

# Online Appendix: Extreme heat, birth outcomes, and socioeconomic heterogeneity

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This file includes Tables S1–S8 and Figure S1.

Table S1. Baseline model without imputed values for gestational age

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PTB	PTB	PTB	LBW	LBW	LBW	VLBW	VLBW	VLBW
	<u>High SES</u>	<u>Medium SES</u>	<u>Low SES</u>	<u>High SES</u>	<u>Medium SES</u>	<u>Low SES</u>	<u>High SES</u>	<u>Medium SES</u>	<u>Low SES</u>
Days < 5°C	0.007 (0.004)	-0.003 (0.003)	0.008 (0.004)	-0.002 (0.003)	-0.007* (0.003)	-0.007* (0.003)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
25° - 32°C	-0.001 (0.004)	-0.004 (0.002)	-0.008* (0.003)	0.001 (0.002)	-0.001 (0.002)	-0.002 (0.003)	-0.000 (0.001)	-0.001* (0.001)	0.001 (0.001)
> 32°C	0.020 (0.023)	0.008 (0.016)	-0.004 (0.025)	-0.038* (0.016)	0.039 (0.024)	0.057* (0.014)	-0.006 (0.006)	-0.002 (0.005)	0.028* (0.008)
N	1,317,759	996,658	1,085,811	1,298,945	980,226	1,060,057	1,298,945	980,226	1,060,057

*Note:* Estimated impacts of temperature on birth outcomes by trimester of gestation and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05

Table S2. Linear probability models estimating the effect of temperatures by SES and trimester of pregnancy

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PTB	PTB	PTB	LBW	LBW	LBW	VLBW	VLBW	VLBW
	High SES	Med SES	Low SES	High SES	Med SES	Low SES	High SES	Med SES	Low SES
<b>First Trimester</b>									
Days < 5°C	-0.002 (0.003)	-0.010* (0.005)	0.007 (0.006)	-0.002 (0.004)	-0.007 (0.004)	-0.001 (0.004)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.002)
25° - 32°C	0.003 (0.004)	-0.007 (0.004)	-0.010* (0.004)	0.001 (0.004)	-0.004 (0.003)	-0.005 (0.003)	0.001 (0.001)	-0.002* (0.001)	-0.001 (0.001)
> 32°C	-0.005 (0.020)	0.003 (0.076)	-0.006 (0.026)	-0.036 (0.023)	0.048* (0.018)	0.033* (0.016)	0.009 (0.011)	-0.001 (0.008)	0.023 (0.013)
<b>Second Trimester</b>									
Days < 5°C	0.006 (0.004)	-0.012* (0.004)	0.005 (0.005)	-0.001 (0.003)	-0.012* (0.004)	-0.011* (0.003)	-0.001 (0.001)	-0.002 (0.001)	-0.002 (0.001)
25° - 32°C	0.003 (0.003)	0.005 (0.004)	-0.006 (0.003)	-0.001 (0.002)	0.002 (0.003)	-0.001 (0.003)	0.001 (0.001)	-0.001 (0.001)	0.000 (0.001)
> 32°C	-0.049 (0.027)	-0.076 (0.042)	0.053 (0.041)	-0.002 (0.027)	0.028 (0.032)	0.085* (0.026)	-0.009 (0.005)	0.001 (0.006)	0.023* (0.007)
<b>Third Trimester</b>									
Days < 5°C	0.001 (0.004)	-0.013* (0.005)	-0.005 (0.004)	-0.004 (0.006)	-0.005 (0.005)	-0.005 (0.004)	0.001 (0.001)	-0.001 (0.001)	-0.002 (0.001)
25° - 32°C	0.001 (0.004)	0.001 (0.004)	-0.003 (0.004)	0.002 (0.002)	0.003 (0.004)	0.004 (0.003)	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)
> 32°C	-0.017 (0.022)	-0.027 (0.033)	-0.083* (0.034)	-0.042* (0.011)	0.034 (0.044)	-0.006 (0.016)	-0.007 (0.006)	-0.006 (0.007)	0.017* (0.007)
N.	1,482,984	1,146,060	1,301,743	1,446,251	1,113,128	1,248,156	1,446,251	1,113,128	1,248,156

*Note:* Estimated impacts of temperature on birth outcomes by trimester of gestation and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05

Table S3. Effect of heat index on birth outcomes by SES

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PTB High SES	PTB Medium SES	PTB Low SES	LBW High SES	LBW Medium SES	LBW Low SES	VLBW High SES	VLBW Medium SES	VLBW Low SES
<b>First Trimester</b>									
Cold	-0.002 (0.003)	-0.011* (0.004)	0.007 (0.004)	-0.000 (0.003)	-0.004 (0.004)	0.001 (0.004)	-0.000 (0.001)	-0.002 (0.001)	0.001 (0.001)
Caution	0.003 (0.007)	-0.003 (0.007)	-0.013* (0.005)	0.004 (0.004)	-0.004 (0.004)	-0.003 (0.004)	0.001 (0.001)	-0.002 (0.001)	0.000 (0.002)
Extreme Caution	-0.008 (0.026)	-0.025 (0.049)	0.025 (0.017)	-0.018 (0.027)	0.018 (0.019)	-0.001 (0.025)	-0.002 (0.007)	-0.008 (0.006)	0.002 (0.009)
<b>Second Trimester</b>									
Cold	0.003 (0.002)	-0.012* (0.004)	0.005 (0.004)	0.002 (0.003)	-0.011* (0.003)	-0.007* (0.003)	0.000 (0.001)	-0.002 (0.001)	-0.000 (0.001)
Caution	0.005 (0.005)	0.005 (0.006)	-0.015* (0.004)	-0.002 (0.004)	0.004 (0.004)	-0.005 (0.004)	-0.000 (0.001)	0.000 (0.001)	-0.001 (0.002)
Extreme Caution	-0.054* (0.022)	-0.033 (0.031)	0.081* (0.027)	0.004 (0.009)	0.007 (0.022)	0.057* (0.018)	-0.005 (0.006)	-0.001 (0.009)	0.016* (0.005)
<b>Third Trimester</b>									
Cold	-0.001 (0.005)	-0.013* (0.006)	-0.001 (0.003)	0.000 (0.004)	-0.004 (0.004)	-0.002 (0.003)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Caution	0.001 (0.005)	0.002 (0.004)	-0.006 (0.004)	0.004 (0.002)	0.005 (0.004)	0.008 (0.004)	-0.001 (0.001)	-0.000 (0.001)	0.001 (0.001)
Extreme Caution	-0.033 (0.021)	-0.020 (0.025)	-0.008 (0.024)	-0.035* (0.014)	0.021 (0.029)	-0.013 (0.010)	-0.001 (0.004)	-0.002 (0.008)	0.011* (0.005)
Observations	1,482,984	1,146,060	1,301,743	1,446,251	1,113,128	1,248,156	1,446,251	1,113,128	1,248,156

Note: Estimated impacts of heat index on birth outcomes by trimester of gestation and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared whether the child was firstborn, and maternal ethnicorigin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial- cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05.

Table S4. Linear probability models predicting the effect of temperatures on birth outcomes by SES; alternative temperature bins specification

VARIABLES	(1) PTB High SES	(2) PTB Medium SES	(3) PTB Low SES	(4) LBW High SES	(5) LBW Medium SES	(6) LBW Low SES	(7) VLBW High SES	(8) VLBW Medium SES	(9) VLBW Low SES
<b>First Trimester</b>									
Days < 0°	-0.001 (0.019)	0.019 (0.034)	0.029 (0.021)	0.021 (0.024)	0.005 (0.028)	-0.010 (0.018)	0.006 (0.006)	0.001 (0.009)	0.005 (0.007)
0°-5°	-0.001 (0.004)	-0.007 (0.006)	0.009 (0.008)	-0.003 (0.005)	-0.005 (0.004)	0.006 (0.005)	-0.001 (0.001)	-0.002 (0.002)	0.002 (0.002)
5°-10°	-0.000 (0.002)	0.010* (0.004)	0.004 (0.003)	0.004 (0.003)	0.008* (0.004)	0.002 (0.003)	0.001 (0.001)	0.002 (0.002)	0.001 (0.001)
25°-30°	0.005 (0.004)	-0.010* (0.004)	-0.012* (0.004)	-0.000 (0.005)	-0.008* (0.003)	-0.006 (0.003)	-0.000 (0.001)	-0.003* (0.001)	-0.001 (0.001)
>30°	-0.011 (0.007)	-0.004 (0.017)	-0.007 (0.012)	-0.001 (0.014)	0.010 (0.008)	0.001 (0.005)	0.004 (0.004)	0.002 (0.002)	0.007 (0.005)
<b>Second Trimester</b>									
Days < 0°	-0.089* (0.031)	-0.007 (0.036)	-0.014 (0.039)	-0.045* (0.018)	0.002 (0.021)	-0.039 (0.025)	0.002 (0.006)	0.012 (0.007)	-0.005 (0.005)
0°-5°	0.020* (0.006)	-0.010 (0.007)	0.009 (0.007)	0.006 (0.004)	-0.012* (0.004)	-0.003 (0.005)	-0.001 (0.001)	-0.004* (0.001)	-0.001 (0.002)
5°-10°	-0.006 (0.005)	-0.007 (0.005)	-0.005 (0.003)	-0.001 (0.002)	-0.004 (0.003)	-0.007* (0.003)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)
25°-30°	0.001 (0.003)	0.005 (0.004)	-0.008* (0.004)	0.000 (0.003)	0.001 (0.004)	-0.003 (0.003)	0.000 (0.001)	-0.001 (0.001)	0.000 (0.001)
>30°	0.009 (0.021)	-0.000 (0.018)	0.020 (0.014)	-0.006 (0.012)	0.014 (0.009)	0.028* (0.008)	-0.004 (0.003)	0.002 (0.003)	0.004 (0.004)
<b>Third Trimester</b>									
Days < 0°	-0.024 (0.019)	0.032 (0.027)	0.009 (0.021)	-0.003 (0.025)	0.000 (0.025)	-0.030 (0.025)	0.012* (0.005)	0.004 (0.009)	0.009 (0.009)
0°-5°	0.004 (0.005)	-0.012 (0.007)	-0.003 (0.006)	-0.001 (0.008)	-0.001 (0.005)	0.002 (0.005)	-0.001 (0.001)	0.000 (0.002)	-0.003 (0.002)
5°-10°	-0.006 (0.004)	0.004 (0.005)	0.006 (0.004)	0.001 (0.003)	-0.000 (0.004)	-0.001 (0.004)	0.000 (0.001)	0.001 (0.001)	0.001 (0.001)
25°-30°	0.001 (0.003)	0.001 (0.003)	-0.001 (0.005)	0.002 (0.002)	0.002 (0.005)	0.004 (0.004)	-0.000 (0.001)	-0.002 (0.001)	0.000 (0.001)
>30°	-0.000 (0.019)	-0.017 (0.011)	-0.037* (0.015)	-0.007 (0.010)	0.006 (0.013)	0.001 (0.007)	-0.003 (0.003)	0.002 (0.004)	0.007 (0.004)

N 1,692,065 1,400,944 1,756,994 1,645,819 1,351,060 1,663,483 1,645,819 1,351,060 1,663,483

Note: Estimated impacts of temperature on birth outcomes by trimester of gestation and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-20° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05

Table S5. Effect of tropical nights on birth outcomes by SES and trimester, sensitivity analysis

	(1) PTB High SES	(2) PTB Medium SES	(3) PTB Low SES	(4) LBW High SES	(5) LBW Medium SES	(6) LBW Low SES	(7) VLBW High SES	(8) VLBW Medium SES	(9) VLBW Low SES
<b>First Trimester</b>									
Days <0°	-0.009* (0.004)	-0.006 (0.007)	0.020 (0.010)	-0.009 (0.005)	0.003 (0.005)	0.014 (0.008)	0.001 (0.001)	-0.002 (0.002)	0.003 (0.003)
0° - 5°	0.002 (0.005)	0.011 (0.006)	0.012* (0.005)	0.003 (0.003)	0.006 (0.004)	0.010* (0.004)	0.000 (0.001)	0.000 (0.002)	0.002+ (0.001)
5° - 10°	-0.000 (0.004)	0.006 (0.004)	0.005 (0.006)	-0.002 (0.002)	0.006 (0.003)	0.007 (0.004)	0.000 (0.001)	-0.000 (0.001)	0.001 (0.001)
> 20°	-0.004 (0.007)	-0.015* (0.005)	-0.014* (0.005)	0.002 (0.003)	-0.004 (0.004)	-0.008* (0.003)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.002)
<b>Second Trimester</b>									
Days <0°	-0.006 (0.005)	-0.014* (0.006)	0.012 (0.006)	-0.010* (0.004)	-0.012* (0.005)	-0.002 (0.005)	-0.001 (0.001)	-0.002 (0.002)	0.000 (0.002)
0° - 5°	0.001 (0.005)	-0.002 (0.006)	0.005 (0.004)	0.002 (0.002)	-0.006 (0.005)	-0.004 (0.004)	-0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)
5° - 10°	-0.007* (0.003)	-0.002 (0.003)	-0.000 (0.004)	-0.005* (0.002)	-0.004 (0.003)	-0.001 (0.004)	-0.002 (0.001)	-0.001 (0.001)	0.000 (0.001)
> 20°	-0.002 (0.003)	-0.001 (0.005)	-0.011* (0.004)	0.002 (0.002)	0.001 (0.003)	-0.004 (0.003)	-0.000 (0.001)	0.001 (0.001)	-0.001 (0.002)
<b>Third Trimester</b>									
Days <0°	0.005 (0.007)	-0.009 (0.009)	0.012 (0.009)	-0.007 (0.005)	-0.005 (0.007)	0.011 (0.007)	0.000 (0.002)	-0.001 (0.003)	0.001 (0.002)
0° - 5°	0.000 (0.006)	0.003 (0.005)	0.009 (0.005)	0.001 (0.003)	-0.007 (0.005)	0.003 (0.005)	-0.000 (0.001)	-0.001 (0.001)	-0.000 (0.001)
5° - 10°	0.007 (0.009)	0.004 (0.009)	0.003 (0.006)	-0.002 (0.002)	-0.003 (0.003)	0.004 (0.003)	-0.001 (0.001)	-0.000 (0.001)	0.001 (0.001)
> 20°	-0.007* (0.003)	-0.009* (0.004)	-0.016* (0.005)	0.001 (0.003)	0.001 (0.005)	-0.005 (0.003)	-0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)
N	1,482,984	1,146,060	1,301,743	1,446,251	1,113,128	1,248,156	1,446,251	1,113,128	1,248,156

Note: Estimated impacts of tropical nights on birth outcomes by trimester of gestation and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 10°-20° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05

Table S6. Linear probability models predicting the effect of temperatures, sensitivity analyses with different definition of SES (2007-2016)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Maternal Education (2007-2016)						Parental SES (2007-2016)								
	PTB < uni	PTB uni	LBW < uni	LBW uni	VLBW < uni	VLBW uni	PTB High SES	PTB Medium SES	PTB Low SES	LBW High SES	LBW Medium SES	LBW Low SES	VLBW High SES	VLBW Medium SES	VLBW Low SES
<b>First Trimester</b>															
Days < 5°C	0.006 (0.008)	-0.009 (0.007)	0.003 (0.005)	-0.008 (0.008)	-0.000 (0.003)	-0.005* (0.002)	-0.009 (0.008)	-0.001 (0.009)	0.002 (0.008)	-0.003 (0.009)	-0.015* (0.007)	-0.001 (0.007)	-0.003 (0.003)	-0.006 (0.002)	0.001 (0.004)
25° - 32°C	-0.007 (0.004)	0.003 (0.005)	-0.008* (0.004)	0.002 (0.005)	-0.001 (0.002)	-0.002 (0.002)	0.004 (0.005)	-0.004 (0.004)	-0.018* (0.004)	-0.001 (0.005)	-0.002 (0.005)	-0.013* (0.005)	-0.002 (0.001)	-0.005* (0.002)	-0.003 (0.002)
> 32°C	0.028 (0.072)	-0.004 (0.048)	0.010 (0.050)	-0.096 (0.060)	0.037* (0.016)	-0.003 (0.016)	0.071 (0.067)	-0.023 (0.067)	-0.038 (0.049)	0.016 (0.084)	-0.007 (0.052)	-0.078* (0.032)	0.025 (0.022)	0.003 (0.012)	0.038 (0.026)
<b>Second Trimester</b>															
Days < 5°C	-0.005 (0.007)	-0.003 (0.008)	-0.007 (0.007)	-0.002 (0.008)	-0.001 (0.002)	-0.004 (0.002)	0.004 (0.009)	-0.018* (0.008)	0.001 (0.010)	0.006 (0.008)	-0.017* (0.008)	-0.008 (0.008)	-0.005* (0.002)	-0.003 (0.003)	0.000 (0.004)
25° - 32°C	0.001 (0.004)	0.007 (0.005)	-0.004 (0.004)	0.002 (0.004)	0.002 (0.002)	0.001 (0.002)	-0.001 (0.007)	0.002 (0.004)	-0.005 (0.005)	-0.005 (0.005)	-0.002 (0.005)	-0.008 (0.005)	0.002 (0.002)	-0.002 (0.002)	0.001 (0.003)
> 32°C	0.019 (0.055)	-0.082* (0.040)	0.122* (0.058)	0.001 (0.041)	0.019 (0.041)	0.020 (0.017)	-0.050 (0.045)	-0.051 (0.055)	0.039 (0.077)	-0.010 (0.047)	0.092* (0.048)	0.187* (0.076)	-0.005 (0.012)	0.028 (0.020)	0.046 (0.040)
<b>Third Trimester</b>															
Days < 5°C	-0.001 (0.007)	-0.001 (0.007)	-0.006 (0.006)	-0.006 (0.007)	-0.003 (0.002)	-0.004 (0.002)	-0.007 (0.008)	0.001 (0.008)	-0.006 (0.008)	-0.007 (0.008)	-0.012 (0.008)	-0.010 (0.007)	-0.004* (0.002)	-0.004 (0.003)	-0.005* (0.003)
25° - 32°C	0.007 (0.004)	0.001 (0.004)	0.007* (0.004)	0.005 (0.004)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.004)	-0.001 (0.005)	0.001 (0.005)	0.003 (0.004)	0.004 (0.005)	0.001 (0.005)	0.001 (0.001)	-0.004* (0.002)	0.001 (0.002)
> 32°C	-0.166* (0.049)	-0.081 (0.050)	-0.069 (0.047)	-0.097* (0.035)	-0.015 (0.010)	-0.026 (0.014)	-0.022 (0.073)	-0.164*** (0.038)	-0.171* (0.053)	-0.097* (0.040)	-0.071 (0.044)	-0.024 (0.053)	-0.032* (0.009)	-0.045* (0.015)	0.005 (0.015)
N.	811,801	631,030	782,025	621,836	782,025	621,836	494,557	390,142	439,490	486,967	383,324	426,252	486,967	383,324	426,252

Note: Estimated impacts of temperature on birth outcomes by trimester of gestation and by parental socio-economic status and maternal education. Estimates obtained for the subsample in which information on maternal education is available (conceptions 2007-2016). Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05

Table S7. Linear probability models estimating the effect of temperatures on birth outcomes, alternative FE specifications

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	High SES			Medium SES			Low SES		
<b>Preterm birth</b>									
Days < 5°C	0.003 (0.002)	0.003 (0.006)	0.008 (0.008)	-0.010* (0.003)	-0.011* (0.004)	-0.007 (0.006)	0.006* (0.003)	0.006 (0.008)	0.010 (0.008)
25°-32°C	0.003 (0.003)	0.005 (0.003)	0.006* (0.003)	-0.000 (0.003)	0.006 (0.004)	0.005 (0.004)	-0.005 (0.003)	-0.004 (0.005)	-0.004 (0.005)
Days > 32°C	-0.019 (0.012)	-0.007 (0.016)	-0.009 (0.016)	-0.030 (0.034)	0.025 (0.042)	-0.027 (0.041)	-0.019 (0.021)	-0.019 (0.025)	-0.022 (0.024)
N	1,482,984			1,146,060			1,301,743		
<b>Low Birth Weight</b>									
Days < 5°C	-0.001 (0.003)	-0.005 (0.004)	-0.006 (0.004)	-0.008* (0.003)	-0.012* (0.004)	-0.012* (0.004)	-0.003 (0.002)	0.003 (0.004)	0.005 (0.004)
25°-32°C	0.001 (0.002)	0.004 (0.003)	0.004 (0.003)	-0.001 (0.002)	0.001 (0.004)	-0.001 (0.004)	-0.001 (0.003)	0.001 (0.005)	0.002 (0.005)
Days > 32°C	-0.027* (0.013)	-0.007 (0.011)	-0.006 (0.011)	0.032 (0.029)	0.048 (0.033)	0.048 (0.033)	0.028* (0.011)	0.038* (0.012)	0.035* (0.012)
N	1,446,251			1,113,128			1,248,156		
<b>Very Low Birth Weight</b>									
Days < 5°C	-0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.001)	0.002 (0.001)	0.002 (0.001)
25°-32°C	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001* (0.001)	-0.001 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.001 (0.002)	0.001 (0.002)
Days > 32°C	-0.002 (0.005)	0.002 (0.006)	0.003 (0.006)	-0.003 (0.003)	0.005 (0.006)	0.005 (0.006)	0.020* (0.006)	0.019* (0.007)	0.020* (0.006)
N	1,446,251			1,113,128			1,248,156		
MoC	X	X	X	X	X	X	X	X	X
Province x YoC	X	X	X	X	X	X	X	X	X
Province x MoC		X	X		X	X		X	X
Province x PQ			X			X			X

Note: Estimated impacts of temperature on birth outcomes during the gestational period for the whole sample and by parental socio-economic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Fixed effects specified as described at the bottom of the table. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: average humidity, solar radiation, wind speed, and humidity precipitation.

Abbreviations: MoC = month of conception; YoC = year of conception; PQ = polynomial quadratic in the century-month of conception.

Significance levels: \* p<0.05

Table S8. Placebo estimates of the effect of temperature t-9 months before conception on birth outcomes by SES

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PTB	PTB	PTB	LBW	LBW	LBW	VLBW	VLBW	VLBW
	High SES	Medium SES	Low SES	High SES	Medium SES	Low SES	High SES	Medium SES	Low SES
< 5° t-9	0.008 (0.006)	0.006 (0.004)	-0.001 (0.004)	0.003 (0.003)	0.004 (0.004)	0.003 (0.004)	-0.001 (0.001)	0.002 (0.001)	-0.001 (0.001)
25°-32° t-9	-0.002 (0.002)	0.003 (0.003)	0.005* (0.002)	-0.001 (0.003)	0.003 (0.002)	0.004 (0.003)	-0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)
>32° t-9	-0.010 (0.021)	-0.026 (0.039)	-0.005 (0.016)	-0.006 (0.011)	-0.029 (0.019)	-0.064* (0.020)	0.002 (0.007)	-0.008 (0.005)	-0.011 (0.006)
N	1,482,984	1,146,060	1,301,743	1,446,251	1,113,128	1,248,156	1,446,251	1,113,128	1,248,156

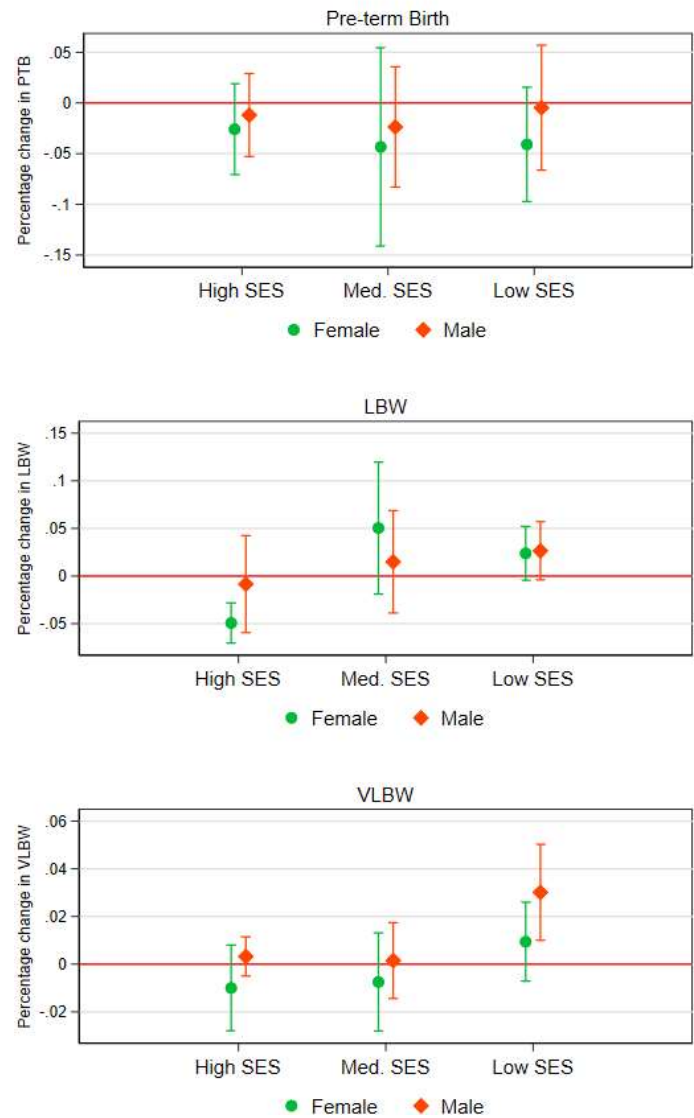
*Note:* Placebo estimate of temperatures t-9 month before conception on birth outcomes by trimester of gestation and by parental socioeconomic status. Robust standard errors in parentheses clustered at the provincial capital level. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include sex of the newborn, maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: humidity humidity, solar radiation, wind speed, and average precipitation.

Significance levels: \* p<0.05



Figure S1. Effect of extreme heat on birth outcomes by SES and newborn's sex

Effect of Extreme Heat (>32°) by SES and Newborn's Sex



*Note:* Estimated impacts of temperature on birth outcomes during the gestational period for the whole sample and by parental socio-economic status and newborn's sex. Coefficients are scaled by 100 to enhance readability, and they can be interpreted as percentage points changes in the specific birth outcome. The 5°-25° degrees bin is omitted as it is the reference bin referring to the comfort zone. Each model includes province-by-year of conception, province-specific polynomial quadratic in the century month of conception, and month of conception fixed effects. Demographic control variables include maternal marital status, maternal age, age squared, whether the child was firstborn, and maternal ethnic origin. Contextual controls include: population density, female employment rate, logarithm of the provincial GDP, the provincial-cohort-specific share of women with a tertiary degree, vegetation. Climatic controls include: relative humidity, solar radiation, wind speed, and average precipitation.