Appendix K
Models of Health Outcomes

Table K-1—Health outcomes: OLS regressions for birthweight

	Birth weight (ounces)	
	(1)	(2)
Number of observations	52,927	52,927
R-squared	0.048	0.048
PCTINSTRU	0.03	
	(6.51)	
PCTCOST		0.03
		(5.66)
Male infant	3.63	3.63
	(22.37)	(22.38)
Maternal characteristics		
Age in years	1.23	1.24
	(11.22)	(11.29)
Age squared	–0.02	–0.02
	(9.24)	(9.28)
Height in inches	1.00	1.00
	(32.65)	(32.65)
Race = Black	–4.96	–5.01
	(16.11)	(16.28)
Race = Hispanic	1.59	1.60
	(7.09)	(7.15)
Race = Asian	1.34	1.34
	(1.00)	(1.00)
Race = American Indian	–2.24	–2.23
	(4.84)	(4.81)
Household characteristics		
Participation in food stamps	–1.42	–1.44
	(4.67)	(4.72)
Participation in TANF	1.31	1.36
	(4.11)	4.28)
Participation in Medicaid	0.30	0.30
	(1.72)	(1.69)
Family size	0.46	0.46
	(8.89)	(8.96)
Family income as percent of poverty	0.004	0.004
	(3.88)	(3.87)
Rural	–1.85	–1.85
	(6.78)	(6.81)
Urban	–0.67	–0.67
	(3.68)	(3.72)
Intercept	29.95	29.78
	(12.21)	(12.08)

Categories "left out" of regressions were: race = white, and location = suburban.

Sample is pregnant women certified in WIC in November 2000 who gave birth and recertified by April 2001. T-statistics in parentheses.

Table K-2—Health outcomes: OLS regressions for change in height-for-age

	Change in height-for-age	
	(1)	(2)
Number of observations	158,798	158,798
R-squared	0.011	0.011
PCTINSTRU	0.02	
	(7.68)	
PCTCOST		0.02
		(6.88)
Male infant	29.28	29.29
	(18.17)	(18.18)
Number days between height measurements	–0.002	–0.002
	(1.27)	(1.29)
Age in months at Nov 2000 height measurement	2.28	2.28
	(35.56)	(35.56)
Age in months squared	–0.03	–0.03
	(33.98)	(33.98)
Male × age in months at Nov 2000 height measurement	–1.59	–1.59
	(17.66)	(17.66)
Male × age in months squared	0.02	0.02
	(17.09)	(17.09)
Race = Black	1.71	1.69
	(10.49)	(10.37)
Race = Hispanic	0.44	0.45
	(3.77)	(3.84)
Race = Asian	0.36	0.37
	(0.68)	(0.69)
Race = American Indian	–0.03	–0.02
	(0.14)	(0.09)
Participation in food stamps	–0.12	–0.12
	(1.00)	(1.02)
Participation in TANF	0.04	0.06
	(0.32)	(0.45)
Participation in Medicaid	–0.02	–0.01
	(0.20)	(0.16)
Family size	–0.11	–0.11
	(4.52)	(4.41)
Family income as percent of poverty	0.001	0.001
	(2.02)	(2.05)
Migrant status	–0.44	–0.44
	(1.36)	(1.34)
Rural	–0.72	–0.73
	(5.49)	(5.56)
Urban	–0.25	–0.25
	(2.84)	(2.87)
Intercept	–42.39	–42.42
	(34.96)	(34.82)

Categories "left out" of regressions were: race = white, and location = suburban.

Sample includes children aged 2 years and older, certified in September through November 2000, and recertified by April 2001. Interactions between male and race were also included in the model, but were not statistically significant and are not shown. T-statistics in parentheses.

Table K-3—Health outcomes: Logistic regressions for probability of "exiting" anemia

	Probability of "exiting" anemia		
	(1)	(2)	(3)
Number of observations	24,521	24,521	24,521
R-squared	0.02	0.02	0.02
PCTINSTRU	–0.001		
	(0.69		
PCTCOST		–0.004	
		(0.24)	
PCTCEREAL			–0.003
			(24.69)
Male	–0.04	–0.04	–0.04
	(2.07)	(2.06)	(2.21)
Number days between blood iron measurements	–0.001	–0.001	–0.001
	(1.72)	(1.65)	(1.45)
Age in months at Nov 2000 height measurement	0.01	0.01	0.01
	(0.48)	(0.51)	(0.48)
Age in months squared	0.0002	0.0002	0.0002
	(1.14)	(1.02)	(1.21)
Age between 12-23 months	0.34	0.32	0.36
	(5.63)	4.96)	(6.28)
Age between 24-35 months	0.22	0.21	0.24
	(3.00)	(2.57)	(3.42)
Age between 36-48 months	0.15	0.14	0.16
	(2.72)	(2.39)	(3.07)
Race = Black	–0.50	–0.50	–0.48
	(89.60)	(89.68)	(84.60)
Race = Hispanic	–0.16	–0.17	–0.18
	(14.80)	(15.15)	(17.90)
Race = Asian	–0.42	–0.42	–0.41
	(4.83)	(4.88)	(4.49)
Race = American Indian	–0.83	–0.83	–0.83
	(93.42)	93.96)	(93.46)
Participation in food stamps	–0.02	–0.02	–0.03
	(0.35)	(0.32)	(0.48)
Participation in TANF	0.06	0.06	0.06
	(2.31)	(2.36)	(2.30)
Participation in Medicaid	0.02	0.02	0.02
	(0.37	(0.34)	(0.52)
Family size	0.01	0.01	0.01
	(1.18)	(1.11)	(0.52)
Family income as percent of poverty	0.0005	0.0004	0.0004
	(5.33)	(5.22)	4.99)
Migrant status	0.11	0.11	0.11
	(1.12)	(1.11)	(1.13)
Rural	0.31	0.31	0.31
	(49.90)	(50.43)	(48.93)
Urban	0.27	0.27	0.26
	(80.54)	(80.83)	(78.22)
Intercept	0.07	0.06	–0.31
	(0.08)	(0.07)	(1.84)

Categories "left out" of regressions were: race = white, and location = suburban.

Sample includes children certified in September through November 2000, and recertified by April 2001. R-squared is calculated as $R^2 = 1 - [L(0)/L(B)]^{2/n}$, where L(0) = likelihood of intercept only model, L(B) = likelihood of specified model, n = sample size. Wald chi-square statistic in parentheses.

Table K-4—Health outcomes: Logistic regressions for probability of "exiting" underweight

	Probability of "exiting" underweight	
	(1)	(2)
Number of observations	13,177	13,177
R-squared	0.137	0.136
PCTINSTRU	0.005	
	(25.28)	
PCTCOST		0.004
		(12.35)
Weight-for-age in November 2000	0.29	0.29
	(1,503.91)	(1,505.69)
Male	0.17	0.17
	(0.52)	(0.53)
Number days between weight measurements	0.01	0.01
	(22.62)	(22.23)
Age in months at Nov 2000 height measurement	0.06	0.06
	(21.16)	(20.26)
Age in months squared	–0.001	–0.001
	(35.39)	(34.35)
Male × age in months at Nov 2000 height measurement	–0.01	–0.01
	(0.56)	(0.56)
Male × age in months squared	0.0003	0.0003
	(1.00)	(0.99)
Race = Black	0.10	0.09
	(1.04)	(0.86)
Race = Hispanic	0.17	0.18
	(5.97)	(6.52)
Race = Asian	–0.16	–0.16
	(0.23)	(0.22)
Race = American Indian	0.51	0.51
	(7.93)	(8.13)
Participation in food stamps	0.04	0.03
	(0.47)	(0.45)
Participation in TANF	–0.03	–0.02
	(0.31)	(0.16)
Participation in Medicaid	–0.10	–0.10
	(5.95)	(6.06)
Family size	–0.01	–0.01
	(0.57)	(0.43)
Family income as percent of poverty	–0.0001	–0.0001
	(0.08)	(0.06)
Migrant status	0.15	0.15
	(0.81)	(0.81)
Rural	–0.21	–0.21
	(11.83)	(12.39)
Urban	–0.17	–0.17
	(13.37)	(13.53)
Intercept	–3.76	–3.64
	(144.90)	(133.63)

Categories "left out" of regressions were: race = white, and location = suburban.

Sample includes children aged 2 years and older, certified in September through November 2000, and recertified by April 2001. Interactions between male and race were also included in the model, but were not statistically significant and are not shown. R-squared is calculated as $R^2 = 1 - [L(0)/L(B)]^{2/n}$, where L(0) = likelihood of intercept only model, L(B) = likelihood of specified model, n = sample size. Wald chi-square statistics in parentheses.