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SUPPLEMENTARY INFORMATION

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Climate change may alter human physical activity patterns

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Supplementary Results

Main Effect

In this section we present the regression table associated with Equation 1 from the main text. Our unit of analysis is the individual-day. Our binary dependent variable throughout is whether an individual reported physical activity over the past thirty days, drawn from the BRFSS *exerany2* physical activity question. Our main independent variable is the thirty day average of daily maximum temperatures in the individuals' city over the same period. We control for other meteorological variables including precipitation days, average cloud cover, average relative humidity, and average temperature range. Our main linear probability model specification is presented in model (1) of Supplementary Table 1. Model (2) of this table excludes other meteorological control variables.

Heat Index

Distinguishing whether our effect is driven primarily by temperature or by a combination of temperature and humidity is important given the role of heat stress in many human physiological processes. We present our heat stress regressions in Supplementary Table 2. Model (1) presents the full specification while model (2) presents the Heat Index estimated without other meteorological controls. Our main independent variable is the thirty day average of the Heat Index from the US National Weather Service, calculated as an index that combines both maximum temperatures and relative humidity. In this regression we also control for precipitation days, average cloud cover, and average temperature range. As can be seen in Supplementary Table 2, the effect of heat stress on participation in physical activity closely mirrors the marginal effect of average maximum temperatures (Figure 1, panel (a) in the main text); it is large and significant over the colder portions of the heat index distribution and mostly flat over the hotter portion of the distribution.

Time and Location Controls

Our main specification uses a pooled cross-section of data from the BRFSS and employs time, location, and location specific seasonal fixed effects. However, our results are robust to varying the specification of these controls. Supplementary Table 3 presents the results of these specifications. Model (1) excludes all fixed effects, model (2) controls for location fixed effects only, model (3) controls for location and time fixed effects and model (4) replicates the model from Equation 1 in the main text. The coefficients on negative temperature bins remain highly statistically significant throughout.

Demographic Controls

Some might desire that we control for common demographic covariates. Unfortunately, as these demographic characteristics may also be correlated with the climatic variables within a locality (e.g. older people who exercise less may move to cities with warmer climates), including demographic variables has the potential to bias our temperature bin coefficients of interest[1]. As a result we exclude them from our main specification in Equation 1 in the main text, a choice consistent with the climate econometrics literature[2]. However, our coefficient estimates remain mostly unchanged by the inclusion of common demographic controls like age, ethnicity, education, income, employment status, and sex. Supplementary Table 4 presents the results of this specification. The coefficients on the temperature bins remain highly statistically significant and of similar sign and magnitude as compared to our main specification. Of note, our sample size in this regression decreases as not every individual answered demographic questions.

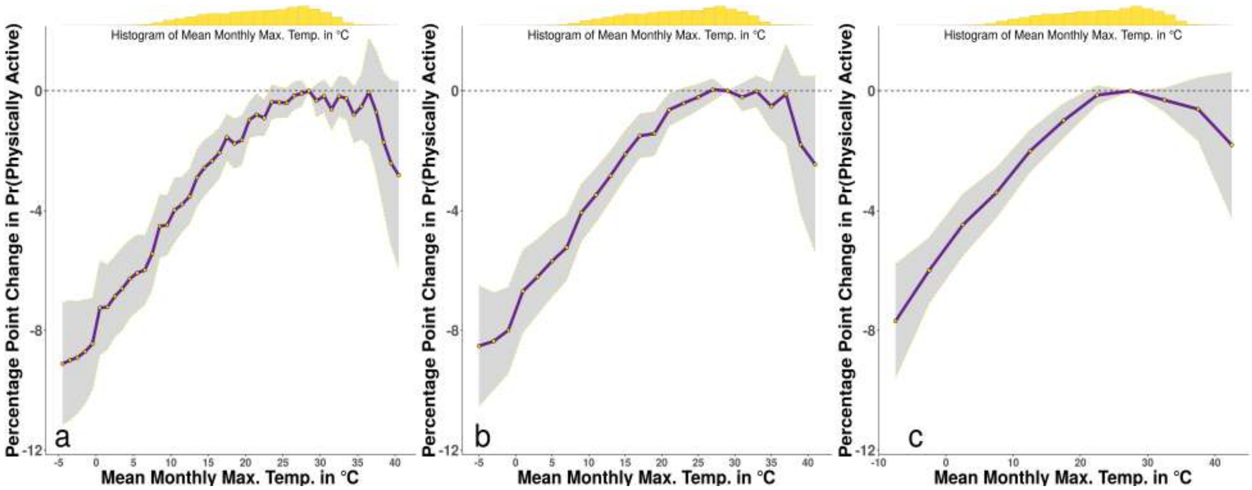
Weight Regressions

In this section we present our regression tables associated with running our main model specification split by BMI weight categories (normal [BMI < 25], overweight [25 <= BMI < 30], and obese [BMI >= 30]). As can be seen in Supplementary Table 5 model (3), the effect of hot average monthly maximum temperatures (>40C) on probability of physical activity in the obese weight category is highly statistically significant and substantially larger than the effect size of the similar temperature bin coefficient within the normal (model (1)) or overweight (model (2)) categories.

Age Regressions

In this section we present our regression tables associated with running our main model specification split by age categories (under 40, 40-65, and 65 and over). As can be seen in Supplementary Table 6 model (3), the effect of hot average monthly maximum temperatures (>40C) on probability of physical activity in the elderly weight category is highly statistically significant and substantially larger than the effect size on the similar temperature bin coefficient among the younger categories (models (1) and (2)). We tested the difference in coefficients between categories by simulating from the coefficient distributions in each model.

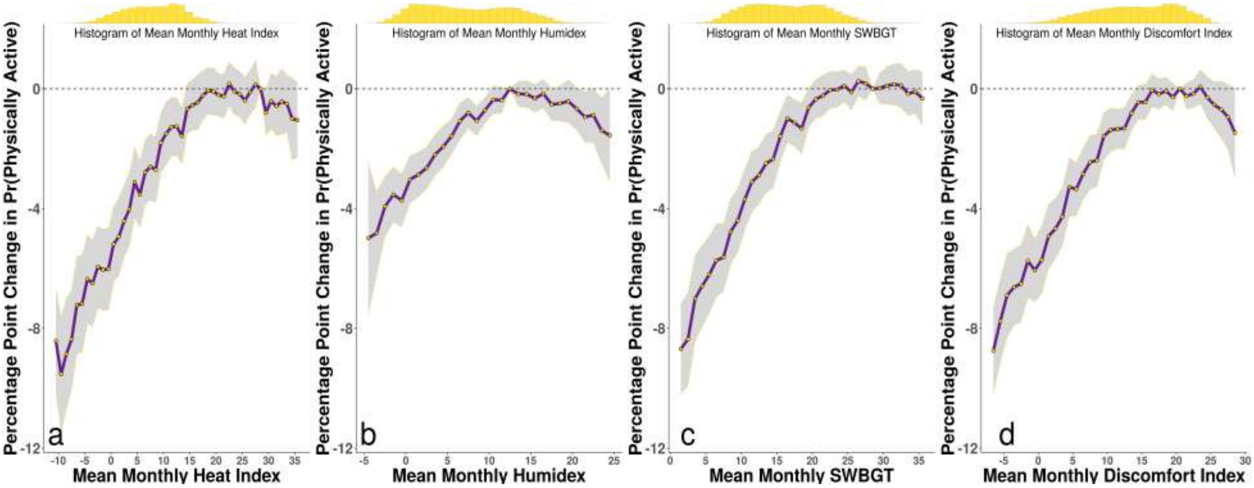
Varying Bin Sizes



Supplementary Figure 1: Reproduction of Figure 1, panel (a), with 1, 2, and 5 degree temperature bins.

In this section, we replicate our main text Figure 1, panel (a), using one, two, and five degree Celsius bins to ensure that our results are robust to the size of bin we employ in the main text. As can be seen in Supplementary Figure 1, the functional form observed in Figure 1 panel (a) (replicated in panel (a) of Supplementary Figure 1, persists across the use of two degree (panel (b)) and five degree (panel (c)) bins. We choose to employ the one degree bin sizes in the main text as they allow the greatest amount of flexibility to our functional form.

Alternative Heat Stress Indices



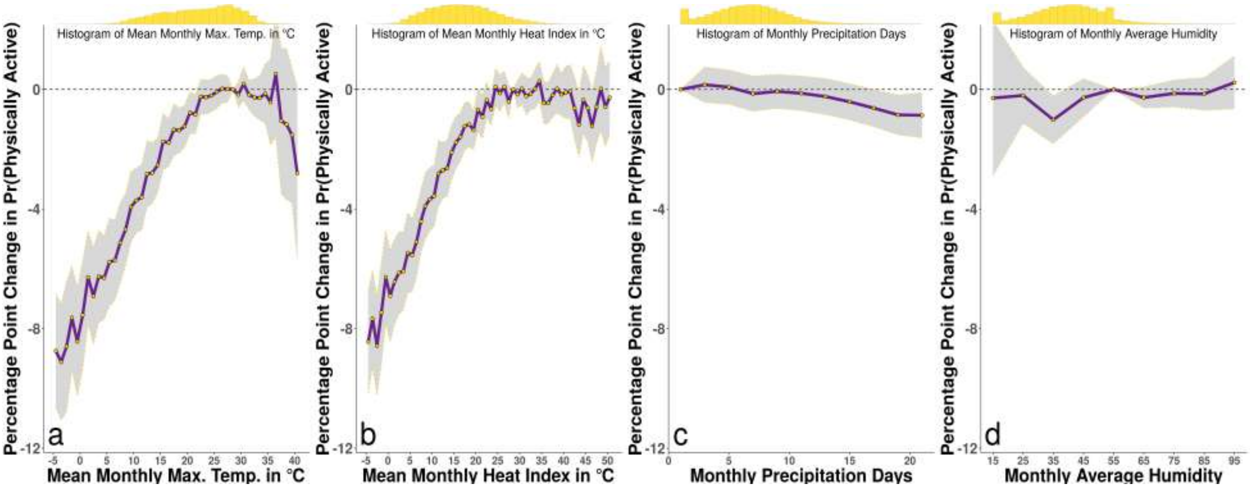
Supplementary Figure 2: Alternative heat stress indices.

The National Weather Service Heat Index is only one of a number of common heat stress indices[3]. Here we calculate additional heat stress indices (including the Heat Inedex using average daily temperature[3,4], the Humidex index[3,5], the Simplified Wet Bulb Global Temperature (SWBGT)[3,6], and the Discomfort Index[3,7]) to examine whether our heat stress results are robust across alternative choice of indices. We replicate main text Figure 1, panel (b) for each of these alternatives. We present the results in Supplementary Figure 2. As can be seen, the functional form across these indices looks quite similar to the functional form of the marginal effect of maximum temperatures (Figure 1, panel (a) in the main text).

PRISM Data

In this section, we replicate our main text Figures 1 and 2 substituting the GHCN-D station data used in our main text results with daily gridded meteorological data produced by the PRISM Climate Group[8]. Of note, the PRISM product contains only maximum and minimum temperatures as well as precipitation for the continental United States. We still employ relative humidity and cloud cover from the NCEP Reanalysis II as controls as in the main results.

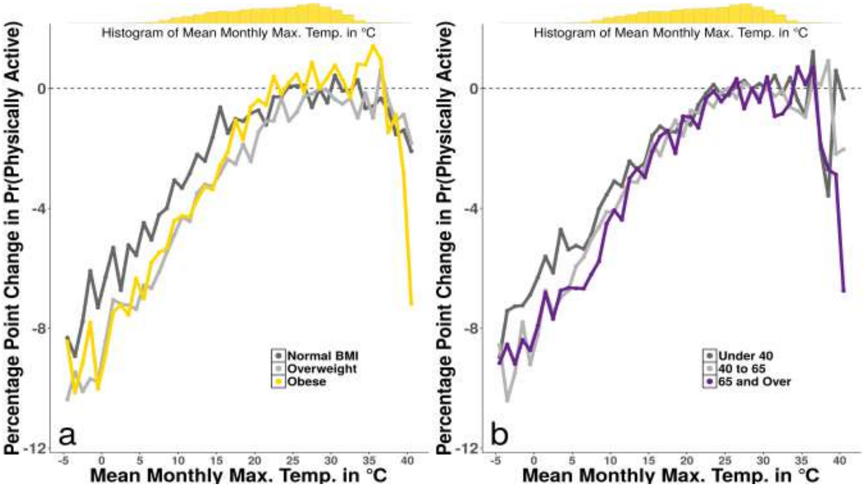
Reproduction of Figure 1



Supplementary Figure 3: Reproduction of Figure 1 from the main text using meteorological data from the PRISM Climate Group

We reproduce Figure 1 from the main text using meteorological data from the PRISM Climate Group in Supplementary Figure 3. As can be seen, Supplementary Figure 3 closely resembles the functional forms observed in Figure 1 in the main text.

Reproduction of Figure 2

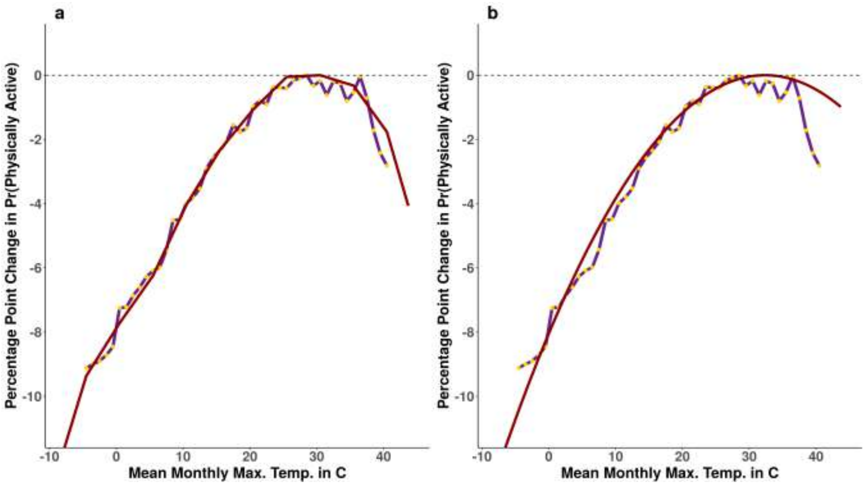


Supplementary Figure 4: Reproduction of Figure 2 from the main text using meteorological data from the PRISM Climate Group

We reproduce Figure 2 from the main text using meteorological data from the PRISM Climate Group in Supplementary Figure 4. As can be seen, Supplementary Figure 4 closely resembles the functional forms observed in Figure 2 in the main text.

Forecast Details

Forecast Models



Supplementary Figure 5: The purple line with yellow points in each panel plots the same relationship as seen in Figure 1, panel (a) in the main text. In panel (a) the red line depicts the functional form produced by the spline regression. As can be seen, there is close correspondence between the two estimation methods. In panel (b) the red line depicts the functional form produced by the quadratic regression model. The quadratic model closely resembles the nonparametric bin estimates for below-peak physical activity, but under-predicts the drop off in physical activity past its peak.

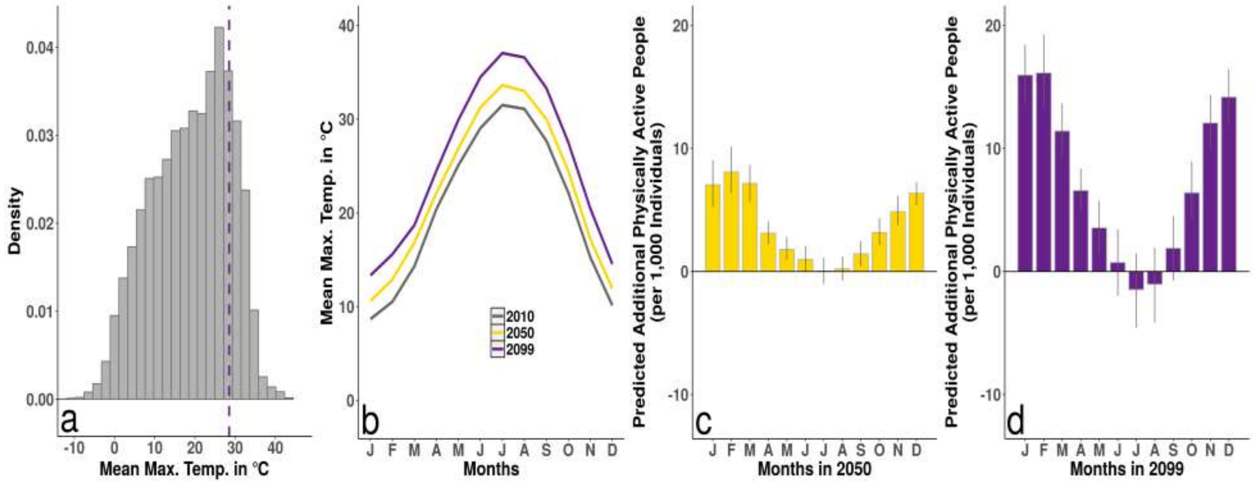
Spline Model

Our primary specification from Equation 1 in the main text uses temperature bins to nonparametrically estimate the relationship between temperatures and physical activity probability. However, the limitation of this method is that it does not provide an immediate way to forecast for values that fall outside the historical distribution of temperature, aside from simply assigning them the fitted value from the last bin of the historical distribution. Yet the downscaled models we employ project that by 2050 and 2099 we will observe average monthly maximum temperatures outside the range of the historical temperature distribution. In order to conduct a forecast from the historical temperature-physical activity relationship into the future, we fit a linear spline relationship to the data, with knots at every five degrees Celsius. As can be seen in Supplementary Figure 5 panel (a), the functional form derived from the spline model closely mirrors the relationship uncovered by the nonparametric bins of Equation 1.

Quadratic Model

Some might suggest that the relationship between temperature and physical activity looks approximately quadratic, and that fitting a quadratic model to the data might produce more accurate future forecasts. Perhaps it is likely that the functional slope becomes increasingly negative beyond the positive support of our historical temperature distribution; the spline approach assumes a linear decline.

As can be seen in Supplementary Figure 5, the functional form derived from the quadratic model closely mirrors the relationship uncovered by the nonparametric bins of Equation 1 up to approximately 38C, but under predicts the drop off in physical activity beyond that point relative to the binned or spline models. Because the spline function captures this drop off more precisely, we select it for our main text forecast.



Supplementary Figure 6: This figure presents the analog to Figure 3 from the main text, using a quadratic fit rather than spline fit.

However, in Supplementary Figure 6 we present the equivalent of Figure 3 from the main text, using a quadratic model fit rather than the spline function. As can be seen, because the quadratic model predicts a less-steep drop off of physical activity past its peak as compared both to the binned and spline models, the reductions in physical activity predicted for the summer months by the spline forecast in Figure 3 of the main text are of smaller magnitude in the quadratic forecast.

City-Level, Monthly Forecast

To conduct the forecast plotted in Figure 3 in the main text, we first extract the 2010, 2050, and 2099 average monthly maximum temperature forecasts from all 21 of NASA's NEX GDDP bias corrected statistically downscaled daily climate models (drawn from the CMIP5 model ensemble). We use bilinear interpolation to calculate city-day estimates for each city in our sample from the raster data provided by NASA's NEX.

We then employ the spline forecast model shown in Supplementary Figure 5, panel (a) to calculate the fitted values associated with this historical model for each city-day-of-year for each of the 21 BCSD climate models. Then, for each city-day-of-year and model, we difference the fitted values in 2050 and 2099 from the baseline period of 2010. For presentation purposes, we scale the forecast to projected impact per 1,000 individuals. This procedure results in an estimated change in physical activity per 1,000 individuals, for each city-day-of-year, for each model. We then average these daily values to months in order to present the values in panels (c) and (d) in the main text Figure 3. The error bars in these panels represent both historical model and climate model uncertainty. To do so, we take the range between the 97.5 percentile historical effect applied to the highest climate model forecast from the ensemble and the 2.5 percentile effect applied to the lowest climate model forecast in 2050 and 2099, respectively.

Grid Cell Forecast

To conduct the grid cell forecast plotted in Figure 4 of the main text, we again employ the 2010, 2050, and 2099 NEX forecast data, this time working directly with the raster data. First, we take a grid cell-day average across each of the 21 CMIP5 downscaled models. Then, for each grid-cell, we calculate the prior month average maximum temperatures for each day of the year as well as the values for each of the spline temperature variables for our forecast. We then employ the coefficient estimates from our spline regression to calculate fitted values for each grid cell-day for 2010, 2050, and 2099 respectively. We then take the differences in these fitted values between 2050 and 2010 and 2099 and 2010. We then average these values to each month of the year (plotted in Figure 5 in the main text), and sum these monthly averages (Figure 4 in main text). Finally, we scale these values by 1,000 for ease of interpretation.

Cities and Stations

Supplementary Figure 7: Purple points indicate the locations of cities of respondents included in analysis, excluding those from Alaska and Hawaii. City point size increases by the log of the number of respondents in each city. Yellow points indicate the location of weather station used in the analysis.

In this section we present the locations of the cities included in our analysis as well as the weather station locations mapped to their nearest cities. As can be seen in Supplementary Figure 7, where city points are sized by the the log of the number of respondents in the analysis, weather station locations map closely to city centroids, with the median distance from city centroid to station being 5.6 kilometers.

Supplementary References

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Supplementary Table 1: Monthly Average Maximum Temperature and Probability of Monthly Physical Activity

	(1)	(2)
tmax(-Inf,-4]	-9.115***	-9.099***
	(1.038)	(0.991)
tmax(-4,-3]	-8.998***	-8.970***
	(1.020)	(1.009)
tmax(-3,-2]	-8.903***	-8.888***
	(0.955)	(0.918)
tmax(-2,-1]	-8.714***	-8.697***
	(0.890)	(0.866)
tmax(-1,0]	-8.451***	-8.427***
	(0.778)	(0.743)
tmax(0,1]	-7.249***	-7.219***
	(0.803)	(0.764)
tmax(1,2]	-7.223***	-7.213***
	(0.725)	(0.694)
tmax(2,3]	-6.867***	-6.845***
	(0.688)	(0.658)
tmax(3,4]	-6.605***	-6.580***
	(0.705)	(0.658)
tmax(4,5]	-6.279***	-6.257***
	(0.665)	(0.608)
tmax(5,6]	-6.084***	-6.081***
	(0.649)	(0.602)
tmax(6,7]	-5.986***	-5.984***
	(0.594)	(0.551)
tmax(7,8]	-5.438***	-5.443***
	(0.608)	(0.556)
tmax(8,9]	-4.520***	-4.536***
	(0.537)	(0.504)
tmax(9,10]	-4.483***	-4.538***
	(0.511)	(0.468)
tmax(10,11]	-3.982***	-4.013***
	(0.550)	(0.511)
tmax(11,12]	-3.795***	-3.816***
	(0.470)	(0.439)
tmax(12,13]	-3.531***	-3.562***
	(0.467)	(0.443)
tmax(13,14]	-2.900***	-2.972***
	(0.484)	(0.473)
tmax(14,15]	-2.567***	-2.616***

	(0.472)	(0.445)
tmax(15,16]	-2.345***	-2.413***
	(0.449)	(0.432)
tmax(16,17]	-2.069***	-2.120***
	(0.429)	(0.411)
tmax(17,18]	-1.548***	-1.610***
	(0.393)	(0.378)
tmax(18,19]	-1.765***	-1.830***
	(0.424)	(0.406)
tmax(19,20]	-1.647***	-1.711***
	(0.418)	(0.394)
tmax(20,21]	-0.971***	-1.028***
	(0.306)	(0.320)
tmax(21,22]	-0.794**	-0.855**
	(0.362)	(0.362)
tmax(22,23]	-0.907***	-0.965***
	(0.304)	(0.295)
tmax(23,24]	-0.370	-0.412
	(0.296)	(0.292)
tmax(24,25]	-0.386	-0.412
	(0.258)	(0.261)
tmax(25,26]	-0.405	-0.427*
	(0.255)	(0.255)
tmax(26,27]	-0.161	-0.184
	(0.236)	(0.236)
tmax(27,28]	-0.090	-0.106
	(0.222)	(0.223)
tmax(29,30]	-0.330	-0.321
	(0.281)	(0.276)
tmax(30,31]	-0.176	-0.162
	(0.279)	(0.272)
tmax(31,32]	-0.621*	-0.568
	(0.355)	(0.352)
tmax(32,33]	-0.182	-0.107
	(0.344)	(0.338)
tmax(33,34]	-0.253	-0.181
	(0.360)	(0.339)
tmax(34,35]	-0.797*	-0.696
	(0.478)	(0.461)
tmax(35,36]	-0.534	-0.401
	(0.554)	(0.549)
tmax(36,37]	-0.040	0.094

	(0.918)	(0.888)
tmax(37,38]	-0.713	-0.662
	(1.042)	(1.041)
tmax(38,39]	-1.718	-1.647
	(1.184)	(1.212)
tmax(39,40]	-2.423*	-2.336*
	(1.412)	(1.405)
tmax(40, Inf]	-2.815*	-2.532
	(1.603)	(1.627)
prcp(2,4]	-0.189	
	(0.188)	
prcp(4,6]	-0.284	
	(0.189)	
prcp(6,8]	-0.177	
	(0.199)	
prcp(8,10]	-0.286	
	(0.222)	
prcp(10,12]	-0.517**	
	(0.228)	
prcp(12,14]	-0.494**	
	(0.236)	
prcp(14,16]	-0.821***	
	(0.268)	
prcp(16,18]	-0.690**	
	(0.310)	
prcp(18,20]	-1.052***	
	(0.355)	
prcp(20, Inf]	-1.144***	
	(0.438)	
cloud(10,20]	-0.506	
	(0.498)	
cloud(20,30]	-0.429	
	(0.487)	
cloud(30,40]	-0.555	
	(0.487)	
cloud(40,50]	-0.485	
	(0.513)	
cloud(50,60]	-0.459	
	(0.524)	
cloud(60,70]	-0.410	
	(0.554)	
cloud(70, Inf]	-0.250	

	(0.630)	
humid(10,20]	-0.245	
	(1.157)	
humid(20,30]	-0.225	
	(0.451)	
humid(30,40]	-1.034**	
	(0.418)	
humid(40,50]	-0.276	
	(0.326)	
humid(60,70]	-0.235	
	(0.172)	
humid(70,80]	-0.060	
	(0.215)	
humid(80,90]	-0.087	
	(0.268)	
humid(90, Inf]	0.356	
	(0.452)	
trange(-Inf,7.5]	0.906**	
	(0.417)	
trange(7.5,10]	0.714**	
	(0.336)	
trange(10,12.5]	0.676**	
	(0.300)	
trange(12.5,15]	0.608**	
	(0.268)	
trange(17.5, Inf]	1.031***	
	(0.334)	
Date FE	Yes	Yes
City:Season FE	Yes	Yes
N	1,941,429	1,943,192
R^2	0.020	0.020
Adjusted R^2	0.017	0.017
Residual Std. Error	42.684	42.687

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.
Standard errors are in parentheses and are clustered on city and date.

Supplementary Table 2: Monthly Average NWS Heat Index and Probability of Monthly Physical Activity

	(1)	(2)
heat(-Inf,-4]	-8.508***	-8.482***
	(0.716)	(0.706)
heat(-4,-3]	-8.449***	-8.427***
	(0.888)	(0.877)
heat(-3,-2]	-8.224***	-8.183***
	(0.708)	(0.706)
heat(-2,-1]	-7.050***	-7.009***
	(0.705)	(0.691)
heat(-1,0]	-6.830***	-6.815***
	(0.672)	(0.652)
heat(0,1]	-6.488***	-6.465***
	(0.648)	(0.635)
heat(1,2]	-6.144***	-6.122***
	(0.718)	(0.705)
heat(2,3]	-5.844***	-5.824***
	(0.586)	(0.581)
heat(3,4]	-5.958***	-5.947***
	(0.573)	(0.557)
heat(4,5]	-5.607***	-5.611***
	(0.534)	(0.524)
heat(5,6]	-5.572***	-5.574***
	(0.514)	(0.512)
heat(6,7]	-4.652***	-4.654***
	(0.549)	(0.530)
heat(7,8]	-4.049***	-4.066***
	(0.474)	(0.465)
heat(8,9]	-3.767***	-3.802***
	(0.456)	(0.448)
heat(9,10]	-3.545***	-3.573***
	(0.476)	(0.462)
heat(10,11]	-3.155***	-3.178***
	(0.434)	(0.431)
heat(11,12]	-3.161***	-3.191***
	(0.423)	(0.414)
heat(12,13]	-2.718***	-2.758***
	(0.443)	(0.441)
heat(13,14]	-2.449***	-2.487***
	(0.460)	(0.454)
heat(14,15]	-2.177***	-2.215***

	(0.340)	(0.345)
heat(15,16]	-1.972***	-2.005***
	(0.437)	(0.430)
heat(16,17]	-1.432***	-1.462***
	(0.429)	(0.421)
heat(17,18]	-1.180***	-1.219***
	(0.370)	(0.369)
heat(18,19]	-1.306***	-1.339***
	(0.370)	(0.362)
heat(19,20]	-1.464***	-1.502***
	(0.368)	(0.365)
heat(20,21]	-0.623*	-0.652*
	(0.337)	(0.340)
heat(21,22]	-0.720**	-0.757**
	(0.299)	(0.300)
heat(22,23]	-0.458	-0.490
	(0.305)	(0.303)
heat(23,24]	-0.306	-0.331
	(0.293)	(0.292)
heat(24,25]	-0.229	-0.254
	(0.266)	(0.267)
heat(25,26]	0.011	-0.012
	(0.260)	(0.260)
heat(26,27]	-0.145	-0.155
	(0.258)	(0.257)
heat(27,28]	0.055	0.041
	(0.323)	(0.323)
heat(29,30]	0.459	0.464
	(0.292)	(0.291)
heat(30,31]	0.028	0.029
	(0.285)	(0.284)
heat(31,32]	-0.080	-0.058
	(0.295)	(0.293)
heat(32,33]	0.272	0.305
	(0.321)	(0.319)
heat(33,34]	-0.323	-0.286
	(0.330)	(0.327)
heat(34,35]	0.614*	0.648*
	(0.363)	(0.360)
heat(35,36]	0.107	0.143
	(0.352)	(0.352)
heat(36,37]	-0.084	-0.046

	(0.353)	(0.355)
heat(37,38]	-0.276	-0.221
	(0.363)	(0.364)
heat(38,39]	-0.244	-0.193
	(0.455)	(0.450)
heat(39,40]	-0.098	-0.036
	(0.389)	(0.390)
heat(40,41]	0.155	0.221
	(0.457)	(0.456)
heat(41,42]	-0.402	-0.346
	(0.463)	(0.463)
heat(42,43]	0.202	0.263
	(0.513)	(0.507)
heat(43,44]	-0.794	-0.726
	(0.599)	(0.593)
heat(44,45]	-0.352	-0.287
	(0.558)	(0.552)
heat(45,46]	-0.290	-0.232
	(0.501)	(0.504)
heat(46,47]	-0.923*	-0.853
	(0.537)	(0.539)
heat(47,48]	-1.185*	-1.110*
	(0.655)	(0.656)
heat(48,49]	-0.355	-0.285
	(0.607)	(0.611)
heat(49,50]	-0.234	-0.156
	(0.827)	(0.816)
heat(50, Inf]	-0.633	-0.504
	(0.535)	(0.513)
prcp(2,4]	-0.166	
	(0.197)	
prcp(4,6]	-0.263	
	(0.192)	
prcp(6,8]	-0.164	
	(0.202)	
prcp(8,10]	-0.274	
	(0.226)	
prcp(10,12]	-0.511**	
	(0.231)	
prcp(12,14]	-0.490**	
	(0.244)	
prcp(14,16]	-0.815***	

	(0.279)	
prcp(16,18]	-0.697**	
	(0.315)	
prcp(18,20]	-1.065***	
	(0.355)	
prcp(20, Inf]	-1.113**	
	(0.440)	
cloud(10,20]	-0.466	
	(0.503)	
cloud(20,30]	-0.300	
	(0.486)	
cloud(30,40]	-0.373	
	(0.474)	
cloud(40,50]	-0.283	
	(0.498)	
cloud(50,60]	-0.249	
	(0.507)	
cloud(60,70]	-0.145	
	(0.533)	
cloud(70, Inf]	0.036	
	(0.611)	
trange(-Inf,7.5]	0.885**	
	(0.406)	
trange(7.5,10]	0.701**	
	(0.328)	
trange(10,12.5]	0.681**	
	(0.295)	
trange(12.5,15]	0.622**	
	(0.268)	
trange(17.5, Inf]	1.009***	
	(0.345)	
Date FE	Yes	Yes
City:Season FE	Yes	Yes
N	1,941,429	1,941,429
R^2	0.020	0.020
Adjusted R^2	0.017	0.017
Residual Std. Error	42.684	42.684

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.
Standard errors are in parentheses and are clustered on city and date.

Supplementary Table 3: Varying Time and Location Controls

	(1)	(2)	(3)	(4)	(5)
tmax(-Inf,-4]	-4.875***	-11.595***	-10.204***	-9.115***	-7.941***
	(1.316)	(0.682)	(0.765)	(1.038)	(1.236)
tmax(-4,-3]	-6.171***	-11.334***	-10.515***	-8.998***	-7.897***
	(1.826)	(0.939)	(1.208)	(1.020)	(1.152)
tmax(-3,-2]	-7.726***	-11.763***	-10.662***	-8.903***	-7.770***
	(1.227)	(0.735)	(0.822)	(0.955)	(1.097)
tmax(-2,-1]	-8.591***	-11.727***	-10.604***	-8.714***	-7.627***
	(1.059)	(0.684)	(0.835)	(0.890)	(0.992)
tmax(-1,0]	-8.712***	-11.611***	-10.365***	-8.451***	-7.288***
	(0.778)	(0.491)	(0.612)	(0.778)	(0.933)
tmax(0,1]	-7.697***	-10.320***	-9.209***	-7.249***	-6.171***
	(0.797)	(0.553)	(0.629)	(0.803)	(0.916)
tmax(1,2]	-7.963***	-10.386***	-9.119***	-7.223***	-6.183***
	(0.780)	(0.506)	(0.599)	(0.725)	(0.847)
tmax(2,3]	-7.882***	-10.012***	-8.753***	-6.867***	-5.664***
	(0.651)	(0.432)	(0.540)	(0.688)	(0.807)
tmax(3,4]	-7.653***	-9.755***	-8.484***	-6.605***	-5.446***
	(0.596)	(0.393)	(0.552)	(0.705)	(0.813)
tmax(4,5]	-7.102***	-9.291***	-8.087***	-6.279***	-5.126***
	(0.605)	(0.393)	(0.559)	(0.665)	(0.794)
tmax(5,6]	-6.891***	-8.925***	-7.850***	-6.084***	-4.875***
	(0.537)	(0.366)	(0.513)	(0.649)	(0.769)
tmax(6,7]	-6.675***	-8.743***	-7.660***	-5.986***	-4.753***
	(0.477)	(0.319)	(0.444)	(0.594)	(0.724)
tmax(7,8]	-5.716***	-7.979***	-7.009***	-5.438***	-4.291***
	(0.518)	(0.354)	(0.507)	(0.608)	(0.729)
tmax(8,9]	-4.669***	-6.882***	-6.002***	-4.520***	-3.289***
	(0.509)	(0.332)	(0.468)	(0.537)	(0.644)
tmax(9,10]	-4.389***	-6.574***	-5.826***	-4.483***	-3.202***
	(0.487)	(0.321)	(0.440)	(0.511)	(0.618)
tmax(10,11]	-4.018***	-5.905***	-5.284***	-3.982***	-2.805***
	(0.535)	(0.325)	(0.468)	(0.550)	(0.657)
tmax(11,12]	-3.997***	-5.615***	-4.989***	-3.795***	-2.617***
	(0.501)	(0.322)	(0.403)	(0.470)	(0.574)
tmax(12,13]	-3.202***	-5.204***	-4.638***	-3.531***	-2.414***
	(0.511)	(0.339)	(0.413)	(0.467)	(0.570)
tmax(13,14]	-2.203***	-4.466***	-3.951***	-2.900***	-1.780***
	(0.537)	(0.305)	(0.410)	(0.484)	(0.546)
tmax(14,15]	-1.967***	-4.059***	-3.533***	-2.567***	-1.526***
	(0.610)	(0.325)	(0.405)	(0.472)	(0.541)

tmax(15,16]	-1.821***	-3.702***	-3.266***	-2.345***	-1.410***
	(0.506)	(0.297)	(0.394)	(0.449)	(0.500)
tmax(16,17]	-1.324**	-3.129***	-2.921***	-2.069***	-1.291***
	(0.576)	(0.262)	(0.336)	(0.429)	(0.501)
tmax(17,18]	-0.938*	-2.517***	-2.350***	-1.548***	-0.917*
	(0.519)	(0.287)	(0.346)	(0.393)	(0.476)
tmax(18,19]	-1.080*	-2.621***	-2.527***	-1.765***	-1.282***
	(0.553)	(0.319)	(0.376)	(0.424)	(0.479)
tmax(19,20]	-0.672	-2.412***	-2.334***	-1.647***	-1.215**
	(0.608)	(0.327)	(0.381)	(0.418)	(0.486)
tmax(20,21]	-0.236	-1.620***	-1.568***	-0.971***	-0.652*
	(0.530)	(0.288)	(0.283)	(0.306)	(0.362)
tmax(21,22]	-0.201	-1.377***	-1.329***	-0.794**	-0.527
	(0.462)	(0.296)	(0.323)	(0.362)	(0.415)
tmax(22,23]	-0.374	-1.459***	-1.364***	-0.907***	-0.656**
	(0.485)	(0.249)	(0.264)	(0.304)	(0.334)
tmax(23,24]	0.475	-0.866***	-0.775***	-0.370	-0.198
	(0.527)	(0.255)	(0.261)	(0.296)	(0.323)
tmax(24,25]	0.481	-0.850***	-0.758***	-0.386	-0.261
	(0.512)	(0.248)	(0.248)	(0.258)	(0.279)
tmax(25,26]	0.368	-0.764***	-0.665***	-0.405	-0.284
	(0.353)	(0.245)	(0.252)	(0.255)	(0.270)
tmax(26,27]	0.617*	-0.356	-0.318	-0.161	-0.084
	(0.324)	(0.238)	(0.236)	(0.236)	(0.240)
tmax(27,28]	0.484*	-0.113	-0.163	-0.090	-0.092
	(0.283)	(0.230)	(0.223)	(0.222)	(0.225)
tmax(29,30]	-0.452	-0.303	-0.237	-0.330	-0.332
	(0.327)	(0.291)	(0.284)	(0.281)	(0.285)
tmax(30,31]	-0.862**	-0.162	-0.063	-0.176	-0.053
	(0.393)	(0.275)	(0.271)	(0.279)	(0.294)
tmax(31,32]	-1.471***	-0.528	-0.396	-0.621*	-0.543
	(0.537)	(0.330)	(0.323)	(0.355)	(0.398)
tmax(32,33]	-1.630***	-0.035	0.125	-0.182	-0.013
	(0.522)	(0.296)	(0.311)	(0.344)	(0.407)
tmax(33,34]	-1.987***	-0.135	0.185	-0.253	-0.017
	(0.542)	(0.335)	(0.348)	(0.360)	(0.477)
tmax(34,35]	-2.628***	-0.527	-0.169	-0.797*	-0.690
	(0.584)	(0.401)	(0.437)	(0.478)	(0.568)
tmax(35,36]	-2.661***	-0.019	0.287	-0.534	-0.386
	(0.668)	(0.434)	(0.461)	(0.554)	(0.683)
tmax(36,37]	-2.743***	0.715	0.948	-0.040	0.125
	(0.898)	(0.747)	(0.782)	(0.918)	(1.072)

tmax(37,38]	-3.308***	-0.348	-0.030	-0.713	-0.762
	(1.010)	(0.858)	(0.841)	(1.042)	(1.321)
tmax(38,39]	-5.119***	-1.495*	-1.143	-1.718	-1.919
	(1.314)	(0.786)	(0.798)	(1.184)	(1.407)
tmax(39,40]	-5.031***	-2.391**	-1.751*	-2.423*	-2.159
	(1.676)	(0.961)	(0.981)	(1.412)	(1.779)
tmax(40, Inf]	-4.680**	-2.296**	-1.822*	-2.815*	-2.671
	(1.845)	(0.932)	(0.939)	(1.603)	(1.873)
prcp(2,4]	-0.502	-0.388*	-0.190	-0.189	-0.311
	(0.719)	(0.221)	(0.197)	(0.188)	(0.214)
prcp(4,6]	-0.952	-0.592***	-0.295	-0.284	-0.421**
	(0.748)	(0.207)	(0.186)	(0.189)	(0.213)
prcp(6,8]	-0.768	-0.412**	-0.137	-0.177	-0.302
	(0.779)	(0.209)	(0.191)	(0.199)	(0.224)
prcp(8,10]	-0.782	-0.503**	-0.231	-0.286	-0.379
	(0.815)	(0.234)	(0.217)	(0.222)	(0.250)
prcp(10,12]	-0.868	-0.690***	-0.446**	-0.517**	-0.584**
	(0.849)	(0.238)	(0.221)	(0.228)	(0.261)
prcp(12,14]	-0.556	-0.664***	-0.428*	-0.494**	-0.554**
	(0.874)	(0.247)	(0.230)	(0.236)	(0.265)
prcp(14,16]	-0.585	-0.830***	-0.739***	-0.821***	-0.909***
	(0.903)	(0.278)	(0.271)	(0.268)	(0.292)
prcp(16,18]	0.127	-0.582*	-0.575*	-0.690**	-0.737**
	(0.942)	(0.306)	(0.301)	(0.310)	(0.328)
prcp(18,20]	-0.044	-1.015***	-1.007***	-1.052***	-1.067***
	(1.048)	(0.357)	(0.348)	(0.355)	(0.369)
prcp(20, Inf]	0.651	-0.970**	-0.964**	-1.144***	-1.237***
	(1.104)	(0.423)	(0.422)	(0.438)	(0.439)
cloud(10,20]	-2.701***	-0.512	-0.388	-0.506	-0.779
	(0.986)	(0.376)	(0.373)	(0.498)	(0.601)
cloud(20,30]	-2.941***	-0.466	-0.355	-0.429	-0.853
	(1.105)	(0.343)	(0.352)	(0.487)	(0.623)
cloud(30,40]	-2.449**	0.132	-0.455	-0.555	-0.989
	(1.175)	(0.368)	(0.370)	(0.487)	(0.613)
cloud(40,50]	-2.102*	0.857**	-0.384	-0.485	-0.955
	(1.215)	(0.377)	(0.401)	(0.513)	(0.634)
cloud(50,60]	-1.734	1.154***	-0.321	-0.459	-0.957
	(1.239)	(0.379)	(0.419)	(0.524)	(0.633)
cloud(60,70]	-1.249	1.141**	-0.313	-0.410	-0.883
	(1.454)	(0.447)	(0.480)	(0.554)	(0.653)
cloud(70, Inf]	-0.708	1.217**	-0.428	-0.250	-0.677
	(1.640)	(0.537)	(0.616)	(0.630)	(0.717)

humid(10,20]	0.937	1.003	-0.937	-0.245	-0.527
	(1.330)	(1.078)	(1.068)	(1.157)	(1.756)
humid(20,30]	0.949	0.100	-0.807*	-0.225	-0.418
	(1.252)	(0.459)	(0.468)	(0.451)	(0.473)
humid(30,40]	-0.271	-0.833**	-1.116**	-1.034**	-1.198***
	(1.022)	(0.380)	(0.433)	(0.418)	(0.425)
humid(40,50]	-0.710	-0.400	-0.394	-0.276	-0.378
	(0.539)	(0.327)	(0.320)	(0.326)	(0.341)
humid(60,70]	-0.247	-0.021	-0.086	-0.235	-0.411**
	(0.556)	(0.182)	(0.169)	(0.172)	(0.191)
humid(70,80]	-0.430	-0.160	0.073	-0.060	-0.168
	(0.702)	(0.240)	(0.217)	(0.215)	(0.235)
humid(80,90]	0.803	-0.135	-0.070	-0.087	-0.116
	(0.827)	(0.300)	(0.277)	(0.268)	(0.290)
humid(90, Inf]	4.703***	-0.238	0.262	0.356	0.255
	(1.360)	(0.419)	(0.443)	(0.452)	(0.520)
trange(-Inf,7.5]	-3.028**	0.186	1.314***	0.906**	0.791*
	(1.475)	(0.469)	(0.426)	(0.417)	(0.446)
trange(7.5,10]	-2.991**	0.289	0.958***	0.714**	0.593
	(1.400)	(0.385)	(0.319)	(0.336)	(0.361)
trange(10,12.5]	-2.723**	0.580*	0.841***	0.676**	0.563*
	(1.259)	(0.350)	(0.296)	(0.300)	(0.320)
trange(12.5,15]	-2.409**	0.600**	0.701***	0.608**	0.589**
	(0.950)	(0.302)	(0.257)	(0.268)	(0.282)
trange(17.5, Inf]	2.657***	0.877***	0.909***	1.031***	0.957**
	(0.627)	(0.298)	(0.339)	(0.334)	(0.382)
Constant	82.959***				
	(1.410)				
City FE	No	Yes	Yes	No	No
Date FE	No	No	Yes	Yes	Yes
City:Season FE	No	No	No	Yes	No
City:Month FE	No	No	No	No	Yes
N	1,941,429	1,941,429	1,941,429	1,941,429	1,941,429
R^2	0.005	0.015	0.019	0.020	0.021
Adjusted R^2	0.005	0.015	0.017	0.017	0.017
Residual Std. Error	42.953	42.726	42.689	42.684	42.679

Notes:
***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.
Standard errors are in parentheses and are clustered on city and date.

Supplementary Table 4: Demographic Controls

tmax(-Inf,-4]	-9.336***
	(1.152)
tmax(-4,-3]	-9.074***
	(1.128)
tmax(-3,-2]	-8.843***
	(0.949)
tmax(-2,-1]	-8.453***
	(0.920)
tmax(-1,0]	-8.781***
	(0.822)
tmax(0,1]	-7.481***
	(0.903)
tmax(1,2]	-7.689***
	(0.742)
tmax(2,3]	-7.032***
	(0.710)
tmax(3,4]	-6.914***
	(0.746)
tmax(4,5]	-6.525***
	(0.717)
tmax(5,6]	-6.173***
	(0.662)
tmax(6,7]	-6.272***
	(0.611)
tmax(7,8]	-5.692***
	(0.638)
tmax(8,9]	-4.646***
	(0.619)
tmax(9,10]	-4.604***
	(0.549)
tmax(10,11]	-4.229***
	(0.609)
tmax(11,12]	-3.838***
	(0.519)
tmax(12,13]	-3.721***
	(0.524)
tmax(13,14]	-2.998***
	(0.525)
tmax(14,15]	-2.791***
	(0.506)
tmax(15,16]	-2.522***

	(0.490)
tmax(16,17]	-2.308***
	(0.457)
tmax(17,18]	-1.783***
	(0.430)
tmax(18,19]	-1.888***
	(0.455)
tmax(19,20]	-1.782***
	(0.442)
tmax(20,21]	-1.208***
	(0.352)
tmax(21,22]	-0.794**
	(0.380)
tmax(22,23]	-0.913***
	(0.344)
tmax(23,24]	-0.316
	(0.311)
tmax(24,25]	-0.269
	(0.294)
tmax(25,26]	-0.367
	(0.257)
tmax(26,27]	-0.224
	(0.253)
tmax(27,28]	0.005
	(0.234)
tmax(29,30]	-0.284
	(0.294)
tmax(30,31]	-0.041
	(0.283)
tmax(31,32]	-0.669*
	(0.357)
tmax(32,33]	0.001
	(0.328)
tmax(33,34]	-0.143
	(0.390)
tmax(34,35]	-0.740
	(0.467)
tmax(35,36]	-0.963*
	(0.510)
tmax(36,37]	-0.217
	(0.883)
tmax(37,38]	-0.317

	(1.082)
tmax(38,39]	-1.976*
	(1.124)
tmax(39,40]	-2.754*
	(1.435)
tmax(40, Inf]	-3.051**
	(1.436)
prcp(2,4]	-0.216
	(0.183)
prcp(4,6]	-0.216
	(0.190)
prcp(6,8]	-0.072
	(0.194)
prcp(8,10]	-0.194
	(0.220)
prcp(10,12]	-0.466**
	(0.236)
prcp(12,14]	-0.499**
	(0.243)
prcp(14,16]	-0.711***
	(0.262)
prcp(16,18]	-0.738**
	(0.302)
prcp(18,20]	-0.983***
	(0.363)
prcp(20, Inf]	-1.064***
	(0.404)
cloud(10,20]	-0.346
	(0.585)
cloud(20,30]	-0.446
	(0.550)
cloud(30,40]	-0.501
	(0.536)
cloud(40,50]	-0.499
	(0.550)
cloud(50,60]	-0.379
	(0.555)
cloud(60,70]	-0.520
	(0.589)
cloud(70, Inf]	-0.250
	(0.675)
humid(10,20]	0.308

	(1.539)
humid(20,30]	0.447
	(0.577)
humid(30,40]	-0.825**
	(0.391)
humid(40,50]	-0.200
	(0.371)
humid(60,70]	-0.069
	(0.194)
humid(70,80]	0.121
	(0.229)
humid(80,90]	0.049
	(0.276)
humid(90, Inf]	0.334
	(0.476)
trange(-Inf,7.5]	0.987**
	(0.421)
trange(7.5,10]	0.744**
	(0.354)
trange(10,12.5]	0.699**
	(0.322)
trange(12.5,15]	0.566**
	(0.284)
trange(17.5, Inf]	0.700**
	(0.340)
age	-0.187***
	(0.004)
hispanc2	3.542***
	(0.406)
educa	5.654***
	(0.081)
income2	2.940***
	(0.040)
employ	-0.122***
	(0.026)
female	-2.230***
	(0.146)
Date FE	Yes
City:Season FE	Yes
N	1,659,481
R^2	0.092
Adjusted R^2	0.090

Residual Std. Error	40.643
Notes:	***Significant at the 1 percent level.
	**Significant at the 5 percent level.
	*Significant at the 10 percent level.
	Standard errors are in parentheses and are clustered on city and date.

Supplementary Table 5: Regressions by BMI Category

	Normal (1)	Overweight (2)	Obese (3)
tmax(-Inf,-4]	-7.980***	-10.472***	-10.805***
	(1.450)	(1.597)	(2.149)
tmax(-4,-3]	-10.360***	-8.679***	-8.077***
	(1.666)	(1.769)	(2.069)
tmax(-3,-2]	-8.494***	-9.491***	-9.238***
	(1.513)	(1.408)	(1.854)
tmax(-2,-1]	-8.913***	-9.174***	-8.510***
	(1.460)	(1.387)	(1.842)
tmax(-1,0]	-7.371***	-9.142***	-10.650***
	(1.182)	(1.190)	(1.496)
tmax(0,1]	-5.991***	-8.313***	-8.444***
	(1.127)	(1.268)	(1.545)
tmax(1,2]	-6.322***	-7.587***	-8.783***
	(1.110)	(1.123)	(1.377)
tmax(2,3]	-7.166***	-6.319***	-7.444***
	(1.071)	(1.114)	(1.358)
tmax(3,4]	-5.958***	-6.598***	-7.797***
	(1.105)	(1.132)	(1.331)
tmax(4,5]	-5.704***	-6.827***	-6.907***
	(1.063)	(1.034)	(1.328)
tmax(5,6]	-5.749***	-6.100***	-6.803***
	(0.960)	(1.027)	(1.280)
tmax(6,7]	-5.248***	-7.106***	-5.924***
	(0.944)	(0.992)	(1.217)
tmax(7,8]	-4.886***	-5.507***	-6.211***
	(0.934)	(0.926)	(1.189)
tmax(8,9]	-4.151***	-4.759***	-4.798***
	(0.813)	(0.882)	(1.253)
tmax(9,10]	-3.770***	-4.858***	-5.109***
	(0.765)	(0.822)	(1.129)
tmax(10,11]	-3.830***	-4.537***	-4.055***
	(0.782)	(0.899)	(1.062)
tmax(11,12]	-3.493***	-3.807***	-4.563***
	(0.776)	(0.852)	(1.038)
tmax(12,13]	-3.368***	-3.670***	-4.303***
	(0.720)	(0.773)	(1.112)
tmax(13,14]	-2.505***	-3.168***	-3.194***
	(0.762)	(0.743)	(1.027)
tmax(14,15]	-2.047***	-2.982***	-3.188***

	(0.712)	(0.783)	(0.952)
tmax(15,16]	-1.362*	-2.387***	-3.486***
	(0.715)	(0.731)	(0.920)
tmax(16,17]	-1.874***	-2.611***	-2.245**
	(0.666)	(0.702)	(0.976)
tmax(17,18]	-1.237**	-2.038***	-1.481*
	(0.586)	(0.611)	(0.853)
tmax(18,19]	-1.313**	-2.020***	-2.565***
	(0.633)	(0.625)	(0.821)
tmax(19,20]	-1.236**	-2.196***	-1.382*
	(0.624)	(0.637)	(0.821)
tmax(20,21]	-1.230**	-1.365**	-0.279
	(0.491)	(0.564)	(0.747)
tmax(21,22]	-0.948*	-1.073**	-0.054
	(0.523)	(0.525)	(0.729)
tmax(22,23]	-1.023**	-1.200**	-0.479
	(0.462)	(0.493)	(0.590)
tmax(23,24]	-0.224	-0.211	-0.819
	(0.426)	(0.483)	(0.659)
tmax(24,25]	-0.308	-0.752*	0.123
	(0.402)	(0.406)	(0.629)
tmax(25,26]	-0.148	-0.853**	-0.078
	(0.442)	(0.403)	(0.573)
tmax(26,27]	-0.172	-0.175	-0.110
	(0.367)	(0.375)	(0.556)
tmax(27,28]	-0.245	0.081	0.331
	(0.336)	(0.362)	(0.586)
tmax(29,30]	-0.494	-0.134	0.096
	(0.411)	(0.382)	(0.569)
tmax(30,31]	-0.315	-0.098	0.420
	(0.379)	(0.379)	(0.652)
tmax(31,32]	-0.166	-0.695	-0.797
	(0.477)	(0.483)	(0.679)
tmax(32,33]	0.112	-0.088	-0.250
	(0.518)	(0.478)	(0.736)
tmax(33,34]	0.150	0.181	-0.626
	(0.502)	(0.588)	(0.812)
tmax(34,35]	-0.262	-1.457**	0.024
	(0.664)	(0.668)	(1.042)
tmax(35,36]	0.303	-0.940	-0.422
	(0.695)	(1.018)	(1.098)
tmax(36,37]	-0.604	0.071	0.970

	(1.125)	(1.285)	(1.533)
tmax(37,38]	-0.804	-0.315	-0.565
	(1.065)	(1.591)	(1.852)
tmax(38,39]	-1.082	-1.712	-2.536
	(1.616)	(1.520)	(2.468)
tmax(39,40]	-1.663	-1.373	-4.394*
	(1.672)	(1.551)	(2.355)
tmax(40, Inf]	-0.866	-3.010	-6.567***
	(1.444)	(2.429)	(2.114)
prcp(2,4]	-0.262	-0.796**	0.349
	(0.288)	(0.320)	(0.429)
prcp(4,6]	-0.125	-0.982***	0.198
	(0.304)	(0.304)	(0.445)
prcp(6,8]	0.197	-1.133***	0.397
	(0.338)	(0.300)	(0.481)
prcp(8,10]	0.270	-1.160***	-0.109
	(0.357)	(0.356)	(0.503)
prcp(10,12]	-0.093	-1.358***	-0.459
	(0.362)	(0.379)	(0.562)
prcp(12,14]	0.122	-1.687***	0.066
	(0.398)	(0.389)	(0.546)
prcp(14,16]	-0.269	-1.622***	-0.991
	(0.417)	(0.440)	(0.630)
prcp(16,18]	0.025	-1.766***	-0.838
	(0.485)	(0.478)	(0.723)
prcp(18,20]	0.079	-1.859***	-2.119**
	(0.584)	(0.613)	(0.848)
prcp(20, Inf]	-0.801	-1.459**	-1.355
	(0.659)	(0.695)	(0.959)
cloud(10,20]	-0.226	-0.449	-0.958
	(0.708)	(0.834)	(0.930)
cloud(20,30]	0.258	-1.133	-0.005
	(0.675)	(0.874)	(0.967)
cloud(30,40]	0.010	-0.845	-0.358
	(0.695)	(0.892)	(1.031)
cloud(40,50]	0.113	-0.912	-0.100
	(0.726)	(0.913)	(1.034)
cloud(50,60]	0.339	-0.961	-0.083
	(0.743)	(0.940)	(1.093)
cloud(60,70]	0.144	-0.901	-0.311
	(0.785)	(0.983)	(1.145)
cloud(70, Inf]	0.358	-0.469	-0.403

	(0.862)	(1.204)	(1.341)
humid(10,20]	0.444	0.320	-0.023
	(1.374)	(1.725)	(2.197)
humid(20,30]	-0.501	-0.216	0.176
	(0.739)	(0.951)	(1.429)
humid(30,40]	-1.299*	-0.176	-1.487*
	(0.709)	(0.739)	(0.848)
humid(40,50]	-0.241	-0.323	0.012
	(0.428)	(0.502)	(0.523)
humid(60,70]	-0.205	-0.380	-0.215
	(0.275)	(0.264)	(0.343)
humid(70,80]	0.178	-0.238	-0.246
	(0.308)	(0.287)	(0.446)
humid(80,90]	-0.170	-0.258	0.019
	(0.350)	(0.364)	(0.511)
humid(90, Inf]	0.814	0.021	0.055
	(0.664)	(0.720)	(1.083)
trange(-Inf,7.5]	1.053*	1.159*	1.290
	(0.556)	(0.629)	(0.802)
trange(7.5,10]	0.633	0.946*	1.234*
	(0.429)	(0.509)	(0.653)
trange(10,12.5]	0.370	1.104**	1.034*
	(0.387)	(0.448)	(0.556)
trange(12.5,15]	0.418	0.769*	0.999**
	(0.321)	(0.421)	(0.478)
trange(17.5, Inf]	1.050**	0.126	2.518***
	(0.477)	(0.610)	(0.673)
Date FE	Yes	Yes	Yes
City:Season FE	Yes	Yes	Yes
N	711,662	669,913	466,754
R^2	0.024	0.022	0.026
Adjusted R^2	0.018	0.015	0.016
Residual Std. Error	39.480	41.331	46.779

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.
Standard errors are in parentheses and are clustered on city and date.

Supplementary Table 6: Regressions by Age

	Under 40	40-65	65 and Over
	(1)	(2)	(3)
tmax(-Inf,-4]	-8.684***	-9.402***	-9.267***
	(1.731)	(1.371)	(2.064)
tmax(-4,-3]	-8.461***	-9.772***	-8.333***
	(1.802)	(1.353)	(2.042)
tmax(-3,-2]	-8.809***	-9.637***	-7.625***
	(1.673)	(1.194)	(1.992)
tmax(-2,-1]	-8.027***	-8.846***	-9.377***
	(1.508)	(1.073)	(1.779)
tmax(-1,0]	-7.663***	-9.019***	-8.232***
	(1.387)	(0.941)	(1.519)
tmax(0,1]	-5.559***	-8.519***	-7.015***
	(1.404)	(0.984)	(1.509)
tmax(1,2]	-5.667***	-7.974***	-7.531***
	(1.364)	(0.902)	(1.478)
tmax(2,3]	-6.101***	-7.559***	-6.731***
	(1.301)	(0.869)	(1.389)
tmax(3,4]	-5.466***	-7.349***	-6.895***
	(1.373)	(0.813)	(1.383)
tmax(4,5]	-5.564***	-6.940***	-6.157***
	(1.266)	(0.821)	(1.250)
tmax(5,6]	-4.922***	-6.498***	-6.551***
	(1.239)	(0.805)	(1.289)
tmax(6,7]	-5.669***	-6.276***	-6.157***
	(1.089)	(0.740)	(1.218)
tmax(7,8]	-5.295***	-5.564***	-5.768***
	(1.215)	(0.738)	(1.120)
tmax(8,9]	-4.068***	-4.698***	-4.925***
	(1.159)	(0.729)	(1.115)
tmax(9,10]	-4.354***	-4.741***	-4.426***
	(1.019)	(0.675)	(1.069)
tmax(10,11]	-3.407***	-4.348***	-4.128***
	(1.075)	(0.692)	(1.032)
tmax(11,12]	-3.638***	-4.136***	-3.593***
	(0.986)	(0.639)	(0.994)
tmax(12,13]	-3.234***	-3.919***	-3.352***
	(0.993)	(0.650)	(0.926)
tmax(13,14]	-3.149***	-3.070***	-2.521***
	(1.070)	(0.567)	(0.904)
tmax(14,15]	-2.574***	-3.030***	-2.255**

	(0.930)	(0.639)	(0.917)
tmax(15,16]	-2.137**	-2.617***	-2.171**
	(0.893)	(0.572)	(0.948)
tmax(16,17]	-2.319***	-2.445***	-1.389*
	(0.856)	(0.557)	(0.823)
tmax(17,18]	-1.341	-2.028***	-1.062
	(0.827)	(0.534)	(0.848)
tmax(18,19]	-1.601**	-1.980***	-1.829**
	(0.778)	(0.508)	(0.839)
tmax(19,20]	-2.225***	-1.564***	-1.222*
	(0.762)	(0.571)	(0.731)
tmax(20,21]	-1.139*	-1.250***	-0.553
	(0.667)	(0.437)	(0.662)
tmax(21,22]	-1.109	-0.544	-1.166*
	(0.683)	(0.452)	(0.672)
tmax(22,23]	-0.795	-1.066**	-0.652
	(0.653)	(0.425)	(0.653)
tmax(23,24]	-0.312	-0.628	0.001
	(0.605)	(0.406)	(0.540)
tmax(24,25]	-0.605	-0.413	-0.158
	(0.542)	(0.311)	(0.559)
tmax(25,26]	-0.228	-0.428	-0.516
	(0.515)	(0.347)	(0.518)
tmax(26,27]	-0.837	-0.077	0.355
	(0.517)	(0.318)	(0.464)
tmax(27,28]	-0.289	-0.122	0.151
	(0.489)	(0.278)	(0.455)
tmax(29,30]	-0.663	-0.419	0.092
	(0.510)	(0.313)	(0.557)
tmax(30,31]	0.137	-0.271	-0.122
	(0.534)	(0.405)	(0.521)
tmax(31,32]	-0.837	-0.593	-0.647
	(0.640)	(0.433)	(0.617)
tmax(32,33]	-0.442	0.034	-0.511
	(0.647)	(0.468)	(0.681)
tmax(33,34]	-0.349	-0.221	-0.380
	(0.770)	(0.546)	(0.773)
tmax(34,35]	-0.253	-0.857	-1.241
	(0.890)	(0.629)	(0.777)
tmax(35,36]	-1.968**	-0.981	0.857
	(0.929)	(0.766)	(1.092)
tmax(36,37]	0.096	0.552	-0.917

	(1.537)	(1.170)	(1.288)
tmax(37,38]	-0.708	-0.827	0.104
	(1.470)	(1.229)	(1.542)
tmax(38,39]	-3.434*	-0.682	-2.452
	(1.836)	(1.521)	(1.699)
tmax(39,40]	-2.941	-2.063	-3.385
	(2.393)	(1.712)	(2.113)
tmax(40, Inf]	-1.574	-1.140	-7.026***
	(2.764)	(2.133)	(1.778)
prcp(2,4]	0.138	-0.360	-0.149
	(0.357)	(0.282)	(0.368)
prcp(4,6]	0.373	-0.303	-0.695*
	(0.359)	(0.278)	(0.413)
prcp(6,8]	0.553	-0.294	-0.576
	(0.391)	(0.313)	(0.412)
prcp(8,10]	0.300	-0.444	-0.439
	(0.393)	(0.335)	(0.430)
prcp(10,12]	-0.009	-0.621*	-0.751
	(0.412)	(0.337)	(0.472)
prcp(12,14]	-0.090	-0.626*	-0.575
	(0.429)	(0.346)	(0.518)
prcp(14,16]	-0.271	-0.861**	-1.132**
	(0.534)	(0.396)	(0.527)
prcp(16,18]	0.130	-0.798*	-1.513**
	(0.547)	(0.438)	(0.654)
prcp(18,20]	-0.737	-0.815	-1.762**
	(0.705)	(0.547)	(0.739)
prcp(20, Inf]	-0.708	-1.014*	-1.707
	(0.964)	(0.527)	(1.160)
cloud(10,20]	0.686	-1.874**	1.400*
	(0.954)	(0.845)	(0.757)
cloud(20,30]	-0.012	-1.708**	1.799**
	(0.920)	(0.817)	(0.810)
cloud(30,40]	-0.096	-2.042**	1.922**
	(0.945)	(0.821)	(0.885)
cloud(40,50]	-0.178	-2.035**	2.189**
	(0.975)	(0.845)	(0.921)
cloud(50,60]	-0.188	-2.094**	2.332**
	(1.021)	(0.868)	(0.983)
cloud(60,70]	-0.362	-2.030**	2.551**
	(1.037)	(0.890)	(1.069)
cloud(70, Inf]	0.077	-1.453	1.828

	(1.340)	(0.914)	(1.368)
humid(10,20]	-2.321	-1.446	4.220**
	(2.114)	(1.111)	(1.854)
humid(20,30]	-1.136	0.552	0.031
	(0.695)	(0.750)	(1.253)
humid(30,40]	-1.960***	-0.627	-0.860
	(0.559)	(0.743)	(0.625)
humid(40,50]	-0.912**	-0.408	0.702
	(0.419)	(0.535)	(0.530)
humid(60,70]	-0.552*	-0.106	-0.215
	(0.316)	(0.225)	(0.404)
humid(70,80]	-0.312	0.032	-0.043
	(0.380)	(0.282)	(0.461)
humid(80,90]	-0.292	-0.056	0.130
	(0.445)	(0.334)	(0.558)
humid(90, Inf]	0.625	0.011	0.716
	(1.504)	(0.453)	(0.784)
trange(-Inf,7.5]	0.970	0.833	0.986
	(0.592)	(0.613)	(0.797)
trange(7.5,10]	0.698	0.602	0.877
	(0.490)	(0.518)	(0.674)
trange(10,12.5]	0.792*	0.607	0.768
	(0.429)	(0.485)	(0.567)
trange(12.5,15]	0.444	0.603	0.825*
	(0.336)	(0.461)	(0.496)
trange(17.5, Inf]	1.359**	0.438	1.631**
	(0.689)	(0.436)	(0.697)
Date FE	Yes	Yes	Yes
City:Season FE	Yes	Yes	Yes
N	456,383	947,982	517,700
R^2	0.028	0.025	0.024
Adjusted R^2	0.017	0.020	0.015
Residual Std. Error	39.242	41.804	46.150

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.
Standard errors are in parentheses and are clustered on city and date.