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Supplemental Material

Longer-Term Impact of High and Low Temperature on Mortality: An International Study to Clarify Length of Mortality Displacement

Ben Armstrong, Michelle L. Bell, Micheline de Sousa Zanotti Stagliorio Coelho, Yue-Liang Leon Guo, Yuming Guo, Patrick Goodman, Masahiro Hashizume, Yasushi Honda, Ho Kim, Eric Lavigne, Paola Michelozzi, Paulo Hilario Nascimento Saldiva, Joel Schwartz, Matteo Scortichini, Francesco Sera, Aurelio Tobias, Shilu Tong, Chang-fu Wu, Antonella Zanobetti, Ariana Zeka, and Antonio Gasparrini

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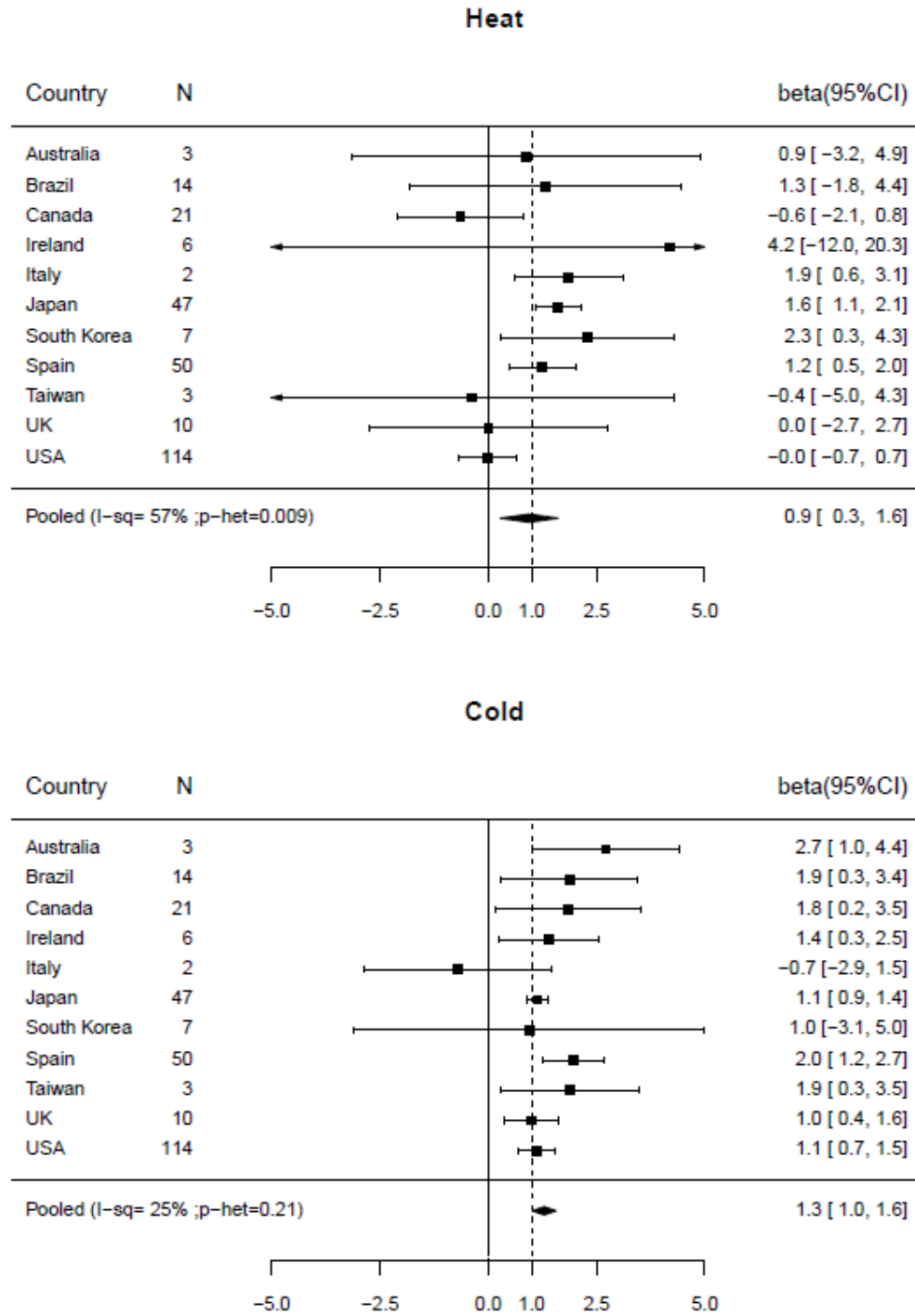
Figure S1. Estimates of model (2) regression coefficients β corrected for measurement error in $AF_{\text{daily,t}}$ by SIMEX.

Figure S2. Sensitivity of overall association to month at which years were considered to start (year start month).

Table S1. Summary descriptive statistics by location.

Additional File: Separate zip file Demonstration R code for core analyses applied to UK and UK annual data.

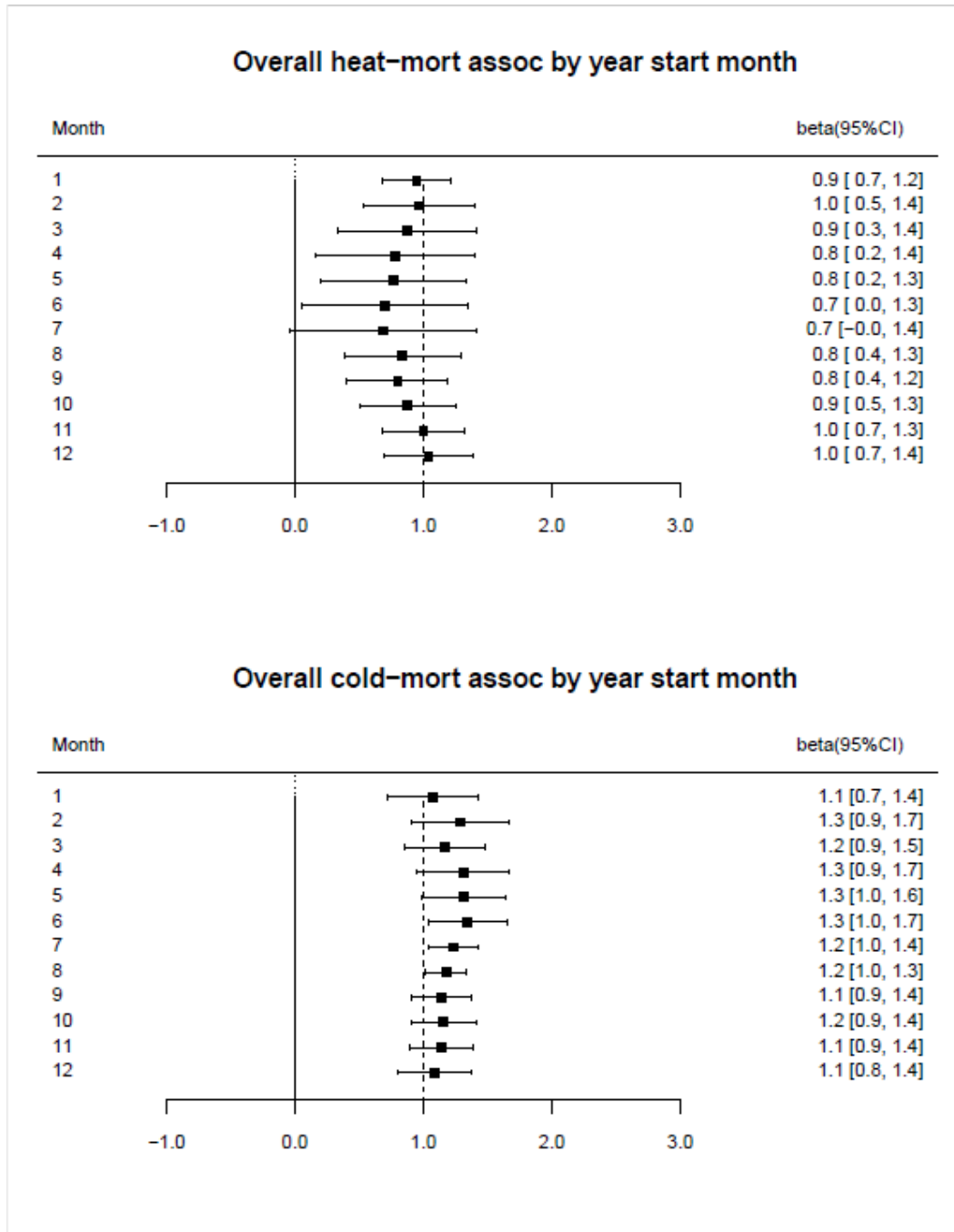
1 Figure S1 Estimates of model (2) regression coefficients β corrected for measurement error in $AF_{\text{daily},t}$ by SIMEX.



Specific SIMEX method. 100 simulations were undertaken for values of λ (additional error variance multiplier) = 0.5, 1, 1.5, and 2. Extrapolation of the curve for $y = \text{mean of estimated } \beta$

(beta) values (β_λ) by $x=\lambda$ to predict a value β_{SIMEX} for $\lambda=-1$ was by quadratic polynomial. To obtain $SE(\beta_{\text{SIMEX}})$ we similarly extrapolated variance differences. For rationale and demonstration of asymptotic properties see Carroll et al 2006.

2 Figure S2 Sensitivity of overall association to month at which years were considered to start (year start month).



Note: Months are numbers from the first month after that including the winter solstice (January or July for Northern and Southern hemisphere respectively). For the main model years started in month 5 (heat) and 11 (cold)

3 Table S1. Summary descriptive statistics by location

Country	Location	Period	MMT(%ile)	Mean(SD) AF%		Mean(SD) °C	
				heat	cold	heat	cold
Australia	Brisbane	1988-2008	23.1(71%)	0.4(0.1)	4.9(0.2)	0.5(0.1)	3.3(0.5)
Australia	Melbourne	1991-2008	22.9(91%)	0.6(0.2)	5.8(0.6)	0.3(0.1)	7.3(0.4)
Australia	Sydney	1990-2008	22.6(83%)	0.5(0.4)	7.5(0.9)	0.3(0.2)	4.5(0.6)
Brazil	Belem	1997-2010	26.7(41%)	1.1(0.4)	1.1(0.6)	0.4(0.2)	0.3(0.6)
Brazil	Belo Horizonte	1998-2010	22.9(61%)	0.4(0.3)	1.6(0.3)	0.6(0.2)	1.5(0.7)
Brazil	Brasilia	1997-2009	22.8(80%)	0.4(0.0)	2.7(1.1)	0.2(0.0)	1.7(0.6)
Brazil	Curitiba	1997-2010	21.3(80%)	0.3(0.6)	4.6(0.4)	0.3(0.2)	3.9(0.5)
Brazil	Fortaleza	1997-2010	26.9(42%)	1.4(0.2)	1.8(0.2)	0.4(0.2)	0.3(0.5)
Brazil	Goiania	1997-2009	24.2(46%)	1.1(0.4)	1.1(0.8)	0.9(0.1)	0.7(0.4)
Brazil	Manaus	1997-2010	27.4(56%)	0.8(0.3)	1.7(0.4)	0.5(0.1)	0.7(0.7)
Brazil	Natal	1997-2010	24.5(83%)	0.3(0.3)	3.5(0.7)	0.3(0.1)	5.0(0.3)
Brazil	Porto Alegre	1997-2010	24.1(80%)	0.5(0.5)	6.5(0.5)	0.3(0.1)	4.8(0.6)
Brazil	Recife	1997-2010	25.6(38%)	1.2(0.1)	0.8(0.4)	0.8(0.1)	0.4(0.5)
Brazil	Sao Luis	1997-2010	26.9(46%)	0.8(0.2)	1.3(0.4)	0.4(0.1)	0.4(0.6)
Brazil	Salvador	1997-2010	26.9(77%)	0.2(0.1)	2.6(0.3)	0.1(0.1)	1.4(0.5)
Brazil	Sao Paulo	1997-2007	21.6(61%)	0.7(0.7)	3.9(0.7)	0.8(0.2)	2.1(0.6)
Brazil	Teresina	1997-2010	28.0(67%)	0.8(0.6)	2.5(0.8)	0.5(0.2)	0.9(0.4)
Brazil	Vitoria	1997-2008	26.7(74%)	0.4(0.4)	2.7(0.5)	0.3(0.2)	2.2(0.1)
Canada	Abbotsford	1986-2008	17.7(86%)	0.2(0.3)	2.6(0.4)	0.3(0.2)	7.3(0.7)
Canada	Calgary	1986-2010	15.1(84%)	0.2(0.4)	3.9(0.5)	0.4(0.2)	11.1(0.5)
Canada	Edmonton	1986-2010	15.2(80%)	0.4(0.1)	5.7(0.4)	0.6(0.1)	11.9(0.6)
Canada	Halifax	1986-2010	16.5(80%)	0.5(0.1)	5.0(1.3)	0.6(0.0)	10.4(0.6)
Canada	Hamilton	1986-2010	18.3(79%)	0.5(0.2)	4.1(0.3)	0.7(0.1)	10.9(0.2)
Canada	Kingston	1986-2005	18.3(80%)	0.6(0.3)	5.2(0.4)	0.7(0.2)	11.3(0.7)
Canada	Kitchener- Waterloo	1986-2008	18.0(82%)	0.6(0.0)	5.6(1.0)	0.6(0.0)	11.4(0.6)
Canada	London Ontario	1986-2010	18.6(80%)	0.7(1.0)	5.3(1.1)	0.6(0.1)	11.1(0.8)
Canada	Niagara	1986-2010	19.3(79%)	0.7(0.3)	7.0(0.3)	0.6(0.2)	10.7(0.6)
Canada	Oshawa	1995-2009	18.0(80%)	0.6(0.6)	5.6(0.6)	0.6(0.2)	11.0(0.6)
Canada	Ottawa	1986-2010	18.4(80%)	0.6(0.2)	5.4(0.5)	0.7(0.2)	12.4(0.6)
Canada	Regina	1986-2008	16.6(82%)	0.6(0.1)	6.1(0.5)	0.6(0.1)	14.2(0.5)
Canada	Sudbury	1986-2008	16.8(81%)	0.6(0.3)	5.8(0.6)	0.6(0.2)	13.1(0.2)
Canada	Saint John NB	1986-2008	16.3(86%)	0.2(0.2)	4.8(0.3)	0.3(0.1)	11.4(0.1)
Canada	St. John's NFL	1986-2008	16.5(90%)	0.5(0.2)	5.1(0.3)	0.2(0.1)	11.6(0.6)
Canada	Saskatoon	1986-2005	16.1(82%)	0.6(0.0)	5.4(0.2)	0.6(0.0)	14.0(0.5)
Canada	Thunder Bay	1986-2008	15.2(81%)	0.6(0.5)	6.0(0.9)	0.6(0.2)	12.9(0.4)
Canada	Victoria	1986-2010	16.2(86%)	0.2(0.6)	2.8(0.7)	0.3(0.2)	6.3(0.4)
Canada	Vancouver	1986-2010	16.7(82%)	0.3(0.5)	4.8(0.6)	0.4(0.2)	6.5(0.5)
Canada	Windsor	1986-2008	20.2(78%)	0.6(0.3)	4.9(0.4)	0.7(0.1)	10.8(0.9)
Canada	Winnipeg	1986-2010	17.0(80%)	0.6(0.1)	5.7(0.9)	0.7(0.1)	14.5(0.7)

Ireland	NI W	1984-2006	18.3(98%)	0.0(0.0)	11.9(0.4)	0.0(0.1)	8.7(0.6)
Ireland	NI E	1984-2006	16.8(97%)	0.1(0.2)	11.9(0.3)	0.0(0.2)	7.7(0.6)
Ireland	Rep I NE	1984-2006	17.8(97%)	0.0(0.1)	10.2(0.2)	0.0(0.1)	8.0(1.0)
Ireland	Rep I SE	1984-2006	18.2(98%)	-0.0(0.2)	13.4(0.3)	0.0(0.1)	8.5(0.7)
Ireland	Rep I NW	1984-2006	16.5(96%)	0.1(0.3)	10.4(0.3)	0.0(0.2)	6.9(0.7)
Ireland	Rep I SW	1984-2006	17.2(97%)	0.0(0.2)	9.7(0.3)	0.0(0.2)	6.7(0.6)
Italy	Rome	1988-2009	22.1(78%)	1.6(0.3)	10.1(0.3)	0.6(0.1)	7.3(0.8)
Italy	Viterbo	1995-2005	21.5(79%)	2.0(0.2)	9.1(0.3)	0.7(0.1)	7.8(0.5)
Japan	Aichi	1972-2011	24.8(82%)	0.6(0.5)	10.7(0.9)	0.5(0.2)	9.6(0.5)
Japan	Akita	1972-2011	22.7(87%)	0.5(0.2)	12.0(0.6)	0.3(0.1)	11.4(0.4)
Japan	Aomori	1972-2011	22.1(90%)	0.6(0.5)	9.2(0.9)	0.2(0.2)	12.1(0.5)
Japan	Chiba	1972-2011	26.4(90%)	0.2(0.6)	9.4(0.6)	0.2(0.2)	10.9(0.5)
Japan	Ehime	1972-2011	25.4(83%)	0.2(0.3)	9.3(0.2)	0.4(0.1)	9.5(0.5)
Japan	Fukushima	1972-2011	25.3(91%)	0.5(0.6)	11.5(0.3)	0.2(0.2)	12.5(0.5)
Japan	Fukuoka	1972-2011	25.0(81%)	0.5(0.0)	9.0(1.0)	0.5(0.0)	8.7(0.5)
Japan	Fukui	1972-2011	24.2(83%)	0.4(0.2)	10.9(0.4)	0.5(0.2)	10.2(0.9)
Japan	Gifu	1972-2011	25.9(85%)	0.4(0.2)	10.5(0.4)	0.3(0.2)	10.5(0.6)
Japan	Gunma	1972-2011	23.9(83%)	0.5(0.2)	10.9(0.2)	0.5(0.2)	9.9(0.5)
Japan	Hokkaido	1972-2011	21.9(92%)	0.3(0.3)	8.1(0.3)	0.2(0.1)	13.2(0.8)
Japan	Hiroshima	1972-2011	24.6(81%)	0.5(0.1)	10.4(0.4)	0.5(0.1)	9.2(0.5)
Japan	Hyogo	1972-2011	24.9(81%)	0.2(0.2)	9.2(0.3)	0.5(0.2)	9.2(0.7)
Japan	Ibaraki	1972-2011	24.8(90%)	0.2(0.2)	10.7(0.8)	0.2(0.1)	11.4(0.4)
Japan	Ishikawa	1972-2011	23.9(83%)	0.7(0.2)	11.2(0.4)	0.5(0.2)	9.8(1.3)
Japan	Iwate	1972-2011	23.0(91%)	0.5(0.2)	12.5(0.9)	0.2(0.2)	13.0(0.6)
Japan	Kagawa	1972-2011	24.7(80%)	0.6(0.2)	11.8(0.4)	0.6(0.2)	9.1(0.7)
Japan	Kagoshima	1972-2011	25.7(78%)	0.4(0.3)	10.0(0.3)	0.5(0.1)	7.9(0.7)
Japan	Kumamoto	1972-2011	25.4(80%)	0.2(0.2)	9.8(0.7)	0.5(0.1)	9.0(0.4)
Japan	Kanagawa	1972-2011	26.1(89%)	0.3(0.4)	10.0(0.8)	0.2(0.1)	10.5(0.6)
Japan	Kochi	1972-2011	27.2(90%)	0.1(0.3)	8.9(0.3)	0.1(0.1)	10.4(0.7)
Japan	Kyoto	1972-2011	24.9(81%)	0.6(0.1)	10.5(0.3)	0.5(0.1)	9.6(0.5)
Japan	Mie	1972-2011	24.5(81%)	0.4(0.4)	11.1(0.5)	0.5(0.1)	9.2(0.1)
Japan	Miyagi	1972-2011	24.2(92%)	0.2(0.1)	12.0(0.4)	0.1(0.1)	12.0(0.4)
Japan	Miyazaki	1972-2011	25.4(80%)	0.5(0.0)	10.9(0.4)	0.4(0.2)	8.3(0.3)
Japan	Nagano	1972-2011	24.9(91%)	0.3(0.0)	12.5(0.4)	0.1(0.2)	13.2(0.4)
Japan	Nara	1972-2011	23.9(81%)	0.5(0.2)	10.3(0.4)	0.5(0.2)	9.6(0.7)
Japan	Nagasaki	1972-2011	25.2(81%)	0.2(0.2)	9.1(0.8)	0.5(0.2)	8.5(0.5)
Japan	Niigata	1972-2011	23.3(83%)	0.7(0.2)	11.8(0.7)	0.5(0.2)	10.0(0.5)
Japan	Oita	1972-2011	27.1(91%)	0.3(0.3)	10.1(0.3)	0.1(0.1)	10.9(0.8)
Japan	Okinawa	1973-2011	26.2(68%)	0.2(0.8)	6.5(0.7)	0.6(0.2)	3.9(0.4)
Japan	Okayama	1972-2011	27.9(91%)	0.1(0.3)	11.3(0.8)	0.1(0.1)	12.2(0.6)
Japan	Osaka	1972-2011	25.3(80%)	0.7(0.9)	9.3(0.6)	0.6(0.2)	9.1(0.5)
Japan	Saga	1972-2011	24.9(80%)	0.6(0.2)	11.1(0.3)	0.5(0.2)	8.9(0.1)
Japan	Saitama	1972-2011	24.1(83%)	0.5(0.6)	11.6(0.5)	0.5(0.2)	9.7(0.5)
Japan	Shiga	1972-2011	24.1(82%)	0.3(0.2)	11.4(0.4)	0.5(0.1)	9.9(0.6)
Japan	Shimane	1972-2011	23.8(83%)	0.3(0.1)	10.6(0.4)	0.5(0.1)	9.5(0.6)
Japan	Shizuoka	1972-2011	26.9(91%)	0.2(0.1)	11.0(0.3)	0.1(0.1)	10.5(0.8)

Japan	Tochigi	1972-2011	25.3(90%)	0.4(0.3)	10.7(0.9)	0.2(0.2)	11.8(0.6)
Japan	Tokushima	1972-2011	25.2(82%)	0.3(0.5)	9.1(0.3)	0.4(0.1)	9.1(0.5)
Japan	Tokyo	1972-2011	25.9(86%)	0.4(0.2)	8.7(0.3)	0.3(0.1)	10.0(0.6)
Japan	Toyama	1972-2011	23.2(82%)	0.6(0.2)	10.7(0.2)	0.6(0.1)	9.8(0.6)
Japan	Tottori	1972-2011	24.1(83%)	0.5(0.3)	11.2(0.3)	0.5(0.2)	9.8(0.7)
Japan	Wakayama	1972-2011	24.7(79%)	0.8(0.0)	12.3(0.4)	0.6(0.0)	8.7(0.4)
Japan	Yamaguchi	1972-2011	23.9(80%)	0.7(0.2)	10.4(0.3)	0.6(0.1)	9.1(0.7)
Japan	Yamagata	1972-2011	23.6(88%)	0.5(0.3)	11.8(1.0)	0.3(0.2)	12.2(0.7)
Japan	Yamanashi	1972-2011	24.8(85%)	0.3(0.3)	10.9(0.3)	0.3(0.1)	10.6(0.6)
S Korea	Busan	1993-2009	28.1(98%)	-0.0(0.1)	6.6(0.4)	0.0(0.2)	13.1(0.5)
S Korea	Daegu	1992-2009	26.9(91%)	0.3(0.4)	5.1(0.8)	0.2(0.2)	12.5(0.4)
S Korea	Daejeon	1992-2009	24.1(85%)	0.6(0.7)	7.6(0.5)	0.3(0.2)	11.4(0.5)
S Korea	Gwangju	1992-2009	25.9(90%)	0.5(0.1)	6.9(0.9)	0.2(0.2)	12.0(0.7)
S Korea	Incheon	1992-2009	24.1(88%)	0.2(0.2)	6.4(0.9)	0.2(0.1)	11.8(0.6)
S Korea	Seoul	1992-2009	24.2(85%)	0.5(0.2)	7.6(0.3)	0.3(0.1)	11.7(0.5)
S Korea	Ulsan	1997-2009	25.9(91%)	0.3(0.2)	5.8(0.3)	0.2(0.1)	11.5(0.7)
Spain	A Coruna	1990-2009	18.7(80%)	0.5(0.4)	5.1(0.8)	0.3(0.2)	4.0(0.5)
Spain	Albacete	1990-2009	22.0(78%)	1.4(0.4)	6.3(0.5)	0.7(0.1)	8.3(0.6)
Spain	Alicante	1990-2009	23.6(76%)	0.9(0.6)	6.0(0.5)	0.6(0.2)	5.7(0.4)
Spain	Almeria	1990-2008	24.1(77%)	0.9(0.1)	5.7(0.4)	0.6(0.1)	5.6(0.5)
Spain	Avila	1990-2009	18.5(80%)	1.3(0.2)	6.3(0.4)	0.6(0.2)	7.9(0.6)
Spain	Badajoz	1990-2009	23.7(78%)	1.3(0.3)	6.1(1.0)	0.7(0.2)	7.2(0.6)
Spain	Bilbao	1990-2009	19.6(80%)	0.7(0.2)	4.1(1.3)	0.5(0.1)	5.4(0.6)
Spain	Barcelona	1990-2009	24.7(90%)	0.6(0.3)	6.3(0.6)	0.1(0.1)	8.5(0.2)
Spain	Burgos	1990-2009	17.8(81%)	1.1(0.1)	6.1(1.0)	0.6(0.2)	7.5(0.6)
Spain	Cadiz	1990-2007	22.8(78%)	1.1(0.3)	5.4(0.4)	0.5(0.2)	4.7(0.8)
Spain	Caceres	1990-2009	23.2(78%)	1.4(0.2)	6.6(0.7)	0.8(0.1)	7.6(0.6)
Spain	Ciudad Real	1990-2009	23.6(78%)	1.6(0.2)	7.2(0.4)	0.7(0.2)	8.6(0.8)
Spain	Cordoba	1990-2009	25.0(77%)	1.4(0.3)	7.2(0.3)	0.7(0.1)	7.4(0.5)
Spain	Castellon	1990-2008	23.3(76%)	0.9(0.1)	5.9(1.0)	0.6(0.1)	6.0(0.6)
Spain	Cuenca	1990-2009	20.6(78%)	1.6(0.3)	6.0(0.3)	0.7(0.2)	8.0(0.7)
Spain	Guadalajara	1992-2009	20.4(78%)	1.6(0.2)	6.0(0.7)	0.7(0.2)	7.6(0.5)
Spain	Girona	1990-2007	21.0(78%)	1.2(0.4)	5.5(0.6)	0.6(0.2)	6.8(0.5)
Spain	Granada	1990-2009	23.0(78%)	1.4(0.6)	6.1(0.5)	0.7(0.2)	8.0(0.5)
Spain	Huelva	1990-2009	23.6(78%)	1.0(0.1)	5.8(0.5)	0.6(0.2)	5.9(0.4)
Spain	Huesca	1990-2009	21.2(79%)	1.3(0.8)	5.3(0.6)	0.7(0.2)	7.8(0.5)
Spain	Jaen	1990-2008	24.0(78%)	1.4(0.2)	5.7(0.2)	0.8(0.1)	7.7(0.7)
Spain	Leon	1990-2009	17.7(80%)	1.1(0.3)	6.8(0.8)	0.6(0.1)	7.2(0.4)
Spain	Logrono	1990-2009	20.7(80%)	1.1(0.3)	5.0(0.2)	0.6(0.2)	7.3(0.7)
Spain	Lleida	1990-2009	22.4(78%)	1.5(0.2)	5.0(0.4)	0.7(0.2)	7.9(0.6)
Spain	Lugo	1990-2009	17.2(81%)	0.7(0.2)	6.5(0.3)	0.5(0.2)	5.7(0.5)
Spain	Malaga	1990-2009	23.3(75%)	1.1(0.1)	5.7(0.3)	0.7(0.1)	5.3(0.5)
Spain	Madrid	1990-2009	21.9(76%)	1.4(0.1)	4.2(0.3)	0.9(0.2)	7.6(0.5)
Spain	Melilla	1990-2009	23.7(78%)	0.7(0.3)	4.9(0.8)	0.5(0.1)	5.2(0.5)
Spain	Murcia	1990-2009	23.3(76%)	0.6(0.4)	4.4(0.8)	0.5(0.1)	4.8(0.4)
Spain	Ourense	1990-2009	20.5(78%)	0.9(0.6)	5.6(0.8)	0.6(0.3)	6.1(0.3)

Spain	Oviedo	1990-2009	18.0(80%)	0.6(0.3)	6.0(0.5)	0.4(0.1)	5.1(0.7)
Spain	Palmas G. Canaria	1990-2009	22.6(64%)	0.6(0.6)	3.5(0.5)	0.6(0.2)	1.9(0.5)
Spain	Palma Mallorca	1990-2009	22.6(77%)	1.0(0.3)	6.3(0.3)	0.6(0.1)	6.5(0.9)
Spain	Pamplona	1990-2009	19.7(81%)	0.9(0.1)	3.9(0.3)	0.6(0.2)	7.2(0.3)
Spain	Pontevedra	1990-2009	19.0(79%)	0.8(0.2)	6.7(1.0)	0.5(0.2)	4.7(0.6)
Spain	Segovia	1990-2009	19.8(80%)	1.3(0.2)	6.1(0.8)	0.7(0.1)	8.1(0.6)
Spain	Salamanca	1990-2009	19.2(79%)	1.0(0.1)	5.4(1.1)	0.6(0.0)	7.6(0.5)
Spain	San Sebastian	1990-2009	18.5(81%)	0.7(0.2)	3.2(0.5)	0.4(0.1)	5.3(0.3)
Spain	Santander	1990-2009	19.0(79%)	0.6(0.1)	4.3(0.5)	0.4(0.1)	4.8(0.4)
Spain	Soria	1990-2009	18.3(80%)	1.3(0.3)	5.9(0.7)	0.6(0.2)	7.7(0.3)
Spain	Sevilla	1990-2009	25.7(77%)	1.5(0.3)	7.7(0.4)	0.7(0.2)	6.9(0.7)
Spain	Teruel	1990-2009	19.3(78%)	1.7(0.1)	5.5(0.4)	0.7(0.2)	7.8(0.6)
Spain	Tenerife	1990-2009	23.8(72%)	0.7(0.3)	3.7(0.5)	0.4(0.2)	2.6(1.0)
Spain	Toledo	1990-2009	23.4(77%)	1.4(0.1)	5.6(0.4)	0.8(0.1)	8.3(0.5)
Spain	Tarragona	1990-2009	23.8(77%)	1.2(0.3)	5.0(0.7)	0.6(0.2)	6.6(0.3)
Spain	Vitoria	1990-2009	17.8(81%)	0.8(0.3)	5.2(1.1)	0.5(0.1)	6.5(0.5)
Spain	Valladolid	1990-2009	20.0(79%)	1.2(0.2)	6.8(0.7)	0.7(0.1)	7.8(0.6)
Spain	Valencia	1990-2009	24.0(78%)	0.8(0.2)	7.0(0.7)	0.5(0.2)	6.0(0.5)
Spain	Zamora	1990-2009	20.3(79%)	1.3(0.2)	5.9(0.3)	0.6(0.1)	7.7(0.6)
Spain	Zaragoza	1990-2009	22.6(78%)	1.3(0.1)	4.7(0.2)	0.7(0.1)	7.7(0.3)
Taiwan	Kaohsiung	1994-2006	25.6(44%)	1.3(0.1)	2.8(0.8)	1.4(0.1)	1.8(0.5)
Taiwan	Taipei	1994-2006	25.8(62%)	0.7(0.3)	4.7(0.5)	1.1(0.2)	3.7(0.7)
Taiwan	Taichung	1994-2006	26.0(60%)	0.6(0.4)	3.9(0.7)	0.9(0.2)	3.2(0.6)
UK	East	1993-2005	18.3(92%)	0.3(0.2)	8.6(0.6)	0.2(0.1)	7.9(0.4)
UK	East Midlands	1993-2005	17.3(91%)	0.3(0.2)	8.3(0.6)	0.2(0.1)	7.4(0.4)
UK	London	1993-2005	19.5(92%)	0.5(0.2)	9.4(0.3)	0.2(0.2)	7.9(0.6)
UK	North East	1993-2005	15.9(90%)	0.4(0.3)	7.2(0.3)	0.2(0.1)	6.6(0.6)
UK	North West	1993-2005	16.2(88%)	0.3(0.3)	8.2(0.3)	0.3(0.2)	6.2(0.6)
UK	South East	1993-2005	17.9(91%)	0.3(0.4)	8.6(0.4)	0.2(0.2)	7.2(0.6)
UK	South West	1993-2005	16.3(86%)	0.3(0.1)	9.2(0.5)	0.3(0.1)	5.8(0.4)
UK	Wales	1993-2005	16.5(89%)	0.3(0.2)	9.1(0.9)	0.2(0.1)	6.2(0.6)
UK	West Midlands	1993-2005	17.4(92%)	0.2(0.2)	7.9(0.3)	0.2(0.1)	7.5(0.7)
UK	Yorkshire & Humber	1993-2005	16.4(89%)	0.3(0.1)	7.7(0.4)	0.2(0.1)	6.7(0.5)
USA	Akron, OH	1985-2005	21.9(87%)	0.4(0.2)	6.7(1.3)	0.3(0.2)	12.1(0.4)
USA	Albuquerque, NM	1985-2005	24.2(83%)	0.3(0.1)	5.5(1.2)	0.4(0.1)	10.3(0.8)
USA	Allentown-Bethlehem, PA	1986-2005	22.5(86%)	0.4(0.3)	6.5(0.3)	0.3(0.2)	11.9(0.8)
USA	Austin, TX	1985-2005	28.3(79%)	0.2(0.1)	3.7(0.3)	0.3(0.1)	7.9(0.4)
USA	Atlantic City, NJ	1985-2005	22.8(84%)	0.5(0.0)	6.7(0.3)	0.5(0.0)	11.1(0.6)
USA	Atlanta, GA	1985-2005	25.6(81%)	0.1(0.4)	4.7(0.9)	0.3(0.2)	8.7(0.5)
USA	Buffalo, NY	1985-2005	21.1(86%)	0.5(0.3)	8.5(0.6)	0.3(0.2)	12.2(0.5)
USA	Bakersfield, CA	1985-2005	29.2(92%)	0.2(0.3)	4.7(0.3)	0.2(0.2)	11.0(0.9)
USA	Baltimore, MD	1985-2005	23.9(83%)	0.5(0.2)	6.7(0.2)	0.4(0.2)	11.1(0.8)
USA	Bergen-Passaic, NJ	1985-2005	23.9(83%)	0.4(0.3)	7.2(0.8)	0.5(0.1)	11.3(0.5)

USA	Birmingham, AL	1985-2005	25.6(79%)	0.3(0.3)	5.6(1.4)	0.4(0.2)	8.7(0.5)
USA	Baton Rouge, LA	1985-2005	26.9(77%)	0.3(0.2)	4.6(0.5)	0.3(0.2)	7.2(0.7)
USA	Boston, MA	1985-2005	21.9(86%)	0.4(0.1)	8.2(0.2)	0.4(0.2)	11.4(0.4)
USA	Chicago, IL	1985-2005	24.7(93%)	0.4(0.5)	8.1(0.8)	0.1(0.2)	14.8(0.4)
USA	Charlotte, NC	1985-2005	26.9(91%)	0.0(0.4)	4.8(0.3)	0.1(0.2)	10.8(0.5)
USA	Chattanooga, TN	1985-2005	25.0(80%)	0.2(0.2)	4.2(0.3)	0.4(0.1)	9.3(0.3)
USA	Columbus, OH	1985-2005	23.3(86%)	0.4(0.4)	5.8(0.8)	0.3(0.2)	11.8(0.4)
USA	Cleveland, OH	1985-2005	21.9(86%)	0.4(0.2)	7.5(0.5)	0.4(0.1)	11.8(0.3)
USA	Cincinnati, OH	1985-2005	23.1(82%)	0.4(0.2)	6.2(0.4)	0.4(0.1)	10.7(0.5)
USA	Canton-Massillon, OH	1985-2005	22.8(90%)	0.3(0.3)	5.7(0.3)	0.2(0.1)	12.9(0.7)
USA	Columbia, SC	1985-2005	26.4(81%)	0.4(0.3)	5.2(0.4)	0.4(0.1)	9.0(0.8)
USA	Des Moines, IA	1985-2005	22.5(82%)	0.4(0.0)	7.5(1.2)	0.5(0.0)	12.6(0.5)
USA	Dallas, TX	1985-2005	27.8(79%)	0.4(0.2)	4.3(0.3)	0.5(0.1)	9.2(0.5)
USA	Denver, CO	1985-2005	21.1(82%)	0.5(0.3)	5.2(0.2)	0.5(0.2)	11.1(0.1)
USA	Detroit, MI	1985-2005	23.9(91%)	0.4(0.3)	6.9(0.3)	0.2(0.2)	13.9(1.2)
USA	Daytona Beach, FL	1985-2005	26.9(78%)	0.1(0.2)	2.5(0.3)	0.2(0.1)	5.4(0.5)
USA	Dayton, OH	1985-2005	22.2(82%)	0.4(0.9)	6.4(0.7)	0.5(0.2)	11.3(0.4)
USA	El Paso, TX	1985-2005	27.5(85%)	0.2(0.0)	4.8(0.3)	0.3(0.1)	9.6(0.5)
USA	Erie, PA	1985-2005	23.1(91%)	0.4(0.2)	7.0(0.9)	0.2(0.2)	13.1(0.5)
USA	Flint, MI	1985-2005	22.5(91%)	0.5(0.3)	6.8(0.9)	0.2(0.2)	13.9(0.6)
USA	Fresno, CA	1985-2005	26.9(84%)	0.1(0.1)	4.7(0.4)	0.4(0.1)	9.3(0.6)
USA	Ft. Lauderdale, FL	1985-2005	26.1(64%)	0.2(0.2)	2.0(0.3)	0.5(0.2)	3.6(0.7)
USA	Fort Myers-Cape Coral, FL	1985-2005	24.2(44%)	0.4(0.3)	1.7(0.3)	1.7(0.2)	2.0(0.8)
USA	Fort Pierce-Port St. Lucie, FL	1987-2005	23.9(48%)	0.2(0.0)	1.5(0.4)	1.4(0.0)	2.3(0.5)
USA	Fort Worth- Arlington, TX	1992-2005	27.8(80%)	0.2(0.4)	3.7(0.5)	0.5(0.2)	9.3(0.5)
USA	Gary, IN	1985-2005	23.9(91%)	0.3(0.4)	6.8(0.3)	0.2(0.2)	14.1(0.5)
USA	Greensboro, NC	1985-2005	26.4(93%)	0.3(0.1)	6.2(0.3)	0.1(0.0)	11.5(0.5)
USA	Greenville, SC	1987-2004	24.7(81%)	0.2(0.2)	5.7(0.9)	0.3(0.2)	9.2(0.5)
USA	Grand Rapids, MI	1985-2005	22.8(91%)	0.2(0.2)	7.5(0.7)	0.2(0.2)	13.9(0.5)
USA	Honolulu, HI	1985-1999	28.9(97%)	0.0(0.2)	2.7(0.4)	0.0(0.2)	3.4(0.5)
USA	Harrisburg- Carlisle, PA	1991-2005	24.2(88%)	0.2(0.2)	6.2(0.9)	0.3(0.1)	12.2(0.5)
USA	Hartford, CT	1985-2005	21.4(84%)	0.6(0.1)	6.9(0.2)	0.5(0.1)	11.5(0.6)
USA	Houston, TX	1985-2005	25.6(65%)	0.1(0.2)	3.3(0.2)	1.0(0.1)	5.7(0.7)
USA	Indianapolis, IN	1985-2005	23.6(86%)	0.3(0.1)	5.7(0.4)	0.3(0.1)	12.1(0.5)
USA	Jacksonville, FL	1985-2005	26.7(77%)	0.3(0.4)	4.2(0.5)	0.3(0.1)	6.6(0.5)
USA	Jersey City, NJ	1985-2005	23.9(83%)	0.4(0.2)	6.9(0.2)	0.5(0.1)	11.3(0.7)
USA	Kansas City, MO- KS	1985-2005	23.9(82%)	0.4(0.3)	6.3(0.5)	0.5(0.1)	11.7(0.1)
USA	Knoxville, TN	1985-2005	24.2(80%)	0.4(0.2)	5.0(0.5)	0.4(0.1)	9.4(0.2)
USA	Lakeland-Winter Haven, FL	1985-2005	26.4(64%)	0.3(0.3)	2.8(0.4)	0.6(0.1)	3.9(0.5)
USA	Lancaster, PA	1985-2005	24.4(91%)	0.2(0.3)	6.1(0.7)	0.2(0.1)	13.0(0.4)

USA	Louisville, KY	1985-2005	24.2(80%)	0.5(0.1)	6.1(0.3)	0.5(0.1)	10.2(0.5)
USA	Little Rock, AR	1985-2005	26.1(79%)	0.4(0.6)	4.8(0.5)	0.5(0.2)	9.5(0.5)
USA	Los Angeles, CA	1985-2005	22.8(95%)	0.1(0.4)	2.5(0.7)	0.1(0.2)	5.5(0.3)
USA	Las Vegas, NV-AZ	1985-2005	30.0(78%)	0.4(0.2)	4.3(0.3)	0.6(0.1)	10.3(0.7)
USA	Middlesex, NJ	1985-2005	24.2(90%)	0.4(0.3)	7.6(0.3)	0.2(0.1)	12.6(0.6)
USA	Madison, WI	1987-2005	22.5(90%)	0.3(0.0)	6.8(0.3)	0.2(0.3)	14.4(0.4)
USA	Miami, FL	1985-2005	24.7(39%)	0.8(0.3)	1.1(0.3)	1.8(0.2)	1.4(1.1)
USA	Melbourne- Titusville-Palm Bay, FL	1985-2005	26.4(70%)	0.2(0.1)	3.2(0.5)	0.4(0.1)	4.1(0.5)
USA	Milwaukee, WI	1985-2005	20.6(82%)	0.6(0.3)	9.0(0.9)	0.6(0.1)	12.0(0.4)
USA	Memphis, TN	1985-2005	26.4(79%)	0.3(0.2)	6.1(0.9)	0.5(0.1)	9.6(0.4)
USA	Minneapolis-St. Paul, MN	1985-2005	21.9(86%)	0.4(0.1)	7.8(0.3)	0.4(0.1)	14.4(0.7)
USA	Mobile, AL	1985-2005	26.7(78%)	0.1(0.2)	3.2(0.3)	0.3(0.1)	7.2(0.6)
USA	Nassau-Suffolk, NY	1985-2005	22.2(85%)	0.3(0.2)	8.4(0.4)	0.4(0.1)	11.2(0.5)
USA	Nashville, TN	1985-2005	24.7(79%)	0.5(0.6)	6.2(1.0)	0.5(0.2)	9.6(0.5)
USA	New Haven- Meriden, CT	1985-2005	21.7(85%)	0.6(0.2)	8.0(0.5)	0.4(0.1)	11.8(0.3)
USA	Newark, NJ	1985-2005	23.6(82%)	0.6(0.3)	6.3(0.2)	0.5(0.2)	11.0(0.7)
USA	New York, NY	1985-2005	23.1(80%)	0.9(0.1)	7.0(0.5)	0.6(0.1)	10.4(0.6)
USA	Ocala, FL	1989-2004	26.7(73%)	0.1(0.3)	3.4(0.8)	0.3(0.2)	5.3(0.4)
USA	Oklahoma City, OK	1985-2005	28.3(91%)	0.2(0.0)	5.2(0.5)	0.1(0.1)	12.5(0.4)
USA	Oakland, CA	1985-2005	20.8(95%)	0.1(0.3)	4.1(1.0)	0.1(0.1)	5.7(0.7)
USA	Omaha, NE	1985-2005	23.1(83%)	0.6(0.1)	7.0(0.6)	0.5(0.1)	12.7(0.3)
USA	Orlando, FL	1985-2005	27.2(73%)	0.2(0.1)	2.3(0.3)	0.3(0.1)	4.8(0.4)
USA	Orange County, CA	1985-2003	25.6(96%)	0.0(0.8)	2.3(0.5)	0.0(0.2)	7.0(0.5)
USA	Philadelphia, PA- NJ	1985-2005	23.3(80%)	0.5(0.3)	7.7(0.2)	0.6(0.2)	10.5(0.9)
USA	Phoenix, AZ	1985-2005	29.2(65%)	0.2(0.1)	2.7(0.8)	1.5(0.2)	6.7(0.5)
USA	Pensacola, FL	1985-2004	26.9(77%)	0.3(0.4)	4.7(1.3)	0.3(0.2)	7.2(0.6)
USA	Portland, OR	1985-2005	21.4(91%)	0.4(0.3)	6.5(0.5)	0.2(0.1)	9.0(0.6)
USA	Pittsburgh, PA	1985-2005	23.3(90%)	0.4(0.5)	6.3(0.6)	0.2(0.2)	12.5(0.5)
USA	Rochester, NY	1985-2005	21.7(89%)	0.4(0.3)	7.2(0.4)	0.3(0.2)	12.8(0.7)
USA	Reading, PA	1985-2005	24.4(80%)	0.5(0.3)	4.9(0.7)	0.5(0.2)	9.2(0.6)
USA	Raleigh, NC	1985-2005	25.3(84%)	0.3(0.2)	5.2(0.3)	0.3(0.1)	9.9(0.6)
USA	Riverside-San Bernardino, CA	1985-2005	28.3(95%)	0.0(0.6)	2.9(0.6)	0.1(0.2)	9.3(0.4)
USA	Sacramento, CA	1985-2005	25.3(92%)	0.2(0.3)	4.2(0.6)	0.2(0.1)	9.0(0.2)
USA	Scranton--Wilkes- Barre--Hazleton, PA	1985-2005	20.8(84%)	0.3(0.3)	7.2(0.8)	0.4(0.2)	11.3(0.5)
USA	San Diego, CA	1985-2005	23.3(96%)	0.1(0.1)	3.6(0.4)	0.1(0.1)	5.7(0.7)
USA	San Francisco, CA	1985-2005	20.8(97%)	0.1(0.1)	3.6(0.2)	0.1(0.1)	6.3(0.4)
USA	Shreveport, LA	1985-2004	26.9(78%)	0.3(0.2)	5.1(0.3)	0.4(0.1)	8.4(0.9)

USA	San Jose, CA	1985-2004	23.3(94%)	0.2(0.1)	3.1(0.2)	0.1(0.1)	7.1(0.4)
USA	Salt Lake City, UT	1985-2005	25.3(88%)	0.3(0.3)	5.9(0.6)	0.3(0.1)	13.8(0.3)
USA	San Antonio, TX	1985-2005	30.0(89%)	0.1(0.4)	2.9(0.5)	0.1(0.2)	9.1(0.5)
USA	Spokane, WA	1985-2005	20.8(89%)	0.4(0.5)	6.8(0.7)	0.3(0.2)	12.3(0.5)
USA	Springfield, MA	1985-2005	21.4(84%)	0.6(0.4)	7.9(1.0)	0.5(0.2)	11.5(0.5)
USA	Sarasota- Bradenton, FL	1985-2005	23.9(47%)	0.3(0.2)	1.6(0.3)	1.8(0.1)	2.4(0.5)
USA	Stockton-Lodi, CA	1985-2005	25.6(90%)	0.2(0.1)	5.9(0.3)	0.2(0.0)	9.1(0.5)
USA	St. Louis, MO-IL	1985-2005	27.2(91%)	0.3(0.2)	5.6(0.4)	0.2(0.1)	13.4(0.6)
USA	Stamford- Norwalk, CT	1985-2005	22.5(86%)	0.4(1.9)	7.1(1.0)	0.3(0.4)	11.5(0.6)
USA	Seattle, WA	1985-2005	20.0(93%)	0.3(0.2)	6.5(0.9)	0.1(0.1)	8.6(0.4)
USA	Syracuse, NY	1985-2005	21.1(86%)	0.5(0.2)	6.7(0.2)	0.4(0.2)	12.3(0.7)
USA	Tacoma, WA	1985-2003	20.3(94%)	0.1(0.2)	6.4(0.8)	0.1(0.2)	8.4(0.5)
USA	Tampa-St. Petersburg- Clearwater, FL	1985-2005	25.0(54%)	0.2(0.3)	2.5(0.3)	1.2(0.1)	3.2(0.6)
USA	Tucson, AZ	1985-2005	28.9(78%)	0.2(0.3)	4.0(0.3)	0.5(0.2)	8.3(0.7)
USA	Toledo, OH	1985-2005	21.4(83%)	0.5(0.2)	7.4(0.3)	0.5(0.2)	11.7(1.2)
USA	Trenton, NJ	1985-2005	24.2(90%)	0.3(0.1)	6.6(0.3)	0.2(0.2)	12.6(0.3)
USA	Tulsa, OK	1985-2005	27.2(85%)	0.1(0.3)	5.5(0.3)	0.4(0.1)	11.5(0.6)
USA	Utica-Rome, NY	1985-2004	21.9(91%)	0.4(0.3)	7.2(0.3)	0.2(0.1)	13.8(0.6)
USA	Ventura County, CA	1985-2002	21.7(96%)	0.1(0.2)	3.1(0.7)	0.0(0.1)	5.5(0.4)
USA	Virginia Beach, VA	1985-2005	25.0(81%)	0.3(0.3)	5.0(0.9)	0.4(0.2)	9.5(0.6)
USA	Wichita, KS	1985-2005	25.0(81%)	0.4(0.3)	5.3(0.7)	0.5(0.1)	11.6(0.6)
USA	Wilmington, DE	1985-2005	23.6(84%)	0.5(0.2)	6.4(0.8)	0.4(0.1)	11.2(0.6)
USA	West Palm Beach- Boca Raton, FL	1985-2005	24.4(42%)	0.7(0.2)	1.3(0.3)	1.6(0.2)	1.7(0.7)
USA	Worcester, MA	1985-2005	20.0(85%)	0.6(0.3)	7.6(0.4)	0.4(0.1)	11.6(0.8)
USA	Washington, DC- MD-VA	1985-2005	25.8(87%)	0.4(0.2)	6.0(0.6)	0.3(0.1)	11.6(0.5)
USA	Youngstown- Warren, OH	1985-2005	20.8(85%)	0.3(0.6)	6.3(0.6)	0.4(0.2)	11.5(0.5)
USA	York, PA	1986-2005	22.5(82%)	0.4(0.6)	6.3(0.5)	0.5(0.2)	10.7(0.4)