

**State of Mississippi**  
**Title XIX Inpatient Hospital Reimbursement Plan**

I. Payment Methodology for Rate Years Beginning October 1, 2005

A. Prospective Rate

The Division of Medicaid will set hospital inpatient reimbursement rates prospectively on an annual (October 1 – September 30) basis. For the rate year beginning October 1, 2005, the rate shall be based upon the greater of (1) the facility's most recent inpatient per diem rate for FFY 2005, or (2) the average of the facility's most recent inpatient per diem rates for FFY 2004 and 2005. The resulting base amount will then be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. The base rate will not be recalculated for any subsequent changes that occur in the FFY 2004 or 2005 inpatient per diem rates, except for adjustments made to include or exclude the low DSH component, as appropriate, based on changes in low DSH eligibility for per diem rates through September 30, 2009, and in cases of error or omission, as determined by the Division. (Refer to Appendix I.)

A base rate will be established for hospitals that open or change ownership on or after October 1, 2005. A new owner will be reimbursed at the previous owner's rate until the rate is recalculated based on the new owner's initial cost report using rate-setting procedures in place prior to October 1, 2005. A new hospital will be reimbursed the average rate paid a like-sized Mississippi hospital as of the effective date of the Medicaid provider agreement until the rate is recalculated based on the new hospital's initial cost report using rate-setting procedures in place prior to October 1, 2005. Each rate year the inpatient per diem for each Mississippi hospital is grouped by bed class (as described in Section VII.C.) and an average rate is determined for each class. New Mississippi hospitals will be reimbursed the average for their bed class based on the number of beds. The fiscal year 2005 class ceilings will be trended using the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register to establish class ceilings for these rates as described in Section VII.

For rate years beginning October 1, 2006, and thereafter, the prospective rate for the immediately preceding rate year will be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. Facility per diems shall be trended forward in this manner annually until such time as a new methodology is adopted by the Division or for five rate years beginning October 1, 2005, whichever comes first. If no new methodology has been adopted by the end of the fifth rate year of trending, hospital inpatient reimbursement rates will be rebased annually using the cost reporting methodology employed prior to October 1, 2005.

For rate years beginning October 1, 2009, and so long as the hospital assessment is in effect, the base rate for private free-standing psychiatric hospitals shall be that in use January 1, 2009, which shall not be revised or recalculated. The prospective rate for the immediately preceding rate year will be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. Private free-standing psychiatric hospital per diems shall be trended forward in this manner annually so long as the hospital assessment is in effect.

B. Subsequent Adjustment

The base year payments effective October 1, 2005, will not be adjusted when fiscal year 2004 and fiscal year 2005 rates are amended due to final settlement cost reports. Rates determined under this methodology will be subject to subsequent adjustment only in cases of error or omission, as determined by the Division, affecting the base year(s) or for adjustments made to include or exclude the low DSH component, as appropriate, based on changes in low DSH eligibility.

C. Class of Facilities

The statewide classes of facilities shall be the same as specified in Section VII, Paragraph C of this Attachment 4.19-A.

TN No. 2010-028  
Supersedes

TN No. 2009-002

Date Received \_\_\_\_\_  
Date Approved \_\_\_\_\_  
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for determining the maximum prospective operating cost component. The designated maximum percentile (80<sup>th</sup> percentile) by class of facility will be utilized to limit payment to high cost providers. General hospitals will be classified based on the number of beds available per the annual cost report. This number is determined as follows: Total hospital beds less nursery beds, NICU beds and beds for provider components paid at a different rate or not participating in the Medicaid program. Free-standing psychiatric hospitals are a separate class of hospitals for rate setting with all bed sized combined. General hospitals which have a psychiatric unit are reimbursed the same per diem for the psychiatric inpatient days as they are for general medical/surgical inpatient days. Pediatric long-term acute care hospitals are a separate class of hospital providing services as freestanding, Medicare-certified hospitals with an average length of inpatient stay greater than twenty-five (25) days and primarily engaged in providing chronic or long-term medical care to persons under twenty-one (21) years of age. The initial per diem rate for pediatric long-term acute care hospitals will be determined based upon the initial cost report filed by the facility.

CLASS OF FACILITIES

1. General Hospitals with 0 – 50 Beds
2. General Hospitals with 51 – 100 Beds
3. General Hospitals with 101 – 150 Beds
4. General Hospitals with 151 – 200 Beds
5. General Hospitals with 201 – or more Beds
6. Free-standing Psychiatric Hospitals
7. Pediatric Long-term Acute Care Hospitals

D. Setting of Class Ceilings

1. The latest cost report available to Medicaid in each calendar year for each hospital will be reviewed and adjusted:
  - a. to reflect the results of desk review and/or field audits
  - b. to adjust for excessive costs
  - c. to determine if the hospitals general routine operating costs are in excess of the limitations established by 42 CFR 413.30.

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For hospitals having excessive general routine operating costs, appropriate adjustments shall be made.

1. Total cost allocated to the Medicaid Program on the appropriate cost reporting forms shall be classified as a) capital costs, b) educational cost, and c.) operating costs. Capital costs are defined by this plan to include those costs reported for Medicare reimbursement purposes such as depreciation, non-employee related insurance, interest, rent, and property taxes (real and personal). Educational costs are defined as those costs normally recorded in the Intern and Resident and Nursing School accounts for Medicare reimbursement purposes. Capital costs and educational cost are to be allocated to the Medicaid Program based upon the number of inpatient Medicaid days to total inpatient days. Operating costs are defined as total Medicaid costs less capital costs and Educational costs apportioned to the Medicaid Program.

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2. Medicaid Prospective Capital Cost Component
  - a. Total capital costs apportioned to the Medicaid Program will be divided by actual Medicaid inpatient days.
  - b. In accordance with Section V. K., an amount will be added or deducted for the capital cost applicable to the Medicaid Program for new or deleted services or equipment which requires Certificate of Need approval.
  - c. The addition of 3.a. and 3.b. shall be called the Medicaid Prospective Capital Cost Component.
  
4. Medicaid Prospective Educational Cost Component
  - a. Total educational costs apportioned to the Medicaid Program will be adjusted for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the most recently ended calendar year by the payroll expense and employee benefits portion of the latest rate of inflation for the hospital industry as described in Appendix C. This adjustment is made to place costs reported on a common year end and is referred to as the education inflation factor.
  - b. This adjusted cost will be divided by the actual Medicaid inpatient days.
  - c. The payroll expense and employee benefits portion of the industry trend factor as described in Appendix C will be applied to this per diem amount to adjust for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period. This adjustment is referred to as the education trend factor.
  - d. This adjusted per diem shall be called the Medicaid Prospective Educational Cost Component.

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5. Medicaid Prospective Operating Cost Component
  - a. Total operating costs apportioned to the Medicaid Program will be adjusted for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the most recently ended calendar year by the latest actual rate of inflation for the hospital industry as described in Appendix C. This adjustment is made to place all costs reported on a common year end. This adjusted cost will be separated into labor and non-labor categories based on the percentage of payroll expense and employee benefits to the total market basket as specified in Appendix C. This adjustment is referred to as the hospital inflation factor.
  - b. The labor costs and non-labor costs applicable to the Medicaid Program will be divided by the actual Medicaid inpatient days.
  - c. The labor cost per diem shall be adjusted by a wage index derived from wage index values published by CMS and standardized against Mississippi specific wages. (See Appendix C, p. 26k.)
  - d. The adjusted labor cost per diem plus the non-labor cost per diem shall be arrayed from highest

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to lowest by class of facility. The designated percentile will be selected as the maximum operating cost component.

- e. The lesser of actual cost in d. above or the maximum operating cost component will be separated into labor and non-labor categories.
- f. The corresponding labor cost per diem wage index adjustment will be made to the lower of the actual adjusted labor cost per diem in d. above, or the ratio of the actual adjusted labor cost per diem to the total per diem in d. times the maximum operating cost component.
- g. An industry trend factor as described in Appendix C of this plan will be applied to the sum of the labor per diem in f. above and the non-labor per diem in e. above for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period.
- h. In accordance with Section V. G., an amount will be added (or deducted) for the operating cost applicable to the Medicaid Program for new (or deleted) services or equipment which requires CON approval.
- i. The sum of g. and h. is to be called the Medicaid Prospective Operating Cost Component.

E. Setting the Individual Hospital Rates

The individual hospital rate will be the sum of the Medicaid Prospective

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**APPENDIX A – Rate Setting Procedures in Place Prior to October 1, 2005**

Rate Setting Example

The following example shows the step by step process which shall be used to set the Medicaid Prospective Rate for each hospital for the rate period October 1, 2004 through September 30, 2005. The cost reports for the periods ended in the prior calendar year will be used to set the per diem rate.

Hospital A (60 Bed, Rural Facility)

Cost Report Year End: September 30, 2003  
 Information contained in Cost Report:

Total available days	21,900
Total inpatient days	15,330
Medicaid inpatient days	2,000
Total costs allocated to Medicaid Program	\$1,000,000
Total capital costs	\$683,000
Total education costs	\$100,000

It is assumed for this example that the above data has already been reviewed and adjusted to reflect results of desk reviews, etc.

1. Total cost allocated to the Medicaid Program is to be separated into capital costs, education costs, and operating costs.

Capital costs allocated to the Medicaid Program: (Based on the ratio of Medicaid inpatient days to total inpatient days)  $2,000/15,330 \times \$683,000 = \$89,106$ . Education costs allocated to the Medicaid Program:  $2,000/15,330 \times \$100,000 = \$13,046$ . Operating cost allocated to the Medicaid Program:  $\$1,000,000 - (89,106 + 13,046) = \$897,848$ .

2. Capital Cost Component

a.	Divide capital cost allocated to Medicaid by the Medicaid inpatient days	\$89,106	
		÷	
		<u>2,000</u>	\$44.55
			=====

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3. Educational Cost Component

a.	Multiply educational cost allocated to the Medicaid Program by the inflation factor for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the most recently ended calendar year. (March 31, 2003, and June 30, 2003, respectively, using a September 30, 2003, cost reporting year end in this example.) 3/12 x inflation factor (as determined in Appendix C, p. 26i – for this example 4.074% is used.)	\$13,046		
		<u>X 1.0102</u>		
b.	Divide by Medicaid inpatient days	\$13,179 2,000	÷	= \$6.59
c.	Apply the trend factor as determined in Appendix C, p. 26j (for this example, 3.767% is used) for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period. (For this example, June 30, 2003, and March 31, 2005.)			
	21/12 x trend factor			<u>X 1.0660</u>
	Medicaid Prospective Educational Cost Component			\$7.03 =====

4. Operating Cost Component

	Operating cost allocated to the Medicaid Program	\$897,848		
a.	Inflation factor is applied for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the most recently ended calendar year. (March 31, 2003, and June 30, 2003, respectively, using a September 30, 2003, cost reporting year end in this example.) 3/12 x inflation factor (as determined in Appendix C, p. 26h – for this example 3.89% is used.)	\$906,557		
		<u>X 1.0097</u>		
b.	Separate this cost into labor and non-labor categories. (A factor published by CMS will be used. For this example, 61.70% is used. See Appendix C, p. 26.)	\$559,346		
	Labor category	\$559,346		
	Non-labor category (balance)			\$347,211
c.	Divide by Medicaid inpatient days	\$279.67	÷	2,000
		<u>2,000</u>	÷	<u>2,000</u>
		\$279.67		\$173.61

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d.	Divide labor costs by the most recent SMSA Wage Index for rate years through September 30, 2011, and the CBSA Wage Index for the geographic location of the hospital for rate years beginning October 1, 2011, forward. (For this example, .9622 will be used for rural Mississippi.)	+ <u>.9622</u>	_____
		\$290.66	\$173.61
e.	Add the adjusted labor per diem and the non-labor per diem. This amount will be used for the specified percentile maximum operating cost calculation. (See Appendix B.)	<u>\$464.27</u>	
f.	For this example, the class maximum operating cost is \$400.00.	<u>\$400.00</u>	
g.	Separate the lesser of e. or f. into labor and non-labor categories as explained in VII.D.5.e. of the State Plan.	\$246.80	\$153.20 =====
h.	Multiply labor per diem by the SMSA Wage Index for rate years through September 30, 2011, and the CBSA Wage Index for the geographic location of the hospital for rate years beginning October 1, 2011, forward, as noted in d. above.	X <u>.9622</u>  \$237.47 =====	
i.	Combine and apply the trend factor as determined in Appendix C, p. 26j (for this example, 3.456% is used) for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period. (For this example, June 30, 2003, and March 31, 2005.)	\$237.47 <u>153.20</u> 390.67	
	21/12 x trend factor	X <u>1.0605</u>	
	Medicaid Prospective Operating Cost Component	\$414.31 =====	
j.	This Hospital's Medicaid Prospective Rate is the sum of 2.a.; 3.c.; and 4.i.: \$44.55 + \$7.03 + \$414.31 =	\$465.89 =====	

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**APPENDIX B – Rate Setting Procedures in Place Prior to October 1, 2005**

Maximum Operating Cost Component

Procedures for determining the maximum operating cost component of reimbursement to hospitals are as follows:

- (1) Facilities will be grouped according to the bed-size classification as established in the State Plan.
- (2) The following procedures will be used separately for each classification of facilities.
  - (a) Operating cost per diems as described at VII.D.5.d. and illustrated at Appendix A, 4., will be arrayed from low to high.
  - (b) The percentile range will be computed by dividing the individual provider array location number for the scheduled operating cost per diems by the total number of providers in the array.
  - (c) The selected percentile as specified by this plan will then be determined.

The following is an example of the determination of the maximum operating cost per diem at the 80<sup>th</sup> percentile.

PROVIDER ARRAY LOCATION NUMBER	OPERATING COST PER DIEM	PERCENTILE
01	\$50.00	9.09
02	\$57.10	18.18
03	\$58.20	27.27
04	\$58.25	36.36
05	\$59.10	45.45
06	\$62.90	54.55
07	\$76.80	63.64
08	\$80.01	72.73*
09	\$81.00	81.82*
10	\$92.00	90.91
11	\$93.00	100.00

\*The 80<sup>th</sup> percentile falls between the operating cost per diems for provider numbers 08 and 09. The 80<sup>th</sup> percentile is then computed by interpolation and in this example would be \$80.80.

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**APPENDIX C – Rate Setting Procedures in Place Prior to October 1, 2005**

Inflation Factor and Industry Trend Factor

An input price index will be used to compute the reimbursable change in the prices of goods and services purchased by hospitals. The input price index will consist of a market basket classification of goods and services purchased by hospitals, a corresponding set of market basket weights for purchased goods and services, and a related series of price indicators. Weights corresponding to market basket categories are for hospitals in the East South Central region of the United States and are specified in this appendix.

After the close of each calendar year, the input price index will be calculated to account for actual changes in the price indicators based on the market basket weights.

The index will be made available to Mississippi Medicaid by the Global Insight Healthcare Cost Review publication, or its successor. This factor will be called the inflation factor and shall be used for the purpose of adjusting costs for all providers to a common year-end. This factor will be applied for the number of months between the mid-point of each provider's cost reporting year end and the mid-point of the most recently ended calendar year. The inflation factor is based on historical data and is not subject to redetermination at a later time.

The Global Insight Healthcare Cost Review publication, or its successor, will also provide a trend factor to project the inflation rate for the next reimbursement period. Both the inflation factor and the trend factor will use the same market basket, market basket weights, and proxy price variables.

The trend factor is to be applied for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period.

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APPENDIX C continued

The trend factor and inflation factor for educational costs will be determined using only the payroll expenses and employee benefits portion of the market basket in this appendix.

Trend Factor Adjustment

If the trend factor should be more than or less than the actual inflation rate for the period of time in question by more than 1% on an annualized basis, the next prospective rate calculation shall include a trend factor adjustment for the difference between the trend factor used in the previous period and the actual inflation rate for that period.

Such a trend factor adjustment is to be based on the same previous year's cost on which the original trend factor was applied. This is further explained as follows:

$$\begin{array}{r} \text{Trend Factor} \\ \text{Adjustment} \end{array} = \begin{array}{r} \text{Actual Inflation} \\ \text{Rate for Previous} \\ \text{Year} \end{array} - \begin{array}{r} \text{Trend Factor} \\ \text{used for} \\ \text{Previous Year} \end{array} \times \begin{array}{r} \text{Medicaid Operating} \\ \text{Cost Per Diem for} \\ \text{Previous Year}^* \end{array}$$

\*This cost is not to exceed the class ceiling and is adjusted by the wage index used in the previous year. (See Appendix A, 4, h.).

The trend factor adjustment for education costs shall also be determined using the same procedures as outlined above.

The trend factor adjustments shall be added or deducted in determining the next year's Medicaid Prospective Rate immediately after the application of the trend factors for the period. (See Appendix A, 3.c. and Appendix A, 4.i.).

Market Basket

The following expense categories shall be used as the market basket. Price indicators for each category shall be the latest available source as specified in the Federal Register or Global Insight Healthcare Cost Review publication, or its successor.

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APPENDIX C continued

MARKET BASKET

	<u>EXPENSE CATEGORY</u>	<u>RELATIVE WEIGHT</u>
1	WAGES & SALARIES	0.5070
2	EMPLOYEE BENEFITS	0.1100
		<u>0.6170</u>
3	MALPRACTICE INS	0.0620
4	FUEL & UTILITIES	0.0140
5	OTHER	0.3070
6		
7		
8		
9	TOTAL	<u>1.0000</u>

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**APPENDIX C**

**Computation of Rate Setting Factors**

The calculation of the Medicaid Prospective Rate uses the following rate setting factors:

1. Hospital Inflation Factor
2. Education Inflation Factor
3. Hospital Trend Factor
4. Education Trend Factor
5. Labor Percentage
6. Wage Factor

Their purpose and method of computation are as follows:

Hospital Inflation Factor

The hospital inflation factor adjusts the operating costs from the provider's fiscal year end to a December 31 calendar year end. The inflation factor is calculated by the following steps (an example is on page 26h):

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1. Determine annualized hospital inflation factor

- a. Multiply the historical moving percentage (Column 2) by the relative weight (Column 3) for each of the expense categories (Column 1).

The historical moving percent is for the quarter ending December 31 of the provider's fiscal year ends (i.e., 2003:4).

- b. The amounts determined in a. above are totaled. This results in the annualized hospital inflation rate. (See Column 4 page 26h.)

2. Determine hospital inflation factor for each month

- a. Divide the annualized hospital inflation factor determined in 1.b. above by 12. (See example on page 26h; Column 4, line 17 divided by 12). This results in a monthly hospital inflation factor (column 4, line 18).

- b. Multiply the monthly hospital inflation factor by the number of months between the mid-point of the provider's fiscal year end and the mid-point of the most recently ended calendar year. (i.e., June 30 = 6; September 30 = 3; December 31 = 0).

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Education Inflation Factor

The Education Inflation Factor is calculated by the following steps (an example is on page 26i):

1. Determine the annualized education inflation rate.
  - a. Calculate the adjusted relative weight
    - (1) Total the relative weight for the expense categories 1) wages and salaries and 2) employee benefits (Column 3, line 4).  
(Example:  $.5070 + .1100 = .6170$ .)
    - (2) The ratio of the relative weight (i.e., wages =  $.5070$ ) to the total of the Relative weights ( $.6170$ ) is the adjusted relative weight (i.e.,  $.5070 \div .6170 = .8217$ ).
  - b. Multiply the historical moving percentage (Column 2) by the adjusted relative weight (Column 4) as calculated in (2) above. (i.e.,  $3.70 \times .8217 = 3.040$ ).
  - c. The amounts determined in b. above are totaled. This results in the annualized education inflation factor. (i.e., Column 5, page 26i) (i.e.,  $3.040 + 1.034 = 4.074$ ).

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2. Determine the education inflation factor for each month.
  - a. Divide the annualized education inflation factor (Column 4, line 17) by 12. This results in a monthly education inflation factor (Column 4, line 18) or (i.e.,  $4.074\% \div 12 = .3395$ ).
  - b. Multiply the monthly education inflation factor (i.e., .3395) by the number of months between the mid-point of the provider's cost reporting year end year end and the mid-point of the most recently ended calendar year. (i.e., June 30 = 6; September = 3; December 31 = 0).

Hospital Trend Factor

The trend factor adjusts the operating costs from the mid-point of the December 31 common year to the mid-point of the rate period (March 31). This would adjust the operating cost for a period of twenty-one (21 months).

The trend factor is calculated by the following steps (an example is on page 26j):

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1. Multiply the relative weight (Column 2) by the percent growth (Column 3) for each of the expense categories in Column 1.

The percent growth is for the quarter ending December 31 one year after the common year end (i.e., 2004:4)

2. The amounts determined in 1 above are totaled. This results in the trend factor (Column 4, line 10).

NOTE: Where data is not available for an expense category the overall percentage may be used.

Education Trend Factor

The Education Trend Factor is calculated by the following steps (an example is on page 26j):

- a. Calculate the adjusted relative weight.
  1. Total the relative weight for the expense categories 1) wages and salaries and 2) employee benefits. (example  $50.70 + 11.00 = 61.70$ )
  2. The ratio of the relative weight (i.e., wages = 50.70) to the total of the relative weights (61.70) is the adjusted relative weight (i.e.,  $50.70 \div 61.70 = .8217$ )

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- b. Multiply the adjusted relative weight (Column 3) by the percent growth (Column 4) as calculated in a.2. above. (i.e.,  $.8217 \times 3.5\% = 2.876$ ).
- c. The amounts determined in b. above are totaled. This results in the Education Trend Factor (i.e., Column 5, line 26,  $2.876 + .891 = 3.767$ ).

Labor Percentage

The Labor Percentage is the sum of the relative weights for the expense categories 1) wages and salaries and 2) employee benefits. (i.e.,  $50.70 + 11.00 = 61.70$ ) See example on page 26k.

Wage Factor Computation

The wage factor is used in determining the operating cap. Its computation is as follows:

1. Hospital wages and hours from the most recent CMS wage study available are separated into urban and rural areas as appropriate to Mississippi hospitals.

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1. The hospital wages for each area (i.e., Column 1, page 26k) are divided by the hospital hours for each area (i.e., Column 2, page 26k) resulting in an average hourly wage by area.
2. The total hospital wages for the SMSAs within Mississippi for rate years through September 30, 2011, and the CBSAs for the geographic location of the hospital for rate years beginning October 1, 2011, forward (i.e., Column 1 page 26k) are divided by the total hospital hours for the state (i.e., Column 2, page 26k) to determine the statewide average hourly rate.
3. The ratio of the area hourly wage to the statewide hourly wage is the wage factor for that area. (See Column 4, page 26k).

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DIVISION OF MEDICAID  
 COMPUTATION OF HOSPITAL INFLATION FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005

1	2	3	4
EXPENSE CATEGORY	HISTORICAL MOVING % QTR 2003:4	RELATIVE WEIGHT 1	MOVING AVG % 2 x 3
1 WAGES & SALARIES	3.70	.5070	1.876
2 EMPLOYEE BENEFITS	5.80	.1100	0.638
3 MALPRACTICE INS	3.52	.0620	0.218
4 FUEL & UTILITIES	8.30	.0140	0.116
5 OTHER	3.40	.3070	1.044
6			
7			
8			
9 TOTAL		1.0000	
10 ANNUALIZED INFLATION RATE			3.892
11			=====
12			
13			
14			
15			
16			
17 ANNUALIZED INFLATION RATE			3.89
18 /12 = MONTHLY INFLATION RATE			.0032
19			
20	MONTH		INFLATION
21	YEAR		FACTOR
22	ENDS		
23			
24	DEC 02	12	0.0389
25	JAN 03	11	0.0357
26	FEB 03	10	0.0324
27	MAR 03	9	0.0292
28	APR 03	8	0.0259
29	MAY 03	7	0.0227
30	JUNE 03	6	0.0195
31	JULY 03	5	0.0162
32	AUG 03	4	0.0130
33	SEPT 03	3	0.0097
34	OCT 03	2	0.0065
35	NOV 03	1	0.0032
36	DEC 03	0	0.0000

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DIVISION OF MEDICAID  
 COMPUTATION OF EDUCATIONAL INFLATION FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005

1	2	3	4	5
EXPENSE CATEGORY	HISTORICAL MOVING % QTR 2003:4	RELATIVE WEIGHT 1	ADJ RELATIVE WEIGHT COL. 3 / COL. 3 LINE 4	EDUCATION INFLATION COL. 2 x COL. 4
1 WAGES & SALARIES	3.70	0.5070	0.8217	3.040
2 EMPLOYEE BENEFITS	5.80	0.1100	0.1783	1.034
3				
4 TOTAL	9.50	0.6170	1.0000	4.074
5				-----
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17 ANNUALIZED INFLATION RATE			4.074	
18 /12 = MONTHLY INFLATION RATE			.3395	
19				
20	MONTH			
21	YEAR		INFLATION	
22	ENDS		FACTOR	
23				
24	DEC 02	12	0.0407	
25	JAN 03	11	0.0373	
26	FEB 03	10	0.0340	
27	MAR 03	9	0.0306	
28	APR 03	8	0.0272	
29	MAY 03	7	0.0238	
30	JUNE 03	6	0.0204	
31	JULY 03	5	0.0170	
32	AUG 03	4	0.0136	
33	SEPT 03	3	0.0102	
34	OCT 03	2	0.0068	
35	NOV 03	1	0.0034	
36	DEC 03	0	0.0000	

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DIVISION OF MEDICAID  
 COMPUTATION OF HOSPITAL TREND FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005

1	2	3	4	
EXPENSE CATEGORY	RELATIVE WEIGHT	PERCENT GROWTH 2004:4	TREND FACTOR 2 x 3	
1 WAGES & SALARIES	.5070	3.50%	1.775	
2 EMPLOYEE BENEFITS	.1100	5.00%	0.550	
3 MALPRACTICE INS	.0620	3.89%	0.241	
4 FUEL & UTILITIES	.0140	0.00%	0.000	
5 OTHER	.3070	2.90%	0.890	
6				
7				
8				
9 TOTAL	1.0000			
10 HOSPITAL TREND FACTOR			3.456	
11			=====	
12				
13				
14				
15				
16 COMPUTATION OF EDUCATION TREND FACTOR				
1	2	3	4	5
EXPENSE CATEGORY	RELATIVE WEIGHT	ADJUSTED RELATIVE WEIGHT	PERCENT GROWTH	TREND FACTOR
	1	WEIGHT	2003:4	3 x 4
22 WAGES & SALARIES	.5070	.8217	3.50%	2.876
23 EMPLOYEE BENEFITS	.1100	.1783	5.00%	0.891
24				
25 TOTAL	.6170	1.0000		
26 EDUCATION TREND FACTOR				3.767
				=====

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HOSPITAL RATE SETTING  
 LABOR PER CENT COMPUTATION

1 EXPENSE CATEGORY	2 RELATIVE WEIGHT
WAGES AND SALARIES	50.70%
EMPLOYEE BENEFITS	<u>11.00%</u>
LABOR PER CENT	61.70%
	*****

HOSPITAL RATE SETTING  
 WAGE FACTOR COMPUTATION

1 SMSA OR CBSA*	2 HOSPITAL WAGES	2 HOSPITAL HOURS	3 AVERAGE HOURLY WAGES	4 WAGE FACTOR
MEMPHIS (4920 / 32820)	\$836,310,075	34,423,979	\$24.29	1.1616
NEW ORLEANS (5560 / 35380)	\$1,096,269,628	45,692,346	\$23.99	1.1473
HATTIESBURG (3285 / 25620)	\$123,589,450	6,369,372	\$19.40	0.9278
JACKSON (3560 / 27140)	\$431,097,029	19,726,567	\$21.85	1.0450
BILOXI / GULFPORT (0920 / 25060)	\$163,949,625	6,949,704	\$23.59	1.1282
PASCAGOULA (0920 / 37700)	\$88,179,931	4,195,301	\$21.02	1.0053
RURAL (25)	\$722,743,595	35,915,945	\$20.12	0.9622
TOTALS	\$1,529,559,630	73,156,889		
	*****	*****		

STATEWIDE AVERAGE \$20.91  
\*\*\*\*\*

\*SMSAs are applied to hospitals for rate years through September 30, 2011. CBSAs are applied to hospitals for the geographic location of the hospital for rate years beginning October 1, 2011, forward.

i. Payment Methodology for Rate Years Beginning October 1, 2005

A. Prospective Rate

TN No. 2010-028  
 Supercedes  
 TN No. 2009-002

Date Received \_\_\_\_\_  
 Date Approved \_\_\_\_\_  
 Date Effective 10/01/11

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The Division of Medicaid will set hospital inpatient reimbursement rates prospectively on an annual (October 1 – September 30) basis. For the rate year beginning October 1, 2005, the rate shall be based upon the greater of (1) the facility's most recent inpatient per diem rate for FFY 2005, or (2) the average of the facility's most recent inpatient per diem rates for FFY 2004 and 2005. The resulting base amount will then be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. The base rate will not be recalculated for any subsequent changes that occur in the FFY 2004 or 2005 inpatient per diem rates, except for adjustments made to include or exclude the low DSH component, as appropriate, based on changes in low DSH eligibility for per diem rates through September 30, 2009, and in cases of error or omission, as determined by the Division. (Refer to Appendix I.)

A base rate will be established for hospitals that open or change ownership on or after October 1, 2005. A new owner will be reimbursed at the previous owner's rate until the rate is recalculated based on the new owner's initial cost report using rate-setting procedures in place prior to October 1, 2005. A new hospital will be reimbursed the average rate paid a like-sized Mississippi hospital as of the effective date of the Medicaid provider agreement until the rate is recalculated based on the new hospital's initial cost report using rate-setting procedures in place prior to October 1, 2005. Each rate year the inpatient per diem for each Mississippi hospital is grouped by bed class (as described in Section VII.C.) and an average rate is determined for each class. New Mississippi hospitals will be reimbursed the average for their bed class based on the number of beds. The fiscal year 2005 class ceilings will be trended using the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register to establish class ceilings for these rates as described in Section VII.

For rate years beginning October 1, 2006, and thereafter, the prospective rate for the immediately preceding rate year will be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. Facility per diems shall be trended forward in this manner annually until such time as a new methodology is adopted by the Division or for five rate years beginning October 1, 2005, whichever comes first. If no new methodology has been adopted by the end of the fifth rate year of trending, hospital inpatient reimbursement rates will be rebased annually using the cost reporting methodology employed prior to October 1, 2005.

For rate years beginning October 1, 2009, and so long as the hospital assessment is in effect, the base rate for private free-standing psychiatric hospitals shall be that in use January 1, 2009, which shall not be revised or recalculated. The prospective rate for the immediately preceding rate year will be increased by the percentage increase of the most recent Medicare Inpatient Hospital PPS Market Basket Update as published in the Federal Register. Private free-standing psychiatric hospital per diems shall be trended forward in this manner annually so long as the hospital assessment is in effect.

B. Subsequent Adjustment

The base year payments effective October 1, 2005, will not be adjusted when fiscal year 2004 and fiscal year 2005 rates are amended due to final settlement cost reports. Rates determined under this methodology will be subject to subsequent adjustment only in cases of error or omission, as determined by the Division, affecting the base year(s) or for adjustments made to include or exclude the low DSH component, as appropriate, based on changes in low DSH eligibility.

C. Class of Facilities

The statewide classes of facilities shall be the same as specified in Section VII, Paragraph C of this Attachment 4.19-A.

TN No. 2010-028  
Supersedes

TN No. 2009-002

Date Received \_\_\_\_\_  
Date Approved \_\_\_\_\_  
Date Effective 10/01/11

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for determining the maximum prospective operating cost component. The designated maximum percentile (80<sup>th</sup> percentile) by class of facility will be utilized to limit payment to high cost providers. General hospitals will be classified based on the number of beds available per the annual cost report. This number is determined as follows: Total hospital beds less nursery beds, NICU beds and beds for provider components paid at a different rate or not participating in the Medicaid program. Free-standing psychiatric hospitals are a separate class of hospitals for rate setting with all bed sized combined. General hospitals which have a psychiatric unit are reimbursed the same per diem for the psychiatric inpatient days as they are for general medical/surgical inpatient days. Pediatric long-term acute care hospitals are a separate class of hospital providing services as freestanding, Medicare-certified hospitals with an average length of inpatient stay greater than twenty-five (25) days and primarily engaged in providing chronic or long-term medical care to persons under twenty-one (21) years of age. The initial per diem rate for pediatric long-term acute care hospitals will be determined based upon the initial cost report filed by the facility.

CLASS OF FACILITIES

1. General Hospitals with 0 – 50 Beds
2. General Hospitals with 51 – 100 Beds
3. General Hospitals with 101 – 150 Beds
4. General Hospitals with 151 – 200 Beds
5. General Hospitals with 201 – or more Beds
6. Free-standing Psychiatric Hospitals
7. Pediatric Long-term Acute Care Hospitals

D. Setting of Class Ceilings

1. The latest cost report available to Medicaid in each calendar year for each hospital will be reviewed and adjusted:
  - a. to reflect the results of desk review and/or field audits
  - b. to adjust for excessive costs
  - c. to determine if the hospitals general routine operating costs are in excess of the limitations established by 42 CFR 413.30.

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For hospitals having excessive general routine operating costs, appropriate adjustments shall be made.

2. Total cost allocated to the Medicaid Program on the appropriate cost reporting forms shall be classified as a) capital costs, b) educational cost, and c.) operating costs. Capital costs are defined by this plan to include those costs reported for Medicare reimbursement purposes such as depreciation, non-employee related insurance, interest, rent, and property taxes (real and personal). Educational costs are defined as those costs normally recorded in the Intern and Resident and Nursing School accounts for Medicare reimbursement purposes. Capital costs and educational cost are to be allocated to the Medicaid Program based upon the number of inpatient Medicaid days to total inpatient days. Operating costs are defined as total Medicaid costs less capital costs and Educational costs apportioned to the Medicaid Program.

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3. Medicaid Prospective Capital Cost Component
  - a. Total capital costs apportioned to the Medicaid Program will be divided by actual Medicaid inpatient days.
  - b. In accordance with Section V. K., an amount will be added or deducted for the capital cost applicable to the Medicaid Program for new or deleted services or equipment which requires Certificate of Need approval.
  - c. The addition of 3.a. and 3.b. shall be called the Medicaid Prospective Capital Cost Component.
  
4. Medicaid Prospective Educational Cost Component
  - a. Total educational costs apportioned to the Medicaid Program will be adjusted for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the calendar year most recently ended calendar year by the payroll expense and employee benefits portion of the latest rate of inflation for the hospital industry as described in Appendix C. This adjustment is made to place costs reported on a common year end and is referred to as the education inflation factor.
  - b. This adjusted cost will be divided by the actual Medicaid inpatient days.
  - c. The payroll expense and employee benefits portion of the industry trend factor as described in Appendix C will be applied to this per diem amount to adjust for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate reimbursement period. This adjustment is referred to as the education trend factor.
  - d. This adjusted per diem shall be called the Medicaid Prospective Educational Cost Component.

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5. Medicaid Prospective Operating Cost Component

- a. Total operating costs apportioned to the Medicaid Program will be adjusted for the number of months between the mid-point of the hospital's cost reporting year end and the mid-point of the ~~calendar year~~ most recently ended calendar year by the latest actual rate of inflation for the hospital industry as described in Appendix C. This adjustment is made to place all costs reported on a common year end. This adjusted cost will be separated into labor and non-labor categories based on the percentage of payroll expense and employee benefits to the total market basket as specified in Appendix C. This adjustment is referred to as the hospital inflation factor.
- b. The labor costs and non-labor costs applicable to the Medicaid Program will be divided by the actual Medicaid inpatient days.
- c. The labor cost per diem shall be adjusted by a wage index derived from wage index values published by CMS in ~~the~~ Federal Register and standardized against Mississippi specific wages. (See Appendix C, p. 26k.)
- d. The adjusted labor cost per diem plus the non-labor cost per diem shall be arrayed from highest

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to lowest by class of facility. The designated percentile will be selected as the maximum operating cost component.

- e. The lesser of actual cost in d. above or the maximum operating cost component will be separated into labor and non-labor categories.
- f. The corresponding labor cost per diem wage index adjustment will be made to the lower of the actual adjusted labor cost per diem in d. above, or the ratio of the actual adjusted labor cost per diem to the total per diem in d. times the maximum operating cost component.
- g. An industry trend factor as described in Appendix C of this plan will be applied to the sum of the labor per diem in f. above and the non-labor per diem in e. above for the number of months between the mid-point of the most recently ended calendar year ended and the mid-point of the rate reimbursement period. The labor portion of the trend factor is set at zero (0) for the period referenced in Appendix C.
- h. In accordance with Section V. G., an amount will be added (or deducted) for the operating cost applicable to the Medicaid Program for new (or deleted) services or equipment which requires CON approval.
- i. The sum of g. and h. is to be called the Medicaid Prospective Operating Cost Component.

E. Setting the Individual Hospital Rates

The individual hospital rate will be the sum of the Medicaid Prospective

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**APPENDIX A - Rate Setting Procedures in Place Prior to October 1, 2005**

**Rate Setting Example**

The following example shows the step by step process which shall be used to set the Medicaid Prospective Rate for each hospital for the rate reimbursement period beginning October 1, ~~2004~~<sup>2003</sup> through September 30, 2005. The cost reports for the periods ended in the prior calendar year will be used to set the per diem rate.

Hospital A (60 Bed, Rural Facility)

Cost Report Year End ~~Y/E~~ September 30, ~~2003~~<sup>2002</sup>

Information contained in Cost Report:

Total available days	21,900
Total inpatient days	15,330
Medicaid inpatient days	2,000
Total costs allocated to Medicaid Program	\$1,000,000
Total capital costs	\$683,000
Total education costs	\$100,000

It is assumed for this example that the above data has already been reviewed and adjusted to reflect results of desk reviews, etc.

1. Total cost allocated to the Medicaid Program is to be separated into capital costs, education costs, and operating costs.

Capital costs allocated to the Medicaid Program: (Based on the ratio of Medicaid inpatient days to total inpatient days)  $2,000/15,330 \times \$683,000 = \$89,106$ . Education costs allocated to the Medicaid Program:  $2,000/15,330 \times \$100,000 = \$13,046$ . Operating cost allocated to the Medicaid Program:  $\$1,000,000 - (89,106 + 13,046) = \$897,848$ .

2. Capital Cost Component

a.	Divide capital cost allocated to Medicaid by the Medicaid inpatient days	\$89,106	
		+	
		<u>2,000</u>	\$44.55
			=====

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3. Educational Cost Component

a.	Multiply educational cost allocated to the Medicaid Program by the inflation factor for the number of months between the mid-point of the hospital's <u>cost reporting year end (March-31)</u> and the mid-point of the most recently <u>ended</u> calendar year. ( <u>March 31, 2003 and June 30, 2003, respectively, using a September 30, 2003 cost reporting year end in this example.</u> ) $3/12$ x inflation factor (as determined in Appendix C, p. 26i – for this example <u>4.074%</u> <del>40%</del> is used.)	\$13,046		
			X <u>1.01021025</u>	
		\$13,179 <del>\$13,372</del>	÷ 2,000	= \$6.59 <del>\$6.69</del>
b.	Divide by Medicaid inpatient days			
c.	Apply the trend factor as determined in Appendix C, p. 26j (for this example, <u>3.767%</u> <del>42%</del> is used) for the number of months between the mid-point of the <u>most recently ended</u> calendar year and the mid-point of the <u>rate reimbursement period.</u> (For this example, <u>June 30, 2003 and March 31, 2005.</u> ) ( <u>June 30, 19x1 and March 31, 19x3</u> )			
	21/12 x trend factor			X <u>1.0660421</u>
	Medicaid Prospective Educational Cost Component			\$7.03 <del>\$8.09</del> =====

4. Operating Cost Component

	Operating cost allocated to the Medicaid Program	\$897,848		
a.	Inflation factor is applied for the number of months between the mid-point of the hospital's <u>cost reporting year end</u> and the mid-point of the most recently <u>ended</u> calendar year. ( <u>March 31, 2003 and June 30, 2003, respectively, using a September 30, 2003 cost reporting year end in this example.</u> ) $3/12$ x inflation factor (as determined in Appendix C, p. 26h – for this example <u>3.89%</u> <del>40%</del> is used.)		X <u>1.00974025</u>	
				\$906,557 <del>920,294</del>
b.	Separate this cost into labor and non-labor categories. (A factor published by CMS based on <u>DOM study as described in the plan</u> will be used. For this example, <u>61.70%</u> <del>65%</del> is used. See Appendix C, p.26.)		X <u>61.70% 65%</u>	
	Labor Category	\$559,346		
	Non-labor category (balance)	<del>\$668,194</del>		\$347,211
				<del>\$322,103</del>
c.	Divide by Medicaid inpatient days	+ <u>2,000</u>	+ <u>2,000</u>	
		\$279.67 <del>\$299.10</del>		\$173.61 <del>\$161.05</del>

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d.	Divide labor costs by the most recent SMSA Wage Index for rate years through September 30, 2011, and the CBSA Wage Index for the geographic location of the hospital for rate years beginning October 1, 2011, forward. (For this example, 9622-8386 will be used for rural Mississippi.)	$\div \underline{9622-8326} \quad \underline{\hspace{2em}}$	$\$290.66 \quad \underline{\$249.03} \quad \$173.61 \quad \underline{\$161.05}$
e.	Add the adjusted labor per diem and the non-labor per diem. This amount will be used for the specified percentile maximum operating cost calculation. (See Appendix B.)	$\underline{\$464.27} \quad \underline{\$410.08}$	
f.	For this example, the class maximum operating cost is \$400.00.	$\underline{\$400.00}$	
g.	Separate the lesser of e. or f. into labor and non-labor categories as explained in VII.D.5.e. of in the State Plan.	$\$246.80 \quad \underline{\$242.94} \quad \$153.20 \quad \underline{\$157.09}$	=====
h.	Multiply labor per diem by the SMSA Wage Index for rate years through September 30, 2011, and the CBSA Wage Index for the geographic location of the hospital for rate years beginning October 1, 2011, forward, as noted in d. above.	$\begin{array}{r} X \quad \underline{9622-8386} \\ \$237.47 \quad \underline{\$203.70} \\ \hline \end{array}$	
i.	Combine and apply the trend factor as determined in Appendix C, p. 26j (for this example, 3.456% is used) for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate period. (For this example, June 30, 2003 and March 31, 2005.) Combine and apply the trend factor as done in 3.c. above. The result is the Medicaid Prospective Operating Cost Component.	$\begin{array}{r} \$237.47 \quad \underline{\$203.70} \\ \underline{153.20} \quad \underline{157.09} \\ \hline 390.67 \quad \underline{\$360.79} \\ \hline X \quad \underline{1.0605121} \\ \hline \end{array}$	
	21/12 x trend factor		
	Medicaid Prospective Operating Cost Component	$\underline{\$414.31} \quad \underline{\$436.66}$	=====
j.	This Hospital's Medicaid Prospective Rate is the sum of 2.a.; 3.c.; and 4.i.: \$44.55 + \$7.03 \$8.09 + \$414.31 \$436.66 =	$\underline{\$465.89} \quad \underline{\$489.20}$	=====

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**APPENDIX B – Rate Setting Procedures in Place Prior to October 1, 2005**

**Maximum Operating Cost Component**

Procedures for determining the maximum operating cost component of reimbursement to hospitals are as follows:

- (1) Facilities will be grouped according to the bed-size classification as established in the State Plan.
- (2) The following procedures will be used separately for each classification of facilities.
  - (a) Operating cost per diems as described at VII.D.5.d, ~~V.D.~~ and illustrated at Appendix A.4.3, will be arrayed from low to high.
  - (b) The percentile range will be computed by dividing the individual provider array location number for the scheduled operating cost per diems by the total number of providers in the array.
  - (c) The selected percentile as specified by this plan will then be determined.

The following is an example of the determination of the maximum operating cost per diem at the 80<sup>th</sup> percentile.

PROVIDER ARRAY LOCATION NUMBER	OPERATING COST PER DIEM	PERCENTILE
01	\$50.00	9.09
02	\$57.10	18.18
03	\$58.20	27.27
04	\$58.25	36.36
05	\$59.10	45.45
06	\$62.90	54.55
07	\$76.80	63.64
08	\$80.01	72.73*
09	\$81.00	81.82*
10	\$92.00	90.91
11	\$93.00	100.00

\*The 80<sup>th</sup> percentile falls between the operating cost per diems for provider numbers 08 and 09. The 80<sup>th</sup> percentile is then computed by interpolation and in this example would be \$80.80.

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**APPENDIX C – Rate Setting Procedures in Place Prior to October 1, 2005**

**Inflation Factor and Industry Trend Factor**

An input price index will be used to compute the reimbursable change in the prices of goods and services purchased by hospitals. The input price index will consist of a market basket classification of goods and services purchased by hospitals, a corresponding set of market basket weights for purchased goods and services, and a related series of price indicators. Weights corresponding to market basket categories are for hospitals in the East South Central region of the United States and are specified in this appendix.

After the close of each calendar year, the input price index will be calculated to account for actual changes in the price indicators based on the market basket weights.

The index will be made available to Mississippi Medicaid by the Global Insight Healthcare Cost Review publication, or its successor Mississippi Research and Development Center. This factor will be called the inflation factor and shall be used for the purpose of adjusting costs for all providers to a common year-end. This factor will be applied for the number of months between the mid-point of each provider's cost reporting year end period and the mid-point of the most recently ended calendar year. The inflation factor is based on historical data and is not subject to redetermination at a later time.

The Global Insight Healthcare Cost Review publication, or its successor, Mississippi Research and Development Center will also provide a trend factor to project the inflation rate for the next reimbursement period. Both the inflation factor and the trend factor will use the same market basket, market basket weights, and proxy price variables.

The trend factor is to be applied for the number of months between the mid-point of the most recently ended calendar year and the mid-point of the rate reimbursement period.

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APPENDIX C continued

The trend factor and inflation factor for educational costs will be determined using only the payroll expenses and employee benefits portion of the market basket in this appendix.

Trend Factor Adjustment

If the trend factor should be more than or less than the actual inflation rate for the period of time in question by more than 1% on an annualized basis, the next prospective rate calculation shall include a trend factor adjustment for the difference between the trend factor used in the previous period and the actual inflation rate for that period.

Such a trend factor adjustment is to be based on the same previous year's cost on which the original trend factor was applied. This is further explained as follows:

$$\begin{array}{rcccl} \text{Trend Factor} & & \text{Actual Inflation} & & \text{Trend Factor} & & \text{Medicaid Operating} \\ \text{Adjustment} & = & \text{Rate for Previous} & - & \text{used for} & \times & \text{Cost Per Diem for} \\ & & \text{Year} & & \text{Previous Year} & & \text{Previous Year}^* \end{array}$$

\*This cost is not to exceed the class ceiling and is adjusted by the wage index used in the previous year. (See Appendix A, 4, hi).

The trend factor adjustment for education costs shall also be determined using the same procedures as outlined above.

The trend factor adjustments shall be added or deducted in determining the next year's Medicaid Prospective Rate immediately after the application of the trend factors for the period. (See Appendix A, 3.c. and Appendix A, 4.i.).

Market Basket

The following expense categories shall be used as the market basket. Price indicators for each category shall be the latest available source as specified in the National-Market Basket Price Proxies or the Federal Register or Global Insight Healthcare Cost Review publication, or its successor.

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APPENDIX C continued

MARKET BASKET

	<u>EXPENSE CATEGORY</u>	<u>RELATIVE WEIGHT</u>
1	WAGES & SALARIES	0.50700-5583
2	EMPLOYEE BENEFITS	0.11000-0980
		<u>0.61700-6563</u>
3	PROFESSIONAL FEES	0.0076
34	MALPRACTICE INS	0.06200-0066
46	FUEL & UTILITIES	0.01400-0316
5	OTHER	0.3070
6	FOOD	0.0356
7	OTHER	0.2623
6		
7		
8		
9	TOTAL	<u>1.0000</u>

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APPENDIX C

Computation of Rate Setting Factors

The calculation of the Medicaid Prospective Rate uses the following rate setting factors:

1. Hospital Inflation Factor
2. Education Inflation Factor
3. Hospital Trend Factor
4. Education Trend Factor
5. Labor Percentage
6. Wage Factor

Their purpose and method of computation are as follows:

Hospital Inflation Factor

The hospital inflation factor adjusts the operating costs from the provider's fiscal year end to a December 31 calendar year end. The inflation factor is calculated by the following steps (an example is on page 26h):

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1. Determine annualized hospital inflation factor rate
  - a. Multiply the historical moving percentage (Column 2) by the relative weight (Column 3) for each of the expense categories (Column 1).

The historical moving percent is for the quarter ending December 31 of the provider's fiscal year ends (i.e., ~~88~~ 2003:4).

- b. The amounts determined in a. above are totaled. This results in the annualized hospital inflation factor rate. (See Column 4 page 26h.)

2. Determine hospital inflation factor for each month

- a. Divide the annualized hospital inflation factor rate determined in 1.b. above by 12. (See example on page 26h; Column 4, line 17 divided by 12). This results in a monthly hospital inflation factor rate (column 4, line 18).
  - b. Multiply the monthly hospital inflation factor rate by the number of months between the mid-point of the provider's fiscal year end and the mid-point of the most recently ended calendar year. ~~March 31~~. (i.e., June 30 = 69; September 30 = 36; December 31 = 03).

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Education Inflation Factor

The Education Inflation Factor is calculated by the following steps (an example is on page 26i):

1. Determine the annualized education inflation rate.
  - a. Calculate the adjusted relative weight
    - (1) Total the relative weight for the expense categories 1) wages and salaries and 2) employee benefits (Column 3, line 4).  
(Example  $.5070-5583 + .1100-0980 = .6170-6563$ .)
    - (2) The ratio of the relative weight (i.e., wages =  $.5070-5583$ ) to the total of the Relative weights ( $.6170-6563$ ) is the adjusted relative weight (i.e.,  $.5070-5583 \div .6170-6563 = .8217-8507$ ).
  - b. Multiply the historical moving percentage (Column 2) by the adjusted relative weight (Column 4) as calculated in (2) above. (i.e.,  $3.704-8 \times .8217-8507 = 3.0404-083$ ).
  - c. The amounts determined in b. above are totaled. This results in the annualized education inflation factor rate. (i.e., Column 5, page 26i) (i.e.,  $3.0404-083 + 1.034-582 = 4.0744-666$ ).

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2. Determine the education inflation factor for each month.
  - a. Divide the annualized education inflation factor rate (Column 4, line 17) by 12. This results in a monthly education inflation factor rate (Column 4, line 18) or (i.e., 4.074%4.67 ÷ 12 = .3395-39).
  - b. Multiply the monthly education inflation factor rate (i.e., .3395-39) by the number of months between the mid-point of the provider's cost reporting year end fiscal year end and the mid-point of the most recently ended calendar year. March-31. (i.e., June 30 = 69; September = 36; December 31 = 03).

Hospital Trend Factor

The trend factor adjusts the operating costs from the mid-point of the December 31 common year to the mid-point of the rate reimbursement period (March 31). This would adjust the operating cost for a period of twenty-one (21 months).

The trend factor is calculated by the following steps (an example is on page 26j):

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1. Multiply the relative weight (Column 2) by the percent growth (Column 3) for each of the expense categories in Column 1.

The percent growth is for the quarter ending December 31 one year after the common year end (i.e., 2004:4 ~~89:4~~).

2. The amounts determined in 1 above are totaled. This results in the trend factor (Column 4, line 109).

NOTE: Where data is not available for an expense category the overall percentage may be used.

Education Trend Factor

The Education Trend Factor is calculated by the following steps (an example is on page 26j):

- a. Calculate the adjusted relative weight.
  1. Total the relative weight for the expense categories 1) wages and salaries and 2) employee benefits. (Example: 50.7055-83 + 11.009-8 = 61.7065-63).
  2. The ratio of the relative weight (i.e., wages = 50.7055-83) to the total of the relative weights (61.7065-63) is the adjusted relative weight (i.e., 50.7055-83 ÷ 61.7065-63 = .8217-8507).

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Title XIX Inpatient Hospital Reimbursement Plan

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- b. Multiply the adjusted relative weight (Column 3) by the percent growth (Column 4) as calculated in a.2. above (i.e.,  $\frac{.8217}{.8570} \times \frac{3.5\%}{5.7\%} = \frac{2.8764}{.849}$ ).
- c. The amounts determined in b above are totaled. This results in the Education Trend Factor (i.e., Column 5, line ~~265~~,  $\frac{2.8764}{.849} + \frac{.891}{.747} = \frac{3.7675}{.596}$ ).

Labor Percentage

The Labor Percentage is the sum of the relative weights for the expense categories 1) wages and salaries and 2) employee benefits. (i.e.,  $\frac{50.7055}{.83} + \frac{11.009}{.80} = \frac{61.7065}{.63}$ ). See example on page 26k.

Wage Factor Computation

The wage factor is used in determining the operating cap. Its computation is as follows:

1. Hospital wages and hours from the most recent CMS HCFA wage study available (i.e., ~~1984~~) are separated into urban and rural areas as appropriate to Mississippi hospitals.

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3. The hospital wages for each area (i.e., Column 1, page 26k) are divided by the hospital hours for each area (i.e., Column 2, page 26k) resulting in an average hourly wage by area.
  
2. The total hospital wages for the SMSAs within Mississippi for rate years through September 30, 2011, and the CBSAs for the geographic location of the hospital for rate years beginning October 1, 2011, forward (i.e., Column 1 page 26k) are divided by the total hospital hours for the state (i.e., Column 2, page 26k) to determine the statewide average hourly rate.
  
3. The ratio of the area hourly wage to the statewide hourly wage is the wage factor for that area. (See Column 4, page 26k).

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DIVISION OF MEDICAID  
 COMPUTATION OF HOSPITAL INFLATION FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005 ~~JUNE 30, 1990~~

1	2	3	4
EXPENSE CATEGORY	HISTORICAL MOVING % QTR 2003:4	RELATIVE WEIGHT 1	MOVING AVG % 2 x 3
1 WAGES & SALARIES	3.704-8	.5070-5583	1.8762-680
2 EMPLOYEE BENEFITS	5.803-9	.1100-0980	0.6380-382
3 PROFESSIONAL FEES	4.7	0.0076	0.036
34 MALPRACTICE INS	3.5221-7	.0620-0986	0.218-143
45 FUEL & UTILITIES	8.30-1.5	.01400-0318	0.116-0.047
6 FOOD	4.5	0.0356	0.160
57 OTHER	3.405-4	.30700-2623	1.0441-416
6			
7			
8			
9 TOTAL		1.0000	
10 ANNUALIZED INFLATION RATE			3.8924-770
11			*****
12			
13			
14			
15			
16			
17 ANNUALIZED INFLATION RATE			3.894-77
18 /12 = MONTHLY INFLATION RATE			.00320-40
19			
20	MONTH		
21	YEAR		INFLATION
22	ENDS		FACTOR
23			
24	DEC 02	12	0.03894-77
25	JAN 03	11	0.03574-37
26	FEB 03	10	0.03243-98
27	MAR 03	9	0.02923-58
28	APR 03	8	0.02593-18
29	MAY 03	7	0.02272-78
30	JUNE 03	6	0.01952-39
31	JULY 03	5	0.01621-99
32	AUG 03	4	0.01301-59
33	SEPT 03	3	0.00974-19
34	OCT 03	2	0.00650-80
35	NOV 03	1	0.00320-40
36	DEC 03	0	0.00000-00

State of Mississippi  
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DIVISION OF MEDICAID  
 COMPUTATION OF EDUCATIONAL INFLATION FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005 ~~JUNE 30, 1990~~

	1 EXPENSE CATEGORY	2 HISTORICAL MOVING % QTR 2003:4	3 RELATIVE WEIGHT 1	4 ADJ RELATIVE WEIGHT COL. 3 / COL. 3 LINE 4	5 EDUCATION INFLATION COL. 2 x COL. 4
1	WAGES & SALARIES	3.7048	.50705583	.821708507	3.0404083
2	EMPLOYEE BENEFITS	5.8039	.11000980	.178301493	1.0340582
3					
4	TOTAL	9.5087	.617006563	1.0000	4.0744665
5					=====
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17	ANNUALIZED INFLATION RATE			4.074467	
18	/12 = MONTHLY INFLATION RATE			.3395939	
19					
20		MONTH			
21		YEAR		INFLATION	
22		ENDS		FACTOR	
23					
24		DEC 02	12	0.0407467	
25		JAN 03	11	0.0373428	
26		FEB 03	10	0.0340389	
27		MAR 03	9	0.0306350	
28		APR 03	8	0.0272311	
29		MAY 03	7	0.0238272	
30		JUNE 03	6	0.0204233	
31		JULY 03	5	0.0170194	
32		AUG 03	4	0.0136155	
33		SEPT 03	3	0.0102117	
34		OCT 03	2	0.0068078	
35		NOV 03	1	0.0034039	
36		DEC 03	0	0.0000000	

TN No. 2010-028  
 Supercedes  
 TN No. 89-5

Date Received \_\_\_\_\_  
 Date Approved \_\_\_\_\_  
 Date Effective 10/01/11

State of Mississippi  
 Title XIX Inpatient Hospital Reimbursement Plan

DIVISION OF MEDICAID  
 COMPUTATION OF HOSPITAL TREND FACTOR  
 FISCAL YEAR ENDING SEPTEMBER 30, 2005 ~~JUNE 30, 1990~~

1	2	3	4
EXPENSE CATEGORY	RELATIVE WEIGHT	PERCENT GROWTH 2004:4	TREND FACTOR 2 x 3
1 WAGES & SALARIES	.5070- <del>5583</del>	3.50%- <del>5.70%</del>	1.7753- <del>1.82</del>
2 EMPLOYEE BENEFITS	.1100- <del>0980</del>	5.00%- <del>5.00%</del>	0.5500- <del>490</del>
3 PROFESSIONAL FEES	0.0078	5.00%	0.045
34 MALPRACTICE INS	.0620- <del>0088</del>	3.89%- <del>20.80%</del>	0.241- <del>137</del>
45 FUEL & UTILITIES	.01400- <del>0318</del>	0.00%- <del>5.00%</del>	0.000- <del>0.168</del>
6 FOOD	0.0358	8.50%	0.231
57 OTHER	.30700- <del>2623</del>	2.90%- <del>5.40%</del>	0.8901- <del>416</del>
6			
7			
8			
9 TOTAL	1.0000		
10 <u>HOSPITAL TREND FACTOR</u>			3.4565- <del>659</del>
11			*****

COMPUTATION OF EDUCATION TREND FACTOR

1	2	3	4	5
EXPENSE CATEGORY	RELATIVE WEIGHT 1	ADJUSTED RELATIVE WEIGHT	PERCENT GROWTH 2004:4	TREND FACTOR 3 x 4
22 WAGES & SALARIES	.5070- <del>5583</del>	.82170- <del>8507</del>	3.50%- <del>5.70%</del>	2.8764- <del>8490</del>
23 EMPLOYEE BENEFITS	.1100- <del>0980</del>	.17830- <del>1493</del>	5.00%- <del>5.00%</del>	0.891- <del>747</del>
24				
25 TOTAL	.6170- <del>6563</del>	1.0000		
26 <u>EDUCATION TREND FACTOR</u>				3.7675- <del>696</del>
				*****

State of Mississippi  
 Title XIX Inpatient Hospital Reimbursement Plan

HOSPITAL RATE SETTING  
 LABOR PER CENT COMPUTATION

1 EXPENSE CATEGORY	2 RELATIVE WEIGHT
WAGES AND SALARIES	50.70%
EMPLOYEE BENEFITS	11.00%
LABOR PER CENT	61.70%
	=====

HOSPITAL RATE SETTING  
 WAGE FACTOR COMPUTATION

SMSA OR CBSA*	1 HOSPITAL WAGES	2 HOSPITAL HOURS	3 AVERAGE HOURLY WAGES	4 WAGE FACTOR
MEMPHIS (4920 / 32820)	\$836,310,075	34,423,979	\$24.29	1.1616
NEW ORLEANS (5560 / 35380)	\$1,096,269,628	45,692,346	\$23.99	1.1473
HATTIESBURG (3285 / 25620)	\$123,589,450	6,369,372	\$19.40	0.9278
JACKSON (3560 / 27140)	\$431,097,029	19,726,567	\$21.85	1.0450
BILOXI / GULFPORT (0920 / 25060)	\$163,949,625	6,949,704	\$23.59	1.1282
PASCAGOULA (0920 / 37700)	\$88,179,931	4,195,301	\$21.02	1.0053
RURAL (25)	\$722,743,595	35,915,945	\$20.12	0.9622
TOTALS	\$1,529,559,630 =====	73,156,889 =====		
STATEWIDE AVERAGE			\$20.91 =====	

\*SMSAs are applied to hospitals for rate years through September 30, 2011. CBSAs are applied to hospitals for the geographic location of the hospital for rate years beginning October 1, 2011, forward.