The Public Policy Research Lab

A Partnership of the Manship School of Mass Communication's
Reilly Center for Media & Public Affairs and the E.J. Ourso College of Business Administration

Louisiana's Uninsured Population:

Parish-level Estimates

A Report from the 2007 Louisiana Health Insurance Survey

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According to the 2007 Louisiana Health Insurance Survey (LHIS) survey, 610,703 of the non-elderly population were uninsured. This represents a marked decrease from 2005 when over 750,000 non-elderly Louisiana residents were estimated to be uninsured. Though the significant reduction in the number of uninsured is certainly good news for the state, there remains a large number of uninsured residents and understanding where the uninsured live is important to know in developing health insurance coverage options. Tracking uninsured rates at the parish level to provide such detail has been an important goal of the LHIS since its inception in 2003. Due to the dramatic population shifts brought on by hurricanes Katrina and Rita, updated parish-level estimates from the 2007 LHIS are particularly valuable in providing direction for future efforts to cover the uninsured.

As a part of Louisiana's State Planning Grant, the Department of Health and Hospitals contracted with the LSU Public Policy Research Lab to develop parish-level estimates of uninsured children and adults. The estimates are based on data from the 2007 LHIS that was collected for over 10,000 households including over 27,000 individuals. The first statewide household survey on the uninsured was commissioned by DHH in 2003 with a second survey following in 2005. The purpose of the 2003 LHIS was to measure the statewide health insurance coverage rates and coverage rates for the nine DHH regions. The 2005 LHIS updated these measures and was the first to provide parish-level estimates of the population without health insurance. The 2007 LHIS incorporates methodological improvements in providing updated measures relative to 2005. In all three surveys, over 10,000 households were surveyed – far exceeding the Current Population Survey's sample size of approximately 795 households. Until the LHIS, the CPS was the state's primary source of data on the uninsured. As a result of the LHIS, the state was able to better understand the uninsured – including a better measure of how many lack health insurance and the employment status, income, family size, and health status of those without coverage.

Parish-level estimates provide several benefits over the statewide and regional estimates included in the 2007 LHIS Report. These parish-level estimates are intended to provide better guidance to DHH in determining target areas for Medicaid/LaCHIP outreach and enrollment. The estimates can also inform state and local decision making regarding providing care to the uninsured.

The 2007 LHIS incorporates methodological improvements over 2005 in the adjustment for Medicaid underreporting, which are described in detail in the 2007 report. The approach to providing parish-level estimates for 2007, however, follows the 2005 approach of blending direct survey estimates of the percent uninsured in each parish with estimates obtained from a statistical model. Figures 1 and 2 contain plots showing the final parish-level estimates for Louisiana residents 19-64 and those under 19 respectively.

Overall, the results suggest that the proportion of Louisiana residents age 19-64 without insurance fell from 23.4% in 2005 to 21.2% in 2007. From Figure 1, it is clear that the proportion of uninsured adults remain driven by income to a large extent as was found in 2005. East Carroll parish has the highest estimated proportion of adults lacking insurance with an estimated 35.6% of the non-elderly adult population uninsured. In terms of household income, East Carroll ranks last among all parishes based on IRS tax return data. St. Tammany and St. Charles have the lowest estimated rates of uninsured adults at 13.4% and 14.0%. Coincidently, St. Tammany rates first among Louisiana's parishes in average household income and St. Charles parish is fifth highest based on this measure.

More generally, rates of insurance coverage tend to be lower in north Louisiana than south Louisiana. With regard to some of the largest parishes in the state, East Baton Rouge parish has an uninsured rate among the non-elderly adult population of 16.7% while Jefferson and Orleans, areas significantly affected by the storms, both have adult uninsured rates of 21.1%.

Similar to the pattern seen for adults, Louisiana saw a decline in the proportion of uninsured children. For the state as a whole, this rate fell from 7.6% in 2005 to 5.4% in 2007. Unlike adults, where a very small proportion of the population qualifies for Medicaid, well over half of Louisiana's children qualify for LaCHIP or Medicaid programs. Therefore, the use of LaCHIP and Medicaid to insure children at or near poverty leads to a much weaker link between insurance status and income for children than that observed for adults. For example, a comparison of Figures 1 and 2 reveals much more similar rates of uninsured children for north and south Louisiana than was seen for adults.

The 2007 parish estimates indicate that the proportion of uninsured children fell in 40 of 64 parishes, with nearly all of the parishes that most significantly affected by the storms seeing increases since 2005. A more complete comparison of parishes over time is provided in tables included in *Appendix I*. St. Bernard has the highest estimated rate of uninsured children for 2007. Because of their much larger populations, Jefferson, Orleans, and East Baton Rouge had the largest number of uninsured children by a significant margin over the next highest parish.

The remainder of this document summarizes the parish-level study in greater detail, beginning with a more detailed description of how statistical models were used to obtain more precise estimates, particularly in parishes with small sample sizes.

Figure 1

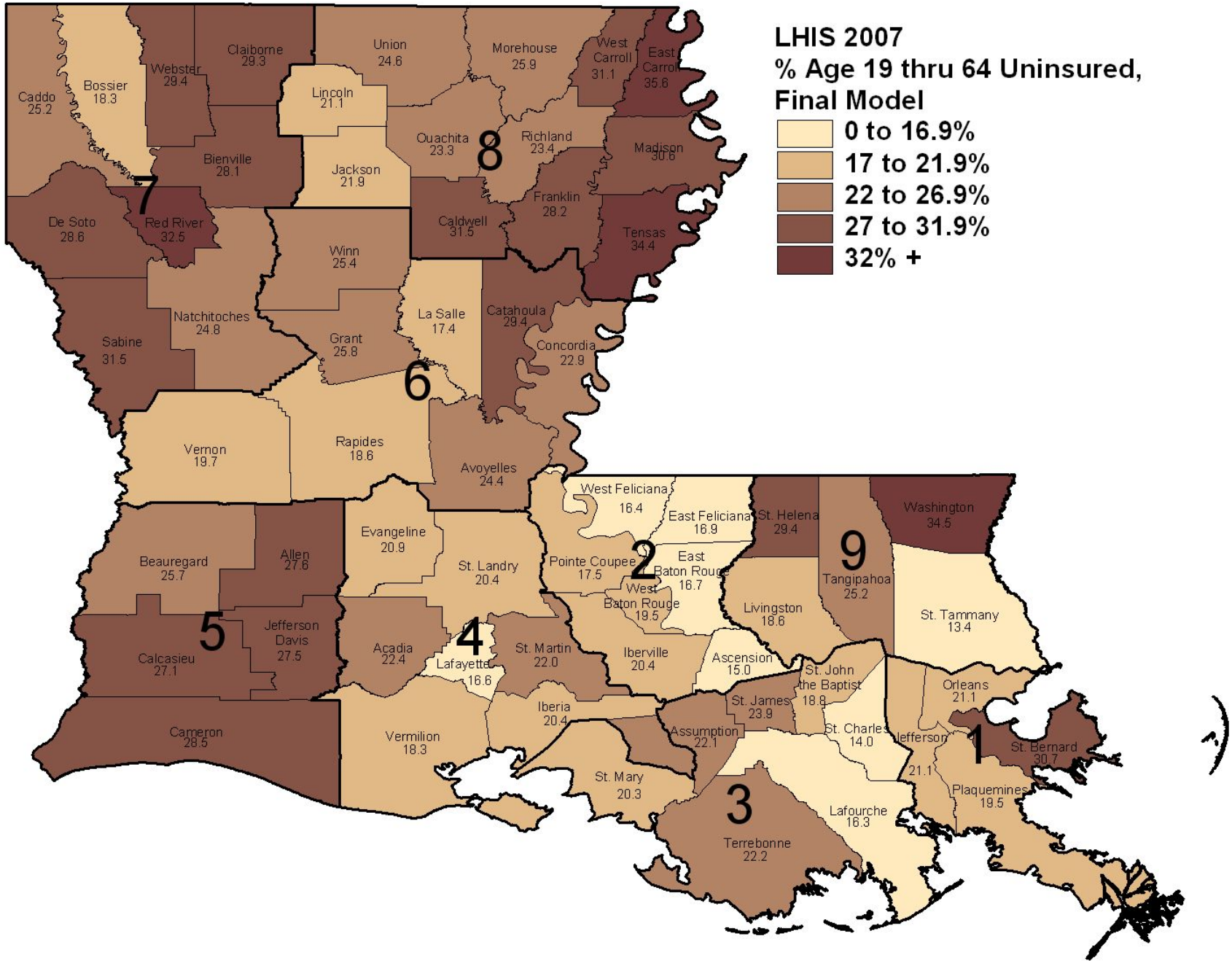
LHIS 2007
% Age 19 thru 64 Uninsured,
Final Model
0 to 16.9%
17 to 21.9%
22 to 26.9%
27 to 31.9%
32% +
Caddo 25.2
Bossier 18.3
Webster 29.4
Claiborne 29.3
Union 24.6
Morehouse 25.9
West Carroll 31.1
East Carroll 35.6
Lincoln 21.1
Ouachita 23.3
Richland 23.4
Madison 30.6
Bienville 28.1
Jackson 21.9
Franklin 28.2
De Soto 28.6
Red River 32.5
Caldwell 31.5
Tensas 34.4
Winn 25.4
Natchitoches 24.8
La Salle 17.4
Catahoula 29.4
Sabine 31.5
Grant 25.8
Concordia 22.9
Vernon 19.7
Rapides 18.6
Avoyelles 24.4
West Feliciana 16.4
East Feliciana 16.9
St. Helena 29.4
Washington 34.5
Evangeline 20.9
Beauregard 25.7
Allen 27.6
St. Landry 20.4
Pointe Coupee 17.5
East Baton Rouge 16.7
West Baton Rouge 19.5
Tangipahoa 25.2
Livingston 18.6
St. Tammany 13.4
Jefferson Davis 27.5
Calcasieu 27.1
Acadia 22.4
Lafayette 16.6
St. Martin 22.0
Iberville 20.4
Ascension 15.0
St. John the Baptist 18.8
Orleans 21.1
St. James 23.9
Iberia 20.4
Cameron 28.5
Vermilion 18.3
Assumption 22.1
St. Charles 14.0
Jefferson 21.1
St. Bernard 30.7
St. Mary 20.3
Plaquemines 19.5
Lafourche 16.3
Terrebonne 22.2
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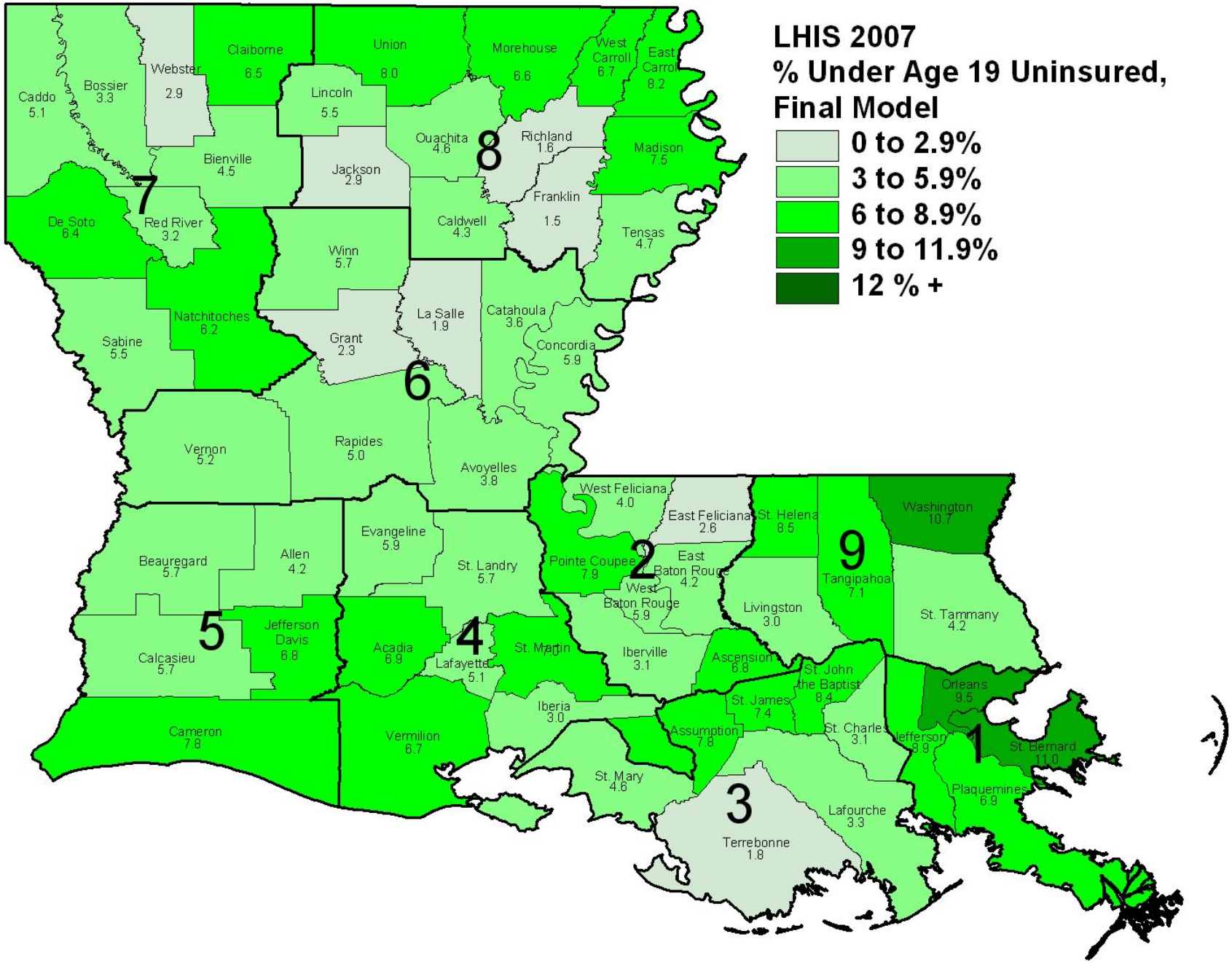
Figure 2


LHIS 2007
% Under Age 19 Uninsured,
Final Model
0 to 2.9%
3 to 5.9%
6 to 8.9%
9 to 11.9%
12 % +
Caddo 5.1
Bossier 3.3
Webster 2.9
Claiborne 6.5
Union 8.0
Morehouse 6.6
West Carroll 6.7
East Carroll 8.2
Lincoln 5.5
Ouachita 4.6
Richland 1.6
Madison 7.5
Bienville 4.5
Jackson 2.9
Franklin 1.5
De Soto 6.4
Red River 3.2
Caldwell 4.3
Tensas 4.7
Winn 5.7
Natchitoches 6.2
La Salle 1.9
Catahoula 3.6
Sabine 5.5
Grant 2.3
Concordia 5.9
Vernon 5.2
Rapides 5.0
Avoyelles 3.8
West Feliciana 4.0
East Feliciana 2.6
St. Helena 8.5
Washington 10.7
Evangeline 5.9
Beauregard 5.7
Allen 4.2
St. Landry 5.7
Pointe Coupee 7.9
East Baton Rouge 4.2
West Baton Rouge 5.9
Tangipahoa 7.1
Livingston 3.0
St. Tammany 4.2
Jefferson Davis 6.8
Acadia 6.9
St. Martin
Calcasieu 5.7
Lafayette 5.1
Iberville 3.1
Ascension 6.8
St. John the Baptist 8.4
Orleans 9.5
Iberia 3.0
St. James 7.4
Cameron 7.8
Vermilion 6.7
Assumption 7.8
St. Charles 3.1
Jefferson 8.9
St. Bernard 11.0
St. Mary 4.6
Plaquemines 6.9
Lafourche 3.3
Terrebonne 1.8
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II. Methodology

The purpose of this section is to describe the methodology used to produce parish-level estimates from the 2007 LHIS. Discussion on small area estimation, sample size, and parish and regional level estimates are included in this section. Small area estimation allows us to obtain more precise estimates of the percent of uninsured citizens in a parish based on the fact that parishes which are similar in other attributes are also likely to have similar rates of insurance coverage.

Small Area Estimation

Various methods *of small area estimation* exist, and while each does provide insight into the study of health policy, different techniques offer different strengths and weaknesses. The various methods include:

- Direct survey estimation;
- Synthetic estimation
- Blended estimation

The simplest method is *direct survey estimation*, which simply uses the survey to estimate the proportion of uninsured in each parish. The synthetic estimation method consists of constructing estimates of parish health insurance coverage rates by building a statistical model to predict parish-level insurance coverage rates. In essence, the statistical model takes advantage of the fact that we would expect parishes that are similar in terms of other characteristics (income, Medicaid enrollment, etc.) to have similar insurance coverage rates. Finally, this blended estimation option, called *information borrowing*, allows us to blend the survey estimates with synthetic estimates. The blended estimates place greater weight on the direct survey estimates in parishes where a large sample exists and rely more heavily on synthetic estimates in parishes where the sample size is small. A technical discussion of the statistical methodology is included in *Appendix II*.

Sample Size

Like the 2005 LHIS, the 2007 LHIS sampling design was created with the intent to produce parish-level estimates. Specifically, the *random sample* was created with the intent of contacting 65 households in each parish – which ensures minimum samples in 2007 and 2005 compared to the 2003 LHIS. Additionally, another 3,940 households were allocated to ensure adequate sample sizes for regions. Another 1,900 households were allocated to the *poverty oversample*. Because not all households contain children, the number of children covered by this survey methodology may be lower than 65 in some cases but the number of adults in each parish is likely to be quite a bit higher given that many households contain multiple adults. Figures 3 and 4 map the number of adults and children, respectively, covered by the 2007 survey across all parishes.

Detail on the sample sizes for children under 19 and adults 19-65 along with the 5% margin of error for each parish is shown in Table 1. For parishes with large samples, the direct estimates provide precise estimates. For example, with a sample of 1,193 adults 19-64 years of age, the margin of error for East Baton Rouge parish is 2.1%. The margin of error for Catahoula parish, with 90 adults surveyed, is 9.9%.

Furthermore, estimates from a parish such as Cameron which is based on a sample of 36 children under 19 may provide very inaccurate estimates. A technique called *information borrowing* allows us to improve estimation in parishes with small samples. Information borrowing builds on the fact that parishes that are similar in other characteristics should be similar in terms of uninsured adults and children.

Parish and Regional Estimates
In order to ensure that the parish-level estimates agree with regional estimates we scale each parish's uninsurance rate proportionately so that the sum across parishes equals the regional rate. This scaling has a larger impact for children than adults. Table 2 contains the final blended estimates for children under 19 and adults 19 thru 64.

Data Utilized
As new data becomes available the models are run again to produce updated estimates of uninsured. The data used to produce the results found in this report come from the following sources:

1. 2007 LHIS survey.
2. March 2008 Unemployment data by parish.
3. February 2008 Free & reduced school lunch enrollment.
4. July 2007 Census population estimates by parish.
5. July 2006 Census population estimates by parish, age group, gender, and race.
6. March 2008 Medicaid enrollment.

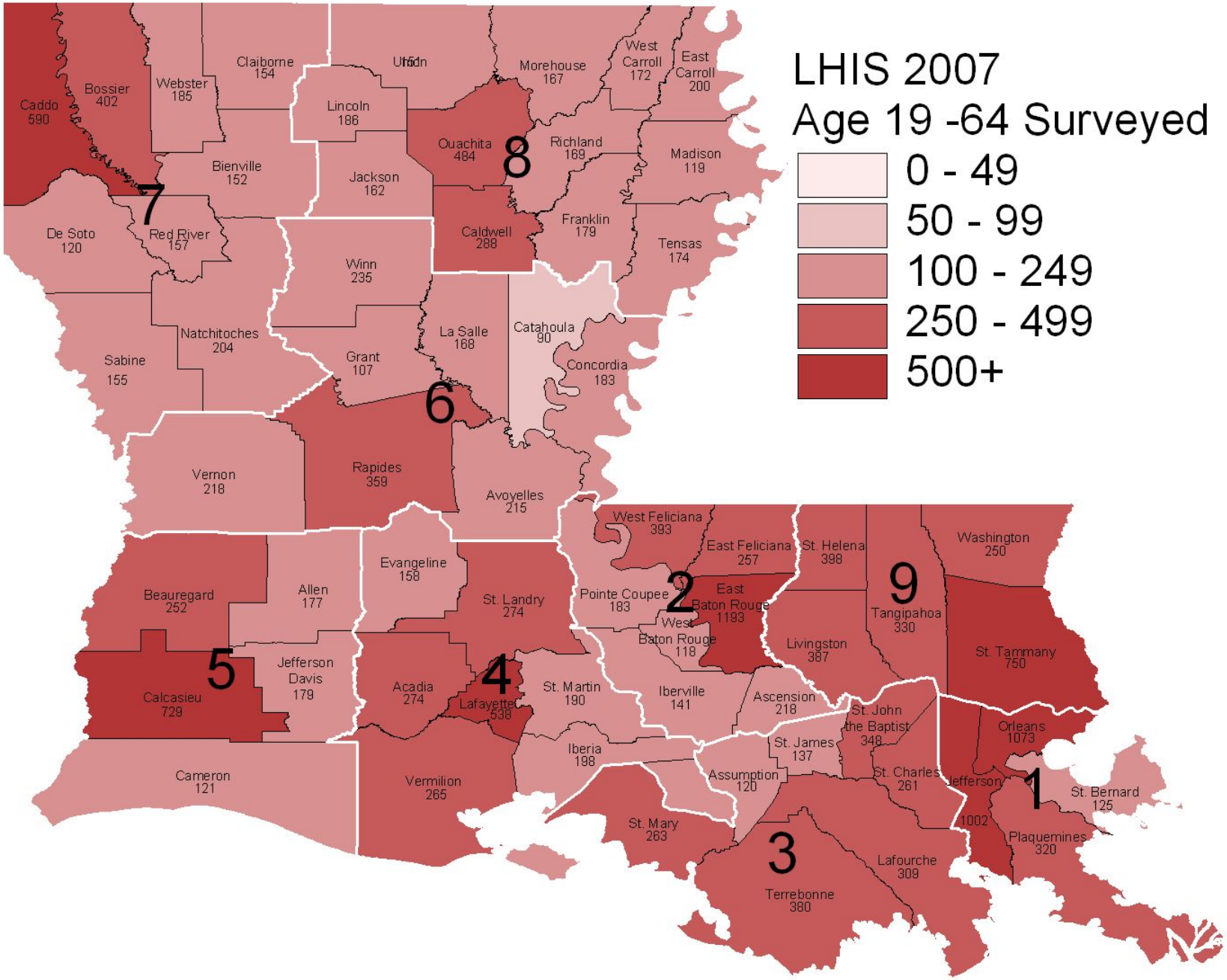
III. Discussion

This report contains detailed Louisiana parish-level estimates of the proportion of the population that is uninsured for both those under 19 and those between 19 and 64. Not surprisingly, the results indicate that insurance coverage rates are highly correlated with parish income for those 19 to 64. With regard to those under 19, LaCHIP and Medicaid coverage helps break the linkage between income and the lack of insurance.

Table 1 contains the direct survey estimates of the uninsured rate by parish, together with the margin of error for children and adults computed based on a 5% significance level. While the margin of error for the survey estimates tends to be relatively small for large parishes such as East Baton Rouge, it can be much large in rural parishes with less population. For example, Cameron parish has an estimated uninsured rate of 8.3% with an 8% margin of error.

Table 2 contains the blended estimates of the uninsured rate for each parish together with a new margin of error based on information borrowing. Note that the margin of error cannot increase due to blending and that the largest reduction in the margin of error occurs in parishes with very small samples. For example, information borrowing leads to a blended estimate of 8.9% for children in Jefferson Parish – only a slight increase over the survey estimate of 8.5%. The impact of blending is much larger for parishes such as St. Bernard with smaller samples.

Figure 3


LHIS 2007
Age 19 -64 Surveyed
0 - 49
50 - 99
100 - 249
250 - 499
500+
Caddo 590
Bossier 402
Webster 185
Claiborne 154
Union 156
Morehouse 167
West Carroll 172
East Carroll 200
Lincoln 186
Ouachita 484
8
Richland 169
Madison 119
Bienville 152
Jackson 162
7
De Soto 120
Red River 157
Caldwell 288
Franklin 179
Tensas 174
Winn 235
Natchitoches 204
La Salle 168
Catahoula 90
Concordia 183
Sabine 155
Grant 107
6
Vernon 218
Rapides 359
Avoyelles 215
West Feliciana 393
East Feliciana 257
St. Helena 398
Washington 250
Evangeline 158
Beauregard 252
Allen 177
St. Landry 274
Pointe Coupee 183
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East Baton Rouge 1193
9
Tangipahoa 330
West Baton Rouge 118
Livingston 387
St. Tammany 750
5
Jefferson Davis 179
Calcasieu 729
Acadia 274
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Lafayette 538
St. Martin 190
Iberville 141
Ascension 218
St. John the Baptist 348
Orleans 1073
St. James 137
Iberia 198
Cameron 121
Vermilion 265
Assumption 120
St. Charles 261
Jefferson 1002
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St. Bernard 125
St. Mary 263
3
Plaquemines 320
Lafourche 309
Terrebonne 380

Figure 4

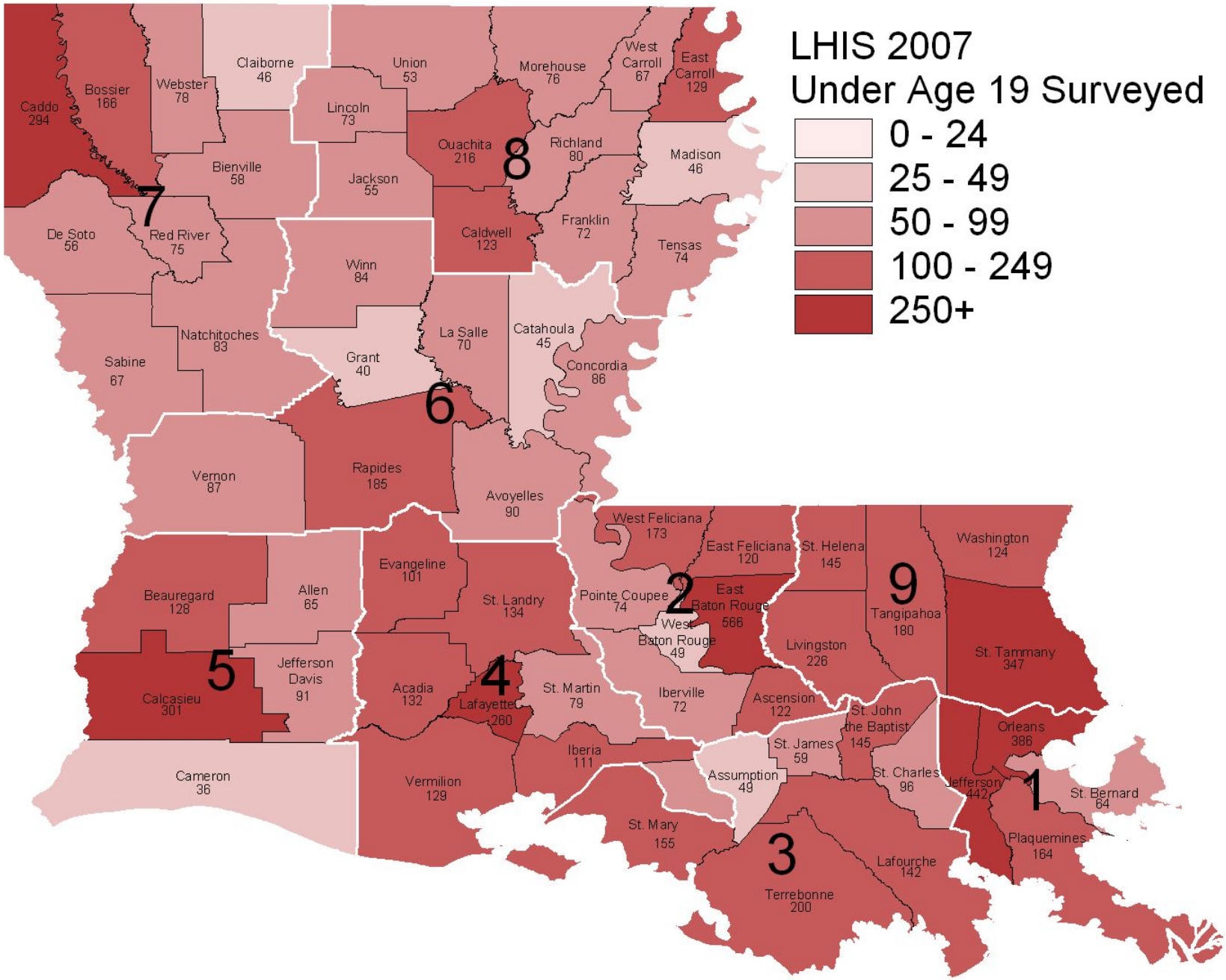
LHIS 2007
Under Age 19 Surveyed
0 - 24
25 - 49
50 - 99
100 - 249
250+
Caddo 294
Bossier 166
Webster 78
Claiborne 46
Union 53
Morehouse 76
West Carroll 67
East Carroll 129
Lincoln 73
Ouachita 216
Richland 80
Madison 46
Bienville 58
Jackson 55
Caldwell 123
Franklin 72
Tensas 74
De Soto 58
Red River 75
Winn 84
Natchitoches 83
La Salle 70
Catahoula 45
Concordia 86
Sabine 67
Grant 40
Vernon 87
Rapides 185
Avoyelles 90
West Feliciana 173
East Feliciana 120
St. Helena 145
Washington 124
Beauregard 128
Allen 65
Evangeline 101
St. Landry 134
Pointe Coupee 74
East Baton Rouge 566
West Baton Rouge 49
Tangipahoa 180
Livingston 226
St. Tammany 347
Jefferson Davis 91
Calcasieu 301
Acadia 132
Lafayette 260
St. Martin 79
Iberville 72
Ascension 122
St. John the Baptist 145
Orleans 386
St. James 59
Iberia 111
Assumption 49
St. Charles 96
Jefferson 442
St. Bernard 64
Cameron 36
Vermilion 129
St. Mary 155
Plaquemines 164
Lafourche 142
Terrebonne 200
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Table 1: 2007 Survey Estimates of the Uninsured and Margins of Error

Parish	Region	Surveyed Under Age 19	Percent Uninsured, Under Age 19, (Raw)	Under Age 19, Margin of Error	Surveyed, Between Ages 19 thru 64	Percent Uninsured, Between Ages 19 thru 64, (Raw)	Between Ages 19 thru 64, Margin of Error
Jefferson	1	442	8.5%	2.3%	1002	21.1%	2.5%
Orleans	1	386	9.7%	2.7%	1073	20.9%	2.4%
Plaquemines	1	164	5.6%	3.3%	320	18.4%	4.3%
St. Bernard	1	64	16.2%	7.1%	125	34.4%	8.4%
Ascension	2	122	7.4%	4.4%	218	14.7%	4.7%
East Baton Rouge	2	566	3.4%	1.4%	1193	16.9%	2.1%
East Feliciana	2	120	1.5%	2.1%	257	14.4%	4.3%
Iberville	2	72	2.1%	2.4%	141	17.0%	6.2%
Pointe Coupee	2	74	10.5%	5.9%	183	15.3%	5.2%
West Baton Rouge	2	49	5.3%	5.9%	118	17.8%	6.9%
West Feliciana	2	173	3.2%	2.5%	393	16.3%	3.7%
Assumption	3	49	15.3%	9.2%	120	24.2%	7.7%
Lafourche	3	142	2.8%	2.3%	309	17.2%	4.2%
St. Charles	3	96	2.7%	2.7%	261	14.2%	4.2%
St. James	3	59	10.5%	7.4%	137	26.3%	7.4%
St. John The Baptist	3	145	8.4%	4.1%	348	19.0%	4.1%
St. Mary	3	155	4.4%	2.7%	263	21.7%	5.0%
Terrebonne	3	200	1.0%	3.0%	380	25.3%	4.4%
Acadia	4	132	6.9%	3.9%	274	25.2%	5.1%
Evangeline	4	101	5.3%	4.1%	158	20.3%	6.3%
Iberia	4	111	2.4%	2.3%	198	21.2%	5.7%
Lafayette	4	260	4.2%	2.3%	538	17.8%	3.2%
St. Landry	4	134	5.0%	2.9%	274	20.8%	4.8%
St. Martin	4	79	7.7%	5.2%	190	23.7%	6.1%
Vermilion	4	129	6.5%	3.8%	265	19.6%	4.8%
Allen	5	65	3.8%	4.3%	177	24.3%	6.3%
Beauregard	5	128	5.8%	3.8%	252	23.8%	5.3%
Calcasieu	5	301	5.7%	2.3%	729	25.8%	3.2%
Cameron	5	36	8.3%	8.0%	121	28.1%	8.0%
Jefferson Davis	5	91	7.5%	4.7%	179	25.1%	6.4%
Avoyelles	6	90	3.5%	3.4%	215	25.6%	5.8%
Catahoula	6	45	3.3%	4.8%	90	35.6%	9.9%

Table 1 (Continued): Survey Estimates of the Uninsured and Margins of Error

Parish	Region	Surveyed Under Age 19	Percent Uninsured, Under Age 19, (Raw)	Under Age 19, Margin of Error	Surveyed, Between Ages 19 thru 64	Percent Uninsured, Between Ages 19 thru 64, (Raw)	Between Ages 19 thru 64, Margin of Error
Concordia	6	86	7.7%	5.5%	183	23.5%	6.2%
Grant	6	40	1.0%	6.8%	107	30.8%	8.8%
La Salle	6	70	1.0%	5.1%	168	17.3%	5.7%
Rapides	6	185	5.0%	2.7%	359	19.5%	4.1%
Vernon	6	87	4.9%	4.2%	218	20.6%	5.4%
Winn	6	84	7.0%	4.9%	235	28.5%	5.8%
Bienville	7	58	4.2%	4.7%	152	25.7%	7.0%
Bossier	7	166	3.0%	2.3%	402	16.9%	3.7%
Caddo	7	294	5.1%	2.3%	590	24.6%	3.5%
Claiborne	7	46	8.7%	6.6%	154	27.3%	7.1%
De Soto	7	56	8.1%	6.9%	120	26.7%	7.9%
Natchitoches	7	83	6.9%	5.0%	204	21.6%	5.7%
Red River	7	75	2.1%	3.0%	157	30.6%	7.2%
Sabine	7	67	5.1%	5.0%	155	33.5%	7.5%
Webster	7	78	2.4%	3.3%	185	29.7%	6.6%
Caldwell	8	123	3.6%	3.2%	288	35.4%	5.5%
East Carroll	8	129	8.8%	4.2%	200	38.0%	6.7%
Franklin	8	72	1.0%	1.9%	179	27.9%	6.6%
Jackson	8	55	1.8%	3.6%	162	19.8%	6.1%
Lincoln	8	73	4.9%	4.8%	186	18.3%	5.6%
Madison	8	46	10.6%	8.3%	119	27.7%	8.1%
Morehouse	8	76	7.1%	4.5%	167	22.8%	6.4%
Ouachita	8	216	4.2%	2.3%	484	24.0%	3.8%
Richland	8	80	1.0%	2.1%	169	20.1%	6.1%
Tensas	8	74	3.8%	3.8%	174	36.8%	7.2%
Union	8	53	11.8%	8.0%	151	21.9%	6.6%
West Carroll	8	67	9.2%	6.2%	172	34.3%	7.1%
Livingston	9	226	2.3%	1.8%	387	19.9%	4.0%
St. Helena	9	145	7.0%	3.5%	398	31.7%	4.6%
St. Tammany	9	347	3.3%	1.7%	750	14.1%	2.5%
Tangipahoa	9	180	6.3%	2.9%	330	27.3%	4.8%
Washington	9	124	11.3%	4.8%	250	41.2%	6.1%

Table 2

Parish	Region	Percent Uninsured, Under Age 19 (Blended Estimates)	Under Age 19 Margin of Error	Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	Ages 19 thru 64 Margin of Error
Jefferson	1	8.9%	2.2%	21.1%	2.4%
Orleans	1	9.5%	2.5%	21.1%	2.4%
Plaquemines	1	6.9%	2.9%	19.5%	3.7%
St. Bernard	1	11.0%	4.4%	30.7%	5.8%
Ascension	2	6.8%	3.4%	15.0%	4.0%
East Baton Rouge	2	4.2%	1.4%	16.7%	2.1%
East Feliciana	2	2.6%	2.0%	16.9%	3.8%
Iberville	2	3.1%	2.3%	20.4%	4.9%
Pointe Coupee	2	7.9%	3.9%	17.5%	4.3%
West Baton Rouge	2	5.9%	3.9%	19.5%	5.1%
West Feliciana	2	4.0%	2.3%	16.4%	3.3%
Assumption	3	7.8%	5.1%	22.1%	5.8%
Lafourche	3	3.3%	2.2%	16.3%	3.8%
St. Charles	3	3.1%	2.5%	14.0%	3.9%
St. James	3	7.4%	4.8%	23.9%	5.7%
St. John The Baptist	3	8.4%	3.5%	18.8%	3.8%
St. Mary	3	4.6%	2.5%	20.3%	4.4%
Terrebonne	3	1.8%	2.8%	22.2%	4.0%
Acadia	4	6.9%	3.3%	22.4%	4.5%
Evangeline	4	5.9%	3.4%	20.9%	5.1%
Iberia	4	3.0%	2.2%	20.4%	4.8%
Lafayette	4	5.1%	2.1%	16.6%	3.1%
St. Landry	4	5.7%	2.6%	20.4%	4.3%
St. Martin	4	7.0%	3.9%	22.0%	5.0%
Vermilion	4	6.7%	3.2%	18.3%	4.2%
Allen	5	4.2%	3.8%	27.6%	5.4%
Beauregard	5	5.7%	3.4%	25.7%	4.7%
Calcasieu	5	5.7%	2.3%	27.1%	3.1%
Cameron	5	7.8%	5.3%	28.5%	6.2%
Jefferson Davis	5	6.8%	4.0%	27.5%	5.4%
Avoyelles	6	3.8%	3.1%	24.4%	5.0%
Catahoula	6	3.6%	4.0%	29.4%	6.8%
Concordia	6	5.9%	4.4%	22.9%	5.2%
Grant	6	2.3%	4.8%	25.8%	6.4%
La Salle	6	1.9%	4.1%	17.4%	4.9%
Rapides	6	5.0%	2.6%	18.6%	3.8%
Vernon	6	5.2%	3.6%	19.7%	4.7%
Winn	6	5.7%	4.0%	25.4%	5.0%

Table 2 (Continued)

Parish	Region	Percent Uninsured, Under Age 19 (Blended Estimates)	Under Age 19 Margin of Error	Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	Ages 19 thru 64 Margin of Error
Bienville	7	4.5%	3.7%	28.1%	5.3%
Bossier	7	3.3%	2.2%	18.3%	3.4%
Caddo	7	5.1%	2.1%	25.2%	3.2%
Claiborne	7	6.5%	4.5%	29.3%	5.4%
De Soto	7	6.4%	4.5%	28.6%	5.7%
Natchitoches	7	6.2%	3.9%	24.8%	4.7%
Red River	7	3.2%	2.7%	32.5%	5.5%
Sabine	7	5.5%	3.9%	31.5%	5.5%
Webster	7	2.9%	2.9%	29.4%	5.1%
Caldwell	8	4.3%	2.8%	31.5%	4.5%
East Carroll	8	8.2%	3.4%	35.6%	5.2%
Franklin	8	1.5%	1.8%	28.2%	5.0%
Jackson	8	2.9%	3.0%	21.9%	4.8%
Lincoln	8	5.5%	3.7%	21.1%	4.6%
Madison	8	7.5%	4.8%	30.6%	5.6%
Morehouse	8	6.6%	3.5%	25.9%	4.9%
Ouachita	8	4.6%	2.1%	23.3%	3.4%
Richland	8	1.6%	2.0%	23.4%	4.7%
Tensas	8	4.7%	3.2%	34.4%	5.3%
Union	8	8.0%	4.5%	24.6%	5.0%
West Carroll	8	6.7%	4.1%	31.1%	5.2%
Livingston	9	3.0%	1.7%	18.6%	3.6%
St. Helena	9	8.5%	3.1%	29.4%	4.1%
St. Tammany	9	4.2%	1.6%	13.4%	2.4%
Tangipahoa	9	7.1%	2.6%	25.2%	4.2%
Washington	9	10.7%	3.7%	34.5%	5.0%

Table 3 provides estimates of the uninsured population under 19 based on our preferred, blended estimates and Table 4 provides similar figures for adults. The largest number of uninsured children resides in Jefferson Parish with almost 10,000 uninsured children, followed by East Baton Rouge and Orleans at near 5,000. Note that all computations are based on US Census Bureau's July 2006 population estimates. Though our estimate of the percentage of the children that lack insurance is based on Fall 2007 data. However, due to population growth our estimates may understate the current number of uninsured children in parishes such as Orleans, which may have seen a significant increase in population between 2006 and 2007.

Jefferson again tops the list in estimated number of uninsured adults in Table 4, with over 55,000 uninsured adults. East Baton Rouge and Caddo follow with 44,242 and 38,067 uninsured adults respectively. Appendix I compares estimated uninsured rates by parish over time. Two sets of estimates are presented for 2003 to account for the introduction of the Medicaid bias adjustment and other changes in methodology between 2003 and 2005.

Table 3
2007 Estimates of the Uninsured Population
Under 19 (Blended Estimates)

Parish	Region	Population <19	2007 Percent Uninsured, Under Age 19 (Blended Estimates)	2007 Estimated Uninsured Population, Under Age 19 (Blended Estimates)
Jefferson	1	109,005	8.9%	9,742
Orleans	1	55,298	9.5%	5,253
Plaquemines	1	6,633	6.9%	454
St. Bernard	1	3,581	11.0%	395
Ascension	2	27,780	6.8%	1,894
East Baton Rouge	2	118,353	4.2%	4,913
East Feliciana	2	5,137	2.6%	134
Iberville	2	8,566	3.1%	264
Pointe Coupee	2	5,858	7.9%	465
West Baton Rouge	2	5,986	5.9%	355
West Feliciana	2	2,753	4.0%	109
Assumption	3	6,118	7.8%	476
Lafourche	3	24,563	3.3%	799
St. Charles	3	14,577	3.1%	457
St. James	3	6,093	7.4%	452
St. John the Baptist	3	14,372	8.4%	1,210
St. Mary	3	14,678	4.6%	677
Terrebonne	3	30,792	1.8%	565
Acadia	4	17,531	6.9%	1,218
Evangeline	4	10,388	5.9%	615
Iberia	4	21,696	3.0%	655
Lafayette	4	55,466	5.1%	2,804
St. Landry	4	26,120	5.7%	1,502
St. Martin	4	14,114	7.0%	990
Vermilion	4	15,090	6.7%	1,016

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Table 3 (continued)
2007 Estimates of the Uninsured Population
Under 19 (Blended Estimates)

Parish	Region	Population <19	2007 Percent Uninsured, Under Age 19 (Blended Estimates)	2007 Estimated Uninsured Population, Under Age 19 (Blended Estimates)
Allen	5	6,254	4.2%	261
Beauregard	5	9,143	5.7%	521
Calcasieu	5	49,855	5.7%	2,845
Cameron	5	1,978	7.8%	155
Jefferson Davis	5	8,854	6.8%	602
Avoyelles	6	11,191	3.8%	427
Catahoula	6	2,666	3.6%	95
Concordia	6	5,128	5.9%	301
Grant	6	5,277	2.3%	121
La Salle	6	3,531	1.9%	66
Rapides	6	34,964	5.0%	1,744
Vernon	6	16,003	5.2%	832
Winn	6	3,773	5.7%	216
Bienville	7	3,886	4.5%	174
Bossier	7	30,087	3.3%	1,002
Caddo	7	68,111	5.1%	3,488
Claiborne	7	3,837	6.5%	249
De Soto	7	7,047	6.4%	454
Natchitoches	7	11,146	6.2%	687
Red River	7	2,705	3.2%	85
Sabine	7	6,272	5.5%	346
Webster	7	10,200	2.9%	292

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Table 3 (continued)
2007 Estimates of the Uninsured Population
Under 19 (Blended Estimates)

Parish	Region	Population <19	2007 Percent Uninsured, Under Age 19 (Blended Estimates)	2007 Estimated Uninsured Population, Under Age 19 (Blended Estimates)
Caldwell	8	2,567	4.3%	110
East Carroll	8	2,679	8.2%	219
Franklin	8	5,545	1.5%	81
Jackson	8	3,756	2.9%	108
Lincoln	8	11,539	5.5%	633
Madison	8	3,837	7.5%	286
Morehouse	8	7,971	6.6%	526
Ouachita	8	42,523	4.6%	1,962
Richland	8	5,526	1.6%	87
Tensas	8	1,589	4.7%	75
Union	8	5,811	8.0%	463
West Carroll	8	2,827	6.7%	190
Livingston	9	31,104	3.0%	947
St. Helena	9	2,827	8.5%	241
St. Tammany	9	60,216	4.2%	2,550
Tangipahoa	9	31,130	7.1%	2,222
Washington	9	11,845	10.7%	1,272
Caldwell	8	2,567	4.3%	110
East Carroll	8	2,679	8.2%	219
Franklin	8	5,545	1.5%	81
Jackson	8	3,756	2.9%	108
Lincoln	8	11,539	5.5%	633

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Table 4
2007 Estimates of the Uninsured Population
Ages 19-64 (Blended Estimates)

Parish	Region	Population 19 to 64	2007 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2007 Estimate of the Uninsured, Ages 19 thru 64 (Blended Estimates)
Jefferson	1	263,301	21.1%	55,640
Orleans	1	135,915	21.1%	28,660
Plaquemines	1	13,382	19.5%	2,612
St. Bernard	1	9,925	30.7%	3,050
Ascension	2	61,786	15.0%	9,257
East Baton Rouge	2	265,128	16.7%	44,242
East Feliciana	2	13,298	16.9%	2,244
Iberville	2	20,703	20.4%	4,225
Pointe Coupee	2	13,542	17.5%	2,373
West Baton Rouge	2	14,113	19.5%	2,749
West Feliciana	2	11,477	16.4%	1,887
Assumption	3	14,559	22.1%	3,211
Lafourche	3	57,862	16.3%	9,435
St. Charles	3	33,035	14.0%	4,610
St. James	3	12,961	23.9%	3,099
St. John the Baptist	3	30,012	18.8%	5,642
St. Mary	3	30,635	20.3%	6,215
Terrebonne	3	66,739	22.2%	14,829
Acadia	4	35,449	22.4%	7,955
Evangeline	4	21,070	20.9%	4,409
Iberia	4	44,738	20.4%	9,142
Lafayette	4	126,856	16.6%	21,052
St. Landry	4	52,991	20.4%	10,813
St. Martin	4	31,839	22.0%	6,996
Vermilion	4	33,452	18.3%	6,137

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Table 4
2007 Estimates of the Uninsured Population
Ages 19-64 (Blended Estimates)

Parish	Region	Population 19to64	2007 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2007 Estimate of the Uninsured, Ages 19 thru 64 (Blended Estimates)
Allen	5	16,081	27.6%	4,445
Beauregard	5	21,650	25.7%	5,573
Calcasieu	5	111,604	27.1%	30,279
Cameron	5	4,874	28.5%	1,387
Jefferson Davis	5	18,256	27.5%	5,017
Avoyelles	6	25,893	24.4%	6,314
Catahoula	6	6,383	29.4%	1,875
Concordia	6	11,368	22.9%	2,608
Grant	6	12,127	25.8%	3,133
La Salle	6	8,464	17.4%	1,471
Rapides	6	78,044	18.6%	14,492
Vernon	6	26,183	19.7%	5,155
Winn	6	9,829	25.4%	2,492
Bienville	7	8,664	28.1%	2,435
Bossier	7	65,056	18.3%	11,884
Caddo	7	150,824	25.2%	38,067
Claiborne	7	9,683	29.3%	2,832
De Soto	7	15,815	28.6%	4,528
Natchitoches	7	22,795	24.8%	5,647
Red River	7	5,412	32.5%	1,761
Sabine	7	13,842	31.5%	4,354
Webster	7	24,293	29.4%	7,132

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Table 4
2007 Estimates of the Uninsured Population
Ages 19-64 (Blended Estimates)

Parish	Region	Population 19to64	2007 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2007 Estimate of the Uninsured, Ages 19 thru 64 (Blended Estimates)
Caldwell	8	6,567	31.5%	2,069
East Carroll	8	4,920	35.6%	1,752
Franklin	8	11,656	28.2%	3,289
Jackson	8	8,964	21.9%	1,959
Lincoln	8	25,338	21.1%	5,349
Madison	8	7,081	30.6%	2,166
Morehouse	8	17,269	25.9%	4,479
Ouachita	8	88,666	23.3%	20,677
Richland	8	12,079	23.4%	2,832
Tensas	8	3,667	34.4%	1,260
Union	8	13,545	24.6%	3,327
West Carroll	8	6,968	31.1%	2,165
Livingston	9	73,435	18.6%	13,678
St. Helena	9	6,537	29.4%	1,921
St. Tammany	9	143,811	13.4%	19,295
Tangipahoa	9	69,648	25.2%	17,584
Washington	9	26,615	34.5%	9,173

Note: All figures in this Table are based on July 2006 population estimates from the US Census Bureau.

Appendix A
2007 Parish Estimates for Adults and Children Compared to 2005 and 2003

Table A1: Parish-level Estimates for Adults over Time

Parish	Region	Population 19to64	2007 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2005 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2003 Percent Uninsured, Ages 19 thru 64 (2005 Methodology)	2003 Percent Uninsured, Ages 19 thru 64 (From 2003 Report)
Jefferson	1	263,301	21.1%	20.9%	18.9%	20.1%
Orleans	1	135,915	21.1%	26.1%	19.6%	21.6%
Plaquemines	1	13,382	19.5%	23.1%	20.0%	20.5%
St. Bernard	1	9,925	30.7%	21.5%	21.0%	22.1%
Ascension	2	61,786	15.0%	14.8%	18.3%	19.3%
East Baton Rouge	2	265,128	16.7%	20.6%	18.4%	19.3%
East Feliciana	2	13,298	16.9%	22.9%	19.0%	19.8%
Iberville	2	20,703	20.4%	26.1%	17.2%	19.3%
Pointe Coupee	2	13,542	17.5%	24.2%	17.0%	20.1%
West Baton Rouge	2	14,113	19.5%	17.5%	17.3%	19.2%
West Feliciana	2	11,477	16.4%	18.8%	14.4%	15.1%
Assumption	3	14,559	22.1%	25.5%	22.0%	23.8%
Lafourche	3	57,862	16.3%	24.5%	20.9%	21.6%
St. Charles	3	33,035	14.0%	17.1%	14.3%	15.4%
St. James	3	12,961	23.9%	18.6%	21.2%	23.8%
St. John the Baptist	3	30,012	18.8%	17.6%	17.4%	19.3%
St. Mary	3	30,635	20.3%	27.3%	21.9%	23.9%
Terrebonne	3	66,739	22.2%	25.3%	21.1%	22.2%
Acadia	4	35,449	22.4%	26.0%	23.2%	24.9%
Evangeline	4	21,070	20.9%	26.9%	19.4%	22.7%
Iberia	4	44,738	20.4%	19.1%	21.1%	23.3%
Lafayette	4	126,856	16.6%	19.2%	19.2%	20.2%
St. Landry	4	52,991	20.4%	23.3%	23.3%	25.7%
St. Martin	4	31,839	22.0%	24.6%	25.7%	26.5%
Vermilion	4	33,452	18.3%	21.9%	23.9%	24.9%
Allen	5	16,081	27.6%	32.5%	19.9%	21.4%
Beauregard	5	21,650	25.7%	29.1%	21.1%	22.3%
Calcasieu	5	111,604	27.1%	28.5%	18.8%	19.8%
Cameron	5	4,874	28.5%	29.0%	18.2%	19.9%
Jefferson Davis	5	18,256	27.5%	30.4%	20.4%	21.4%
Avoyelles	6	25,893	24.4%	34.0%	22.1%	24.2%
Catahoula	6	6,383	29.4%	35.8%	28.4%	29.1%

Table A1 (Continued): Parish-level Estimates for Adults over Time

Parish	Region	Population 19to64	2007 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2005 Percent Uninsured, Ages 19 thru 64 (Blended Estimates)	2003 Percent Uninsured, Ages 19 thru 64 (2005 Methodology)	2003 Percent Uninsured, Ages 19 thru 64 (From 2003 Report)
Concordia	6	11,368	22.9%	29.1%	26.4%	28.8%
Grant	6	12,127	25.8%	32.2%	23.0%	24.4%
La Salle	6	8,464	17.4%	34.9%	24.1%	25.8%
Rapides	6	78,044	18.6%	27.6%	19.4%	21.5%
Vernon	6	26,183	19.7%	27.0%	11.6%	12.0%
Winn	6	9,829	25.4%	35.7%	25.8%	27.0%
Bienville	7	8,664	28.1%	35.0%	23.6%	25.9%
Bossier	7	65,056	18.3%	22.0%	12.9%	13.7%
Caddo	7	150,824	25.2%	25.2%	21.4%	22.7%
Claiborne	7	9,683	29.3%	31.8%	25.1%	24.8%
De Soto	7	15,815	28.6%	28.9%	19.9%	22.9%
Natchitoches	7	22,795	24.8%	29.0%	21.6%	22.8%
Red River	7	5,412	32.5%	34.1%	26.5%	27.7%
Sabine	7	13,842	31.5%	33.7%	21.5%	23.7%
Webster	7	24,293	29.4%	28.3%	25.7%	26.7%
Caldwell	8	6,567	31.5%	28.9%	28.9%	29.7%
East Carroll	8	4,920	35.6%	30.6%	23.3%	29.3%
Franklin	8	11,656	28.2%	35.1%	30.3%	32.1%
Jackson	8	8,964	21.9%	26.5%	22.2%	27.3%
Lincoln	8	25,338	21.1%	20.5%	24.0%	24.6%
Madison	8	7,081	30.6%	33.3%	31.4%	33.1%
Morehouse	8	17,269	25.9%	28.1%	26.9%	29.7%
Ouachita	8	88,666	23.3%	23.7%	23.7%	24.5%
Richland	8	12,079	23.4%	29.0%	33.0%	34.3%
Tensas	8	3,667	34.4%	30.3%	28.9%	30.8%
Union	8	13,545	24.6%	28.1%	27.2%	27.9%
West Carroll	8	6,968	31.1%	26.3%	30.9%	33.3%
Livingston	9	73,435	18.6%	21.4%	16.7%	18.0%
St. Helena	9	6,537	29.4%	29.7%	17.1%	19.4%
St. Tammany	9	143,811	13.4%	16.1%	12.8%	13.3%
Tangipahoa	9	69,648	25.2%	27.8%	19.8%	21.9%
Washington	9	26,615	34.5%	28.5%	20.3%	22.4%

Table A2: Parish-level Estimates for Children over Time

Parish	Region	Population <19	2007 Percent Uninsured, Under Age 19 (Blended Estimates)	2005 Percent Uninsured, Under Age 19 (Blended Estimates)	2003 Percent Uninsured, Under Age 19 (2005 Methodology)	2003 Percent Uninsured, Under Age 19 (From 2003 Report)
Jefferson	1	109,005	8.9%	7.8%	7.9%	9.6%
Orleans	1	55,298	9.5%	6.8%	7.1%	9.9%
Plaquemines	1	6,633	6.9%	7.7%	5.4%	7.7%
St. Bernard	1	3,581	11.0%	8.7%	5.8%	8.6%
Ascension	2	27,780	6.8%	3.2%	11.0%	13.7%
East Baton Rouge	2	118,353	4.2%	9.7%	7.7%	9.7%
East Feliciana	2	5,137	2.6%	7.3%	6.9%	10.0%
Iberville	2	8,566	3.1%	9.6%	11.2%	15.1%
Pointe Coupee	2	5,858	7.9%	2.5%	10.0%	14.1%
West Baton Rouge	2	5,986	5.9%	3.0%	12.7%	14.7%
West Feliciana	2	2,753	4.0%	5.2%	4.4%	5.9%
Assumption	3	6,118	7.8%	12.1%	16.4%	15.5%
Lafourche	3	24,563	3.3%	11.5%	14.9%	12.3%
St. Charles	3	14,577	3.1%	1.4%	10.8%	9.1%
St. James	3	6,093	7.4%	7.6%	11.3%	13.1%
St. John the Baptist	3	14,372	8.4%	4.1%	11.3%	11.3%
St. Mary	3	14,678	4.6%	5.4%	11.7%	12.4%
Terrebonne	3	30,792	1.8%	10.3%	11.6%	10.1%
Acadia	4	17,531	6.9%	10.2%	3.8%	12.3%
Evangeline	4	10,388	5.9%	8.9%	1.4%	6.8%
Iberia	4	21,696	3.0%	8.4%	2.4%	9.2%
Lafayette	4	55,466	5.1%	9.6%	4.1%	11.0%
St. Landry	4	26,120	5.7%	8.9%	3.2%	11.3%
St. Martin	4	14,114	7.0%	12.8%	3.3%	11.2%
Vermilion	4	15,090	6.7%	12.1%	4.2%	14.4%
Allen	5	6,254	4.2%	1.9%	10.3%	13.5%
Beauregard	5	9,143	5.7%	7.0%	11.9%	16.5%
Calcasieu	5	49,855	5.7%	3.1%	11.9%	14.5%
Cameron	5	1,978	7.8%	7.3%	22.4%	23.9%
Jefferson Davis	5	8,854	6.8%	8.0%	19.0%	20.7%
Avoyelles	6	11,191	3.8%	10.3%	12.6%	9.3%
Catahoula	6	2,666	3.6%	11.8%	12.2%	11.0%

Table A2 (Continued): Parish-level Estimates for Children over Time

Parish	Region	Population <19	2007 Percent Uninsured, Under Age 19 (Blended Estimates)	2005 Percent Uninsured, Under Age 19 (Blended Estimates)	2003 Percent Uninsured, Under Age 19 (2005 Methodology)	2003 Percent Uninsured, Under Age 19 (From 2003 Report)
Concordia	6	5,128	5.9%	2.4%	17.0%	13.1%
Grant	6	5,277	2.3%	15.8%	10.3%	9.0%
La Salle	6	3,531	1.9%	10.4%	12.4%	10.0%
Rapides	6	34,964	5.0%	10.2%	5.2%	4.1%
Vernon	6	16,003	5.2%	9.1%	2.2%	2.3%
Winn	6	3,773	5.7%	15.4%	16.7%	12.2%
Bienville	7	3,886	4.5%	6.5%	9.6%	19.6%
Bossier	7	30,087	3.3%	1.9%	5.5%	10.6%
Caddo	7	68,111	5.1%	4.1%	8.1%	14.6%
Claiborne	7	3,837	6.5%	6.0%	7.7%	15.2%
De Soto	7	7,047	6.4%	0.6%	12.9%	21.5%
Natchitoches	7	11,146	6.2%	3.0%	8.0%	14.6%
Red River	7	2,705	3.2%	9.1%	20.8%	27.2%
Sabine	7	6,272	5.5%	8.4%	12.9%	20.7%
Webster	7	10,200	2.9%	3.5%	11.5%	19.3%
Caldwell	8	2,567	4.3%	7.6%	5.2%	9.9%
East Carroll	8	2,679	8.2%	3.2%	6.5%	14.7%
Franklin	8	5,545	1.5%	10.1%	10.2%	14.8%
Jackson	8	3,756	2.9%	12.1%	11.5%	16.1%
Lincoln	8	11,539	5.5%	9.5%	8.1%	10.0%
Madison	8	3,837	7.5%	6.8%	5.8%	11.8%
Morehouse	8	7,971	6.6%	4.5%	9.5%	14.4%
Ouachita	8	42,523	4.6%	7.7%	6.2%	8.7%
Richland	8	5,526	1.6%	6.7%	10.0%	14.3%
Tensas	8	1,589	4.7%	8.7%	7.9%	11.8%
Union	8	5,811	8.0%	3.7%	8.6%	12.8%
West Carroll	8	2,827	6.7%	6.5%	6.5%	12.2%
Livingston	9	31,104	3.0%	4.9%	8.1%	12.5%
St. Helena	9	2,827	8.5%	7.1%	9.6%	14.1%
St. Tammany	9	60,216	4.2%	8.1%	5.4%	7.6%
Tangipahoa	9	31,130	7.1%	10.8%	6.1%	10.4%
Washington	9	11,845	10.7%	7.7%	13.5%	17.2%

Appendix B
Technical Discussion of the Methodology

Construction of Synthetic Estimates

Our methodology consists of constructing synthetic estimates of parish uninsurance rates similar to:

$$\hat{y}_i^{Synthetic} = \hat{\beta}_0 + \hat{\beta}_1 x_{1i} + \hat{\beta}_2 x_{2i} + \ldots + \hat{\beta}_k x_{ki}$$

Intuitively, the methodology should use the survey estimate y_i^{Direct} when the survey estimate is accurate and $y_i^{Synthetic}$ when the survey standard error is large and y_i^{Direct} is inaccurate. We accomplish this goal by creating a blended estimate:

$$y_i^{Blended} = w_1 y_i^{Direct} + w_2 y_i^{Synthetic}$$

where $w_1 = 1 - \dfrac{SE(Y^{Direct})}{(SE(Y^{Direct}) + SE(Y^{Synthetic}))}$ and

$$w_2 = \frac{SE(Y^{Direct})}{(SE(Y^{Direct}) + SE(Y^{Synthetic}))}.$$ [1]

Equations A.1 and A.2 below provide OLS estimates of parish uninsurance rates for children under 19 and adults 19-64 respectively. For the children's equation, the independent variable is equal to the child's probability of being uninsured. For many children, this is simply zero or one depending on the survey response. But, for children who are eligible for Medicaid, the bias correction model was used to assign a probability of being on Medicaid based on the individual and family characteristics. The explanatory variables are the percent of working age adults in the house who are unemployed (*PCTUNEMP*), an indicator equal to one if the child lives in a family below 185% of the federal poverty line (*LT185FPL*), household income (*HHINC*), an indicator equal to one if the child is black (*BLACK*), an indicator equal to one if the child is female (*FEMALE*), an indicator equal to one if the child is on Medicaid or LACHIP (MEDICAID), three dummy variables for age (A2-A4), and dummy variables for DHH region (D2-D8). Note that we constrain the coefficients of *LT185FPL* and MEDICAID to sum to zero.

Children under 19:

(A.1)

$$\begin{aligned}\hat{y}_i^{Synthetic} &= .0734 + .023PCTUNEMP + .107LT185FPL + 1.17\text{e-}08HHINC - .009BLACK \\ &- .006FEMALE - .107MEDICAID + .006A2 + .005A3 + .010A4 \\ &- .040D2 - .042D3 - .041D4 - .0204D5 - .044D6 - .037D7 - .032D8 - .034D9\end{aligned}$$

The adults equation deletes the Medicaid indicator, but is otherwise similar with the only exception being that there are more age groups defined to cover the broader range 19-64.

[1] Note that this weighting scheme differs from the pure empirical Bayes used in the 2003 LHIS and tends to place more weight on direct estimates for our sample. We thank Gestur Davidson of SHADAC for suggesting the new weights.

Adults 19-64:
(A.2)

$$\begin{aligned}\hat{y}_i^{Synthetic} &= .162 + .214PCTUNEMP + .220LT185FPL - 6.26\text{e - }08HHINC + .035BLACK \\ &- .014FEMALE + .005A2 - .036A3 - .058A4 - .103A5 \\ &- .041D2 - .004D3 - .003D4 + .051D5 + .030D6 + .030D7 + .046D8 + .032D9\end{aligned}$$

Overall results appear as expected. Rates of uninsurance are higher among poorer individuals and among the unemployed.

Given the sample sizes, we have more confidence in our regional estimates and scaled the parish-level estimates so that the regional totals match those from the full report. This process of scaling the parish estimates to equal regional estimates is called raking the estimates and ensures consistency across reports.