

Appendix

Appendix Table 1. Regression Coefficients[†] from DD Estimation (Standard Errors in Parentheses)

| | |
|---------------------------------------------------------------|---------------------|
| <i>Year (2014 is omitted year):</i> | |
| 2009 | -0.278** (0.002) |
| 2010 | -0.224** (0.001) |
| 2011 | -0.182** (0.001) |
| 2012 | -0.133** (0.001) |
| 2013 | -0.088** (0.001) |
| Private Health Insurance (PHI) (<i>Medicaid is omitted</i>) | 0.091** (0.002) |
| Year, 2009* PHI | -0.078** (0.002) |
| Year, 2010*PHI | -0.056** (0.002) |
| Year, 2011*PHI | -0.023** (0.002) |
| Year, 2012*PHI | -0.029** (0.002) |
| Year,2013*PHI | -0.035** |
| <i>Plurality (Singleton is omitted category)</i> | |
| 2 | -0.092** (0.002) |
| 3 | -0.161** (0.009) |
| 4 | -0.190** (0.036) |
| 5+ | -0.346** (0.085) |
| Weeks of gestation | 0.007** (0.000) |
| 5-minute APGAR score | 0.033** (0.000) |
| Baby Boy | -0.002** (0.001) |
| <i>Maternal race (white is omitted category)</i> | |
| Black | -0.070** (0.001) |
| American Indian/Alaskan Native | 0.108** |

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| | (0.003) |
| Asian/Pacific Islander | -0.426** |
| | (0.001) |
| Mother of Hispanic/Latino Origin | -0.115** |
| | (0.001) |
| Maternal education (<i>less than HS is omitted category</i>) | |
| High School degree or equivalent | 0.149** |
| | (0.001) |
| Some college | 0.381** |
| | (0.001) |
| College (Bachelor's or higher) | 0.610** |
| | (0.001) |
| Number of previous births | -0.004** |
| | (0.000) |
| Hospital birth | -0.512** |
| | (0.005) |
| Maternal age | -0.009** |
| | (0.000) |
| Mother not married | -0.226** |
| | (0.001) |
| Mother had prenatal care | 0.140** |
| | (0.001) |
| Mother smoked prior to pregnancy | 0.125** |
| | (0.002) |
| Mother smoked during pregnancy | -0.269** |
| | (0.002) |
| Cesarean delivery | -0.045** |
| | (0.001) |
| Mother had any risk factors ^a | -0.002** |
| | (0.001) |
| Mother had any maternal morbidities ^b | 0.048** |
| | (0.003) |
| Mother had any infections present ^c | -0.029** |
| | (0.002) |
| Infant had congenital anomalies or abnormal newborn conditions ^d | -0.096** |
| | (0.006) |
| Month of birth (<i>January is omitted category</i>) | |
| February | 0.007** |
| | (0.002) |
| March | 0.013** |
| | (0.002) |
| April | 0.021** |
| | (0.002) |
| May | 0.026** |
| | (0.002) |

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| June | 0.026** (0.002) |
| July | 0.028** (0.002) |
| August | 0.033** (0.001) |
| September | 0.035** (0.002) |
| October | 0.042** (0.002) |
| November | 0.045** (0.002) |
| December | 0.046** (0.002) |
| Constant | 0.363** (0.007) |
| <i>N</i> | 17,985,584 |

a.) Any risk factors equals one if the mother had any of the following conditions/treatments: pre-pregnancy diabetes, gestational diabetes, prepregnancy hypertension, gestational hypertension, eclampsia, previous preterm birth, previous poor pregnancy outcome, infertility treatment, fertility enhancing drugs, assistive reproductive technology, and any previous Cesarean deliveries. b.) Any maternal morbidity equals one if the mother had any of the following complications with the labor/delivery: transfusion, perineal laceration, ruptured uterus, unplanned hysterectomy, admission to intensive care, or an unplanned operation. c.) Any maternal infections present equals one if the mother had gonorrhea, syphilis, chlamydia, Hepatitis B, or Hepatitis C. d) Any abnormal conditions of the newborn equals one if the infant had assisted ventilation (and whether that is greater than 6 hours), admission to NICU, surfactant, antibiotics, seizures, or birth injury. e) Any congenital anomalies equals one if the infant had anencephaly, meningomyelocele/spina bifida, cyanotic congenital heart disease, congenital diaphragmatic hernia, omphalocele, gastroschisis, limb reduction defect, cleft lip palate, down syndrome, suspected chromosomal disorder, and hypospadias.

* $p < 0.05$; ** $p < 0.01$

†Note that in order to estimate DD effects from this model (which are reported in Table 2), we use the margins command in Stata to obtain contrasts of predictive margins.

Appendix Table 2. DD Results Using Alternative Comparison Groups

| | 2013 vs 2009 | 2014 vs. 2009 | n | |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Comparison group: | | | Comparison births | Private HI births |
| Medicaid births | 0.015*** (0.0008) | 0.025*** (0.0008) | 8,698,072 | 9,287,512 |
| Self-pay births | 0.098*** (0.001) | 0.163*** (0.001) | 865,027 | 9,287,512 |
| Champus/VA births | 0.007 (0.004) | 0.059*** (0.004) | 235,584 | 9,287,512 |

Predicted probability of breastfeeding adjusted for covariates listed in Equation [1].

*** p < 0.01, ** p < 0.05

**Appendix Table 3. Regression Coefficients from Propensity Score Estimation:
Dependent Variable = Source of Payment is Private Health Insurance (Standard
Errors in Parentheses)**

| | |
|--------------------------------------------------------------|---------------------|
| <i>Year (2009 is omitted year):</i> | |
| 2010 | -0.09** (0.002) |
| 2011 | -0.10** (0.002) |
| 2012 | -0.11** (0.002) |
| 2013 | -0.14** (0.002) |
| 2014 | 0.11** (0.002) |
| <i>Plurality (Singleton is omitted category)</i> | |
| 2 | 0.27** (0.004) |
| 3 | 0.66** (0.02) |
| 4 | 0.41** (0.08) |
| 5+ | 0.85** (0.19) |
| Weeks of gestation | 0.004** (0.0002) |
| 5-minute APGAR score | 0.02** (0.008) |
| Baby Boy | 0.004** (0.001) |
| <i>Maternal race (white is omitted category)</i> | |
| Black | -0.64** (0.002) |
| American Indian/Alaskan Native | -0.71** (0.007) |
| Asian/Pacific Islander | -0.38** (0.003) |
| Mother of Hispanic/Latino Origin | -0.52** (0.001) |
| <i>Maternal education (less than HS is omitted category)</i> | |
| High School degree or equivalent | 0.80** (0.002) |
| Some college | 1.54** (0.002) |
| College (Bachelor's or higher) | 2.92** (0.002) |
| Number of previous births | -0.021** |

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|-----------------------------------------------------------------------------|----------|
| | (0.0004) |
| Hospital birth | 0.25** |
| | (0.008) |
| Maternal age | 0.07** |
| | (0.0001) |
| Mother not married | -1.24** |
| | (0.001) |
| Mother had prenatal care | 0.003 |
| | (0.003) |
| Mother smoked prior to pregnancy | 0.03** |
| | (0.003) |
| Mother smoked during pregnancy | -0.62** |
| | (0.004) |
| Cesarean delivery | -0.04** |
| | (0.001) |
| Mother had any risk factors ^a | -0.05** |
| | (0.002) |
| Mother had any maternal morbidities ^b | 0.17** |
| | (0.005) |
| Mother had any infections present ^c | Omitted |
| Infant had congenital anomalies or abnormal newborn conditions ^d | 0.06** |
| | (0.01) |
| Month of birth (<i>January is omitted category</i>) | |
| February | 0.03** |
| | (0.003) |
| March | 0.05** |
| | (0.003) |
| April | 0.06** |
| | (0.003) |
| May | 0.06** |
| | (0.003) |
| June | 0.05** |
| | (0.003) |
| July | 0.04** |
| | (0.003) |
| August | 0.03** |
| | (0.003) |
| September | 0.02** |
| | (0.003) |
| October | 0.01** |
| | (0.003) |
| November | -0.006* |
| | (0.003) |
| December | -0.013** |
| | (0.003) |

| | |
|----------|-------------------|
| Constant | -2.76** (0.01) |
| <i>N</i> | 17,985,584 |

a.) Any risk factors equals one if the mother had any of the following conditions/treatments: pre-pregnancy diabetes, gestational diabetes, pre-pregnancy hypertension, gestational hypertension, eclampsia, previous preterm birth, previous poor pregnancy outcome, infertility treatment, fertility enhancing drugs, assistive reproductive technology, and any previous Cesarean deliveries. b.) Any maternal morbidity equals one if the mother had any of the following complications with the labor/delivery: transfusion, perineal laceration, ruptured uterus, unplanned hysterectomy, admission to intensive care, or an unplanned operation. c.) Any maternal infections present equals one if the mother had gonorrhea, syphilis, chlamydia, Hepatitis B, or Hepatitis C. This variable was perfectly collinear with private health insurance and was therefore dropped. d.) Any abnormal conditions of the newborn equals one if the infant had assisted ventilation (and whether that is greater than 6 hours), admission to NICU, surfactant, antibiotics, seizures, or birth injury. e.) Any congenital anomalies equals one if the infant had anencephaly, meningomyelocele/spina bifida, cyanotic congenital heart disease, congenital diaphragmatic hernia, omphalocele, gastroschisis, limb reduction defect, cleft lip palate, down syndrome, suspected chromosomal disorder, and hypospadias.

* $p < 0.05$; ** $p < 0.01$

Appendix Table 4. Adjusted Breastfeeding Rates by Payer, First Differences, DDs **using PSM Sample**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------------|-------------------|------------------|-------------------|-------------------|--------------------|-------------------|
| <u>Source of Payment for</u> | | | | | | |
| <u>Delivery:</u> | | | | | | |
| Private Health Insurance | 0.57 (.0004) | 0.60 (.0004) | 0.63 (.0004) | 0.64 (.0004) | 0.65 (.0004) | 0.70 (.0004) |
| Medicaid | 0.57 (.0004) | 0.59 (.0004) | 0.61 (.0004) | 0.62 (.0004) | 0.64 (.0004) | 0.67 (.0004) |
| <i>First Difference</i> | 0.005 (0.0001) | 0.012 (0.001) | 0.023 (0.0006) | 0.021 (0.0006) | 0.018 (0.0006) | 0.032 (0.0005) |
| DD - vs 2009 | | | | | 0.012 (0.0008) | 0.026 (0.0008) |
| DD - vs 2010 | | | | | 0.006 (0.0008) | 0.020 (0.0008) |
| DD - vs 2011 | | | | | -0.005 (0.0008) | 0.009 (0.0007) |

Notes: N = 17,396,144 births. All values are statistically significant at p < 0.01 or better.