



Senate Bill 1, Article II, Health and Human Services Commission

**Rider 60
Medicaid Provider Reimbursement**

October 6, 2006

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Background

The Texas Health and Human Services Commission (HHSC) retained Deloitte Consulting LLP (Deloitte Consulting) to complete tasks based on the requirements of Rider 60. Rider 60 (Medicaid Provider Reimbursement) states in part,

“...the Health and Human Services Commission shall convene a workgroup to assist the Executive Commissioner in studying and making recommendations for changes in the hospital (both inpatient and outpatient services) reimbursement rate methodology. These recommendations shall include cost inflators, rebasing of the rates, and other alternatives, such as waivers that would combine Disproportionate Share Hospital (DSH), Graduate Medical Education (GME) and Upper Payment Limit (UPL) funds. Alternatives could be considered in determining hospital rates that would reward efficient providers, critical care providers, rural hospitals and special children hospitals, as well as incentives for hospitals to serve Medicaid clients and control medical costs.”¹

Through guidance from HHSC and Rider 60, Deloitte Consulting completed the following tasks:

1. Estimated UPL payment if managed care capitation programs were not in place.

Capitation is a payment mechanism to control costs for Medicaid enrollees by transferring risk to managed care organizations. Due to federal regulation, when capitation is in place the State does not receive a UPL payment from the federal government. This analysis estimated the UPL for the managed care population if capitation were not in place.

2. Analyzed the current standard dollar amount (SDA) methodology and estimated the impact of various scenarios for reforming the SDA.

We developed several scenarios that modeled efforts on the part of HHSC leadership to reduce the variance between what HHSC pays for the same DRG-reimbursable service among different hospitals in the same general geographical area. The different scenarios modeled in this report all have a regional structure. The SDA has three major cost components:

- Direct care costs,
- Administrative costs, and
- Capital costs.

3. Estimated the value of using updated data to calculate the SDA.

The Texas Medicaid SDA is the reimbursement rate that is paid to hospitals for inpatient services. Currently, Texas Medicaid hospitals' SDAs are calculated using hospital inpatient data from state fiscal year (SFY) 2000 and cost report data from SFY 1998. Based on guidance from HHSC, SFY 2004 data was used to recalculate (rebase) the SDAs. This analysis estimated the SDA rebasing impact on the overall hospital payments. Rebasing is important because it reduces the Medicaid shortfall for hospitals, which makes for more DSH funding available to reimburse uncompensated care.

¹ Senate Bill 1, Article II, 79th Legislature, Regular Session, 2005, Health and Human Services Commission

4. Estimated the impact of raising the SDAs by an additional amount to further reduce the Medicaid shortfall.

The Medicaid shortfall is the difference between the allowable Medicaid service costs and the SDA reimbursement. HHSC projected a \$482 million inpatient shortfall for 2006, excluding hospitals with a negative shortfall after rebasing. Rebasing the SDA will reduce the shortfall, but not eliminate it. The objective of raising the SDA by an additional amount is to further reduce the Medicaid inpatient shortfall.

Executive Summary

As discussed in the background section, per guidance from HHSC and Rider 60, Deloitte Consulting completed the following tasks:

1. Estimated UPL payment if managed care capitation programs were not in place,
2. Analyzed the current SDA methodology and developed several scenarios that model the impact of reforming the current methodology,
3. Estimated the value of using updated data to calculate the standard dollar amount (SDA), and
4. Estimated the impact of raising the SDA by an additional amount to further reduce the Medicaid shortfall.

UPL Analysis

To determine a theoretical UPL payment for Texas' Medicaid program, we considered what effect the managed care population would have on the UPL if there had been no capitation in place. This analysis estimated the UPL for the managed care population based on the current fee for service (FFS) UPL payment per discharge. **Based on our analysis, the estimated UPL payment would have been \$396 - \$690 million annually (\$240 - \$417 million in federal match and \$156 - \$273 million State share) for the managed care population.**

SDA Reform Analysis

Per guidance from HHSC, an analysis was completed to compare the variance in the average cost per admission for the top 10 Diagnosis Related Groups (DRG) in Dallas, Tarrant and Harris Counties. The analysis showed that there was a wide variation in the average cost per admission for many DRGs. To reduce or eliminate this variation among hospitals and following guidance from HHSC and Rider 60, we estimated the impact of several alternative methodologies for reforming the SDA.

Two specific scenarios were designed to reduce the variance paid for the same DRG-reimbursable service in the same geographical area. As mentioned in the background section, the SDA contains three major cost components; direct care, administrative and capital. In the two selected scenarios a change to each of these components was modeled.

- **Scenario 1**
 - Direct Care Costs: Each hospital's direct costs are reimbursed their regional average. This methodology changes the payments to each hospital but does not change the total payment to all hospitals combined.
 - Administrative Costs: Each hospital's administrative costs are reimbursed their regional average. This methodology changes the payments to each hospital but does not change the total payment to all hospitals combined.
 - Capital Costs: Each hospital's capital costs are reimbursed their regional average. This methodology changes the payments to each hospital but does not change the total payment to all hospitals combined.

- **The total impact of this scenario does not change the overall payments to hospitals, but will change payments to a specific hospital.**
- **Scenario 2**
 - Direct Care Costs: Each hospital's direct costs are capped at their region's 80th percentile. The estimated impact of reforming the direct cost methodology would decrease payments to the hospitals by \$40.5 million annually (\$24 million federal match and \$16 million State share).
 - Administrative Cost: Each hospital's administrative costs are capped at their region's 80th percentile. The estimated impact of reforming the administrative methodology would decrease payments to the hospitals by \$17 million annually (\$10 million federal match and \$7 million State share).
 - Capital Cost: Each hospital's capital costs are reimbursed 9%. The estimated impact of reforming the capital methodology would increase payments to the hospitals by \$6.3 million annually (\$3.8 million federal match and \$2.5 million State share).
 - **The total combined impact of reforming direct care, administrative and capital components under this scenario, would decrease payments to the hospitals by \$52 million annually (\$31 million federal match and \$21 million State share.)**

SDA Rebasing Analysis

Currently, SDAs are calculated using hospital inpatient data from SFY 2000 and cost report data from SFY 1998. Per guidance from HHSC, the SDAs were rebased using hospital inpatient data and cost report data from SFY 2004 data. **The estimated impact of rebasing the SDA is an increase in payments to the hospitals of \$268 million annually (\$161 million federal match and \$107 million State share).**

Raising the SDA by an Additional Amount

In an effort to further reduce the Medicaid inpatient shortfall, we estimated the additional increase needed by hospital to the direct care component of the rebased SDA. If each hospital's SDA (after rebasing) is increased by the amount of the SFY 2006 projected inpatient hospital shortfall, **the estimated impact of raising the SDA is an increase in payments to the hospitals of \$214 million annually (\$128 million federal match and \$86 million State share).**

Overall Reforming, Rebasing, and Raising Change

The overall impact of combining an SDA reform, rebase and raise was estimated for each of the scenarios.

- **Scenario 1** - The estimated impact of reforming, rebasing and raising SDAs would increase the annual funds to \$482 million annually (\$289 million federal match and \$193 million State share).
- **Scenario 2** - The estimated impact of reforming, rebasing and raising SDAs would increase the annual funds to \$430 million annually (\$258 million federal match and \$172 million State share).

Additional Adjustments to STAR and STAR+PLUS Population

Historically changes made to the DRG payments are passed on to fees paid to capitated Medicaid programs. To estimate this change in other programs, the overall percentage increase in costs (including reforming, rebasing, and raising) was applied to estimated STAR and STAR+PLUS inpatient costs. Because each scenario has a different overall cost, the results are reported by scenario.

- **Scenario 1** - The estimated impact of passing the payment change described in Scenario 1 to the STAR and STARPLUS populations would be an additional increase to the state of \$141.5 million annually (\$84.9 million federal match and \$56.6 million State share).
- **Scenario 2** - The estimated impact of passing the payment change described in Scenario 2 to the STAR and STARPLUS populations would be an additional increase to the state of \$114.2 million annually (\$68.5 million federal match and \$45.7 million State share).

Upper Payment Limit (UPL)

At the federal level, the UPL payment is calculated as the difference between what Medicare would have paid and what Medicaid fee-for-service (FFS) pays. Currently, the Texas managed care programs (STAR and STAR+PLUS) receive no UPL payment because they are capitated.

The objective of this analysis is to estimate what the UPL payment would have been for the Texas Medicaid managed care programs if hospital claims for these members had been paid under FFS. To estimate the UPL, we used Medicaid FFS UPL data and managed care encounter data. Based on our analysis, the estimated state fiscal year (SFY) 2005 managed care hospital UPL payment would have an additional \$396 - \$690 million annually (\$240 - \$417 million in federal match and \$156 - \$273 million State share) if it had been paid on a FFS basis.

To estimate the difference between Medicare and Medicaid FFS for the managed care population, we used the average UPL payment per discharge and case mix for the FFS population. Encounter data (SFY 2005 STAR and STARPLUS) was used to determine the number of admissions and the case mix index (CMI) for the managed care population. The formula below shows how the UPL was estimated for the managed care population.

$$\left(\frac{\text{FFS_UPL}}{\text{FFS_Discharges} \times \text{FFS_CMI}} \right) \times \text{Encounter_Admits} \times \text{Encounter_CMI}$$

In performing our analysis, 36% of the data was excluded. Reasons for excluded data include: invalid or null DRGs, no UPL payment for some providers, and non-matching provider numbers between the FFS and encounter data. Because some data was excluded, the first estimate of the UPL (\$360 million) was conservative. The impact of excluded data was estimated and built into an aggressive estimate of the UPL (\$690 million).

Table 1 below shows the conservative UPL, the effects of each of the data issues, and the aggressive UPL. The table also shows the split between the federal match and State share of the estimated total UPL payment.

TABLE 1
Estimated Results of the UPL Analysis

Description	Total	Federal Match	State Share
Conservative UPL if Managed Care was FFS	\$396,000,000	\$239,580,000	\$156,420,000
Conservatism Adjustments			
Invalid DRGs	\$17,000,000	\$10,285,000	\$6,715,000
Null DRGs	\$158,000,000	\$95,590,000	\$62,410,000
Managed care vs. FFS	\$70,000,000	\$42,350,000	\$27,650,000
No FFS Medicaid UPL Paid Amounts	\$49,000,000	\$29,645,000	\$19,355,000
Non-Conservative Estimate	\$690,000,000	\$417,450,000	\$272,550,000

Four adjustments account for the difference between our conservative estimate and our aggressive estimate: invalid DRGs, null DRGs, managed care utilization adjustment, and no FFS UPL paid amount for some providers. Of the encounter admissions, 4% had an invalid DRG. For these admissions, an average UPL per admit was used to estimate the \$17 million adjustment. Of the encounter paid dollars, 28% did not have a corresponding DRG. For these claims, an average UPL per paid amount was used to estimate the \$158 million adjustment. Because the UPL analysis was completed based on managed care encounter data which typically has fewer admits than a FFS population, a 15% adjustment (\$70 million) was made to account for what would have been spent in FFS. Of the encounter admissions, 10% had no matching FFS provider. Because there was no matching FFS provider, we were unable to determine the average FFS UPL payment per discharge. For these admissions, an average UPL per admit was used to estimate the \$49 million adjustment.

There is additional detail related to the UPL estimation process included in Appendix II.

Reforming the Current Standard Dollar Amount (SDA) Methodology

As mentioned in the executive summary, an analysis was completed to compare the variance in the average cost per admission for the top 10 DRGs in Dallas, Tarrant and Harris Counties. This analysis showed that there was a wide variation in the average cost per admission for many DRGs. To verify that this variation in cost per admission was not solely driven by longer lengths of stay, the average cost per day, average length of stay, and number of admissions were also compared across each DRG. Table 2 shows a summary of this analysis.

TABLE 2
Hospital Paid Amount Variance for Top 10 DRGs²

DRG ⁴	DRG Description	Range of Hospital Paid Amount per Admit ³	
		Dallas/Tarrant County	Harris County
386	EXTREME IMMATURETY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	\$30,702 - \$91,452	\$54,477 - \$90,551
373	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	\$1,268 - \$2,829	\$1,373 - \$3,954
483	TRAC W MECH VENT 96+HRS OR PDX EXCEPT FACE, MOUTH & NECK DX OSES	\$64,345 - \$100,147	\$53,617 - \$89,950
371	CESAREAN SECTION W/O CC	\$1,585 - \$4,509	\$2,401 - \$6,840
387	PREMATURITY W MAJOR PROBLEMS	\$16,117 - \$29,760	\$15,097 - \$35,695
370	CESAREAN SECTION W CC	\$2,511 - \$5,553	\$3,284 - \$9,763
391	NORMAL NEWBORN	\$277 - \$669	\$328 - \$997
385	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	\$1,557 - \$52,604	\$1,688 - \$50,247
389	FULL TERM NEONATE W MAJOR PROBLEMS	\$3,576 - \$16,814	\$3,391 - \$14,438
372	VAGINAL DELIVERY W COMPLICATING DIAGNOSES	\$2,231 - \$3,579	\$2,112 - \$5,649

To reduce or eliminate this variation among hospitals and following guidance from HHSC and Rider 60, we estimated the impact of several alternative methodologies for reforming the SDA.⁵

The objective of reforming through regionalizing the SDA methodology is to reduce or eliminate the variation in price that HHSC reimburses hospitals for the same DRG-reimbursable service within a region. In pursuing this objective we compared hospitals within each of the 11 regions defined by HHSC.⁶ Table 3 shows a regional comparison of the minimum and maximum SDA (2005 actual), administrative percentage of total inpatient cost and capital percentage of total inpatient cost.

² Total Paid Amount from 2004 Blue Ribbon Data

³ Hospital must have at least 10 admits to be considered credible

⁴ In order for the DRG to be included, each county must have at least 4 hospitals with a credible number of admits

⁵ Hospital's which are not reimbursed using SDAs are excluded from this analysis; this includes psychiatric, military, and children's hospitals

⁶ A list of the 11 regions and the corresponding counties is included in Appendix III

TABLE 3
Range of the Actual 2005 SDA, Administrative Costs, and Capital Costs by Region⁷

Region	2005 Actual SDA		Admin % of IP Costs		Capital % of IP Costs	
	Min	Max	Min	Max	Min	Max
1 - High Plains	\$1,600	\$4,818	3%	26%	1%	16%
2 - Northwest	\$1,600	\$3,842	5%	28%	1%	10%
3 - Metroplex	\$1,600	\$4,917	5%	33%	2%	20%
4 - Upper East	\$1,658	\$4,138	4%	31%	1%	17%
5 - Southeast	\$1,600	\$3,747	7%	35%	1%	15%
6 - Gulf Coast	\$1,600	\$8,373	5%	40%	1%	23%
7 - Central	\$1,600	\$8,813	3%	25%	1%	14%
8 - Upper South	\$1,600	\$6,207	7%	30%	1%	17%
9 - West	\$1,600	\$8,373	3%	41%	1%	20%
10 - Upper Rio Grande	\$3,001	\$4,190	1%	29%	1%	26%
11 - Lower South	\$2,330	\$3,913	3%	36%	1%	20%
All Regions	\$1,600	\$8,813	1%	41%	1%	26%

After discussions with HHSC leadership, it was decided to focus on 2 scenarios which reform the three components of the SDA;

- Direct care costs,
- Administrative costs, and
- Capital costs.

Using TMHP methodology, the Medicaid proportionate share of inpatient direct cost, administrative, and capital costs were estimated for each hospital. Administrative and capital costs were then removed from the total Medicaid inpatient hospital cost, which was determined based on CMS cost report data. The revised SDA was then calculated by adding back various amounts of these costs across each region using the various methodologies described in the scenarios below.

⁷ Due to data issues, a few hospitals were excluded from this table because the percent of administrative or capital costs were unreasonably high.

Scenario 1: Focus on the Regional Average

- **Direct Care Costs: Each hospital’s direct care costs are set to their regional average.**

The SDA, excluding administrative and capital costs, was calculated for each hospital in the State. The remaining amount is the direct care cost portion of the SDA. The average SDA was then calculated for each of the HHSC regions using statewide DRG weights and region specific cost and utilization data. This average SDA is then set as the direct care cost component of the SDA for each hospital in a given region.

A regionalized SDA changes the payments to each hospital but does not change the total payment to all hospitals. Under this methodology 66% of the hospitals’ estimated overall Medicaid payment increased or decreased by at least 10%.

- **Administrative Costs: Each hospital’s administrative costs are set to their regional average.**

The average administrative costs were calculated for each of the hospitals within the HHSC regions, weighted by each hospitals relative weight. This average cost is then set as the administrative cost component for each hospital in a given region.

A regionalized administrative cost component changes the payments to each hospital but does not change the total payment to all hospitals.

- **Capital Costs: Each hospital’s capital costs are set to their regional average.**

The average capital costs were calculated for each of the HHSC regions weighted by each hospitals relative weight. This average cost is then set as the capital cost component for each hospital in a given region.

A regionalized capital cost component changes the payments to each hospital but does not change the total payment to all hospitals. Table 4 shows the regional average SDA which would apply to all hospitals (prior to raising) if this scenario was implemented.

**TABLE 4
Regional SDAs before Raising**

Region	Regional SDA Before Raising
1 - High Plains	\$3,879
2 - Northwest	\$3,460
3 - Metroplex	\$4,269
4 - Upper East	\$3,735
5 - Southeast	\$3,680
6 - Gulf Coast	\$4,735
7 - Central	\$4,058
8 - Upper South	\$3,789
9 - West	\$4,268
10 - Upper Rio Grande	\$4,049
11 - Lower South	\$3,865

Scenario 2: Focus on the 80th Percentile

- **Direct Care Costs: Cap each hospital’s direct care costs at the 80th percentile of their region.**

As described in scenario 1 the direct care cost component was calculated as the SDA, excluding administrative and capital costs. The 80th percentile of this cost by region was then calculated for each of the HHSC regions using statewide DRG weights and region specific cost and utilization data. Each hospital’s direct care costs are then capped at this 80th percentile. This change to reimbursement for direct costs will only impact those hospitals above the 80th percentile.

The estimated impact of reforming the SDA based on this direct cost scenario would decrease payments to the hospitals by \$40.5 million annually (\$24 million federal match and \$16 million State share). Table 5 below shows the effect of reforming the direct care cost component SDA.

**TABLE 5 – Scenario 2: Direct Care Cost
Direct Care Costs Capped at the Region’s 80th Percentile**

Description	Percentage	Total Dollars
Payment Change		
All Funds - Annual Cost	-2.8%	(\$40,526,000)
Federal Share - Annual Cost		(\$24,315,600)
State Share - Annual Cost		(\$16,210,400)

- **Administrative Costs: Cap each hospital’s administrative costs at the 80th percentile of their region.**

This scenario calculates the 80th percentile of administration costs for each region. Each hospital’s administrative costs are then capped at this 80th percentile. This reimbursement strategy for administrative costs will only impact the amount reimbursed for those hospitals above the 80th percentile.

The estimated impact of reforming the SDA based on the administrative cost component as described above is a decrease in payments to the hospitals by \$17 million annually (\$10 million federal match and \$7 million State share). Table 6 summarizes the estimated result of reforming the administrative component of the SDA under this scenario.

**TABLE 6
Estimated Statewide Results – Reforming Administrative Cost Component of the SDA
Scenario 2: Administrative Capped at Region’s 80th Percentile**

Description	Percentage	Total Dollars
Payment Change		
All Funds - Annual Cost	-1.2%	(\$17,320,000)
Federal Share - Annual Cost		(\$10,392,000)
State Share - Annual Cost		(\$6,928,000)

- **Capital Costs: Set each hospital's capital costs to 9%.**

Capital cost as a percent of total inpatient cost was compared for each hospital in a region, within the State, and to a national benchmark. The estimated average of the Texas Medicaid population is 8.5%. This compares to the Medicare Inpatient Prospective Payment System, which is estimated to be 8.4% for 2005, 8.2% for 2006 and 8.0% for 2007. Per guidance from HHSC, 9% was selected to promote facility improvement. Thus, in the scenario selected each hospital had 9% of their Medicaid inpatient costs added back as capital costs.

The estimated impact of reforming the SDA based on the capital cost component as described above would increase payments to the hospitals by \$6.3 million annually (\$3.8 million federal match and \$2.5 million State share).

Table 7 summarizes the estimated result of reforming the capital component of the SDA.

TABLE 7
Estimated Statewide Results – Reforming Capital Cost Component of the SDA
Scenario 2: Capital Costs at 9%

Description	Percentage	Total Dollars
Payment Change		
All Funds - Annual Cost	0.4%	\$6,269,000
Federal Share - Annual Cost		\$3,761,400
State Share - Annual Cost		\$2,507,600

There is additional detail regarding the SDA reforming analysis included in Appendix III.

Rebasing the Standard Dollar Amount (SDA)

As referenced in Rider 60, HHSC has been directed to study and make recommendations for changes in the hospital reimbursement including rebasing the rates. The rebasing analysis estimates the impact of using more recent data to develop the SDAs. As defined by HHSC, the objectives of rebasing include more appropriately reflecting hospital costs in the SDA by using more up-to-date hospital costs and to reduce the Medicaid shortfall.⁸

This process updates the base data from SFY 2000 Medicaid inpatient claims data and 1998 cost report data to SFY 2004 for both sources. The rebasing process maintains the same calculation methodology as described in the TAC. The estimated impact of rebasing the SDA is an increase in payments to the hospitals of \$268 million annually (\$161 million federal match and \$107 million State share).

There are two major steps in rebasing the SDAs:

1. Approximating the new statewide diagnosis-related group (DRG) weights

The statewide DRG weights represent the relative severity for each DRG. For this analysis, the calculation is based on the TAC methodology and 2004 claims experience data. As defined by TAC, when there are less than 10 admissions for a DRG, the Centers for Medicaid and Medicare Services (CMS) DRG weight is used. Using 2004 data, 0.1% of the IP costs are defaulting to the CMS DRG weight.

2. Estimating the rebased SDA

Using the updated statewide DRG weights, the SDA is estimated using 2004 claims. The rebased SDA uses 2004 interim rates (cost to charge ratio), which is consistent with the claims experience period, provided by Texas Medicaid and Healthcare Partnership (TMHP).

Table 8 shows the estimated effect of rebasing the SDAs and the overall effect on the State share for all hospitals combined.

TABLE 8
Estimated Statewide Results – Rebasing the SDA

Description	Percentage	Total Dollars
Relative Weight Change	-1.7%	(\$24,914,000)
SDA Change	20.4%	\$292,775,000
Rebasing Payment Change		
All Funds - Annual Cost	18.4%	\$267,861,000
Federal Share - Annual Cost		\$160,716,600
State Share - Annual Cost		\$107,144,400

There is additional detail regarding the rebasing analysis included in Appendix IV.

⁸ Hospital's which are not reimbursed using SDAs are excluded from this analysis; this includes psychiatric, military, and children's hospitals.

Raising the Standard Dollar Amount (SDA)

As mentioned in the rebasing section, one of the objectives of rebasing includes more appropriately reflecting hospital costs in the SDA to reduce the Medicaid shortfall. The Medicaid shortfall represents hospital costs for providing treatment to Medicaid patients, which are allowable under Medicaid rules but are not reimbursed because the DRG-based payment does not fully reimburse the full amount of these costs. Rebasing the SDA (as described above), will more accurately project the actual costs, but will not eliminate the Medicaid shortfall.

HHSC leadership proposed to raise the reformed and rebased SDAs to further reduce the Medicaid shortfall. Using SFY 2006 inpatient Medicaid projected shortfall data received from HHSC, it was determined that the overall inpatient projected shortfall for the hospitals included in the SDA analyses⁹ was \$482¹⁰ million. After removing the effect of rebasing, \$214 million (\$482 - \$268 million) remained. To further reduce this shortfall, an increase was calculated by hospital to increase payments by the remaining projected shortfall. The administrative and capital cost components are then added back to this SDA to determine a hospital by hospital SDA.

If each hospital's SDA (after rebasing) is increased by the amount of the SFY 2006 projected inpatient hospital shortfall, the estimated impact of raising the SDA is an increase in payments to the hospitals of \$214 million annually (\$128 million federal match and \$86 million State share).

Table 9 shows the estimated effect of raising the SDAs and the overall effect on the State share for all hospitals combined.

TABLE 9
Estimated Statewide Results – Raising the SDA

Description	Percentage	Total Dollars
Payment Change		
All Funds - Annual Cost	14.7%	\$214,275,000
Federal Share - Annual Cost		\$128,565,000
State Share - Annual Cost		\$85,710,000

⁹ Hospital's which are not reimbursed using SDAs are excluded from this analysis; this includes psychiatric, military, and children's hospitals.

¹⁰ This number is the total inpatient shortfall excluding hospitals with a negative shortfall after rebasing. The total inpatient shortfall, including negatives, is \$340 million. The negative shortfall is passes through to the DSH payment calculation which reduces the amount of DSH payments that the hospital can receive.

Results of Reforming, Rebasing and Raising the SDA

This section of the report summarizes the combined impact of reforming, rebasing, and raising the SDA under the scenarios described earlier in the report.

Scenario 1: Focus on Regional Averaging

Scenario 1 includes the following changes:

- Regional average direct care costs
- Regional average administrative costs
- Regional average capital costs
- Rebasing the DRGs and SDAs
- Raising done on a hospital basis

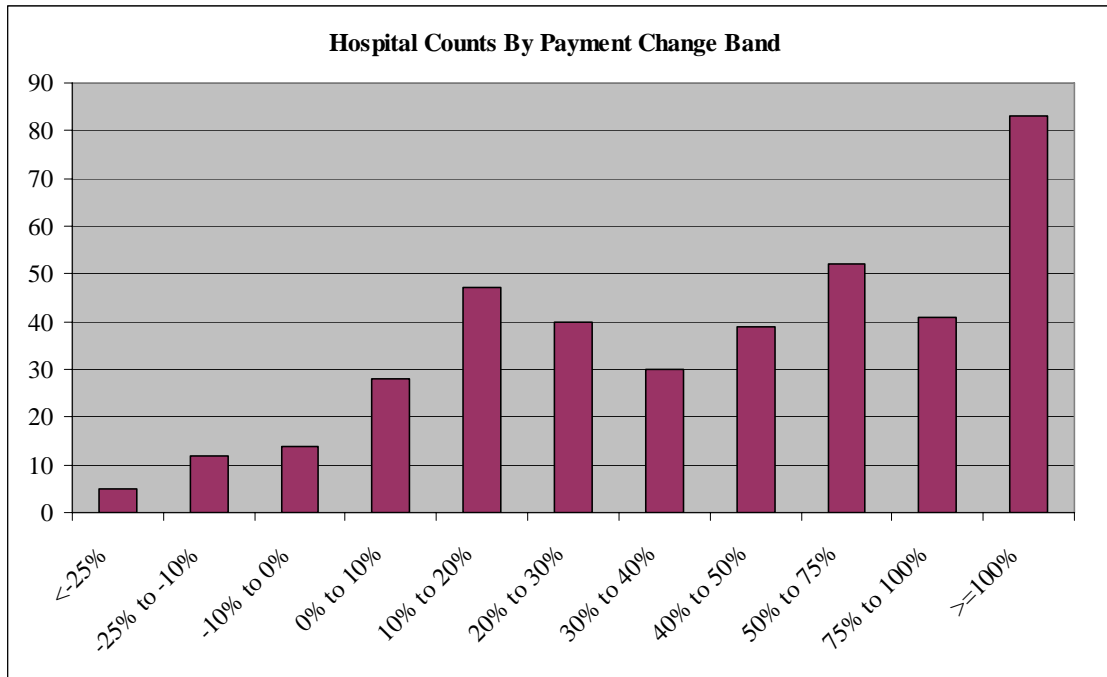
Table 10
Scenario 1: Estimated Statewide Results

Description	Percentage	Total Dollars
Rebasing Payment Change	18.4%	\$267,861,000
Reforming Direct Care Costs	0.0%	\$0
Reforming Administrative Costs	0.0%	\$0
Reforming Capital Costs	0.0%	\$0
Raising the SDA	14.7%	\$214,275,000
Total Payment Change		
All Funds - Annual Cost	33.1%	\$482,136,000
Federal Share - Annual Cost		\$289,281,600
State Share - Annual Cost		\$192,854,400

Table 11
Scenario 1: Summary by Region

Region	% Change in Total Payment	Total Payment Change		
		All Funds Annual	Federal Share Annual	State Share Annual
1 - High Plains	34.9%	\$21,763,000	\$13,057,800	\$8,705,200
2 - Northwest	20.5%	\$7,464,000	\$4,478,400	\$2,985,600
3 - Metroplex	54.7%	\$150,160,000	\$90,096,000	\$60,064,000
4 - Upper East	21.7%	\$19,682,000	\$11,809,200	\$7,872,800
5 - Southeast	36.6%	\$15,536,000	\$9,321,600	\$6,214,400
6 - Gulf Coast	51.3%	\$149,420,000	\$89,652,000	\$59,768,000
7 - Central	23.6%	\$28,919,000	\$17,351,400	\$11,567,600
8 - Upper South	13.7%	\$19,834,000	\$11,900,400	\$7,933,600
9 - West	13.1%	\$8,086,000	\$4,851,600	\$3,234,400
10 - Upper Rio Grande	10.9%	\$5,348,000	\$3,208,800	\$2,139,200
11 - Lower South	19.9%	\$55,968,000	\$33,580,800	\$22,387,200
All Regions	33.1%	\$482,180,000	\$289,308,000	\$192,872,000

Table 12
Scenario 1: Summary of Hospital Changes



Scenario 1: Additional Adjustments to STAR and STAR+PLUS Population

Historically changes made to the DRG payments are passed on to fees paid to capitated Medicaid programs. To estimate this change in other programs, the overall percentage increase in costs (including reforming, rebasing, and raising) was applied to estimated STAR and STAR+PLUS¹¹ inpatient costs.

The estimated impact of passing the payment change in Scenario 1 to the STAR and STARPLUS populations would be an additional increase to the state of \$141.5 million annually (\$84.9 million federal match and \$56.6 million State share).

¹¹ This estimate was developed using 2004 STAR and 2005 STAR+PLUS data received from Texas HHSC.

Scenario 2: Focus on 80th Percentile

Scenario 2 includes the following changes:

- Direct care costs capped at the region's 80th percentile
- Administrative costs capped at the region's 80th percentile
- Capital costs paid at 9%
- Rebasing the DRGs and SDAs
- Raising done on a hospital basis

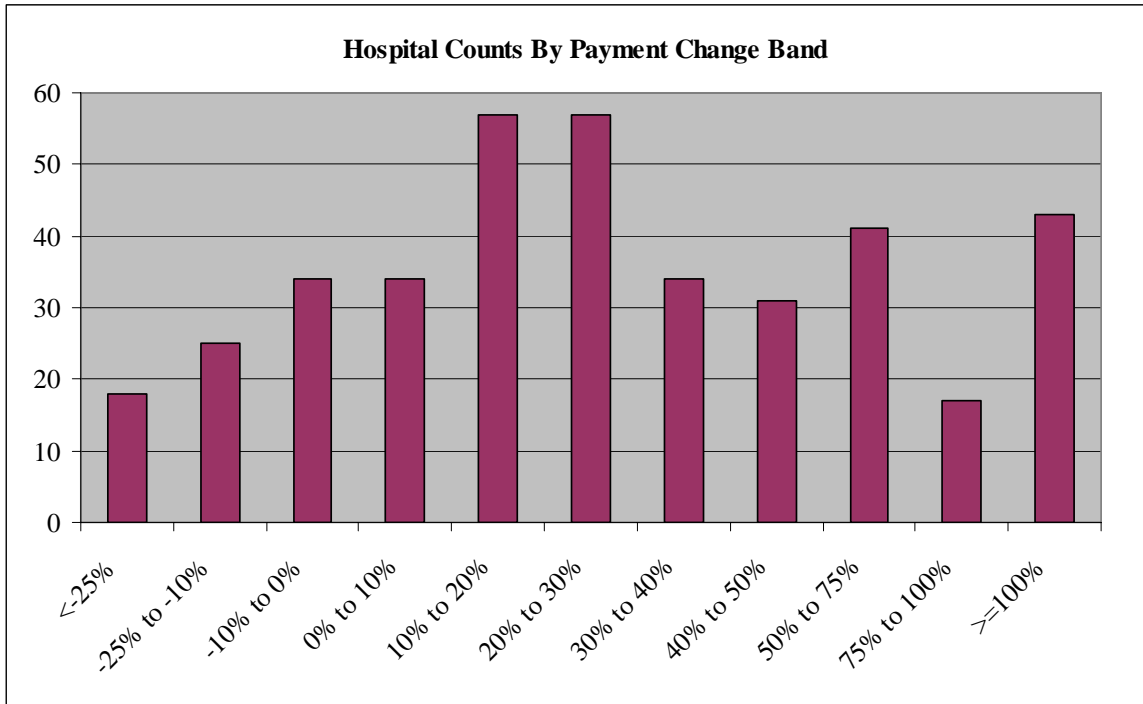
Table 13
Scenario 2: Estimated Statewide Results

Description	Percentage	Total Dollars
Rebasing Payment Change	18.4%	\$267,861,000
Reforming Direct Care Costs	-2.8%	(\$40,526,000)
Reforming Administrative Costs	-1.2%	(\$17,320,000)
Reforming Capital Costs	0.4%	\$6,269,000
Raising the SDA	14.7%	\$214,275,000
Total Payment Change		
All Funds - Annual Cost	29.5%	\$430,559,000
Federal Share - Annual Cost		\$258,335,400
State Share - Annual Cost		\$172,223,600

Table 14
Scenario 2: Summary by Region

Region	% Change in Total Payment	Total Payment Change		
		All Funds Annual	Federal Share Annual	State Share Annual
1 - High Plains	33.5%	\$20,846,000	\$12,507,600	\$8,338,400
2 - Northwest	14.3%	\$5,213,000	\$3,127,800	\$2,085,200
3 - Metroplex	53.0%	\$145,572,000	\$87,343,200	\$58,228,800
4 - Upper East	17.2%	\$15,559,000	\$9,335,400	\$6,223,600
5 - Southeast	31.2%	\$13,259,000	\$7,955,400	\$5,303,600
6 - Gulf Coast	45.6%	\$132,739,000	\$79,643,400	\$53,095,600
7 - Central	15.8%	\$19,350,000	\$11,610,000	\$7,740,000
8 - Upper South	11.0%	\$15,906,000	\$9,543,600	\$6,362,400
9 - West	8.9%	\$5,467,000	\$3,280,200	\$2,186,800
10 - Upper Rio Grande	8.5%	\$4,192,000	\$2,515,200	\$1,676,800
11 - Lower South	18.6%	\$52,456,000	\$31,473,600	\$20,982,400
All Regions	29.5%	\$430,559,000	\$258,335,400	\$172,223,600

Table 15
Scenario 2: Summary of Hospital Changes



Scenario 2: Additional Adjustments to STAR and STAR+PLUS Population

As described in Scenario 1, historically changes made to the DRG payments are passed on to fees paid to capitated Medicaid programs.

The estimated impact of passing the payment change in Scenario 2 to the STAR and STARPLUS populations would be an additional increase to the state of \$114.2 million annually (\$68.5 million federal match and \$45.7 million State share).

Appendix I: Defined Terms

Capitation	A payment mechanism to control costs for Medicaid enrollees by transferring risk to managed care organizations by paying a predetermined rate for all Medicaid services provided.
Case Mix Index (CMI)	A quantitative description used to identify the complexity of a hospital's patient case load throughout the year.
Cost Based	Reimbursement to hospitals based on the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) rules which reimburses hospitals for their allowable costs. This is to be distinguished from DRG-based reimbursement, whose rates are prospectively determined.
Cost Report	Cost Report data provides hospital financial information which is filed by each hospital with the Centers for Medicare and Medicaid Services (CMS).
Diagnosis Related Group (DRG)	Hospital reimbursement determined in advance of the patient's hospitalization and is different for each diagnosis. Places the hospital at financial risk if patient stay is longer than what reimbursement was based on.
Disproportionate Share Hospital Reimbursement (DSH)	Federal law requires Medicaid make payments to hospitals serving a disproportionately large number of Medicaid and low-income patients. Federal funding to Texas is capped. Texas uses IGTs to fund the state match.
Federal Match	Approximately 60% of General Revenue (SFY 2004 was 60.2%, SFY 2005 was 60.82%)
Fee For Service (FFS)	A payment method in which physicians and other health care providers receive a fee for each Medicaid service performed.
Graduate Medical Education (GME)	Medicaid provides payments to hospitals to support its share of direct costs related to medical training programs and to support higher patient care costs associated with the training of residents.
Hospital Medicaid Shortfall	Hospital costs for providing treatment to Medicaid patients which are allowable under Medicaid rules but are not reimbursed because the DRG-based payment does not fully reimburse the full amount of these costs make up the shortfall. Shortfall costs are reimbursed to hospitals through the DSH supplemental payment system.
Inter-Governmental Transfers (IGTs)	Methodology employed by Texas to obtain state match for Federal funding and does not require General Revenue. IGT has limitations in that only public funds can be used (only transfers between governmental entities), the result is a limitation in the available non-General Revenue funding to match Federal funds and potential Federal revenue is lost.
Interim Rate	Also know as the cost to charge ratio. $\text{Interim Rate} = \text{Inpatient Costs} \div \text{Inpatient Charges}$
Managed Care Organization (MCO)	Delivers and manages services under a capitation arrangement that is embedded in a risk-based contract. Under this organization there is an incentive for the MCO to control hospital costs.
Rebasing	Updating to a more recent year the data used to calculate the DRG payment to hospitals. The effect of rebasing is to capture changes in cost that impact the amount of Medicaid allowable reimbursement paid to a hospital.
Standard Dollar Amount (SDA)	The weighted mean base year payment for all hospitals in a payment division after adjusting each hospital's base year payment per case by a case mix index, and a cost-of-living index.
State Share	Approximately 40% of General Revenue (SFY 2004 was 39.8%, SFY 2005 was 39.18%)
Texas Medicaid and Healthcare Partnership (TMHP)	Medicaid consulting company which assists HHSC with developing the interim rate for Medicaid hospitals which is used in the development of the SDAs.
Uncompensated Care	Identifies the incurred costs for a hospital resulting from the provision of treatment to patients who are unable to reimburse the hospital for such care. Formally defined as the sum of a hospital's bad debt expense and its charity care costs.
Upper Payment Limit (UPL)	Financing mechanism used by Texas to provide supplemental payments to hospitals. The basis for this funding is the difference between what Medicare and Medicaid pays for essentially the same patient. The formula results in increased payments because Medicare's aggregate payments are higher than Medicaid's. Texas uses IGTs to fund the state match.

Appendix II: UPL

UPL DATA SOURCES

The following table summarizes the data tables, contents used, and the source of the data used in the UPL analysis.

Data	Contents Used	Source
FFS Medicare and Medicaid IP Hospital UPL data	<ul style="list-style-type: none"> ▪ Medicaid Provider ID ▪ Medicaid Case Mix Index (CMI) ▪ Medicaid Discharges ▪ Hospital's Medicaid UPL 	Excel file from Scott Reasonover (Aggregate Inpatient UPL Demonstrations TX-05-001.xls)
STAR and STARPLUS SFY 2004 and 2005 Encounter Data	<ul style="list-style-type: none"> ▪ SFY 2005 data ▪ Medicaid Provider ID (billing provider) ▪ IP Paid Amounts ▪ IP Unique Admits 	CD from Bill Warburton
2003 Texas DRG Weights	<ul style="list-style-type: none"> ▪ DRG ▪ Texas DRG weight 	Excel file from Alisa Jacquet (Grouper 20 EFF 090102.xls)

UPL DATA ISSUES

The following table shows the data issues that were used excluded from the conservative UPL estimate and included in the aggressive UPL estimate.

Source	Issue
FFS Medicare and Medicaid IP Hospital UPL data	<ul style="list-style-type: none"> ▪ 10% of the encounter admits did not have a matching FFS Medicaid provider ▪ 25% of the encounter dollars had a provider match but a zero FFS UPL payment
FY 2005 STARPLUS encounter data	<ul style="list-style-type: none"> ▪ 1.5% of admits and 1.5% of paid amounts contained an invalid or a null DRG ▪ Discharge dates not available
FY 2005 STAR encounter data	<ul style="list-style-type: none"> ▪ 88% of admits and 34% of paid amounts contained an invalid or a null DRG ▪ Discharge dates not available
Data Not Used	
FY 2004 STARPLUS encounter data	<ul style="list-style-type: none"> ▪ No DRGs available
FY 2004 STAR encounter data	<ul style="list-style-type: none"> ▪ No admit dates available

UPL METHODOLOGY STEPS

The following are the high-level steps that were used to complete the UPL analysis.

1. Match Texas DRG weights to the SFY 2005 STAR and STARPLUS encounter data
 - a. Removed claims with an invalid or null DRG
 - b. Used the encounter field ICP DRG Grouper, not Plan Provider DRG
2. Summarized encounter data by unique provider number (7 digit TPI)
 - a. Grouped paid amount, admits, and DRG weight
 - b. Calculated CMI by provider (weighted by admits)
3. Tied the providers in the encounter data to the FFS Medicaid UPL data
 - a. Removed the FFS Medicaid UPL paid amount when it was less than zero
4. Calculated expected UPL payment amount by provider for the managed care population if charges had been FFS

$$\left(\frac{\text{FFS_UPL}}{\text{FFS_Discharges} \times \text{FFS_CMI}} \right) \times \text{Encounter_Admits} \times \text{Texas_CMI}$$

APPENDIX III: Reforming the SDA

HHSC COUNTIES BY REGIONS

(Only counties with claims data are included)

Region	Counties
1 - High Plains	Bailey, Castro, Childress, Cochran, Collingsworth, Crosby, Dallam, Deaf Smith, Floyd, Gray, Hale, Hansford, Hemphill, Hockley, Hutchinson, Lamb, Lubbock, Lynn, Moore, Ochiltree, Parmer, Potter, Swisher, Terry, Wheeler, Yoakum
2 - Northwest	Baylor, Brown, Clay, Coleman, Comanche, Eastland, Fisher, Hardeman, Haskell, Jack, Jones, Knox, Mitchell, Montague, Nolan, Runnels, Scurry, Stephens, Stonewall, Taylor, Wichita, Wilbarger, Young
3 - Metroplex	Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, Wise
4 - Upper East	Anderson, Bowie, Camp, Cass, Cherokee, Franklin, Gregg, Harrison, Henderson, Hopkins, Lamar, Panola, Red River, Rusk, Smith, Titus, Upshur, Van Zandt, Wood
5 - Southeast	Angelina, Houston, Jasper, Jefferson, Nacogdoch., Orange, Polk, San Augustine, Shelby, Trinity, Tyler
6 - Gulf Coast	Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Wharton
7 - Central	Bastrop, Bell, Bosque, Brazos, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays, Hill, Lampasas, Limestone, Llano, Madison, McLennan, Milam, Travis, Washington, Williamson
8 - Upper South	Atascosa, Bexar, Calhoun, Comal, DeWitt, Dimmitt, Frio, Gillespie, Gonzales, Guadalupe, Jackson, Karnes, Kerr, Lavaca, Maverick, Medina, Uvalde, Val Verde, Victoria, Wilson
9 - West	Andrews, Concho, Crane, Dawson, Ector, Gaines, Howard, Kimble, Martin, McCulloch, Midland, Pecos, Reagan, Reeves, Schleicher, Sutton, Tom Green, Upton, Ward, Winkler
10 - Upper Rio Grande	Brewster, Culberson, El Paso
11 - Lower South	Bee, Cameron, Hidalgo, Jim Wells, Kleberg, Nueces, Refugio, San Patricio, Starr, Webb

SDA DATA SOURCES

The following table summarizes the data tables, contents used, and the source of the data used in the SDA analysis.

Data	Contents Used	Source
SFY 2004 Blue Ribbon Database (Medicaid Only – IP Only)	<ul style="list-style-type: none"> ▪ Medicaid Provider ID ▪ Stays, TEFRA Allowed, Other Insurance Paid ▪ Texas DRG Weights 	Access Database from Bill Rago and Alisa Jacquet (blue2004.mdb)
TMHP Cost Report Excel Files Total (Medicaid and Medicare)	<ul style="list-style-type: none"> ▪ Total IP Costs and Charges ▪ Selective Contracting IP Interim Rates ▪ Medicaid Days 	Files from Dick Bledsoe (020812601a.03a.xls, ..., 165241401b.048.xls)
2004 Cost Report Data Total (Medicaid and Medicare)	<ul style="list-style-type: none"> ▪ Medicare Provider ID ▪ Total Hospital Admin and Capital Costs ▪ Total IP and OP Revenue ▪ Total Days 	Download from CMS Website (HOSP_RPT_FY2001-to-current)
Hospital Name and Region Excel File	<ul style="list-style-type: none"> ▪ Medicaid Provider ID ▪ Hospital Name ▪ Hospital HHSC region identifier 	Excel file from Henry Welles (RegionsSFY06.xls)

SDA DATA ISSUES

The following summarizes the data issues and assumptions included in the SDA analysis.

- 627 TPIs are in the SFY 2004 Blue Ribbon Database
 - 391 of these TPIs are included in the SDA analysis
 - 23 do not have a TMHP Cost Report Excel File (used statewide average interim rate)
 - 24 have an interim rate > 100% (set interim rate at 100% in SDA analysis)
 - 4 have admin +capital > costs (set interim rate at 0% in SDA analysis)
 - 9 have capital = \$0
 - 6 have inpatient costs > total costs (set IP % of total at 100% in SDA analysis)
 - 236 of these TPIs are excluded from the SDA analysis
 - 218 are psych, children's, military, or out of state hospitals
 - 18 are not found in the SFY 2004 or SFY 2005 actual SDA files

- 418 TPIs are in the Hospital Name and Region Excel File (SFY06 active Medicaid providers)
 - 361 of these TPIs are included in the SDA analysis
 - 57 of these TPIs are excluded from the SDA analysis
 - 4 are not found in the SFY 2004 Blue Ribbon Database
 - 41 are psych, children's, military, or out of state hospitals
 - 12 are not found in the SFY 2004 or SFY 2005 actual SDA files

REFORMING METHODOLOGY

Direct Care Cost Reform

The following are the steps that were used when calculating the direct care cost reform to the SDA

STEP 1: Calculate Statewide DRG Weights

- Calculate the TEFRA Paid per Admission by DRG for each region
 - From 2004 Blue Ribbon database and interim rates (cost to charge) from TMHP
- Calculate regional DRG weights for DRGs with ten or more admissions
 - $\text{DRG Weight} = \text{Cost Per Admit for each DRG} / \text{Cost Per Admit across all DRGs}$
 - DRG weights were calculated when there was 10+ admissions for the DRG (included all organ transplant admissions)
 - Consistent with Texas Administrative Code 355.8063(c)
- Use CMS weights when less than 10 admissions
 - When a DRG had less than 10 admissions (excluding organ transplants) then the 2004 CMS DRG weight was used as a default
- Normalize DRG weights for the each region to 1.000
 - Adjusted the non-CMS weights uniformly so that the DRG weights average out to a 1.000 for each region

STEP 2: Recalculate the SDA

- Calculate TEFRA Insurance Paid for each Claim
 - $\text{TEFRA Cost} = \text{TEFRA Allowed} \times \text{IP Interim Rate (from TMHP)}$

- IP interim rate is the cost to charge ratio
 - TEFRA Paid = $\max\{0, \text{TEFRA Cost} - \text{Other Insurance Paid}\}$
 - TEFRA Insurance Paid = TEFRA Paid + Other Insurance Paid
- Calculate Average Cost per Stay by Hospital
 - Average Cost per Stay = TEFRA Insurance Paid / Stays
- Calculate Case Mix Index by Hospital
 - Case Mix Index = Regional DRG Weight / Stays
- Calculate Initial SDA by Hospital
 - Initial SDA = Average Cost per Stay / Case Mix Index
- Calculate Adjusted SDA by Hospital
 - Adjusted SDA = Initial SDA x Year 3 & 4 inflation = Initial SDA x 1.000 x 1.000
 - Model allows for adjustments to inflation

STEP 3: Determine the Direct Care Component Average SDA for each Region

- Remove the administrative and capital components of the SDA
- Based on the selected scenario the direct costs were adjusted appropriately
- The effects of recalculating the DRG weights and SDAs (rebasing) were removed

Administrative and Capital Cost Reform

The following are the steps that were used when adjusting the SDA based on various administrative and capital reimbursement methodologies

STEP 1: Identify Hospital Specific Administrative and Capital Costs

- Pull total admin and capital costs for hospital routine and ancillary cost centers from CMS cost report database
 - The admin and capital cost report fields pulled were confirmed by TMHP
- Determine the percent of Hospital IP
 - Using the cost report hospital data we determined what percent of the hospital is IP
 - % of IP = IP revenue / Total revenue
- Calculate IP administrative and capital costs

- IP Administrative = % of IP * Total Administrative Costs
- IP Capital = % of IP * Total Capital Costs
- Determine the percent of Medicaid utilization
 - Total hospital days from the cost report
 - Medicaid days from TMHP Excel files
 - % Medicaid Util. = Medicaid days / Total Hosp. Days
- Calculate Medicaid Inpatient Admin and Capital Costs
 - Medicaid IP Administrative = % of Medicaid * IP Administrative
 - Medicaid IP Capital = % of Medicaid * IP Capital

STEP 2: Adjust Hospital SDAs Based on Regionalized Administrative and Capital Cost Assumptions

- Determine the level of admin and capital to be removed from the SDA
 - Assumption input in the SDA Recalc model
- Recalculate the interim rate (cost to charge) with the admin and capital removed
 - Based on IP hospital costs in the TMHP Excel files
 - Consistent with TMHP methodology of calculating the interim rate
 - For hospitals without a TMHP Excel file, use interim rate calculated across all hospitals for which a TMHP Excel file is available
- Recalculate the SDA with the new interim rate
 - See SDA calculation (Step 2)
 - Based on adjusted interim rate (TMHP methodology) and Blue Ribbon data
- Select admin and capital payment methodology to build into SDA

APPENDIX IV: Rebasing the SDA

SDA DATA SOURCES

The following table summarizes the data tables, contents used, and the source of the data used in the SDA analysis.

Data	Contents Used	Source
SFY 2004 Blue Ribbon Database (Medicaid Only – IP Only)	<ul style="list-style-type: none">▪ Medicaid Provider ID▪ Stays, TEFRA Allowed, Other Insurance Paid▪ Texas DRG Weights	Access Database from Bill Rago and Alisa Jacquet (blue2004.mdb)
TMHP Cost Report Excel Files Total (Medicaid and Medicare)	<ul style="list-style-type: none">▪ Total IP Costs and Charges▪ Selective Contracting IP Interim Rates▪ Medicaid Days	Files from Dick Bledsoe (020812601a.03a.xls, ..., 165241401b.048.xls)
Hospital Name and Region Excel File	<ul style="list-style-type: none">▪ Medicaid Provider ID▪ Hospital Name▪ Hospital HHSC region identifier	Excel file from Henry Welles (RegionsSFY06.xls)

DATA ISSUES

The following summarizes the data issues and assumptions included in the SDA rebasing analysis.

- 627 TPIs are in the SFY 2004 Blue Ribbon Database
 - 391 of these TPIs are included in the SDA analysis
 - 23 do not have a TMHP Cost Report Excel File (used statewide average interim rate)
 - 24 have an interim rate > 100% (set interim rate at 100% in SDA analysis)
 - 4 have admin +capital > costs (set interim rate at 0% in SDA analysis)
 - 9 have capital = \$0
 - 6 have inpatient costs > total costs (set IP % of total at 100% in SDA analysis)
 - 236 of these TPIs are excluded from the SDA analysis
 - 218 are psych, children's, military, or out of state hospitals
 - 18 are not found in the SFY 2004 or SFY 2005 actual SDA files

- 418 TPIs are in the Hospital Name and Region Excel File (SFY06 active Medicaid providers)
 - 361 of these TPIs are included in the rebasing analysis
 - 57 of these TPIs are excluded from the rebasing analysis
 - 4 are not found in the SFY 2004 Blue Ribbon Database
 - 41 are psych, children's, military, or out of state hospitals
 - 12 are not found in the SFY 2004 or SFY 2005 actual SDA files

DETAILED METHODOLOGY

The following are the steps that were used to complete the rebasing analysis.

STEP 1: Calculate Statewide DRG Weights

- Calculate the TEFRA Paid per Admission by DRG
 - From 2004 Blue Ribbon database and interim rates (cost to charge) from TMHP
- Calculate statewide DRG weights for DRGs with ten or more admissions
 - $\text{DRG Weight} = \text{Cost Per Admit for each DRG} / \text{Cost Per Admit across all DRGs}$
 - DRG weights were calculated when there was 10+ admissions for the DRG (included all organ transplant admissions)
 - Consistent with Texas Administrative Code 355.8063(c)
- Use CMS weights when less than 10 admissions
 - When a DRG had less than 10 admissions (excluding organ transplants) then the 2004 CMS DRG weight was used as a default
- Normalize DRG weights for the State to a 1.000
 - Adjusted the non-CMS weights uniformly so that the DRG weights average out to a 1.000 for the entire state

STEP 2: Rebase the SDA using 2004 data

- Calculate TEFRA Insurance Paid for each Claim
 - $\text{TEFRA Cost} = \text{TEFRA Allowed} \times \text{IP Interim Rate (from TMHP)}$
 - IP interim rate is the cost to charge ratio
 - $\text{TEFRA Paid} = \max\{0, \text{TEFRA Cost} - \text{Other Insurance Paid}\}$

- TEFRA Insurance Paid = TEFRA Paid + Other Insurance Paid
- Calculate Average Cost per Stay by Hospital
 - Average Cost per Stay = TEFRA Insurance Paid / Stays
- Calculate Case Mix Index by Hospital
 - Case Mix Index = Regional DRG Weight / Stays
- Calculate Initial SDA by Hospital
 - Initial SDA = Average Cost per Stay / Case Mix Index
- Calculate Adjusted SDA by Hospital
 - Adjusted SDA = Initial SDA x Year 3 & 4 inflation = Initial SDA x 1.000 x 1.000

Model allows for adjustments to inflation