

Web Material

Web Table 1. Median (25th, 75th percentile) of Air Pollutants and Air Toxics by Exposure Window, Consortium on Safe Labor/Air Quality and Reproductive Health Study, 2002-2008 (*n* = 206,054).

	3 Months Preconception	Trimester 1 ^a	Gestational Weeks 1-20
Criteria air pollutants			
CO (ppb)	534.8 (415.8, 671.7)	544.8 (420.6, 684.4)	547.9 (428.1, 682.0)
NO _x (ppb)	24.5 (14.8, 43.2)	25.5 (15.2, 45.3)	26.8 (16.0, 45.0)
O ₃ (ppb)	29.8 (23.5, 35.9)	29.3 (22.8, 35.3)	29.1 (23.6, 34.4)
SO ₂ (ppb)	3.3 (2.1, 5.3)	3.3 (2.0, 5.3)	3.4 (2.0, 5.3)
PM ₁₀ (µg/m ³)	21.7 (18.7, 25.0)	21.6 (18.6, 25.0)	21.7 (19.0, 24.7)
PM _{2.5} (µg/m ³)	11.7 (9.0, 14.5)	11.9 (9.2, 14.6)	12.0 (9.4, 14.4)
PM_{2.5} constituents (µg/m³)			
Ammonium particles	1.4 (0.8, 2.0)	1.4 (0.9, 2.0)	1.5 (0.9, 2.0)
Dust particles	1.6 (1.2, 2.3)	1.7 (1.2, 2.4)	1.7 (1.2, 2.3)
Elemental carbon	0.6 (0.4, 0.8)	0.6 (0.4, 0.8)	0.6 (0.4, 0.8)
Nitrate particles	1.3 (0.7, 2.8)	1.4 (0.7, 3.0)	1.6 (0.8, 2.9)
Organic compounds	2.7 (2.1, 3.4)	2.7 (2.2, 3.4)	2.7 (2.2, 3.3)
Sulfite particles	3.0 (1.7, 4.0)	2.9 (1.5, 3.9)	3.0 (1.6, 3.9)
Polycyclic aromatic hydrocarbons (ppb)			
Acenaphthene	1.9E-05 (7.2E-06, 4.4E-05)	2.1E-05 (8.5E-06, 4.3E-05)	2.2E-05 (8.9E-06, 4.3E-05)
Acenaphthylene	1.4E-04 (5.6E-05, 2.9E-04)	1.5E-04 (6.7E-05, 2.9E-04)	1.5E-04 (7.2E-05, 3.0E-04)
Anthracene	2.0E-05 (1.0E-05, 4.2E-05)	2.6E-05 (1.2E-05, 4.7E-05)	2.7E-05 (1.3E-05, 4.9E-05)
Benzo[a]-anthracene	2.1E-07 (2.2E-08, 6.2E-07)	3.6E-07 (6.8E-08, 6.7E-07)	4.0E-07 (8.0E-08, 6.5E-07)
Benzo[a]-pyrene	2.0E-09 (4.0E-14, 1.7E-07)	1.6E-09 (4.1E-14, 3.2E-08)	1.6E-09 (5.9E-14, 3.0E-08)
Chrysene	7.0E-06 (3.7E-06, 2.6E-05)	6.5E-06 (3.6E-06, 2.0E-05)	6.5E-06 (3.7E-06, 2.0E-05)
Fluoranthene	3.6E-05 (1.7E-05, 7.6E-05)	3.7E-05 (1.8E-05, 7.5E-05)	4.0E-05 (1.8E-05, 7.2E-05)
Fluorene	5.0E-05 (2.2E-05, 9.0E-05)	5.3E-05 (2.4E-05, 9.0E-05)	5.6E-05 (2.5E-05, 8.8E-05)
Ideno[1,2,3-Cd]pyrene	1.9E-17 (1.1E-17, 8.0E-08)	1.6E-17 (1.0E-17, 3.5E-11)	1.6E-17 (1.0E-17, 2.7E-10)

Napthalene	5.6E-03 (3.3E-03, 1.0E-02)	5.7E-03 (3.4E-03, 9.8E-03)	5.9E-03 (3.5E-03, 9.2E-03)
Phenanthrene	1.7E-04 (7.5E-05, 3.4E-04)	1.8E-04 (8.0E-05, 3.3E-04)	1.8E-04 (8.3E-05, 3.2E-04)
Pyrene	2.7E-05 (1.3E-05, 5.4E-05)	2.8E-05 (1.4E-05, 5.3E-05)	3.0E-05 (1.4E-05, 5.3E-05)
Volatile organic compounds (ppb)			
Benzene	4.4E-05 (4.1E-08, 3.5E-04)	4.3E-05 (3.8E-08, 3.4E-04)	4.3E-05 (7.8E-08, 3.1E-04)
1,3-butadiene	2.9E-04 (7.2E-06, 2.1E-03)	2.9E-04 (7.3E-06, 2.1E-03)	3.0E-04 (7.9E-06, 1.9E-03)
Cyclohexane	4.2E-05 (1.6E-06, 1.4E-04)	4.7E-05 (2.1E-06, 1.4E-04)	4.9E-05 (2.2E-06, 1.2E-04)
Ethylbenzene	6.2E-07 (6.2E-17, 3.6E-06)	6.7E-07 (6.3E-17, 3.5E-06)	6.5E-07 (1.0E-16, 3.4E-06)
Methyl-tertiary butyl ether	1.7E-07 (8.9E-19, 4.7E-05)	3.2E-08 (1.1E-18, 4.7E-05)	3.0E-08 (2.1E-18, 4.2E-05)
Methy ethyl ketone	2.6E-05 (4.5E-07, 3.0E-04)	2.0E-05 (4.6E-07, 3.0E-04)	2.0E-05 (4.9E-07, 2.6E-04)
M-xylene	7.6E-05 (2.3E-06, 7.9E-04)	7.5E-05 (2.4E-06, 7.8E-04)	7.2E-05 (2.6E-06, 7.0E-04)
N-hexane	9.0E-05 (3.3E-06, 6.6E-04)	9.0E-05 (3.4E-06, 6.6E-04)	8.8E-05 (3.7E-06, 5.9E-04)
O-xylene	8.0E-08 (8.7E-19, 2.3E-05)	3.5E-11 (1.0E-18, 2.2E-05)	2.7E-10 (1.7E-18, 2.0E-05)
P-xylene	1.0E-02 (5.5E-04, 3.2E-02)	9.8E-03 (5.6E-04, 3.1E-02)	9.2E-03 (5.9E-04, 2.9E-02)
Propene	3.4E-04 (1.1E-05, 4.1E-03)	3.3E-04 (1.2E-05, 4.0E-03)	3.2E-04 (1.3E-05, 3.6E-03)
Sesquiterpene	5.4E-05 (1.6E-06, 4.8E-04)	5.3E-05 (1.6E-06, 4.7E-04)	5.3E-05 (1.6E-06, 4.0E-04)
Styrene	4.4E-05 (4.1E-08, 3.5E-04)	4.3E-05 (3.8E-08, 3.4E-04)	4.3E-05 (7.8E-08, 3.1E-04)
Toluene	2.9E-04 (7.2E-06, 2.1E-03)	2.9E-04 (7.3E-06, 2.1E-03)	3.0E-04 (7.9E-06, 1.9E-03)

^aTrimester 1 refers to gestational weeks 1-13.

Web Table 2. Adjusted Relative Risks (95% Confidence Intervals) for Gestational Hypertension Associated With An Interquartile-Range Increment of Individual Criteria Air Pollutant and PM_{2.5} Constituent by Exposure Window, Consortium on Safe Labor/Air Quality and Reproductive Health Study, 2002-2008 (*n* = 206,054)^a

	3 Months Preconception	<i>P</i> value^b	Trimester 1^c	<i>P</i> value^b	Gestational Weeks 1-20	<i>P</i> value^b
Criteria pollutants						
CO	0.93 (0.88, 0.99)	0.056	0.94 (0.88, 0.99)	0.060	0.94 (0.88, 1.00)	0.062
NO _x	1.07 (0.98, 1.17)	0.230	1.11 (1.01, 1.21)	0.038	1.17 (1.06, 1.29)	0.008
O ₃	0.94 (0.89, 1.00)	0.166	1.00 (0.94, 1.07)	0.964	0.99 (0.93, 1.05)	0.864
PM _{2.5}	1.04 (0.98, 1.10)	0.355	1.08 (1.02, 1.15)	0.020	1.10 (1.03, 1.17)	0.021
PM ₁₀	1.05 (1.00, 1.10)	0.166	1.05 (1.00, 1.11)	0.070	1.07 (1.01, 1.13)	0.036
SO ₂	1.18 (1.08, 1.29)	0.001	1.22 (1.11, 1.34)	0.001	1.22 (1.10, 1.35)	0.001
PM_{2.5} constituents						
Ammonium particles	0.99 (0.93, 1.06)	0.841	1.01 (0.95, 1.07)	0.868	1.01 (0.94, 1.08)	0.875
Dust particles	1.08 (1.03, 1.13)	0.006	1.07 (1.03, 1.12)	0.012	1.08 (1.03, 1.13)	0.006
Elemental carbon	0.99 (0.93, 1.05)	0.841	1.06 (1.00, 1.12)	0.095	1.08 (1.01, 1.14)	0.036
Nitrate particles	0.98 (0.93, 1.04)	0.798	0.97 (0.92, 1.03)	0.503	0.99 (0.93, 1.05)	0.964
Organic compounds	1.00 (0.94, 1.05)	0.869	1.06 (1.00, 1.12)	0.070	1.04 (0.98, 1.11)	0.234
Sulfite particles	1.01 (0.95, 1.07)	0.841	1.03 (0.96, 1.10)	0.515	1.00 (0.93, 1.08)	0.095

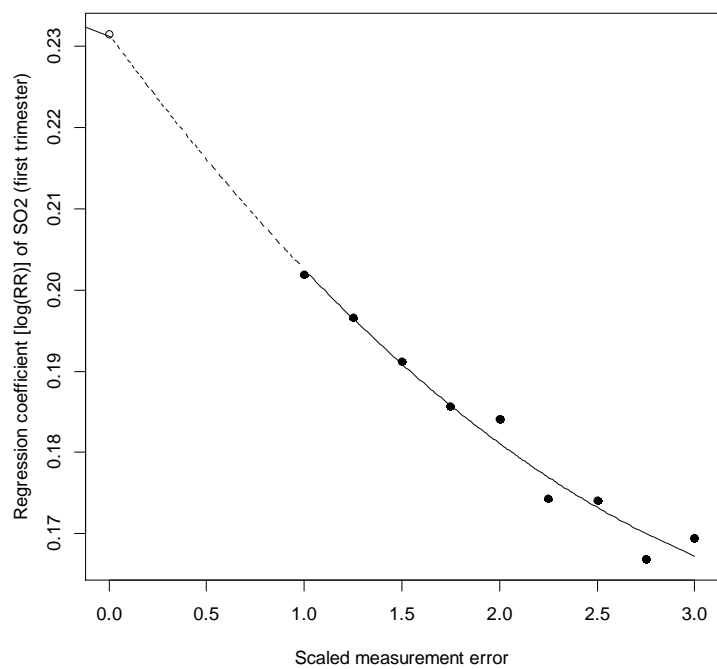
^aAdjusted for study site, race/ethnicity, marital status, insurance, parity, pre-pregnancy body mass index, chronic disease before pregnancy (diabetes mellitus, asthma, thyroid disease, HIV), smoking during pregnancy, alcohol consumption during pregnancy, and season of conception.

^b*P* values were adjusted by the FDR method within each exposure window for criteria air pollutants and PM_{2.5} constituents, respectively.

^cTrimester 1 refers to gestational weeks 1-13.

Web Figure 1. Simulation Extrapolation Results For (A) 10% of Total Variation due to Measurement Error and (B) 20% of Total Variation due to Measurement Error in the Exposure to SO₂ During the First Trimester, Consortium on Safe Labor/Air Quality and Reproductive Health Study, 2002-2008.

(A)



(B)

