

Supplementary Information for

Residential segregation and summertime air temperature across 13 northeastern U.S. states:
Potential Implications for energy burden

Daniel Carrión, Johnathan Rush, Elena Colicino, and Allan C. Just

Corresponding author:

Daniel Carrión

Email: daniel.carrion@yale.edu

This PDF file includes:

Supplementary table 1

Supplementary Figs 1 - 5

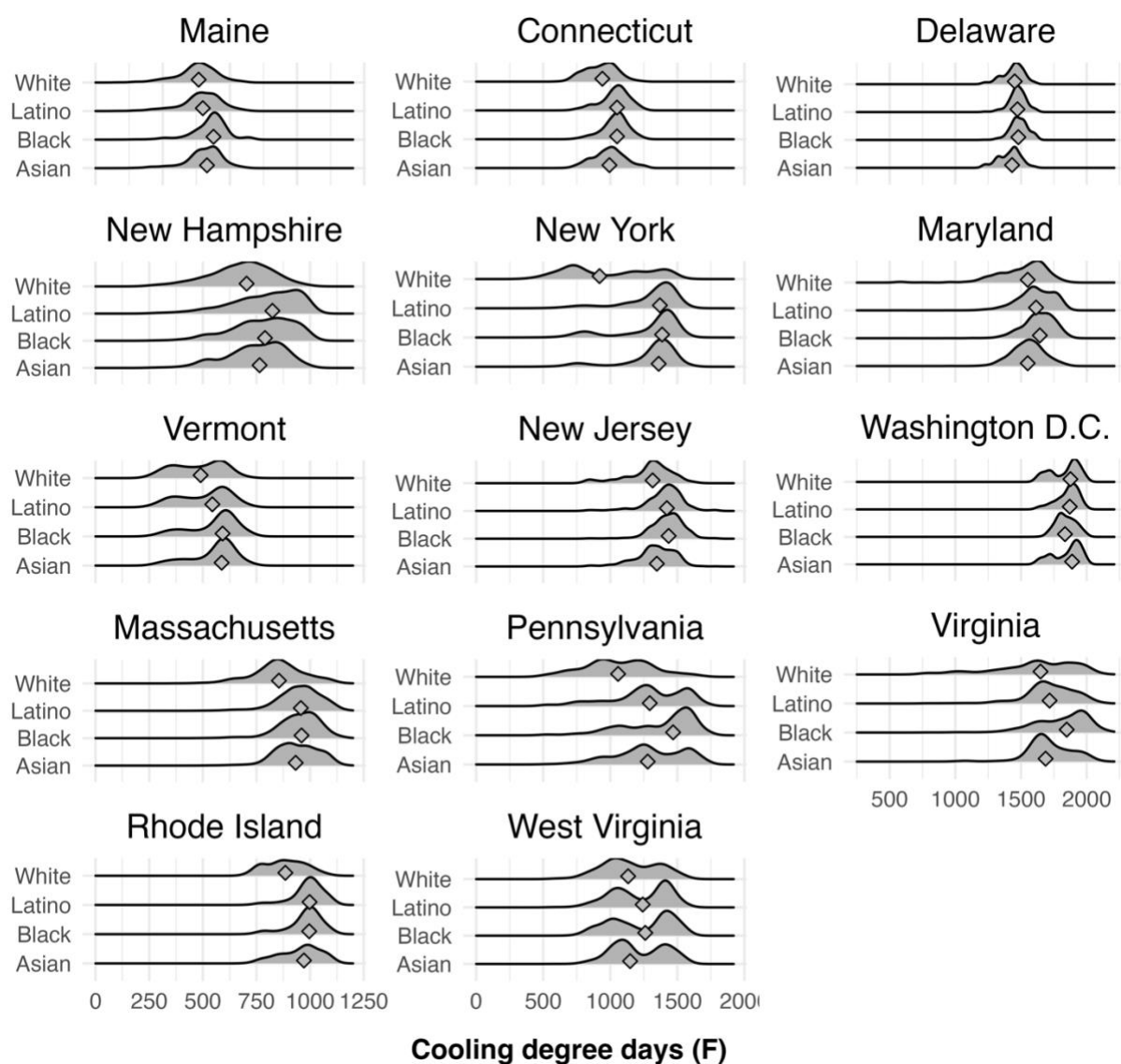


Figure S1: Kernel density distributions of census tract level cooling degree days by ethnoracial group and by state in 2010. Columns group states with similar cooling degree day ranges.

Table S1: Population-weighted cooling degree days from the XGBoost spatiotemporal prediction model per state per year.

STATE	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CT	684	628	926	756	757	715	527	962	856	825	782	589	831	915	696	926	758
DE	1030	1166	1324	1158	1206	1090	957	1457	1335	1286	1087	950	1286	1355	1113	1363	1355
DC	1178	1411	1583	1469	1656	1441	1296	1846	1661	1547	1285	1221	1544	1625	1332	1591	1658
ME	330	187	423	354	311	263	227	437	322	367	359	270	358	388	319	449	313
MD	1068	1247	1334	1228	1389	1183	1078	1565	1422	1328	1128	998	1301	1409	1141	1370	1410
MA	642	530	809	698	650	601	457	876	751	735	719	555	758	829	645	849	676
NH	463	337	620	524	493	408	331	677	556	570	543	391	555	601	467	640	492
NJ	954	983	1255	1035	1031	1037	806	1341	1198	1155	1023	859	1164	1239	979	1222	1128
NY	794	768	1088	890	893	871	632	1105	1019	1003	887	732	968	1074	826	1068	894
PA	742	790	1086	880	915	819	652	1112	1029	993	836	704	950	1102	809	1053	965
RI	714	558	869	757	727	680	496	907	813	767	747	578	816	864	667	904	745
VT	315	202	506	379	327	264	226	462	392	423	407	278	385	440	314	506	323
VA	1155	1280	1426	1287	1455	1272	1207	1676	1500	1377	1180	1168	1423	1508	1284	1544	1556
WV	686	798	1032	808	1025	777	711	1154	1043	1032	835	773	976	1139	821	1181	1111

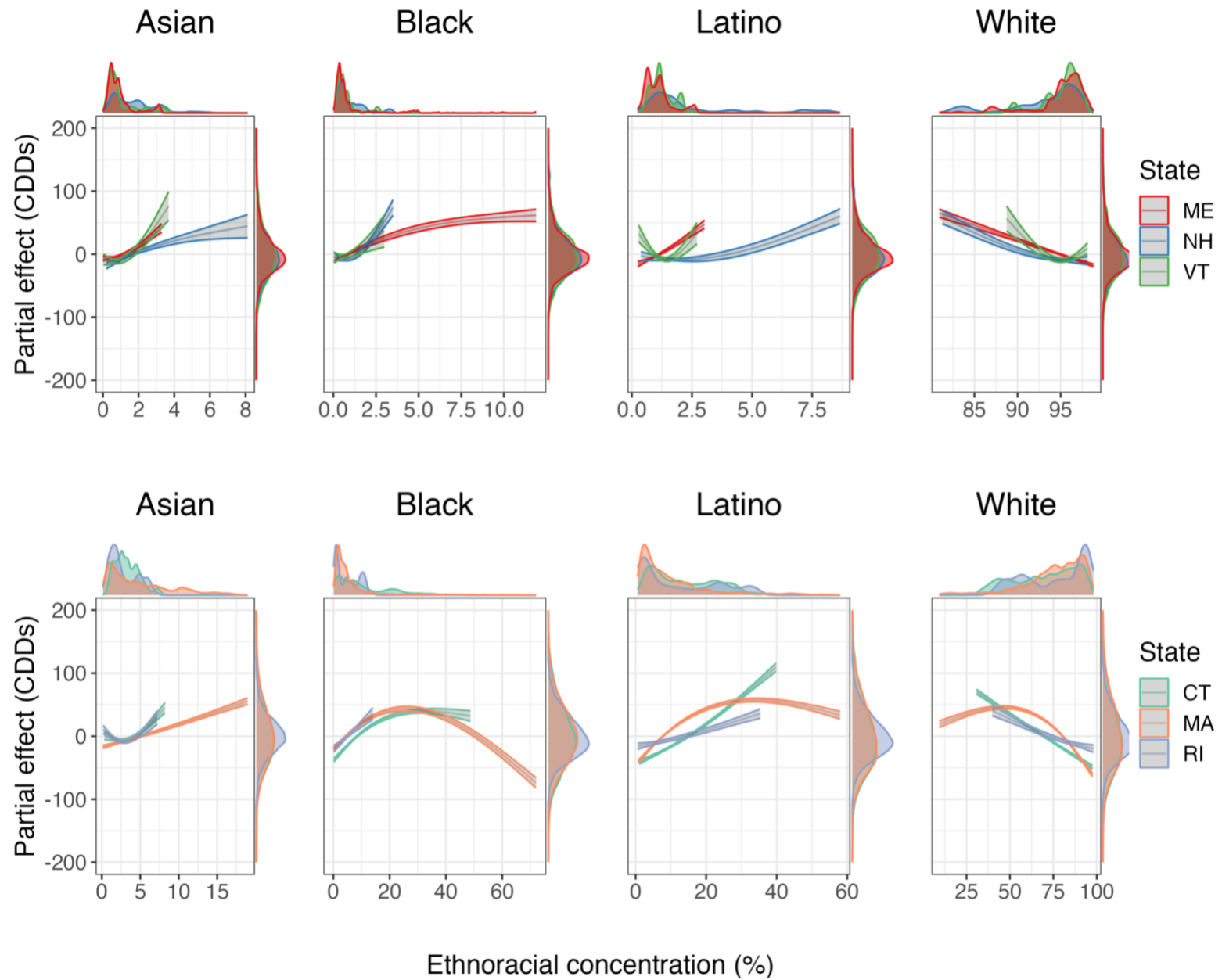


Figure S2: Regression results for the association between ethnoracial concentration and cooling degree days (CDDs) per state. Solid lines indicate partial effect from a natural cubic spline with three knots, and shaded areas are 95% confidence intervals. All models are adjusted with fixed effects for county and year as well as a tensor product smooth of the latitude and longitude of the census tract's population-weighted centroid by year.

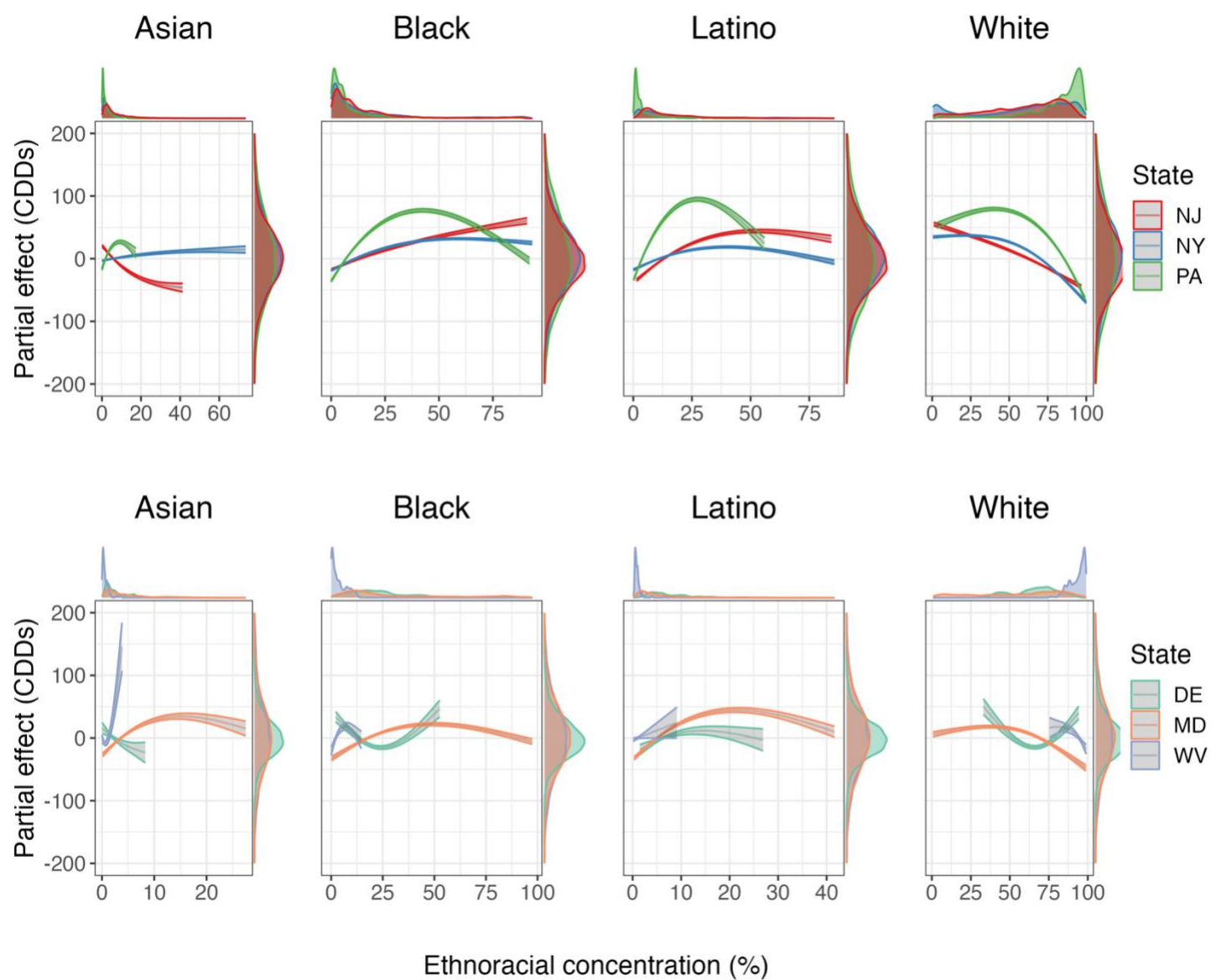


Figure S3: Regression results for the association between ethnoracial concentration and cooling degree days (CDDs) per state. Solid lines indicate partial effect from a natural cubic spline with three knots, and shaded areas are 95% confidence intervals. All models are adjusted with fixed effects for county and year as well as a tensor product smooth of the latitude and longitude of the census tract's population-weighted centroid by year.

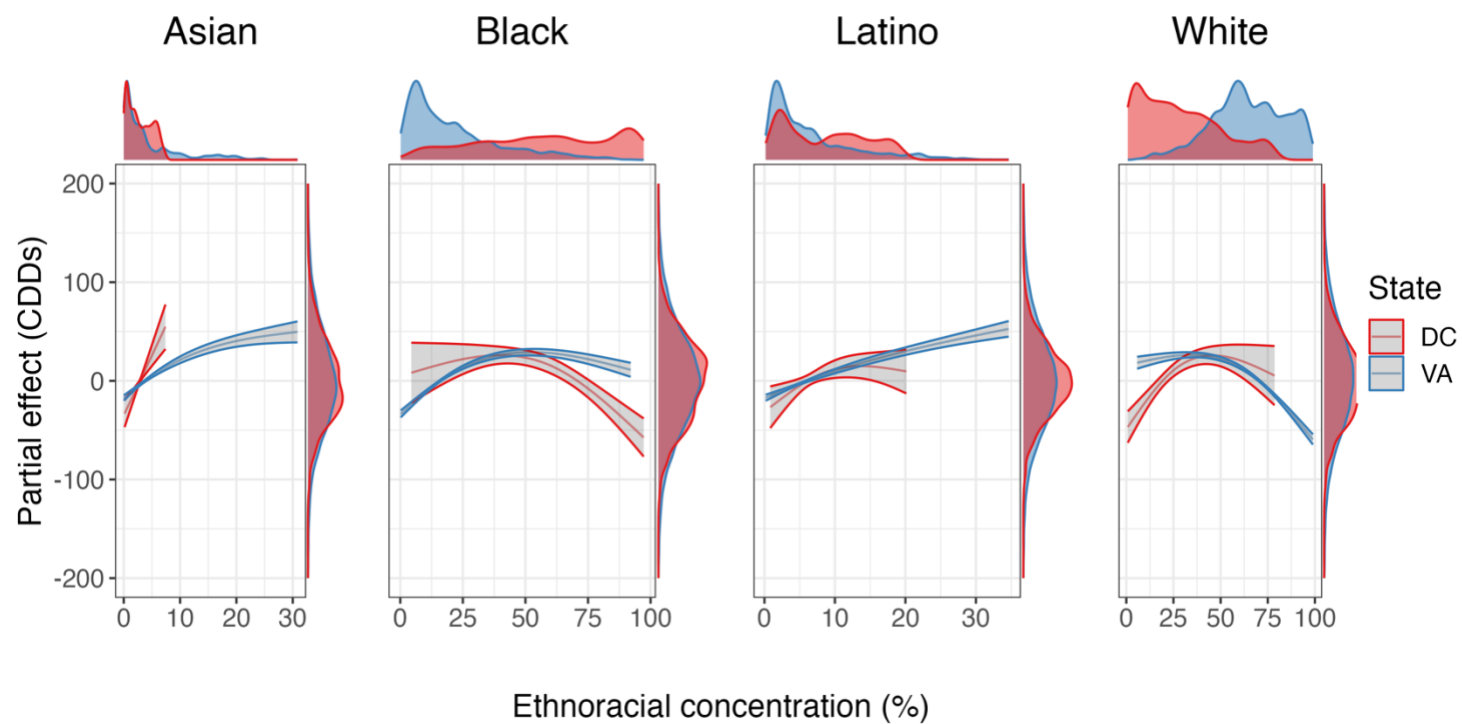


Figure S4: Regression results for the association between ethnoracial concentration and cooling degree days (CDDs) per state. Solid black lines indicate partial effect from a natural cubic spline with three knots, and shaded areas are 95% confidence intervals. All models are adjusted with fixed effects for county and year as well as a tensor product smooth of the latitude and longitude of the census tract's population-weighted centroid by year.

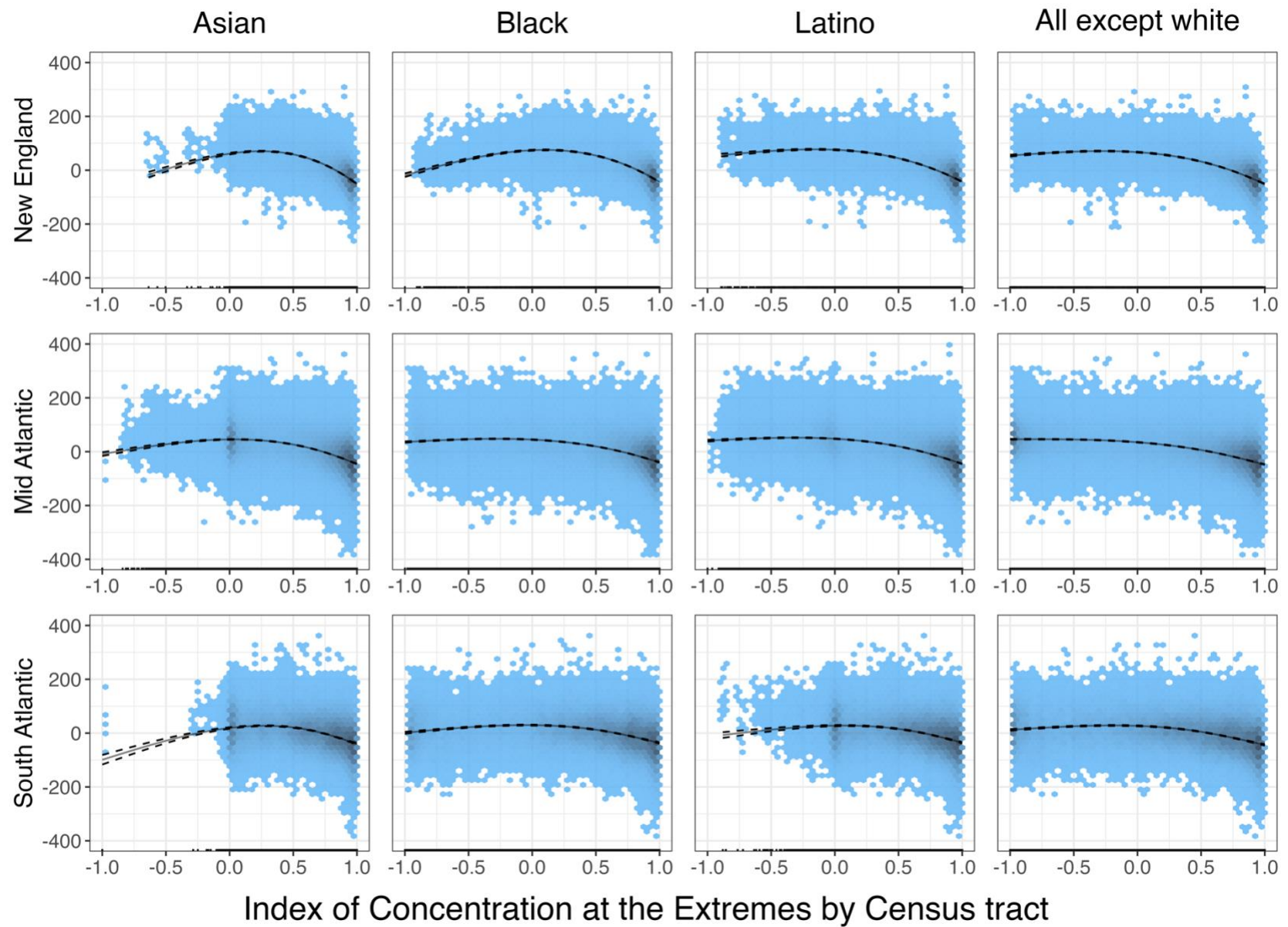


Figure S5: Regression results for the association between index of concentration at the extremes and cooling degree days (CDDs). Solid black lines indicate partial effect from a natural cubic spline with three knots, and dashed lines are 95% confidence intervals. All models are adjusted with fixed effects for county and year as well as a tensor product smooth of the latitude and longitude of the census tract's population-weighted centroid by year. Binned hexagons of partial residuals are depicted as light blue (low values) to charcoal (high values).