



Figure S1

(A) Direct Normal Irradiance (DNI; in units of W/m^2) as a function of day of year is plotted in blue. The exponentially weighted average DNI is plotted in green. (B) DNI prediction errors calculated from observations and exponentially-weighted average in Panel A.

Table S1.

Fixed-effects regression coefficients for model estimating effect of Citywide (Sum) Sports PEs upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Citywide Sports PE	0.0029 (0.0005)	<.0001*
TUE	0.0108 (0.0028)	<.0001*
WED	0.0378 (0.0039)	<.0001*
THU	0.0651 (0.0041)	<.0001*
FRI	0.1496 (0.0039)	<.0001*
SAT	0.0072 (0.0159)	0.652
SUN	-0.2198 (0.0202)	<.0001*
FEB	0.0385 (0.0038)	<.0001*
MAR	0.0668 (0.0033)	<.0001*
APR	0.0422 (0.0032)	<.0001*
MAY	0.0059 (0.0032)	0.066
JUN	0.0466 (0.0044)	<.0001*
JUL	-0.0034 (0.0057)	0.548
AUG	-0.0243 (0.0055)	<.0001*
SEP	-0.0120 (0.0054)	0.026*
OCT	-0.0030 (0.0054)	0.578
NOV	-0.0295 (0.0085)	<.0001*
DEC	0.0913 (0.0060)	<.0001*
FIRST_OF_MONTH	0.0375 (0.0033)	<.0001*
FIFTEENTH_OF_MONTH	-0.0060 (0.0027)	0.029*
INDEPENDENCEDAY	-0.2082 (0.0213)	<.0001*
THANKSGIVING	-0.3228 (0.0279)	<.0001*
DAYAFTERCHRISTMAS	-0.0832 (0.0086)	<.0001*
LABORDAY	-0.1299 (0.0213)	<.0001*
EASTER	-0.0461 (0.0080)	<.0001*
COLUMBUSDAY	-0.0797 (0.0082)	<.0001*
MEMORIALDAY	-0.2736 (0.0191)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0673 (0.0107)	<.0001*
VETERANSDAY	-0.0419 (0.0081)	<.0001*
WASHINGTONSBIRTHDAY	-0.0758 (0.0080)	<.0001*

Table S2.

Fixed-effects regression coefficients for model estimating effect of Composite Citywide Sports Outcomes upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Composite Citywide Sports Outcome	0.0015 (0.0009)	0.108
TUE	-0.2307 (0.0108)	<.0001*
WED	-0.2020 (0.0108)	<.0001*
THU	-0.1818 (0.0110)	<.0001*
FRI	-0.0880 (0.0100)	<.0001*
SAT	-0.2295 (0.0152)	<.0001*
SUN	-0.4702 (0.0178)	<.0001*
FEB	-0.3789 (0.0162)	<.0001*
MAR	-0.3508 (0.0158)	<.0001*
APR	-0.4002 (0.0163)	<.0001*
MAY	-0.4160 (0.0160)	<.0001*
JUN	-0.3856 (0.0163)	<.0001*
JUL	-0.4487 (0.0170)	<.0001*
AUG	-0.4524 (0.0166)	<.0001*
SEP	-0.4346 (0.0165)	<.0001*
OCT	-0.4554 (0.0171)	<.0001*
NOV	-0.4772 (0.0182)	<.0001*
DEC	-0.3546 (0.0165)	<.0001*
FIRST_OF_MONTH	0.0298 (0.0063)	<.0001*
FIFTEENTH_OF_MONTH	-0.0425 (0.0055)	<.0001*
INDEPENDENCEDAY	-0.1613 (0.0228)	<.0001*
THANKSGIVING	-0.2737 (0.0265)	<.0001*
DAYAFTERCHRISTMAS	-0.0420 (0.0174)	0.016*
LABORDAY	-0.3482 (0.0222)	<.0001*
EASTER	0.0034 (0.0164)	0.834
COLUMBUSDAY	-0.2665 (0.0181)	<.0001*
MEMORIALDAY	-0.4907 (0.0217)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.7104 (0.0286)	<.0001*
VETERANSDAY	-0.2366 (0.0181)	<.0001*
WASHINGTONSBIRTHDAY	-0.2978 (0.0198)	<.0001*

Table S3.

Fixed-effects regression coefficients for model estimating effect of Solar Irradiance PEs upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Irradiance PE	0.0035 (0.0005)	<.0001*
TUE	-0.0057 (0.0022)	0.009*
WED	0.0091 (0.0032)	0.005*
THU	0.0472 (0.0033)	<.0001*
FRI	0.1389 (0.0034)	<.0001*
SAT	0.0142 (0.0157)	0.366
SUN	-0.2253 (0.0204)	<.0001*
FEB	0.0889 (0.0043)	<.0001*
MAR	0.1281 (0.0045)	<.0001*
APR	0.1354 (0.0041)	<.0001*
MAY	0.0958 (0.0037)	<.0001*
JUN	0.1016 (0.0037)	<.0001*
JUL	0.0138 (0.0039)	<.0001*
AUG	0.0267 (0.0037)	<.0001*
SEP	0.0696 (0.0038)	<.0001*
OCT	0.0707 (0.0040)	<.0001*
NOV	0.0783 (0.0040)	<.0001*
DEC	0.1406 (0.0044)	<.0001*
FIRST_OF_MONTH	0.0509 (0.0030)	<.0001*
FIFTEENTH_OF_MONTH	0.0157 (0.0028)	<.0001*
HURRICANE	-0.2702 (0.0151)	<.0001*
STORM	-0.1075 (0.0042)	<.0001*
INDEPENDENCEDAY	-0.1549 (0.0212)	<.0001*
THANKSGIVING	-0.3250 (0.0232)	<.0001*
CHRISTMASDAY	-0.6624 (0.0168)	<.0001*
DAYAFTERCHRISTMAS	-0.1040 (0.0176)	<.0001*
LABORDAY	-0.1232 (0.0205)	<.0001*
EASTER	-0.1132 (0.0079)	<.0001*
NEWYEARSDAY	0.0351 (0.0079)	<.0001*
COLUMBUSDAY	-0.0571 (0.0094)	<.0001*
MEMORIALDAY	-0.2777 (0.0202)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJ R	-0.0856 (0.0123)	<.0001*
VETERANSDAY	-0.0130 (0.0079)	0.097
WASHINGTONSBIRTHDAY	-0.1268 (0.0079)	<.0001*

Table S4.

Fixed-effects regression coefficients for model estimating effect of Solar Irradiance (DNI) upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Irradiance	-0.0009 (0.0011)	0.389
TUE	-0.3835 (0.0171)	<.0001*
WED	-0.3545 (0.0174)	<.0001*
THU	-0.3185 (0.0174)	<.0001*
FRI	-0.2284 (0.0148)	<.0001*
SAT	-0.3733 (0.0201)	<.0001*
SUN	-0.5955 (0.0185)	<.0001*
FEB	-0.2582 (0.0123)	<.0001*
MAR	-0.2385 (0.0121)	<.0001*
APR	-0.2739 (0.0123)	<.0001*
JUN	-0.2601 (0.0117)	<.0001*
JUL	-0.3201 (0.0125)	<.0001*
AUG	-0.3284 (0.0121)	<.0001*
SEP	-0.3055 (0.0117)	<.0001*
OCT	-0.3126 (0.0115)	<.0001*
NOV	-0.3244 (0.0132)	<.0001*
DEC	-0.2380 (0.0125)	<.0001*
FIRST_OF_MONTH	0.0174 (0.0070)	0.013*
FIFTEENTH_OF_MONTH	-0.0359 (0.0062)	<.0001*
STORM	-0.1062 (0.0231)	<.0001*
INDEPENDENCEDAY	-0.1368 (0.0250)	<.0001*
THANKSGIVING	-0.2914 (0.0276)	<.0001*
CHRISTMASDAY	-0.6087 (0.0278)	<.0001*
DAYAFTERCHRISTMAS	-0.0096 (0.0217)	0.659
LABORDAY	-0.4788 (0.0261)	<.0001*
EASTER	0.0023 (0.0203)	0.911
NEWYEARSDAY	-0.5524 (0.0219)	<.0001*
COLUMBUSDAY	-0.4078 (0.0238)	<.0001*
MEMORIALDAY	-0.9035 (0.0337)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.7108 (0.0303)	<.0001*
VETERANSDAY	-0.3902 (0.0240)	<.0001*
WASHINGTONSBIRTHDAY	-0.4156 (0.0247)	<.0001*

Table S5.

Fixed-effects regression coefficients for model estimating interaction between Citywide Sports PEs and SES upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Citywide Sports PE	0.0028 (0.0005)	<.0001*
ZIP SES	-0.0514 (0.0661)	0.437
Citywide Sports PE × ZIP SES	-0.0001 (0.0005)	0.769
TUE	0.0108 (0.0028)	<.0001*
WED	0.0378 (0.0039)	<.0001*
THU	0.0651 (0.0041)	<.0001*
FRI	0.1496 (0.0039)	<.0001*
SAT	0.0072 (0.0160)	0.652
SUN	-0.2198 (0.0202)	<.0001*
FEB	0.0385 (0.0038)	<.0001*
MAR	0.0668 (0.0033)	<.0001*
APR	0.0422 (0.0032)	<.0001*
MAY	0.0059 (0.0032)	0.065
JUN	0.0467 (0.0044)	<.0001*
JUL	-0.0034 (0.0057)	0.550
AUG	-0.0243 (0.0055)	<.0001*
SEP	-0.0120 (0.0054)	0.026*
OCT	-0.0030 (0.0054)	0.579
NOV	-0.0295 (0.0085)	<.0001*
DEC	0.0913 (0.0060)	<.0001*
FIRST_OF_MONTH	0.0375 (0.0033)	<.0001*
FIFTEENTH_OF_MONTH	-0.0060 (0.0027)	0.029*
INDEPENDENCEDAY	-0.2046 (0.0212)	<.0001*
THANKSGIVING	-0.3228 (0.0279)	<.0001*
DAYAFTERCHRISTMAS	-0.0832 (0.0086)	<.0001*
LABORDAY	-0.1298 (0.0213)	<.0001*
EASTER	-0.0461 (0.0080)	<.0001*
COLUMBUSDAY	-0.0797 (0.0082)	<.0001*
MEMORIALDAY	-0.2736 (0.0191)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0673 (0.0107)	<.0001*
VETERANSDAY	-0.0419 (0.0081)	<.0001*
WASHINGTONSBIRTHDAY	-0.0758 (0.0080)	<.0001*

Table S6.

Fixed-effects regression coefficients for model estimating interaction between Solar Irradiance PEs and SES upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Irradiance PE	0.0039 (0.0005)	<.0001*
ZIP SES	-0.5024 (0.0486)	<.0001*
Irradiance PE × ZIP SES	0.0004 (0.0005)	0.407
TUE	0.0167 (0.0028)	<.0001*
WED	0.0351 (0.0035)	<.0001*
THU	0.0737 (0.0043)	<.0001*
FRI	0.1492 (0.0038)	<.0001*
SAT	0.0152 (0.0161)	0.345
SUN	-0.2071 (0.0203)	<.0001*
FEB	0.0399 (0.0033)	<.0001*
MAR	0.0683 (0.0030)	<.0001*
APR	0.0506 (0.0033)	<.0001*
JUN	0.0478 (0.0046)	<.0001*
JUL	0.0031 (0.0060)	0.607
AUG	-0.0224 (0.0058)	<.0001*
SEP	-0.0072 (0.0058)	0.211
OCT	-0.0069 (0.0057)	0.221
NOV	-0.0205 (0.0078)	0.009*
DEC	0.0950 (0.0062)	<.0001*
FIRST_OF_MONTH	0.0427 (0.0030)	<.0001*
FIFTEENTH_OF_MONTH	0.0012 (0.0025)	0.646
STORM	-0.1450 (0.0152)	<.0001*
INDEPENDENCEDAY	-0.3993 (0.0170)	<.0001*
THANKSGIVING	-0.3443 (0.0277)	<.0001*
CHRISTMASDAY	-0.6943 (0.0260)	<.0001*
DAYAFTERCHRISTMAS	-0.0794 (0.0085)	<.0001*
LABORDAY	-0.1215 (0.0213)	<.0001*
EASTER	-0.0663 (0.0080)	<.0001*
NEWYEARSDAY	-0.0737 (0.0170)	<.0001*
COLUMBUSDAY	-0.0621 (0.0081)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0670 (0.0106)	<.0001*
VETERANSDAY	-0.0496 (0.0080)	<.0001*
WASHINGTONSBIRTHDAY	-0.0684 (0.0080)	<.0001*

Table S7.

Fixed-effects regression coefficients for model estimating effect of ZIP SES upon log per-person lottery purchases.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
ZIP SES	-0.4446 (0.0487)	<.0001*
TUE	-0.0116 (0.0021)	<.0001*
WED	0.0078 (0.0032)	0.015*
THU	0.0465 (0.0034)	<.0001*
FRI	0.1368 (0.0034)	<.0001*
SAT	0.0120 (0.0157)	0.444
SUN	-0.2221 (0.0203)	<.0001*
FEB	0.0914 (0.0043)	<.0001*
MAR	0.1290 (0.0044)	<.0001*
APR	0.1381 (0.0042)	<.0001*
MAY	0.0972 (0.0037)	<.0001*
JUN	0.1026 (0.0037)	<.0001*
JUL	0.0153 (0.0039)	<.0001*
AUG	0.0283 (0.0037)	<.0001*
SEP	0.0684 (0.0037)	<.0001*
OCT	0.0695 (0.0039)	<.0001*
NOV	0.0781 (0.0040)	<.0001*
DEC	0.1399 (0.0042)	<.0001*
FIRST_OF_MONTH	0.0517 (0.0029)	<.0001*
FIFTEENTH_OF_MONTH	0.0154 (0.0028)	<.0001*
HURRICANE	-0.2732 (0.0151)	<.0001*
STORM	-0.0925 (0.0037)	<.0001*
INDEPENDENCEDAY	-0.3640 (0.0171)	<.0001*
THANKSGIVING	-0.3193 (0.0230)	<.0001*
CHRISTMASDAY	-0.6654 (0.0169)	<.0001*
DAYAFTERCHRISTMAS	-0.1005 (0.0177)	<.0001*
LABORDAY	-0.1259 (0.0204)	<.0001*
EASTER	-0.1185 (0.0081)	<.0001*
NEWYEARSDAY	-0.1209 (0.0114)	<.0001*
COLUMBUSDAY	-0.0532 (0.0094)	<.0001*
MEMORIALDAY	-0.2749 (0.0202)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0835 (0.0122)	<.0001*
VETERANSDAY	-0.0125 (0.0080)	0.116

Table S8.

Fixed-effects regression coefficients for dummy-coded model splitting positive and negative citywide sports PEs.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Positive Citywide Sports PE	0.0026 (0.0014)	<.05
Negative Citywide Sports PE	-0.0082 (0.0014)	<.0001*
TUE	0.0121 (0.0028)	<.0001*
WED	0.0396 (0.0039)	<.0001*
THU	0.0712 (0.0042)	<.0001*
FRI	0.1487 (0.0039)	<.0001*
SAT	0.0118 (0.0159)	0.458
SUN	-0.2122 (0.0201)	<.0001*
FEB	0.0384 (0.0033)	<.0001*
MAR	0.0669 (0.0029)	<.0001*
APR	0.0480 (0.0031)	<.0001*
JUN	0.0445 (0.0044)	<.0001*
JUL	-0.0004 (0.0058)	0.950
AUG	-0.0236 (0.0056)	<.0001*
SEP	-0.0096 (0.0056)	0.085
OCT	-0.0061 (0.0055)	0.265
NOV	-0.0203 (0.0077)	0.008*
DEC	0.0891 (0.0060)	<.0001*
FIRST_OF_MONTH	0.0420 (0.0030)	<.0001*
FIFTEENTH_OF_MONTH	-0.0003 (0.0026)	0.908
STORM	-0.1617 (0.0151)	<.0001*
INDEPENDENCEDAY	-0.2221 (0.0213)	<.0001*
THANKSGIVING	-0.3452 (0.0277)	<.0001*
CHRISTMASDAY	-0.6904 (0.0259)	<.0001*
DAYAFTERCHRISTMAS	-0.0888 (0.0085)	<.0001*
LABORDAY	-0.1324 (0.0211)	<.0001*
EASTER	-0.0575 (0.0080)	<.0001*
NEWYEARSDAY	-0.0950 (0.0103)	<.0001*
COLUMBUSDAY	-0.0726 (0.0081)	<.0001*
MEMORIALDAY	-0.2671 (0.0190)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0707 (0.0104)	<.0001*
VETERANSDAY	-0.0457 (0.0080)	<.0001*
WASHINGTONSBIRTHDAY	-0.0720 (0.0080)	<.0001*

Table S9.

Fixed-effects regression coefficients for dummy-coded model splitting positive and negative irradiance PEs.

<i>Coefficient</i>	<i>Estimate (SE)</i>	<i>p-value</i>
Positive Irradiance PE	0.0166 (0.0036)	<.0001*
Negative Irradiance PE	-0.0088 (0.0036)	0.014*
TUE	0.0158 (0.0028)	<.0001*
WED	0.0357 (0.0035)	<.0001*
THU	0.0722 (0.0043)	<.0001*
FRI	0.1486 (0.0039)	<.0001*
SAT	0.0140 (0.0160)	0.379
SUN	-0.2096 (0.0201)	<.0001*
FEB	0.0390 (0.0032)	<.0001*
MAR	0.0679 (0.0030)	<.0001*
APR	0.0498 (0.0033)	<.0001*
JUN	0.0477 (0.0047)	<.0001*
JUL	0.0027 (0.0060)	0.647
AUG	-0.0222 (0.0058)	<.0001*
SEP	-0.0078 (0.0058)	0.177
OCT	-0.0047 (0.0057)	0.410
NOV	-0.0202 (0.0078)	0.009*
DEC	0.0930 (0.0062)	<.0001*
FIRST_OF_MONTH	0.0415 (0.0029)	<.0001*
FIFTEENTH_OF_MONTH	0.0005 (0.0025)	0.837
STORM	-0.1474 (0.0152)	<.0001*
INDEPENDENCEDAY	-0.2184 (0.0213)	<.0001*
THANKSGIVING	-0.3435 (0.0277)	<.0001*
CHRISTMASDAY	-0.6953 (0.0260)	<.0001*
DAYAFTERCHRISTMAS	-0.0783 (0.0085)	<.0001*
LABORDAY	-0.1237 (0.0212)	<.0001*
EASTER	-0.0646 (0.0080)	<.0001*
NEWYEARSDAY	-0.0920 (0.0104)	<.0001*
COLUMBUSDAY	-0.0635 (0.0081)	<.0001*
BIRTHDAYOFMARTINLUTHERKINGJR	-0.0680 (0.0104)	<.0001*
VETERANSDAY	-0.0512 (0.0081)	<.0001*
WASHINGTONSBIRTHDAY	-0.0698 (0.0080)	<.0001*