THE COST OF HAVING A BABY IN THE UNITED STATES

TRUVEN HEALTH ANALYTICS MARKETSCAN® STUDY

Prepared for:

Childbirth Connection
Catalyst for Payment Reform
Center for Healthcare Quality and Payment Reform

January 2013

TRUVEN HEALTH ANALYTICS™

CHILDBIRTH CONNECTION since 1918

OUR HEALTH CARE SYSTEM NEEDS CPR

CATALYST FOR PAYMENT REFORM

CENTER FOR HEALTHCARE QUALITY & PAYMENT REFORM

Table of Contents

Table of Figures

Table of Tables

FOREWORD

Better care, better outcomes, and lower costs in health care are all possible through use of innovative delivery systems, supported by value-based payment systems and effective performance measurement. One of the greatest opportunities for improving health care value is in maternity care, which impacts everyone at the beginning of life and about 85% of women during one or more episodes of care. Most childbearing women are healthy, have healthy fetuses, and have reason to expect an uncomplicated birth, yet routine maternity care is technology-intensive and expensive: combined maternal and newborn care is the most common and costly type of hospital care for all payers, private payers, and Medicaid. Childbirth Connection, Catalyst for Payment Reform, and the Center for Healthcare Quality and Payment Reform commissioned this report to focus the attention of all stakeholders on the need to better align maternity care payment and quality.

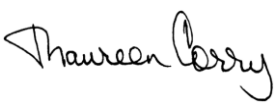
Significant improvements in quality and savings in costs can be achieved by reducing unwarranted practice variation and the overuse of some interventions and underuse of others. High-performing maternity care providers and settings and the women and families they serve demonstrate the potential for dramatic improvement in care, outcomes, and value relative to usual care and population norms. Childbirth Connection's multi-stakeholder, deliberative *Transforming Maternity Care* project developed two direct-setting consensus reports: "2020 Vision for a High-Quality, High-Value Maternity Care System" and a "Blueprint for Action" to chart the path toward such a system. From its inception, the project's key informants and Steering Committee members understood that a multi-faceted strategy, including payment reform, changes in benefit structures, public education, and provider engagement, is essential for successfully driving needed improvement. This new report on the *Cost of Having a Baby in the United States* clarifies that significant savings can be achieved by advancing priority Blueprint recommendations.

Catalyst for Payment Reform (CPR), a nationwide nonprofit coalition of large national employers and public payers, including several state Medicaid agencies, understands that maternity care is in need of significant payment reform, both to remove the perverse incentives for unnecessary intervention in labor and delivery and to increase incentives for better adherence to rigorous clinical guidelines. To help purchasers work with health plans towards this goal, CPR created its Maternity Care Payment Reform Toolkit, available to all stakeholders

The Center for Healthcare Quality and Payment Reform (CHQPR) has been working since 2009 to educate physicians, hospitals, health plans, employers, consumers, and policy makers about the barriers to higher quality, more affordable health care created by current health care payment and delivery systems and ways to overcome those barriers. CHQPR understands that one of the best opportunities for making health care more affordable and improving the health status of the public is through improving the way maternity care is delivered in America. More information and resources about ways to improve payment and delivery of maternity care are available on the CHQPR website.

The MarketScan Commercial and Medicaid databases provided a unique opportunity to understand levels of charges and payments for maternal and newborn care in 2010. This report offers detailed breakdowns by Commercial and Medicaid payers, primary insurer versus secondary insurer and out-of-pocket payment sources, vaginal and cesarean birth, type of service, and phase of care. Special analyses investigate variation in maternal charges and payments across five selected states, costs of care for newborns with stays in neonatal intensive care units, and the increase in payments for maternal care from 2004 to 2010.

We hope you find this information helpful, and we invite you to join us in working to improve how we pay for and deliver maternity care in the United States.



Maureen P. Corry
Executive Director
Childbirth Connection

Suzanne F. Delbanco
Executive Director
Catalyst for Payment Reform

Harold D. Miller
Executive Director
Center for Healthcare Quality and Payment Reform

EXECUTIVE SUMMARY

Childbirth is a major life and population event. In the United States, about four million women gave birth each year. Although childbirth is a common occurrence that has great impact on the healthcare system, our knowledge regarding the cost of childbirth is limited. This study updated a 2007 Thomson Healthcare report of maternity costs using the mothers' medical and drug claim records[1] and estimated the costs of the first three months of a newborn's life with newborn claim records (newborn costs) identified in the *MarketScan®* Commercial and Medicaid databases.

In this study, "cost" is measured by the amount that employers (for beneficiaries of Commercial, employer-sponsored insurance) or Medicaid managed care plans and Medicaid programs (for Medicaid beneficiaries) and others pay hospitals, clinicians, and other service providers, i.e., the cost of care to the organizations and individuals that *pay* for the care, not the costs incurred by organizations and individuals who provide care. The latter may be less or more than the former, but data are not available to determine which is the case. Actual payments for maternity and other health care are typically discounted considerably relative to the amount charged by the various service providers.

Babies are born either vaginally or by cesarean section. The study looked separately at costs for each of these methods of birth, since past studies have shown (and this study confirmed) that the costs differ significantly between the two methods. Since there is wide variation in the rate of cesarean section across states, across regions within states, and across hospitals and physicians within a region, it is more meaningful to describe the costs of each delivery method separately than to provide a single estimate of the cost of birth. Further analyses were conducted for source of payment (including out-of-pocket payments), type of service, phase of care, cost variation across selected states (maternal only), and neonatal intensive care unit costs.

TOTAL PAYMENTS FOR MATERNAL AND NEWBORN CARE

The study found that among women and newborns with employer-provided Commercial health insurance, average total charges for care with vaginal and cesarean births were $32,093 and $51,125, respectively. Average total Commercial insurer payments for all maternal and newborn care with vaginal and cesarean childbirths were $18,329 and $27,866, respectively. In Medicaid, average total maternal and newborn care charges for care with vaginal and cesarean births were $29,800 and $50,373, respectively. Medicaid payments for all maternal and newborn care involving vaginal and cesarean childbirths were $9,131 and $13,590, respectively. Both Commercial and Medicaid payers paid approximately 50% more for cesarean than vaginal births. For both types of birth, Commercial payers paid approximately 100% more than Medicaid.

The study examined the source of payments, which were the primary payer (employer-provided Commercial insurance or Medicaid), a secondary insurer such as a union, and out-of-pocket costs. Among total maternal-newborn payments for beneficiaries with Commercial insurance and vaginal births, on average the primary insurer paid the largest proportion of costs ($15,931 or 87%), out-of-pocket costs averaged $2,244 (12%), and secondary insurers covered a small portion ($153 or 1%). Among total maternal-newborn payments for beneficiaries with Commercial insurance and cesarean births, on average the primary insurer paid $24,949 (90%), out-of-pocket costs were $2,669 (10%), and secondary insurers paid $267 (1%) (numbers exceed 100% due to rounding). For both vaginal and cesarean births covered by Medicaid, Medicaid paid nearly all costs for vaginal ($9,002 or 99%) and cesarean ($13,327 or 98%) births.

Among total average Commercial payments for maternal-newborn care with vaginal births ($18,329), 59% went to facilities and 25% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, laboratory, and pharmacy services. Among total average Commercial payments for maternal-newborn care with cesarean births ($27,866), 66% went to facilities and 21% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, pharmacy, and laboratory services. Among total average Medicaid payments for maternal-newborn care with vaginal births ($9,131), 59% went to facilities and 23% to maternity care providers, while among total Medicaid payments for cesarean births ($13,590), 65% went to facilities and 20% to maternity care providers. For both types of birth, remaining Medicaid payments covered in descending order pharmacy, radiology/imaging, laboratory, and anesthesia services.

When examined by phase of care — prenatal, the intrapartum hospital stay for both women and newborns, and the care provided to them after the discharge from the birth hospitalization — 2010 payments were heavily concentrated in the

[1] Thomson Healthcare. *The Healthcare Costs of Having a Baby*. May 2007. http://www.kff.org/womenshealth/upload/whp061207othc.pdf.

intrapartum hospital stay. Our figures slightly overestimate payments for the intrapartum phase and slightly underestimate payments for care after discharge, as modest newborn payments for care after discharge are included in the intrapartum phase figures in this report. Commercially-insured intrapartum care involved 81% of maternal-newborn payments in vaginal births and 86% of maternal-newborn payments in cesarean births. In Medicaid, intrapartum payments were 70% of payments for vaginal births and 76% of payments for cesarean births.

PAYMENTS FOR MATERNAL CARE

The study separately analyzed maternal payments for maternity care and found that among women with employer-provided Commercial insurance, average payments in 2010 for all maternal care with vaginal and cesarean childbirths were $12,520 and $16,673, respectively. Since 2004, when a similar analysis was carried out, Commercial payments for maternal care with both vaginal and cesarean births increased by over 50%. In Medicaid, payments for all maternal care with vaginal and cesarean childbirths were $6,117 and $7,983, respectively. (No comparable 2004 Medicaid analysis is available.)

The study analyzed average maternal payments by payment source: the Commercial insurer or Medicaid, out-of-pocket payments, and payments from another party such as a union. In women with employer-provided Commercial insurance, the insurer covered the great majority of payments for vaginal (86%) and cesarean (87%) births, Nonetheless, women paid $1,686 and $1,948 for vaginal and cesarean births, respectively, a nearly fourfold increase in out-of-pocket costs in both cases since 2004. Medicaid paid virtually all maternal care payments for women covered by Medicaid.

A further analysis explored total maternal payments by type of service. For women with employer-provided Commercial insurance and vaginal births, the most costly types of services were facility (54% of maternal payments) and maternity care provider (23%) payments, with smaller percentages for, in descending order, anesthesiology, radiology/imaging, laboratory, and pharmacy services. For women with employer-provided Commercial insurance and cesarean births, total costs were higher, with a larger proportion of payments going to facilities (60%), a smaller proportion to maternity care providers (20%), and remaining payments, in order, for anesthesiology, radiology/imaging, pharmacy, and laboratory. For women with Medicaid coverage and vaginal births, facility (51%) and maternity care provider (24%) payments also predominated, followed in order by pharmacy, radiology/imaging, laboratory, and anesthesiology payments. For Medicaid beneficiaries with cesarean births, payments went in descending order to facility (55%) and maternity care provider (21%), followed by pharmacy, radiology/imaging, laboratory, and anesthesiology fees.

Maternal payments can be divided into three phases: payments for a woman's prenatal care (before labor and birth processes begin), payments for a woman's intrapartum care (labor, birth, and the rest of her hospital stay), and payments for a woman's postpartum care after hospital discharge. The analysis found:

- Maternal payments in 2010 were concentrated in the intrapartum hospital stay for Commercial beneficiaries and, to a lesser extent, for Medicaid beneficiaries. Average Commercial intrapartum payments were $9,048 for vaginal births (72% of all maternal care payments) and $12,739 for cesarean births (76% of maternal payments). Average Medicaid intrapartum payments were $3,347 for vaginal births (55% of maternal payments) and $4,655 for cesarean births (58% of maternal payments).
- Average maternal prenatal payments in 2010 far exceeded average postpartum payments. Among Commercial vaginal births, prenatal payments were $3,180 (25% of all maternal payments), in contrast to postpartum payments of $293 (2% of maternal payments). Among Commercial cesarean births, prenatal payments were $3,580 (21% of maternal payments), in contrast to postpartum payments of $354 (2% of maternal payments). Among Medicaid vaginal births, prenatal payments were $2,405 (39% of maternal costs), in contrast to postpartum payments of $365 (6% of maternal costs). Among Medicaid cesarean births, prenatal payments were $2,859 (36% of maternal payments), in contrast to postpartum payments of $469 (6% of maternal payments).

An analysis of variation in five selected states in average total maternal care costs for women with employer-provided Commercial insurance in 2010 found a large spread:

- In Louisiana, maternal payments were $10,318 for vaginal births and $13,943 for cesarean births.
- In Illinois, maternal payments were $11,692 for vaginal births and $15,602 for cesarean births.
- In Minnesota, maternal payments were $12,130 for vaginal births and $17,109 for cesarean births.
- In California, maternal payments were $15,259 for vaginal births and $21,307 for cesarean births.
- In Massachusetts, maternal payments were $16,888 for vaginal births and $20,620 for cesarean births.

PAYMENTS FOR NEWBORN CARE

The study separately analyzed newborn care payments, measured as payments for the hospital stay plus subsequent care to age three months. Total newborn Commercial payments were $5,809 for vaginal births and $11,193 for cesarean births. Total newborn Medicaid payments were $3,014 for vaginal births and $5,607 for cesarean births.

The study analyzed average newborn payments by payment source: the Commercial insurer or Medicaid, out-of-pocket payments, and a supplementary insurer. In newborns with employer-provided Commercial insurance, the insurer covered the great majority of payments for vaginal (90%) and cesarean (93%) births. Average out-of-pocket costs for newborn care were $558 and $721 for vaginal and cesarean births, respectively. Medicaid paid virtually all newborn care payments for newborns covered by Medicaid: 98% of vaginal birth payments and 97% of cesarean birth payments.

When analyzed by type of service, virtually all newborn payments were for facilities and professional fees. 2010 payments for newborns with employer-provided Commercial insurance and vaginal births were for facility (71%) and professional (28%) fees, with less than 2% on average for combined radiology/imaging, pharmacy, and laboratory fees. Commercial payments for newborns with cesarean births were for facility (75%) and professional (23%) fees, with 1% for combined pharmacy, radiology/imaging, and laboratory fees. Medicaid payments for newborns with vaginal births were for facility (77%) and professional (20%) fees, with less than 3% for combined pharmacy, radiology/imaging, and laboratory fees. Medicaid payments for newborns with cesarean births were for facility (79%) and professional (19%) fees, with less than 3% for combined pharmacy, radiology/imaging, and laboratory fees.

While we do not provide separate figures for newborn hospital and ambulatory costs, as with maternal payments those newborn payments are concentrated in the hospital phase of care.

Predictably, an analysis of newborns with stays in neonatal intensive care units (NICUs) found steeply increased average payment levels relative to payments for all newborns. For newborns with Commercial insurance, vaginal births, and NICU care, insurers paid $30,875, out-of-pocket costs were $1,241, and others (e.g., unions) paid $468. For similar newborns with cesarean births, insurers paid $45,496, out-of-pocket costs were $1,351, and others paid $735. Medicaid paid $13,875 for newborns with vaginal births and NICU care and $19,971 for newborns with cesarean births and NICU care. Modest other sources of payment for Medicaid were not separately identified.

KEY FINDINGS

The *MarketScan* databases provide a unique opportunity to understand recent, 2010, average payments for maternal and newborn care by Commercial insurers and Medicaid. Key findings are as follows:

- Average total payments for maternal and newborn care with cesarean births were about 50% higher than average payments with vaginal births for both Commercial payers ($27,866 vs. $18,329) and Medicaid ($13,590 vs. $9,131).
- Commercial payers paid an extra $1,464 to clinicians and $7,518 to facilities for cesarean versus vaginal births.
- Average total payments for maternal-newborn care by Commercial payers were about 100% higher than average Medicaid payments for both vaginal births ($18,239 vs. $9,131) and cesarean births ($27,866 vs. $13,590).
- Across the prenatal, childbirth hospitalization, and postpartum phases of care, average inpatient maternal-newborn payments predominated (from 70% to 86% of all payments) for both types of payers and both types of birth.
- Across the prenatal, childbirth hospitalization, and postpartum phases of care, average maternal payments to maternity care providers were concentrated in the hospitalization phase (from 70% to 84% of all maternity care provider payments, depending on type of payer and type of birth).
- Facility fees (from 59% to 66% on average) and professional service fees (from 20% to 25%) predominated over anesthesiology, laboratory, radiology, and pharmacy fees for both types of payers and both types of birth.
- For both Commercial and Medicaid payers, average total for maternal care payments were about twice as great as average total newborn care payments with vaginal births, and between 40% and 50% higher with cesarean births.
- Across five selected states, average Commercial insurer payments for all maternal care ranged from $10,318 (Louisiana) to $16,888 (Massachusetts) with vaginal births and from $13,943 (Louisiana) to $21,307 (California) with cesarean births.
- Average payments for babies with stays in neonatal intensive care unit nurseries far exceeded average payments for all newborns (from 3.7- to 5.6-fold) for both types of payers and both types of birth.
- From 2004 to 2010, average Commercial insurer payments for all maternal care increased by 49% for vaginal births and 41% for cesarean births.
- From 2004 to 2010, average out-of-pocket payments for all maternal care covered by Commercial insurers increased nearly fourfold for both vaginal (from $463 to $1,686) and cesarean (from $523 to $1,948) births.

METHODOLOGY

In the United States, approximately four million women gave birth to one or more newborns each year[2]. Pregnancy and childbirth-related and newborn conditions make up over 21 percent of hospital discharges in the United States. In recent years, major advances in technology as well as updated guidelines for prenatal care and childbirth such as high-resolution sonogram, new prenatal and newborn screenings, and growing rates of c-sections have significant cost implications. While some research has shown that maternal care can result in sizable out-of-pocket costs for families, very few new data have been collected or published on the costs of having a baby.

In 2007, Thomson Healthcare prepared *The Healthcare Cost of Having a Baby* report for the March of Dimes. More recently, Childbirth Connection, Catalyst for Payment Reform, and Center for Healthcare Quality and Payment Reform requested that Truven Health Analytics (formerly Thomson Healthcare) develop a maternity cost analysis using its *MarketScan*® book of business claims database, for both Medicaid and Commercial beneficiaries, in order to update but also broaden the scope of the previous maternity study. The purpose of this study was to quantify the overall costs of maternity care services for having a baby, including all prenatal care services, intrapartum care services, and postpartum care services for the mother. In addition, the partners requested that the current study provide newborn care costs, which included medical care services provided during the birth hospitalization and during the first three months of life.

To quantify these costs, this study analyzed health care claims data for a large population of people with commercial, employer-sponsored health insurance (referred to in the rest of the report as Commercial) and Medicaid claims data to understand maternal-related and newborn-related spending on facility fees, professional service fees, laboratory fees, radiology/imaging fees, and drug fees. The computation of costs included vaginal and cesarean childbirths among mothers and newborns. In addition, average costs are decomposed to show the insurance and employee out-of-pocket payments for Commercial populations.

The cost of having a baby includes costs for both the mother and her baby from prenatal through postpartum and newborn care. To estimate these costs, we analyzed inpatient and outpatient utilization and expenditure data throughout pregnancy for the mother and following birth for both mother and child. This study also reported maternal costs by childbirth type and type of service for selected states (California, Illinois, Louisiana, Massachusetts, and Minnesota) using the Commercial populations only. Additionally, this study captured newborn healthcare costs by childbirth type for both Commercial and Medicaid beneficiaries separately. A separate analysis identified Commercial and Medicaid payments for newborns who experienced one or more admissions into the intensive care unit during the observation period.

This report provides an overview of the study's methodology including a description of the data sources, the definition of the study population, the process used to identify maternal and newborn services, the analyses, and results showing the healthcare costs of having a baby.

DATA SOURCES

Truven Health Analytics used its proprietary *MarketScan*® Research Databases for this project. The 2009-2011 Commercial and Medicaid Databases were used to conduct the cost analyses in the study. These databases are constructed from paid medical and prescription drug claims from approximately 200 self-insured U.S. employers, 30 health plans, and 12 Medicaid agencies. It should be noted that this study does not include data for women with policies in the individual market and does not presume to represent the maternity care costs for this group of women.

The retrospective analyses were based on the *MarketScan* Commercial Claims and Encounters Database and the Medicaid Database. The largest of the *MarketScan*® Databases, the Commercial Database, contains the inpatient, outpatient, and prescription drug experience of several million employees and their dependents (annually), covered under a variety of fee-for-service and capitated health plans, including preferred provider organizations, point of service plans, indemnity plans, and health maintenance organizations. The *MarketScan* Medicaid Database contains the pooled healthcare experience of approximately seven million Medicaid enrollees from 12 contributors, which consists of seven

[2] Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Wilson EC, Mathews TJ. Births: final data for 2010. National vital statistics reports; vol 61 no 1. Hyattsville, MD: National Center for Health Statistics. 2012.

state contributors and five Medicaid managed care plans. It includes inpatient services and prescription drug claims, as well as information on enrollment, long-term care, and other medical care. Although we cannot release the identity of contributing states per contractual agreements, Table 1 shows the sex and age composition of Medicaid enrollees and all *MarketScan*® Commercial and Medicaid enrollees in 2010 compared to the national sex and age composition.

Table 1 shows that more than half of Medicaid enrollees in 2010 were female or age 0-17. Only about 23% percent of the Medicaid population was in the 18-44 age group compared to 41% of the entire *MarketScan*® enrollee population in the 18-44 age group and 37% of the U.S. population in the 18-44 age group. Additionally, Table 1 also shows household and regional information for the entire *MarketScan*® Commercial enrollee population and the U.S. population. A higher percentage of *MarketScan*® enrollees were the employee or head of the household compared to the national population. Conversely, a lower percentage of MarketScan® enrollees were a child/other compared to the national population. It is important to keep in mind that not all family members are covered in the same health insurance plan. For example, a covered employee may choose to purchase coverage for his/her children, but the spouse maybe covered by his/her employer. This fact influenced the design of this study and is discussed in the next section.

Table 1: MarketScan® Research Databases Demographic Comparison to Total U.S. Population

Characteristic	Commercial MarketScan Enrollees in 2010	Percentage of Total Commercial MarketScan Population	Medicaid MarketScan Enrollees in 2010	%of Total Mediciaid MarketScan Population	%of Total U.S. Population in 2010*
Sex					
Male	22,038,281	48.7%	2,737,216	43%	49.2%
Female	23,201,471	51.3%	3,679,312	57%	50.8%
Unknown	0	0.0%		0.0%	0.0%
Age					
0-17	11,818,322	26.1%	3,845,210	59.9%	24.0%
18-34	10,933,032	24.2%	1,094,309	17.1%	-
35-44	7,467,118	16.5%	349,797	5.5%	-
*18-44***	*18,400,150*	*40.6%*	*1,444,106*	*22.5%*	*36.5%*
45-54	8,324,590	18.4%	335,899	*5.2%*	-
55-64	6,696,690	14.8%	272,831	4.3%	-
*45-64***	*15,021,280*	*33.2%*	*608,730*	*9.5%*	*26.4%*
Age 65+	0	0.0%	518,482	8.1%	13.0%
Unknown	0	0.0%	0	0.0%	0.0%
Relationship Information					
Employee/Householder*	21,617,224	47.8%			37.5%
Spouse	9,058,222	20.0%			19.4%
Child/Other	14,564,306	32.2%			43.1%
Unknown	0	0.0%			0.0%
Census Regions					
New England Division	2,270,662	5.0%			4.7%
Middle Atlantic Division	4,493,491	9.9%			13.2%
ast North Central Division	8,852,088	19.6%			15.0%
est North Central Division	2,231,332	4.9%			6.6%
South Atlantic Division	8,566,759	18.9%			19.4%
ast South Central Division	2,627,723	5.8%			6.0%
est South Central Division	6,621,631	14.6%			11.8%
Mountain Division	2,657,881	5.9%			7.1%
Pacific Division	6,678,699	14.8%			17.4%
Other/Unknown	239,486	0.5%			0.0%

*Source: http://2010.census.gov/2010census/

**Published census age band divisions are 0-17,18-24,25-44,45-64, 65+

Overall, the geographic composition of *MarketScan*® Commercial enrollees is similar to the geographic composition of the U.S. population with several exceptions, which include the East North Central Division (~+5%), West South Central Division (~+3%), Middle Atlantic Division (~-3%), and the Pacific Division (~-3%).

PATIENT SELECTION

The populations defined for this study were women with live births in 2010 (maternal costs) and newborns born in 2010 (newborn costs). Replicating the March of Dimes analysis, additional requirements made in defining this population included:

- continuous enrollment in the nine months prior to childbirth (maternal costs only);
- continuous enrollment three months following childbirth or birth;
- drug data captured in the nine months prior (maternal costs only);
- drug data captured three months following birth;
- coverage through a fee-for-service plan;
- coverage through an employer-insured plan (Commercial costs only) ; and
- women ages 15-45 (maternal costs only).

The exclusions were the same exclusions applied in the original study and kept in order to compare the results of this study with the results from the original study. The observation periods for the mothers were defined using the hospital admission and discharge dates. The definition of the prenatal period included the nine months prior to the hospital admission date. The postpartum period was defined as three months following hospital discharge date. The observation period for newborns included birth and three months after the hospital discharge date. In addition, the continuous enrollment and drug data exclusions were applied in order to gauge access to care but does not assume that beneficiaries were actually receiving care throughout this period. This only guaranteed that if the beneficiaries did seek care, the utilizations and cost information would be in the *MarketScan*® Databases. This becomes evident when one looks at the cost quartiles for postpartum healthcare in Appendix B. Because full and partial capitation arrangements would distort the calculation of prenatal and postpartum healthcare costs, we excluded mothers or newborns covered by insurance arrangements where services were paid for by the plan on a capitated basis. Commercial beneficiaries were also dropped if their data came from a health plan as opposed to an employer, as health plan data in the *MarketScan*® Commercial Database are less complete than data from employers.

Table 2 shows the attrition and sensitivity analyses for women in the Commercial databases before and after all data exclusions. Exclusions were applied in a stepwise manner to evaluate their impact on the final study sample. Because this study focused on the costs of prenatal, delivery and postpartum care, only live births were included. Nine months of continuous enrollment were required to capture all services related to the prenatal period; however, women were not required to have received nine months of prenatal care in order to be included. Women under capitated arrangements would not have cost data on their encounter records whereas those under fee-for-service plans would have claims with payments reported. Thus, only women in FFS plans are included. Women were also required to have drug coverage in order to capture pharmacy costs. As noted above, women from health plan contributors to MarketScan were excluded. It appears that the exclusions changed the childbirth type distribution, but had minimal impact on average costs. Overall, costs for vaginal childbirths changed plus or minus one percent to twelve percent for both intrapartum and maternal health care costs. In contrast, costs for cesarean childbirths decreased by one percent to twelve percent for both intrapartum and maternal health care costs.

Table 2: Attrition and Sensitivity Analyses For Intrapartum and Maternal Health Care Costs among Commercial Beneficiaries, 2010

Commercial	1) Women with a **live** birth in 2010		2) Women with a live birth in 2010 and **continuous enrollment**		3) Women with a live birth in 2010 and in a **fee-for-service plan**		4) Women with a live birth and continuous enrollment through fee-for-service plan **(includes exclusion from columns 3 and 4 together)**		5) Women with a live birth in 2010 and continuous enrollment and an **employer-insured** and fee-for-service plan and **RX and age= 15-45**		6) Women with a live birth in 2010 and all exclusions and **outliers removal**	
N	362,992		226,028		304,707		177,640		68,535		67,977	
Vaginal-N (%)	253,055	70%	158,913	70%	211,965	70%	124,603	70%	52,160	76%	51,936	76%
Cesarean Section-N (%)	109,937	30%	67,115	30%	92,742	30%	53,037	30%	16,375	24%	16,041	24%
	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth
Average Intrapartum Costs												
Provider Charges	$16,301	$26,719	$16,364	$27,184	$16,397	$26,564	$16,518	$26,963	$16,417	$25,978	$16,165	$24,572
Allowed Paid Amount	$8,890	$13,222	$8,986	$13,532	$8,845	$12,972	$8,944	$13,195	$9,127	$13,288	$9,048	$12,739
Insurer Payments	$7,773	$11,818	$7,948	$12,220	$7,659	$11,522	$7,816	$11,809	$8,002	$11,931	$7,921	$11,375
Out-of-Pocket Payments	$1,013	$1,247	$955	$1,186	$1,120	$1,375	$1,074	$1,330	$1,036	$1,238	$1,038	$1,246
Third-Party Payments	$69	$94	$55	$79	$75	$98	$60	$82	$87	$111	$87	$113
Average Maternal Costs												
Provider Charges	$22,294	$34,772	$22,974	$35,968	$22,510	$34,741	$23,311	$35,939	$23,478	$34,669	$22,734	$32,062
Allowed Paid Amount	$11,925	$17,185	$12,348	$17,894	$11,909	$16,954	$12,354	$17,585	$12,832	$17,808	$12,520	$16,673
Insurer Payments	$10,263	$15,126	$10,736	$15,893	$10,128	$14,800	$10,586	$15,446	$11,030	$15,694	$10,726	$14,588
Out-of-Pocket Payments	$1,532	$1,869	$1,504	$1,841	$1,695	$2,059	$1,695	$2,060	$1,693	$1,966	$1,686	$1,948
Third-Party Payments	$86	$114	$69	$99	$93	$120	$76	$105	$107	$134	$107	$132

Table 3 shows the attrition and sensitivity analyses for women in the Medicaid databases before and after all data exclusions. The exclusions had minimal impact on the childbirth type distribution, but certain exclusions increased costs more dramatically. The continuous enrollment (column 2 vs. column 1) exclusion increased intrapartum Medicaid payments by three or four percent across both childbirth types. The charges and allowed payment for intrapartum care decreased by three percent to ten percent. In contrast, average total maternal costs increased by four to twenty-three percent for both childbirth types. Similarly, the fee-for-service exclusions dramatically increased average allowed payments and Medicaid payments for intrapartum and total maternal care (increase from 23% to 64%). Overall, the continuous enrollment and the fee-for-service exclusions combined (column 4 vs. column 1) increased intrapartum and maternal care costs (increases from 3% to 64%). The continuous enrollment inclusion could have restricted the population to women in poor medical conditions or with high-risk pregnancies. The fee-for-service exclusions eliminated women with incomplete health care cost information. Out-of-pocket costs are not included in Table 3 because Medicaid beneficiaries do not typically make out-of-pocket payments, which amounted to less than 1% of total payments. Similarly, Medicaid does not typically recover third-party payments.

Table 4 shows the enrollment patterns for women in Medicaid, and it shows that only 25% of women enrolled nine months before their admission date. Over half of all women enrolled in Medicaid seven to nine months before their childbirth admission date.

Table 3: Attrition and Sensitivity Analyses For Intrapartum and Maternal Health Care Costs among Medicaid Beneficiaries, 2010

Medicaid	1) Women with a **live** birth in 2010		2) Women with a live birth in 2010 and **continuous enrollment**		3) Women with a live birth in 2010 and in a **fee-for-service plan**		4) Women with a live birth and continuous enrollment through fee-for-service plan **(includes exclusion from columns 3 and 4 together)**		5) Women with a live birth in 2010 and continuous enrollment and fee-for-service plan and **RX and age= 15-45**		6) Women with a live birth in 2010 and all exclusions and **outliers removal**	
N	201,386		40,334		62,821		7,908		7,333		7,253	
Vaginal-N (%)	141,028	70%	28,423	70%	44,972	72%	5,472	69%	5,124	70%	5,094	70%
Cesarean Section-N (%)	60,358	30%	11,911	30%	17,849	28%	2,436	31%	2,209	30%	2,159	30%
	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth	Vaginal Childbirth	Cesarean Childbirth
Average Intrapartum Costs												
Provider Charges	$12,082	$19,157	$11,516	$17,721	$11,485	$19,719	$12,478	$20,507	$12,737	$21,235	$12,599	$20,680
Allowed Paid Amount	$2,681	$3,970	$2,568	$3,893	$4,389	$6,621	$3,298	$4,606	$3,367	$4,746	$3,347	$4,655
Medicaid Payments	$2,397	$3,529	$2,474	$3,689	$3,692	$5,506	$3,181	$4,355	$3,323	$4,697	$3,303	$4,604
Average Maternal Costs												
Provider Charges	$18,052	$26,657	$20,302	$28,453	$15,149	$24,693	$21,361	$32,073	$21,848	$33,159	$21,247	$31,259
Allowed Paid Amount	$3,995	$5,541	$4,596	$6,361	$5,780	$8,354	$6,124	$8,085	$6,266	$8,394	$6,117	$7,983
Medicaid Payments	$3,612	$4,995	$4,440	$6,081	$4,837	$6,974	$5,929	$7,725	$6,199	$8,320	$6,053	$7,908

Table 4: Medicaid Enrollment Patterns for Women with a Birth in 2010

	Vaginal Childbirth	% of	Cesarean Childbirth	%	Total	% of Total
First enrolled same month as childbirth admission date	20,057	71%	8,141	29%	28,198	13%
First enrolled 1 month before childbirth admission date	4,505	68%	2,159	32%	6,664	3%
First enrolled 2 months before childbirth admission date	5,473	71%	2,262	29%	7,735	4%
First enrolled 3 months before childbirth admission date	6,662	70%	2,799	30%	9,461	5%
First enrolled 4 months before childbirth admission date	7,697	69%	3,424	31%	11,121	5%
First enrolled 5 months before childbirth admission date	9,042	69%	4,019	31%	13,061	6%
First enrolled 6 months before childbirth admission date	12,205	68%	5,693	32%	17,898	9%
First enrolled 7 months before childbirth admission date	23,306	68%	11,101	32%	34,407	16%
First enrolled 8 months before childbirth admission date	18,664	68%	8,796	32%	27,460	13%
First enrolled 9 months before childbirth admission date	36,426	69%	16,488	31%	52,914	25%
Total	144,037	69%	64,882	31%	208,919	100%

Table 5 below shows that there were fewer live newborns born in 2010 than live births among women in 2010 identified in both the Commercial and Medicaid database, for several reasons. First, we excluded newborns whose record indicated they were a multiple birth because all cost and utilizations data was listed in one record and therefore, did not accurately capture average costs. Many, but not all, mothers and newborns were linked in the database. For example, a newborn may be covered under a different payer than the mother (e.g., under the father's insurance). In Medicaid, the mother may not have the required 12 months of Medicaid enrollment to be included in the study. In addition, a newborn who died within three months of birth will not have met the enrollment inclusion criterion. Given these circumstances, mothers and newborns were identified and analyzed independently.

Table 5: Attrition Analyses for Newborn Commercial and Medicaid Beneficiaries

Commercial	Single Live Newborns in 2010	Single Live Newborns in 2010 and **continuous enrollment**	Single Live Newborns in 2010 and in a **fee-for-service plan**	Single Live Newborns and continuous enrollment through fee-for-service plan **(includes exclusion from columns 3 and 4 together)**	Single Live Newborns and continuous enrollment through an **employer-insured** and fee-for-service plan and **RX** in 2010	Single Live Newborns and all exclusions and outliers removal in 2010
N (%)	246,037	154,894	213,824	130,750	45,056	44,621
Vaginal	169,620 (68.94)	106,821 (68.96)	147,335 (68.90)	90,232 (69.01)	30,705 (68.15)	30,453 (68.25)
Cesarean Section	76,417 (31.06)	48,073 (31.04)	66,489 (31.10)	40,518 (30.99)	14,351 (31.85)	14,168 (31.75)

Medicaid	Single Live Newborns in 2010	Single Live Newborns in 2010 and **continuous enrollment**	Single Live Newborns in 2010 and in a **fee-for-service plan**	Single Live Newborns and continuous enrollment through fee-for-service plan **(includes exclusion from columns 3 and 4 together)**	Single Live Newborns and continuous enrollment and fee-for-service plan and RX in 2010	Single Live Newborns and all exclusions and outliers removal in 2010
N (%)	185,416	169,253	56,919	40,188	40,187	39,991
Vaginal	135,955 (73.32)	124,168 (73.36)	42,151 (74.05)	29,850 (74.28)	29,849 (74.28)	29,764 (74.43)
Cesarean Section	49,461 (26.68)	45,085 (26.64)	14,768 (25.95)	10,338 (25.72)	10,338 (25.72)	10,227 (25.57)

ANALYSES

Using the 2009-2011 *MarketScan* Commercial and Medicaid databases, we identified all maternity-related services provided in a 9-month prenatal period, the childbirth hospitalization, and the 3-month postpartum period. Maternity-related services identified across all three maternity phases are defined as shown in Appendix F (Maternity-Related Service Codes); they capture medical services related to maternity and exclude medical services for unrelated but co-occurring medical conditions. Newborn services included the newborn hospitalization (when a separate hospital claim was generated for the newborn) and the first 3-months of newborn care. The birth of a newborn sometimes results in one hospital claim, with newborn billing included in mothers' billing. In order to keep the method of patient selection consistent with the previous maternity study, we estimated the cost of birth from the maternal birth claim.

Services were categorized based on a combination of claim type (facility vs. professional), service setting, procedure code, revenue code and provider specialty. We aggregated and calculated average provider charges and total payments. Total average payments were decomposed to average health-plan payments, patients' out-of-pocket payments, and third-party payments. We summarized all charges and payments within the following service categories:

- Facility
- Professional Service Fees (maternal costs only)
- Professional Anesthesiology Fees (maternal costs only)
- Laboratory
- Radiology/Imaging
- Outpatient Drug Costs (total drug costs in 12-month analysis window)

Population weights were developed based on age, sex, and region strata in the 2010 Medical Expenditure Panel Survey (MEPS) Database, and were applied to the *MarketScan* analysis results to enable generalizations to the national U.S. employer-sponsored insured population (N=157 million). Because the Medicaid database represented a small convenience sample of 7 states and 5 Medicaid managed care plans, the results were not weighted to the national Medicaid population. The results are partitioned into three major sections. The first major section presents highlights from the maternal costs analyses, while the second section highlights findings from the newborn care analyses, and the third presents total maternity care costs inclusive of maternal and newborn care. Please refer to Appendix B and Appendix C for a complete set of findings for Commercial and Medicaid beneficiaries, respectively.

SUMMARIZING COSTS

The *MarketScan* databases include only fully adjudicated and paid claims. Claims that were denied or pending were not included in this study. We reported "costs" as the average amount charged by facility (i.e., hospitals and other facilities) or professional providers (i.e., physicians, midwives, nurse practitioners, and other providers) and the average allowed payment (or average payments) to such providers. The *MarketScan* payment variable represents the total cost to the payer, which is typically discounted from providers' charges and excludes patient out-of-pocket expenditures. For the Commercial population, the average amount paid was further broken-out as the average health-plan payment, average patient out-of-pocket payments, and average third-party payments. Out-of-pocket payments included the amount paid by patients to meet deductible requirements, patient coinsurance, and co-payments. For the commercial data, third-party payments represent payments made by someone other than the beneficiary or insurer such as a union or employer. Third-party payments accounted for less than one percent of the average payments in the Commercial data. Because out-of-pocket fees are typically not required of Medicaid beneficiaries (this study showed <1% of total payments were classified as out-of-pocket) and Medicaid does not typically recover third-party payments, we report only charges and allowed payments for Medicaid. Cases having total maternity-related charges of less than a dollar or greater than $85,000 were considered outliers and excluded from the analysis. For the newborn costs analyses, cases having total newborn care charges of less than dollar or greater than $500,000 were considered outliers and excluded from the analysis. The outlier threshold was set higher for the newborn costs analysis because newborns admitted into the neonatal intensive care unit were concentrated at the higher end of the cost distribution and would have been disproportionately excluded from the analysis.

LIMITATIONS

This study was based on convenience samples of the commercially insured and Medicaid populations. While *MarketScan* Commercial provides a robust population of individuals from all states, it represents primarily individuals with insurance from large, self-insured employers with greater concentrations of beneficiaries in the South and North Central regions of the United States. Population weights based on the MEPS national estimates were applied to generalize these estimates to the national population of individuals with employer-sponsored insurance. *MarketScan* Medicaid represented 7 states and 5 Medicaid managed care plans for the 2009-2011 data period. Truven cannot disclose the identities of these states. Because of the small number of states and because state Medicaid populations and benefits vary widely, no weighting was applied to generalize the Medicaid results to a national population.

The study period was selected based on a typical gestation period. It is possible, particularly for the Medicaid population, that not all women received nine months of prenatal care. The continuous enrollment inclusion criteria are set in place to capture all services in the claims data; however, this approach biases the study against women who were not insured until the second month of pregnancy or beyond.

Several components of this study did not come to fruition due to a few data limitations. First, labor induction costs are not presented because the inpatient birth claim does not adequately distinguish labor inductions. While such procedure codes are available, they are not reimbursed separately from the birth and therefore under-coded. After consulting with medical experts and referring to the literature on this topic, the rate of labor inductions identified in this study was considered too low to report.

Another issue to consider deals with the pregnancy-related pharmacy costs. Two types of pharmacy costs were calculated in this study. One set of costs aggregates and calculates the average for all pharmacy expenditures dispensed to women over the entire maternal period (prenatal and postpartum). The second set of costs only includes medications used by pregnant women in the nine-month prenatal period identified using the Medical Episode Grouper (MEG) for

women with a live birth in 2010. It should be noted that using the MEG logic, the majority of drugs are categorized as pregnancy-related, meaning that there is a great deal of overlap in the list of drugs used to calculate maternal-related and pregnancy-related pharmacy costs. We believe pregnancy-related pharmacy costs are overestimated. Without a diagnosis on a drug claim, there is no systematic way to determine if a drug was truly pregnancy-related. These results should be interpreted with caution.

Average total maternity care costs were estimated by adding average maternal and newborn costs. The total maternity cost estimates, however, need to be interpreted with caution for several reasons. First, mothers and newborns were identified and analyzed independently. This study includes linked mothers and newborns, unlinked mothers, and unlinked newborns. This strategy was selected in order to make maximum use of the data and this made the analyses of Medicaid costs possible. It is probable that linked mothers and newborns are selectively different from unlinked mothers and newborns. Second, the newborn costs include three months worth of newborn care. In addition, it could be argued that newborn care should not be considered as maternity care. Third, maternal and newborn costs are dependent phenomena and could be highly correlated. While average maternity costs at the highest possible level are presented in this report, further analyses could not be carried out without exploring the potential dependence and correlations issues in this population.

Finally, these results cannot be generalized to women with policies in the individual market and to women who give birth in freestanding birth centers or at home.

MATERNAL COST ANALYSES

Because costs associated with pregnancy were calculated for each individual phase and were then combined, this section lays out the overall maternal costs first and then drills down to the results for each phase. This section includes a discussion of the following:

- Average total maternal costs by childbirth type in Commercial and Medicaid;
- A breakdown of average total maternal costs according to payer and type of service payments by childbirth type in Commercial and Medicaid;
- A breakdown of average total costs according to phase of care and type of service payments within each phase by childbirth type in Commercial and Medicaid; and
- Average total maternal costs for selected U.S. states by childbirth type in Commercial.

In 2010, 67,977 women in the Commercial databases and 7,253 women in Medicaid met the population selection and exclusions criteria.

AVERAGE TOTAL MATERNAL COSTS

Average total maternal charges were approximately 30% lower for vaginal childbirths when compared to cesarean childbirths for both Commercial and Medicaid payers. Table 6 also shows that in Commercial, total average payments for vaginal childbirths were $12,520 and for cesarean childbirths were $16,673. In Medicaid, average payments for vaginal childbirths were $ 6,117 and for cesarean childbirths were $7,983. Average payments for vaginal childbirths were approximately 25% lower when compared to average payments for cesarean childbirths in both Commercial fee-for-service plans and Medicaid. For both types of birth, Commercial insurers paid about 100% more than Medicaid.

Table 6: Average Total Maternal Health Care Charges and Payments among Commercial and Medicaid Beneficiaries, 2010

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Provider Charges	$24,921	$22,734	$32,062
Allowed Paid Amount	$13,494	$12,520	$16,673
Medicaid			
Provider Charges	$24,227	$21,247	$31,259
Allowed Paid Amount	$6,673	$6,117	$7,983

Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period.

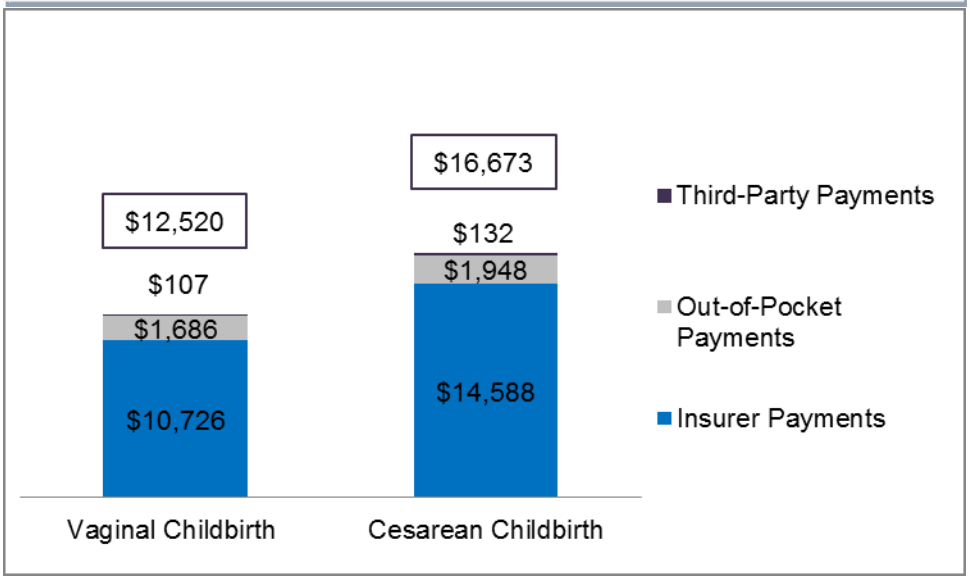
SOURCE OF PAYMENT AND TYPE OF SERVICE ANALYSES

Commercial

Figure 1 shows the breakdown of average allowed payments for all maternal care in Commercial. Although the average payments were approximately $4,100 higher for cesarean when compared to vaginal childbirths, over 86% of the total

average allowed payment consists of the average insurer or third party administrator payments for vaginal and cesarean childbirths. The remaining portions of the average payments were primarily patient out-of-pocket costs for both vaginal and cesarean childbirths (13% and 12%, respectively). Third-party payments (i.e., payments made by someone other than the beneficiary or insurer such as a union or employer) account for less than one percent of the average payments.

Figure 1: Average Total Maternal Health Care Payments by Payment Source among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010

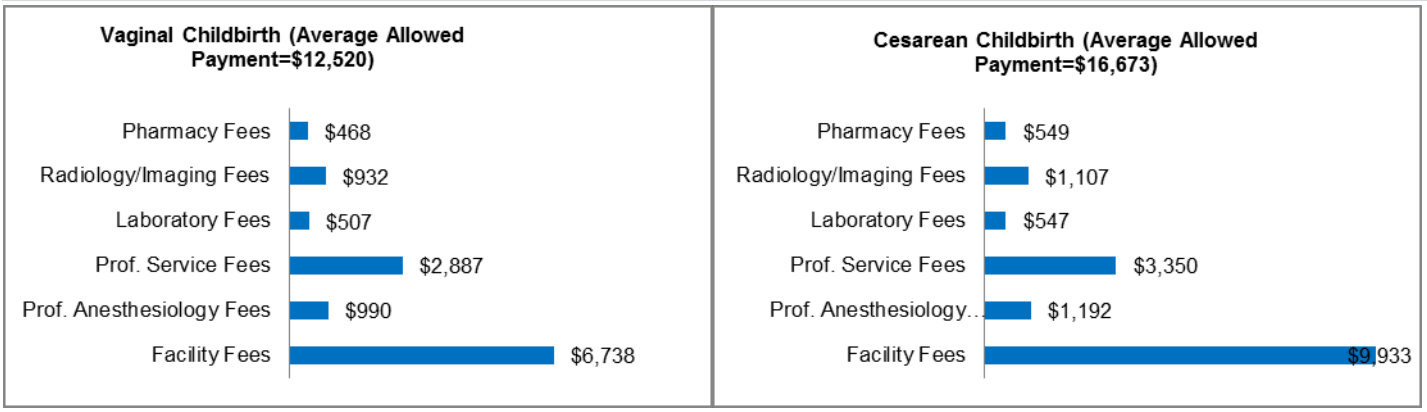


Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across payers may not add up to exactly to the total average allowed payment.

Next, Figure 2 shows the proportion of the average allowed payments for maternal care distributed to cover facility fees, professional anesthesiology service fees, other professional service fees, laboratory fees, radiology/imaging fees, and pharmacy fees. A majority of average allowed payments consisted of facility fees, but a higher proportion of the average payments for cesarean childbirths covered facility fees when compared to vaginal childbirths (60% and 54%, respectively). Approximately, one-fifth of average payments for both types of childbirths consisted of professional services (not recorded as facility claims) such as office or other outpatient visits, surgical procedures, hydration, therapeutic, prophylactic, diagnostic injections and infusions, etc. Professional anesthesiology fees, laboratory fees, radiology/imaging fees, and pharmaceutical fees all individually accounted for three to eight percent of the total average allowed payments.

For both vaginal and cesarean childbirths, average payments for pharmacy (for combined maternity and non-maternal related prescriptions) represented less than five percent of total average payments ($468 and $549, respectively). Maternity-related pharmacy costs represented an even smaller portion of total average payments. The average allowed payments for maternity-related pharmacy cost were $169 for vaginal childbirths and $189 for cesarean childbirths (see Table 22 in Appendix B).

Figure 2: Average Total Maternal Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010

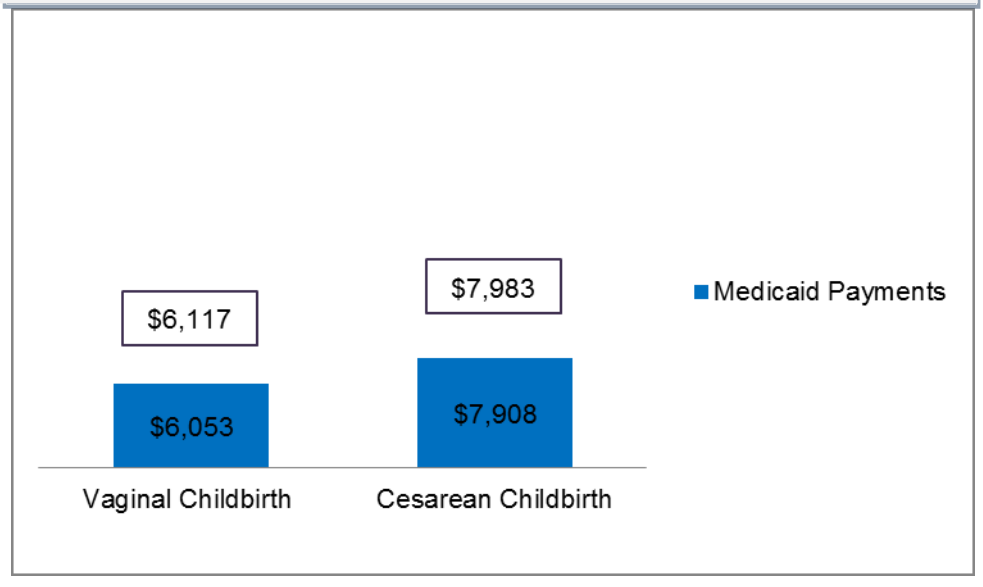


Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Medicaid

Average maternal payments were approximately $1,800 higher for cesarean childbirths when compared to vaginal childbirths in Medicaid. Figure 3 also shows that Medicaid covered almost the entire average total allowed payment. This was the case for both vaginal and cesarean childbirths. As stated in the data and methods section, out-of-pocket payments represented less than one percent and are too small to show in the graphs below. This accounts for the difference between average total allowed payments and Medicaid payments.

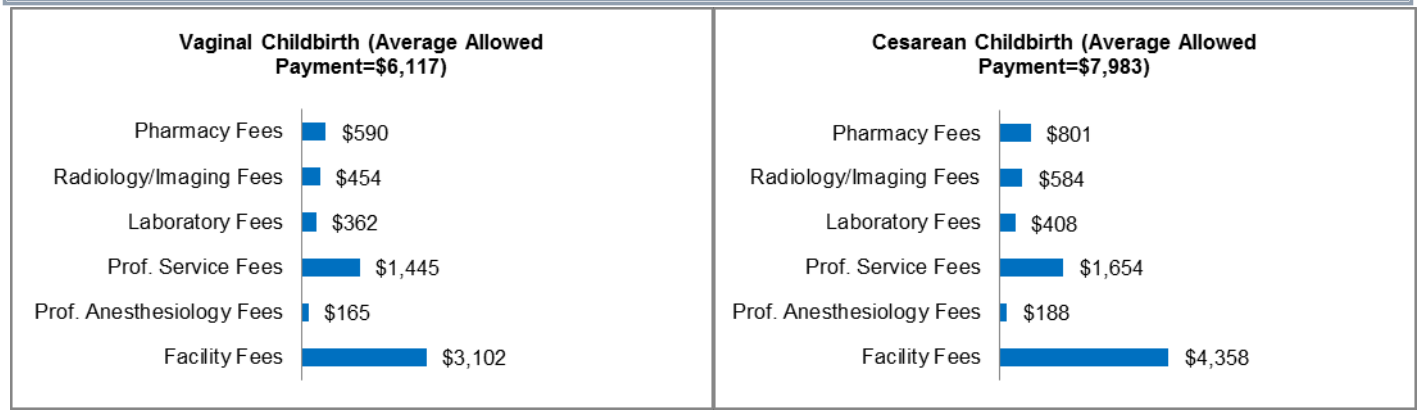
Figure 3: Average Total Maternal Health Care Payments by Payment Source among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across payers may not add up to exactly the total average allowed payment.

Figure 4 shows the proportion of the average allowed payments for maternal care covering facility fees, professional anesthesiology service fees, professional service fees, laboratory fees, radiology/imaging fees, and pharmacy fees. The results presented here mirror the results observed in the Commercial data. More than half of average allowed payments consisted of facility fees with 55% of the average payments for cesarean childbirths covering facility fees compared to 51% for vaginal childbirths. The next largest category of average payments goes towards other professional fees that consisted of office or other outpatient visits, prenatal at-risk-assessments, surgical procedures, hydration, therapeutic, prophylactic, diagnostic injections and infusions, etc. Laboratory fees, radiology/imaging fee, and pharmaceutical fees all individually account for two to ten percent of the total average payments.

Figure 4: Average Total Maternal Health Care Payments by Type of Service among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

For both vaginal and cesarean childbirths, average payments for pharmacy (for combined maternity and non-maternity related prescriptions) represented 10% of total average payments ($590 and $801, respectively). Here too, maternity-related pharmacy costs represent an even smaller portion of total average payments. The average allowed payments for maternity-related pharmacy cost were $178 for vaginal childbirths and $244 for cesarean childbirths (see Table 48 in Appendix B).

PHASE OF CARE ANALYSES

Thusfar, this study showed that costs are on average higher for cesarean childbirths when compared to vaginal childbirths across the two payers. The insurer or Medicaid paid large portions of the total average payments resulting in out-of-pocket-costs being minimal. In addition, more than three-quarters of total average payments covered facility fees or professional service fees and this finding was consistent across childbirth type and held for both Commercial and Medicaid.

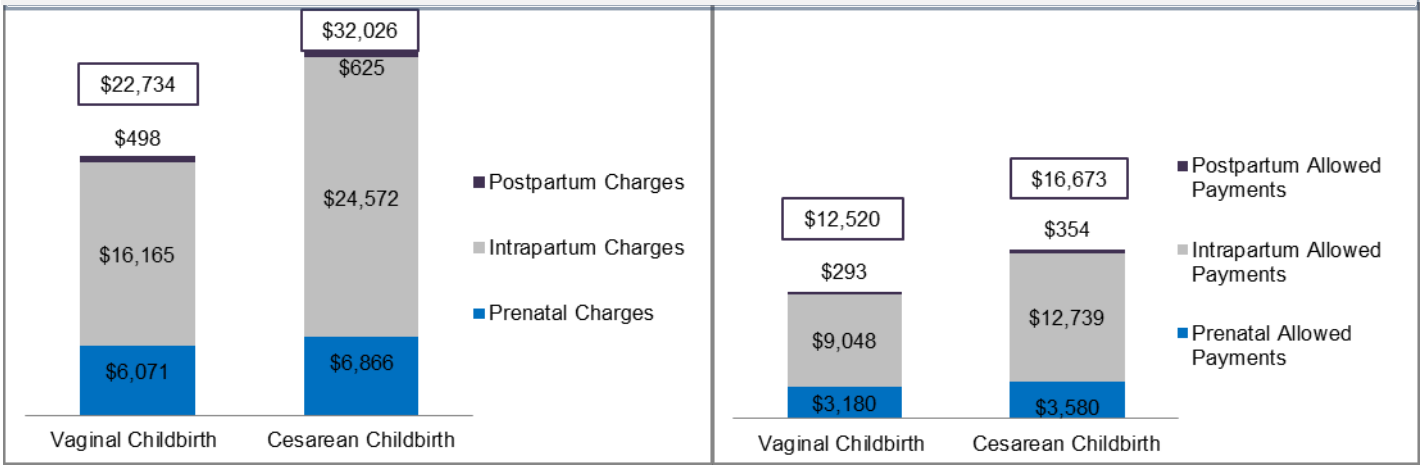
In this section, total average maternal costs are examined according to phase of care (prenatal, intrapartum and post-partum) and type of service payments within each phase by childbirth type in Commercial and Medicaid. Since this section only discusses the highlights of the analyses, Appendices A and B show the full set of results in table format.

Commercial

Figure 5 illustrates that when total average charges and allowed payments are examined by phase of care, over 70% of both costs cover intrapartum care. Both the intrapartum and prenatal average costs make up 98% of the total average

costs for charges and payments. These findings were consistent for vaginal and cesarean childbirths. Average allowed payments were between 10% and 30% lower for vaginal childbirths when compared to cesarean childbirths.

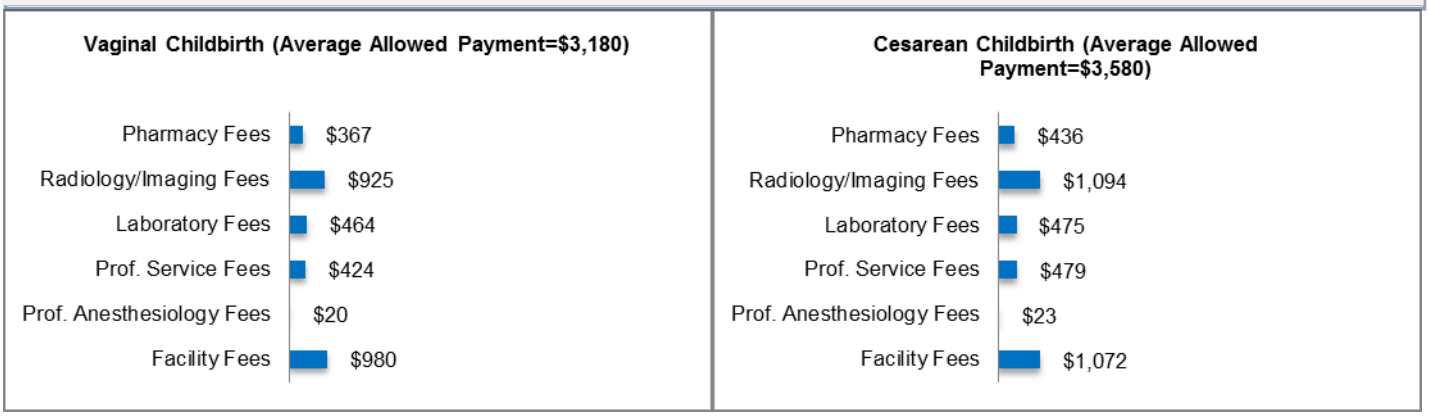
Figure 5: Average Total Maternal Health Care Charges and Payments by Phase of Care among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Due to rounding, the sum of average charges and allowed payments may not add up to exactly to total average charges or allowed payments, respectively.

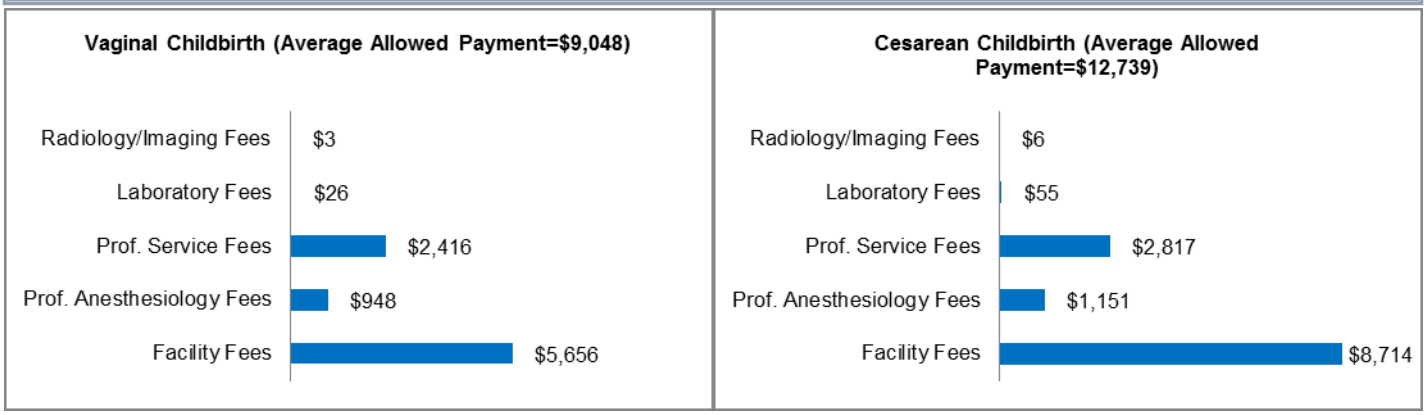
Figures 6 and 7 below show the proportion of the average allowed maternal payment attributed to each service for the prenatal and intrapartum periods. Approximately, a third of prenatal average payments covered facility fees or radiology/imaging service fees. Overall, the prenatal average payments and the service proportions for prenatal costs look very similar for both types of childbirths. Figure 7 shows that average payments for intrapartum care are restricted to facility fees, professional anesthesiology fees, and professional service fees. A higher proportion of average payments for cesarean childbirths covered facility fees, while a higher proportion of average payments for vaginal childbirths covered professional services fees.

Figure 6: Average Maternal Prenatal Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Due to rounding, the sum of average allowed payments across categories may not add up to exactly the total average allowed payment.

Figure 7: Average Maternal Intrapartum Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010

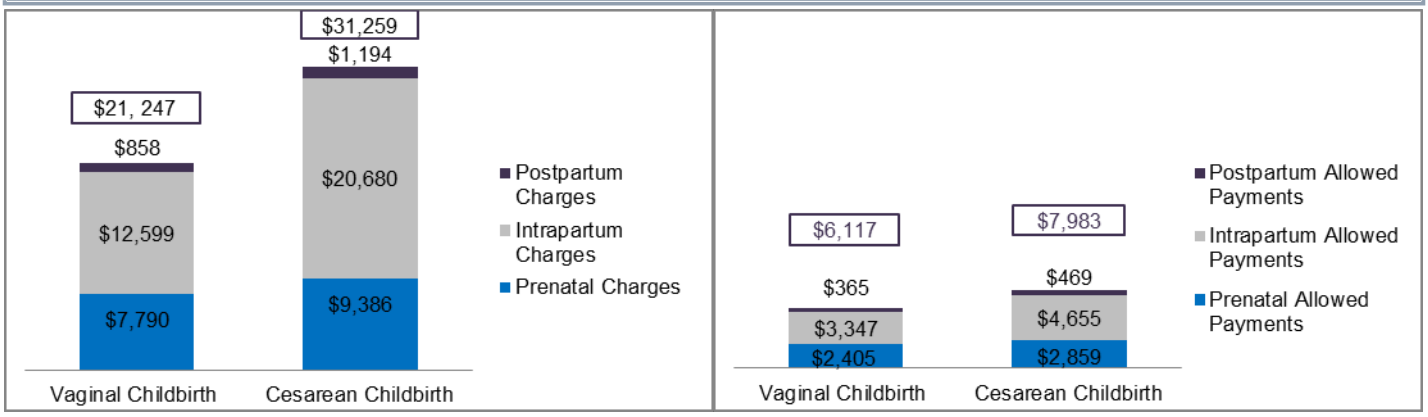


Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Due to rounding, the sum of average allowed payments across categories may not add up to exactly the total average allowed payment.

Medicaid

Figure 8 illustrates that when total average maternal charges and allowed payments are examined by phase of care, 60% or more of the charges and 55% or more of the payments were for intrapartum care (depending on the childbirth type) in Medicaid. Both intrapartum and prenatal average costs made up over 90% of the total average costs for charges and payments. These findings were consistent for vaginal and cesarean childbirths. Average allowed payments were between 20% and 30% lower for vaginal childbirths when compared to cesarean childbirths.

Figure 8: Average Total Maternal Health Care Charges and Payments by Phase of Care among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010

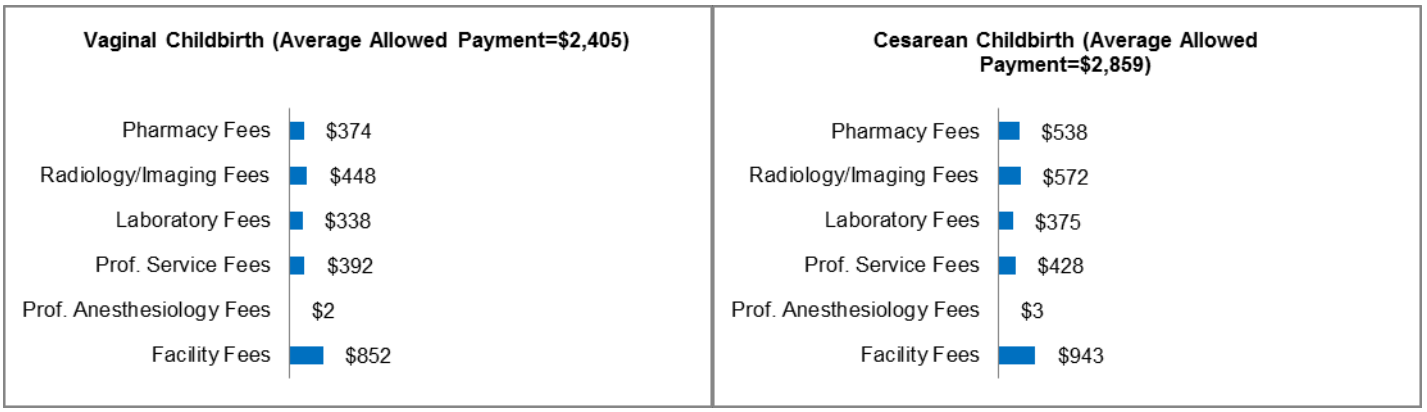


Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Due to rounding, the sum of average charges and allowed payments may not add up to exactly to total average charges or allowed payments, respectively.

Figures 9 and 10 below show the proportion of the average allowed maternal payment attributed to each service for the prenatal and intrapartum periods of a pregnancy. Overall, the prenatal average payments and the service proportions for

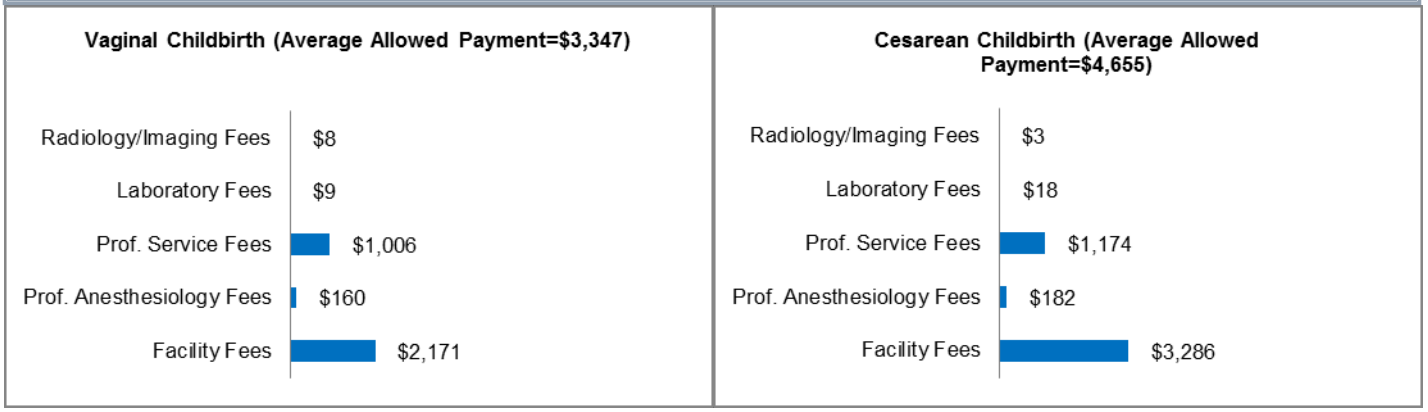
prenatal costs look very similar for both types of childbirth. Approximately, a third of prenatal average payments covered facility fees. The next largest distribution of average payments covered radiology/imaging fees followed by pharmacy fees, professional services fees, and laboratory fees. Figure 10 shows that average payments for the intrapartum period are restricted to facility fees and professional service fees. A higher proportion of average payments for cesarean childbirths covered facility fees, while a higher proportion of average payments for vaginal childbirths covered professional services fees.

Figure 9: Average Maternal Prenatal Health Care Payments by Type of Service among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Figure 10: Average Maternal Intrapartum Health Care Payments by Type of Service among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

AVERAGE TOTAL MATERNAL COSTS FOR SELECTED STATES

Table 7 shows average total maternal health care costs for selected states, in comparison with corresponding national averages, using the commercial data. Results for Medicaid were not provided because we cannot release the identity of the contributing states. We found a large spread across five selected states in average total maternal care costs for

women with employer-provided Commercial insurance in 2010 ranging from Louisiana, which had maternal payments of $10,318 for vaginal births and $13,943 for cesarean births to Massachusetts, which had maternal payments of $16,888 for vaginal births and $20,620 for cesarean births (Table 2). Service cost breakdowns for all five states are provided in Tables 24 through 33 in Appendix B.

Table 7: Average Total Maternal-Newborn Health Care Charges and Payments at National Level and in Selected States among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010

	Vaginal Childbirth	Cesarean Childbirth
National		
Provider Charges	$22,734	$32,062
Allowed Paid Amount	$12,520	$16,673
California		
Provider Charges	$29,093	$43,173
Allowed Paid Amount	$15,259	$21,307
Illinois		
Provider Charges	$22,262	$31,499
Allowed Paid Amount	$11,692	$15,602
Louisiana		
Provider Charges	$20,352	$28,561
Allowed Paid Amount	$10,318	$13,943
Massachusetts		
Provider Charges	$27,496	$33,140
Allowed Paid Amount	$16,888	$20,620
Minnesota		
Provider Charges	$18,725	$27,279
Allowed Paid Amount	$12,130	$17,109

Note: National Commercial results are weighted to reflect the national employer-sponsored insurance population. Commercial results for select states are not weighted.

NEWBORN CARE COST ANALYSES

Newborn care costs capture the cost of care from birth to care provided through the first three months of life following the hospital discharge. This section includes a discussion of the following:

1. Total average newborn care costs by childbirth type in Commercial and Medicaid;
2. A breakdown of total average newborn costs according to payer and type of service payments by childbirth type in Commercial and Medicaid; and
3. Total average newborn care costs for babies admitted into the intensive care unit by childbirth type in Commercial and Medicaid.

In 2010, 44,621 newborns in the Commercial databases and 39,991 newborns in Medicaid met the population selection and exclusions criteria.

TOTAL AVERAGE NEWBORN CARE COSTS

Total average charges were over 50% lower for newborns from vaginal childbirths when compared to newborns from cesarean childbirths in both systems of care. Table 8 shows that in Commercial, total average payments were $11,193 for newborns from cesarean childbirths and $5,809 for newborns from vaginal childbirths. In Medicaid, average payments were $5,607 for newborns from cesarean childbirths and $3,014 for newborns from vaginal childbirths. Average payments for vaginal delivered newborns were approximately 48% and 46% lower when compared to average payments for cesarean delivered newborns in both Commercial fee-for-service plans and Medicaid, respectively.

Table 8: Average Total Newborn Health Care Charges and Payments Covering Care at Birth and In the First Three Months of Life among Commercial and Medicaid Beneficiaries Following Vaginal and Cesarean Births, 2010

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Provider Charges	$12,419	$9,359	$19,063
Allowed Paid Amount	$7,507	$5,809	$11,193
Medicaid			
Provider Charges	$11,254	$8,553	$19,114
Allowed Paid Amount	$3,677	$3,014	$5,607

Note: Commercial results are weighted to reflect the national employer-sponsored insurance population.

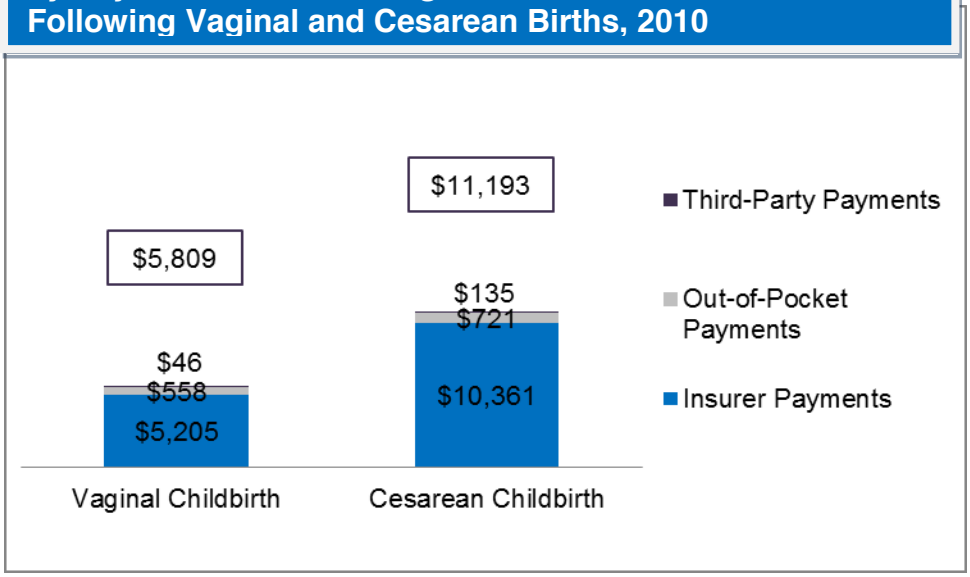
SOURCE OF PAYMENT, TYPE OF SERVICE, AND NICU ANALYSES

Commercial

Figure 11 shows the breakdown of average allowed newborn payments in Commercial for newborn care. Although the average payments were approximately $5,300 higher for newborns from cesarean childbirths when compared to newborns from vaginal childbirths, approximately 90% of the total average allowed payment consists of the average

insurer or third party administrator payments for both vaginal and cesarean childbirths. Remaining portions of the average payments are primarily patient out-of-pocket costs for both vaginal and cesarean childbirths (10% and 6%, respectively).

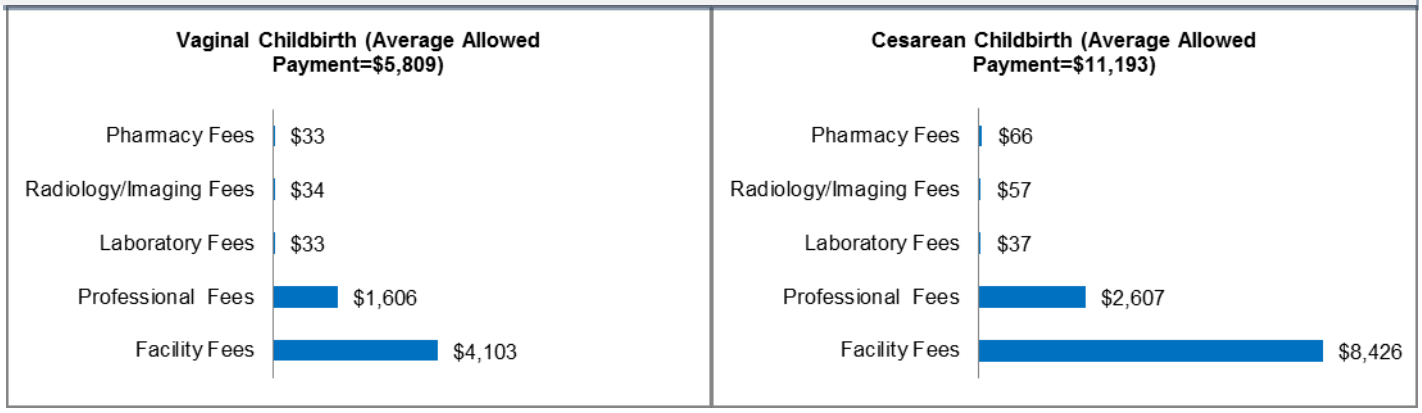
Figure 11: Average Total Newborn Health Care Payments Covering Care at Birth and In the First Three Months of Life by Payment Source among Commercial Beneficiaries Following Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Due to rounding, the sum of average payments across payers may not add up to exactly to the total average allowed payment.

Figure 12 shows that a majority of the total average newborn payments were facility fees. A slightly higher proportion of the average payments calculated for newborns from cesarean childbirths covered facility fees when compared to newborns from vaginal childbirths (75% and 71%, respectively). Approximately, a quarter of average payments for both types of childbirths were for professional services, which consisted of office or other outpatient visits, vaccines, immunizations, circumcisions, etc.

Figure 12: Average Total Newborn Health Care Payments Covering Care at Birth and In the First Three Months of Life by Type of Service among Commercial Beneficiaries Following Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Small proportions of newborns delivered in 2010 had an admission into an intensive care unit around the time of childbirth or within the first three months of being born. Approximately, six percent (1,917) of newborns from vaginal childbirths and 13% (1,859) of newborns from cesarean childbirths entered an intensive care unit one or more times. Table 9 shows that newborn costs for this small group of newborns were significantly higher than average commercial costs for all newborns shown in Table 8. Among newborns with one or more admission to the intensive care unit, total average charges and payments for all care rendered during the admission were approximately a third less for newborns from vaginal childbirths compared to newborns from cesarean childbirths. For example, total average allowed payments for newborns that required an intensive care admission were $32,595 for newborns from vaginal childbirths and $47,429 for newborns from cesarean childbirths. The insurer paid approximately 95% of the total average payments and out-of-pockets payment were less than five percent for both childbirth types.

Table 9: Average Total Newborn Health Care Charges and Payments Covering Care In the First Three Months of Life among Commercial Beneficiaries with Intensive Care Unit Stays Following Vaginal or Cesarean Births, 2010

Cost Breakdown	Vaginal Childbirth	Cesarean Childbirth
Provider Charges	$54,879	$82,639
Allowed Paid Amount	$32,595	$47,429
Insurer Payments	$30,875	$45,496
Out-of-Pocket Payments	$1,241	$1,351
Third-Party Payments	$468	$735

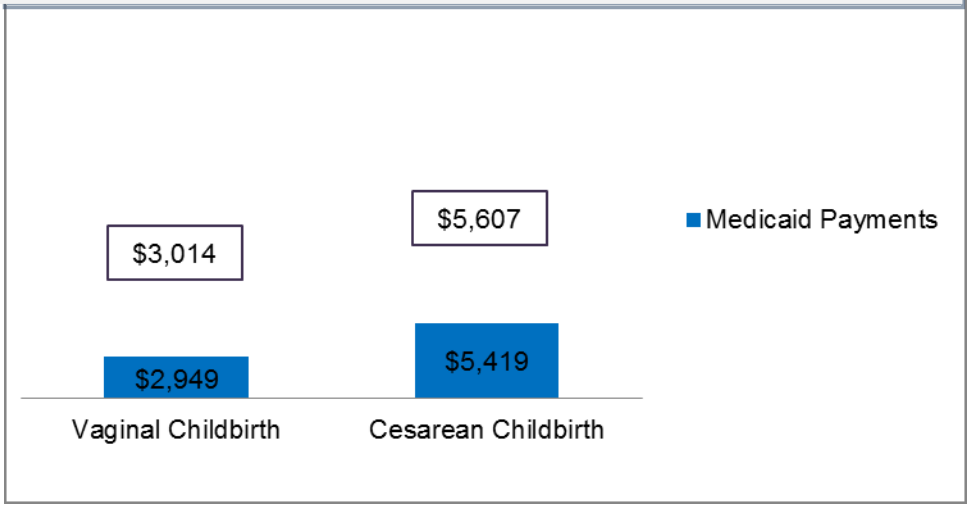
Note: Commercial results are weighted to reflect the national employer-sponsored insurance population.

Appendix B (Table 39) lists the types of health conditions diagnosed and treated during the intensive care admission for vaginal and cesarean delivered newborns.

Medicaid

Figure 13 shows that on average, Medicaid payments were approximately $2,500 higher for newborns from cesarean childbirths when compared to newborns from vaginal childbirths. Similar to the observations made in the maternal cost analyses, Medicaid covered almost the entire total average payment for newborn care. This was the case for both vaginal and cesarean childbirths.

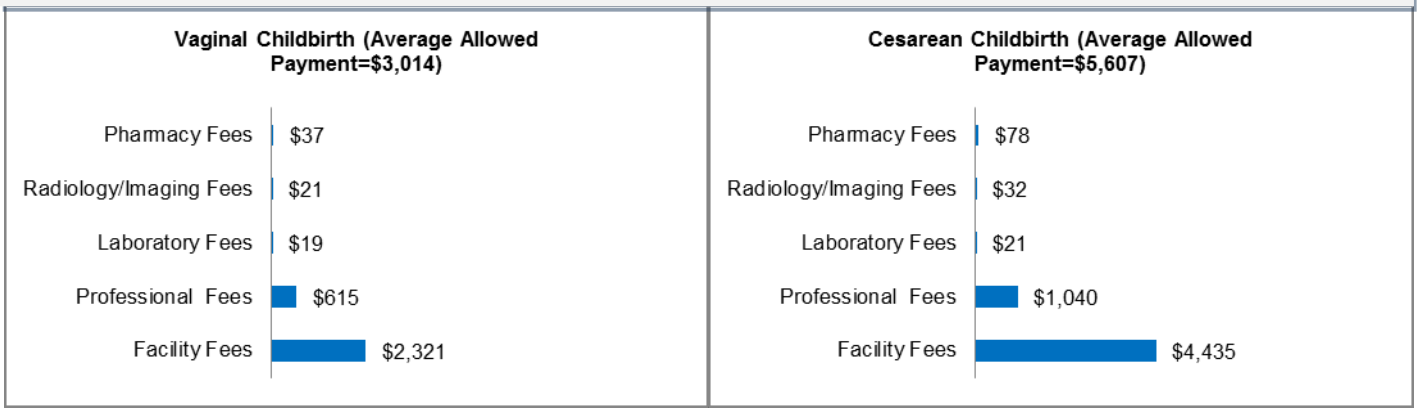
Figure 13: Average Total Newborn Health Care Payments Covering Care at Birth In the First Three Months of Life by Payment Source among Medicaid Beneficiaries Following Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Due to rounding, the sum of average payments across payers may not add up to exactly the total average allowed payment.

Figure 14 is similar to Figure 12, which shows the proportion of the total average allowed payments for newborn care that covered facility fees, professional service fees, laboratory fees, radiology/imaging fees, and pharmacy fees. Here too, a majority of the total average payments were facility fees with a slightly higher proportion of the average payments calculated for newborns from cesarean childbirths covered facility fees when compared to newborns from vaginal childbirths (79% and 77%, respectively). Approximately, a fifth of average payments for both types of childbirths were professional services such as office or other outpatient visits, vaccines, immunizations, circumcisions, etc.

Figure 14: Average Total Newborn Health Care Payments Covering Care at Birth and In the First Three Months of Life by Type of Service among Medicaid Beneficiaries Following Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

In Medicaid, six percent (1,906) of newborns from vaginal childbirths and 14% (1,479) of newborns from cesarean childbirths entered an intensive care unit one or more times during the observation period. Table 10 shows that newborn costs for this small group of newborns were significantly higher than average total costs for all newborns covered by Medicaid, shown in Table 6. Among newborns with one or more admission to the intensive care unit, total average charges and payments for all care rendered during the admission were approximately a third less for newborns from vaginal childbirths compared to newborns from cesarean childbirths. For example, total average allowed payments for newborns that required an intensive care admission were $14,517 for newborns from vaginal childbirths and $20,934 for newborns from cesarean childbirths. Medicaid paid approximately 95% of the total average payments.

Table 10: Average Total Newborn Health Care Charges and Payments Covering Care at Birth and In the First Three Months of Life among Medicaid Beneficiaries with Intensive Care Unit Stays Following Vaginal or Cesarean Births, 2010

Cost Breakdown	Vaginal Childbirth	Cesarean Childbirth
Provider Charges	$58,076	$86,409
Allowed Paid Amount	$14,517	$20,934
Medicaid Payments	$13,875	$19,971

Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population.

Appendix C (Table 55) lists the types of health conditions diagnosed and treated during the intensive care admission for vaginal and cesarean delivered newborns.

TOTAL MATERNITY CARE COST ANALYSES

TOTAL AVERAGE MATERNAL-NEWBORN CARE COSTS

The average total maternal and newborn charges and costs (from the preceding Table 6 and Table 8) were summed to create estimates of the total maternity care charges and costs inclusive of maternal and newborn care. Table 11 shows average total maternity charges and costs estimates for Commercial and Medicaid beneficiaries overall and by childbirth method. Average total maternity charges were approximately 40% lower for vaginal childbirths when compared to cesarean childbirths for both Commercial and Medicaid beneficiaries. Among Commercial beneficiaries, average total maternity care charges were $32,093 for vaginal births and $51,125 for cesarean births. Average total maternity care Commercial payments for vaginal and cesarean childbirths were $18,329 and $27,866, respectively. Average charges to Medicaid were $29,800 for vaginal births and $50,373 for cesarean births. Average total Medicaid maternity payments for vaginal and cesarean childbirths were $ 9,131 and $13,590, respectively. Both Commercial and Medicaid payers paid approximately 100% more for cesarean than vaginal births. For both types of birth, Commercial payers paid approximately 100% more than Medicaid.

Table 11: Average Total Maternal-Newborn Health Care Charges and Payments for Vaginal or Cesarean Births among Commercial and Medicaid Beneficiaries, 2010

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Provider Charges	$37,340	$32,093	$51,125
Allowed Paid Amount	$21,001	$18,329	$27,866
Medicaid			
Provider Charges	$35,481	$29,800	$50,373
Allowed Paid Amount	$10,350	$9,131	$13,590

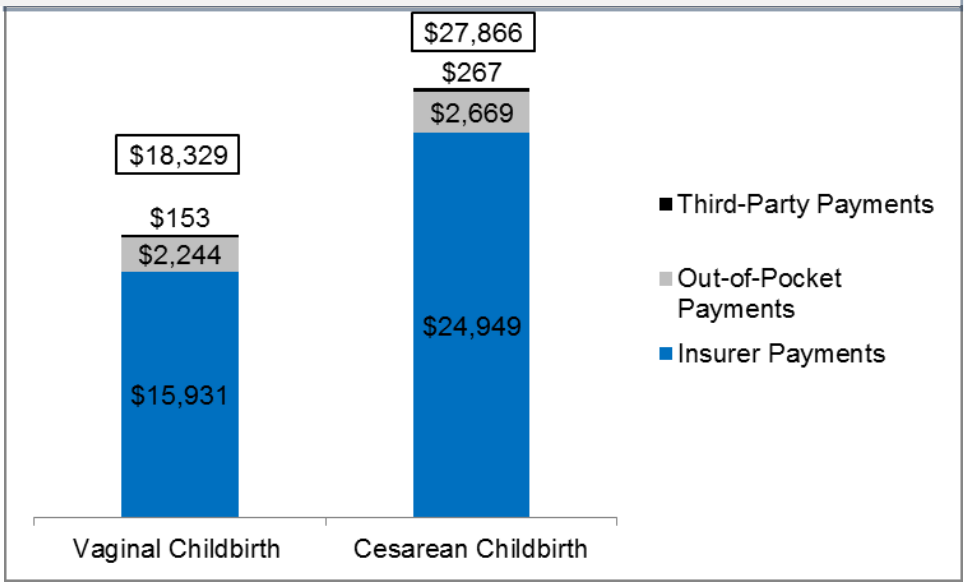
Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include the prenatal, childbirth, and 3-month postpartum period and newborn care from birth through the first three months of life.

SOURCE OF PAYMENT ANALYSES

The study examined the source of payments, which were the primary payer (employer-provided Commercial insurance or Medicaid), a secondary insurer such as a union, and out-of-pocket costs (Figures 15 and 16). Among total maternal-newborn payments for beneficiaries with Commercial insurance and vaginal births, on average the primary insurer paid the largest proportion of costs ($15,931 or 87%), out-of-pocket costs averaged $2,244 (12%), and secondary insurers covered a small portion ($153 or 1%). Among total maternal-newborn payments for beneficiaries with Commercial insurance and cesarean births, on average the primary insurer paid $24,949 (90%), out-of-pocket costs were $2,669 (10%), and secondary insurers paid $267 (1%) (numbers exceed 100% due to rounding).

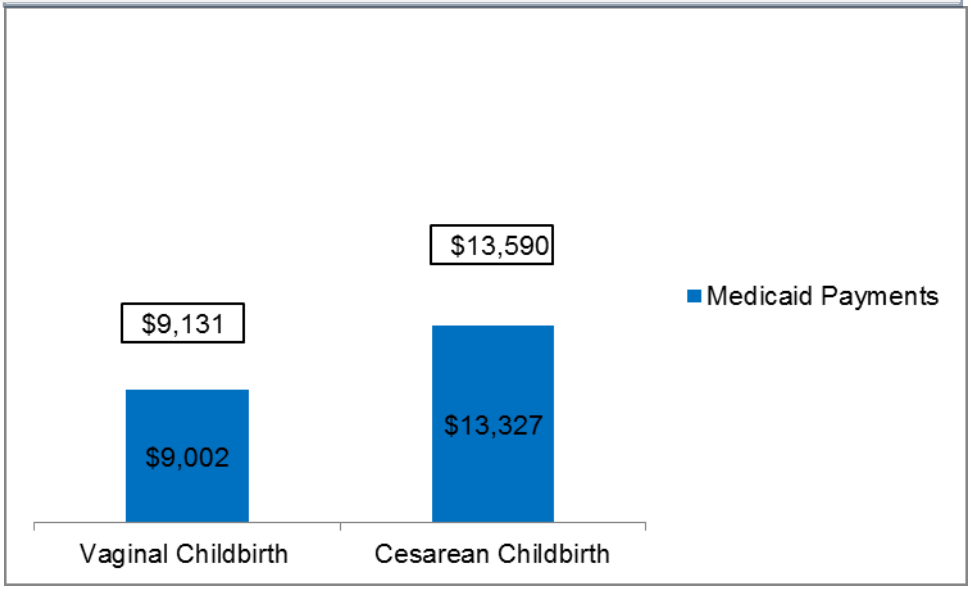
For both vaginal and cesarean births covered by Medicaid (Figure 16), Medicaid paid nearly all costs for vaginal ($9,002 or 99%) and cesarean ($13,327 or 98%) births.

Figure 15: Average Total Maternal-Newborn Health Care Payments by Payment Source among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include the prenatal, childbirth, and 3-month postpartum period and newborn care from birth through the first three months of life.

Figure 16: Average Total Maternal-Newborn Health Care Payments by Payment Source among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010

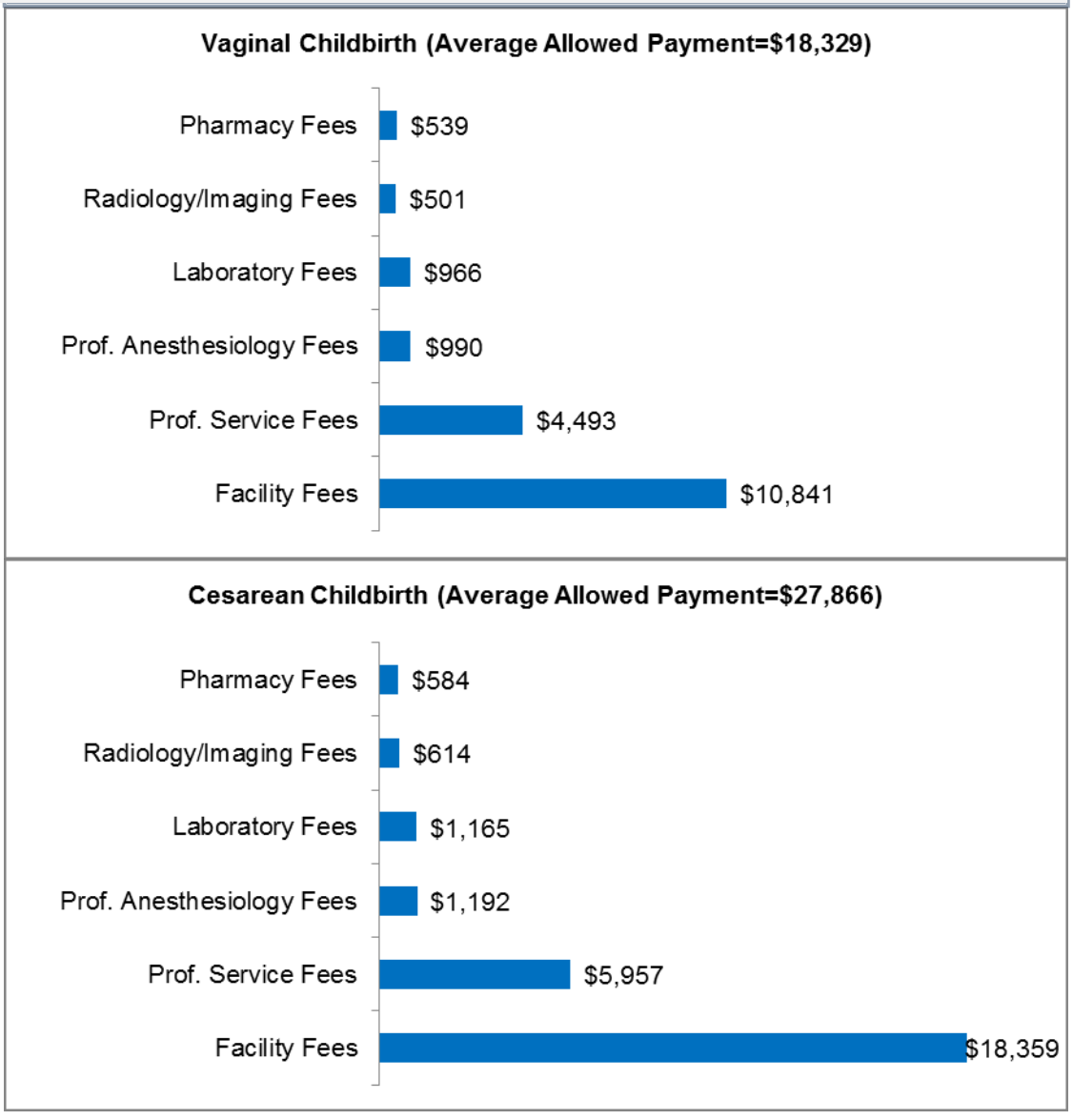


Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Costs include the prenatal, childbirth, and 3-month postpartum period and newborn care from birth through the first three months of life.

TYPE OF SERVICE ANALYSES

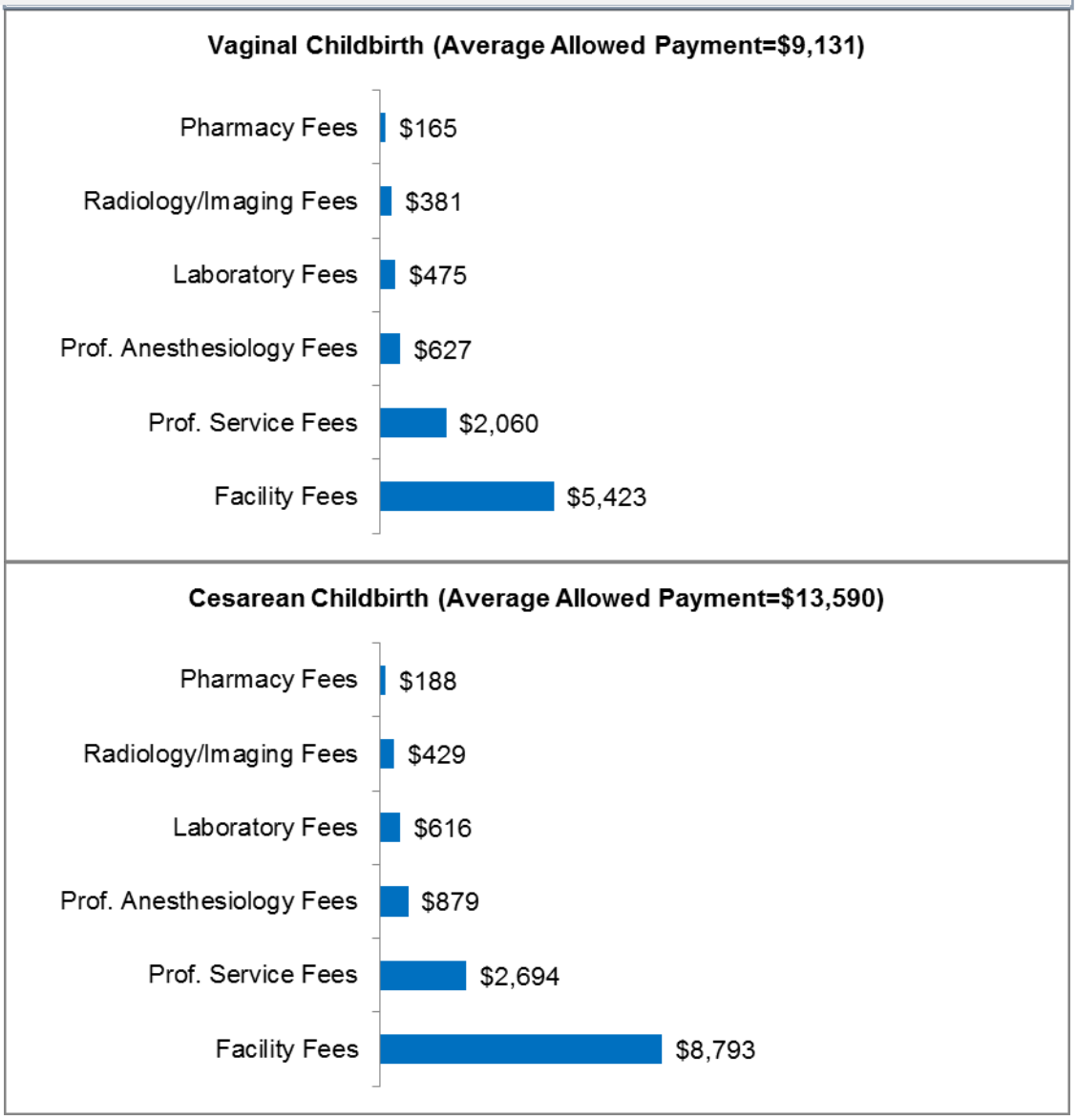
Figures 17 and 18 present total maternal and newborn costs by type of service and mode of birth for Commercial and Medicaid populations, respectively. In all cases, facility fees predominated (from 59% to 66% of all costs, followed by professional services fees (from 20% to 25%), with smaller proportions going to radiology/imaging, anesthesiology, pharmacy, and laboratory.

Figure 17: Average Total Maternal-Newborn Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include payments for maternal prenatal, childbirth, and postpartum care and newborn care from birth through three months. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Figure 18. Average Total Maternal-Newborn Health Care Payments by Type of Service among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Costs include payments for maternal prenatal, childbirth, and 3-month postpartum care, and newborn care from birth through three months. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Tables 12 and 13 present the allocation of all maternal-newborn payments by type of service. Among total average Commercial payments for maternal-newborn care with vaginal births ($18,329), 59% went to facilities and 25% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, laboratory, and pharmacy services. Among total average Commercial payments for maternal-newborn care with cesarean births ($27,866), 66% went to facilities and 21% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, pharmacy, and laboratory services. Among total average Medicaid payments for maternal-newborn care with vaginal births ($9,131), 59% went to facilities and 23% to maternity care providers, while among total Medicaid payments for cesarean births ($13,590), 65% went to facilities and 20% to maternity care providers.

For both types of birth, remaining Medicaid payments covered in descending order pharmacy, radiology/imaging, laboratory, and anesthesia services.

Table 12: Average Total Maternal-Newborn Health Care Charges and Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Grand Total: Prenatal+Intrapartum+Postpartum+First Three Months of Newborn Care			
Total Costs			
Provider Charges	$37,341	$32,093	$51,126
Allowed Paid Amount	$21,001	$18,329	$27,866
Facility Fees			
Provider Charges	$23,840	$19,664	$34,706
Allowed Paid Amount	$12,953	$10,841	$18,359
Professional Anesthesiology Fees[2]			
Provider Charges	$1,683	$1,607	$1,931
Allowed Paid Amount	$1,037	$990	$1,192
Professional Service Fees			
Provider Charges	$7,636	$6,807	$9,792
Allowed Paid Amount	$4,917	$4,493	$5,957
Laboratory Fees			
Provider Charges	$1,426	$1,396	$1,521
Allowed Paid Amount	$550	$539	$584
Radiology/Imaging Fees			
Provider Charges	$1,995	$1,892	$2,312
Allowed Paid Amount	$1,015	$966	$1,165
Pharmacy Fees			
Provider Charges	$765	$730	$869
Allowed Paid Amount	$531	$501	$614

Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include payments for maternal prenatal, childbirth, and postpartum care and newborn care from birth through three months. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 13: Average Total Maternal-Newborn Health Care Charges and Payments by Type of Service among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010

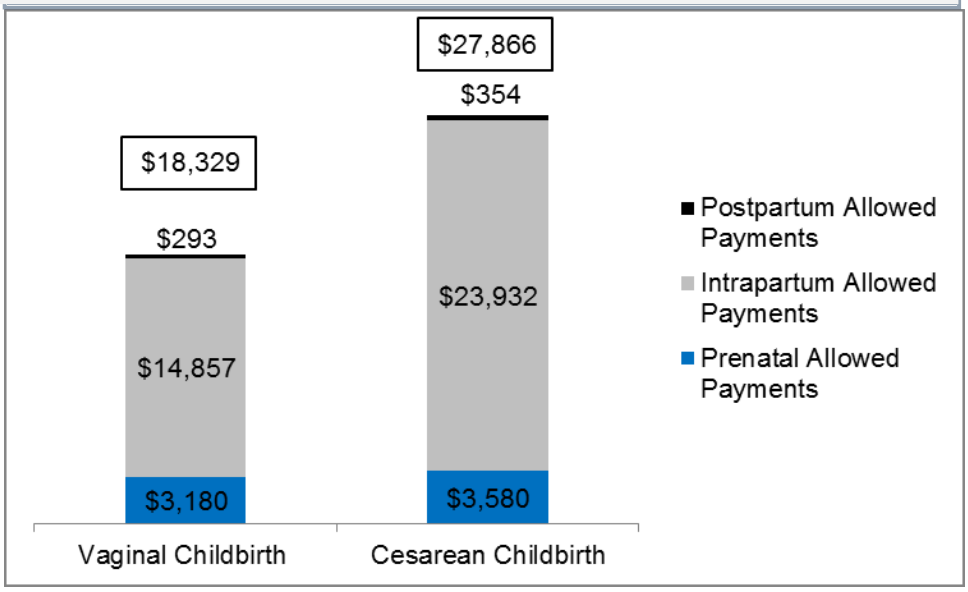
	Total	Vaginal Childbirth	Cesarean Childbirth
Medicaid			
Grand Total: Prenatal+Intrapartum+Postpartum+First Three Months of Newborn Care			
Total Costs			
Provider Charges	$35,481	$29,800	$50,374
Allowed Paid Amount	$10,350	$9,131	$13,590
Facility Fees			
Provider Charges	$22,704	$18,376	$34,095
Allowed Paid Amount	$6,338	$5,423	$8,793
Professional Anesthesiology Fees			
Provider Charges	$1,015	$876	$1,343
Allowed Paid Amount	$172	$165	$188
Professional Service Fees			
Provider Charges	$6,504	$5,656	$8,792
Allowed Paid Amount	$2,231	$2,060	$2,694
Laboratory Fees			
Provider Charges	$2,145	$2,049	$2,371
Allowed Paid Amount	$395	$381	$429
Radiology/Imaging Fees			
Provider Charges	$2,083	$1,902	$2,519
Allowed Paid Amount	$517	$475	$616
Pharmacy Fees			
Provider Charges	$1,056	$950	$1,316
Allowed Paid Amount	$700	$627	$879

Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Costs include payments for maternal prenatal, childbirth, and 3-month postpartum care, and newborn care from birth through three months. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

PHASE OF CARE ANALYSES

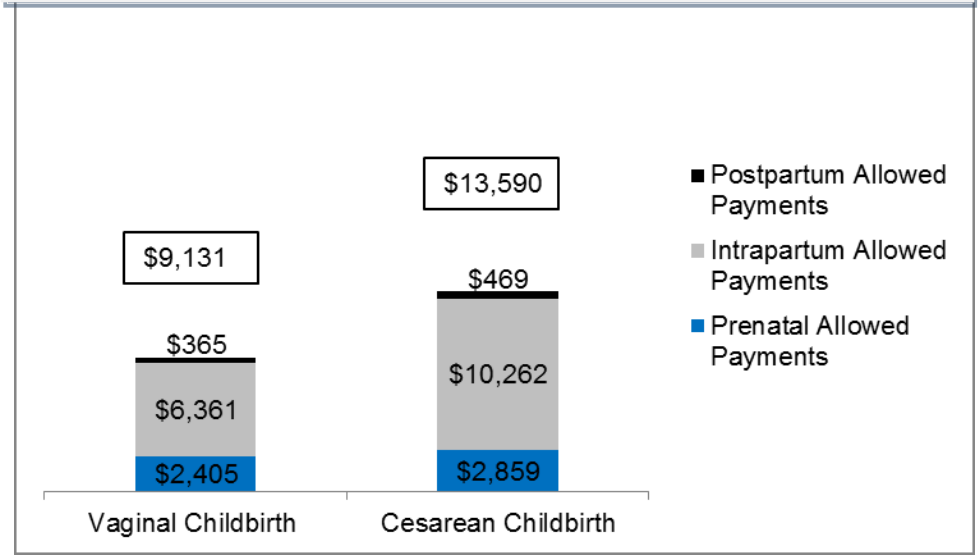
When examined by phase of care — prenatal, the intrapartum hospital stay for both women and newborns, and the postpartum and newborn care provided after birth hospitalization discharge, 2010 payments were heavily concentrated in the intrapartum hospital stay (Figures 19 and 20). Our figures slightly overestimate payments for the intrapartum phase and slightly underestimate payments for care after discharge as modest newborn payments for care after discharge are included in the intrapartum phase. Commercially insured intrapartum care involved 81% of maternal-newborn payments in vaginal births and 86% of maternal-newborn payments in cesarean births. In Medicaid, intrapartum payments were 70% of payments for vaginal births and 76% of payments for cesarean births.

Figure 19: Average Total Maternal-Newborn Health Care Payments by Phase of Care among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include payments for maternal prenatal, childbirth, and postpartum care and newborn care from birth through three months. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Figure 20: Average Total Maternal-Newborn Health Care Payments by Phase of Care among Medicaid Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Because the Medicaid database is comprised of a small convenience sample of 7 states and 5 Medicaid managed care plans, the results are not weighted to the national Medicaid population. Costs include payments for maternal prenatal, childbirth, and 3-month postpartum care, and newborn care from birth through three months.

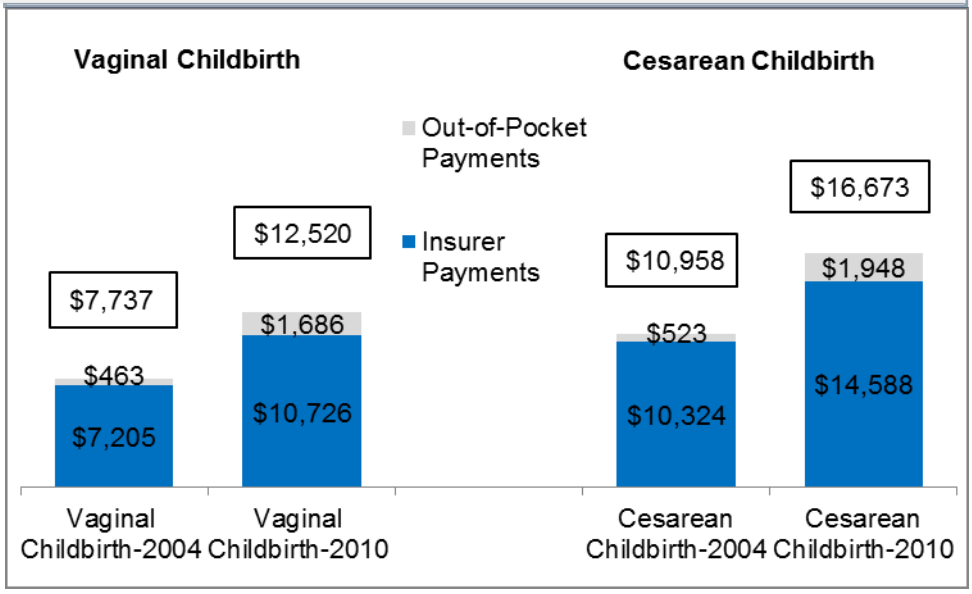
APPENDIX A: MATERNAL COST IN COMMERCIAL DATA FOR 2004 AND 2010

We have included a comparison of key results from the 2007 study, *The Healthcare Cost of Having a Baby*. Please note that while the underlying methodology used in the 2007 study is consistent with the approach taken in this 2012 analysis, the *MarketScan* data set used in the current analysis reflects a significantly larger population than that underlying the 2007 study. In addition, the original study did not examine newborn care costs or costs among Medicaid beneficiaries. This comparison is therefore of interest for directional guidance, but we did not attempt to modify the study data used in the current study to provide a rigorous comparison to the 2007 work. Note that the 2007 study reflects 2004 *MarketScan* data and this study uses data from the 2010 calendar year.

Average Total Maternal Costs Comparisons

For women with a live birth in 2004 and 2010, average charges increased by 58% from $14,352 to $22,734 for vaginal childbirths and by 51% from $21,213 to $32,062 for cesarean childbirths. Figure 21 shows the average allowed payments (i.e., actual insurer payments) and average out-of-pockets payments by childbirth type. Average allowed payments for maternal care increased by 49% for vaginal childbirths and 41% for cesarean childbirths. Although average insurer payments account for a majority of total average payments, the portion of the average total maternal payment covered by the insurer decreased slightly from 93% to 84% for both types of childbirths during this observation period. Although the dollar amount is relatively small when compared to insurer payments, out-of-pocket payments for women with both vaginal and cesarean births increased nearly fourfold over the six-year period. Data were not adjusted for inflation.

Figure 21: Average Total Maternal Health Care Payments by Payment Source among Commercial Beneficiaries with Vaginal and Cesarean Births, 2004 and 2010

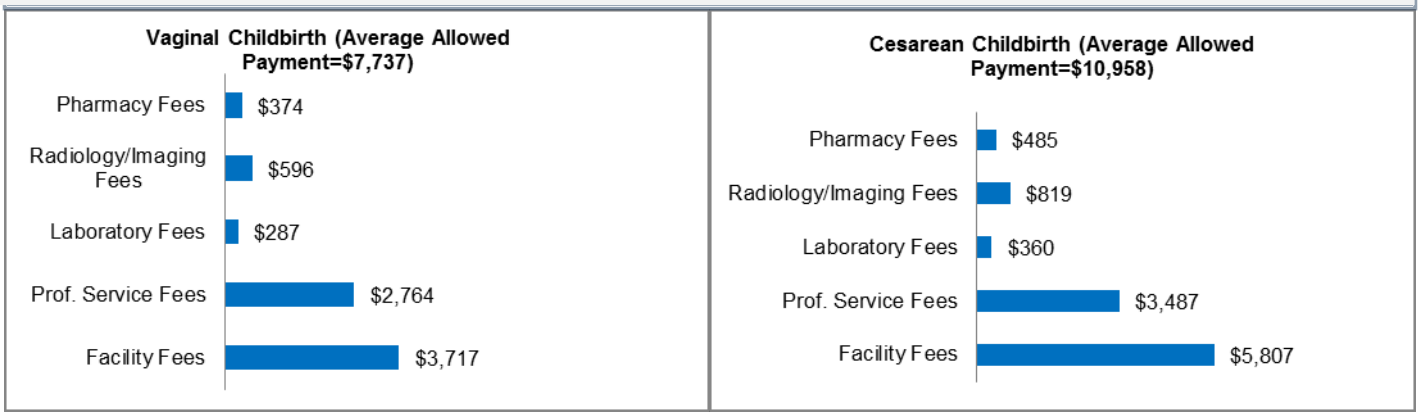


Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Costs include payments for maternal prenatal, childbirth, and postpartum care. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Figures 22 and 23 show the proportion of the average allowed payments covering facility fees, professional anesthesiology service fees, other professional service fees, laboratory fees, radiology/imaging fees, and pharmacy fees for women with a live birth in 2004 and 2010. Note that analyses of 2004 data combined professional anesthesiology

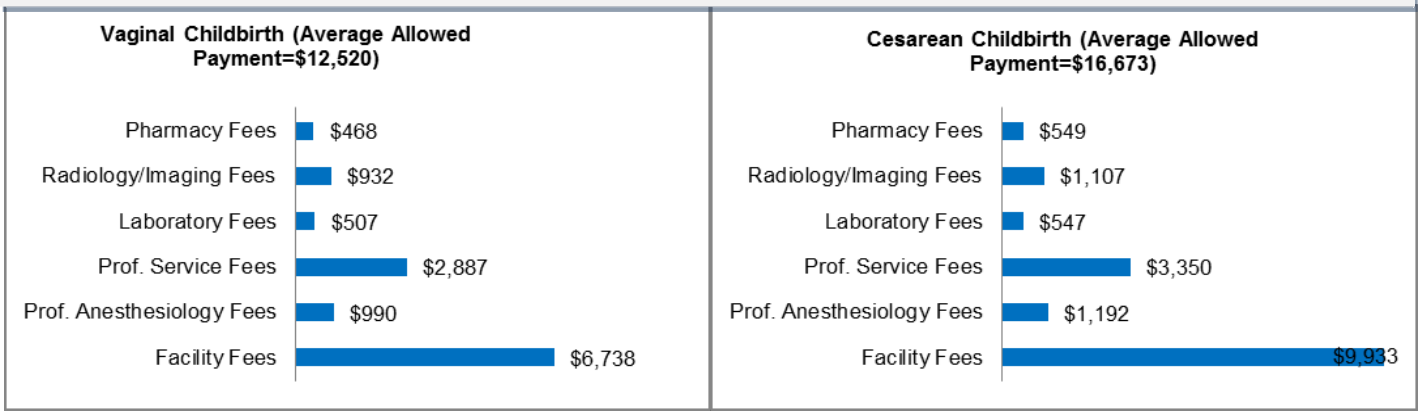
and professional service fees into a combined professional service fees category. More than 80% of total average allowed payments covered facility fees and professional services fees. Overall, the maternal medical care profile looks similar for women with live births across both periods with one exception. For both vaginal and cesarean childbirths, the share of average allowed payments covering facility fees has increased considerably while the share of average allowed payments covering professional services decreased slightly. In this comparison, no adjustments were made for inflation.

Figure 22: Average Total Maternal Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2004



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across payers may not add up to exactly to the total average allowed payment.

Figure 23: Average Total Maternal Health Care Payments by Type of Service among Commercial Beneficiaries with Vaginal and Cesarean Births, 2010



Note: Commercial results are weighted to reflect the national employer-sponsored insurance population. Maternal costs include the 9-month prenatal, childbirth, and 3-month postpartum period. Due to rounding, the sum of average payments across payers may not add up to exactly to the total average allowed payment.

APPENDIX B: COMMERCIAL COST

Table 14: Nationally Weighted Live Birth Numbers, Proportions, and Mean Prenatal Health Care Costs by Type of Service for Vaginal and Cesarean Childbirths by Payer, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	51,936			16,041			67,977		
Percent	76%			24%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	6,071	6,404		6,866	6,794		6,257	6,506	
Allowed Paid Amount	3,180	3,601		3,580	3,879		3,274	3,672	
Insurer Payments	2,559	3,304		2,910	3,569		2,641	3,371	
Out-of-Pocket Payments	604	622		653	645		616	628	
Third-Party Payments	19	264		18	242		19	259	
Facility Fees									
Provider Charges	1,721	3,885	28.3%	1,905	3,865	27.7%	1,764	3,881	28.2%
Allowed Paid Amount	980	2,261	30.8%	1,072	2,317	30.0%	1,002	2,275	30.6%
Insurer Payments	812	2,031	31.7%	898	2,103	30.9%	832	2,048	31.5%
Out-of-Pocket Payments	155	358	25.7%	164	349	25.0%	157	356	25.5%
Third-Party Payments	8	171	43.9%	7	144	38.8%	8	165	42.8%
Professional Anesthesiology Fees									
Provider Charges	32	244	0.5%	37	270	0.5%	33	250	0.5%
Allowed Paid Amount	20	147	0.6%	23	170	0.6%	21	153	0.6%
Insurer Payments	17	133	0.7%	20	157	0.7%	18	139	0.7%
Out-of-Pocket Payments	2	29	0.4%	3	29	0.4%	2	29	0.4%
Third-Party Payments	0	13	0.9%	0	6	0.5%	0	12	0.8%
Professional Service Fees									
Provider Charges	727	1,608	12.0%	829	1,494	12.1%	751	1,583	12.0%
Allowed Paid Amount	424	988	13.3%	479	909	13.4%	437	970	13.3%
Insurer Payments	350	919	13.7%	396	837	13.6%	361	900	13.7%
Out-of-Pocket Payments	69	153	11.5%	77	151	11.7%	71	153	11.5%
Third-Party Payments	3	82	16.9%	3	51	15.4%	3	76	16.5%
Laboratory Fees									
Provider Charges	1,233	1,205	20.3%	1,291	1,231	18.8%	1,247	1,212	19.9%
Allowed Paid Amount	464	572	14.6%	475	572	13.3%	467	572	14.3%
Insurer Payments	352	515	13.8%	366	515	12.6%	356	515	13.5%
Out-of-Pocket Payments	115	177	19.0%	113	178	17.3%	115	177	18.6%
Third-Party Payments	2	32	9.1%	1	24	7.7%	2	30	8.8%
Radiology/Imaging Fees									
Provider Charges	1,811	2,084	29.8%	2,167	2,557	31.6%	1,894	2,209	30.3%
Allowed Paid Amount	925	1,022	29.1%	1,094	1,270	30.6%	965	1,088	29.5%
Insurer Payments	756	946	29.6%	906	1,185	31.1%	791	1,010	30.0%
Out-of-Pocket Payments	169	250	27.9%	187	273	28.6%	173	256	28.1%
Third-Party Payments	5	84	26.3%	6	114	35.5%	5	92	28.4%
Pharmacy Fees									
Provider Charges	548	1,446	9.0%	637	1,546	9.3%	569	1,470	9.1%
Allowed Paid Amount	367	1,090	11.5%	436	1,169	12.2%	384	1,110	11.7%
Insurer Payments	271	1,015	10.6%	323	1,075	11.1%	283	1,030	10.7%
Out-of-Pocket Payments	94	145	15.5%	110	160	16.9%	98	148	15.9%
Third-Party Payments	1	49	2.8%	0	13	2.2%	1	44	2.7%

Note: Prenatal costs do not include intrapartum or postpartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 15: Nationally Weighted First, Second, and Third Quartiles for Prenatal Health Care Costs by Type of Service for Vaginal & Cesarean Childbirths by Payer, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	11,212	14,531	19,381	17,308	21,988	29,436	12,005	16,012	22,012
Allowed Paid Amount	6,850	8,402	10,495	9,472	11,585	14,502	7,220	9,058	11,501
Insurer Payments	5,746	7,296	9,411	8,255	10,300	13,135	6,110	7,930	10,374
Out-of-Pocket Payments	396	941	1,476	477	1,138	1,803	415	981	1,538
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	6,790	9,493	13,442	11,337	15,363	21,831	7,379	10,591	15,537
Allowed Paid Amount	3,850	5,043	6,695	5,886	7,691	10,075	4,123	5,543	7,574
Insurer Payments	3,219	4,380	5,967	5,059	6,818	9,172	3,460	4,834	6,822
Out-of-Pocket Payments	246	542	903	250	706	1,170	250	573	964
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	602	1,352	2,124	1,100	1,500	2,255	836	1,400	2,166
Allowed Paid Amount	410	891	1,300	686	951	1,386	540	900	1,320
Insurer Payments	263	770	1,167	594	848	1,265	410	792	1,191
Out-of-Pocket Payments	0	24	150	0	72	157	0	46	152
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	2,750	3,250	4,070	3,500	4,325	5,632	2,800	3,459	4,490
Allowed Paid Amount	1,967	2,317	2,827	2,208	2,661	3,279	2,014	2,400	2,952
Insurer Payments	1,620	2,062	2,560	1,853	2,357	2,950	1,667	2,127	2,670
Out-of-Pocket Payments	0	213	430	0	236	467	0	218	439
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	0	0	19	0	0	190	0	0	49
Allowed Paid Amount	0	0	5	0	0	85	0	0	21
Insurer Payments	0	0	0	0	0	69	0	0	14
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges									
Allowed Paid Amount									
Insurer Payments									
Out-of-Pocket Payments									
Third-Party Payments									

Table 16: Nationally Weighted Live Birth Numbers, Proportions, and Mean Intrapartum Health Care Costs by Type of Service for Vaginal and Cesarean Childbirths by Payer, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	51,936			16,041			67,977		
Percent	76%			24%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	16,165	7,824		24,572	10,899		18,136	9,349	
Allowed Paid Amount	9,048	3,549		12,739	5,164		9,913	4,282	
Insurer Payments	7,921	3,545		11,375	5,153		8,730	4,241	
Out-of-Pocket Payments	1,038	835		1,246	981		1,087	876	
Third-Party Payments	87	838		113	1,151		93	921	
Facility Fees									
Provider Charges	11,063	6,836	68.4%	17,807	9,897	72.5%	12,644	8,180	69.7%
Allowed Paid Amount	5,656	2,991	62.5%	8,714	4,690	68.4%	6,373	3,699	64.3%
Insurer Payments	4,945	2,899	62.4%	7,815	4,608	68.7%	5,618	3,590	64.3%
Out-of-Pocket Payments	643	596	61.9%	806	728	64.7%	681	633	62.7%
Third-Party Payments	64	671	74.0%	87	939	77.2%	69	743	75.0%
Professional Anesthesiology Fees									
Provider Charges	1,539	1,464	9.5%	1,864	1,421	7.6%	1,615	1,461	8.9%
Allowed Paid Amount	948	862	10.5%	1,151	859	9.0%	995	865	10.0%
Insurer Payments	838	809	10.6%	1,026	826	9.0%	882	817	10.1%
Out-of-Pocket Payments	105	184	10.1%	119	186	9.6%	109	185	10.0%
Third-Party Payments	5	82	6.3%	5	75	4.3%	5	81	5.7%
Professional Service Fees									
Provider Charges	3,508	1,765	21.7%	4,782	2,427	19.5%	3,807	2,014	21.0%
Allowed Paid Amount	2,416	1,073	26.7%	2,817	1,240	22.1%	2,510	1,127	25.3%
Insurer Payments	2,114	1,057	26.7%	2,484	1,216	21.8%	2,201	1,107	25.2%
Out-of-Pocket Payments	286	368	27.6%	314	400	25.2%	293	376	26.9%
Third-Party Payments	17	189	19.5%	21	237	18.2%	18	201	19.1%
Laboratory Fees									
Provider Charges	52	128	0.3%	111	191	0.5%	66	147	0.4%
Allowed Paid Amount	26	68	0.3%	55	104	0.4%	33	79	0.3%
Insurer Payments	23	69	0.3%	48	98	0.4%	29	78	0.3%
Out-of-Pocket Payments	3	16	0.3%	6	23	0.5%	4	18	0.4%
Third-Party Payments	0	5	0.2%	0	6	0.2%	0	5	0.2%
Radiology /Imaging Fees									
Provider Charges	6	66	0.0%	14	104	0.1%	8	77	0.0%
Allowed Paid Amount	3	29	0.0%	6	42	0.0%	3	32	0.0%
Insurer Payments	2	23	0.0%	5	38	0.0%	3	27	0.0%
Out-of-Pocket Payments	0	6	0.0%	1	8	0.1%	0	6	0.0%
Third-Party Payments	-	0	0.0%	0	2	0.0%	0	1	0.0%
Pharmacy Fees									
Provider Charges	-	-	0.0%	-	-	0.0%	-	-	0.0%
Allowed Paid Amount	-	-	0.0%	-	-	0.0%	-	-	0.0%
Insurer Payments	-	-	0.0%	-	-	0.0%	-	-	0.0%
Out-of-Pocket Payments	-	-	0.0%	-	-	0.0%	-	-	0.0%
Third-Party Payments	-	-	0.0%	-	-	0.0%	-	-	0.0%

Note: Intrapartum costs do not include prenatal or postpartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 17: Nationally Weighted First, Second, and Third Quartiles for Intrapartum Health Care Costs by Type of Service for Vaginal and Cesarean Childbirths by Payer, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	11,212	14,531	19,381	17,308	21,988	29,436	12,005	16,012	22,012
Allowed Paid Amount	6,850	8,402	10,495	9,472	11,585	14,502	7,220	9,058	11,501
Insurer Payments	5,746	7,296	9,411	8,255	10,300	13,135	6,110	7,930	10,374
Out-of-Pocket Payments	396	941	1,476	477	1,138	1,803	415	981	1,538
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	6,790	9,493	13,442	11,337	15,363	21,831	7,379	10,591	15,537
Allowed Paid Amount	3,850	5,043	6,695	5,886	7,691	10,075	4,123	5,543	7,574
Insurer Payments	3,219	4,380	5,967	5,059	6,818	9,172	3,460	4,834	6,822
Out-of-Pocket Payments	246	542	903	250	706	1,170	250	573	964
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	602	1,352	2,124	1,100	1,500	2,255	836	1,400	2,166
Allowed Paid Amount	410	891	1,300	686	951	1,386	540	900	1,320
Insurer Payments	263	770	1,167	594	848	1,265	410	792	1,191
Out-of-Pocket Payments	0	24	150	0	72	157	0	46	152
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	2,750	3,250	4,070	3,500	4,325	5,632	2,800	3,459	4,490
Allowed Paid Amount	1,967	2,317	2,827	2,208	2,661	3,279	2,014	2,400	2,952
Insurer Payments	1,620	2,062	2,560	1,853	2,357	2,950	1,667	2,127	2,670
Out-of-Pocket Payments	0	213	430	0	236	467	0	218	439
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	0	0	19	0	0	190	0	0	49
Allowed Paid Amount	0	0	5	0	0	85	0	0	21
Insurer Payments	0	0	0	0	0	69	0	0	14
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges									
Allowed Paid Amount									
Insurer Payments									
Out-of-Pocket Payments									
Third-Party Payments									

Table 18: Nationally Weighted Live Birth Numbers, Proportions, and Mean Postpartum Costs by Type of Service for Vaginal and Cesarean Childbirths, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	51,936			16,041			67,977		
Percent	76%			24%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	498	2,195		625	2,624		528	2,304	
Allowed Paid Amount	293	1,200		354	1,404		307	1,251	
Insurer Payments	246	1,136		303	1,348		260	1,189	
Out-of-Pocket Payments	44	108		49	120		45	111	
Third-Party Payments	1	55		1	91		1	66	
Facility Fees									
Provider Charges	198	1,783	39.8%	291	2,179	46.5%	220	1,884	41.6%
Allowed Paid Amount	101	948	34.6%	146	1,112	41.3%	112	989	36.4%
Insurer Payments	93	906	37.8%	137	1,075	45.2%	103	948	39.8%
Out-of-Pocket Payments	7	69	15.9%	8	75	16.7%	7	71	16.1%
Third-Party Payments	1	42	40.8%	1	89	74.1%	1	57	49.6%
Professional Anesthesiology Fees									
Provider Charges	36	267	7.3%	30	223	4.9%	35	258	6.6%
Allowed Paid Amount	22	170	7.6%	18	137	5.1%	21	163	6.9%
Insurer Payments	20	158	8.3%	17	130	5.6%	20	152	7.5%
Out-of-Pocket Payments	2	27	4.1%	1	21	2.5%	2	25	3.7%
Third-Party Payments	0	6	5.4%	0	3	1.4%	0	5	4.5%
Professional Service Fees									
Provider Charges	76	374	15.3%	90	399	14.4%	80	380	15.1%
Allowed Paid Amount	47	227	16.1%	53	237	15.0%	48	230	15.8%
Insurer Payments	41	206	16.8%	47	216	15.5%	43	208	16.4%
Out-of-Pocket Payments	5	40	11.9%	6	55	12.1%	5	44	12.0%
Third-Party Payments	0	17	26.2%	0	5	10.5%	0	15	21.8%
Laboratory Fees									
Provider Charges	39	129	7.9%	42	142	6.7%	40	132	7.6%
Allowed Paid Amount	16	59	5.6%	17	64	4.7%	16	60	5.3%
Insurer Payments	14	57	5.8%	15	63	4.9%	15	58	5.6%
Out-of-Pocket Payments	2	11	4.3%	2	11	3.7%	2	11	4.2%
Third-Party Payments	0	18	10.8%	0	3	4.2%	0	16	9.0%
Radiology/Imaging Fees									
Provider Charges	10	180	2.0%	16	239	2.6%	12	195	2.2%
Allowed Paid Amount	4	93	1.5%	8	131	2.2%	5	104	1.7%
Insurer Payments	4	90	1.7%	7	130	2.4%	5	100	1.9%
Out-of-Pocket Payments	0	9	0.7%	0	7	0.5%	0	8	0.7%
Third-Party Payments	0	3	2.3%	-	1	0.0%	0	3	1.5%
Pharmacy Fees									
Provider Charges	138	494	27.7%	155	472	24.8%	142	489	26.9%
Allowed Paid Amount	101	339	34.6%	112	405	31.7%	104	356	33.8%
Insurer Payments	73	317	29.6%	80	382	26.4%	75	333	28.7%
Out-of-Pocket Payments	28	45	63.0%	32	53	64.5%	28	47	63.4%
Third-Party Payments	0	16	13.8%	0	7	9.8%	0	15	12.8%

*Note: Postpartum costs do not include prenatal or intrapartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 19: Nationally Weighted First, Second, and Third Quartiles for Postpartum Costs by Type of Service for Vaginal and Cesarean Childbirths, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	25	117	303	36	135	338	28	121	311
Allowed Paid Amount	13	74	195	20	82	213	15	76	199
Insurer Payments	0	45	142	3	50	157	0	46	145
Out-of-Pocket Payments	1	18	48	4	20	53	2	18	50
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	0	0	30	0	0	34	0	0	32
Allowed Paid Amount	0	0	8	0	0	9	0	0	8
Insurer Payments	0	0	5	0	0	6	0	0	5
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	0	50	141	8	61	160	0	53	145
Allowed Paid Amount	0	34	101	5	39	113	0	35	104
Insurer Payments	0	13	61	0	15	67	0	13	62
Out-of-Pocket Payments	0	12	37	1	15	41	0	13	38
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 20: Nationally Weighted Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	51,936			16,041			67,977		
Percent	76%			24%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	22,734	11,425		32,062	14,029		24,921	12,716	
Allowed Paid Amount	12,520	5,636		16,673	7,076		13,494	6,257	
Insurer Payments	10,726	5,525		14,588	6,983		11,631	6,122	
Out-of-Pocket Payments	1,686	1,142		1,948	1,272		1,747	1,179	
Third-Party Payments	107	991		132	1,292		113	1,069	
Facility Fees									
Provider Charges	12,982	8,458	57.1%	20,003	11,101	62.4%	14,628	9,618	58.7%
Allowed Paid Amount	6,738	4,057	53.8%	9,933	5,548	59.6%	7,487	4,653	55.5%
Insurer Payments	5,850	3,879	54.5%	8,851	5,415	60.7%	6,554	4,473	56.3%
Out-of-Pocket Payments	805	718	47.7%	978	825	50.2%	846	748	48.4%
Third-Party Payments	73	740	68.3%	95	996	71.9%	78	807	69.3%
Professional Anesthesiology Fees									
Provider Charges	1,607	1,506	7.1%	1,931	1,463	6.0%	1,683	1,502	6.8%
Allowed Paid Amount	990	890	7.9%	1,192	886	7.1%	1,037	893	7.7%
Insurer Payments	875	837	8.2%	1,063	852	7.3%	919	844	7.9%
Out-of-Pocket Payments	109	188	6.5%	123	190	6.3%	113	189	6.4%
Third-Party Payments	6	84	5.3%	5	76	3.7%	6	82	4.9%
Professional Service Fees									
Provider Charges	4,311	2,426	19.0%	5,701	2,919	17.8%	4,637	2,617	18.6%
Allowed Paid Amount	2,887	1,431	23.1%	3,350	1,531	20.1%	2,996	1,468	22.2%
Insurer Payments	2,505	1,403	23.4%	2,927	1,504	20.1%	2,604	1,438	22.4%
Out-of-Pocket Payments	361	409	21.4%	396	440	20.3%	369	417	21.1%
Third-Party Payments	20	224	19.1%	23	253	17.7%	21	231	18.7%
Laboratory Fees									
Provider Charges	1,325	1,245	5.8%	1,444	1,285	4.5%	1,353	1,256	5.4%
Allowed Paid Amount	507	589	4.0%	547	595	3.3%	516	591	3.8%
Insurer Payments	390	532	3.6%	430	539	2.9%	399	534	3.4%
Out-of-Pocket Payments	120	180	7.1%	121	181	6.2%	121	180	6.9%
Third-Party Payments	2	38	1.9%	2	27	1.3%	2	35	1.7%
Radiology /Imaging Fees									
Provider Charges	1,827	2,098	8.0%	2,197	2,578	6.9%	1,914	2,225	7.7%
Allowed Paid Amount	932	1,029	7.4%	1,107	1,279	6.6%	973	1,095	7.2%
Insurer Payments	763	953	7.1%	918	1,195	6.3%	799	1,017	6.9%
Out-of-Pocket Payments	169	251	10.0%	188	273	9.6%	174	256	9.9%
Third-Party Payments	5	85	4.7%	7	115	4.9%	5	93	4.8%
Pharmacy Fees									
Provider Charges	686	1,673	3.0%	792	1,741	2.5%	711	1,690	2.9%
Allowed Paid Amount	468	1,274	3.7%	549	1,345	3.3%	487	1,291	3.6%
Insurer Payments	344	1,185	3.2%	403	1,239	2.8%	358	1,198	3.1%
Out-of-Pocket Payments	121	168	7.2%	142	184	7.3%	126	172	7.2%
Third-Party Payments	1	64	0.7%	1	16	0.4%	1	57	0.6%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month pospartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 21: Nationally Weighted First, Second, and Third Quartiles for Total Maternal Health Care Costs by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	15,227	19,989	27,395	22,141	28,638	39,107	16,261	21,840	30,454
Allowed Paid Amount	8,953	11,216	14,480	12,043	14,909	19,339	9,448	12,023	15,760
Insurer Payments	7,312	9,498	12,707	10,140	12,931	17,270	7,761	10,259	13,843
Out-of-Pocket Payments	864	1,572	2,306	1,055	1,847	2,661	904	1,629	2,395
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	7,623	10,818	15,822	12,469	17,167	24,904	8,322	12,091	18,082
Allowed Paid Amount	4,323	5,749	7,903	6,509	8,561	11,551	4,637	6,333	8,855
Insurer Payments	3,574	4,948	7,014	5,531	7,575	10,522	3,847	5,465	7,899
Out-of-Pocket Payments	300	666	1,106	383	854	1,387	313	703	1,177
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	686	1,404	2,200	1,105	1,560	2,360	880	1,440	2,244
Allowed Paid Amount	467	900	1,351	697	988	1,443	572	920	1,370
Insurer Payments	328	796	1,203	604	873	1,314	442	810	1,235
Out-of-Pocket Payments	0	40	154	0	76	162	0	55	156
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	3,135	3,836	4,971	3,994	5,088	6,719	3,257	4,079	5,429
Allowed Paid Amount	2,231	2,662	3,305	2,536	3,063	3,844	2,284	2,750	3,429
Insurer Payments	1,864	2,332	2,948	2,151	2,710	3,432	1,919	2,416	3,069
Out-of-Pocket Payments	39	275	518	54	302	570	40	281	529
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	515	1,026	1,773	594	1,132	1,926	532	1,048	1,809
Allowed Paid Amount	152	321	673	174	361	738	157	330	689
Insurer Payments	73	215	514	99	256	579	79	225	528
Out-of-Pocket Payments	1	54	163	3	55	160	2	55	162
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	661	1,197	2,217	750	1,389	2,642	683	1,236	2,303
Allowed Paid Amount	371	648	1,122	418	732	1,313	381	666	1,165
Insurer Payments	242	507	943	285	578	1,101	251	523	977
Out-of-Pocket Payments	0	75	240	0	88	269	0	78	246
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	80	273	660	105	334	775	86	287	685
Allowed Paid Amount	55	191	465	70	231	538	58	200	480
Insurer Payments	17	94	291	23	117	338	18	100	303
Out-of-Pocket Payments	20	70	161	28	83	190	22	73	168
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 22: Nationally Weighted Prenatal and Postpartum Pharmacy Costs for Vaginal and Cesarean Childbirths, 2010 Commercial

Prenatal						
	Vaginal Delivery		Cesarean Delivery		Total	
Number of Live Births	51,936		16,041		67,977	
Percent	76%		24%		100%	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Maternity-Related Pharmacy Costs						
Provider Charges	292	1147	323	1139	299	1145
Allowed Paid Amount	169	859	189	841	173	855
Insurer Payments	131	816	144	786	134	809
Out-of-Pocket Payments	37	84	42	88	38	85
Third-Party Payments	0	46	0	9	0	41
Postpartum						
	Vaginal Delivery		Cesarean Delivery		Total	
Number of Live Births	51,936		16,041		67,977	
Percent	76%		24%		100%	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Maternity-Related Pharmacy Costs						
Provider Charges	57	254	67	238	59	250
Allowed Paid Amount	35	199	40	183	36	196
Insurer Payments	25	191	26	172	25	186
Out-of-Pocket Payments	11	23	14	28	11	24
Third-Party Payments	0	15	0	1	0	13

Note: Prenatal costs incluede the 9-month stage of prenatal care. Postpartum costs include the 3-month postpartum stage of care only.

Table 23: Nationally Weighted First, Second, and Third Quartiles for Prenatal and Postpartum Pharmacy Costs for Vaginal and Cesarean Childbirths, 2010 Commercial

Prenatal									
	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Maternity-Related Pharmacy Costs									
Provider Charges	0	43	188	0	54	225	0	46	197
Allowed Paid Amount	0	25	111	0	32	129	0	27	116
Insurer Payments	0	4	55	0	8	68	0	5	58
Out-of-Pocket Payments	0	11	42	0	15	48	0	12	43
Third-Party Payments	0	0	0	0	0	0	0	0	0
Postpartum									
	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Maternity-Related Pharmacy Costs									
Provider Charges	0	5	42	0	14	58	0	7	46
Allowed Paid Amount	0	4	24	0	8	31	0	5	25
Insurer Payments	0	0	7	0	0	12	0	0	9
Out-of-Pocket Payments	0	1	12	0	5	16	0	3	13
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 24: Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs in California by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Delivery			Cesarean Delivery			Total		
California									
Number of Live Births	4,050			1,258			5,308		
Percent	76%			24%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Provider Charges	29,093	12,860		43,173	15,607		32,430	14,823	
Allowed Paid Amount	15,259	6,823		21,307	9,494		16,692	7,968	
Insurer Payments	13,037	6,640		18,588	9,319		14,353	7,731	
Out-of-Pocket Payments	2,054	1,246		2,510	1,367		2,162	1,290	
Third-Party Payments	190	1,528		226	1,877		198	1,617	
Facility Fees									
Provider Charges	20,016	10,764	69%	31,939	13,667	74%	22,842	12,583	70%
Allowed Paid Amount	9,769	5,797	64%	15,157	8,570	71%	11,046	6,949	66%
Insurer Payments	8,513	5,526	65%	13,542	8,380	73%	9,705	6,671	68%
Out-of-Pocket Payments	1,104	893	54%	1,429	1,040	57%	1,181	940	55%
Third-Party Payments	152	1,271	80%	185	1,606	82%	160	1,358	80%
Professional Anesthesiology Fees									
Provider Charges	1,361	1,203	5%	1,621	1,144	4%	1,423	1,195	4%
Allowed Paid Amount	881	839	6%	979	758	5%	904	821	5%
Insurer Payments	792	786	6%	872	729	5%	811	774	6%
Out-of-Pocket Payments	83	146	4%	104	146	4%	88	146	4%
Third-Party Payments	7	79	4%	3	37	1%	6	71	3%
Professional Service Fees									
Provider Charges	3,968	2,181	14%	5,362	2,570	12%	4,298	2,355	13%
Allowed Paid Amount	2,715	1,370	18%	3,104	1,498	15%	2,807	1,411	17%
Insurer Payments	2,279	1,277	17%	2,603	1,399	14%	2,356	1,314	16%
Out-of-Pocket Payments	395	400	19%	437	391	17%	405	398	19%
Third-Party Payments	23	220	12%	29	275	13%	24	234	12%
Laboratory Fees									
Provider Charges	1,263	1,109	4%	1,302	992	3%	1,273	1,082	4%
Allowed Paid Amount	580	648	4%	575	587	3%	579	634	3%
Insurer Payments	422	559	3%	409	470	2%	419	539	3%
Out-of-Pocket Payments	172	200	8%	182	220	7%	174	205	8%
Third-Party Payments	2	38	1%	2	24	1%	2	35	1%
Radiology/Imaging Fees									
Provider Charges	1,941	1,823	7%	2,327	2,628	5%	2,033	2,049	6%
Allowed Paid Amount	945	1,007	6%	1,083	1,265	5%	978	1,075	6%
Insurer Payments	760	894	6%	860	1,122	5%	784	953	5%
Out-of-Pocket Payments	208	263	10%	256	288	10%	219	270	10%
Third-Party Payments	6	89	3%	7	122	3%	6	97	3%
Pharmacy Fees									
Provider Charges	555	1,550	2%	625	1,408	1%	572	1,517	2%
Allowed Paid Amount	368	1,110	2%	412	1,052	2%	378	1,096	2%
Insurer Payments	271	1,053	2%	304	967	2%	279	1,034	2%
Out-of-Pocket Payments	94	130	5%	102	147	4%	96	134	4%
Third-Party Payments	0.01	1	0%	-	-	0%	0.01	1	0%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month postpartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 25: First, Second, and Third Quartiles for Maternal Health Care Costs in California by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
California									
Total Costs									
Provider Charges	20,000	26,325	35,757	31,470	41,070	53,118	21,565	29,512	40,374
Allowed Paid Amount	10,784	13,878	18,126	14,271	19,295	26,032	11,383	14,955	19,942
Insurer Payments	8,832	11,771	15,954	12,004	16,542	22,999	9,384	12,603	17,422
Out-of-Pocket Payments	1,220	1,901	2,856	1,579	2,413	3,465	1,291	2,004	3,026
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	12,456	17,563	25,138	22,157	29,968	40,188	13,835	20,033	29,309
Allowed Paid Amount	6,105	8,519	11,676	9,350	12,894	19,035	6,601	9,469	13,424
Insurer Payments	5,146	7,381	10,300	7,862	11,348	17,131	5,579	8,132	11,831
Out-of-Pocket Payments	466	957	1,572	720	1,325	2,030	505	1,019	1,714
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	0	1,273	2,000	1,080	1,317	1,980	780	1,275	1,999
Allowed Paid Amount	235	809	1,224	585	784	1,176	468	798	1,213
Insurer Payments	0	710	1,102	502	689	1,056	352	701	1,095
Out-of-Pocket Payments	0	0	122	0	72	140	0	33	127
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	2,953	3,649	4,735	4,045	5,024	6,557	3,087	3,953	5,250
Allowed Paid Amount	2,139	2,447	3,039	2,384	2,811	3,485	2,183	2,521	3,165
Insurer Payments	1,743	2,101	2,619	1,952	2,394	3,006	1,791	2,158	2,723
Out-of-Pocket Payments	95	314	541	155	382	608	103	329	558
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	563	1,007	1,660	620	1,102	1,764	575	1,028	1,686
Allowed Paid Amount	171	362	803	192	379	808	176	365	804
Insurer Payments	70	226	596	92	244	574	76	229	590
Out-of-Pocket Payments	30	107	237	39	114	234	32	109	236
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	788	1,455	2,505	805	1,617	2,898	790	1,483	2,591
Allowed Paid Amount	350	691	1,204	364	730	1,359	353	705	1,233
Insurer Payments	219	540	999	236	549	1,078	225	543	1,018
Out-of-Pocket Payments	25	126	294	45	169	372	30	138	310
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	50	194	547	63	254	605	52	204	563
Allowed Paid Amount	30	123	390	34	135	425	30	127	400
Insurer Payments	9	65	234	11	74	248	10	67	239
Out-of-Pocket Payments	10	43	127	10	46	144	10	45	130
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 26: Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs in Illinois by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Delivery			Cesarean Delivery			Total		
Illinois									
Number of Live Births	2,348			680			3,028		
Percent	78%			0			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Provider Charges	22,262	10,578		31,499	11,709		24,336	11,505	
Allowed Paid Amount	11,692	4,714		15,602	5,970		12,570	5,281	
Insurer Payments	9,531	4,503		13,180	5,735		10,351	5,042	
Out-of-Pocket Payments	1,983	1,086		2,190	1,054		2,030	1,082	
Third-Party Payments	163	1,323		209	1,876		173	1,465	
Facility Fees									
Provider Charges	12,199	7,224	55%	19,059	8,839	61%	13,740	8,135	56%
Allowed Paid Amount	5,598	3,291	48%	8,376	4,516	54%	6,221	3,784	49%
Insurer Payments	4,618	2,937	48%	7,208	4,011	55%	5,199	3,386	50%
Out-of-Pocket Payments	859	713	43%	995	785	45%	889	732	44%
Third-Party Payments	118	1,052	72%	150	1,421	72%	125	1,145	72%
Professional Anesthesiology Fees									
Provider Charges	1,449	1,145	7%	1,885	1,201	6%	1,547	1,172	6%
Allowed Paid Amount	888	648	8%	1,081	738	7%	931	674	7%
Insurer Payments	745	590	8%	928	692	7%	786	619	8%
Out-of-Pocket Payments	130	168	7%	138	165	6%	132	167	6%
Third-Party Payments	11	126	7%	15	234	7%	12	157	7%
Professional Service Fees									
Provider Charges	4,693	2,159	21%	6,482	2,724	21%	5,095	2,416	21%
Allowed Paid Amount	3,203	1,084	27%	4,006	1,505	26%	3,383	1,238	27%
Insurer Payments	2,671	1,103	28%	3,409	1,554	26%	2,837	1,257	27%
Out-of-Pocket Payments	503	416	25%	561	466	26%	516	428	25%
Third-Party Payments	24	239	15%	32	315	15%	26	258	15%
Laboratory Fees									
Provider Charges	1,297	1,541	6%	1,345	1,327	4%	1,308	1,496	5%
Allowed Paid Amount	524	876	4%	556	820	4%	531	864	4%
Insurer Payments	401	784	4%	446	786	3%	411	784	4%
Out-of-Pocket Payments	120	202	6%	113	164	5%	119	194	6%
Third-Party Payments	4	44	2%	4	32	2%	4	41	2%
Radiology/Imaging Fees									
Provider Charges	1,999	2,236	9%	2,064	1,848	7%	2,013	2,155	8%
Allowed Paid Amount	998	943	9%	1,053	888	7%	1,010	931	8%
Insurer Payments	746	854	8%	800	793	6%	758	841	7%
Out-of-Pocket Payments	244	273	12%	242	278	11%	243	274	12%
Third-Party Payments	7	80	4%	9	93	4%	7	83	4%
Pharmacy Fees									
Provider Charges	629	1,548	3%	664	1,183	2%	636	1,474	3%
Allowed Paid Amount	486	1,315	4%	531	1,041	3%	496	1,259	4%
Insurer Payments	355	1,159	4%	389	893	3%	362	1,105	4%
Out-of-Pocket Payments	127	237	6%	140	201	6%	130	229	6%
Third-Party Payments	-	-	0%	-	-	0%	-	-	0%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month postpartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 27: First, Second, and Third Quartiles for Maternal Health Care Costs in Illinois by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Illinois									
Total Costs									
Provider Charges	15,678	20,426	26,732	23,945	29,169	36,509	16,919	22,293	29,304
Allowed Paid Amount	8,632	10,673	13,497	11,747	14,198	17,388	9,107	11,461	14,536
Insurer Payments	6,761	8,697	11,276	9,553	12,001	14,981	7,153	9,348	12,270
Out-of-Pocket Payments	1,298	1,828	2,467	1,544	2,113	2,718	1,335	1,899	2,526
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	7,618	10,763	15,133	13,528	17,337	22,382	8,402	12,309	17,148
Allowed Paid Amount	3,338	4,921	6,819	5,534	7,368	9,831	3,645	5,459	7,573
Insurer Payments	2,662	4,042	5,780	4,630	6,242	8,518	2,937	4,494	6,471
Out-of-Pocket Payments	423	688	1,121	521	880	1,385	447	731	1,171
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	864	1,500	2,000	1,263	1,600	2,267	1,008	1,500	2,000
Allowed Paid Amount	740	825	1,008	707	880	1,331	720	825	1,139
Insurer Payments	492	743	919	594	756	1,166	553	743	958
Out-of-Pocket Payments	0	83	165	10	98	178	0	83	172
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	3,625	4,480	5,525	4,858	6,063	7,415	3,787	4,741	6,001
Allowed Paid Amount	2,831	3,220	3,567	3,453	3,913	4,406	2,946	3,312	3,808
Insurer Payments	2,228	2,688	3,115	2,766	3,313	3,897	2,328	2,784	3,304
Out-of-Pocket Payments	260	438	660	281	489	762	264	449	683
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	469	919	1,578	587	1,010	1,656	500	942	1,602
Allowed Paid Amount	161	308	573	209	336	633	171	313	589
Insurer Payments	80	203	424	120	245	481	87	214	434
Out-of-Pocket Payments	18	64	150	20	61	136	18	62	147
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	837	1,399	2,436	971	1,576	2,545	862	1,447	2,453
Allowed Paid Amount	485	760	1,216	535	844	1,302	496	778	1,242
Insurer Payments	275	541	937	352	606	1,067	291	553	955
Out-of-Pocket Payments	45	170	355	48	165	357	45	168	357
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	69	264	606	96	285	713	74	270	625
Allowed Paid Amount	46	205	488	68	214	577	51	209	508
Insurer Payments	14	105	311	24	126	381	17	110	326
Out-of-Pocket Payments	15	70	165	21	77	180	18	71	168
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 28: Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs in Louisiana by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Delivery			Cesarean Delivery			Total		
Louisiana									
Number of Live Births	447			223			670		
Percent	67%			33%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Provider Charges	20,352	9,591		28,561	13,205		23,084	11,583	
Allowed Paid Amount	10,318	4,642		13,943	7,167		11,524	5,859	
Insurer Payments	8,280	4,495		11,697	7,192		9,418	5,765	
Out-of-Pocket Payments	1,867	1,053		2,115	1,131		1,950	1,085	
Third-Party Payments	165	1,050		141	1,233		157	1,114	
Facility Fees									
Provider Charges	12,047	7,258	59%	17,627	10,547	62%	13,904	8,885	60%
Allowed Paid Amount	5,365	3,486	52%	7,711	5,334	55%	6,145	4,332	53%
Insurer Payments	4,329	3,227	52%	6,536	5,313	56%	5,064	4,170	54%
Out-of-Pocket Payments	899	705	48%	1,077	750	51%	958	725	49%
Third-Party Payments	120	776	72%	105	1,177	75%	115	928	73%
Professional Anesthesiology Fees									
Provider Charges	1,548	1,480	8%	1,912	1,347	7%	1,669	1,446	7%
Allowed Paid Amount	860	717	8%	1,034	872	7%	918	776	8%
Insurer Payments	701	659	8%	871	843	7%	757	729	8%
Out-of-Pocket Payments	149	218	8%	157	218	7%	152	218	8%
Third-Party Payments	7	60	4%	1	14	1%	5	50	3%
Professional Service Fees									
Provider Charges	3,442	2,718	17%	4,817	1,890	17%	3,900	2,555	17%
Allowed Paid Amount	2,322	901	23%	2,925	1,052	21%	2,522	995	22%
Insurer Payments	1,890	895	23%	2,481	1,095	21%	2,087	1,004	22%
Out-of-Pocket Payments	405	411	22%	415	369	20%	408	397	21%
Third-Party Payments	30	231	18%	29	216	21%	30	226	19%
Laboratory Fees									
Provider Charges	1,109	1,107	5%	1,338	1,252	5%	1,185	1,162	5%
Allowed Paid Amount	416	506	4%	500	576	4%	444	531	4%
Insurer Payments	318	459	4%	413	521	4%	350	483	4%
Out-of-Pocket Payments	104	182	6%	88	139	4%	99	169	5%
Third-Party Payments	2	20	1%	3	26	2%	2	22	1%
Radiology/Imaging Fees									
Provider Charges	1,349	1,382	7%	1,836	2,077	6%	1,511	1,661	7%
Allowed Paid Amount	736	790	7%	982	1,103	7%	818	913	7%
Insurer Payments	608	764	7%	826	1,006	7%	681	857	7%
Out-of-Pocket Payments	126	187	7%	159	256	8%	137	213	7%
Third-Party Payments	7	80	4%	2	23	2%	6	67	4%
Pharmacy Fees									
Provider Charges	857	1,854	4%	1,030	1,975	4%	914	1,895	4%
Allowed Paid Amount	620	1,569	6%	792	1,763	6%	678	1,637	6%
Insurer Payments	434	1,447	5%	571	1,675	5%	480	1,527	5%
Out-of-Pocket Payments	184	211	10%	220	192	10%	196	205	10%
Third-Party Payments	-	-	0%	-	-	0%	-	-	0%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month postpartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 29: First, Second, and Third Quartiles for Maternal Health Care Costs in Louisiana by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Louisiana									
Total Costs									
Provider Charges	14,103	17,533	23,865	20,443	25,122	33,480	15,449	20,176	26,768
Allowed Paid Amount	7,648	9,523	11,370	10,078	12,893	15,814	8,351	10,310	13,318
Insurer Payments	5,763	7,646	9,412	7,909	10,409	13,252	6,353	8,264	10,933
Out-of-Pocket Payments	1,094	1,787	2,489	1,242	2,013	2,821	1,161	1,868	2,604
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	7,796	10,108	13,815	11,095	14,769	20,708	8,520	11,541	16,293
Allowed Paid Amount	3,394	4,613	6,582	5,088	6,738	9,181	3,818	5,348	7,332
Insurer Payments	2,558	3,826	5,229	4,055	5,772	7,715	2,979	4,262	6,080
Out-of-Pocket Payments	395	723	1,242	500	902	1,524	426	789	1,331
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	880	1,350	1,955	1,050	1,470	2,560	970	1,350	2,200
Allowed Paid Amount	461	750	1,120	576	750	1,203	530	750	1,150
Insurer Payments	324	595	896	472	658	1,008	391	617	960
Out-of-Pocket Payments	0	93	187	0	107	186	0	97	186
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	2,700	3,204	3,935	3,750	4,392	5,614	2,935	3,551	4,497
Allowed Paid Amount	2,035	2,267	2,654	2,316	2,797	3,480	2,066	2,384	2,920
Insurer Payments	1,564	1,936	2,247	1,916	2,373	3,013	1,646	2,035	2,483
Out-of-Pocket Payments	89	322	556	90	389	618	90	339	586
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	380	802	1,578	462	1,025	2,045	406	873	1,670
Allowed Paid Amount	107	267	527	131	339	641	114	275	572
Insurer Payments	55	165	419	70	205	563	60	178	474
Out-of-Pocket Payments	2	29	121	0	23	130	2	26	125
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	625	934	1,555	750	1,225	2,055	645	1,014	1,739
Allowed Paid Amount	338	522	854	420	639	1,094	364	559	927
Insurer Payments	225	415	705	309	540	967	255	447	786
Out-of-Pocket Payments	0	56	185	0	64	222	0	59	195
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	146	379	801	228	548	1,034	174	421	916
Allowed Paid Amount	97	289	589	189	386	723	123	322	658
Insurer Payments	34	132	337	66	179	456	43	150	373
Out-of-Pocket Payments	47	124	239	91	166	310	57	139	265
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 30: Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs in Massachusetts by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Delivery			Cesarean Delivery			Total		
Massachusetts									
Number of Live Births	1,223			185			1,408		
Percent	87%			13%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Provider Charges	27,496	11,165.6		33,140	13,431		28,238	11,641	
Allowed Paid Amount	16,888	6,040		20,620	7,291		17,379	6,343	
Insurer Payments	15,880	6,283		19,359	7,342		16,337	6,536	
Out-of-Pocket Payments	989	1,143		1,287	1,221		1,028	1,157	
Third-Party Payments	37	694		-	-		32	647	
Facility Fees									
Provider Charges	13,972	8,204	51%	18,435	10,202	56%	14,558	8,622	52%
Allowed Paid Amount	8,854	3,932	52%	12,295	5,136	60%	9,306	4,270	54%
Insurer Payments	8,379	3,973	53%	11,657	5,064	60%	8,810	4,276	54%
Out-of-Pocket Payments	466	630	47%	661	695	51%	491	642	48%
Third-Party Payments	26	558	70%	-	-	0%	23	520	70%
Professional Anesthesiology Fees									
Provider Charges	2,200	1,623	8%	2,365	1,596	7%	2,221	1,620	8%
Allowed Paid Amount	1,373	912	8%	1,432	1,067	7%	1,381	934	8%
Insurer Payments	1,302	879	8%	1,342	1,025	7%	1,308	899	8%
Out-of-Pocket Payments	65	163	7%	91	208	7%	69	170	7%
Third-Party Payments	6	143	15%	-	-	0%	5	133	15%
Professional Service Fees									
Provider Charges	5,794	2,044	21%	6,613	1,898	20%	5,902	2,043	21%
Allowed Paid Amount	3,969	1,483	24%	4,070	1,318	20%	3,983	1,463	23%
Insurer Payments	3,766	1,563	24%	3,832	1,373	20%	3,775	1,539	23%
Out-of-Pocket Payments	200	329	20%	238	316	19%	205	328	20%
Third-Party Payments	4	84	9%	-	-	0%	3	78	9%
Laboratory Fees									
Provider Charges	1,830	1,582	7%	1,796	1,589	5%	1,826	1,582	6%
Allowed Paid Amount	800	809	5%	785	814	4%	798	810	5%
Insurer Payments	733	775	5%	716	777	4%	731	775	4%
Out-of-Pocket Payments	68	162	7%	70	145	5%	68	160	7%
Third-Party Payments	0	0	0%	-	-	0%	0	0	0%
Radiology/Imaging Fees									
Provider Charges	3,024	2,528	11%	3,381	4,318	10%	3,071	2,829	11%
Allowed Paid Amount	1,433	1,219	8%	1,648	2,076	8%	1,461	1,364	8%
Insurer Payments	1,325	1,174	8%	1,513	1,976	8%	1,350	1,308	8%
Out-of-Pocket Payments	106	237	11%	137	307	11%	110	248	11%
Third-Party Payments	2	32	5%	-	-	0%	2	30	5%
Pharmacy Fees									
Provider Charges	677	1,787	2%	562	1,498	2%	662	1,751	2%
Allowed Paid Amount	459	1,412	3%	396	1,211	2%	451	1,387	3%
Insurer Payments	375	1,363	2%	304	1,140	2%	365	1,335	2%
Out-of-Pocket Payments	84	117	8%	92	135	7%	85	119	8%
Third-Party Payments	-	-	0%	-	-	0%	-	-	0%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month postpartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 31: First, Second, and Third Quartiles for Maternal Health Care Costs in Massachusetts by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Massachusetts									
Total Costs									
Provider Charges	19,802	25,447	33,230	23,246	29,394	41,980	20,146	25,886	34,004
Allowed Paid Amount	12,951	15,913	19,256	15,890	18,839	23,585	13,275	16,296	19,669
Insurer Payments	11,736	15,065	18,543	14,492	17,590	22,038	12,141	15,394	18,910
Out-of-Pocket Payments	61	390	1,781	129	1,139	2,030	67	435	1,823
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	7,796	12,866	17,886	10,396	16,205	24,310	8,176	13,111	18,560
Allowed Paid Amount	6,611	8,413	9,810	9,361	11,407	13,949	6,759	8,478	10,480
Insurer Payments	5,994	8,025	9,511	8,540	11,232	13,759	6,178	8,332	10,053
Out-of-Pocket Payments	0	150	788	0	485	1,120	0	200	850
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	1,300	2,250	2,912	1,500	1,785	2,875	1,400	2,200	2,903
Allowed Paid Amount	805	1,438	1,977	803	1,204	1,610	804	1,405	1,896
Insurer Payments	739	1,333	1,883	759	1,125	1,552	748	1,294	1,812
Out-of-Pocket Payments	0	0	77	0	0	104	0	0	83
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	4,680	5,788	6,925	5,287	6,462	7,880	4,748	5,917	7,004
Allowed Paid Amount	3,085	3,842	4,868	3,219	3,884	5,079	3,102	3,848	4,884
Insurer Payments	2,809	3,629	4,762	2,889	3,652	4,728	2,817	3,641	4,755
Out-of-Pocket Payments	0	14	365	0	33	403	0	15	376
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	787	1,531	2,459	787	1,446	2,405	787	1,520	2,456
Allowed Paid Amount	287	572	1,056	288	549	1,092	288	565	1,069
Insurer Payments	237	524	974	242	478	1,006	238	518	975
Out-of-Pocket Payments	0	0	46	0	0	60	0	0	48
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	1,400	2,351	3,799	1,200	2,114	3,485	1,382	2,322	3,763
Allowed Paid Amount	701	1,074	1,762	638	995	1,734	691	1,067	1,761
Insurer Payments	605	1,020	1,660	515	929	1,526	596	1,002	1,641
Out-of-Pocket Payments	0	0	109	0	0	171	0	0	115
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	55	187	539	27	150	551	51	184	539
Allowed Paid Amount	34	121	344	20	92	320	33	119	341
Insurer Payments	8	61	220	2	53	217	7	59	219
Out-of-Pocket Payments	16	47	109	10	40	120	15	46	110
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 32: Live Birth Numbers, Proportions, and Mean Total Maternal Health Care Costs in Minnesota by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Delivery			Cesarean Delivery			Total		
Minnesota									
Number of Live Births	634			146			780		
Percent	81%			19%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Provider Charges	18,725	8,496		27,279	11,559		20,326	9,730	
Allowed Paid Amount	12,130	4,891		17,109	5,035		13,062	5,285	
Insurer Payments	10,094	4,895		15,143	5,104		11,039	5,311	
Out-of-Pocket Payments	1,971	1,105		1,921	1,121		1,962	1,108	
Third-Party Payments	82	781		59	637		78	756	
Facility Fees									
Provider Charges	10,874	6,285	58%	17,497	9,366	64%	12,114	7,423	60%
Allowed Paid Amount	6,218	2,839	51%	10,307	4,140	60%	6,984	3,505	53%
Insurer Payments	5,239	2,753	52%	9,189	4,094	61%	5,978	3,414	54%
Out-of-Pocket Payments	937	683	48%	1,056	722	55%	959	692	49%
Third-Party Payments	52	490	63%	56	636	95%	53	520	68%
Professional Anesthesiology Fees									
Provider Charges	790	626	4%	1,415	970	5%	907	743	4%
Allowed Paid Amount	577	478	5%	982	671	6%	653	542	5%
Insurer Payments	479	433	5%	861	630	6%	551	498	5%
Out-of-Pocket Payments	99	172	5%	122	196	6%	103	176	5%
Third-Party Payments	1	34	2%	-	-	0%	1	31	1%
Professional Service Fees									
Provider Charges	4,370	1,562	23%	5,174	1,369	19%	4,521	1,559	22%
Allowed Paid Amount	3,570	1,216	29%	3,937	1,259	23%	3,638	1,231	28%
Insurer Payments	2,985	1,220	30%	3,538	1,170	23%	3,089	1,229	28%
Out-of-Pocket Payments	560	529	28%	402	447	21%	530	518	27%
Third-Party Payments	25	272	31%	2	26	4%	21	246	27%
Laboratory Fees									
Provider Charges	815	848	4%	902	700	3%	831	823	4%
Allowed Paid Amount	483	571	4%	521	462	3%	490	552	4%
Insurer Payments	379	551	4%	435	448	3%	390	534	4%
Out-of-Pocket Payments	104	167	5%	93	161	5%	102	166	5%
Third-Party Payments	2	38	3%	1	11	2%	2	34	3%
Radiology/Imaging Fees									
Provider Charges	1,197	1,244	6%	1,587	2,984	6%	1,270	1,714	6%
Allowed Paid Amount	882	901	7%	1,069	1,348	6%	917	1,001	7%
Insurer Payments	693	845	7%	901	1,157	6%	732	915	7%
Out-of-Pocket Payments	192	303	10%	176	366	9%	189	316	10%
Third-Party Payments	1	19	1%	0	1	0%	1	17	1%
Pharmacy Fees									
Provider Charges	679	2,609	4%	705	1,939	3%	684	2,497	3%
Allowed Paid Amount	400	2,029	3%	293	648	2%	380	1,850	3%
Insurer Payments	319	1,939	3%	219	573	1%	300	1,766	3%
Out-of-Pocket Payments	80	154	4%	73	107	4%	79	146	4%
Third-Party Payments	-	-	0%	-	-	0%	-	-	0%

Note: Maternal costs include the 9-month prenatal, intrapartum, and 3-month postpartum periods. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 33: First, Second, and Third Quartiles for Maternal Health Care Costs in Minnesota by Type of Service for Vaginal and Cesarean Deliveries, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Minnesota									
Total Costs									
Provider Charges	14,117	16,884	21,215	20,134	24,120	33,352	14,817	18,014	23,397
Allowed Paid Amount	9,574	11,123	13,361	13,702	17,010	19,150	9,897	11,730	15,025
Insurer Payments	7,621	9,113	11,512	11,846	15,069	17,275	7,849	9,707	13,153
Out-of-Pocket Payments	1,221	1,853	2,544	1,039	1,801	2,535	1,173	1,846	2,541
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	7,161	9,618	12,862	11,465	15,028	22,142	7,519	10,320	14,287
Allowed Paid Amount	4,549	5,321	7,186	7,594	9,668	11,385	4,686	5,782	8,511
Insurer Payments	3,817	4,509	6,051	6,772	8,557	10,814	3,943	4,881	7,397
Out-of-Pocket Payments	488	813	1,178	474	929	1,521	487	833	1,225
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	0	1,082	1,190	845	1,500	2,052	0	1,082	1,190
Allowed Paid Amount	0	730	900	493	1,037	1,387	0	741	976
Insurer Payments	0	538	793	390	941	1,213	0	609	867
Out-of-Pocket Payments	0	50	118	0	62	142	0	51	129
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	3,826	4,342	4,835	4,440	5,066	5,711	3,899	4,434	5,053
Allowed Paid Amount	3,003	3,478	4,118	3,161	3,864	4,747	3,025	3,520	4,220
Insurer Payments	2,410	2,990	3,516	2,817	3,301	4,210	2,463	3,045	3,675
Out-of-Pocket Payments	245	461	758	60	268	578	160	436	747
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	379	628	1,026	476	760	1,204	393	656	1,060
Allowed Paid Amount	208	345	578	220	352	650	210	347	602
Insurer Payments	92	252	457	159	284	565	102	260	470
Out-of-Pocket Payments	0	34	143	2	35	105	0	34	138
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology /Imaging Fees									
Provider Charges	509	876	1,433	647	1,033	1,822	517	906	1,470
Allowed Paid Amount	380	655	1,123	377	774	1,291	380	682	1,146
Insurer Payments	224	493	877	275	617	1,089	234	511	916
Out-of-Pocket Payments	0	72	269	0	61	219	0	70	263
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	38	142	424	42	130	472	39	139	437
Allowed Paid Amount	22	91	246	20	73	267	22	88	253
Insurer Payments	1	41	133	0	39	177	0	41	135
Out-of-Pocket Payments	7	36	96	11	32	92	8	34	95
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 34: Nationally Weighted Live Birth Numbers, Proportions, and Mean Newborn Care Costs Covering Care at Birth and In the First Three Months of Life Following Vaginal and Cesarean Births, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Newborns	30,453			14,168			44,621		
Percent	68%			32%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	9,359	25,835		19,063	47,867		12,419	34,640	
Allowed Paid Amount	5,809	16,708		11,193	28,749		7,507	21,401	
Insurer Payments	5,205	16,413		10,361	28,252		6,831	21,021	
Out-of-Pocket Payments	558	649		721	901		609	741	
Third-Party Payments	46	1,402		135	3,227		74	2,152	
Facility Fees									
Provider Charges	6,682	21,527	71%	14,703	40,229	77%	9,211	29,010	74%
Allowed Paid Amount	4,103	13,983	71%	8,426	23,836	75%	5,466	17,807	73%
Insurer Payments	3,732	13,837	72%	7,924	23,583	76%	5,054	17,614	74%
Out-of-Pocket Payments	330	335	59%	408	397	57%	355	356	58%
Third-Party Payments	39	1,350	85%	116	3,032	86%	63	2,037	86%
Professional Fees									
Provider Charges	2,496	5,052	27%	4,091	8,989	21%	2,999	6,596	24%
Allowed Paid Amount	1,606	3,245	28%	2,607	5,970	23%	1,922	4,320	26%
Insurer Payments	1,394	3,062	27%	2,306	5,713	22%	1,682	4,110	25%
Out-of-Pocket Payments	206	294	37%	285	574	39%	231	406	38%
Third-Party Payments	7	223	14%	18	423	13%	10	301	14%
Laboratory Fees									
Provider Charges	72	335	0.8%	77	397	0%	73	356	1%
Allowed Paid Amount	33	158	0.6%	37	198	0%	34	172	0%
Insurer Payments	24	145	0.5%	28	185	0%	26	158	0%
Out-of-Pocket Payments	8	34	1.5%	8	37	1%	8	35	1%
Third-Party Payments	0	5	0.1%	0	4	0%	0	5	0%
Radiology/Imaging Fees									
Provider Charges	65	331	0.7%	115	437	0.6%	81	369	0.6%
Allowed Paid Amount	34	233	0.6%	57	219	0.5%	42	229	0.6%
Insurer Payments	29	223	0.6%	48	199	0.5%	35	216	0.5%
Out-of-Pocket Payments	5	32	0.9%	9	47	1.3%	6	37	1.1%
Third-Party Payments	0	5	0.2%	0	13	0.2%	0	8	0.2%
Pharmacy Fees									
Provider Charges	44	400	0.5%	77	459	0.4%	55	420	0.4%
Allowed Paid Amount	33	252	0.6%	66	413	0.6%	43	312	0.6%
Insurer Payments	25	237	0.5%	55	398	0.5%	34	298	0.5%
Out-of-Pocket Payments	8	30	1.4%	11	31	1.5%	9	31	1.5%
Third-Party Payments	0	12	0.3%	0	36	0.3%	0	22	0.4%

Note: The number of newborns may differ from the live birth numbers shown in the maternal costs tables because newborns were identified using a different criteria and did not depend on a linked mothers and newborns. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 35: Nationally Weighted First, Second, and Third Quartiles for Newborn Care Costs Covering Care at Birth and In the First Three Months of Life Following Vaginal and Cesarean Births, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	3,231	4,437	6,662	4,381	6,317	11,299	3,494	4,925	7,843
Allowed Paid Amount	2,150	2,762	3,833	2,720	3,660	5,957	2,281	2,994	4,413
Insurer Payments	1,723	2,335	3,319	2,242	3,125	5,190	1,852	2,541	3,817
Out-of-Pocket Payments	170	396	709	205	507	939	180	425	772
Third-Party Payments	0	0	0	0	0	0	0	0	0
Facility Fees									
Provider Charges	1,707	2,610	4,368	2,581	4,068	8,175	1,890	2,986	5,285
Allowed Paid Amount	1,107	1,613	2,406	1,524	2,281	4,189	1,200	1,775	2,870
Insurer Payments	873	1,352	2,162	1,254	1,968	3,675	960	1,511	2,530
Out-of-Pocket Payments	0	199	424	0	242	542	0	209	460
Third-Party Payments	0	0	0	0	0	0	0	0	0
Professional Fees									
Provider Charges	1,239	1,658	2,280	1,475	2,024	2,974	1,300	1,759	2,479
Allowed Paid Amount	834	1,081	1,441	961	1,267	1,846	866	1,131	1,553
Insurer Payments	687	917	1,242	785	1,075	1,598	714	960	1,334
Out-of-Pocket Payments	54	124	264	60	154	340	59	132	287
Third-Party Payments	0	0	0	0	0	0	0	0	0
Laboratory Fees									
Provider Charges	0	0	49	0	0	43	0	0	47
Allowed Paid Amount	0	0	17	0	0	15	0	0	16
Insurer Payments	0	0	8	0	0	7	0	0	8
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Insurer Payments	0	0	0	0	0	0	0	0	0
Out-of-Pocket Payments	0	0	0	0	0	0	0	0	0
Third-Party Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	0	0	15	0	0	22	0	0	18
Allowed Paid Amount	0	0	10	0	0	16	0	0	12
Insurer Payments	0	0	0	0	0	2	0	0	0
Out-of-Pocket Payments	0	0	5	0	0	8	0	0	6
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 36: Top 50 Diagnoses for Newborns by Childbirth Type, 2010 Commercial

Vaginal Childbirth		Cesarean Childbirth	
Diagnoses	Number	Diagnoses	Number
OTH85-Encounter for Preventive Health Services	30,026	OTH85-Encounter for Preventive Health Services	13,961
PED86-Live Newborns	29,816	PED86-Live Newborns	13,638
HEM11-Hemolytic Disease of the Newborn	8,360	OTH87-Encounter Related to Other Treatment	4,237
OTH87-Encounter Related to Other Treatment	8,341	PED85-Other Neonatal Conditions	3,894
PED85-Other Neonatal Conditions	7,565	PED84-Other Maternal Conditions Affecting Newborn	3,571
OTH92-General Signs, Symptoms, and Ill-Defined Conditions	5,414	HEM11-Hemolytic Disease of the Newborn	2,969
NUT81-Other Nutritional and Metabolic Disorders	3,904	OTH92-General Signs, Symptoms, and Ill-Defined Conditions	2,453
ENT82-Other Ear, Nose, and Throat Infections	3,246	NUT81-Other Nutritional and Metabolic Disorders	2,031
SKN82-Other Inflammations and Infections of Skin and Subcutaneous Tissu	2,992	PED20-Hyaline Membrane Disease/Respiratory Distress Syndrome	1,821
GIS20-Hernia, Hiatal or Reflux Esophagitis	2,759	ENT82-Other Ear, Nose, and Throat Infections	1,696
GIS87-Other Gastrointestinal or Abdominal Symptoms	2,126	GIS20-Hernia, Hiatal or Reflux Esophagitis	1,586
PED84-Other Maternal Conditions Affecting Newborn	1,923	SKN82-Other Inflammations and Infections of Skin and Subcutaneous Tissu	1,433
ENT81-Other Ear, Nose and Throat Disorders	1,914	PED27-Prematurity: Low Birthweight	1,403
PED20-Hyaline Membrane Disease/Respiratory Distress Syndrome	1,710	GIS87-Other Gastrointestinal or Abdominal Symptoms	1,154
PED27-Prematurity: Low Birthweight	1,562	ENT81-Other Ear, Nose and Throat Disorders	989
PED25-Postmaturity	1,542	PED25-Postmaturity	882
PED16-Bacterial and Fungal Infections of the Newborn	1,247	RES86-Other Respiratory Symptoms	771
MGS81-Other Disorders of Male Genital System	1,141	MGS81-Other Disorders of Male Genital System	620
RES86-Other Respiratory Symptoms	973	PED16-Bacterial and Fungal Infections of the Newborn	563
GIS16-Functional Digestive Disorders	906	RES24-Rhino, Adeno, and Corona Virus Infections	538
RES24-Rhino, Adeno, and Corona Virus Infections	904	GIS16-Functional Digestive Disorders	496
EYE02-Conjunctivitis: Bacterial	887	MUS80-Anomaly: Musculoskeletal System	491
OTH84-Encounter for Other Administrative Reasons	784	CVS84-Other Cardiovascular Symptoms	452
INF03-Candida (Monilial) Infections	780	EYE02-Conjunctivitis: Bacterial	432
CVS84-Other Cardiovascular Symptoms	727	OTH84-Encounter for Other Administrative Reasons	399
ENT18-Otitis Media	660	MUS83-Other Arthropathies, Bone and Joint Disorders	365
PED22-Meconium Aspiration Syndrome	646	PED02-Anomaly: Atrial Septal Defect	363
EYE06-Dacryostenosis or Dacryocystitis	628	INF03-Candida (Monilial) Infections	362
EYE82-Other Eye Disorders	612	ENT18-Otitis Media	359
INF85-Other Viral Infections	545	EYE82-Other Eye Disorders	334
MUS80-Anomaly: Musculoskeletal System	545	RES83-Other Disorders of Respiratory System	333
GIS85-Other Gastrointestinal Disorders	515	EYE06-Dacryostenosis or Dacryocystitis	296
OTH80-Abnormal Lab, X-ray and Clinical Findings	455	GIS85-Other Gastrointestinal Disorders	292
PED02-Anomaly: Atrial Septal Defect	430	PED19-Full Term Infant with Abnormal Birth Weight	290
MUS83-Other Arthropathies, Bone and Joint Disorders	412	INF85-Other Viral Infections	272
RES23-Respiratory Syncytial Virus Infections	404	RES23-Respiratory Syncytial Virus Infections	258
OTH88-Factors Influencing Health Status	395	GUS83-Other Disorders of Kidney or Ureter	226
PED19-Full Term Infant with Abnormal Birth Weight	393	OTH80-Abnormal Lab, X-ray and Clinical Findings	225
GUS83-Other Disorders of Kidney or Ureter	385	OTH88-Factors Influencing Health Status	225
GIS81-Gastroenteritis	370	GIS81-Gastroenteritis	205
MUS86-Other Spinal and Back Disorders: Cervical	356	CVS03-Anomaly: Patent Ductus Arteriosus	204
RES83-Other Disorders of Respiratory System	349	EYE31-Prematurity: Retinopathy	199
GIS19-Hernia, External	286	GIS19-Hernia, External	190
PED21-Injury: To Newborn During Delivery	233	PED22-Meconium Aspiration Syndrome	176
TRA81-Injury: Other	218	MUS86-Other Spinal and Back Disorders: Cervical	160
PED06-Anomaly: Defects of Kidney	213	PED28-Prematurity: Very Low Birthweight	145
SKN05-Infections of Skin and Subcutaneous Tissue	209	CVS06-Arrhythmias	128
GIS84-Other Diseases of Esophagus, Stomach, and Duodenum	198	PED06-Anomaly: Defects of Kidney	128
PED15-Anomaly: Ventricular Septal Defects	198	PED15-Anomaly: Ventricular Septal Defects	127
SKN10-Pilonidal Cyst	197	SKN10-Pilonidal Cyst	116

Table 37: Nationally Weighted Live Birth Numbers, Proportions, and Mean Newborn s Care Costs Covering Birth and Three Months Post Birth for Hospitalizations that included Neonatal Intensive Care Unit Stays, 2010 Commercial

	Vaginal Delivery		Cesarean Delivery		Total	
Number of Newborns	1,917		1,859		3,776	
Percent	51%		49%		100%	
Number of NICU Admissions	2,024		2,009		4,033	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Provider Charges	54,879	72,118	82,639	97,904	68,496	86,857
Allowed Paid Amount	32,595	47,417	47,429	59,604	39,871	54,251
Insurer Payments	30,875	47,162	45,496	59,214	38,047	53,912
Out-of-Pocket Payments	1,241	1,327	1,351	1,666	1,295	1,504
Third-Party Payments	468	5,357	735	8,452	599	7,048

Note: The number of newborns may differ from the live birth numbers shown in the maternity costs tables because newborns were identified using a different criteria and did not depend on a linked mothers and infants.

Table 38: Nationally Weighted First, Second, and Third Quartiles for Newborns Care Costs Covering Birth and Three Months Post Birth for Hospitalizations that included Neonatal Intensive Care Unit Stays, 2010 Commercial

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	13,604	27,965	64,382	19,269	44,607	103,947	15,913	34,830	81,117
Allowed Paid Amount	7,931	16,312	37,292	11,381	25,437	57,684	9,271	20,136	45,840
Insurer Payments	6,732	14,619	34,594	9,843	23,567	54,760	7,813	18,225	43,427
Out-of-Pocket Payments	250	1,021	1,762	352	1,150	1,915	300	1,077	1,817
Third-Party Payments	0	0	0	0	0	0	0	0	0

Table 39: Top 50 Diagnoses among Newborns Admitted to the Neonatal Intensive Care Unit by Type of Delivery, 2010 Commercial

Vaginal Childbirth		Cesarean Childbirth	
Diagnoses	Number	Diagnoses	Number
PED86-Live Newborns	1,338	PED86-Live Newborns	1,380
PED20-Hyaline Membrane Disease/Respiratory Distress Syndrom	834	PED20-Hyaline Membrane Disease/Respiratory Distress Syndrome	1,057
PED27-Prematurity: Low Birthweight	573	PED27-Prematurity: Low Birthweight	732
OTH87-Encounter Related to Other Treatment	518	PED84-Other Maternal Conditions Affecting Newborn	596
PED85-Other Neonatal Conditions	445	OTH87-Encounter Related to Other Treatment	574
PED84-Other Maternal Conditions Affecting Newborn	348	PED85-Other Neonatal Conditions	467
RES86-Other Respiratory Symptoms	230	RES86-Other Respiratory Symptoms	264
HEM11-Hemolytic Disease of the Newborn	210	RES83-Other Disorders of Respiratory System	168
PED16-Bacterial and Fungal Infections of the Newborn	175	HEM11-Hemolytic Disease of the Newborn	146
OTH92-General Signs, Symptoms, and Ill-Defined Conditions	146	PED02-Anomaly: Atrial Septal Defect	134
RES83-Other Disorders of Respiratory System	130	OTH92-General Signs, Symptoms, and Ill-Defined Conditions	127
OTH85-Encounter for Preventive Health Services	108	OTH85-Encounter for Preventive Health Services	126
PED02-Anomaly: Atrial Septal Defect	100	CVS03-Anomaly: Patent Ductus Arteriosus	120
GIS87-Other Gastrointestinal or Abdominal Symptoms	92	EYE31-Prematurity: Retinopathy	118
CVS84-Other Cardiovascular Symptoms	80	PED16-Bacterial and Fungal Infections of the Newborn	115
PED22-Meconium Aspiration Syndrome	55	PED28-Prematurity: Very Low Birthweight	109
CVS03-Anomaly: Patent Ductus Arteriosus	51	GIS87-Other Gastrointestinal or Abdominal Symptoms	99
ENT81-Other Ear, Nose and Throat Disorders	47	CVS84-Other Cardiovascular Symptoms	89
PED25-Postmaturity	47	PED19-Full Term Infant with Abnormal Birth Weight	77
PED19-Full Term Infant with Abnormal Birth Weight	46	ENT81-Other Ear, Nose and Throat Disorders	54
MGS81-Other Disorders of Male Genital System	43	PED22-Meconium Aspiration Syndrome	50
GIS85-Other Gastrointestinal Disorders	39	GIS20-Hernia, Hiatal or Reflux Esophagitis	47
EYE31-Prematurity: Retinopathy	37	GIS85-Other Gastrointestinal Disorders	42
CVS06-Arrhythmias	36	MGS81-Other Disorders of Male Genital System	41
INF82-Other Bacterial Infections	35	OTH80-Abnormal Lab, X-ray and Clinical Findings	41
NEU04-Cerebrovascular Disease	35	CVS83-Other Cardiac Conditions	40
OTH80-Abnormal Lab, X-ray and Clinical Findings	35	CVS06-Arrhythmias	37
PED21-Injury: To Newborn During Delivery	35	MUS80-Anomaly: Musculoskeletal System	37
PED28-Prematurity: Very Low Birthweight	32	NUT81-Other Nutritional and Metabolic Disorders	37
GIS20-Hernia, Hiatal or Reflux Esophagitis	31	PED80-Anomaly: Other Circulatory System	37
PED15-Anomaly: Ventricular Septal Defects	31	GUS83-Other Disorders of Kidney or Ureter	36
GUS83-Other Disorders of Kidney or Ureter	27	PED26-Prematurity: Extremely Low Birthweight	34
MUS80-Anomaly: Musculoskeletal System	26	END08-Hypoglycemia	33
PED10-Anomaly: Other Congenital Heart Disease	26	PED25-Postmaturity	32
GEN80-Other Chromosomal Anomalies	25	NEU80-Other CNS Inflammation, Infection, or Disorder	31
NEU80-Other CNS Inflammation, Infection, or Disorder	25	PED15-Anomaly: Ventricular Septal Defects	28
END08-Hypoglycemia	24	GEN80-Other Chromosomal Anomalies	26
RES23-Respiratory Syncytial Virus Infections	24	GIS16-Functional Digestive Disorders	24
CVS83-Other Cardiac Conditions	23	OTH84-Encounter for Other Administrative Reasons	23
NUT81-Other Nutritional and Metabolic Disorders	22	NEU04-Cerebrovascular Disease	22
PED80-Anomaly: Other Circulatory System	22	PED10-Anomaly: Other Congenital Heart Disease	22
OTH81-Complications of Surgical and Medical Care	21	PED31-Toxoplasmosis: Congenital	21
GIS16-Functional Digestive Disorders	20	PED83-Anomaly: Other Nervous System	20
RES24-Rhino, Adeno, and Corona Virus Infections	20	OTH88-Factors Influencing Health Status	19
MUS83-Other Arthropathies, Bone and Joint Disorders	19	PED06-Anomaly: Defects of Kidney	19
RES15-Pneumonia: Bacterial	19	PED21-Injury: To Newborn During Delivery	19
PED04-Anomaly: Coarctation of the Aorta	16	PED81-Anomaly: Other Digestive or Hepatobiliary System	18
PED31-Toxoplasmosis: Congenital	16	RES23-Respiratory Syncytial Virus Infections	18
GIS84-Other Diseases of Esophagus, Stomach, and Duodenum	14	GEN01-Down's Syndrome	17
NUT80-Other Electrolyte Disorders	14	OTH81-Complications of Surgical and Medical Care	16

APPENDIX C: MEDICAID COST

Table 40: Live Birth Numbers, Proportions, and Mean Prenatal Health Care Costs by Type of Service for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	5,094			2,159			7,253		
Percent	70%			30%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	7,790	7,497		9,386	8,891		8,265	7,970	
Allowed Paid Amount	2,405	2,450		2,859	2,779		2,540	2,561	
Medicaid Payments	2,389	2,448		2,840	2,776		2,523	2,558	
Facility Fees									
Provider Charges	2,663	4,355	34.2%	3,110	4,998	33.1%	2,796	4,561	33.8%
Allowed Paid Amount	852	1,427	35.4%	943	1,455	33.0%	879	1,436	34.6%
Medicaid Payments	846	1,423	35.4%	933	1,447	32.9%	872	1,431	34.6%
Professional Anesthesiology Fees									
Provider Charges	16	145	0.2%	19	164	0.2%	17	151	0.2%
Allowed Paid Amount	2	24	0.1%	3	23	0.1%	2	24	0.1%
Medicaid Payments	2	24	0.1%	3	23	0.1%	2	24	0.1%
Professional Service Fees									
Provider Charges	949	1,471	12.2%	1,101	1,377	11.7%	995	1,446	12.0%
Allowed Paid Amount	392	620	16.3%	428	537	15.0%	403	596	15.8%
Medicaid Payments	390	620	16.3%	427	537	15.0%	401	596	15.9%
Laboratory Fees									
Provider Charges	1,814	1,509	23.3%	2,054	1,746	21.9%	1,886	1,587	22.8%
Allowed Paid Amount	338	302	14.0%	375	354	13.1%	349	319	13.7%
Medicaid Payments	337	302	14.1%	374	355	13.2%	348	319	13.8%
Radiology/Imaging Fees									
Provider Charges	1,765	2,094	22.7%	2,287	2,781	24.4%	1,920	2,332	23.2%
Allowed Paid Amount	448	477	18.6%	572	632	20.0%	485	531	19.1%
Medicaid Payments	445	475	18.6%	570	632	20.1%	482	529	19.1%
Pharmacy Fees									
Provider Charges	584	1,590	7.5%	815	1,874	8.7%	652	1,683	7.9%
Allowed Paid Amount	374	1,136	15.5%	538	1,382	18.8%	423	1,216	16.6%
Medicaid Payments	369	1,132	15.4%	533	1,378	18.8%	418	1,213	16.6%

Note: Prenatal costs do not include intrapartum or postpartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 41: First, Second, and Third Quartiles for Prenatal Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010, Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	3,166	5,415	9,565	3,766	6,686	11,495	3,340	5,771	10,233
Allowed Paid Amount	968	1,689	3,001	1,139	2,062	3,541	1,018	1,790	3,158
Medicaid Payments	954	1,681	2,984	1,123	2,050	3,528	1,002	1,778	3,141
Facility Fees									
Provider Charges	259	1,174	3,054	389	1,486	3,558	297	1,252	3,211
Allowed Paid Amount	54	335	1,029	94	405	1,193	67	357	1,079
Medicaid Payments	51	332	1,024	87	398	1,185	63	353	1,072
Professional Anesthesiology Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	95	481	1,294	153	668	1,573	114	522	1,369
Allowed Paid Amount	37	168	537	56	221	645	42	181	569
Medicaid Payments	37	166	535	55	219	645	41	180	569
Laboratory Fees									
Provider Charges	800	1,464	2,360	930	1,611	2,639	841	1,505	2,456
Allowed Paid Amount	135	254	441	150	280	468	139	262	449
Medicaid Payments	133	253	440	149	279	465	137	261	448
Radiology/Imaging Fees									
Provider Charges	634	1,208	2,145	716	1,468	2,802	658	1,270	2,347
Allowed Paid Amount	183	317	535	205	372	706	189	331	579
Medicaid Payments	181	316	534	204	371	701	187	330	577
Pharmacy Fees									
Provider Charges	76	215	508	97	287	755	81	234	569
Allowed Paid Amount	51	144	336	67	188	448	55	156	368
Medicaid Payments	50	141	330	63	182	445	52	153	364

Table 42: Live Birth Numbers, Proportions, and Mean Intrapartum Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	5,094			2,159			7,253		
Percent	70%			30%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	12,599	5,301		20,680	7,582		15,004	7,106	
Allowed Paid Amount	3,347	1,304		4,655	2,090		3,736	1,689	
Medicaid Payments	3,303	1,337		4,604	2,107		3,690	1,712	
Facility Fees									
Provider Charges	9,085	4,600	72.1%	15,761	7,146	76.2%	11,073	6,275	73.8%
Allowed Paid Amount	2,171	1,111	64.9%	3,286	1,889	70.6%	2,503	1,480	67.0%
Medicaid Payments	2,140	1,107	64.8%	3,246	1,876	70.5%	2,469	1,471	66.9%
Professional Anesthesiology Fees									
Provider Charges	842	881	6.7%	1,309	960	6.3%	981	930	6.5%
Allowed Paid Amount	160	173	4.8%	182	166	3.9%	167	172	4.5%
Medicaid Payments	158	171	4.8%	179	163	3.9%	164	169	4.4%
Professional Service Fees									
Provider Charges	2,620	1,354	20.8%	3,540	2,031	17.1%	2,894	1,641	19.3%
Allowed Paid Amount	1,006	444	30.1%	1,174	522	25.2%	1,056	475	28.3%
Medicaid Payments	996	444	30.2%	1,167	524	25.3%	1,047	476	28.4%
Laboratory Fees									
Provider Charges	52	117	0.4%	115	177	0.6%	71	140	0.5%
Allowed Paid Amount	9	22	0.3%	18	30	0.4%	12	25	0.3%
Medicaid Payments	9	21	0.3%	18	30	0.4%	12	24	0.3%
Radiology/Imaging Fees									
Provider Charges	8	66	0.1%	17	95	0.1%	11	76	0.1%
Allowed Paid Amount	1	11	0.0%	3	15	0.1%	2	13	0.0%
Medicaid Payments	1	11	0.0%	3	15	0.1%	2	13	0.1%
Pharmacy Fees									
Provider Charges									
Allowed Paid Amount									
Medicaid Payments									

Note: Intrapartum costs do not include prenatal or postpartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 43: First, Second, and Third Quartiles for Intrapartum Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	9,221	11,487	15,062	15,690	19,079	24,132	10,193	13,541	18,156
Allowed Paid Amount	2,425	3,119	4,036	3,273	4,240	5,958	2,645	3,403	4,466
Medicaid Payments	2,405	3,090	4,016	3,250	4,205	5,903	2,608	3,373	4,441
Facility Fees									
Provider Charges	6,301	8,144	10,940	11,154	14,236	18,441	7,040	9,604	13,508
Allowed Paid Amount	1,408	1,966	2,621	2,132	2,889	4,298	1,560	2,249	3,136
Medicaid Payments	1,408	1,955	2,594	2,132	2,826	4,281	1,499	2,248	3,082
Professional Anesthesiology Fees									
Provider Charges	-	700	1,250	825	1,102	1,540	404	825	1,342
Allowed Paid Amount	-	166	175	85	141	232	42	156	203
Medicaid Payments	-	161	174	83	139	232	42	149	200
Professional Service Fees									
Provider Charges	1,800	2,650	3,277	2,406	3,227	4,187	1,963	2,795	3,588
Allowed Paid Amount	605	1,183	1,200	727	1,238	1,346	660	1,183	1,260
Medicaid Payments	605	1,183	1,200	727	1,238	1,346	653	1,183	1,256
Laboratory Fees									
Provider Charges	0	0	0	0	0	258	0	0	57
Allowed Paid Amount	0	0	0	0	0	48	0	0	3
Medicaid Payments	0	0	0	0	0	48	0	0	3
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges									
Allowed Paid Amount									
Medicaid Payments									

Table 44: Live Birth Numbers, Proportions, and Mean Postpartum Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	5,094			2,159			7,253		
Percent	70%			30%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	858	2,459		1,194	3,058		958	2,656	
Allowed Paid Amount	365	688		469	934		396	771	
Medicaid Payments	361	685		464	927		392	766	
Facility Fees									
Provider Charges	311	1,897	36.3%	528	2,327	44.3%	376	2,037	39.2%
Allowed Paid Amount	79	414	21.6%	128	547	27.4%	94	458	23.6%
Medicaid Payments	78	412	21.6%	126	541	27.1%	92	455	23.5%
Professional Anesthesiology Fees									
Provider Charges	18	150	2.1%	15	141	1.3%	18	147	1.8%
Allowed Paid Amount	3	26	0.8%	3	28	0.6%	3	27	0.7%
Medicaid Payments	3	26	0.8%	3	28	0.6%	3	26	0.7%
Professional Service Fees									
Provider Charges	116	330	13.5%	137	452	11.5%	122	371	12.8%
Allowed Paid Amount	47	117	12.9%	52	130	11.0%	48	121	12.2%
Medicaid Payments	47	117	12.9%	51	130	11.1%	48	121	12.3%
Laboratory Fees									
Provider Charges	75	184	8.7%	88	252	7.3%	79	207	8.2%
Allowed Paid Amount	15	58	4.1%	15	41	3.2%	15	53	3.8%
Medicaid Payments	15	58	4.1%	15	40	3.2%	15	53	3.8%
Radiology /Imaging Fees									
Provider Charges	25	257	3.0%	47	415	4.0%	32	313	3.3%
Allowed Paid Amount	5	66	1.3%	9	98	1.9%	6	77	1.5%
Medicaid Payments	5	66	1.3%	9	98	1.9%	6	77	1.5%
Pharmacy Fees									
Provider Charges	312	592	36.4%	378	827	31.6%	332	672	34.6%
Allowed Paid Amount	217	416	59.4%	263	616	56.0%	230	485	58.2%
Medicaid Payments	214	415	59.4%	260	614	56.0%	228	483	58.2%

Note: Postpartum costs do not include prenatal or intrapartum care costs. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 45: First, Second, and Third Quartiles for Maternal Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	82	277	789	105	334	923	89	293	818
Allowed Paid Amount	46	149	396	65	183	472	51	159	420
Medicaid Payments	46	147	391	63	183	469	50	157	413
Facility Fees									
Provider Charges	0	0	0	0	0	76	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Professional Anesthesiology Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Professional Service Fees									
Provider Charges	0	0	95	0	0	129	0	0	105
Allowed Paid Amount	0	0	60	0	0	60	0	0	60
Medicaid Payments	0	0	59	0	0	60	0	0	60
Laboratory Fees									
Provider Charges	0	0	73	0	0	78	0	0	74
Allowed Paid Amount	0	0	11	0	0	11	0	0	11
Medicaid Payments	0	0	11	0	0	11	0	0	11
Radiology/Imaging Fees									
Provider Charges	0	0	0	0	0	0	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Pharmacy Fees									
Provider Charges	21	101	325	32	126	401	24	109	352
Allowed Paid Amount	14	68	213	23	82	244	16	73	221
Medicaid Payments	13	67	210	21	81	238	15	71	219

Table 46: Live Birth Numbers, Proportions, and Mean Maternal Health Care Costs by Type of Service for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
Number of Live Births	5,094			2,159			7,253		
Percent	70%			30%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	21,247	10,198		31,259	13,282		24,227	12,104	
Allowed Paid Amount	6,117	3,092		7,983	3,949		6,673	3,476	
Medicaid Payments	6,053	3,127		7,908	3,972		6,605	3,504	
Facility Fees									
Provider Charges	12,059	6,938	56.8%	19,399	9,639	62.1%	14,244	8,528	58.8%
Allowed Paid Amount	3,102	1,955	50.7%	4,358	2,577	54.6%	3,476	2,234	52.1%
Medicaid Payments	3,064	1,955	50.6%	4,305	2,568	54.4%	3,433	2,229	52.0%
Professional Anesthesiology Fees									
Provider Charges	876	906	4.1%	1,343	984	4.3%	1,015	954	4.2%
Allowed Paid Amount	165	178	2.7%	188	172	2.4%	172	177	2.6%
Medicaid Payments	163	176	2.7%	185	169	2.3%	169	174	2.6%
Professional Service Fees									
Provider Charges	3,686	1,917	17.3%	4,778	2,503	15.3%	4,011	2,166	16.6%
Allowed Paid Amount	1,445	759	23.6%	1,654	784	20.7%	1,507	773	22.6%
Medicaid Payments	1,433	765	23.7%	1,645	789	20.8%	1,496	778	22.6%
Laboratory Fees									
Provider Charges	1,941	1,556	9.1%	2,257	1,809	7.2%	2,036	1,641	8.4%
Allowed Paid Amount	362	313	5.9%	408	364	5.1%	375	330	5.6%
Medicaid Payments	360	313	6.0%	406	364	5.1%	374	330	5.7%
Radiology/Imaging Fees									
Provider Charges	1,799	2,114	8.5%	2,352	2,833	7.5%	1,963	2,364	8.1%
Allowed Paid Amount	454	483	7.4%	584	644	7.3%	493	539	7.4%
Medicaid Payments	451	481	7.5%	582	644	7.4%	490	538	7.4%
Pharmacy Fees									
Provider Charges	896	1,940	4.2%	1,192	2,493	3.8%	984	2,124	4.1%
Allowed Paid Amount	590	1,374	9.6%	801	1,835	10.0%	653	1,528	9.8%
Medicaid Payments	583	1,368	9.6%	793	1,827	10.0%	646	1,522	9.8%

Table 47: First, Second, and Third Quartiles for Maternal Health Care Expenditures for Vaginal and Cesarean Childbirths by Payer, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	14,485	18,855	25,089	22,046	27,582	36,842	16,084	21,376	28,856
Allowed Paid Amount	4,167	5,397	7,202	5,357	7,161	9,619	4,443	5,845	7,959
Medicaid Payments	4,130	5,365	7,166	5,326	7,121	9,548	4,407	5,817	7,908
Facility Fees									
Provider Charges	7,736	10,368	14,453	13,086	16,712	23,127	8,570	12,247	17,154
Allowed Paid Amount	1,834	2,592	3,707	2,550	3,847	5,463	2,050	2,837	4,301
Medicaid Payments	1,803	2,571	3,682	2,525	3,818	5,429	2,034	2,816	4,274
Professional Anesthesiology Fees									
Provider Charges	-	700	1,250	840	1,120	1,603	455	852	1,390
Allowed Paid Amount	-	166	186	85	142	236	45	161	215
Medicaid Payments	-	166	181	85	142	234	42	159	212
Professional Service Fees									
Provider Charges	2,768	3,463	4,305	3,381	4,301	5,509	2,923	3,682	4,694
Allowed Paid Amount	1,176	1,318	1,719	1,244	1,475	2,021	1,183	1,369	1,807
Medicaid Payments	1,151	1,313	1,710	1,238	1,470	2,016	1,183	1,362	1,798
Laboratory Fees									
Provider Charges	894	1,572	2,516	1,072	1,797	2,880	946	1,644	2,636
Allowed Paid Amount	153	274	469	176	310	506	160	287	480
Medicaid Payments	151	274	468	174	309	501	158	285	479
Radiology/Imaging Fees									
Provider Charges	650	1,240	2,191	745	1,504	2,859	664	1,299	2,411
Allowed Paid Amount	185	321	543	208	379	712	192	336	590
Medicaid Payments	183	320	541	208	378	711	189	334	586
Pharmacy Fees									
Provider Charges	159	398	945	194	517	1,196	170	425	1,013
Allowed Paid Amount	106	260	655	136	320	794	114	275	699
Medicaid Payments	103	255	647	131	315	792	110	271	689

Table 48: Live Birth Numbers, Proportions, and Mean Prenatal and Postpartum Pharmacy Costs for Vaginal and Cesarean Childbirths, 2010

Prenatal						
	Vaginal Childbirth			Cesarean Childbirth		
Number of Live Births	5,094		2,159		7,253	
Percent	70%		30%		100%	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Maternity-Related Pharmacy Costs						
Provider Charges	317	1,188	421	1,072	348	1,156
Allowed Paid Amount	178	854	244	757	197	827
Medicaid Payments	175	853	241	756	195	826

*Note: Costs include the 9-month prenatal stage of care only

Postpartum						
	Vaginal Childbirth			Cesarean Childbirth		
Number of Live Births	5,094		2,159		7,253	
Percent	70%		30%		100%	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Maternity-Related Pharmacy Costs						
Provider Charges	101	278	137	410	112	323
Allowed Paid Amount	56	172	78	307	63	221
Medicaid Payments	55	170	77	307	62	220

*Note: Costs include the 3-month postpartum stage of care only

Table 49: First, Second, and Third Quartiles for Prenatal and Postpartum Pharmacy Costs for Vaginal and Cesarean Childbirths, 2010 Medicaid

Prenatal									
	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Maternity-Related Pharmacy Costs									
Provider Charges	32	100	250	43	134	344	35	109	279
Allowed Paid Amount	22	62	147	30	83	198	24	68	160
Medicaid Payments	20	61	145	29	80	192	22	66	157
Postpartum									
	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Maternity-Related Pharmacy Costs									
Provider Charges	0	25	90	4	38	123	0	28	98
Allowed Paid Amount	0	16	50	4	26	69	0	18	56
Medicaid Payments	0	15	49	2	24	68	0	16	54

Table 50: Live Birth Numbers, Proportions, and Mean Newborn Care Costs Covering Care at Birth and In the First Three Months of Life Following Vaginal and Cesarean Births, 2010 Medicaid

	Vaginal Delivery			Cesarean Delivery			Total		
Number of Newborns	29,764			10,227			39,991		
Percent	74%			26%			100%		
Cost Breakdown	Mean	SD	% of Total	Mean	SD	% of Total	Mean	SD	% of Total
Total Costs									
Provider Charges	8,553	26,546		19,114	51,618		11,254	35,029	
Allowed Paid Amount	3,014	7,475		5,607	13,642		3,677	9,511	
Medicaid Payments	2,949	7,043		5,419	12,892		3,580	8,977	
Facility Fees									
Provider Charges	6,317	21,077	74%	14,696	41,842	77%	8,460	28,137	75%
Allowed Paid Amount	2,321	6,408	77%	4,435	11,709	79%	2,861	8,153	78%
Medicaid Payments	2,262	5,931	77%	4,258	10,852	79%	2,773	7,553	77%
Professional Fees									
Provider Charges	1,970	5,866	23%	4,014	10,924	21%	2,493	7,545	22%
Allowed Paid Amount	615	1,264	20%	1,040	2,231	19%	724	1,580	20%
Medicaid Payments	609	1,246	21%	1,029	2,223	19%	717	1,566	20%
Laboratory									
Provider Charges	108	326	1.3%	113	344	0.6%	109	331	1.0%
Allowed Paid Amount	19	63	0.6%	21	71	0.4%	20	65	0.5%
Medicaid Payments	19	62	0.7%	21	71	0.4%	20	65	0.6%
Radiology and Imaging									
Provider Charges	103	407	1.2%	168	563	0.9%	120	453	1.1%
Allowed Paid Amount	21	102	0.7%	32	113	0.6%	24	105	0.7%
Medicaid Payments	21	102	0.7%	32	112	0.6%	24	105	0.7%
Pharmacy									
Provider Charges	54	445	0.6%	124	954	0.6%	72	617	0.6%
Allowed Paid Amount	37	254	1.2%	78	486	1.4%	48	330	1.3%
Medicaid Payments	37	253	1.3%	78	486	1.4%	48	329	1.3%

Note: The number of newborns may differ from the live birth numbers shown in the maternal costs tables because newborns were identified using a different criteria and did not depend on a linked mothers and newborns. Due to rounding, the sum of average payments across categories may not add up to exactly the total average allowed payment.

Table 51: First, Second, and Third Quartiles for Newborn Care Costs Covering Care at Birth and In the First Three Months of Life Following Vaginal and Cesarean Births, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Total Costs									
Provider Charges	2,523	3,404	5,067	3,262	4,528	7,807	2,661	3,657	5,653
Allowed Paid Amount	1,209	1,657	2,374	1,375	2,022	3,547	1,248	1,729	2,629
Medicaid Payments	1,189	1,638	2,347	1,349	1,989	3,477	1,226	1,708	2,596
Facility Fees									
Provider Charges	1,683	2,340	3,475	2,274	3,197	5,391	1,796	2,519	3,890
Allowed Paid Amount	820	1,138	1,826	936	1,463	2,808	856	1,209	2,037
Medicaid Payments	803	1,121	1,807	936	1,420	2,729	838	1,180	2,027
Professional Fees									
Provider Charges	545	903	1,483	657	1,150	2,067	566	957	1,605
Allowed Paid Amount	243	381	586	277	465	784	250	398	625
Medicaid Payments	237	378	583	269	459	777	244	394	621
Laboratory									
Provider Charges	0	0	60	0	0	52	0	0	57
Allowed Paid Amount	0	0	13	0	0	12	0	0	13
Medicaid Payments	0	0	13	0	0	12	0	0	13
Radiology and Imaging									
Provider Charges	0	0	0	0	0	32	0	0	0
Allowed Paid Amount	0	0	0	0	0	0	0	0	0
Medicaid Payments	0	0	0	0	0	0	0	0	0
Pharmacy									
Provider Charges	0	0	30	0	0	39	0	0	32
Allowed Paid Amount	0	0	19	0	0	26	0	0	21
Medicaid Payments	0	0	19	0	0	26	0	0	21

Table 52: Top 50 Diagnoses among Newborns by Type of Delivery, 2010 Medicaid

Vaginal Delivery		Cesarean Delivery	
Diagnoses	Number	Diagnoses	Number
OTH85-Encounter for Preventive Health Services	30,026	OTH85-Encounter for Preventive Health Services	13,961
PED86-Live Newborns	29,816	PED86-Live Newborns	13,638
HEM11-Hemolytic Disease of the Newborn	8,360	OTH87-Encounter Related to Other Treatment	4,237
OTH87-Encounter Related to Other Treatment	8,341	PED85-Other Neonatal Conditions	3,894
PED85-Other Neonatal Conditions	7,565	PED84-Other Maternal Conditions Affecting Newborn	3,571
OTH92-General Signs, Symptoms, and Ill-Defined Conditions	5,414	HEM11-Hemolytic Disease of the Newborn	2,969
NUT81-Other Nutritional and Metabolic Disorders	3,904	OTH92-General Signs, Symptoms, and Ill-Defined Conditions	2,453
ENT82-Other Ear, Nose, and Throat Infections	3,246	NUT81-Other Nutritional and Metabolic Disorders	2,031
SKN82-Other Inflammations and Infections of Skin and Subcutaneous Tissu	2,992	PED20-Hyaline Membrane Disease/Respiratory Distress Syndrome	1,821
GIS20-Hernia, Hiatal or Reflux Esophagitis	2,759	ENT82-Other Ear, Nose, and Throat Infections	1,696
GIS87-Other Gastrointestinal or Abdominal Symptoms	2,126	GIS20-Hernia, Hiatal or Reflux Esophagitis	1,586
PED84-Other Maternal Conditions Affecting Newborn	1,923	SKN82-Other Inflammations and Infections of Skin and Subcutaneous Tiss	1,433
ENT81-Other Ear, Nose and Throat Disorders	1,914	PED27-Prematurity: Low Birthweight	1,403
PED20-Hyaline Membrane Disease/Respiratory Distress Syndrome	1,710	GIS87-Other Gastrointestinal or Abdominal Symptoms	1,154
PED27-Prematurity: Low Birthweight	1,562	ENT81-Other Ear, Nose and Throat Disorders	989
PED25-Postmaturity	1,542	PED25-Postmaturity	882
PED16-Bacterial and Fungal Infections of the Newborn	1,247	RES86-Other Respiratory Symptoms	771
MGS81-Other Disorders of Male Genital System	1,141	MGS81-Other Disorders of Male Genital System	620
RES86-Other Respiratory Symptoms	973	PED16-Bacterial and Fungal Infections of the Newborn	563
GIS16-Functional Digestive Disorders	906	RES24-Rhino, Adeno, and Corona Virus Infections	538
RES24-Rhino, Adeno, and Corona Virus Infections	904	GIS16-Functional Digestive Disorders	496
EYE02-Conjunctivitis: Bacterial	887	MUS80-Anomaly: Musculoskeletal System	491
OTH84-Encounter for Other Administrative Reasons	784	CVS84-Other Cardiovascular Symptoms	452
INF03-Candida (Monilial) Infections	780	EYE02-Conjunctivitis: Bacterial	432
CVS84-Other Cardiovascular Symptoms	727	OTH84-Encounter for Other Administrative Reasons	399
ENT18-Otitis Media	660	MUS83-Other Arthropathies, Bone and Joint Disorders	365
PED22-Meconium Aspiration Syndrome	646	PED02-Anomaly: Atrial Septal Defect	363
EYE06-Dacryostenosis or Dacryocystitis	628	INF03-Candida (Monilial) Infections	362
EYE82-Other Eye Disorders	612	ENT18-Otitis Media	359
INF85-Other Viral Infections	545	EYE82-Other Eye Disorders	334
MUS80-Anomaly: Musculoskeletal System	545	RES83-Other Disorders of Respiratory System	333
GIS85-Other Gastrointestinal Disorders	515	EYE06-Dacryostenosis or Dacryocystitis	296
OTH80-Abnormal Lab, X-ray and Clinical Findings	455	GIS85-Other Gastrointestinal Disorders	292
PED02-Anomaly: Atrial Septal Defect	430	PED19-Full Term Infant with Abnormal Birth Weight	290
MUS83-Other Arthropathies, Bone and Joint Disorders	412	INF85-Other Viral Infections	272
RES23-Respiratory Syncytial Virus Infections	404	RES23-Respiratory Syncytial Virus Infections	258
OTH88-Factors Influencing Health Status	395	GUS83-Other Disorders of Kidney or Ureter	226
PED19-Full Term Infant with Abnormal Birth Weight	393	OTH80-Abnormal Lab, X-ray and Clinical Findings	225
GUS83-Other Disorders of Kidney or Ureter	385	OTH88-Factors Influencing Health Status	225
GIS81-Gastroenteritis	370	GIS81-Gastroenteritis	205
MUS86-Other Spinal and Back Disorders: Cervical	356	CVS03-Anomaly: Patent Ductus Arteriosus	204
RES83-Other Disorders of Respiratory System	349	EYE31-Prematurity: Retinopathy	199
GIS19-Hernia, External	286	GIS19-Hernia, External	190
PED21-Injury: To Newborn During Delivery	233	PED22-Meconium Aspiration Syndrome	176
TRA81-Injury: Other	218	MUS86-Other Spinal and Back Disorders: Cervical	160
PED06-Anomaly: Defects of Kidney	213	PED28-Prematurity: Very Low Birthweight	145
SKN05-Infections of Skin and Subcutaneous Tissue	209	CVS06-Arrhythmias	128
GIS84-Other Diseases of Esophagus, Stomach, and Duodenum	198	PED06-Anomaly: Defects of Kidney	128
PED15-Anomaly: Ventricular Septal Defects	198	PED15-Anomaly: Ventricular Septal Defects	127
SKN10-Pilonidal Cyst	197	SKN10-Pilonidal Cyst	116

Table 53: Live Birth Numbers, Proportions, and Mean Newborn s Care Costs Covering Birth and Three Months Post Birth for Hospitalizations that included Neonatal Intensive Care Unit Stays, 2010 Medicaid

	Vaginal Delivery		Cesarean Delivery		Total	
Number of Newborns	1,906		1,479		3,385	
Percent	56%		44%		100%	
Number of NICU Admissions	2,052		1,591		3,643	
Cost Breakdown	Mean	SD	Mean	SD	Mean	SD
Provider Charges	58,076	77,817	86,409	98,517	70,455	88,575
Allowed Paid Amount	14,517	22,728	20,934	27,179	17,321	24,971
Medicaid Payments	13,875	20,880	19,971	25,417	16,538	23,168

Note: The number of newborns may differ from the live birth numbers shown in the maternity costs tables because newborns were identified using a different criteria and did not depend on a linked mothers and newborns.

Table 54: First, Second, and Third Quartiles for Newborn s Care Costs Covering Birth and Three Months Post Birth for Hospitalizations that included Neonatal Intensive Care Unit Stays, 2010 Medicaid

	Vaginal Childbirth			Cesarean Childbirth			Total		
	Q1	Median	Q3	Q1	Median	Q3	Q1	Median	Q3
Provider Charges	13,821	28,890	65,907	19,452	46,806	112,624	15,275	34,721	84,764
Allowed Paid Amount	2,964	6,760	14,968	4,258	11,455	25,719	3,398	7,947	19,960
Medicaid Payments	2,782	6,522	14,752	3,911	10,768	24,426	3,146	7,618	19,386

Table 55: Top 50 Diagnoses Among Newborns Admitted to the Neonatal Intensive Care Unit by Type of Delivery, 2010 Medicaid

Vaginal Delivery		Cesarean Delivery	
Diagnoses	Number	Diagnoses	Number
PED86-Live Newborns	1,198	PED86-Live Newborns	937
PED20-Hyaline Membrane Disease/Respiratory Distress Syndrom	769	PED20-Hyaline Membrane Disease/Respiratory Distress Syndron	779
PED27-Prematurity: Low Birthweight	579	PED27-Prematurity: Low Birthweight	561
PED85-Other Neonatal Conditions	412	PED84-Other Maternal Conditions Affecting Newborn	418
OTH87-Encounter Related to Other Treatment	407	OTH87-Encounter Related to Other Treatment	375
PED84-Other Maternal Conditions Affecting Newborn	277	PED85-Other Neonatal Conditions	345
RES86-Other Respiratory Symptoms	212	RES86-Other Respiratory Symptoms	202
HEM11-Hemolytic Disease of the Newborn	205	PED02-Anomaly: Atrial Septal Defect	140
OTH92-General Signs, Symptoms, and Ill-Defined Conditions	153	RES83-Other Disorders of Respiratory System	120
PED02-Anomaly: Atrial Septal Defect	150	CVS03-Anomaly: Patent Ductus Arteriosus	115
RES83-Other Disorders of Respiratory System	142	OTH92-General Signs, Symptoms, and Ill-Defined Conditions	109
PED16-Bacterial and Fungal Infections of the Newborn	119	HEM11-Hemolytic Disease of the Newborn	100
GIS87-Other Gastrointestinal or Abdominal Symptoms	106	EYE31-Prematurity: Retinopathy	97
CVS03-Anomaly: Patent Ductus Arteriosus	81	GIS87-Other Gastrointestinal or Abdominal Symptoms	94
CVS84-Other Cardiovascular Symptoms	80	PED28-Prematurity: Very Low Birthweight	91
EYE31-Prematurity: Retinopathy	69	CVS84-Other Cardiovascular Symptoms	76
PED19-Full Term Infant with Abnormal Birth Weight	62	OTH85-Encounter for Preventive Health Services	68
PED28-Prematurity: Very Low Birthweight	55	PED19-Full Term Infant with Abnormal Birth Weight	68
OTH85-Encounter for Preventive Health Services	53	PED16-Bacterial and Fungal Infections of the Newborn	67
GIS85-Other Gastrointestinal Disorders	45	PED25-Postmaturity	55
PED22-Meconium Aspiration Syndrome	42	PED26-Prematurity: Extremely Low Birthweight	51
RES15-Pneumonia: Bacterial	42	PED80-Anomaly: Other Circulatory System	51
NEU80-Other CNS Inflammation, Infection, or Disorder	41	PED22-Meconium Aspiration Syndrome	46
PED25-Postmaturity	41	NEU80-Other CNS Inflammation, Infection, or Disorder	44
PED80-Anomaly: Other Circulatory System	41	GIS85-Other Gastrointestinal Disorders	41
CVS06-Arrhythmias	40	MUS80-Anomaly: Musculoskeletal System	40
ENT81-Other Ear, Nose and Throat Disorders	37	END08-Hypoglycemia	35
GIS16-Functional Digestive Disorders	34	CVS83-Other Cardiac Conditions	33
PED10-Anomaly: Other Congenital Heart Disease	34	CVS06-Arrhythmias	32
PED18-Drug Withdrawal Syndromes in Neonates	33	ENT81-Other Ear, Nose and Throat Disorders	29
RES23-Respiratory Syncytial Virus Infections	33	NUT81-Other Nutritional and Metabolic Disorders	28
GIS20-Hernia, Hiatal or Reflux Esophagitis	32	OTH80-Abnormal Lab, X-ray and Clinical Findings	28
GEN80-Other Chromosomal Anomalies	27	PED10-Anomaly: Other Congenital Heart Disease	28
MUS80-Anomaly: Musculoskeletal System	27	PED09-Anomaly: Neural Tube Defects	26
GYN10-Delivery, Vaginal	25	GIS20-Hernia, Hiatal or Reflux Esophagitis	24
MGS81-Other Disorders of Male Genital System	25	OTH84-Encounter for Other Administrative Reasons	21
PED21-Injury: To Newborn During Delivery	24	EYE82-Other Eye Disorders	20
PED81-Anomaly: Other Digestive or Hepatobiliary System	24	GYN10-Delivery, Vaginal	20
NUT80-Other Electrolyte Disorders	23	PED15-Anomaly: Ventricular Septal Defects	20
CVS83-Other Cardiac Conditions	22	RES15-Pneumonia: Bacterial	20
GUS83-Other Disorders of Kidney or Ureter	22	GIS16-Functional Digestive Disorders	19
NEU04-Cerebrovascular Disease	22	PED21-Injury: To Newborn During Delivery	19
GIS84-Other Diseases of Esophagus, Stomach, and Duodenum	21	GUS83-Other Disorders of Kidney or Ureter	18
NUT81-Other Nutritional and Metabolic Disorders	21	OTH81-Complications of Surgical and Medical Care	18
OTH80-Abnormal Lab, X-ray and Clinical Findings	21	GYN09-Delivery, Cesarean Section	17
PED31-Toxoplasmosis: Congenital	20	MGS81-Other Disorders of Male Genital System	17
PED83-Anomaly: Other Nervous System	20	NEU04-Cerebrovascular Disease	17
NEU11-Injury: Craniocerebral	18	GEN80-Other Chromosomal Anomalies	16
OTH84-Encounter for Other Administrative Reasons	18	PED18-Drug Withdrawal Syndromes in Neonates	16
PED15-Anomaly: Ventricular Septal Defects	18	NUT80-Other Electrolyte Disorders	15

APPENDIX D: COMMERCIAL COMBINED MATERNAL AND NEWBORN COST

Table 56: Nationally Weighted Average Charges and Payments Combining All Phases of Care and for Each Individual Phase of Care by Type of Service for Vaginal and Cesarean Childbirths, 2010 Commercial

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Grand Total: Prenatal+Intrapartum+Postpartum+First Three Months of Newborn Care			
Total Costs			
Provider Charges	$37,341	$32,093	$51,126
Allowed Paid Amount	$21,001	$18,329	$27,866
Facility Fees			
Provider Charges	$23,840	$19,664	$34,706
Allowed Paid Amount	$12,953	$10,841	$18,359
Professional Anesthesiology Fees			
Provider Charges	$1,683	$1,607	$1,931
Allowed Paid Amount	$1,037	$990	$1,192
Professional Service Fees			
Provider Charges	$7,636	$6,807	$9,792
Allowed Paid Amount	$4,917	$4,493	$5,957
Laboratory Fees			
Provider Charges	$1,426	$1,396	$1,521
Allowed Paid Amount	$550	$539	$584
Radiology/Imaging Fees			
Provider Charges	$1,995	$1,892	$2,312
Allowed Paid Amount	$1,015	$966	$1,165
Pharmacy Fees			
Provider Charges	$765	$730	$869
Allowed Paid Amount	$531	$501	$614
Prenatal Care			
Total Costs			
Provider Charges	$6,257	$6,071	$6,866
Allowed Paid Amount	$3,274	$3,180	$3,580
Facility Fees			
Provider Charges	$1,764	$1,721	$1,905
Allowed Paid Amount	$1,002	$980	$1,072
Professional Anesthesiology Fees			
Provider Charges	$33	$32	$37
Allowed Paid Amount	$21	$20	$23
Professional Service Fees			
Provider Charges	$751	$727	$829
Allowed Paid Amount	$437	$424	$479
Laboratory Fees			
Provider Charges	$1,247	$1,233	$1,291
Allowed Paid Amount	$467	$464	$475
Radiology/Imaging Fees			
Provider Charges	$1,894	$1,811	$2,167
Allowed Paid Amount	$965	$925	$1,094
Pharmacy Fees			
Provider Charges	$569	$548	$637
Allowed Paid Amount	$384	$367	$436

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Intrapartum Care			
Total Costs			
Provider Charges	$18,136	$16,165	$24,572
Allowed Paid Amount	$9,913	$9,048	$12,739
Facility Fees			
Provider Charges	$12,644	$11,063	$17,807
Allowed Paid Amount	$6,373	$5,656	$8,714
Professional Anesthesiology Fees			
Provider Charges	$1,615	$1,539	$1,864
Allowed Paid Amount	$995	$948	$1,151
Professional Service Fees			
Provider Charges	$3,807	$3,508	$4,782
Allowed Paid Amount	$2,510	$2,416	$2,817
Laboratory Fees			
Provider Charges	$66	$52	$111
Allowed Paid Amount	$33	$26	$55
Radiology/Imaging Fees			
Provider Charges	$8	$6	$14
Allowed Paid Amount	$3	$3	$6
Pharmacy Fees			
Provider Charges			
Allowed Paid Amount			
Postpartum Care			
Total Costs			
Provider Charges	$528	$498	$625
Allowed Paid Amount	$307	$293	$354
Facility Fees			
Provider Charges	$220	$198	$291
Allowed Paid Amount	$112	$101	$146
Professional Anesthesiology Fees			
Provider Charges	$35	$36	$30
Allowed Paid Amount	$21	$22	$18
Professional Service Fees			
Provider Charges	$80	$76	$90
Allowed Paid Amount	$48	$47	$53
Laboratory Fees			
Provider Charges	$40	$39	$42
Allowed Paid Amount	$16	$16	$17
Radiology/Imaging Fees			
Provider Charges	$12	$10	$16
Allowed Paid Amount	$5	$4	$8
Pharmacy Fees			
Provider Charges	$142	$138	$155
Allowed Paid Amount	$104	$101	$112

	Total	Vaginal Childbirth	Cesarean Childbirth
Commercial			
Newborn Care			
Total Costs			
Provider Charges	$12,419	$9,359	$19,063
Allowed Paid Amount	$7,507	$5,809	$11,193
Facility Fees			
Provider Charges	$9,211	$6,682	$14,703
Allowed Paid Amount	$5,466	$4,103	$8,426
Professional Anesthesiology Fees			
Provider Charges			
Allowed Paid Amount			
Professional Service Fees			
Provider Charges	$2,999	$2,496	$4,091
Allowed Paid Amount	$1,922	$1,606	$2,607
Laboratory Fees			
Provider Charges	$73	$72	$77
Allowed Paid Amount	$34	$33	$37
Radiology/Imaging Fees			
Provider Charges	$81	$65	$115
Allowed Paid Amount	$42	$34	$57
Pharmacy Fees			
Provider Charges	$55	$44	$77
Allowed Paid Amount	$43	$33	$66
Intrapartum + Newborn Costs = Estimate of Total Childbirth Hopitalization Costs			
Total Costs			
Provider Charges	$30,555	$25,524	$43,635
Allowed Paid Amount	$17,420	$14,857	$23,931
Facility Fees			
Provider Charges	$21,856	$17,745	$32,510
Allowed Paid Amount	$11,840	$9,759	$17,140
Professional Anesthesiology Fees			
Provider Charges	$1,615	$1,539	$1,864
Allowed Paid Amount	$995	$948	$1,151
Professional Service Fees			
Provider Charges	$6,806	$6,004	$8,873
Allowed Paid Amount	$4,432	$4,022	$5,424
Laboratory Fees			
Provider Charges	$139	$124	$188
Allowed Paid Amount	$67	$59	$92
Radiology/Imaging Fees			
Provider Charges	$89	$71	$129
Allowed Paid Amount	$45	$37	$63
Pharmacy Fees			
Provider Charges	$55	$44	$77
Allowed Paid Amount	$43	$33	$66

Notes: Due to rounding, the sum of average costs across categories or phases of care does not add up to exact total average costs.

APPENDIX E: MEDICAID COMBINED MATERNAL AND NEWBORN COST

Table 57: Average Charges and Payments Combining All Phases of Care and for Each Individual Phase of Care by Type of Service for Vaginal and Cesarean Childbirths, 2010 Medicaid[1]

	Total	Vaginal Childbirth	Cesarean Childbirth
Medicaid			
Grand Total: Prenatal+Intrapartum+Postpartum+First Three Months of Newborn Care			
Total Costs			
Provider Charges	$35,481	$29,800	$50,374
Allowed Paid Amount	$10,350	$9,131	$13,590
Facility Fees			
Provider Charges	$22,704	$18,376	$34,095
Allowed Paid Amount	$6,338	$5,423	$8,793
Professional Anesthesiology Fees			
Provider Charges	$1,015	$876	$1,343
Allowed Paid Amount	$172	$165	$188
Professional Service Fees			
Provider Charges	$6,504	$5,656	$8,792
Allowed Paid Amount	$2,231	$2,060	$2,694
Laboratory Fees			
Provider Charges	$2,145	$2,049	$2,371
Allowed Paid Amount	$395	$381	$429
Radiology/Imaging Fees			
Provider Charges	$2,083	$1,902	$2,519
Allowed Paid Amount	$517	$475	$616
Pharmacy Fees			
Provider Charges	$1,056	$950	$1,316
Allowed Paid Amount	$700	$627	$879
Prenatal Care			
Total Costs			
Provider Charges	$8,265	$7,790	$9,386
Allowed Paid Amount	$2,540	$2,405	$2,859
Facility Fees			
Provider Charges	$2,796	$2,663	$3,110
Allowed Paid Amount	$879	$852	$943
Professional Anesthesiology Fees			
Provider Charges	$17	$16	$19
Allowed Paid Amount	$2	$2	$3
Professional Service Fees			
Provider Charges	$995	$949	$1,101
Allowed Paid Amount	$403	$392	$428
Laboratory Fees			
Provider Charges	$1,886	$1,814	$2,054
Allowed Paid Amount	$349	$338	$375
Radiology/Imaging Fees			
Provider Charges	$1,920	$1,765	$2,287
Allowed Paid Amount	$485	$448	$572
Pharmacy Fees			
Provider Charges	$652	$584	$815
Allowed Paid Amount	$423	$374	$538

	Total	Vaginal Childbirth	Cesarean Childbirth
Medicaid			
Intrapartum Care			
Total Costs			
Provider Charges	$15,004	$12,599	$20,680
Allowed Paid Amount	$3,736	$3,347	$4,655
Facility Fees			
Provider Charges	$11,073	$9,085	$15,761
Allowed Paid Amount	$2,503	$2,171	$3,286
Professional Anesthesiology Fees			
Provider Charges	$981	$842	$1,309
Allowed Paid Amount	$167	$160	$182
Professional Service Fees			
Provider Charges	$2,894	$2,620	$3,540
Allowed Paid Amount	$1,056	$1,006	$1,174
Laboratory Fees			
Provider Charges	$71	$52	$115
Allowed Paid Amount	$12	$9	$18
Radiology/Imaging Fees			
Provider Charges	$11	$8	$17
Allowed Paid Amount	$2	$1	$3
Pharmacy Fees			
Provider Charges			
Allowed Paid Amount			
Postpartum Care			
Total Costs			
Provider Charges	$958	$858	$1,194
Allowed Paid Amount	$396	$365	$469
Facility Fees			
Provider Charges	$376	$311	$528
Allowed Paid Amount	$94	$79	$128
Professional Anesthesiology Fees			
Provider Charges	$18	$18	$15
Allowed Paid Amount	$3	$3	$3
Professional Service Fees			
Provider Charges	$122	$116	$137
Allowed Paid Amount	$48	$47	$52
Laboratory Fees			
Provider Charges	$79	$75	$88
Allowed Paid Amount	$15	$15	$15
Radiology/Imaging Fees			
Provider Charges	$32	$25	$47
Allowed Paid Amount	$6	$5	$9
Pharmacy Fees			
Provider Charges	$332	$312	$378
Allowed Paid Amount	$230	$217	$263

	Total	Vaginal Childbirth	Cesarean Childbirth
Medicaid			
Newborn Care			
Total Costs			
Provider Charges	$11,254	$8,553	$19,114
Allowed Paid Amount	$3,677	$3,014	$5,607
Facility Fees			
Provider Charges	$8,460	$6,317	$14,696
Allowed Paid Amount	$2,861	$2,321	$4,435
Professional Anesthesiology Fees			
Provider Charges			
Allowed Paid Amount			
Professional Service Fees			
Provider Charges	$2,493	$1,970	$4,014
Allowed Paid Amount	$724	$615	$1,040
Laboratory Fees			
Provider Charges	$109	$108	$113
Allowed Paid Amount	$20	$19	$21
Radiology/Imaging Fees			
Provider Charges	$120	$103	$168
Allowed Paid Amount	$24	$21	$32
Pharmacy Fees			
Provider Charges	$72	$54	$124
Allowed Paid Amount	$48	$37	$78
Intrapartum + Newborn Costs = Estimate of Total Childbirth Hospitalization Costs			
Total Costs			
Provider Charges	$26,258	$21,152	$39,794
Allowed Paid Amount	$7,413	$6,361	$10,262
Facility Fees			
Provider Charges	$19,532	$15,403	$30,456
Allowed Paid Amount	$5,365	$4,492	$7,722
Professional Anesthesiology Fees			
Provider Charges	$981	$842	$1,309
Allowed Paid Amount	$167	$160	$182
Professional Service Fees			
Provider Charges	$5,387	$4,591	$7,554
Allowed Paid Amount	$1,780	$1,622	$2,214
Laboratory Fees			
Provider Charges	$180	$160	$229
Allowed Paid Amount	$32	$29	$39
Radiology/Imaging Fees			
Provider Charges	$131	$112	$185
Allowed Paid Amount	$26	$23	$35
Pharmacy Fees			
Provider Charges	$72	$54	$124
Allowed Paid Amount	$48	$37	$78

Notes: Due to rounding, the sum of average costs across categories or phases of care does not add up to exact total average costs.

APPENDIX F: MATERNITY-RELATED SERVICE CODES

Table 58: Maternity-Related Billing Codes

Category	Associated Billing Codes
Pregnancy Diagnosis Code	ICD-9-CM:640.00 – 676.94, V22.0 – V24.2, V72.42
Anesthesia – Obstetric	CPT-4:01958, 01960, 01961, 01967, 01968
Maternity Care and Delivery – Antepartum Services	CPT-4:59000, 59001, 59012, 59015, 59020, 59025, 59030, 59050, 59051, 59070, 59072, 59074, 59076, 59160, 59866, 59871, 59898, 59899
Introduction and Repair*	CPT-4:59200 (and Pregnancy Diagnosis Codes), 59300, 59320, 59325, 59350
Vaginal Delivery – Antepartum and Postpartum Care*	CPT-4:57022, 58605 (and Pregnancy Diagnosis Codes), 59400, 59409, 59410, 59412, 59414, 59425, 59426, 59430
Cesarean Delivery*	CPT-4:58611 (and Pregnancy Diagnosis Codes), 59510, 59514, 59515, 59525
Delivery After Previous Cesarean Section	CPT-4:59610, 59612, 59614, 59618, 59620, 59622
Radiology – Obstetric*	CPT-4:76801, 76802, 76805, 76810 – 76821, 76825 – 76828, 76941. Other CPT-4 not listed above: 70000 – 79999 require Pregnancy Diagnosis Codes
Pathology and Laboratory – Organ or Disease-Oriented Panels*	CPT-4:80055, 85004, 85007, 85009, 85025, 85027, 86592, 86850, 86900, 86901, 87340, 81001 – 81003 (and Pregnancy Diagnosis Codes) , 81025 (and Pregnancy Diagnosis Codes), 82105 (and Pregnancy Diagnosis Codes), 82106, 82677 (and Pregnancy Diagnosis Codes), 82731, 82950 (and Pregnancy Diagnosis Codes), 84163 (and Pregnancy Diagnosis Codes), 84443 (and Pregnancy Diagnosis Codes), 84702 (and Pregnancy Diagnosis Codes), 85018 (and Pregnancy Diagnosis Codes), 85025(and Pregnancy Diagnosis Codes), 86701 (and Pregnancy Diagnosis Codes), 87081 (and Pregnancy Diagnosis Codes), 87086 (and Pregnancy Diagnosis Codes), 88142 (and Pregnancy Diagnosis Codes). Other CPT-4 not listed above: 80000 – 89999 require Pregnancy Diagnosis Codes
In-Utero Procedures*	HCPCS:S0612 (and Pregnancy Diagnosis Codes), S0613 (and Pregnancy Diagnosis Codes), S2400 – S2405, S2409, S2411, S8055
Obstetrical Procedures	CPT-4:72.0 – 74.2, 74.4, 74.99, 75.0 – 75.99
Other Explicit or High Volume Procedures*	CPT-4:0500F, 0501F, 0502F, 0503F. Other CPT-4 not listed above 36415, 99000, and 99212 – 99214 require Pregnancy Diagnosis Codes

Require a combination of pregnancy diagnosis codes and procedures in order to be considered maternity-related services.