Supplemental Information for

Disappearing Day-of-Week Ozone Patterns in US Nonattainment areas

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Extra figures showing area-specific observed and modeled ozone distributions, modeled NO_X distributions, modeled formaldehyde distributions and trends in $\Delta\overline{O_{3,DOW}}$

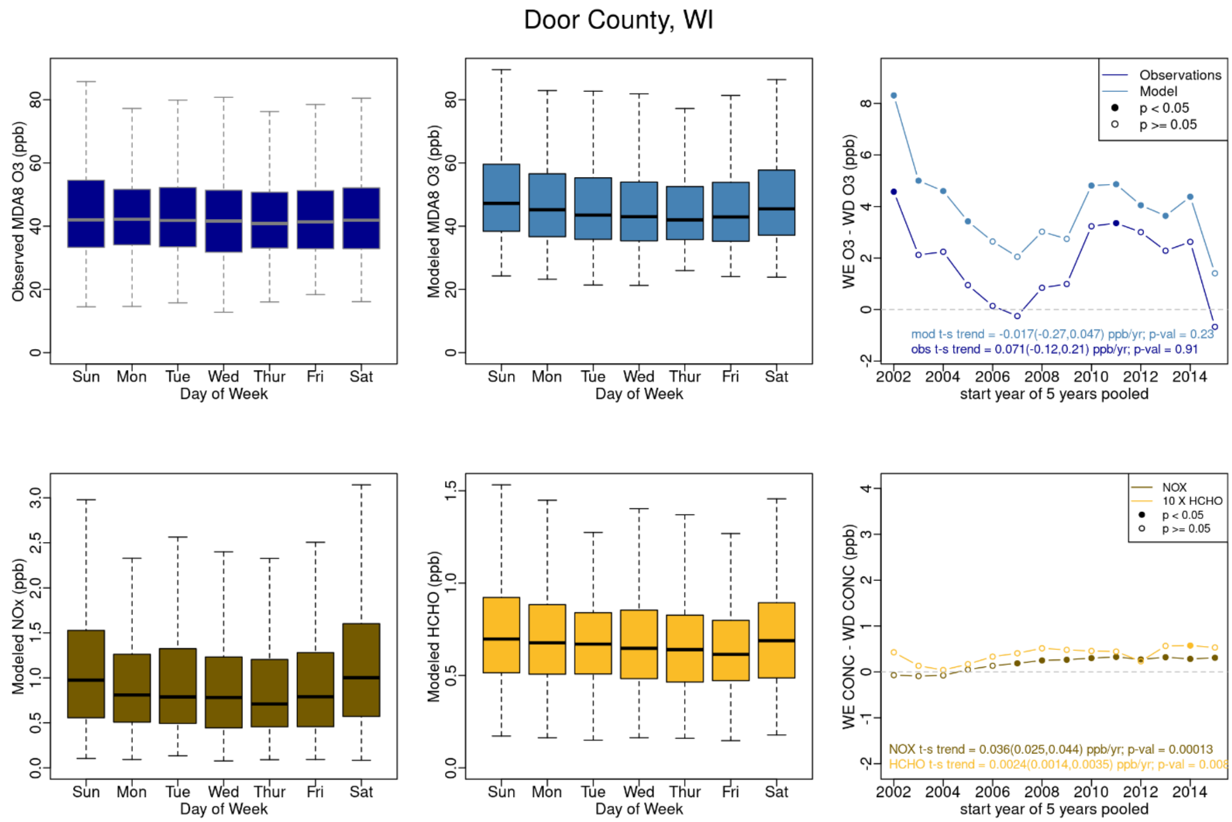


Figure S-1. Door County, WI nonattianment area 2002-2019 May-Sep: observed (top left) and modeled (top center) MDA8 ozone distribution by day of week; modeled NO_X (bottom left) and modeled formaldehyde (bottom center) distribution by day of week; observed and modeled trends in $\Delta\overline{O_{3,DOW}}$ (top right); modeled trends in WE-WD NO_X and formaldehyde differences (bottom right). The distributions by day of the week are for the entire 18 years with each box representing the 25th to 75th percentile for that day of the week across all 18 years, the whiskers representing the 1.5 times the interquartile range, and the bold line inside the box representing the median. WE-WD differences (top and bottom right) are based on 5-year rolling periods.

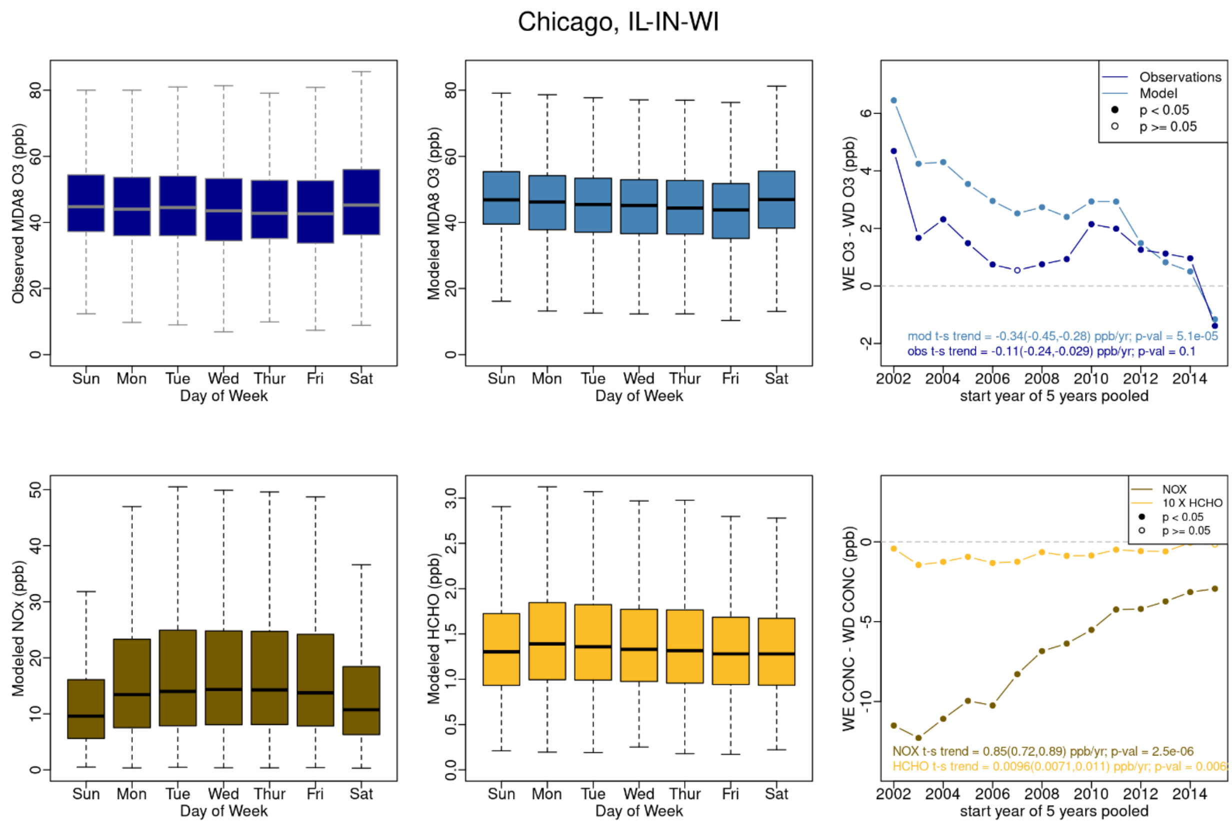


Figure S-2. Chicago area 2002-2019 May-Sep: observed (top left) and modeled (top center) MDA8 ozone distribution by day of week; modeled NO_X (bottom left) and modeled formaldehyde (bottom center) distribution by day of week; observed and modeled trends in $\Delta\overline{O_{3,DOW}}$ (top right); modeled trends in WE-WD NO_X and formaldehyde differences (bottom right). The distributions by day of the week are for the entire 18 years with each box representing the 25th to 75th percentile for that day of the week across all 18 years, the whiskers representing the 1.5 times the interquartile range, and the bold line inside the box representing the median. WE-WD differences (top and bottom right) are based on 5-year rolling periods.

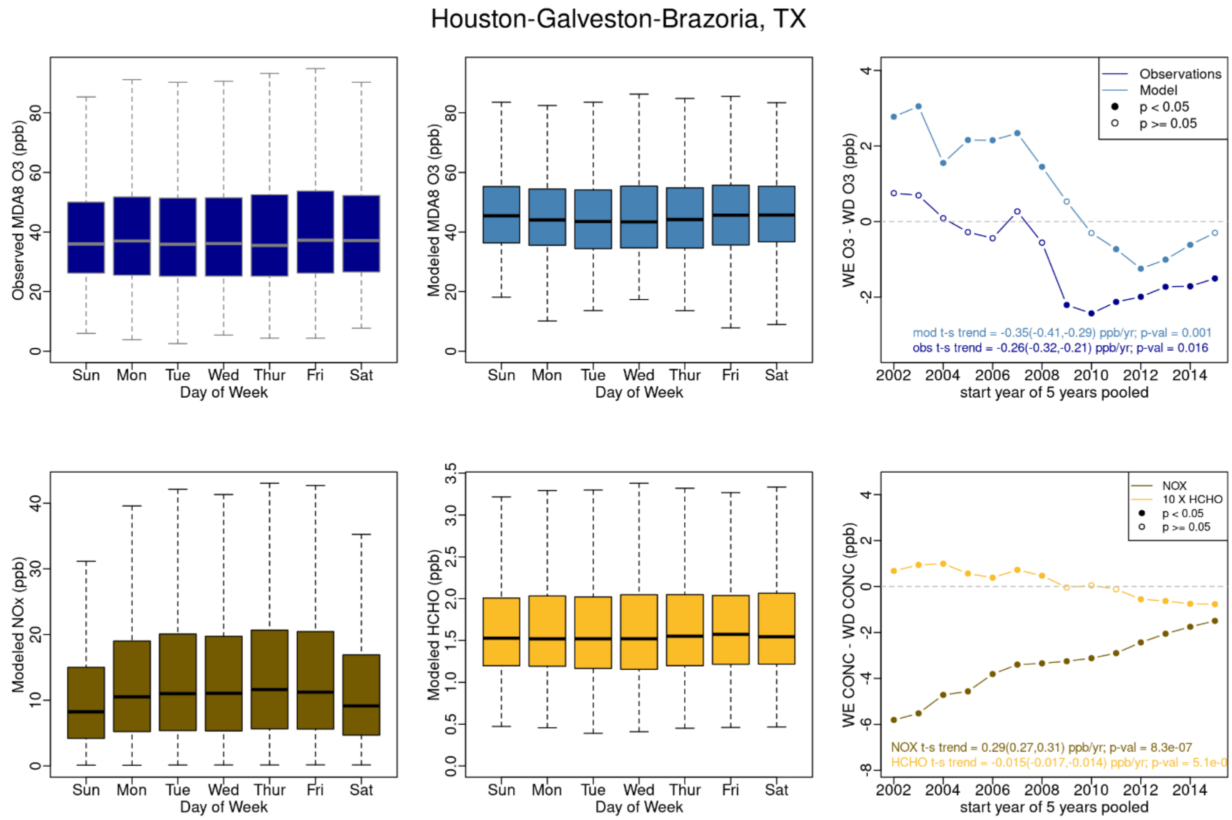


Figure S-3. Houston area 2002-2019 May-Sep: observed (top left) and modeled (top center) MDA8 ozone distribution by day of week; modeled NO_X (bottom left) and modeled formaldehyde (bottom center) distribution by day of week; observed and modeled trends in $\Delta\overline{O_{3,DOW}}$ (top right); modeled trends in WE-WD NO_X and formaldehyde differences (bottom right). The distributions by day of the week are for the entire 18 years with each box representing the 25th to 75th percentile for that day of the week across all 18 years, the whiskers representing the 1.5 times the interquartile range, and the bold line inside the box representing the median. WE-WD differences (top and bottom right) are based on 5-year rolling periods.

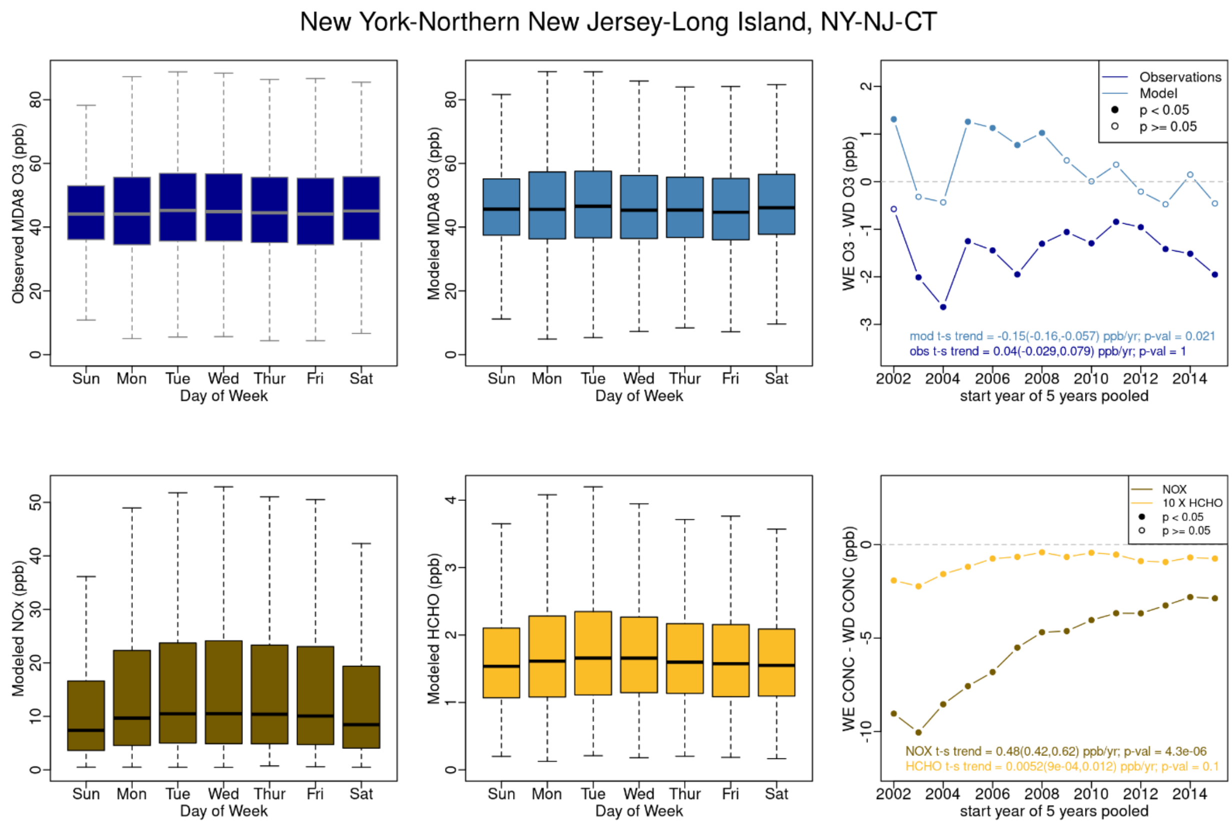
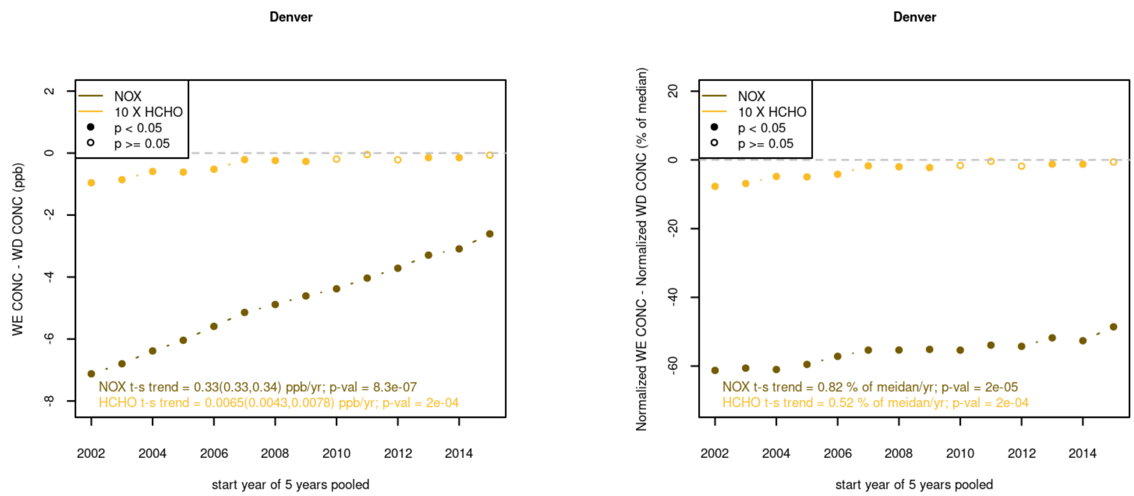


Figure S-4. New York City nonattainment area 2002-2019 May-Sep: observed (top left) and modeled (top center) MDA8 ozone distribution by day of week; modeled NO_X (bottom left) and modeled formaldehyde (bottom center) distribution by day of week; observed and modeled trends in $\Delta\overline{O_{3,DOW}}$ (top right); modeled trends in WE-WD NO_X and formaldehyde differences (bottom right). The distributions by day of the week are for the entire 18 years with each box representing the 25^{th} to 75^{th} percentile for that day of the week across all 18 years, the whiskers representing the 1.5 times the interquartile range, and the bold line inside the box representing the median. WE-WD differences (top and bottom right) are based on 5-year rolling periods.

Extra figures showing absolute and relative trends in WE-WD differences for modeled NO_X and formaldhyde



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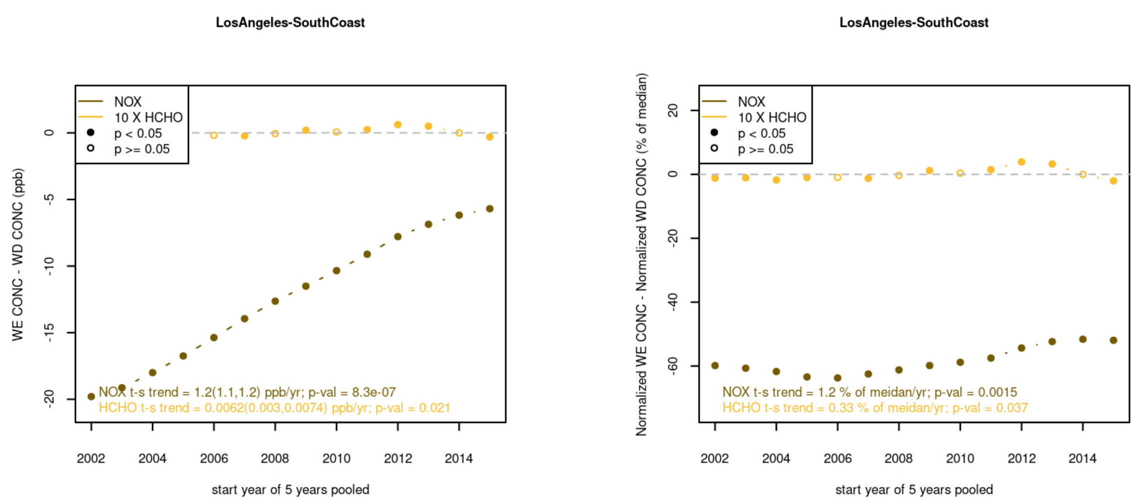

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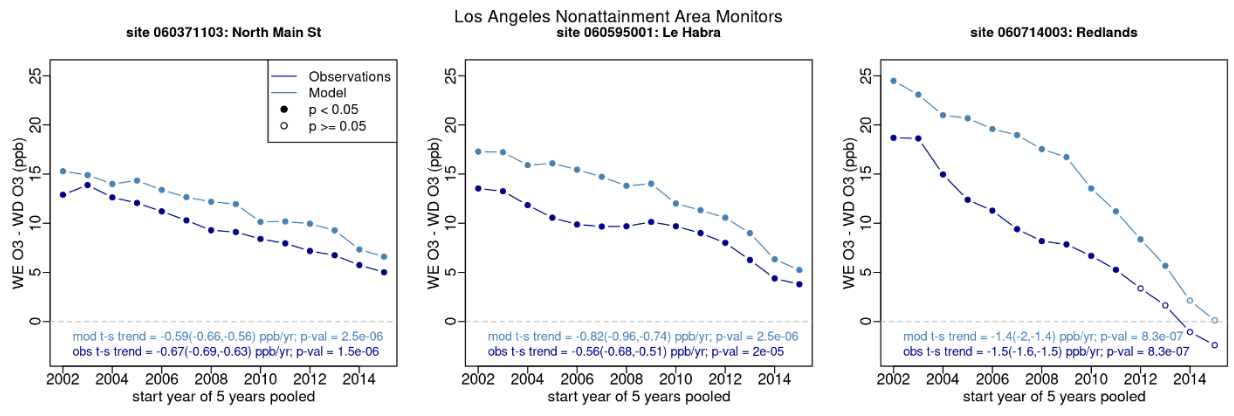
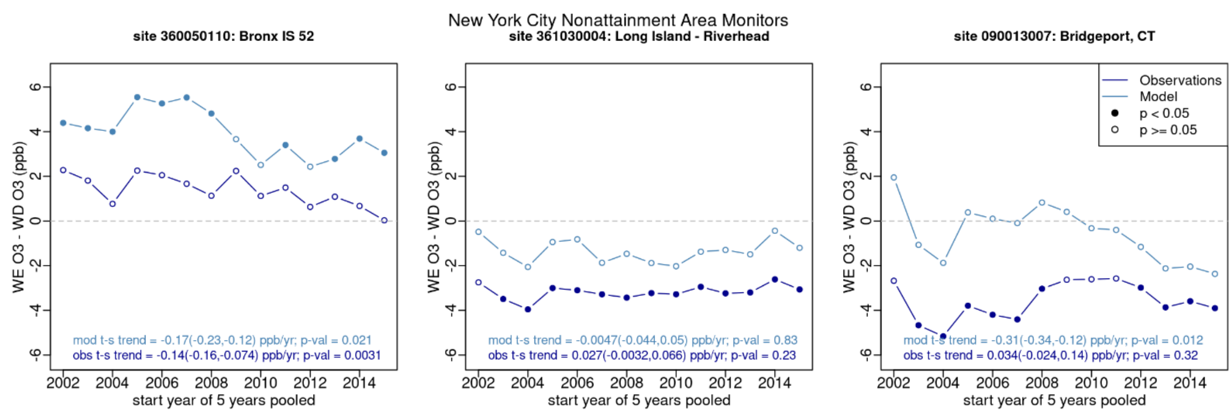
Extra figures showing monitor-level trends in $\Delta\overline{O_{3,DOW}}$



Figures S-7. Observed and modeled May-Sep trends in $\Delta\overline{O_{3,DOW}}$ at 3 Los Angeles area monitoring locations for 2002-2019.



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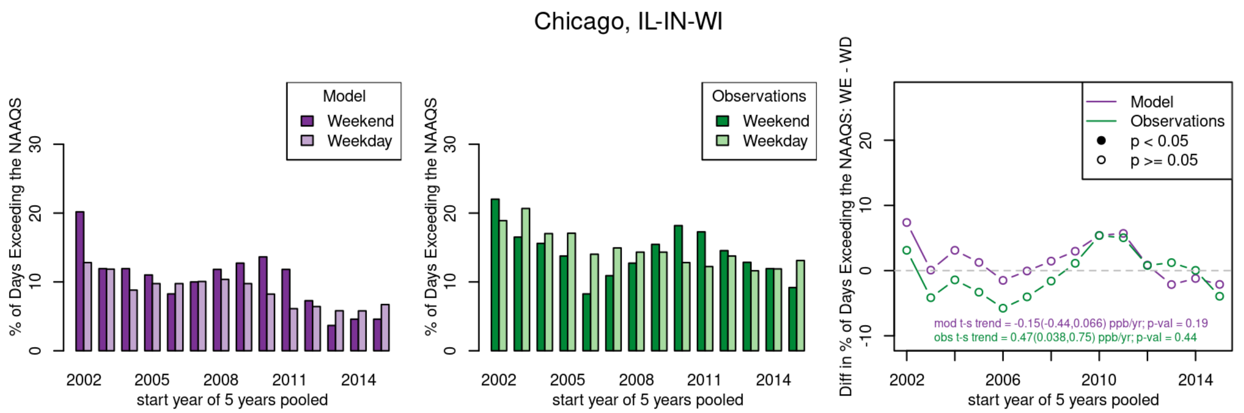
Extra figures showing area-specific percentage of days exceeding the NAAQS on weekends and weekdays and trends in $\Delta O_{3,DOW,\%>70}$



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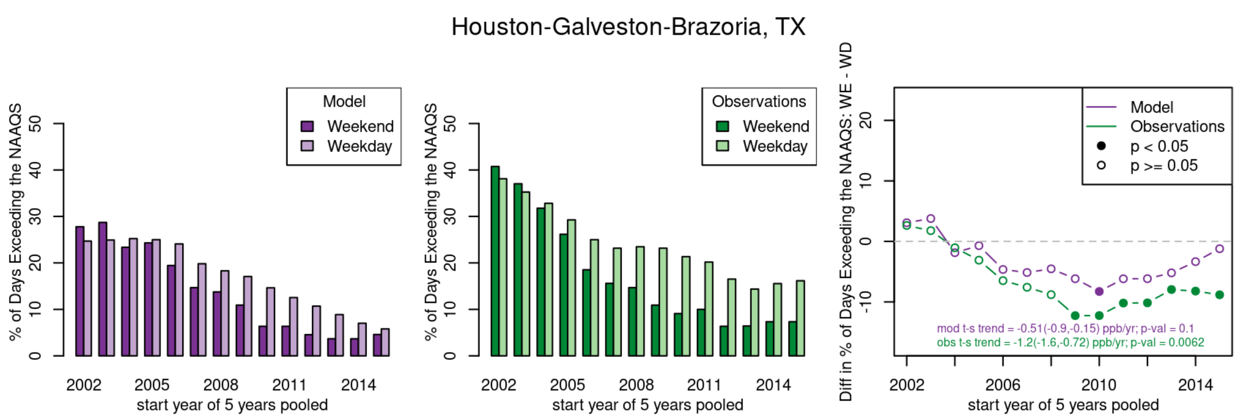
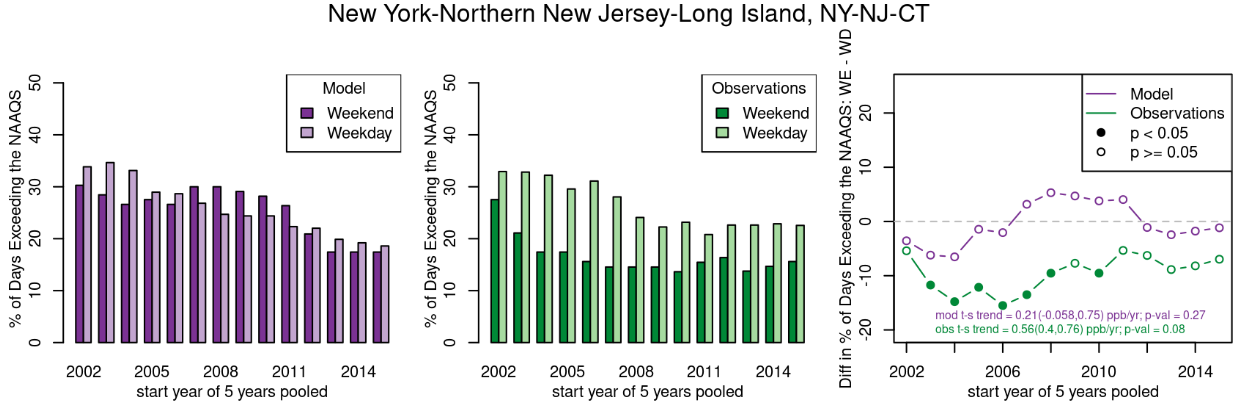


Figure S-10. Modeled (left) and observed (center) percent of days with MDA8 ozone exceeding 70 ppb at any monitor within the Houston nonattainment area during May-Sep on weekends and weekdays for 5-year rolling periods between 2002-2019; Observed and modeled trends in May-Sep $\Delta O_{3,DOW,\%>70}$ at Houston area monitors for 5-year rolling periods between 2002-2019 (right).



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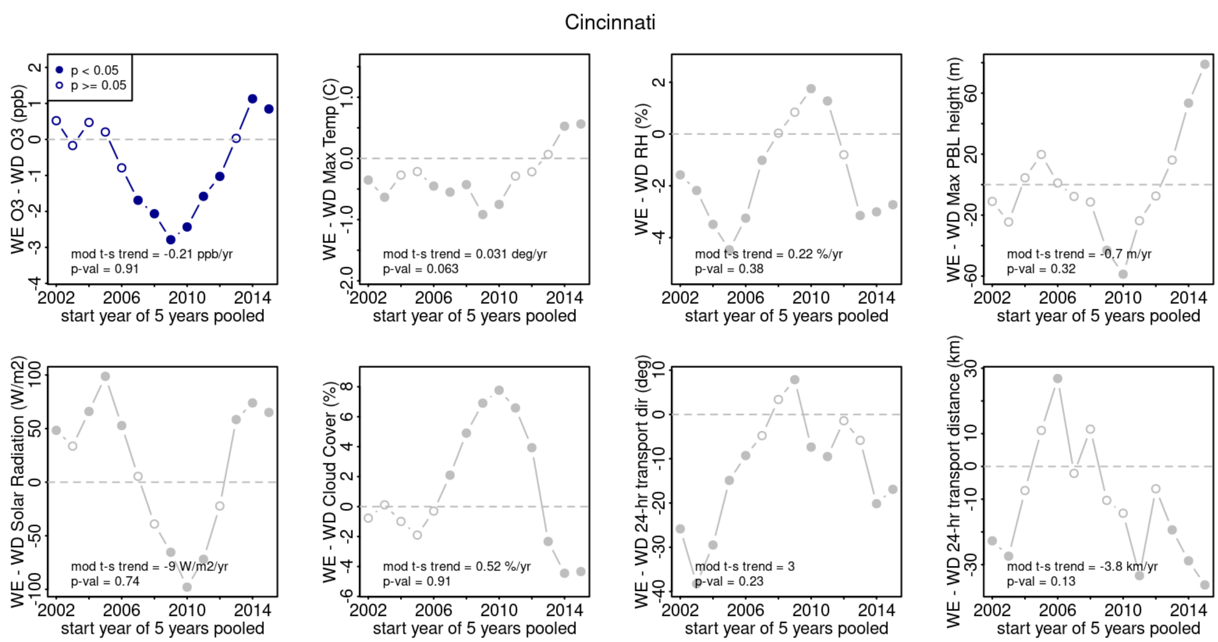
Extra figures showing relationships between WE-WD patterns in meteorology and $\Delta\overline{O_{3,DOW}}$



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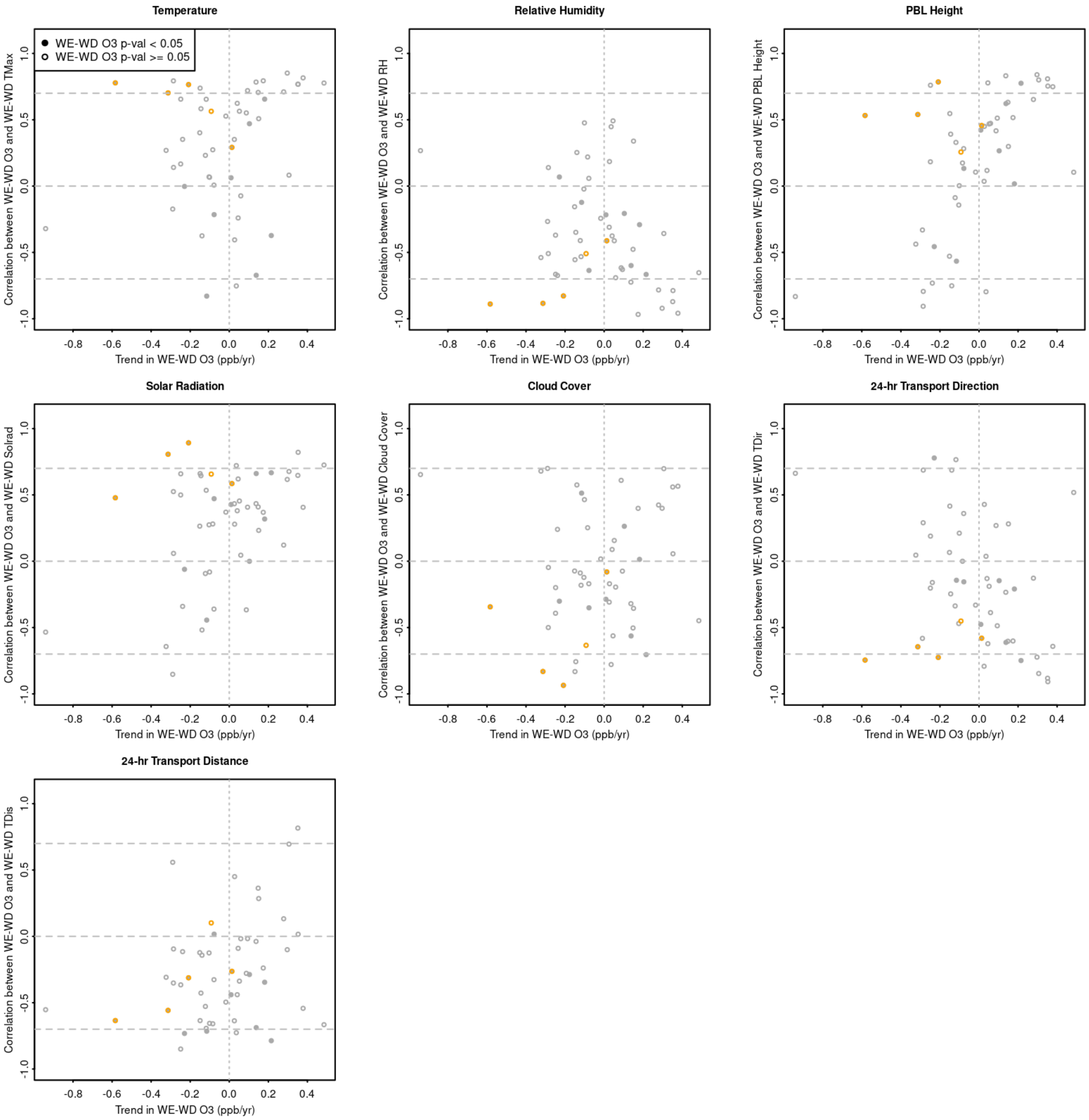

S-13. Nonattainment areas plotted by correlation coefficient between $\Delta\overline{O_{3,DOW}}$ and WE-WD differences in daily meteorology variables (y-axis) and trends in WE-WD mean ozone differences. Cincinnati, Louisville, Columbus, St. Louis, and Atlanta nonattainment areas shown in orange. All other nonattainment areas shown in gray. Solid circles indicate areas with statistically significant $\Delta\overline{O_{3,DOW}}$ trends and open circles indicate areas with non-significant trends. Top and bottom dashed lines show correlation coefficients of ±0.7 ($r^2 = 0.49$) such that points falling above and below these lines indicate areas for which the variation in WE-WD meteorology differences could explain 49% or more of the variations in WE-WD ozone differences.

Extra figures showing CMAQ MDA8 O_3 Normalized Mean Bias by season, region, and year

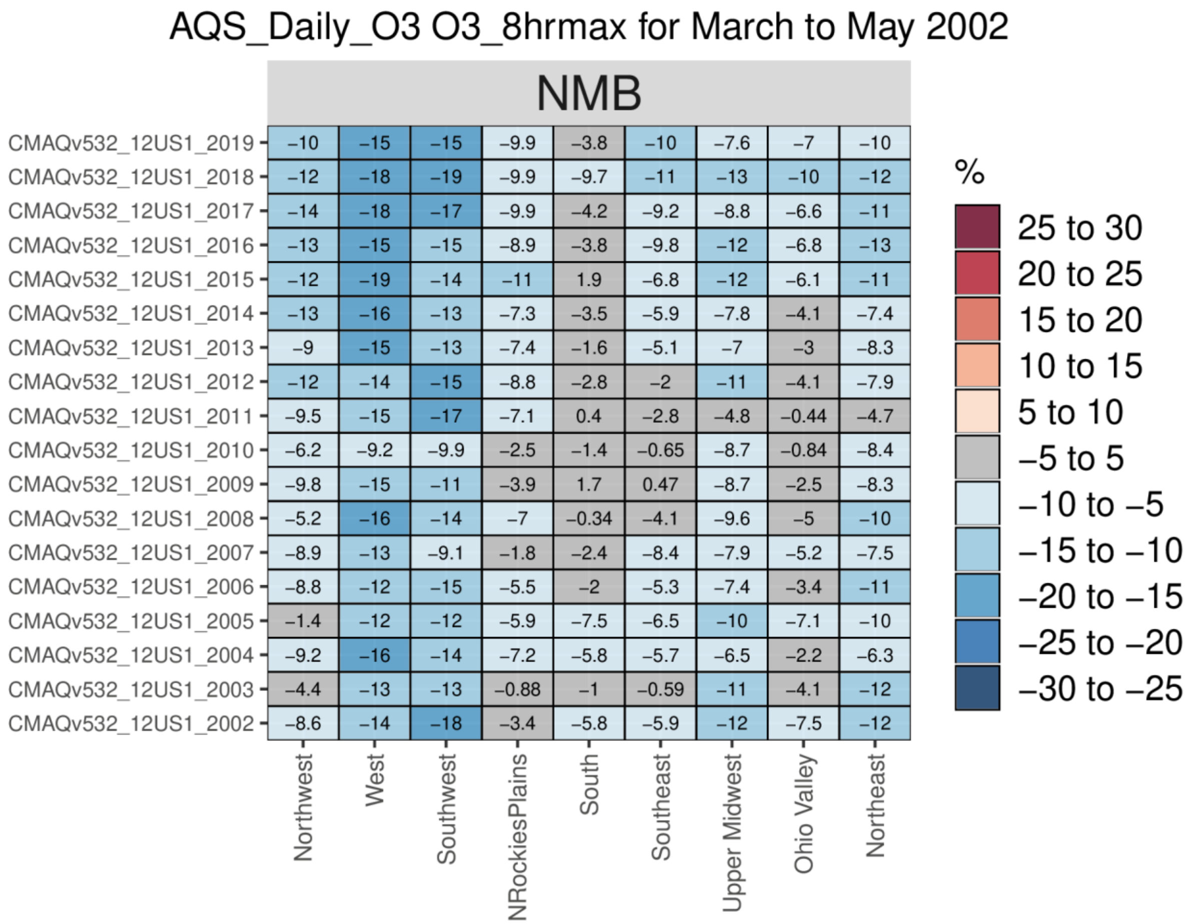

Figure S-14. EQUATES Mar-May MDA8 O_3 Normalized Mean Bias (%) by year and NOAA climate region.

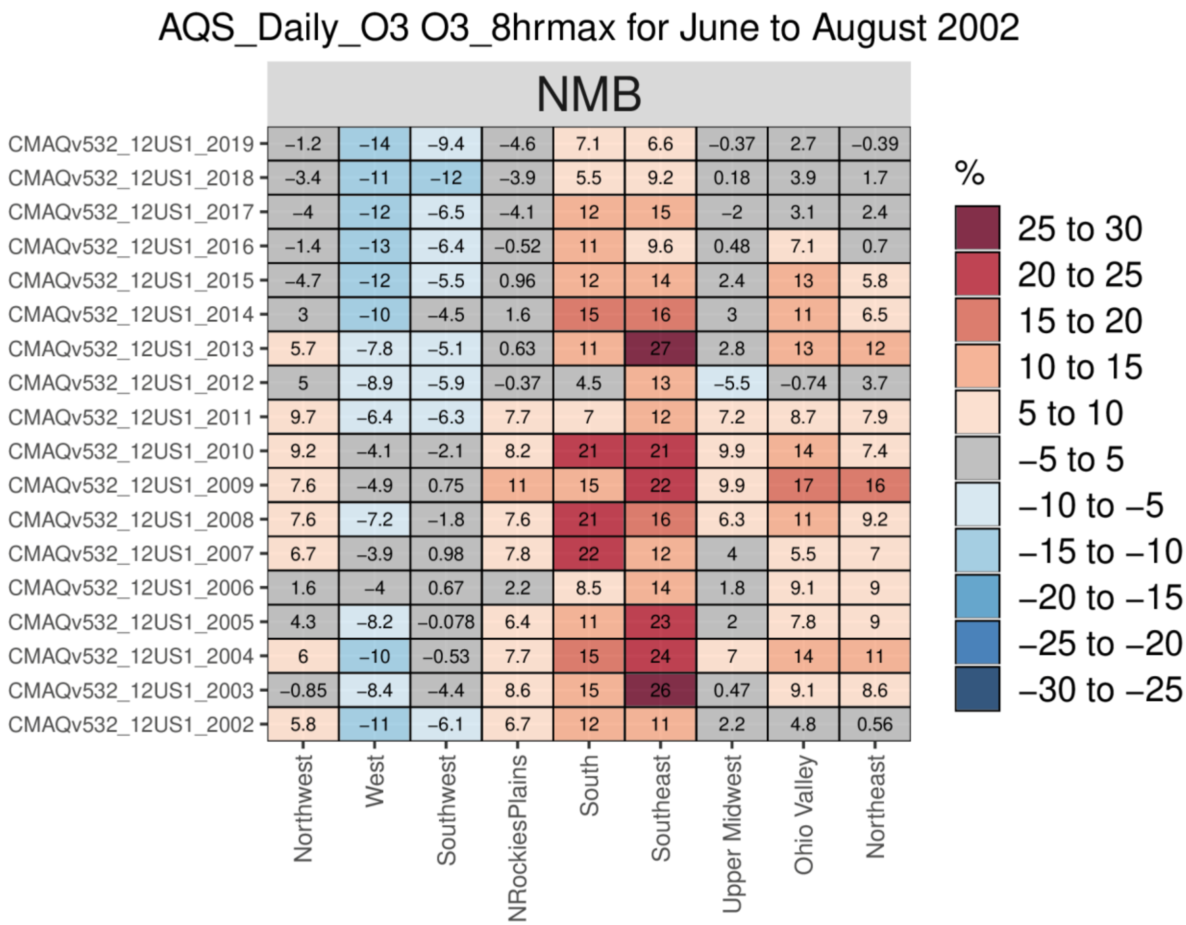

Figure S-15. EQUATES Jun-Aug MDA8 O_3 Normalized Mean Bias (%) by year and NOAA climate region.

Tables of results for each nonattainment area included in this analysis

Table S-1. Mean WE-WD MDA8 O_3 difference ($\Delta\overline{O_{3,DOW}}$) and trends in each US nonattainment area

region	Nonattainment area	Observed trends (95% CI)	Modeled trends (95% CI)	Observed $\Delta\overline{O_{3,DOW}}$		Modeled $\Delta\overline{O_{3,DOW}}$	
				2002-2006	2015-2019	2002-2006	2015-2019
Northeast	Greater Connecticut, CT	0.179 (0.052,0.197) p-val = 0.101	-0.155 (-0.175,-0.034) p-val = 0.08	-2.44	-3.11	0.54	-1.71
	Washington, DC-MD-VA	-0.016 (-0.109,0.12) p-val = 0.743	0.029 (-0.035,0.066) p-val = 0.381	-2.18	-2.34	-2.36	-1.12
	Baltimore, MD	0.129 (0.073,0.159) p-val = 0.006	0.085 (0.023,0.134) p-val = 0.125	-3.00	-2.79	-2.59	-1.29
	New York-Northern New Jersey-Long Island, NY-NJ-CT	0.04 (-0.029,0.079) p-val = 1	-0.15 (-0.16,-0.057) p-val = 0.021	-0.58	-1.95	1.31	-0.46
	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE	0.185 (0.128,0.225) p-val = 0.001	-0.009 (-0.067,0.064) p-val = 0.743	-2.35	-2.02	-1.64	-1.01
Upper Midwest	Allegan County, MI	0.066 (-0.089,0.191) p-val = 0.743	-0.178 (-0.292,-0.143) p-val = 0.006	2.59	-2.89	3.67	-2.00
	Berrien County, MI	-0.007 (-0.162,0.084) p-val = 0.381	-0.156 (-0.232,-0.091) p-val = 0.004	2.27	-3.35	3.11	-1.79

	Detroit, MI	0.137 (-0.072,0.252) p-val = 0.913	-0.257 (-0.339,-0.125) p-val = 0.006	3.81	-1.48	5.64	-1.41
	Muskegon County, MI	0.123 (-0.092,0.212) p-val = 1	-0.17 (-0.29,-0.092) p-val = 0.009	3.67	-2.11	5.31	-1.32
	Door County, WI	0.071 (-0.116,0.214) p-val = 0.913	-0.017 (-0.271,0.047) p-val = 0.228	4.57	-0.67	8.31	1.41
	Manitowoc County, WI	-0.099 (-0.253,-0.017) p-val = 0.08	-0.387 (-0.597,-0.233) p-val = 0.002	5.73	-0.56	8.96	0.69
	Milwaukee, WI	-0.302 (-0.435,-0.212) p-val = 0.001	-0.416 (-0.486,-0.345) p-val < 0.001	6.08	-0.90	6.84	0.20
	Sheboygan County, WI	0.016 (-0.205,0.105) p-val = 0.443	-0.179 (-0.325,-0.099) p-val = 0.004	6.71	-0.65	5.38	-0.52
Ohio Valley	Chicago, IL-IN-WI	-0.112 (-0.239,-0.029) p-val = 0.101	-0.341 (-0.446,-0.284) p-val < 0.001	4.69	-1.39	6.45	-1.16
	Louisville, KY-IN	-0.31 (-0.469,-0.118) p-val = 0.189	-0.349 (-0.444,-0.051) p-val = 0.125	0.45	-0.44	1.03	-0.92
	St. Louis, MO-IL	-0.633 (-0.811,0.02) p-val = 0.274	-0.18 (-0.296,-0.075) p-val = 0.049	2.13	-1.68	2.18	-0.49
	Cleveland, OH	0.077 (-0.064,0.126) p-val = 0.511	0 (-0.117,0.044) p-val = 0.324	2.09	-1.44	2.81	-0.71
	Columbus, OH	-0.068 (-0.132,0.018) p-val = 0.443	0.085 (0.027,0.132) p-val = 0.274	0.89	-0.32	0.99	-0.44
	Cincinnati, OH-KY	-0.218 (-0.283,0.057) p-val = 0.913	-0.163 (-0.288,-0.015) p-val = 0.189	0.60	0.84	1.83	-0.80
South and Southeast	Atlanta, GA	0.047 (-0.063,0.149) p-val = 0.274	-0.186 (-0.261,-0.063) p-val = 0.155	-5.06	-2.74	-3.02	-3.66
	Dallas-Fort Worth, TX	-0.086 (-0.116,-0.015) p-val = 0.155	-0.142 (-0.207,-0.092) p-val = 0.001	-1.64	-2.48	0.91	-1.28
	Houston-Galveston-Brazoria, TX	-0.262 (-0.316,-0.213) p-val = 0.016	-0.348 (-0.412,-0.288) p-val = 0.001	0.75	-1.50	2.77	-0.30
	San Antonio, TX	-0.155 (-0.196,-0.116) p-val = 0.101	-0.159 (-0.186,-0.121) p-val = 0.001	-1.60	-1.87	0.09	-1.82
Southwest	Phoenix-Mesa, AZ	-0.147 (-0.173,-0.1) p-val < 0.001	-0.223 (-0.358,-0.152) p-val < 0.001	0.80	-1.81	1.76	-1.87
	Yuma, AZ	0.025 (-0.059,0.06) p-val = 1	0.006 (-0.073,0.028) p-val = 0.902	NA	-1.00	NA	-0.84
	Denver Metro/North Front Range, CO	-0.226 (-0.306,-0.173) p-val < 0.001	-0.286 (-0.297,-0.268) p-val < 0.001	3.59	-1.22	2.96	-0.51
	Dona Ana County (Sunland Park), NM	0.128 (0.083,0.152) p-val = 0.029	0.138 (0.079,0.196) p-val = 0.08	0.19	1.48	-0.53	0.26
	Northern Wasatch Front, UT	-0.158 (-0.185,-0.145) p-val < 0.001	-0.131 (-0.173,-0.125) p-val < 0.001	2.48	-0.12	2.87	0.21
	Southern Wasatch Front, UT	-0.154 (-0.189,-0.131) p-val < 0.001	-0.187 (-0.202,-0.145) p-val < 0.001	2.45	-0.44	2.40	0.05
	Uinta Basin, UT	0.067 (0.005,0.104) p-val = 0.466	-0.008 (-0.029,0.021) p-val = 0.348	NA	-0.50	NA	-0.76
West	Amador County, CA	0.354 (0.214,0.415) p-val = 0.003	0.286 (0.24,0.319) p-val < 0.001	-4.48	-2.13	-5.00	-2.66
	Butte County, CA	0.145 (0.097,0.165) p-val = 0.004	0.134 (0.122,0.152) p-val = 0.001	-3.24	-2.74	-4.68	-3.29
	Calaveras County, CA	0.302 (0.217,0.337) p-val < 0.001	0.256 (0.206,0.283) p-val < 0.001	-5.69	-2.31	-4.27	-2.44
	Imperial County, CA	-0.167 (-0.224,-0.124) p-val < 0.001	-0.054 (-0.089,0) p-val = 0.274	0.33	-3.06	-0.94	-2.81
	Kern County (Eastern Kern), CA	0.059 (0.037,0.072) p-val = 0.003	0.176 (0.127,0.216) p-val = 0.001	-3.20	-2.76	-3.16	-2.24
	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	-0.284 (-0.341,-0.276) p-val < 0.001	-0.36 (-0.422,-0.322) p-val < 0.001	1.62	-3.26	3.02	-3.14
	Los Angeles-South Coast Air Basin, CA	-0.928 (-0.976,-0.856) p-val < 0.001	-0.83 (-1.005,-0.775) p-val < 0.001	13.07	0.41	15.23	2.07
	Mariposa County, CA	0.185 (0.152,0.227) p-val = 0.001	0.221 (0.198,0.25) p-val < 0.001	-3.85	-0.50	-3.55	-0.38
	Morongo Band of Mission Indians, CA	-0.127 (-0.374,-0.04) p-val = 0.107	-0.396 (-0.433,-0.302) p-val < 0.001	NA	-4.57	NA	-4.64
	Nevada County (Western part), CA	0.31 (0.254,0.352) p-val < 0.001	0.249 (0.21,0.256) p-val < 0.001	-5.02	-1.91	-5.17	-2.53

	Pechanga Band of Luiseno Mission Indians, CA	-0.251 (-0.315,0.215) p-val = 0.902	-0.136 (-0.387,0.088) p-val = 0.266	NA	NA	NA	NA
	Riverside County (Coachella Valley), CA	-0.247 (-0.384,-0.218) p-val < 0.001	0.018 (-0.122,0.041) p-val = 0.913	2.31	-3.53	-0.35	-3.00
	Sacramento Metro, CA	0.082 (-0.06,0.124) p-val = 0.743	-0.038 (-0.056,-0.013) p-val = 0.08	-1.56	-2.43	-1.75	-2.43
	San Diego County, CA	-0.361 (-0.407,-0.324) p-val < 0.001	-0.44 (-0.503,-0.356) p-val < 0.001	5.27	-0.32	9.39	1.84
	San Francisco Bay Area, CA	-0.067 (-0.172,-0.05) p-val = 0.016	-0.08 (-0.103,-0.029) p-val = 0.063	3.85	1.05	2.69	1.21
	San Joaquin Valley, CA	0.185 (0.037,0.241) p-val = 0.189	0.102 (0.029,0.143) p-val = 0.381	-2.26	-1.81	-1.44	-2.10
	San Luis Obispo (Eastern part), CA	0.433 (0.363,0.483) p-val = 0.001	0.327 (0.228,0.367) p-val = 0.001	NA	-0.79	NA	-0.44
	Sutter Buttes, CA	0.261 (0.157,0.312) p-val = 0.009	0.109 (0.076,0.153) p-val = 0.009	-3.13	-2.81	-4.02	-2.91
	Tuolumne County, CA	0.356 (0.269,0.394) p-val < 0.001	0.353 (0.319,0.381) p-val < 0.001	-4.07	-0.96	-5.14	-1.53
	Tuscan Buttes, CA	0.14 (0.051,0.164) p-val = 0.063	0.14 (0.067,0.23) p-val = 0.016	-2.47	-2.68	-4.88	-2.56
	Ventura County, CA	-0.137 (-0.19,-0.119) p-val < 0.001	0.008 (-0.035,0.083) p-val = 1	0.71	-1.62	0.28	-0.81
	Las Vegas, NV	-0.284 (-0.456,-0.222) p-val < 0.001	-0.106 (-0.138,-0.076) p-val = 0.001	4.44	-1.21	1.58	-0.95

Table S-2. WE-WD differences percent of days with MDA8 ozone exceeding 70 ppb ($\Delta O_{3,DOW,\%>70}$) and trends in each US nonattainment area

region	Nonattainment area	Observed trends (95% CI)	Modeled trends (95% CI)	Observed $\Delta O_{3,DOW,\%>70}$		Modeled $\Delta O_{3,DOW,\%>70}$	
				2002-2006	2015-2019	2002-2006	2015-2019
Northeast	Greater Connecticut, CT	0.009 (-0.172,0.203) p-val = 1	-0.373 (-0.442,-0.236) p-val = 0.029	-5.13	-6.39	5.27	0.63
	Washington, DC-MD-VA	1.14 (0.637,1.303) p-val = 0.004	1.119 (0.945,1.242) p-val < 0.001	-12.12	-10.36	-13.01	-3.64
	Baltimore, MD	0.615 (0.442,0.922) p-val = 0.004	1.505 (1.351,1.683) p-val < 0.001	-11.83	-10.36	-16.69	-0.59
	New York-Northern New Jersey-Long Island, NY-NJ-CT	0.562 (0.4,0.764) p-val = 0.08	0.212 (-0.058,0.749) p-val = 0.274	-5.40	-6.96	-3.57	-1.17
	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE	1.018 (0.535,1.237) p-val = 0.004	0.796 (0.525,1.058) p-val = 0.009	-9.06	-6.98	-8.75	2.77
Upper Midwest	Allegan County, MI	0.797 (0.5,0.97) p-val = 0.012	-0.044 (-0.076,0.068) p-val = 0.351	0.15	0.63	3.47	0.00
	Berrien County, MI	0.644 (0.397,0.701) p-val = 0.016	-0.233 (-0.441,-0.066) p-val = 0.063	0.48	0.28	2.98	-0.62
	Detroit, MI	0.642 (0.28,0.774) p-val = 0.155	-0.061 (-0.419,0.259) p-val = 0.411	5.20	0.94	9.79	-1.83
	Muskegon County, MI	0.081 (-0.235,0.291) p-val = 1	-0.652 (-0.858,-0.519) p-val = 0.001	7.27	3.43	7.90	1.26
	Door County, WI	0.014 (-0.072,0.153) p-val = 1	-0.461 (-0.609,-0.328) p-val = 0.001	4.15	0.68	16.10	1.61
	Manitowoc County, WI	-0.203 (-0.431,-0.107) p-val = 0.037	-0.232 (-0.288,-0.094) p-val = 0.037	7.67	1.28	12.74	1.28
	Milwaukee, WI	0.04 (-0.233,0.197) p-val = 0.661	-0.205 (-0.348,-0.018) p-val = 0.125	7.68	0.32	9.81	1.23
	Sheboygan County, WI	0.114 (-0.177,0.251) p-val = 0.913	-0.146 (-0.401,-0.034) p-val = 0.101	9.21	1.02	4.90	-0.31
Ohio Valley	Chicago, IL-IN-WI	0.466 (0.038,0.747) p-val = 0.443	-0.153 (-0.443,0.066) p-val = 0.189	3.12	-3.94	7.38	-2.12
	Louisville, KY-IN	0.198 (-0.65,0.621) p-val = 0.324	-0.104 (-0.551,0.031) p-val = 0.124	2.52	-2.74	6.82	-1.82
	St. Louis, MO-IL	-0.61 (-1.416,0.066) p-val = 0.155	0.105 (-0.189,0.299) p-val = 0.913	3.15	-7.92	3.74	-1.52
	Cleveland, OH	0.687 (0.325,0.951) p-val = 0.063	0.7 (0.497,0.797) p-val = 0.002	4.67	0.02	0.39	4.90

	Columbus, OH	0.006 (-0.157,0.215) p-val = 0.956	0.544 (0.508,0.668) p-val = 0.002	3.44	-2.74	-1.47	0.92
	Cincinnati, OH-KY	0.074 (-0.207,0.216) p-val = 0.913	-0.013 (-0.154,0.107) p-val = 0.913	1.92	-4.86	1.01	-2.43
South and Southeast	Atlanta, GA	-0.411 (-0.53,0.14) p-val = 0.743	-1.689 (-1.992,-0.564) p-val = 0.08	-8.76	-6.76	-3.22	-11.38
	Dallas-Fort Worth, TX	-1.025 (-1.235,-0.302) p-val = 0.08	-1.396 (-1.497,-0.61) p-val = 0.009	-5.38	-10.34	7.14	-3.95
	Houston-Galveston-Brazoria, TX	-1.222 (-1.613,-0.719) p-val = 0.006	-0.505 (-0.904,-0.146) p-val = 0.101	2.63	-8.82	3.08	-1.21
	San Antonio, TX	0.402 (0.241,0.545) p-val = 0.009	0.307 (0.134,0.346) p-val = 0.014	-8.81	-0.88	-1.80	0.01
Southwest	Phoenix-Mesa, AZ	-0.227 (-0.308,-0.011) p-val = 0.155	-0.334 (-0.49,-0.115) p-val = 0.08	-9.65	-10.92	1.31	-2.44
	Yuma, AZ	1.554 (1.246,1.593) p-val = 0.002	0.108 (0.098,0.133) p-val = 0.003	NA	1.86	NA	0.00
	Denver Metro/North Front Range, CO	-0.926 (-1.066,-0.755) p-val < 0.001	-0.427 (-0.561,-0.37) p-val = 0.002	0.41	-10.62	3.44	-3.34
	Dona Ana County (Sunland Park), NM	-0.187 (-0.229,-0.062) p-val = 0.032	0.304 (0.183,0.377) p-val = 0.005	0.96	-0.89	-0.59	0.00
	Northern Wasatch Front, UT	-0.825 (-1.034,-0.685) p-val < 0.001	0.072 (-0.136,0.147) p-val = 1	7.71	-6.06	2.46	-0.61
	Southern Wasatch Front, UT	-0.207 (-0.365,0.077) p-val = 0.443	-0.161 (-0.202,-0.006) p-val = 0.048	0.34	-4.56	0.93	-0.61
	Uinta Basin, UT	0.047 (0.035,0.094) p-val = 0.02	0.091 (-0.04,0.136) p-val = 0.529	NA	-0.91	NA	-0.30
West	Amador County, CA	0.768 (0.583,1.27) p-val = 0.016	0.925 (0.732,0.959) p-val < 0.001	-8.01	-3.18	-10.14	-0.96
	Butte County, CA	0.923 (0.79,1.013) p-val = 0.001	1.132 (0.903,1.193) p-val < 0.001	-14.88	-5.54	-13.40	-3.07
	Calaveras County, CA	0.972 (0.633,1.251) p-val = 0.029	0.653 (0.524,0.729) p-val < 0.001	-17.60	-11.20	-8.74	-1.56
	Imperial County, CA	-0.364 (-0.5,-0.276) p-val = 0.012	0.438 (0.267,0.463) p-val = 0.001	-3.89	-10.66	-2.73	-0.61
	Kern County (Eastern Kern), CA	0.288 (-0.234,0.454) p-val = 0.443	0.969 (0.915,1.138) p-val < 0.001	-5.35	-6.62	-11.35	-0.94
	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	-1.251 (-1.336,-1.023) p-val < 0.001	-0.79 (-2.023,-0.33) p-val = 0.016	0.85	-16.63	16.03	-9.12
	Los Angeles-South Coast Air Basin, CA	-0.743 (-1.033,-0.54) p-val = 0.001	-0.457 (-2.067,0.043) p-val = 0.08	10.34	-4.06	24.90	0.11
	Mariposa County, CA	1.536 (1.207,1.713) p-val p-val < 0.001	0.025 (-0.031,0.093) p-val = 0.615	-18.96	-2.10	-1.83	-1.21
	Morongo Band of Mission Indians, CA	-1.007 (-1.216,-0.591) p-val = 0.007	-1.605 (-1.916,-1.258) p-val = 0.005	NA	-12.00	NA	-9.03
	Nevada County (Western part), CA	0.621 (0.373,0.731) p-val = 0.002	0.778 (0.654,0.874)p-val < 0.001	-14.21	-7.89	-12.18	-2.17
	Pechanga Band of Luiseno Mission Indians, CA	1.003 (0.291,1.176) p-val = 0.108	0.116 (-0.198,0.403) p-val = 0.902	NA	0.00	NA	-0.82
	Riverside County (Coachella Valley), CA	-1.846 (-2.041,-1.68) p-val = p-val < 0.001	0.663 (-0.152,0.754) p-val = 0.274	6.89	-14.86	-0.23	-3.05
	Sacramento Metro, CA	0.033 (-0.524,0.337) p-val = 1	0.167 (0.009,0.259) p-val = 0.063	-8.39	-13.67	-10.31	-6.09
	San Diego County, CA	-1.213 (-1.922,-0.665) p-val = 0.009	-2.214 (-2.521,-2.075) p-val < 0.001	20.26	-10.95	24.82	-3.96
	San Francisco Bay Area, CA	-0.317 (-0.626,-0.138) p-val = 0.049	0.02 (-0.463,0.149) p-val = 0.956	5.53	-2.43	6.74	1.23
	San Joaquin Valley, CA	-0.34 (-0.436,-0.144) p-val = 0.155	1.052 (0.458,1.288) p-val = 0.018	-5.85	-5.31	-9.94	-5.16
	San Luis Obispo (Eastern part), CA	0.936 (0.539,1.474) p-val = 0.02	0.006 (-0.024,0.199) p-val = 0.105	NA	-2.13	NA	-0.61
	Sutter Buttes, CA	0.633 (0.214,0.701) p-val = 0.189	0.095 (0.068,0.197) p-val = 0.025	-4.95	-5.73	-0.93	-0.40
	Tuolumne County, CA	1.22 (1.046,1.374) p-val = p-val < 0.001	0.292 (0.23,0.46) p-val = 0.005	-12.43	-0.62	-2.79	-0.31
	Tuscan Buttes, CA	0.466 (0.287,0.592) p-val = 0.063	0.745 (0.725,0.829) p-val < 0.001	-5.81	-6.84	-9.48	-1.36

	Ventura County, CA	-1.067 (-1.358,-0.94) p-val = p-val < 0.001	0.554 (0.388,0.661) p-val < 0.001	12.05	-6.09	-3.29	-0.61
	Las Vegas, NV	-1.931 (-2.467,-1.462) p-val = p-val < 0.001	-0.213 (-0.293,-0.03) p-val = 0.443	17.82	-10.34	0.66	-3.96