

**An Analysis of the Impacts of a DRG-Specific Price  
Blending Option for Medicare's  
Prospective Payment System**

**December 20, 1984**

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This analysis does not constitute an official Congressional Budget Office (CBO) document as it has not been reviewed by the Director, CBO. Questions concerning the analysis should be directed to Steven Sheingold (226-2663).

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## SUMMARY

Under current law, the prospective payment system (PPS) for reimbursing hospitals under Medicare will be fully implemented in fiscal year 1987. National payment rates will be set in advance for 468 Diagnosis Related Groups (DRGs). These rates will also vary by urban and rural location, area wage levels, and hospitals' teaching activity. There is concern that even after these adjustments are made, costs within some or all DRGs will vary considerably because of many factors beyond the hospitals' control--such as differences in input prices among locations, differences in severity of illness among patients, and differences in the level of care for indigent patients. For these reasons, it has been proposed that at least in the short run, payment rates be a blend of national prices and hospital-specific prices which would depend on the variation in costs within each DRG.

Relative to the cost-based reimbursement system under prior law, a fully implemented DRG system would result in a wide range of gains and losses. Small hospitals (those with less than 50 beds) and teaching hospitals--particularly those with a high ratio of interns and residents to beds--would have the largest gains under the fully implemented system. The DRG-based system with national prices would change the distribution of Medicare reimbursements among geographic regions; the Northeast and South would gain while the North Central and West regions would receive reduced reimbursements overall. Finally, rural hospitals would not do as well under the system, on average, as would urban hospitals.

The effect of blending payments rates on a DRG-specific basis would be to base nearly three-quarters of Medicare reimbursements on hospital-specific rates and one-quarter on the national DRG rate. As a result, the range of gains and losses that would occur under a fully implemented DRG system relative to prior law would be narrowed considerably. While relative to prior law more hospitals would receive increased reimbursements than under the fully implemented system, the average impacts--both gains and losses--would be substantially smaller in magnitude.

The results presented in this analysis--particularly with regard to gains and losses (or surpluses and deficits)--should be interpreted very carefully, however. These terms represent estimated differences in Medicare reimbursements to hospitals that would occur between two different prospective payment schemes and what costs would have been if hospitals continued to operate in the same manner as under prior law. These terms do not represent actual financial gains and losses, however, because the model used to simulate payments does not yet include adjustments that hospitals appear to be making to the DRG system--substantially reduced average length of stay for Medicare patients, for example. That is, a reduction in reimbursements under a fully implemented DRG system relative to prior law might be either partially or more than offset by reductions in actual cost per case incurred by the hospitals.

## BACKGROUND

The Social Security Amendments of 1983 established a prospective payment system (PPS) for reimbursing hospitals under Medicare that provides them with strong incentives to reduce costs. Under the new system, payment rates are set in advance for each of 468 diagnostic categories, known as diagnosis related groups (DRGs). Hospitals must make up the deficit if their costs exceed the fixed DRG payments and may retain the surplus if their costs are lower. The program is designed to phase-in over a three-year period (fiscal years 1984-1986), during which prices will be based in part on prospective hospital-specific rates, in part on 18 regional rates (separate urban and rural rates for each of nine Census regions), and in part on a single national urban or national rural rate. The final system will have only national urban and rural rates. Payment rates to individual hospitals will continue to vary by area wage levels, however, and by the sizes of the hospitals' teaching programs, if any.

Many are concerned that costs per Medicare discharge vary widely within each DRG--even after being "standardized" for differences in urban/rural location, wage levels, and teaching status--and that much of this variation is due to factors beyond the hospitals' control rather than differences in their efficiency. They argue, therefore, that when the system is fully implemented there will be a significant and unfair redistribution of Medicare reimbursements from relatively high cost hospitals to low cost hospitals. While some hospitals will receive large gains under the final system, others will face substantial deficits. Of particular concern are differences in standardized costs:

- o Among locations such as geographic regions and between central cities and other urban areas;
- o For hospitals that serve a disproportionate share of low-income patients; and
- o For hospitals that might systematically treat the most severe and therefore the most costly cases within a DRG.

In addition, there is concern that the DRG weights, which in conjunction with the national average cost per Medicare discharge, determine payment rates, do not accurately reflect differences in resource use among the diagnosis related groups.

There are several reasons that standardized costs per discharge may vary among locations. For example, differences among regions may be due to variation in average length of hospital stay, in other patterns of physician practice, and in consumer tastes. In addition, although costs are standardized for local wage levels, they are not adjusted for price variations in other inputs (food and electricity, for example), which also can vary considerably among locations. Moreover, the index used to adjust for differences in wage levels among areas does not reflect any difference within an area--between the central city and outlying areas of a Metropolitan Statistical Area (MSA), for example.

The standardized cost per Medicare discharge might be higher than average in hospitals serving a disproportionate share of low-income patients for a number of reasons. For one, many claim that low-income patients tend to require more care than other patients within a DRG, both because they often appear for care later in the disease process and because they are more likely to have medical complications and secondary diagnoses. Moreover, there tend to be fewer alternative locations for care (such as in the home) to shorten the period of inpatient convalescence. If these factors lead to increased financial pressure on certain hospitals when the DRG system is fully implemented, their ability to treat low-income patients--particularly by providing uncompensated care--may be reduced.

In addition, there is concern that hospitals that serve the most resource intensive patients within a DRG will be penalized under a system based on national average rates. Some of the variation in the cost of a Medicare discharge is likely due to differences in the severity of illness that are not completely accounted for by the DRG classifications. That is, cases assigned to the same DRG may vary considerably in resource consumption. This problem is compounded, if the care of the most severely ill patients within all or some DRGs is concentrated in particular types of hospitals--public hospitals, teaching hospitals, or hospitals that provide a wide range of special care services, for example.

Finally, calculated DRG weights may be "compressed"--that is, weights for the most costly DRGs may be underestimated while weights for the least resource intensive DRGs may be overestimated. To the extent this occurs, hospitals that treat a high proportion of cases in the more costly DRGs (hospitals with a relatively high case mix index) may be adversely affected by national average payments. This may be especially true of hospitals that provide a wide range of surgical and special care services.

For all these reasons, a number of alternatives to the current phase-in of the national DRG rates have been suggested. One option would be to stop the phase-in at some point so that payment rates would continue--at least in the short-run--to be based on a combination of national, regional, and hospital-specific prices. Another proposal is to blend national and hospital-specific prices on a DRG-specific basis. This proposal, developed by the American Hospital Association (AHA), is described in the remainder of this section.

Under a DRG-specific price blending approach, each DRG payment rate would be either the national average rate, or the hospital-specific rate, or some percentage combination (or blend) of the two. The exact blend would depend on how widely or how narrowly the cost per discharge within the specific DRG is clustered around that DRG's average standardized cost per case. If the distribution were narrow, the blended price would be weighted more heavily toward the national rate. If costs within a DRG varied widely, the rate would be based on a higher percentage of the hospital-specific price and a lower percentage of the national rate. Specifically, the actual blend (or the two percentages that add to 100) could be set according to the coefficient of variation (COV) which is one measure of variability or of dispersion

among values of a particular variable, such as costs per case.<sup>1</sup> DRGs with relatively high values of the COV are more widely dispersed meaning that a smaller percentage of patients would have costs close to the national average cost than in a DRG with a lower COV.<sup>2</sup> An additional feature of this plan would be that the national component of the blended price would be a single rate rather than the current urban/rural distinction.

The rationale for the DRG-specific price blending proposal is that a national average rate (or a blended price heavily weighted to reflect this rate) is more appropriate for some DRGs than others because the distribution of their costs varies less widely. That is, if the distribution of costs within a DRG is narrow, a larger proportion of the variation may be due to factors that hospitals could control--such as efficiency. When the distribution varies widely, on the other hand, much of the variation may be attributable to factors beyond the hospitals' control. In this case, a national rate could result in large bonuses for some hospitals and large penalties for others that were not related to the goals underlying adoption of the prospective payment system.

#### METHODOLOGY FOR ASSESSING THE IMPACT OF DRG-SPECIFIC PRICE BLENDING

The impact of the DRG-specific price blending proposal on the distribution of Medicare reimbursements was compared both to prior law and to current law. Payments to hospitals were simulated under a fully-implemented DRG system, a system based on hospital-specific costs that serves as a proxy for prior law, and a system based on the price blending proposal.

Hospital reimbursements under the DRG system were simulated by modelling the Department of Health and Human Services' published regulations for determining payments. In order to be consistent with a fully implemented system, each hospital's payment was estimated by applying national DRG prices--separately determined for urban and rural areas. In addition, payments for outlier cases were simulated and allocated to the appropriate hospitals, as were payments for indirect medical education costs.

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1. The coefficient of variation is the standard deviation of a distribution divided by the distribution's mean.
  2. For example, consider two hypothetical DRGs that both have an average standardized cost per case of \$2,000 but DRG1 has a COV of 0.25 while DRG2 has a COV of 1.0. In DRG1, approximately 70 percent of patients would have costs within 25 percent above or below the average cost (\$1,500 to \$2,500). In DRG2, however, only 20 percent of patients' standardized costs would be contained in this range.

One alternative system was based on fully hospital-specific rates that reflect individual hospitals' costs but that would yield the same aggregate hospital revenues—that is, would be budget neutral for the federal government. This system serves as a proxy for what reimbursements would have been under prior laws.<sup>3</sup> Hospital-specific payments were estimated by projecting forward each hospital's 1981 operating cost per Medicare case. The projections were based on actual rates of growth for the historical period and the Health Care Financing Administration's target growth rates for the hospital-specific component of DRG payments.

Finally, reimbursements to hospitals under the DRG-specific price blending proposal—which were also structured to be budget neutral—were simulated by combining the national DRG rate and the hospital specific rate according to the COV for each DRG. Specifically, the percentage of the blended price that was based on the hospital-specific rate was equal to the COV, with the remaining percentage based on the national average rate. For example, the blended price for a DRG whose COV was 0.25 would be based 25 percent on the hospital specific rate, and 75 percent on the national rate.<sup>4</sup> Prices for DRGs whose COVs were 1.0 or greater were based only on the hospital specific rate.<sup>5</sup> In addition, payments for outlier cases and indirect medical education costs were allocated to hospitals in proportion to the amount of their overall reimbursement which was based on the national rate. For example, if 50 percent of a given hospital's payment were based on the national average rate, it would be allocated one-half of the outlier and indirect medical education payments it would have received under the fully implemented DRG system.

The differences in reimbursements under the various systems were examined for different groups of hospitals—based on number of beds, location, teaching status, and types of ownership. These analyses were completed both for all hospitals participating

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3. An alternative method would have been to estimate hospital payments under the reimbursement limits of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). This was not done for two reasons, however. For one, the appropriate data were not available for estimating individual hospitals' experience under TEFRA's limits for growth in reimbursements per discharge. In addition, these growth limits were to have expired in fiscal year 1987—the first year of the fully-implemented PPS. Therefore, it was assumed that in the absence of a PPS based on national DRG rates, hospitals would have continued to be reimbursed on the basis of hospital-specific costs, but with year-to-year growth from 1987 on limited to be the same as would occur under the PPS.
  4. The coefficients of variation used for the price blending were calculated after removing outlier cases—that is, atypical cases whose length of stay or costs were extraordinarily high when compared to most costs within a DRG.
  5. This method is only one alternative for blending national and hospital-specific prices by using the COV. At present, a specific proposal has not been formulated.

in the PPS system and for those that serve a relatively high proportion of low-income patients. The latter group was defined as hospitals with more than 20 percent of total inpatient days accounted for by Medicaid patients.<sup>6</sup> This variable was chosen to represent a disproportionate share of low-income patients for two reasons: it directly represents some low-income patients (those eligible for Medicaid) and it has been found to be positively associated with the level of uncompensated care provided by the hospital--thereby also serving as a proxy for indigent care provided to those not eligible for Medicaid. On the other hand, this variable may not represent the share of low-income patients equally well in different geographic areas because Medicaid eligibility rules vary substantially across states. Ongoing work will enable us to measure the amount of uncompensated care directly in future analyses.

These results--particularly with regard to surpluses and deficits--should be interpreted carefully for several reasons. The simulated impacts are those that would occur under a fully implemented DRG system, or under a system based on DRG-specific price blending, in which hospitals continued to operate in the same manner as under the prior reimbursement system. The analysis does not account for any adjustments that hospitals might make in response to PPS--reducing service intensity or length of stay, for example. There is preliminary evidence, however, that such adjustments are already occurring. In addition, as a result of PPS, other variables such as hospitals' case mix might change in ways that would alter the distribution of payments. Therefore, rather than indicating the long-run effects of PPS, the impacts of deficits presented in this section show which types of hospitals would need to make the largest adjustments, or who would be most affected by particular features of the system.

#### ESTIMATED IMPACTS OF CURRENT LAW AND OF THE DRG-SPECIFIC PRICE BLENDING PROPOSAL

The impacts of alternative reimbursement systems on various groups of hospitals are summarized on Tables 1 through 3. For comparison, the section first summarizes what the impacts of the DRG-based system--if fully implemented as planned under current law--would be relative to prior law. It then turns to a comparison of the DRG-specific price blending proposal with both prior law and the fully implemented DRG system. Throughout this analysis, a hospital is called a "surplus" hospital under a particular system relative to another if reimbursements would be higher, and a "deficit" hospital relative to the other system if reimbursements would be lower. For example, under price blending, a hospital might receive a surplus relative to a system based on hospital-specific costs, but experience a deficit relative to the fully implemented DRG system.

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6. On average, 11 percent of total inpatient days were accounted for by Medicaid patients.

**TABLE 1. ESTIMATED AVERAGE SURPLUSES (+) AND DEFICITS (-), BY TYPE OF HOSPITAL, UNDER A FULLY IMPLEMENTED PPS SYSTEM AND UNDER A DRG-SPECIFIC PRICE BLENDING SYSTEM**

	For all Hospitals			For Hospitals Serving a Disproportionate Share of Low-Income Patients <sup>a</sup>		
	Fully Implemented DRG System Relative to Prior Law <sup>b</sup>	DRG-Specific Price Blending Relative to Prior Law <sup>c</sup>	DRG-Specific Price Blending Relative to a Fully Implemented DRG System <sup>d</sup>	Fully Implemented DRG System Relative to Prior Law <sup>b</sup>	DRG-Specific Price Blending Relative to Prior Law <sup>c</sup>	DRG-Specific Price Blending Relative to a Fully Implemented DRG System <sup>d</sup>
All Hospitals	0	0	0	-3	-1	+2
Number of Beds						
Less than 50	+14	+8	-5	+11	+7	-4
50-99	+2	+3	+1	+7	+3	-3
100-299	-2	0	+2	-5	-2	+3
300+	0	-1	-1	-6	-2	+4
MSA						
Urban	+1	-1	-2	-4	-2	+2
Rural	-4	+3	+8	+2	+4	+2
Region						
Northeast	+5	+1	-4	+2	0	-2
North Central	-4	-1	+3	-9	-2	+7
South	+4	+1	-3	+4	-2	-2
West	-2	-1	+1	-1	-1	0
Teaching Status						
Major teaching <sup>e</sup>	+9	+1	-7	-2	-2	0
Minor teaching	-1	-1	0	-6	-3	+3
Nonteaching	-1	0	+1	-1	+1	+2
Ownership						
Church	-2	-1	+1	-6	-2	+4
Government	+4	+2	-2	+3	+1	-2
Proprietary	-2	-1	0	-14	-3	+12
Other nonprofit	-2	0	+2	-4	-1	+3

Footnotes continued



Table 1 footnotes.

- a. Includes hospitals for which the ratio of Medicaid inpatient days to total inpatient days exceed 0.20.
- b. For each group of hospitals, the average surplus or deficit is the percent difference between total reimbursements under the fully implemented DRG system and a system based on hospital-specific costs. See text for details.
- c. For each group of hospitals, the average surplus or deficit is the percent difference between total reimbursements under a system based on DRG-specific price blending and one based exclusively on hospital-specific costs. See text for details.
- d. For each group of hospitals, the average surplus or deficit is the percent difference between total reimbursements under a system based on DRG-specific price blending and one based on the fully implemented DRG system. See text for details.
- e. Hospitals with a ratio of interns and residents to beds of greater than 0.25.

### Results for Hospitals Under the Fully Implemented DRG System Relative to Prior Law

Under the fully implemented DRG system, surpluses and deficits would vary considerably among different types of hospitals. In particular, important factors are teaching status, number of beds, geographic location, and hospital ownership.

Reimbursements to hospitals with large teaching programs would grow substantially under the PPS. Major teaching hospitals--those whose ratio of full-time equivalent interns and residents to the number of beds is greater than 0.25--would, on average, receive surpluses of 9 percent relative to prior law (see the first column of Table 1). Moreover, three-fifths of major teaching hospitals would receive surpluses averaging 29 percent compared to an average loss of 15 percent for the 40 percent that would experience deficits under the system (see Table 2). These gains would primarily result from the adjustments made to the DRG-rates to reimburse hospitals for indirect teaching costs.<sup>7</sup> If this adjustment was reduced by half, to the level previously used to adjust Section 223 limits under TEFRA, major teaching hospitals would experience average deficits of nearly 6 percent.

Small hospitals would experience the largest surpluses under the fully implemented system. Hospitals with less than 50 beds would gain an average of 14 percent under the system relative to prior law. Moreover, 70 percent of hospitals in this group would receive bonuses--averaging 31 percent. Hospitals of medium size (100-299 beds) would do slightly worse than the largest hospitals, mostly because they would receive (relatively) less from the indirect teaching adjustment.

There would also be important differences in surpluses and deficits by region and whether the hospital was located in an urban or rural area. On average, hospitals in the Northeast and South would gain under a national DRG system while those in the Central and Western regions would experience deficits. Rural hospitals--which would experience deficits averaging 4 percent nationwide--would also receive reduced reimbursements within each of these four regions. While the distribution of hospitals that would gain and lose is similar between urban and rural areas, 90 percent of the rural hospitals that would gain are those that have less than 100 beds and account for only a small proportion of Medicare reimbursements. In contrast, only 30 percent of urban hospitals that would gain are those with less than 100 beds.

Finally, hospitals that serve a disproportionate share of low-income patients would do worse under the fully implemented PPS than would other hospitals. Hospitals with at least 20 percent of inpatient days accounted for by Medicaid patients would experience an average deficit of 3 percent under the PPS system relative to prior law, as shown in Table 2. Within almost every hospital group, gains would be diminished or losses increased for these hospitals relative to hospitals serving fewer low-income

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7. Under current law, hospitals receive an additional 11.59 percent for each increment above zero of 0.1 to their ratio of the number of interns and residents to the number of beds.

TABLE 2. ESTIMATED AVERAGE SURPLUSES (+) AND DEFICITS (-) BY TYPE OF HOSPITAL, SEPARATED BY THOSE THAT WOULD RECEIVE SURPLUSES AND THOSE THAT WOULD RECEIVE DEFICITS, UNDER A FULLY-IMPLEMENTED, DRG-BASED PAYMENT SYSTEM, RELATIVE TO PRIOR LAW AND FOR A DRG-SPECIFIC PRICE BLENDING SYSTEM RELATIVE TO PRIOR LAW

	For a Fully Implemented DRG System Relative to Prior Law			For a System Based On DRG-Specific Price Blending Relative to Prior Law			For a System Based on DRG- Specific Price Blending Relative to a Fully Implemented DRG System		
	Percent Surplus Hospitals	Average Effect For Surplus Hospitals	For Deficit Hospitals	Percent Surplus Hospitals	Average Effect For Surplus Hospitals	For Deficit Hospitals	Percent Surplus Hospitals	Average Effect For Surplus Hospitals	For Deficit Hospitals
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Hospitals	55	+17	-14	67	+5	-4	50	+13	-11
Number of Beds									
Less than 50	71	+31	-14	90	+10	-3	38	+15	-17
50-99	55	+21	-16	75	+6	-4	53	+15	-13
100-299	44	+17	-14	52	+5	-4	59	+14	-12
300+	51	+15	-13	43	+4	-4	46	+12	-10
MSA									
Urban	57	+17	-14	50	+4	-4	40	+12	-11
Rural	54	+17	-15	83	+6	-3	59	+15	-10
Region									
Northeast	64	+14	-10	66	+4	-3	40	+8	-10
North Central	49	+15	-15	65	+4	-4	56	+14	-10
South	62	+19	-13	73	+5	-3	45	+12	-12
West	51	+18	-15	60	+5	-4	53	+13	-11
Teaching Status									
Major teaching <sup>a</sup>	61	+29	-15	57	+7	-5	9	+13	-17
Minor teaching	50	+14	-14	43	+4	-4	48	+12	-9
Nonteaching	56	+17	-15	71	+5	-4	51	+13	-11
Ownership									
Church	48	+15	-14	51	+4	-4	54	+12	-10
Government	63	+21	-14	82	+6	-4	45	+13	-13
Proprietary	48	+16	-16	51	+5	-4	55	+14	-11
Other	54	+16	-14	65	+4	-4	50	+13	-11

SOURCE: CBO estimates based on Medicare cost-reports for 1981 and MEDPAR file for 1981.

a. Hospitals with a ratio of interns and residence to beds of greater than 0.25.

patients. While major teaching hospitals, on average, would receive increases under PPS, those that serve a large number of low-income individuals would face deficits. In addition, proprietary hospitals and large hospitals (more than 300 beds) that serve a large share of low-income patients would do substantially worse than other hospitals in these groups.

The adverse effect of serving a disproportionate share of low-income patients is concentrated among urban hospitals. On average, urban hospitals serving a large share of low-income patients would receive 4 percent less under the PPS, compared with a 1 percent increase for similar rural hospitals. The main reason that rural hospitals with a large proportion of Medicaid patients would gain compared with the prior reimbursement system is that they are mostly small hospitals--that would gain substantially under PPS regardless of patient mix.

#### Results for Hospitals Under the DRG-Specific Price Blending Proposal Relative to Both Prior Law and Current Law

On average, 26 percent of Medicare reimbursements would be based on the national average rate under this particular proposal, with the remaining 74 percent reflecting hospitals-specific rates. The blend would vary considerably by DRG, however (see Table 3). For example, 13.5 percent of the DRGs have COV's less than 0.5, so more than 50 percent of their blended price would be based on the national rate. Only 5 percent of the DRGs would have their prices based only on the hospital-specific rate.<sup>8</sup> It is also interesting to note that surgical DRGs tend to have less variable costs than non-surgical cases, the former having an average COV of 0.55 relative to 0.70 for the latter.

The primary effect of the DRG-specific price blending proposal on hospitals' reimbursements would be to narrow substantially the range of surpluses and deficits that could occur under the fully implemented DRG system relative to prior law. Under a fully implemented DRG system, 55 percent of hospitals would gain an average of 17 percent relative to prior law while the other 45 percent would experience average deficits of 14 percent (see table 2, columns 1-3). On the other hand, under the price blending proposal compared with prior law, 67 percent of hospitals would receive surpluses and 33 percent experience deficits. Moreover, average surpluses and deficits would be considerably smaller than under a fully implemented DRG system--5 percent and 4 percent respectively. The major reason for this narrowing of impacts relative to prior law is that nearly three-quarters of reimbursements would be based on hospital-specific rates.

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8. In contrast, if outliers had been included in calculating the COVs, 66 percent would have prices based only the hospital-specific rate.

**TABLE 3. FREQUENCY DISTRIBUTION (In Percent) AND AVERAGES  
VALUES FOR THE COEFFICIENT OF VARIATION AMONG  
DRGs, CALCULATED WITH AND WITHOUT OUTLIER CASES<sup>a</sup>**

Coefficient of Variation	With Outliers	Without Outliers
Less than 0.5	--	13.5
0.5 - 0.6	2.6	14.5
0.6 - 0.7	4.1	17.9
0.7 - 0.8	6.2	28.2
0.8 - 0.9	9.5	15.8
0.9 - 1.0	11.3	5.2
More than 1.0	66.1	4.9
Average Coefficient of Variation for All DRGs	0.99	0.64
Average Coefficient of Variation for Surgical DRGs	0.88	0.55
Average Coefficient of Variation for Medical DRGs	1.07	0.70

- a. Outliers are atypical cases that have either extremely long length of stay or extraordinarily high costs when compared to most discharges classified within the same DRG.

When compared directly, 50 percent of hospitals would receive increased reimbursements under price blending relative to the fully implemented DRG system (see Table 2, column 7). It is important to note that some hospitals that would gain under price blending relative to the fully implemented DRG system would still experience reductions in reimbursements--although smaller reductions--relative to what they would have received under the prior cost-based system. Conversely, some hospitals that would receive less reimbursements under price blending than under a fully implemented system would continue to experience surpluses relative to prior law.

Those who would lose the most, on average, from substituting a blended price for a national average rate are the smallest hospitals and the major teaching hospitals. A majority of hospitals with less than 50 beds would receive lower reimbursements under the price blending proposal than under the fully implemented DRG system--only 38 percent would have increased reimbursements (see Table 2, column 7). Although a greater number of these hospitals would experience surpluses under price blending relative to prior law--90 percent as opposed to 71 percent under the fully implemented DRG system--the average surplus would decline to 10 percent from 31 percent (as also shown in Table 2). The average deficit compared to prior law for hospitals with less than 50 beds would shrink as well, from 14 percent under a fully implemented DRG system to 3 percent under the price blending proposal. Over 90 percent of the major teaching hospitals would have their reimbursements reduced under the price blending proposal relative to the fully implemented DRG system. Compared with prior law, about the same percentage of these hospitals would gain (61 percent under the fully implemented system and 57 percent under price blending) but average surpluses would be substantially reduced--from 29 percent to 7 percent. The major reason for this reduction is that the payments for indirect teaching costs would be in proportion to the amount of the reimbursement based on the national rate which would fall substantially.

On average, rural hospitals would gain substantially under the price blending proposal. Nearly three-fifths (59 percent) of rural hospitals would gain an average of 15 percent relative to what they would have received under the fully implemented DRG system. Moreover, 83 percent of rural hospitals would experience surpluses under price blending relative to prior law in contrast to 54 percent under the fully implemented DRG system. These hospitals would benefit not only from having a large part of their reimbursement based on hospital-specific costs, but also from basing the DRG portion of the payment on a single national rate rather than on two national rates--one for urban and one for rural hospitals--as under the DRG system.

Finally, hospitals serving a disproportionate share of low-income patients--although still experiencing deficits on average--would gain under price blending relative to a fully implemented DRG system. Among these hospitals, those that are church-owned, those that are proprietary, and those that are large (more than 300 beds) would experience the greatest gains (see Table 1). Government-owned hospitals serving a disproportionate share of low-income patients would receive lower reimbursements than under current law, mostly due to the reduced payments for indirect teaching costs.

### The Impact of Price Blending on the Growth in Hospital Reimbursements

Although DRG-specific price blending would have a considerable impact on the distribution of hospital reimbursements under Medicare relative to a fully implemented DRG system, it would probably not have a substantial long-run impact on the growth in aggregate reimbursements. The majority of savings from prospective payment result from overall limits placed on the rate of growth of the average payment rate each year by the Secretary of the Department of Health and Human Services (HHS), rather than from any redistribution of payments among hospitals.

There may be some secondary effects of redistributing reimbursement from higher-cost to lower-cost hospitals, however, that would allow for slightly smaller rates of growth in prices in the future. To the extent that variation in costs is related to differences in efficiency among hospitals, the potential surpluses and deficits that result from a national average DRG rate provide incentives for hospitals to reduce their costs--by combining inputs in a less expensive manner, for example. If such changes occur, future rate increases might be slowed without causing hardship for hospitals. Moreover, if hospitals respond by attempting to reduce the rate of growth in wages for their employees and prices for other inputs, the rate of growth in the hospital input index (called the market basket), which is used as a guide for rate increases by the Secretary of HHS, might also be reduced. If price blending eliminated some of these incentives, the Secretary of HHS might increase future prospective payment rates at a slightly faster rate.

On the other hand, to the extent that variation in costs is due to factors beyond the hospitals' control, any reduction in incentives for cutting costs might be balanced by other positive effects of price-blending. For one, this approach would reduce the large deficits particular hospitals would likely face under a fully implemented DRG system, possibly preventing some undesirable and unintended consequences of prospective payment. In particular, hard pressed hospitals might try to avoid treating the most severely ill patients or reduce the amount of uncompensated care they provide. Moreover, some services--such as high-cost beneficial advances in technology--might not be made available to Medicare patients. Finally, hard pressed hospitals might attempt to raise revenue by increasing admissions and readmissions, and by increasing charges to non-Medicare patients.