Table S1. Coarsened Exact Matching (CEM) BLL ≤ 10 Sample: Effects of BLL on Test Score Percentile and Changes in BLL Effects by Grade.

	Math CEM BLL ≤ 10 (1)	Reading CEM BLL ≤ 10 (2)	Math CEM BLL ≤ 10 (3)	Reading CEM BLL ≤ 10 (4)
BLL 2	-0.38*	-0.55**	-0.53*	-0.65**
	(0.19)	(0.19)	(0.22)	(0.22)
BLL 2 × grade			0.06	0.04
			(0.07)	(0.07)
BLL 3	-0.57**	-1.03***	-0.56*	-0.94***
	(0.20)	(0.20)	(0.23)	(0.24)
BLL 3 × grade			-0.01	-0.04
			(0.07)	(0.07)
BLL 4	-0.93***	-1.26***	-0.85**	-1.07***
	(0.22)	(0.22)	(0.28)	(0.28)
BLL 4 × grade			-0.04	-0.08
			(0.08)	(0.08)
BLL 5	-0.71**	-1.10***	-0.80*	-1.38***
	(0.26)	(0.27)	(0.35)	(0.35)
BLL 5 × grade			0.03	0.11
			(0.10)	(0.10)
BLL 6	-1.62***	-2.25***	-1.08*	-2.19***
	(0.34)	(0.34)	(0.46)	(0.47)
BLL 6 × grade			-0.20	-0.02
			(0.13)	(0.13)
BLL 7	-0.96*	-1.42**	-0.56	-1.10
	(0.43)	(0.43)	(0.61)	(0.60)
BLL 7 × grade			-0.15	-0.12
			(0.17)	(0.16)

BLL 8	-1.72**	-1.99***	-2.26**	-2.33**
	(0.54)	(0.55)	(0.77)	(0.78)
BLL 8 × grade			0.20	0.13
			(0.21)	(0.21)
BLL 9	-1.29	-2.10**	-0.64	-2.01
	(0.70)	(0.73)	(1.00)	(1.06)
BLL 9 × grade			-0.22	-0.02
			(0.25)	(0.27)
BLL 10	-2.59*	-3.96**	-2.42	-4.50*
	(1.31)	(1.29)	(2.11)	(2.18)
BLL 10 × grade			-0.05	0.20
			(0.49)	(0.52)
Male	1.17***	-2.41***	2.38***	-2.58***
	(0.13)	(0.13)	(0.17)	(0.17)
Male × grade			-0.49***	0.07
			(0.05)	(0.05)
White	2.67***	4.35***	3.66***	5.68***
	(0.34)	(0.34)	(0.45)	(0.45)
White × grade			-0.42**	-0.63***
			(0.15)	(0.15)
Black	-11.57***	-9.85***	-10.73***	-7.34***
	(0.38)	(0.38)	(0.52)	(0.52)
Black × grade			-0.37*	-1.08***
			(0.18)	(0.17)
EconDisadv	-6.07***	-6.49***	-5.85***	-6.42***
	(0.26)	(0.27)	(0.42)	(0.42)
EconDisadv × grade			-0.07	-0.01
			(0.12)	(0.12)
Medicaid	-1.40***	-1.48***	-1.59***	-1.78***
	(0.28)	(0.29)	(0.42)	(0.42)

	(1)	(2)	(3)	(4)
Medicaid × grade			0.02	0.08
			(0.13)	(0.13)
Not Married	-0.86**	-0.28	-1.57***	-0.29
	(0.30)	(0.30)	(0.43)	(0.42)
Not Married × grade			0.28*	-0.00
			(0.14)	(0.14)
Used Alcohol	-0.14	1.01	0.31	1.31
	(0.74)	(0.71)	(0.96)	(0.94)
Used Alcohol × grade			-0.17	-0.11
			(0.26)	(0.25)
Smoked	-2.97***	-2.22***	-2.04***	-2.37***
	(0.22)	(0.22)	(0.29)	(0.30)
Smoked × grade			-0.37***	0.05
			(0.08)	(0.08)
Age in 3rd Grade	-10.53***	-9.34***	-9.40***	-8.43***
	(0.18)	(0.18)	(0.21)	(0.21)
Age in 3rd Grade × grade			-0.46***	-0.38***
			(0.05)	(0.05)
Mother 21-29 years	-1.76***	-2.03***	-1.69***	-2.28***
	(0.30)	(0.30)	(0.43)	(0.43)
Mother 21-29 years × grade			-0.02	0.11
			(0.14)	(0.14)
Mother 30+ years	-0.11	-0.12	-0.50	-0.73
	(0.34)	(0.34)	(0.49)	(0.48)
Mother 30+ years × grade			0.16	0.24
			(0.15)	(0.15)
Parents some high school	-0.14	2.32***	0.93	3.16***
	(0.49)	(0.48)	(0.61)	(0.59)
Parents some high school × grade			-0.54*	-0.46*
			(0.23)	(0.22)

Parents high school grad	3.19***	6.43***	4.17***	7.75***
	(0.50)	(0.50)	(0.64)	(0.63)
Parents high school grad × grade			-0.51*	-0.69**
			(0.24)	(0.23)
Parents some college	8.35***	11.87***	8.42***	12.64***
	(0.54)	(0.54)	(0.70)	(0.69)
Parents some college × grade			-0.20	-0.50*
			(0.25)	(0.25)
Parents college grad	18.62***	21.58***	18.19***	22.03***
	(0.55)	(0.55)	(0.71)	(0.71)
Parents college grad × grade			-0.00	-0.38
			(0.26)	(0.25)
February Birthdate	-0.44	-0.35	-0.43	-0.35
	(0.33)	(0.33)	(0.33)	(0.33)
March Birthdate	-0.73*	-1.09***	-0.72*	-1.09***
	(0.32)	(0.32)	(0.32)	(0.32)
April Birthdate	-1.87***	-1.82***	-1.86***	-1.82***
	(0.32)	(0.32)	(0.32)	(0.32)
May Birthdate	-1.16***	-1.49***	-1.16***	-1.49***
	(0.32)	(0.32)	(0.32)	(0.32)
June Birthdate	-1.53***	-1.96***	-1.52***	-1.97***
	(0.32)	(0.32)	(0.32)	(0.32)
July Birthdate	-1.42***	-2.19***	-1.41***	-2.19***
	(0.32)	(0.32)	(0.32)	(0.32)
August Birthdate	-0.81**	-1.66***	-0.81*	-1.65***
	(0.32)	(0.32)	(0.32)	(0.32)
September Birthdate	0.22	-0.66*	0.22	-0.66*
	(0.32)	(0.32)	(0.32)	(0.32)
October Birthdate	5.86***	4.97***	5.87***	4.97***
	(0.34)	(0.34)	(0.34)	(0.34)

	(1)	(2)	(3)	(4)
November Birthdate	11.25***	10.21***	11.24***	10.21***
	(0.37)	(0.37)	(0.37)	(0.37)
December Birthdate	11.12***	9.98***	11.13***	9.98***
	(0.37)	(0.37)	(0.37)	(0.37)
Constant	136.76***	124.46***	136.99***	124.97***
	(1.59)	(1.60)	(1.59)	(1.61)
N	450,845	450,845	450,845	450,845
R2	0.424	0.402	0.424	0.402

Note: Columns 1 and 2 (3 and 4) are analogous to the model results in Table 2 (Table 3) of the manuscript. The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S2: Effects of BLL on Test Scores: Regression Results using maximum and most recent BLL measures instead of geometric mean. (Analogous to columns 1 and 4 in Table 2 of manuscript.).

	Math Percentile		Reading Percentile	
	Full BLL ≤ 10 Max BLL	Full BLL ≤ 10 Last BLL	Full BLL ≤ 10 Max BLL	Full BLL ≤ 10 Last BLL
	(1)	(2)	(3)	(4)
BLL 2	-0.27*	-0.19	-0.39**	-0.35**
	(0.13)	(0.11)	(0.13)	(0.11)
BLL 3	-0.39**	-0.40***	-0.62***	-0.68***
	(0.12)	(0.11)	(0.12)	(0.11)
BLL 4	-0.68***	-0.72***	-1.00***	-1.04***
	(0.13)	(0.11)	(0.13)	(0.11)
BLL 5	-0.93***	-1.02***	-1.34***	-1.47***
	(0.13)	(0.12)	(0.13)	(0.13)
BLL 6	-1.02***	-1.11***	-1.54***	-1.64***
	(0.15)	(0.14)	(0.15)	(0.14)
BLL 7	-1.15***	-1.15***	-1.70***	-1.88***
	(0.16)	(0.17)	(0.16)	(0.17)
BLL 8	-1.50***	-1.54***	-2.05***	-2.01***
	(0.18)	(0.20)	(0.18)	(0.20)
BLL 9	-1.33***	-1.45***	-2.16***	-2.34***
	(0.21)	(0.24)	(0.21)	(0.24)
BLL 10	-1.74***	-2.15***	-2.42***	-2.88***
	(0.26)	(0.39)	(0.26)	(0.39)
Male	0.93***	0.93***	-2.66***	-2.65***
	(0.06)	(0.06)	(0.06)	(0.06)
White	2.53***	2.54***	5.48***	5.50***
	(0.11)	(0.11)	(0.11)	(0.11)

Black	-10.53***	-10.51***	-7.51***	-7.49***
	(0.11)	(0.11)	(0.11)	(0.11)
EconDisadv	-5.20***	-5.21***	-5.90***	-5.90***
	(0.07)	(0.07)	(0.07)	(0.07)
Medicaid	-1.53***	-1.61***	-1.25***	-1.36***
	(0.08)	(0.08)	(0.08)	(0.08)
Not Married	-1.05***	-1.05***	-0.40***	-0.40***
	(0.08)	(0.08)	(0.08)	(0.08)
Used Alcohol	0.58*	0.57*	0.80**	0.80**
	(0.27)	(0.27)	(0.27)	(0.27)
Smoked	-2.06***	-2.05***	-1.33***	-1.33***
	(0.08)	(0.08)	(0.08)	(0.08)
Age in 3rd Grade	-12.43***	-12.43***	-11.68***	-11.68***
	(0.06)	(0.06)	(0.07)	(0.07)
Mother 21-29 years	-1.17***	-1.17***	-1.57***	-1.57***
	(0.08)	(0.08)	(0.08)	(0.08)
Mother 30+ years	-0.01	-0.01	0.32**	0.32**
	(0.10)	(0.10)	(0.10)	(0.10)
Parents some high school	-0.06	-0.05	1.71***	1.72***
	(0.16)	(0.16)	(0.16)	(0.16)
Parents high school grad	2.76***	2.77***	4.99***	5.01***
	(0.16)	(0.16)	(0.16)	(0.16)
Parents some college	7.39***	7.40***	9.83***	9.85***
	(0.17)	(0.17)	(0.17)	(0.17)
Parents college grad	17.10***	17.11***	18.91***	18.92***
	(0.19)	(0.19)	(0.19)	(0.19)
February Birthdate	-0.68***	-0.68***	-0.79***	-0.79***
	(0.15)	(0.15)	(0.15)	(0.15)
March Birthdate	-0.72***	-0.72***	-1.12***	-1.12***
	(0.15)	(0.15)	(0.15)	(0.15)
April Birthdate	-1.30***	-1.29***	-1.64***	-1.63***

	(1)	(2)	(3)	(4)
	(0.15)	(0.15)	(0.15)	(0.15)
May Birthdate	-1.28***	-1.28***	-1.86***	-1.86***
	(0.14)	(0.14)	(0.15)	(0.15)
June Birthdate	-1.37***	-1.37***	-2.04***	-2.04***
	(0.14)	(0.14)	(0.14)	(0.14)
July Birthdate	-1.48***	-1.48***	-2.21***	-2.21***
	(0.14)	(0.14)	(0.14)	(0.14)
August Birthdate	-1.17***	-1.17***	-1.98***	-1.99***
	(0.14)	(0.14)	(0.14)	(0.14)
September Birthdate	-0.77***	-0.77***	-1.58***	-1.58***
	(0.14)	(0.14)	(0.14)	(0.14)
October Birthdate	6.00***	6.00***	5.26***	5.25***
	(0.15)	(0.15)	(0.15)	(0.15)
November Birthdate	12.96***	12.95***	12.28***	12.28***
	(0.16)	(0.16)	(0.16)	(0.16)
December Birthdate	12.69***	12.69***	11.96***	11.96***
	(0.16)	(0.16)	(0.16)	(0.16)
Constant	150.85***	150.73***	142.54***	142.42***
	(0.57)	(0.57)	(0.58)	(0.58)
N	2,344,358	2,344,358	2,344,358	2,344,358
R2	0.344	0.344	0.322	0.322

Note: The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S3. Changes in BLL Effects on Test Score Percentiles by Grade using maximum and most recent BLL measures instead of geometric mean. (Analogous to columns 1 and 4 in Table 3 of manuscript.)

	Math Percentile		Reading Percentile	
	Full BLL ≤ 10	Full BLL ≤ 10	Full BLL ≤ 10	Full BLL ≤ 10
	Max BLL	Last BLL	Max BLL	Last BLL
	(1)	(2)	(3)	(4)
BLL 2	-0.26	-0.23*	-0.35**	-0.39***
	(0.13)	(0.11)	(0.13)	(0.11)
BLL 2 × grade	-0.01	0.01	-0.02	0.01
	(0.04)	(0.03)	(0.04)	(0.03)
BLL 3	-0.34**	-0.41***	-0.54***	-0.72***
	(0.13)	(0.11)	(0.13)	(0.11)
BLL 3 × grade	-0.03	-0.01	-0.04	0.01
	(0.04)	(0.03)	(0.04)	(0.03)
BLL 4	-0.59***	-0.77***	-0.92***	-1.10***
	(0.13)	(0.12)	(0.13)	(0.12)
BLL 4 × grade	-0.05	0.01	-0.05	0.02
	(0.04)	(0.03)	(0.04)	(0.03)
BLL 5	-0.83***	-0.97***	-1.23***	-1.44***
	(0.14)	(0.13)	(0.14)	(0.13)
BLL 5 × grade	-0.06	-0.03	-0.06	-0.02
	(0.04)	(0.04)	(0.04)	(0.04)
BLL 6	-0.90***	-1.06***	-1.37***	-1.58***
	(0.16)	(0.15)	(0.16)	(0.15)
BLL 6 × grade	-0.06	-0.03	-0.08	-0.03
	(0.04)	(0.04)	(0.04)	(0.04)
BLL 7	-0.96***	-1.07***	-1.46***	-1.78***
	(0.18)	(0.18)	(0.18)	(0.18)
BLL 7 × grade	-0.10*	-0.04	-0.11*	-0.05
	(0.05)	(0.05)	(0.05)	(0.05)

BLL 8	-1.28***	-1.37***	-1.88***	-2.07***
	(0.20)	(0.22)	(0.20)	(0.22)
BLL 8 × grade	-0.11*	-0.08	-0.08	0.02
	(0.05)	(0.05)	(0.05)	(0.05)
BLL 9	-1.20***	-1.34***	-2.03***	-2.29***
	(0.23)	(0.26)	(0.23)	(0.26)
BLL 9 × grade	-0.07	-0.06	-0.06	-0.02
	(0.06)	(0.06)	(0.06)	(0.06)
BLL 10	-1.70***	-2.22***	-2.41***	-3.06***
	(0.30)	(0.45)	(0.29)	(0.45)
BLL 10 × grade	-0.03	0.03	-0.01	0.08
	(0.07)	(0.10)	(0.07)	(0.10)
Male	2.15***	2.16***	-2.87***	-2.86***
	(0.06)	(0.06)	(0.06)	(0.06)
Male × grade	-0.57***	-0.57***	0.10***	0.10***
	(0.02)	(0.02)	(0.02)	(0.02)
White	3.95***	3.97***	6.74***	6.76***
	(0.12)	(0.12)	(0.12)	(0.12)
White × grade	-0.69***	-0.69***	-0.64***	-0.64***
	(0.04)	(0.04)	(0.04)	(0.04)
Black	-10.51***	-10.48***	-5.93***	-5.89***
	(0.12)	(0.12)	(0.12)	(0.12)
Black × grade	-0.05	-0.05	-0.78***	-0.79***
	(0.04)	(0.04)	(0.04)	(0.04)
EconDisadv	-5.06***	-5.07***	-5.99***	-6.00***
	(0.09)	(0.09)	(0.09)	(0.09)
EconDisadv × grade	-0.06*	-0.06*	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.03)
Medicaid	-1.71***	-1.77***	-1.44***	-1.53***
	(0.08)	(0.08)	(0.08)	(0.08)

Medicaid × grade	0.07**	0.06**	0.08***	0.07**
	(0.02)	(0.02)	(0.02)	(0.02)
Not Married	-0.82***	-0.82***	-0.12	-0.11
	(0.08)	(0.08)	(0.08)	(0.08)
Not Married × grade	-0.11***	-0.11***	-0.13***	-0.13***
	(0.02)	(0.02)	(0.02)	(0.02)
Used Alcohol	0.48	0.48	0.89**	0.89**
	(0.30)	(0.30)	(0.30)	(0.30)
Used Alcohol × grade	0.05	0.05	-0.03	-0.03
	(0.07)	(0.07)	(0.07)	(0.07)
Smoked	-1.37***	-1.37***	-1.16***	-1.15***
	(0.09)	(0.09)	(0.09)	(0.09)
Smoked × grade	-0.32***	-0.32***	-0.08***	-0.09***
	(0.02)	(0.02)	(0.02)	(0.02)
Age in 3rd Grade	-11.55***	-11.54***	-11.23***	-11.22***
	(0.07)	(0.07)	(0.07)	(0.07)
Age in 3rd Grade × grade	-0.41***	-0.41***	-0.21***	-0.21***
	(0.02)	(0.02)	(0.02)	(0.02)
Mother 21-29 years	-1.23***	-1.23***	-1.83***	-1.83***
	(0.09)	(0.09)	(0.09)	(0.09)
Mother 21-29 years × grade	0.03	0.03	0.12***	0.12***
	(0.02)	(0.02)	(0.02)	(0.02)
Mother 30+ years	-0.39***	-0.39***	-0.21	-0.22*
	(0.11)	(0.11)	(0.11)	(0.11)
Mother 30+ years × grade	0.18***	0.18***	0.25***	0.25***
	(0.03)	(0.03)	(0.03)	(0.03)
Parents some high school	0.53**	0.54**	2.22***	2.23***
	(0.18)	(0.18)	(0.17)	(0.17)
Parents some high school × grade	-0.29***	-0.29***	-0.26***	-0.26***
	(0.05)	(0.05)	(0.05)	(0.05)

Parents high school grad	3.29***	3.30***	5.49***	5.51***
	(0.17)	(0.17)	(0.17)	(0.17)
Parents high school grad × grade	-0.27***	-0.27***	-0.26***	-0.26***
	(0.05)	(0.05)	(0.05)	(0.05)
Parents some college	7.71***	7.72***	10.02***	10.03***
	(0.19)	(0.19)	(0.18)	(0.18)
Parents some college × grade	-0.18**	-0.18**	-0.12*	-0.12*
	(0.05)	(0.05)	(0.05)	(0.05)
Parents college grad	16.90***	16.90***	18.86***	18.87***
	(0.20)	(0.20)	(0.20)	(0.20)
Parents college grad × grade	0.07	0.07	-0.02	-0.02
	(0.06)	(0.06)	(0.06)	(0.06)
February Birthdate	-0.67***	-0.67***	-0.79***	-0.79***
	(0.15)	(0.15)	(0.15)	(0.15)
March Birthdate	-0.71***	-0.71***	-1.12***	-1.12***
	(0.15)	(0.15)	(0.15)	(0.15)
April Birthdate	-1.29***	-1.29***	-1.63***	-1.63***
	(0.15)	(0.15)	(0.15)	(0.15)
May Birthdate	-1.28***	-1.28***	-1.86***	-1.86***
	(0.14)	(0.14)	(0.15)	(0.15)
June Birthdate	-1.36***	-1.36***	-2.04***	-2.04***
	(0.14)	(0.14)	(0.14)	(0.14)
July Birthdate	-1.47***	-1.48***	-2.21***	-2.21***
	(0.14)	(0.14)	(0.14)	(0.14)
August Birthdate	-1.17***	-1.17***	-1.98***	-1.98***
	(0.14)	(0.14)	(0.14)	(0.14)
September Birthdate	-0.77***	-0.77***	-1.58***	-1.58***
	(0.14)	(0.14)	(0.14)	(0.14)
October Birthdate	6.00***	6.00***	5.26***	5.25***
	(0.15)	(0.15)	(0.15)	(0.15)

November Birthdate	12.95***	12.95***	12.28***	12.28***
	(0.16)	(0.16)	(0.16)	(0.16)
December Birthdate	12.69***	12.68***	11.96***	11.95***
	(0.16)	(0.16)	(0.16)	(0.16)
Constant	150.97***	150.86***	142.76***	142.63***
	(0.57)	(0.57)	(0.58)	(0.58)
N	2,344,358	2,344,358	2,344,358	2,344,358
R2	0.345	0.345	0.322	0.322

Note: The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S4. Changes in BLL Effects on Test Scores by Grade: Full Regression Results (corresponding to Table 3 in main text).

	Math Percentile			Reading Percentile		
	Full BLL ≤ 10	Full BLL ≤ 5	CEM BLL ≤ 5	Full BLL ≤ 10	Full BLL ≤ 5	CEM BLL ≤ 5
	(1)	(2)	(3)	(4)	(5)	(6)
BLL 2	-0.22	-0.19	-0.50*	-0.29*	-0.30*	-0.65**
	(0.12)	(0.12)	(0.22)	(0.12)	(0.12)	(0.23)
BLL 2 × grade	-0.03	-0.02	0.05	-0.02	-0.02	0.04
	(0.03)	(0.04)	(0.07)	(0.04)	(0.04)	(0.07)
BLL 3	-0.36**	-0.28*	-0.46	-0.61***	-0.59***	-0.85***
	(0.12)	(0.12)	(0.24)	(0.12)	(0.12)	(0.24)
BLL 3 × grade	-0.05	-0.05	-0.05	-0.05	-0.05	-0.07
	(0.03)	(0.03)	(0.07)	(0.03)	(0.04)	(0.07)
BLL 4	-0.67***	-0.65***	-0.78**	-1.03***	-1.06***	-1.12***
	(0.13)	(0.13)	(0.29)	(0.13)	(0.13)	(0.29)
BLL 4 × grade	-0.03	-0.02	-0.07	-0.01	-0.01	-0.08
	(0.04)	(0.04)	(0.08)	(0.04)	(0.04)	(0.08)
BLL 5	-0.90***	-0.82***	-0.54	-1.35***	-1.31***	-1.11**
	(0.14)	(0.16)	(0.40)	(0.14)	(0.16)	(0.40)
BLL 5 × grade	-0.06	-0.06	0.01	-0.04	-0.05	0.05
	(0.04)	(0.04)	(0.11)	(0.04)	(0.04)	(0.11)
BLL 6	-1.11***			-1.67***		
	(0.16)			(0.16)		
BLL 6 × grade	-0.08			-0.08		
	(0.04)			(0.04)		
BLL 7	-0.93***			-1.60***		
	(0.19)			(0.19)		
BLL 7 × grade	-0.08			-0.08		
	(0.05)			(0.05)		
BLL 8	-1.22***			-2.11***		
	(0.23)			(0.24)		

	(1)	(2)	(3)	(4)	(5)	(6)
BLL 8 × grade	-0.13*			-0.01		
	(0.06)			(0.06)		
BLL 9	-1.27***			-2.44***		
	(0.30)			(0.29)		
BLL 9 × grade	-0.13			-0.05		
	(0.07)			(0.07)		
BLL 10	-2.23***			-3.02***		
	(0.48)			(0.47)		
BLL 10 × grade	0.02			0.04		
	(0.10)			(0.10)		
Male	2.15***	2.21***	2.45***	-2.86***	-2.83***	-2.53***
	(0.06)	(0.07)	(0.18)	(0.06)	(0.07)	(0.18)
Male × grade	-0.57***	-0.56***	-0.49***	0.10***	0.10***	0.08
	(0.02)	(0.02)	(0.05)	(0.02)	(0.02)	(0.05)
White	3.96***	3.83***	3.78***	6.75***	6.79***	5.49***
	(0.12)	(0.14)	(0.49)	(0.12)	(0.14)	(0.49)
White × grade	-0.69***	-0.69***	-0.45**	-0.64***	-0.64***	-0.54***
	(0.04)	(0.04)	(0.17)	(0.04)	(0.04)	(0.16)
Black	-10.50***	-10.67***	-10.47***	-5.90***	-5.94***	-7.41***
	(0.12)	(0.14)	(0.58)	(0.12)	(0.14)	(0.58)
Black × grade	-0.05	-0.06	-0.45*	-0.78***	-0.79***	-1.09***
	(0.04)	(0.04)	(0.20)	(0.04)	(0.04)	(0.20)
EconDisadv	-5.06***	-5.08***	-5.48***	-5.99***	-5.97***	-6.14***
	(0.09)	(0.10)	(0.46)	(0.09)	(0.10)	(0.46)
EconDisadv × grade	-0.06*	-0.05	-0.21	0.05	0.04	-0.09
	(0.03)	(0.03)	(0.14)	(0.03)	(0.03)	(0.14)
Medicaid	-1.77***	-1.77***	-1.75***	-1.54***	-1.52***	-1.94***
	(0.08)	(0.10)	(0.46)	(0.08)	(0.10)	(0.47)
Medicaid × grade	0.07**	0.07**	0.09	0.07**	0.09***	0.08
	(0.02)	(0.03)	(0.14)	(0.02)	(0.03)	(0.14)

Not Married	-0.82***	-0.94***	-2.04***	-0.11	-0.23*	-1.09*
	(0.08)	(0.10)	(0.47)	(0.08)	(0.10)	(0.46)
Not Married × grade	-0.11***	-0.09***	0.37*	-0.13***	-0.09**	0.18
	(0.02)	(0.03)	(0.15)	(0.02)	(0.03)	(0.15)
Used Alcohol	0.48	0.45	0.93	0.89**	0.76*	1.52
	(0.30)	(0.37)	(1.07)	(0.30)	(0.37)	(1.05)
Used Alcohol × grade	0.05	-0.04	-0.24	-0.03	-0.11	-0.12
	(0.07)	(0.09)	(0.29)	(0.07)	(0.09)	(0.28)
Smoked	-1.37***	-1.43***	-2.10***	-1.15***	-1.13***	-2.30***
	(0.09)	(0.11)	(0.32)	(0.09)	(0.11)	(0.33)
Smoked × grade	-0.32***	-0.32***	-0.37***	-0.09***	-0.09**	0.03
	(0.02)	(0.03)	(0.09)	(0.02)	(0.03)	(0.09)
Age in 3rd Grade	-11.54***	-11.62***	-9.22***	-11.22***	-11.14***	-8.15***
	(0.07)	(0.08)	(0.23)	(0.07)	(0.08)	(0.23)
Age in 3rd Grade × grade	-0.41***	-0.41***	-0.45***	-0.21***	-0.22***	-0.37***
	(0.02)	(0.02)	(0.05)	(0.02)	(0.02)	(0.05)
Mother 21-29 years	-1.23***	-1.24***	-1.73***	-1.83***	-1.83***	-2.46***
	(0.09)	(0.10)	(0.48)	(0.09)	(0.10)	(0.48)
Mother 21-29 years × grade	0.03	0.03	-0.05	0.12***	0.12***	0.10
	(0.02)	(0.03)	(0.15)	(0.02)	(0.03)	(0.15)
Mother 30+ years	-0.40***	-0.32*	-0.48	-0.22*	-0.17	-0.89
	(0.11)	(0.12)	(0.54)	(0.11)	(0.13)	(0.53)
Mother 30+ years × grade	0.18***	0.20***	0.13	0.25***	0.26***	0.24
	(0.03)	(0.03)	(0.17)	(0.03)	(0.03)	(0.17)
Parents some high school	0.54**	0.70***	1.55*	2.24***	2.32***	3.24***
	(0.18)	(0.21)	(0.67)	(0.17)	(0.20)	(0.66)
Parents some high school × grade	-0.29***	-0.36***	-0.65*	-0.26***	-0.23***	-0.54*
	(0.05)	(0.06)	(0.27)	(0.05)	(0.06)	(0.26)
Parents high school grad	3.30***	3.49***	4.64***	5.51***	5.74***	7.80***
	(0.17)	(0.20)	(0.70)	(0.17)	(0.20)	(0.70)

Parents high school grad × grade	-0.27***	-0.29***	-0.62*	-0.26***	-0.21***	-0.75**
	(0.05)	(0.06)	(0.27)	(0.05)	(0.06)	(0.27)
Parents some college	7.72***	7.87***	8.86***	10.03***	10.15***	12.42***
	(0.19)	(0.21)	(0.77)	(0.18)	(0.21)	(0.77)
Parents some college × grade	-0.18**	-0.20**	-0.33	-0.12*	-0.06	-0.55
	(0.05)	(0.07)	(0.29)	(0.05)	(0.07)	(0.28)
Parents college grad	16.90***	17.08***	18.73***	18.87***	19.07***	21.97***
	(0.20)	(0.23)	(0.78)	(0.20)	(0.23)	(0.78)
Parents college grad × grade	0.07	0.06	-0.13	-0.02	0.05	-0.44
	(0.06)	(0.07)	(0.29)	(0.06)	(0.07)	(0.29)
February Birthdate	-0.68***	-0.76***	-0.53	-0.79***	-0.93***	-0.44
	(0.15)	(0.17)	(0.36)	(0.15)	(0.17)	(0.36)
March Birthdate	-0.71***	-0.85***	-0.79*	-1.12***	-1.20***	-1.21***
	(0.15)	(0.17)	(0.34)	(0.15)	(0.17)	(0.34)
April Birthdate	-1.29***	-1.39***	-2.18***	-1.63***	-1.67***	-2.17***
	(0.15)	(0.17)	(0.35)	(0.15)	(0.17)	(0.35)
May Birthdate	-1.28***	-1.33***	-1.17***	-1.86***	-1.82***	-1.56***
	(0.14)	(0.17)	(0.34)	(0.15)	(0.17)	(0.34)
June Birthdate	-1.36***	-1.48***	-1.59***	-2.04***	-2.13***	-2.17***
	(0.14)	(0.17)	(0.35)	(0.14)	(0.17)	(0.35)
July Birthdate	-1.47***	-1.63***	-1.50***	-2.21***	-2.40***	-2.35***
	(0.14)	(0.16)	(0.34)	(0.14)	(0.16)	(0.34)
August Birthdate	-1.16***	-1.32***	-0.82*	-1.98***	-2.18***	-1.80***
	(0.14)	(0.16)	(0.34)	(0.14)	(0.16)	(0.34)
September Birthdate	-0.77***	-0.80***	0.19	-1.58***	-1.68***	-0.78*
	(0.14)	(0.16)	(0.35)	(0.14)	(0.16)	(0.35)
October Birthdate	6.00***	6.10***	5.92***	5.25***	5.20***	4.90***
	(0.15)	(0.18)	(0.37)	(0.15)	(0.18)	(0.37)
November Birthdate	12.95***	13.07***	11.16***	12.27***	12.33***	10.00***
	(0.16)	(0.19)	(0.41)	(0.16)	(0.19)	(0.41)

December Birthdate	12.68***	12.70***	10.86***	11.95***	11.83***	9.50***
	(0.16)	(0.18)	(0.40)	(0.16)	(0.19)	(0.41)
Constant	150.87***	151.39***	135.03***	142.57***	141.75***	122.94***
	(0.57)	(0.68)	(1.80)	(0.58)	(0.70)	(1.82)
N	2,344,358	1,789,255	387,794	2,344,358	1,789,255	387,794
R2	0.345	0.346	0.418	0.322	0.322	0.395

The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S5. Effect of BLL on Math and Reading Test Score Percentiles at 3ʳᵈ and 8ᵗʰ Grade across Race and Socioeconomic Groups (corresponding to Figure 4 in main text).

	Math Percentile	Reading Percentile
	Full BLL ≤ 10	Full BLL ≤ 10
	(1)	(2)
BLL 2	-0.40*	-0.50**
	(0.17)	(0.17)
BLL 2 × grade	-0.11*	-0.07
	(0.05)	(0.05)
BLL 3	-0.71***	-0.97***
	(0.18)	(0.18)
BLL 3 × grade	-0.14**	-0.05
	(0.05)	(0.05)
BLL 4	-1.40***	-1.62***
	(0.20)	(0.20)
BLL 4 × grade	-0.04	0.03
	(0.05)	(0.05)
BLL 5	-1.56***	-1.94***
	(0.23)	(0.23)
BLL 5 × grade	-0.12*	0.02
	(0.06)	(0.06)
BLL 6	-2.10***	-2.41***
	(0.28)	(0.29)
BLL 6 × grade	-0.10	-0.02
	(0.07)	(0.07)
BLL 7	-1.38***	-1.50***
	(0.35)	(0.36)
BLL 7 × grade	-0.17*	-0.11
	(0.08)	(0.09)
BLL 8	-1.71***	-2.30***
	(0.44)	(0.46)

BLL 8 × grade	-0.24*	-0.07
	(0.10)	(0.11)
BLL 9	-2.18***	-2.72***
	(0.57)	(0.58)
BLL 9 × grade	-0.35**	-0.20
	(0.13)	(0.13)
BLL 10	-3.07***	-3.31***
	(0.91)	(0.94)
BLL 10 × grade	0.15	0.12
	(0.20)	(0.20)
BLL 2 × Black	-0.29	-0.22
	(0.29)	(0.28)
BLL 2 × Black × grade	0.10	0.06
	(0.09)	(0.09)
BLL 3 × Black	-0.43	-0.27
	(0.28)	(0.28)
BLL 3 × Black × grade	0.27**	0.13
	(0.09)	(0.09)
BLL 4 × Black	-0.36	-0.37
	(0.29)	(0.29)
BLL 4 × Black × grade	0.18*	0.11
	(0.09)	(0.09)
BLL 5 × Black	0.18	-0.13
	(0.32)	(0.32)
BLL 5 × Black × grade	0.10	0.02
	(0.09)	(0.09)
BLL 6 × Black	-0.02	-0.50
	(0.36)	(0.36)
BLL 6 × Black × grade	0.17	0.06
	(0.10)	(0.10)

BLL 7 × Black	-0.35	-0.54
	(0.42)	(0.42)
BLL 7 × Black × grade	0.26*	0.15
	(0.11)	(0.11)
BLL 8 × Black	0.49	0.04
	(0.51)	(0.52)
BLL 8 × Black × grade	0.15	0.06
	(0.13)	(0.13)
BLL 9 × Black	-0.95	-0.74
	(0.65)	(0.63)
BLL 9 × Black × grade	0.40*	0.17
	(0.16)	(0.16)
BLL 10 × Black	0.51	-0.78
	(1.05)	(1.02)
BLL 10 × Black × grade	0.28	0.24
	(0.23)	(0.23)
BLL 2 × Medicaid	0.24	-0.03
	(0.27)	(0.27)
BLL 2 × Medicaid × grade	0.06	0.03
	(0.09)	(0.09)
BLL 3 × Medicaid	0.11	-0.01
	(0.27)	(0.27)
BLL 3 × Medicaid × grade	0.14	0.13
	(0.08)	(0.09)
BLL 4 × Medicaid	0.38	0.40
	(0.28)	(0.28)
BLL 4 × Medicaid × grade	0.12	-0.03
	(0.09)	(0.09)
BLL 5 × Medicaid	0.48	0.50
	(0.31)	(0.31)

BLL 5 × Medicaid × grade	0.11	-0.00
	(0.09)	(0.09)
BLL 6 × Medicaid	0.60	0.78*
	(0.34)	(0.34)
BLL 6 × Medicaid × grade	0.09	-0.10
	(0.10)	(0.10)
BLL 7 × Medicaid	0.85*	0.63
	(0.41)	(0.40)
BLL 7 × Medicaid × grade	0.02	-0.12
	(0.11)	(0.11)
BLL 8 × Medicaid	0.46	0.63
	(0.49)	(0.50)
BLL 8 × Medicaid × grade	0.13	-0.09
	(0.13)	(0.13)
BLL 9 × Medicaid	1.00	0.55
	(0.65)	(0.64)
BLL 9 × Medicaid × grade	0.06	-0.02
	(0.16)	(0.16)
BLL 10 × Medicaid	1.83	0.74
	(1.23)	(1.25)
BLL 10 × Medicaid × grade	0.42	0.38
	(0.27)	(0.28)
BLL 2 × EconDisadv	0.32	0.58*
	(0.27)	(0.27)
BLL 2 × EconDisadv × grade	0.15	0.08
	(0.09)	(0.09)
BLL 3 × EconDisadv	0.81**	0.84**
	(0.27)	(0.27)
BLL 3 × EconDisadv × grade	0.01	-0.13
	(0.09)	(0.09)

BLL 4 × EconDisadv	1.13***	0.91**
	(0.28)	(0.29)
BLL 4 × EconDisadv × grade	-0.02	-0.05
	(0.09)	(0.09)
BLL 5 × EconDisadv	0.59	0.67*
	(0.32)	(0.32)
BLL 5 × EconDisadv × grade	0.12	-0.03
	(0.10)	(0.10)
BLL 6 × EconDisadv	1.11**	0.95*
	(0.37)	(0.37)
BLL 6 × EconDisadv × grade	0.03	0.02
	(0.11)	(0.11)
BLL 7 × EconDisadv	0.44	-0.08
	(0.44)	(0.44)
BLL 7 × EconDisadv × grade	0.09	0.06
	(0.13)	(0.13)
BLL 8 × EconDisadv	0.12	-0.08
	(0.54)	(0.55)
BLL 8 × EconDisadv × grade	0.13	0.15
	(0.15)	(0.15)
BLL 9 × EconDisadv	1.54*	0.69
	(0.69)	(0.69)
BLL 9 × EconDisadv × grade	0.16	0.18
	(0.19)	(0.19)
BLL 10 × EconDisadv	0.31	0.75
	(1.12)	(1.11)
BLL 10 × EconDisadv × grade	-0.38	-0.33
	(0.27)	(0.28)
Male	2.15***	-2.86***
	(0.06)	(0.06)

Male × grade	-0.57***	0.10***
	(0.02)	(0.02)
White	3.93***	6.72***
	(0.12)	(0.12)
White × grade	-0.69***	-0.63***
	(0.04)	(0.04)
Black	-10.30***	-5.67***
	(0.26)	(0.26)
Black × grade	-0.22**	-0.86***
	(0.08)	(0.08)
EconDisadv	-5.67***	-6.59***
	(0.22)	(0.22)
EconDisadv × grade	-0.13	0.06
	(0.07)	(0.08)
Medicaid	-2.06***	-1.75***
	(0.22)	(0.22)
Medicaid × grade	-0.04	0.05
	(0.07)	(0.07)
Not Married	-0.81***	-0.11
	(0.08)	(0.08)
Not Married × grade	-0.12***	-0.13***
	(0.02)	(0.02)
Used Alcohol	0.47	0.89**
	(0.30)	(0.30)
Used Alcohol × grade	0.05	-0.03
	(0.07)	(0.07)
Smoked	-1.36***	-1.15***
	(0.09)	(0.09)
Smoked × grade	-0.31***	-0.09***
	(0.02)	(0.02)

Age in 3rd Grade	-11.56***	-11.22***
	(0.07)	(0.07)
Age in 3rd Grade × grade	-0.41***	-0.21***
	(0.02)	(0.02)
Mother 21-29 years	-1.22***	-1.83***
	(0.09)	(0.09)
Mother 21-29 years × grade	0.03	0.12***
	(0.02)	(0.02)
Mother 30+ years	-0.40***	-0.22*
	(0.11)	(0.11)
Mother 30+ years × grade	0.18***	0.25***
	(0.03)	(0.03)
Parents some high school	0.54**	2.23***
	(0.18)	(0.17)
Parents some high school × grade	-0.29***	-0.26***
	(0.05)	(0.05)
Parents high school grad	3.30***	5.51***
	(0.17)	(0.17)
Parents high school grad × grade	-0.27***	-0.26***
	(0.05)	(0.05)
Parents some college	7.73***	10.03***
	(0.19)	(0.18)
Parents some college × grade	-0.18**	-0.12*
	(0.05)	(0.05)
Parents college grad	16.87***	18.84***
	(0.20)	(0.20)
Parents college grad × grade	0.07	-0.01
	(0.06)	(0.06)
February Birthdate	-0.67***	-0.79***
	(0.15)	(0.15)

March Birthdate	-0.71***	-1.12***
	(0.15)	(0.15)
April Birthdate	-1.29***	-1.63***
	(0.15)	(0.15)
May Birthdate	-1.28***	-1.86***
	(0.14)	(0.15)
June Birthdate	-1.36***	-2.04***
	(0.14)	(0.14)
July Birthdate	-1.47***	-2.21***
	(0.14)	(0.14)
August Birthdate	-1.16***	-1.98***
	(0.14)	(0.14)
September Birthdate	-0.77***	-1.58***
	(0.14)	(0.14)
October Birthdate	6.01***	5.26***
	(0.15)	(0.15)
November Birthdate	12.96***	12.27***
	(0.16)	(0.16)
December Birthdate	12.69***	11.95***
	(0.16)	(0.16)
Constant	151.53***	142.95***
	(0.58)	(0.59)
N	2,344,358	2,344,358
R2	0.345	0.322

The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S6. Effects of BLL on Test Scores: Base Regression Results with different forms for the dependent variable – Percentiles, Z-score, original raw test score. (Corresponds to columns 1 and 4 in Table 2 of manuscript.)

	Math			Reading		
	Full BLL ≤ 10			Full BLL ≤ 10		
	Percentile	Z-score	Raw score	Percentile	Z-score	Raw score
	(1)	(2)	(3)	(4)	(5)	(6)
BLL 2	-0.25*	-0.01*	-0.08*	-0.32**	-0.01**	-0.11***
	(0.11)	(0.00)	(0.03)	(0.11)	(0.00)	(0.03)
BLL 3	-0.44***	-0.01***	-0.13***	-0.69***	-0.02***	-0.22***
	(0.11)	(0.00)	(0.03)	(0.11)	(0.00)	(0.03)
BLL 4	-0.69***	-0.02***	-0.21***	-1.03***	-0.03***	-0.31***
	(0.12)	(0.00)	(0.03)	(0.12)	(0.00)	(0.03)
BLL 5	-1.00***	-0.03***	-0.28***	-1.42***	-0.05***	-0.42***
	(0.13)	(0.00)	(0.04)	(0.13)	(0.00)	(0.04)
BLL 6	-1.26***	-0.04***	-0.35***	-1.84***	-0.07***	-0.52***
	(0.15)	(0.01)	(0.04)	(0.15)	(0.01)	(0.04)
BLL 7	-1.10***	-0.04***	-0.32***	-1.78***	-0.06***	-0.50***
	(0.17)	(0.01)	(0.05)	(0.17)	(0.01)	(0.05)
BLL 8	-1.51***	-0.05***	-0.45***	-2.13***	-0.08***	-0.60***
	(0.21)	(0.01)	(0.06)	(0.21)	(0.01)	(0.06)
BLL 9	-1.56***	-0.06***	-0.46***	-2.55***	-0.09***	-0.71***
	(0.26)	(0.01)	(0.08)	(0.26)	(0.01)	(0.08)
BLL 10	-2.17***	-0.08***	-0.62***	-2.92***	-0.11***	-0.79***
	(0.42)	(0.01)	(0.12)	(0.41)	(0.01)	(0.11)
Male	0.93***	0.03***	0.23***	-2.66***	-0.11***	-0.88***
	(0.06)	(0.00)	(0.02)	(0.06)	(0.00)	(0.02)
White	2.54***	0.08***	0.67***	5.49***	0.17***	1.49***
	(0.11)	(0.00)	(0.03)	(0.11)	(0.00)	(0.03)
Black	-10.52***	-0.36***	-3.09***	-7.50***	-0.25***	-2.03***
	(0.11)	(0.00)	(0.03)	(0.11)	(0.00)	(0.03)

EconDisadv	-5.20***	-0.17***	-1.46***	-5.90***	-0.19***	-1.61***
	(0.07)	(0.00)	(0.02)	(0.07)	(0.00)	(0.02)
Medicaid	-1.60***	-0.06***	-0.51***	-1.36***	-0.05***	-0.50***
	(0.08)	(0.00)	(0.02)	(0.08)	(0.00)	(0.02)
Not Married	-1.05***	-0.03***	-0.29***	-0.40***	-0.01***	-0.09***
	(0.08)	(0.00)	(0.02)	(0.08)	(0.00)	(0.02)
Used Alcohol	0.58*	0.01	0.14	0.80**	0.02*	0.23**
	(0.27)	(0.01)	(0.08)	(0.27)	(0.01)	(0.08)
Smoked	-2.05***	-0.07***	-0.57***	-1.32***	-0.04***	-0.35***
	(0.08)	(0.00)	(0.02)	(0.08)	(0.00)	(0.02)
Age in 3rd Grade	-12.43***	-0.45***	-3.79***	-11.67***	-0.44***	-3.65***
	(0.06)	(0.00)	(0.02)	(0.07)	(0.00)	(0.02)
Mother 21-29 years	-1.18***	-0.04***	-0.38***	-1.57***	-0.06***	-0.52***
	(0.08)	(0.00)	(0.02)	(0.08)	(0.00)	(0.02)
Mother 30+ years	-0.02	-0.01	-0.05	0.32**	0.00	-0.01
	(0.10)	(0.00)	(0.03)	(0.10)	(0.00)	(0.03)
Parents some high school	-0.05	-0.00	0.01	1.72***	0.06***	0.57***
	(0.16)	(0.01)	(0.05)	(0.16)	(0.01)	(0.05)
Parents high school grad	2.77***	0.10***	0.86***	5.00***	0.18***	1.57***
	(0.16)	(0.01)	(0.05)	(0.16)	(0.01)	(0.05)
Parents some college	7.40***	0.25***	2.17***	9.85***	0.34***	2.90***
	(0.17)	(0.01)	(0.05)	(0.17)	(0.01)	(0.05)
Parents college grad	17.11***	0.58***	4.99***	18.92***	0.64***	5.38***
	(0.19)	(0.01)	(0.06)	(0.19)	(0.01)	(0.06)
Constant	150.73***	3.65***	386.49***	142.35***	3.53***	382.07***
	(0.57)	(0.02)	(0.17)	(0.58)	(0.02)	(0.18)
N	2,344,358	2,344,358	2,344,358	2,344,358	2,344,358	2,344,358
R^2	0.344	0.342	0.579	0.322	0.318	0.601

Note: The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables and dummy variables denoting the month of birth. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S7. Changes in BLL Effects on Test Scores by Grade with different forms for the dependent variable – Percentiles, Z-score, original raw test score. (Corresponds to columns 1 and 4 in Table 3 of manuscript.)

	Math Full BLL ≤ 10			Reading Full BLL ≤ 10		
	Percentile	Z-score	Raw score	Percentile	Z-score	Raw score
	(1)	(2)	(3)	(4)	(5)	(6)
BLL 2	-0.22	-0.01	-0.07	-0.29*	-0.01*	-0.12**
	(0.12)	(0.00)	(0.03)	(0.12)	(0.00)	(0.04)
BLL 2 × grade	-0.03	-0.00	-0.01	-0.02	-0.00	0.00
	(0.03)	(0.00)	(0.01)	(0.04)	(0.00)	(0.01)
BLL 3	-0.36**	-0.01**	-0.12***	-0.61***	-0.02***	-0.23***
	(0.12)	(0.00)	(0.03)	(0.12)	(0.00)	(0.04)
BLL 3 × grade	-0.05	-0.00	-0.01	-0.05	-0.00	0.01
	(0.03)	(0.00)	(0.01)	(0.03)	(0.00)	(0.01)
BLL 4	-0.67***	-0.02***	-0.21***	-1.03***	-0.04***	-0.36***
	(0.13)	(0.00)	(0.04)	(0.13)	(0.00)	(0.04)
BLL 4 × grade	-0.03	-0.00	-0.01	-0.01	-0.00	0.02
	(0.04)	(0.00)	(0.01)	(0.04)	(0.00)	(0.01)
BLL 5	-0.90***	-0.03***	-0.26***	-1.35***	-0.05***	-0.47***
	(0.14)	(0.00)	(0.04)	(0.14)	(0.00)	(0.05)
BLL 5 × grade	-0.06	-0.00	-0.01	-0.04	-0.00	0.02
	(0.04)	(0.00)	(0.01)	(0.04)	(0.00)	(0.01)
BLL 6	-1.11***	-0.04***	-0.30***	-1.67***	-0.06***	-0.56***
	(0.16)	(0.01)	(0.05)	(0.16)	(0.01)	(0.05)
BLL 6 × grade	-0.08	-0.00*	-0.03*	-0.08	-0.00	0.01
	(0.04)	(0.00)	(0.01)	(0.04)	(0.00)	(0.01)
BLL 7	-0.93***	-0.03***	-0.27***	-1.60***	-0.06***	-0.54***
	(0.19)	(0.01)	(0.06)	(0.19)	(0.01)	(0.06)
BLL 7 × grade	-0.08	-0.00	-0.03	-0.08	-0.00	0.02
	(0.05)	(0.00)	(0.01)	(0.05)	(0.00)	(0.01)

BLL 8	-1.22***	-0.05***	-0.35***	-2.11***	-0.08***	-0.71***
	(0.23)	(0.01)	(0.07)	(0.24)	(0.01)	(0.08)
BLL 8 × grade	-0.13*	-0.00*	-0.04*	-0.01	0.00	0.04*
	(0.06)	(0.00)	(0.02)	(0.06)	(0.00)	(0.02)
BLL 9	-1.27***	-0.05***	-0.35***	-2.44***	-0.09***	-0.81***
	(0.30)	(0.01)	(0.09)	(0.29)	(0.01)	(0.10)
BLL 9 × grade	-0.13	-0.00	-0.05*	-0.05	-0.00	0.04
	(0.07)	(0.00)	(0.02)	(0.07)	(0.00)	(0.02)
BLL 10	-2.23***	-0.08***	-0.59***	-3.02***	-0.12***	-0.97***
	(0.48)	(0.02)	(0.14)	(0.47)	(0.02)	(0.15)
BLL 10 × grade	0.02	0.00	-0.01	0.04	0.00	0.07*
	(0.10)	(0.00)	(0.03)	(0.10)	(0.00)	(0.03)
N	2,344,358	2,344,358	2,344,358	2,344,358	2,344,358	2,344,358
R2	0.345	0.343	0.579	0.322	0.318	0.602

Note: The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables, and dummy variables denoting the month of birth. All covariates listed in Table 2 are also included, both as a main effect and as an interaction term with grade. Only estimates corresponding to BLL are presented here. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.

Table S8. Linear Probability Regression Model of BLL Effects on Probability of Test Scores below the Proficient Level.

	Math	Reading	Math	Reading
	Full BLL ≤ 10	Full BLL ≤ 10	Full BLL ≤ 10	Full BLL ≤ 10
	(1)	(2)	(3)	(4)
BLL 2	0.0007	0.0018	0.0012	0.0033
	(0.0013)	(0.0015)	(0.0016)	(0.0018)
BLL 2 × grade			-0.0001	-0.0006
			(0.0006)	(0.0007)
BLL 3	0.0012	0.0060***	0.0017	0.0068***
	(0.0014)	(0.0015)	(0.0016)	(0.0019)
BLL 3 × grade			-0.0000	-0.0002
			(0.0007)	(0.0007)
BLL 4	0.0050***	0.0117***	0.0059***	0.0125***
	(0.0015)	(0.0016)	(0.0018)	(0.0020)
BLL 4 × grade			-0.0002	-0.0002
			(0.0007)	(0.0008)
BLL 5	0.0067***	0.0140***	0.0064**	0.0138***
	(0.0017)	(0.0018)	(0.0020)	(0.0023)
BLL 5 × grade			0.0003	0.0001
			(0.0008)	(0.0009)
BLL 6	0.0099***	0.0193***	0.0066**	0.0171***
	(0.0019)	(0.0021)	(0.0025)	(0.0027)
BLL 6 × grade			0.0015	0.0010
			(0.0009)	(0.0010)
BLL 7	0.0073**	0.0187***	0.0043	0.0180***
	(0.0023)	(0.0025)	(0.0028)	(0.0033)
BLL 7 × grade			0.0013	0.0003
			(0.0010)	(0.0011)

BLL 8	0.0145***	0.0228***	0.0056	0.0263***
	(0.0028)	(0.0030)	(0.0037)	(0.0041)
BLL 8 × grade			0.0037**	-0.0015
			(0.0013)	(0.0014)
BLL 9	0.0110**	0.0257***	0.0047	0.0278***
	(0.0036)	(0.0038)	(0.0046)	(0.0050)
BLL 9 × grade			0.0026	-0.0009
			(0.0015)	(0.0016)
BLL 10	0.0143*	0.0283***	0.0054	0.0350***
	(0.0056)	(0.0060)	(0.0077)	(0.0085)
BLL 10 × grade			0.0033	-0.0027
			(0.0027)	(0.0027)
Male	-0.0026**	0.0350***	-0.0175***	0.0393***
	(0.0008)	(0.0008)	(0.0010)	(0.0012)
Male × grade			0.0070***	-0.0020***
			(0.0004)	(0.0004)
White	-0.0106***	-0.0519***	-0.0229***	-0.0701***
	(0.0014)	(0.0016)	(0.0021)	(0.0024)
White × grade			0.0060***	0.0092***
			(0.0008)	(0.0009)
Black	0.1190***	0.0843***	0.1143***	0.0605***
	(0.0015)	(0.0017)	(0.0024)	(0.0026)
Black × grade			0.0024*	0.0116***
			(0.0009)	(0.0010)
EconDisadv	0.0435***	0.0591***	0.0365***	0.0575***
	(0.0009)	(0.0010)	(0.0014)	(0.0016)
EconDisadv × grade			0.0031***	0.0007
			(0.0005)	(0.0005)
Medicaid	0.0161***	0.0224***	0.0201***	0.0189***
	(0.0010)	(0.0011)	(0.0013)	(0.0015)

Medicaid × grade			-0.0015**	0.0018***
			(0.0005)	(0.0005)
Not Married	0.0105***	0.0045***	0.0044**	0.0009
	(0.0011)	(0.0012)	(0.0014)	(0.0016)
Not Married × grade			0.0029***	0.0017**
			(0.0005)	(0.0006)
Used Alcohol	0.0045	-0.0036	0.0031	-0.0027
	(0.0038)	(0.0040)	(0.0047)	(0.0052)
Used Alcohol × grade			0.0003	-0.0005
			(0.0017)	(0.0017)
Smoked	0.0104***	0.0050***	0.0012	0.0017
	(0.0011)	(0.0012)	(0.0014)	(0.0016)
Smoked × grade			0.0042***	0.0016**
			(0.0005)	(0.0006)
Age in 3rd Grade	0.1787***	0.1814***	0.1593***	0.1764***
	(0.0010)	(0.0011)	(0.0015)	(0.0016)
Age in 3rd Grade × grade			0.0090***	0.0024***
			(0.0005)	(0.0005)
Mother 21-29 years	0.0173***	0.0257***	0.0163***	0.0307***
	(0.0011)	(0.0012)	(0.0014)	(0.0016)
Mother 21-29 years × grade			0.0005	-0.0023***
			(0.0005)	(0.0006)
Mother 30+ years	0.0138***	0.0101***	0.0165***	0.0173***
	(0.0013)	(0.0014)	(0.0017)	(0.0019)
Mother 30+ years × grade			-0.0012	-0.0034***
			(0.0006)	(0.0007)
Parents some high school	0.0044	-0.0280***	0.0001	-0.0357***
	(0.0025)	(0.0028)	(0.0032)	(0.0037)
Parents some high school × grade			0.0019	0.0039**
			(0.0011)	(0.0013)

Parents high school grad	-0.0341***	-0.0740***	-0.0327***	-0.0810***
	(0.0024)	(0.0027)	(0.0031)	(0.0036)
Parents high school grad × grade			-0.0007	0.0037**
			(0.0012)	(0.0013)
Parents some college	-0.0807***	-0.1274***	-0.0756***	-0.1315***
	(0.0026)	(0.0028)	(0.0033)	(0.0039)
Parents some college × grade			-0.0023	0.0024
			(0.0012)	(0.0014)
Parents college grad	-0.1245***	-0.1821***	-0.1135***	-0.1848***
	(0.0026)	(0.0029)	(0.0036)	(0.0041)
Parents college grad × grade			-0.0050***	0.0018
			(0.0014)	(0.0015)
February Birthdate	0.0062**	0.0091***	0.0062***	0.0091***
	(0.0019)	(0.0021)	(0.0016)	(0.0016)
March Birthdate	0.0061**	0.0121***	0.0060***	0.0121***
	(0.0019)	(0.0020)	(0.0016)	(0.0016)
April Birthdate	0.0088***	0.0176***	0.0087***	0.0175***
	(0.0019)	(0.0020)	(0.0015)	(0.0017)
May Birthdate	0.0075***	0.0165***	0.0075***	0.0165***
	(0.0019)	(0.0020)	(0.0015)	(0.0017)
June Birthdate	0.0069***	0.0169***	0.0069***	0.0169***
	(0.0019)	(0.0020)	(0.0016)	(0.0017)
July Birthdate	0.0062***	0.0172***	0.0061***	0.0172***
	(0.0018)	(0.0020)	(0.0016)	(0.0017)
August Birthdate	-0.0000	0.0126***	-0.0001	0.0125***
	(0.0018)	(0.0020)	(0.0016)	(0.0017)
September Birthdate	-0.0061**	0.0062**	-0.0062***	0.0062***
	(0.0019)	(0.0020)	(0.0016)	(0.0018)
October Birthdate	-0.0894***	-0.0855***	-0.0894***	-0.0855***
	(0.0020)	(0.0022)	(0.0018)	(0.0018)

November Birthdate	-0.1753***	-0.1833***	-0.1751***	-0.1833***
	(0.0021)	(0.0023)	(0.0020)	(0.0021)
December Birthdate	-0.1767***	-0.1805***	-0.1766***	-0.1806***
	(0.0021)	(0.0023)	(0.0020)	(0.0020)
Constant	-1.2884***	-1.2270***	-1.2896***	-1.2303***
	(0.0087)	(0.0093)	(0.0106)	(0.0106)
N	2,344,358	2,344,358	2,344,358	2,344,358
R2	0.245	0.251	0.246	0.251

The omitted categories for the categorical explanatory variables correspond to BLL = 1, female, all other races/ethnicities, not economically disadvantaged, not on Medicaid, mother married at the time of birth, mother did not use alcohol during pregnancy, mother did not smoke during pregnancy, mother less than 21 years old at the time of birth, and parents had no high school education as of the time of child's birth. All estimates are from regression models that include school-grade-year dummy variables. Robust standard errors clustered at the student level are presented in parentheses. *** indicates the corresponding coefficient is significantly different from zero at the 0.1% level; ** indicates the corresponding coefficient is significantly different from zero at the 1% level; and * indicates the corresponding coefficient is significantly different from zero at the 5% level.