	534.8	528.6	529.5	519.2	532.8	529.8	527.2	162.6 (160.6, 164.6)	-1.6 (-1.8,-1.4)
<b>Democratic</b>																					
Large Metro	837.2	826.2	810.5	782	776.9	755.6	736	729.8	701.8	694.5	687.8	675.3	671	660.5	667.8	666.5	662.6	654.7	646.3	190.9 (188.2, 193.6)	-1.4 (-1.5,-1.3)
Small-Med Metro	825.5	825.9	814.5	783.4	784.1	762.3	746.5	741.9	723.4	718.3	715.7	710.8	710.9	704.7	713.4	707	712.1	706.3	701.6	123.9 (122.6, 125.2)	-0.9 (-1.1,-0.8)
Rural	933	925.6	908.2	883.2	883.9	866.4	860.9	849	825.7	823	818.7	814	815.4	812.7	827	818.8	821.5	813.3	808.7	124.3 (120.7, 127.9)	-0.8 (-0.9,-0.6)
<b>Republican</b>																					
Large Metro	863.5	865.6	846.8	816.1	819.7	786	768	768.7	743.3	748.6	738.5	729.5	724.6	718.5	724.3	719.5	728.4	717.8	708.3	155.2 (154.2, 156.2)	-1.1 (-1.3,-1.0)
Small-Med Metro	874.2	875.2	872.8	839.8	847.4	823.1	806.7	807.2	784.4	787.1	778.3	774.6	775.6	772.2	779.1	773.4	779.9	772.4	760.5	113.7 (113, 114.4)	-0.8 (-0.9,-0.6)
Rural	910.4	922.6	914.4	883.1	893	868.3	858.6	872.7	847.2	846.8	846.9	841.3	845	841.5	856.5	849	854.3	848.4	843.4	67 (66.4, 67.6)	-0.4 (-0.6,-0.3)

<b>Online Table 5: Joinpoint Analysis Assessing Inflection Point of AAMR per 100K Population Trends for Exclusively Democratic and Republican Counties from 2001 to 2019</b>					
	<b>Trend 1</b>		<b>Trend 2</b>		
	<b>Years</b>	<b>APC (CI)</b>	<b>Years</b>	<b>APC (CI)</b>	<b>AAPC (CI)</b>
Democratic	2001-10	-2.1* (-2.2, -1.9)	2010-19	-0.6* (-0.7, -0.4)	-1.3* (-1.4, -1.2)
Republican	2001-10	-1.4* (-1.6, -1.1)	2010-19	-0.2 (-0.4, 0.1)	-0.8* (-0.9, -0.6)
Dem Male	2001-11	-2.1* (-2.2, -1.9)	2011-19	-0.4* (-0.6, -0.2)	-1.3* (-1.4, -1.2)
Dem Female	2001-10	-2.0* (-2.2, -1.8)	2010-19	-0.7* (-0.9, -0.5)	-1.4* (-1.5, -1.2)
Rep Male	2001-10	-1.7* (-1.9, -1.4)	2010-19	-0.2* (-0.5, 0)	-1.0* (-1.1, -0.8)
Rep Female	2001-09	-1.3* (-1.6, -1)	2009-19	-0.3* (-0.5, -0.1)	-0.7* (-0.9, -0.6)
Dem Black	2001-03	-1.2 (-3.5, 1.1)	2003-12	-2.5* (-2.7, -2.2)	-1.4* (-1.7, -1.1)
Dem White	2001-10	-1.7* (-1.9, -1.5)	2010-19	-0.3* (-0.5, -0.1)	-1.0* (-1.1, -0.9)
Dem Hispanic	2001-13	-1.8* (-2, -1.6)	2013-19	-0.3 (-0.9, 0.3)	-1.3* (-1.5, -1.1)
Rep Black	2001-12	-2.2* (-2.4, -1.9)	2012-19	-0.2 (-0.6, 0.2)	-1.4* (-1.6, -1.2)
Rep White	2001-09	-1.3* (-1.6, -1)	2009-19	-0.1 (-0.3, 0.1)	-0.6* (-0.8, -0.5)
Rep Hispanic	2001-11	-2.5* (-2.9, -2.2)	2011-19	-0.4 (-0.8, 0)	-1.6* (-1.8, -1.4)
Dem Large Metro	2001-11	-2.1* (-2.3, -1.9)	2011-19	-0.6* (-0.8, -0.3)	-1.4* (-1.5, -1.3)
Dem Medium Metro	2001-10	-1.7* (-1.9, -1.5)	2010-19	-0.2 (-0.4, 0)	-0.9* (-1.1, -0.8)
Dem Rural	2001-10	-1.4* (-1.6, -1.2)	2010-19	-0.1 (-0.3, 0.1)	-0.8* (-0.9, -0.6)
Rep Large Metro	2001-09	-2.0* (-2.3, -1.7)	2009-19	-0.5* (-0.7, -0.2)	-1.1* (-1.3, -1)
Rep Medium Metro	2001-2010	-1.4* (-1.6, -1.1)	2010-2019	-0.2 (-0.4, 0.1)	-0.8* (-0.9, -0.6)
Rep Rural	2001-10	-1.0* (-1.2, -0.7)	2010-19	0.1 (-0.2, 0.4)	-0.4* (-0.6, -0.3)

\*APC/AAPC is significantly different from zero, with p<0.05; + Dem Black Trend 3: 2012-2019, 0 (-0.3,0.3)

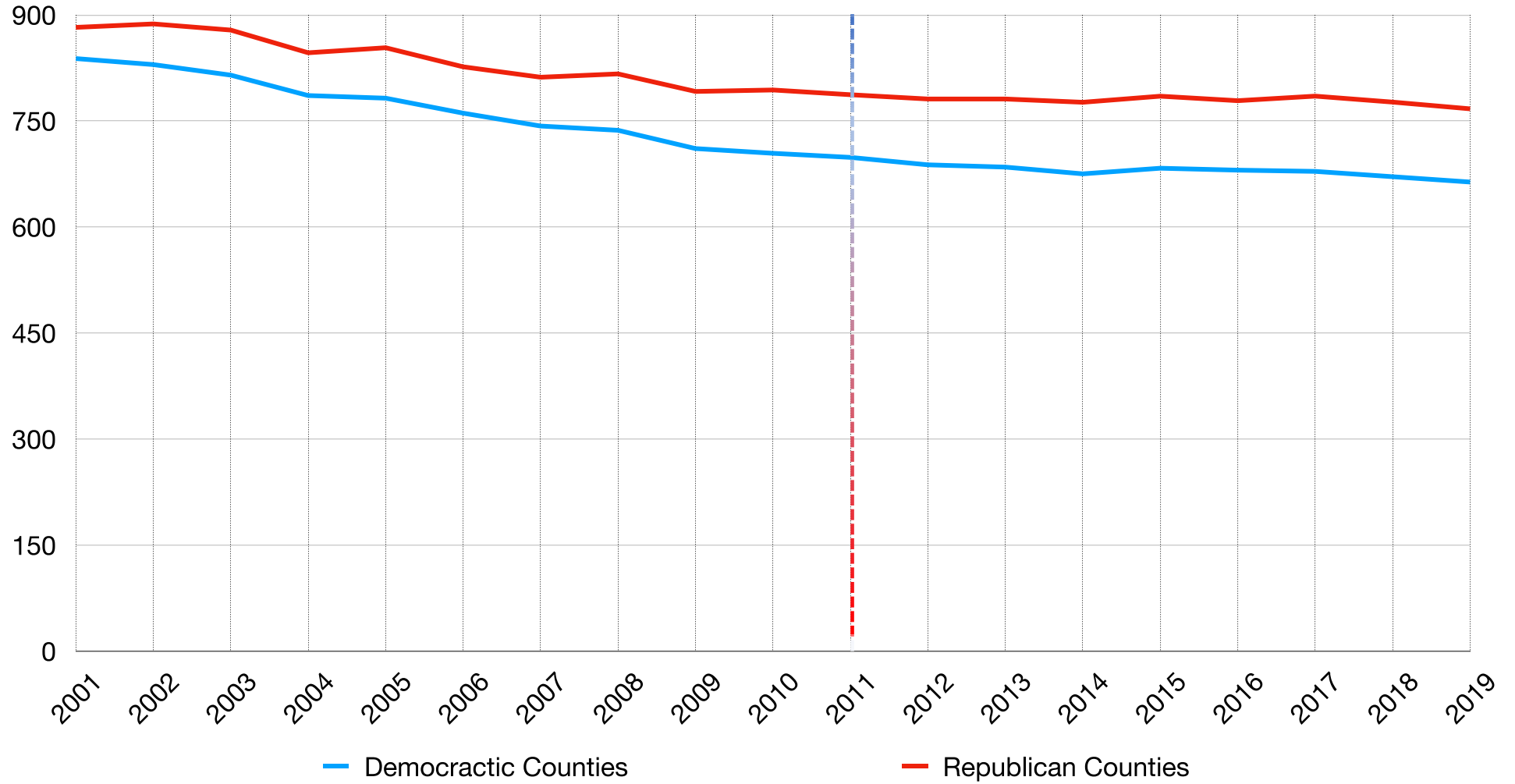
**Online Table 6: Age Adjusted Mortality Rates per 100K Population for Counties voting for Democratic or Republican Governors by State Group from 2001 to 2019**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Democratic States</b>																			
Group A	806	786.4	748.1	736	775.6	720.8	732.4	715.9	691.6	690.4	704.6	684	648.7	700.1	709.4	713.5	708.8	707.7	716
Group B	848.7	842.1	836.9	807.2	807.7	786.5	765.6	764.6	737.9	733.9	702.8	695.4	690.5	681.5	669.1	665.5	662.4	654.2	668.7
Group C	891.2	883.5	876.5	845.7	859.3	838.3	824.2	825.8	789	783.2	778.4	766	777.4	776.3	783.7	778.5	762.6	746.2	742
Group D	1005	1021.7	995.8	1008.9	1033	999.8	974	935.1	917.4	921.9	917.7	913.7	904.9	910.8	923.3	904.6	902	887.7	884.5
Group E	894.1	851.5	841.6	805.5	799.1	762.2	749.5	737.9	707.9	724	717	699.9	707.5	670.1	677.7	671.9	670.1	663.3	654.2
<b>Republican States</b>																			
Group A	852.4	830.1	777.6	777.4	756	736.5	734.6	721.4	683.2	718.7	727.8	715.3	763.3	741.5	728.1	724.3	721.5	712.9	689
Group B	846.7	846.5	828.2	800.8	800.5	777.8	762.5	761.2	738.9	737.5	751.3	740.9	743.9	737.1	756.8	751.9	758.9	750.8	735
Group C	866.3	869.7	864.7	825.5	832.7	808.4	791.7	805.2	788.1	790.7	787.2	789	773.1	765.9	780.8	772	798	787.6	778.5
Group D	1020.9	1018.1	1021.4	943.2	975.1	930.8	913.1	956.2	922.5	923.2	910.2	917.9	919.5	909.1	910.9	922.4	926.3	916.4	908.8
Group E	825.7	814.7	809.6	771.6	779.3	775	758.2	757.1	734.7	709.3	712.5	703	694.7	698.6	698.8	699	702.1	743.7	728.3

**Group A** includes only New Hampshire and Vermont, which hold their gubernatorial elections every even numbered year (e.g. 2002, 2004, 2006 and so forth). The other 48 states hold gubernatorial elections every four years. **Group B** includes Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Wisconsin, Wyoming and Washington DC. Group B states hold their gubernatorial elections during a midterm election year. Recent years are 2002, 2006, 2010, 2014, and 2018. **Group C** includes Delaware, Indiana, Missouri, Montana, North Carolina, North Dakota, Utah, Washington and West Virginia; Group C states hold their gubernatorial elections during a presidential election year and recent years are 2004, 2008, 2012 and 2016. **Group D** includes Kentucky, Louisiana, and Mississippi; Group D states hold their gubernatorial elections the year before a presidential election year. Recent years are 2007, 2011, 2015, and 2019. **Group E** includes New Jersey and Virginia, which hold their gubernatorial elections the year after a presidential election year. Recent years are 2005, 2009, 2013, and 2017.

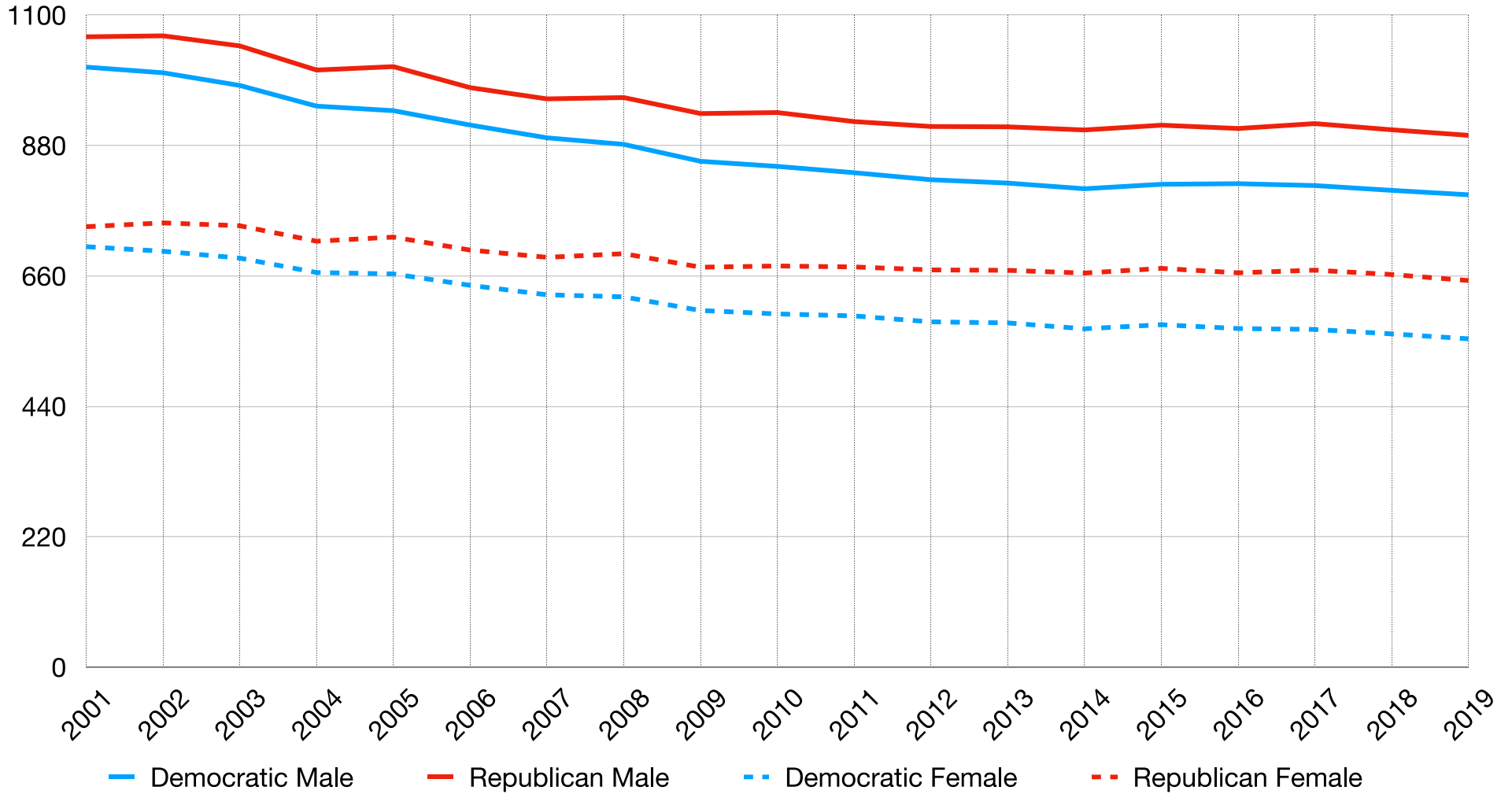
**Online Figure 1:** Trends in Age-Adjusted Mortality per 100K Population of Residents of Counties Voting Exclusively for Democratic or Republican Presidential Candidates. Dashed line indicates inflection point for both Exclusively Republican and Democratic counties.

**Online Figure 1**



**Online Figure 2:** Trends in Age-Adjusted Mortality Rates per 100K Population of Residents of Counties Exclusively Voting for Democratic or Republican Presidential Candidates by Sex.

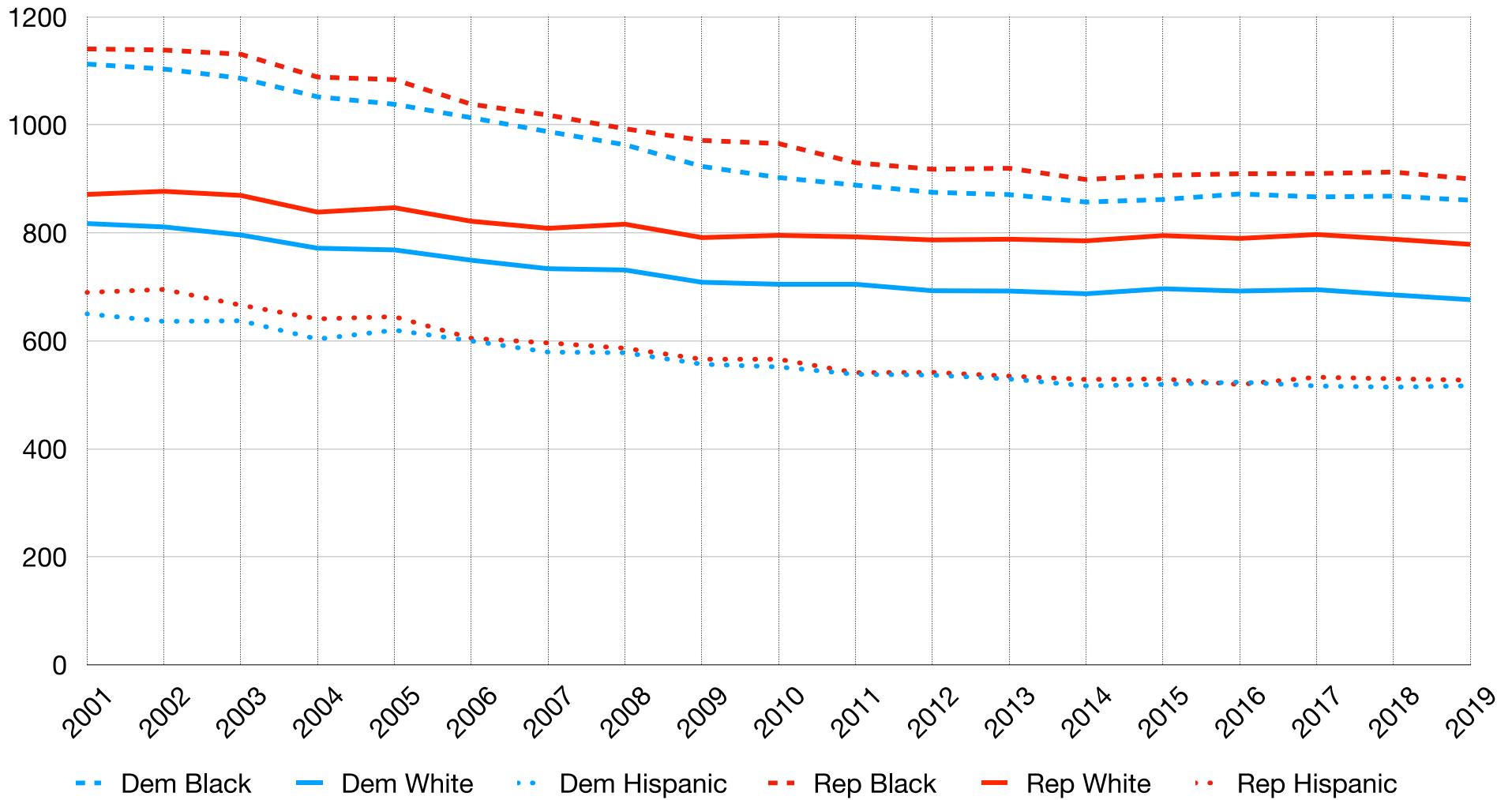
**Online Figure 2**





**Online Figure 3:** Trends in Age-Adjusted Mortality Rates per 100K Population of Residents of Counties Exclusively Voting for Democratic or Republican Presidential Candidates by Race/Ethnicity.

**Online Figure 3**



**Online Figure 4:** Trends in Age-Adjusted Mortality Rates per 100K Population of Residents of Counties Voting Exclusively for Democratic or Republican Presidential Candidates by Urban-Rural Location.

**Online Figure 4**

