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MEDICARE HOSPITAL PAYMENTS

Refinements Needed to Better Account for Geographic Differences in Wages

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Abbreviations

BBRA	Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999
BIPA	Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000
CMS	Centers for Medicare & Medicaid Services
DRG	diagnosis-related group
HCFA	Health Care Financing Administration
MGCRB	Medicare Geographic Classification Review Board
MSA	metropolitan statistical area
OBRA	Omnibus Budget Reconciliation Act
OMB	Office of Management and Budget
PPS	prospective payment system
RN	registered nurse
RRC	rural referral center
RUCA	rural urban commuting area
SCH	sole community hospital
SCHIP	State Children's Health Insurance Program

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Congressional Committees

The Medicare program's prospective payment system (PPS) for inpatient hospital services provides incentives for hospitals to operate efficiently by paying them a predetermined, fixed amount for each inpatient hospital stay regardless of the actual costs incurred in providing the care. Although the fixed amount is based on national average costs, actual per stay payments vary widely across hospitals, primarily because of two payment adjustments in the PPS. One adjustment accounts for cost differences across patients due to their care needs and the other accounts for the substantial variation in labor costs across the country. The fixed amount is adjusted for these two sources of cost differences because they are largely beyond any individual hospital's ability to control.

The labor cost adjustment is based on a wage index calculated for specified geographic areas across the country. The wage index reflects how average hospital wages in each geographic area compare to average hospital wages nationally.[1] The geographic areas are intended to represent the separate labor markets in which hospitals compete for employees. Each metropolitan area, as defined by the Office of Management and Budget (OMB), is considered a single labor market, and all areas outside of metropolitan areas in each state are treated as a single labor market. All hospitals within a given geographic area receive the same labor cost adjustment. Thus, Medicare's payment to a hospital in an area with lower wages is below the national average payment and the payment to a hospital in a higher wage area is above the national average. In general, hospitals in nonmetropolitan areas have lower wages than those in metropolitan areas and therefore have a lower wage index and receive lower Medicare payments. Conversely, hospitals in metropolitan areas tend to pay higher wages than hospitals in nonmetropolitan areas and receive higher Medicare payments.

The labor cost adjustment has been criticized for failing to appropriately adjust payments to reflect the average wages that some hospitals pay. Some hospitals indicate that the wages they must pay are higher than the

[1]The hospital wage index reflects total employee compensation, including hospital spending for employee wages and benefits.

average wages in their assigned geographic area because they must compete for employees with hospitals in nearby, higher wage areas. To address these concerns, the Congress in 1989 established an administrative process for geographic reclassification, which allows hospitals that meet criteria concerning their average wages and proximity to a higher wage paying area to reclassify.[2] A reclassified hospital is paid based on the Medicare labor cost adjustment of the higher wage area. In addition, certain specially designated rural hospitals can reclassify to a higher wage area by meeting less stringent criteria. The Congress required that the reclassification policy be budget neutral, that is, not change total Medicare outlays, so the increased payments to reclassified hospitals are offset by an across-the-board reduction in payments to other hospitals.

In the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999 (BBRA),[3] the Congress directed us to evaluate Medicare's labor cost adjustment policies. In consultation with the committees of jurisdiction, we have examined (1) whether Medicare's labor cost adjustment accounts appropriately for geographic variation in average wages, (2) the extent to which reclassification addresses potential problems with Medicare's labor cost adjustment, and (3) the effect of the budget neutrality adjustment on hospitals that do not reclassify, including the impact of altering the budget neutrality adjustment so that payment increases to reclassified hospitals in a state would be funded by payment reductions to hospitals within the same state, rather than across all hospitals nationwide, as is done now.

To address these issues, we used 1997 Medicare hospital cost reports (the comprehensive financial document that hospitals submit annually to receive payment from Medicare) to analyze hospital wage data, because 1997 wage data were used to calculate the 2001 wage indexes.[4] We also analyzed more recent Medicare hospital cost report data, PPS Payment Impact Files, and wage data in California Hospital Annual Disclosure Reports submitted to the California Office of Statewide Health Planning and Development. We also interviewed officials at the Centers for

[2]Omnibus Budget Reconciliation Act of 1989, Pub. L. No. 101-239, sec. 6003(h), 103 Stat. 2106, 2154 (classified to 42 U.S.C. sec. 1395ww(d) (Supp. I 1989)).

[3]Pub. L. No. 106-113, Appendix F, sec. 410, 113 Stat. 1501A-321, 376.

[4]Annual numbers throughout this report refer to fiscal years unless otherwise noted.

Medicare & Medicaid Services (CMS);[5] the Medicare Geographic Classification Review Board (MGCRB), which reviews and approves reclassification applications; and representatives of some hospitals that have been reclassified. We did our work in accordance with generally accepted government auditing standards from January 2000 through September 2002. A detailed discussion of our scope and methodology is in appendix I.

Results in Brief

The Medicare program's labor cost adjustment may not adequately account for geographic differences in hospital wages because of problems with the definition of labor markets. The geographic areas used by Medicare to approximate hospital labor markets often encompass large areas in which hospitals in different parts of an area or different types of communities may pay widely varying wages. The patterns of wage variation indicate that some of the geographic areas combine multiple labor markets. Hospitals in some outlying counties of metropolitan areas pay average wages that are lower than the average wage paid in the entire area, yet the labor cost adjustment to their Medicare payments is based on the entire area's average and reflects the higher wages of hospitals in the central counties. In nonmetropolitan areas, hospitals in large towns (with populations of 10,000 to 49,999 people) typically pay higher wages than hospitals in small towns and rural communities. Yet, the labor cost adjustment for large town hospitals is based on the average wage of all nonmetropolitan hospitals in their state. As a result, Medicare's labor cost adjustment for large town hospitals often reflects a lower average wage than if the adjustment were based on the average wages they pay.

Geographic reclassification does not systematically address inadequacies in the way the Medicare program defines geographic areas, although it allows some, but not all, hospitals that may be in a distinct labor market and pay wages above the average in their area to receive a higher labor cost adjustment. Hospitals in large towns that pay wages that are so much higher than the average in their area that they satisfy the reclassification wage criterion are likelier than such higher wage hospitals in other community types to reclassify. This is because many hospitals in large towns are specially designated rural hospitals that can reclassify without

[5]On July 1, 2001, the agency that administers the Medicare program was renamed from the Health Care Financing Administration (HCFA) to CMS. This report refers to the agency as HCFA when discussing actions taken before the name change and as CMS when discussing actions taken after the name change.

satisfying the proximity criterion that they be near an area with a higher labor cost adjustment. Metropolitan hospitals with wages that are higher than their area average are less likely to reclassify because they must satisfy the proximity criterion and few are near another metropolitan area with a higher labor cost adjustment. Conversely, a number of hospitals reclassify, even though the wages they pay are not significantly higher than the average in their geographic area. Hospitals that reclassify without satisfying the wage criterion receive a labor cost adjustment that is based on average wages that are higher than what they actually pay. Reclassified hospitals that satisfy the wage criterion tend to receive a labor cost adjustment that more closely reflects the wages they actually pay than their labor cost adjustment prior to reclassification.

Geographic reclassification reduces payments to hospitals that do not reclassify because of the budget neutrality requirement, and the amount of this reduction would vary across hospitals under a state-specific budget neutrality approach depending on their location. In 2002, payments to metropolitan hospitals that were not reclassified were about 1 percent lower and payments to nonmetropolitan hospitals that were not reclassified were about 0.6 percent lower because of geographic reclassification. If the budget neutrality provision were calculated and applied within individual states instead of nationally, the adjustment would be smaller in those states in which hospitals did not benefit much from reclassification and higher in states where a higher proportion of hospitals reclassified. For example, our analysis indicates that a state-specific adjustment in 2000 would have reduced payments to hospitals that did not reclassify by almost 3 percent in New Hampshire, where 4 out of its 26 hospitals reclassified, and hospitals in Nevada would not have had their payments changed because no hospitals in that state reclassified.

We recommend that the Administrator of CMS improve the adequacy of the Medicare labor cost adjustment by refining the definitions of Medicare geographic areas to more accurately reflect hospital labor markets. In written comments to a draft of this report, CMS agreed that there are problems with Medicare's current definitions of geographic areas and it stated that there is no consensus on how to improve the definitions.

Background

Under the Medicare inpatient PPS, hospitals receive a fixed, predetermined payment for each hospital stay. The payment is based on standardized amounts that are calculated separately for hospitals in large metropolitan areas (with populations of 1 million or more) and for hospitals in smaller metropolitan and nonmetropolitan areas. The standardized amounts are the average cost of hospital stays for Medicare beneficiaries based on historical data and are updated annually for inflation.[6] For 2001, the standardized amount for hospitals in large metropolitan areas was $4,028 and for hospitals in other areas it was $3,965.

To determine a hospital's payment for a Medicare beneficiary's stay, the standardized amount is adjusted to account for variation in the cost of providing care to specific patients in specific locations. The labor cost adjustment accounts for geographic variation in hospitals' labor costs, because the wages hospitals must pay employees vary significantly by area.[7] The portion of the standardized amount (71 percent) that reflects labor-related expenses is multiplied by the area wage index. The remaining portion of the standardized amount (29 percent) is not adjusted.[8] This part of the payment—which covers drugs, medical supplies, utilities, and other nonlabor-related expenses—is uniform nationwide because prices for these items are not perceived as varying significantly from area to area. The case-mix adjustment accounts for differences in resource requirements across types of patients. It is based on the expected care needs of the patient as measured by the diagnosis-related group (DRG) patient classification system.[9]

[6]This discussion pertains to Medicare's payments for hospital operating costs; Medicare's payments for hospital capital costs are not included.

[7]For example, wages for registered nurses (RN) in Seattle were 18 percent above the national average in 1999, while wages for RNs in nonmetropolitan Alabama were 16 percent below the national average.

[8]Hospitals in Alaska and Hawaii also receive cost-of-living adjustments for the nonlabor portion of the standardized amount.

[9]There are approximately 500 DRGs, each of which is intended to distinguish patients with similar clinical conditions who receive similar treatments. Each DRG is assigned a relative weight, which compares its costliness to the average for all DRGs, and is used to adjust the standardized amount. For example, Medicare's payment to a hospital to treat a Medicare beneficiary with a respiratory infection with complications is nearly twice that for a beneficiary with a kidney and urinary tract infection with complications.

Additional payments are made under PPS to compensate hospitals for costs they incur in performing certain missions beyond caring for individual patients. Teaching hospitals receive additional payments from Medicare to account for costs associated with training medical residents. Hospitals that serve a disproportionate share of low-income Medicare and Medicaid patients also receive additional Medicare payments. The combination of all these adjustments and additional payments may result in widely varying per-stay payments across different types of hospitals or geographic areas.

Wage Index

The Medicare labor cost adjustment is based on a wage index that is computed for each of 324 metropolitan and 49 statewide nonmetropolitan areas using data that hospitals submit to Medicare.[10] The wage index for an area is the ratio of the average hourly hospital wage in the area compared to the national average hourly hospital wage. The average hourly wage is calculated for each area by aggregating Medicare-allowable wages for all the hospitals in the area and then dividing that sum by the corresponding staff hours. The area's average hourly wage is then divided by the national average hourly wage to produce the area's wage index.[11] For example, if the average hourly wage for all hospitals in a large metropolitan area was $22.59, the wage index for that large metropolitan area would be $22.59 divided by the national average hourly wage of $21.77, for a wage index of 1.04. The wage indexes ranged from roughly 0.74 to 1.5 in 2001.

As currently calculated, the wage indexes vary because of geographic differences in wages paid and also because of variation in the mix of higher- and lower- skilled workers employed in an area, termed occupational mix. An area's average hourly wage can be higher than the national average if hospitals in an area employ more highly skilled (and

[10]New Jersey, Rhode Island, and Washington, D.C. do not have any nonmetropolitan areas, and therefore do not have a statewide nonmetropolitan wage index. Numbers include Puerto Rico's six urban and one rural geographic areas.

[11]Calculations for the 2001 Medicare wage index were based on 1997 Medicare hospital cost report data. The fiscal intermediaries who contract with CMS to process Medicare claims review the wage data reported by hospitals on the cost reports. The fiscal intermediaries apply basic checks as directed by CMS, flagging any wage data that fall outside of specific parameters. When aberrant data are found, the fiscal intermediaries require hospitals to either provide documentation to support their reported wage data, or to correct inaccuracies. Among the 4 fiscal intermediaries we contacted, none tracked the frequency of aberrant data, but they did not perceive that inaccurate wage reporting by hospitals was a major problem.

thus more highly paid) workers and lower if an area's hospitals employ more lower- skilled workers than the national average.[12] When one area's hospitals have a larger proportion of more skilled, higher wage staff than another area, the former's wage index will be higher, even if wage rates in both areas for staff with the same skills, such as registered nurses, are identical. While geographic differences in wages paid affect a hospital's labor costs but are largely beyond an individual hospital's ability to control, the mix of occupations employed in a hospital reflects managerial decisions. The Congress, in the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA),[13] required the Secretary of Health and Human Services to collect data on hospitals' mix of employees and their corresponding wages and calculate wage indexes beginning October 1, 2004, that are adjusted for occupational mix. (For a more detailed discussion of the impact of occupational mix variation on the wage index, see app. II.)

Labor Market Areas

The Medicare program uses OMB's "metropolitan/nonmetropolitan" classification system to define its geographic areas for the labor cost adjustment. Each metropolitan statistical area (MSA) is defined as a metropolitan labor market and the residual area in each state is defined as a single, nonmetropolitan labor market.[14] The current geographic areas will most likely change when MSA boundaries are updated in 2003 with population data from the most recent decennial census and revised standards for selecting counties for inclusion in an MSA.[15]

[12]To the extent that certain hospitals hire more workers in higher-skilled occupations because they treat patients needing more complex care than other hospitals, the payment adjustment that reflects patient care needs, made through the DRG system, is intended to account for the resulting higher costs.

[13]Pub. L. No. 106-554, Appendix F, sec. 304, 114 Stat. 2763A-463, 494 (classified to 42 U.S.C. sec. 1395ww(d)(3)(E) (2000)).

[14]MSAs are groups of counties containing a core of at least 50,000 people, together with adjacent areas having a high degree of economic and social integration with that core. OMB defines the central county or counties of an MSA as those containing the largest city or urbanized area. An outlying county or counties qualify for inclusion in a metropolitan area based on the amount of commuting to the central counties and other specified measures of metropolitan character.

[15]New standards for whether to include an outlying county in an MSA will be applied to 2000 census data. Previously, the standards were based on population density in the outlying county and the amount of commuting to central counties. The new standards exclude population density as a criterion and apply a single standard of commuting levels.

Geographic Reclassification

The Omnibus Budget Reconciliation Act of 1989 established an administrative process for geographic reclassification, in which hospitals meeting certain criteria can apply to be paid for Medicare inpatient hospital services as if they were located in another geographic area. Once reclassified, hospitals receive the higher labor cost adjustment and, where applicable, the large urban standardized amount.[16]

To reclassify, a hospital must submit an application to the MGCRB, which determines if the hospital meets the reclassification criteria (see fig. 1). The two standard criteria that individual hospitals must meet to reclassify for a higher wage index are intended to identify hospitals that have higher average wages than other hospitals in their area because they are competing for labor with hospitals in a different nearby area. The first criterion concerns the hospital's proximity to the higher wage "target" area. The proximity requirement is satisfied if the hospital is within a specified number of miles of the target area or if at least half of the hospital's employees reside in the target area. The second criterion pertains to the hospital's wages relative to the average wages in the target area. The wage criterion is satisfied if the hospital's wages are a specified amount higher than the average in its assigned area and its wages are comparable to the average wages in the target area. Wage index reclassifications are effective for 3 years.[17]

[16]Initially, geographic reclassification only applied to hospital inpatient PPS payments. However, in establishing the PPS for hospital outpatient services, the Balanced Budget Act of 1997 directed the Secretary of Health and Human Services to develop a method of adjusting outpatient PPS payments to account for variation in wages (Pub. L. No. 105-33, sec. 4523, 111 Stat. 251, 445 (classified to 42 U.S.C. sec. 13951 (Supp. IV 1998))). The Secretary subsequently determined that outpatient PPS payments would be subject to the inpatient hospital labor cost adjustment, including the effects of geographic reclassifications. As a result, reclassified hospitals receive a higher labor cost adjustment to both inpatient and outpatient payments.

[17]A hospital may also reclassify to receive the higher standardized amount. It must satisfy the proximity criterion and its costs must be significantly greater than its current payment. This type of reclassification has declined and is not the focus of our analyses.

Figure 1: Geographic Reclassification Criteria, Wage Index Reclassification for Individual Hospitals

For an individual hospital to be reclassified for its wage index, it must meet the following criteria:

- Proximity criteria
  - An urban hospital can be no more than 15 miles, and a rural hospital no more than 35 miles, from the area to which it seeks reclassification, or
  - at least 50 percent of the hospital's employees reside in the target area.
- Wage criteria
  - An urban hospital's average hourly wage (based on the hospital's 3 most recent years of wage data) must be at least 108 percent of the average hourly wage of its home area and at least 84 percent of the area to which it seeks reclassification.
  - A rural hospital's average hourly wage (based on the hospital's 3 most recent years of wage data) must be at least 106 percent of the average hourly wage of its home area and at least 82 percent of the area to which it seeks reclassification.

Source: 42 CFR 412.230 (2001).

All hospitals in an urban county can reclassify as a group if together the hospitals meet certain criteria, as described in figure 2.

Figure 2: Geographic Reclassification Criteria for all Hospitals in an Urban County

For all hospitals in an urban county to be reclassified as a group for both the standardized amount and wage index, they must meet the following criteria:

- Adjacency criterion
  The county must be adjacent to the target MSA and the county must be in the same Consolidated Metropolitan Statistical Area as the target MSA.
- Cost criterion
  The group's average cost per stay, adjusted for its mix of patients, must be equal to or greater than its current average PPS payment plus 75 percent of the difference between that amount and the average amount it would receive if it were reclassified; and the group's average hourly wage must be at least 85 percent of the average wage in the target area.

Source: 42 CFR 412.234 (2001).

Rural referral centers (RRC) and sole community hospitals (SCH) can reclassify by meeting less stringent criteria. These hospitals receive special treatment from Medicare because of their role in preserving access to care for beneficiaries in specified areas. RRCs are relatively large rural

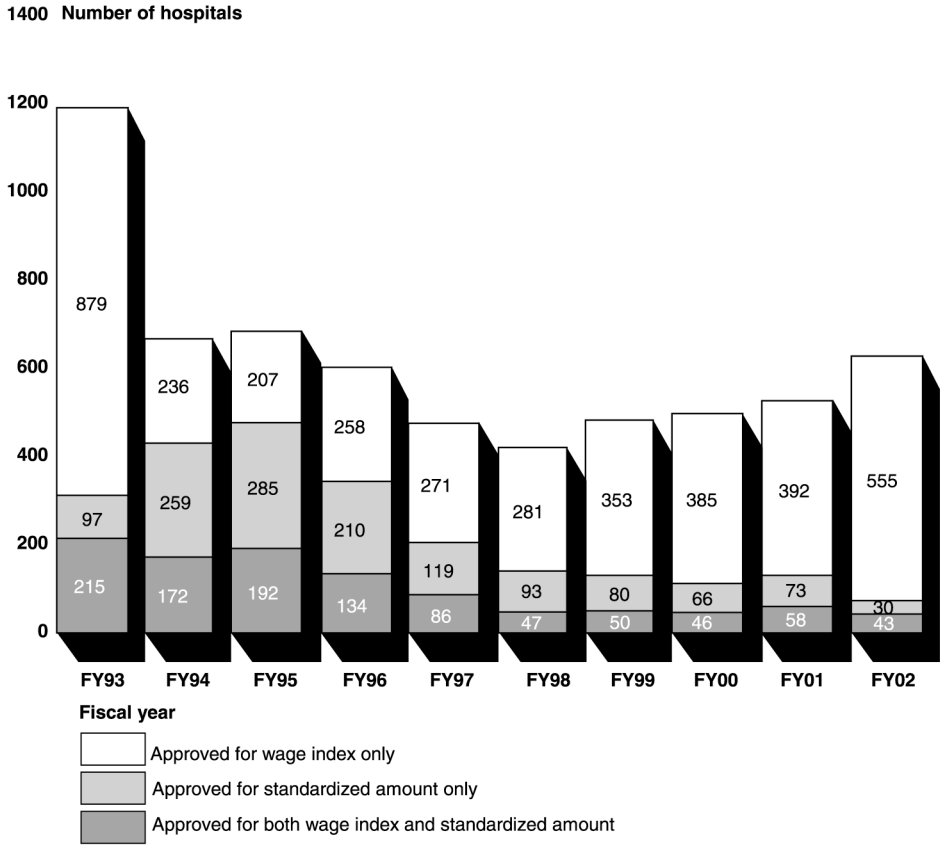
hospitals providing an array of services and treating patients from a wide geographic area. SCHs are small hospitals isolated from other hospitals by location, weather, or travel conditions.[18] RRCs and SCHs do not have to meet the proximity criteria to reclassify. RRCs are also exempt from the requirement that their wages be higher than the average wages in their original area. Hospitals that have lost their RRC designation can continue to reclassify under these less stringent criteria.

In 1992, the first year of reclassifications, 930 hospitals were reclassified under less restrictive criteria than those currently used. More than 75 percent of these hospitals were in nonmetropolitan areas. In the following year, almost 1,200 hospitals were reclassified (of which 69 percent were in nonmetropolitan areas). For 1994, HCFA established more restrictive criteria and the number of reclassified hospitals subsequently dropped by approximately 44 percent, to 667 (see fig. 3). From 1995 to 2002, wage index reclassifications became more predominant, increasing by an average of 6 percent annually, while standardized amount reclassifications fell by almost one-quarter. For 2002, 511 nonmetropolitan hospitals and 117 metropolitan hospitals were reclassified for Medicare payment purposes. Individual hospitals have also been reclassified through legislation. Recently, the BBRA reclassified all hospitals in 7 counties (this totaled 26 hospitals) for purposes of the wage index and the standardized amount.[19]

[18]SCHs may elect to be paid based on their own costs or the applicable PPS payment amount. SCHs electing payments under the PPS may qualify to be reclassified. See U.S. General Accounting Office, *Medicare's Rural Hospital Payment Policies*, GAO/HEHS-00-174R, (Washington, D.C.: Sept. 15, 2000) for more detail on rural hospital designations.

[19]Sec. 152, 113 Stat. 1501A-334. Under a statutory provision on the length of wage index reclassifications, these hospitals were effectively reclassified for a 3-year period. *See* BIPA, Sec. 304, 114 Stat. 2763A-494. Another example of legislatively reclassified hospitals is found in the so-called "Lugar hospital" designation, enacted in 1987. Certain rural counties are deemed urban if they are adjacent to urban areas and they conform to certain criteria based on residents' commuting patterns and population density as defined by OMB. *See* Omnibus Budget Reconciliation Act of 1987, Pub. L. No. 100-203, sec. 4005(a), 101 Stat. 1330, 1330-47 (classified to 42 U.S.C. sec. 1395 ww(d)(8) (1988)). Hospitals in these counties receive Medicare payments based on the standardized amount and the wage index of the adjacent urban area. The number of Lugar hospitals stayed relatively constant through 2001, with 27 hospitals in 22 counties affected by this provision. Updates to the criteria for determining metropolitan character resulted in an increase in the number of Lugar hospitals to 41 in 31 counties in 2002. As long as OMB deems the county urban, Lugar hospitals located in the county will continue to receive Medicare payments as urban hospitals.

Figure 3: Hospitals Reclassified for Medicare Payment, Fiscal Years 1993-2002



Source: PPS Payment Impact Files, fiscal years 1993-2002.

Medicare Labor Cost Adjustment Does Not Adequately Account for Wage Differences within Certain Areas

The geographic areas that Medicare uses for the labor cost adjustment include hospitals that pay wages that may be quite different from the average wage in the entire geographic area. Hospital wages within some Medicare geographic areas—either MSAs or states' nonmetropolitan areas—vary systematically across certain parts of the area or across types of communities. While wages paid by individual hospitals within a labor market may vary, the observed systematic variation suggests that some Medicare geographic areas include multiple labor markets. For example, the average wages of the hospitals in outlying counties of metropolitan areas usually are lower than the average wages for the entire metropolitan area's hospitals. As a result, the labor cost adjustment for hospitals in outlying counties of metropolitan areas is based on an average wage that is

often higher than the wages paid by these hospitals. In contrast, the average wages paid by hospitals in large towns (nonmetropolitan communities with between 10,000 and 49,999 people) tend to be significantly higher than the average wage of all hospitals in nonmetropolitan areas in the state.

Medicare Metropolitan Geographic Areas May Encompass Multiple Labor Markets with Varying Average Wages

Some MSAs are very large, encompassing a diverse mix of counties. Given the broad expanse of many large MSAs, the hospitals in the different parts of an MSA may not be directly competing with each other for the same pool of employees, and the wages they pay can vary greatly. The most populous MSAs typically cover a region of several thousand square miles (see table 1). Distances between points within an MSA can exceed 100 miles. For example, the Chicago MSA includes 8 counties and 5,065 square miles, and the distance from its northernmost to southernmost point is roughly 110 miles. Hospitals in central counties of an MSA typically paid higher wages than hospitals in outlying counties. In the most populous MSAs, average central county hospital wages ranged from 7 percent higher than outlying county wages in Houston to 38 percent higher in New York in 1997. In most of these MSAs, the average wage difference between central and outlying counties ranged from 11 to 18 percent.[20]

[20]See appendix III for a comparison of wages in outlying and central counties in metropolitan areas for all states.

Table 1: Hospital Wage Variation in the Most Populous Metropolitan Statistical Areas, Fiscal Year 1997

MSA	Counties	Square miles	Hospitals	Average hourly hospital wage within MSA			Range of hospital wages within MSA[a]
				Central counties	Outlying counties	All counties in MSA	
Los Angeles-Long Beach, CA	1	4,060	104	$26.12	N/A	$26.12	$20.09 - 29.84
New York, NY	8	1,141	74	31.93	$23.15	31.86	24.84 - 35.80
Chicago, IL	9	5,065	84	24.30	20.77	24.27	20.17 - 26.56
Philadelphia, PA-NJ	9	3,856	62	23.82	23.15	23.81	19.72 - 26.46
Washington, DC-MD-VA-WV	18	6,465	40	23.70	20.14	23.41	19.66 - 25.72
Detroit, MI	6	3,896	48	22.92	20.57	22.88	18.90 - 24.50
Houston, TX	6	5,921	43	21.23	19.83	21.19	16.75 - 23.18
Atlanta, GA	20	6,126	42	22.40	19.66	21.98	18.36 - 23.97
Boston, MA-NH	N/A[b]	7,384	76	N/A	N/A	24.30	19.88 - 26.17
Dallas, TX	8	6,186	36	21.75	18.98	21.58	18.85 - 24.80

Note: N/A means not applicable.

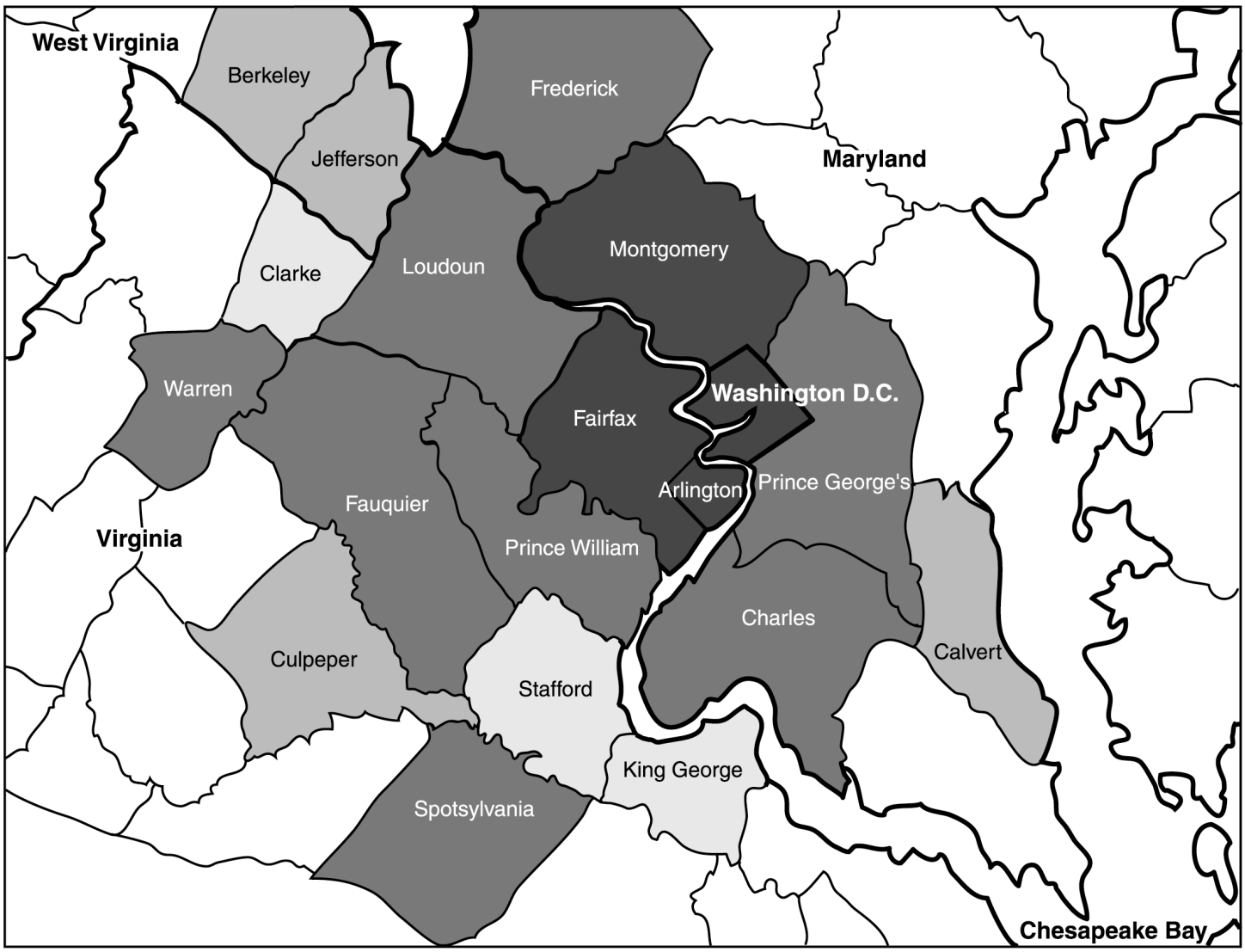
[a]The range excludes wages that are in the top 10 percent and the bottom 10 percent of the distribution of wages reported in the MSA.

[b]The Boston MSA is comprised of cities and towns rather than counties.

Source: GAO analysis of 1997 hospital wages used in construction of the 2001 wage index, as reported in Medicare hospital cost reports and county-level data from the US Census Bureau (http://www.census.gov/population/estimates/metro-city/99mfips.txt) downloaded June, 2002 and the National Association of Counties.

The Washington, D.C. MSA illustrates how hospital wages in a large MSA can vary across different counties (see fig. 4). It includes hospitals located in the central city of the District of Columbia, as well as 18 counties in Maryland, Virginia, and West Virginia. Hospital wages averaged more than $23 per hour in 1997 in the District of Columbia and in most of the adjacent suburban Maryland and Virginia counties, but averaged below $20 per hour in several outlying counties.

Figure 4: Hospital Wages by County, Washington, D.C. Metropolitan Statistical Area, Fiscal Year 1997



Source: GAO analysis of 1997 hospital wages used in construction of 2001 wage index, as reported in Medicare hospital cost reports.

One reason MSAs are so large is because they are composed of counties, which can also be quite expansive. As with MSAs, an individual county may subsume multiple labor markets within its boundaries. As an example, San Bernardino County, California extends over 150 miles—from the city limits of San Bernardino through the Mojave Desert to the Nevada border. While most of the population is concentrated in the southwest corner of the county, which includes the city of San Bernardino, even the sparsely populated desert and mountainous portions of the county are part of the MSA. As a result, a hospital in the desert community of Joshua Tree, California, receives the same labor cost adjustment as hospitals in the city of San Bernardino 70 miles away, even though hospital wages averaged $20.84 per hour in 1997 in Joshua Tree, 13 percent less than average wages paid in San Bernardino.

Some Medicare Nonmetropolitan Geographic Areas Encompass Multiple Community Types with Varying Wages

The Medicare program groups hospitals in nonmetropolitan areas of each state into a single geographic area for the purposes of the labor cost adjustment. Given their vast size, each statewide nonmetropolitan area is not perceived to be a single labor market, but the same labor cost adjustment is applied to hospitals in these areas. However, there are significant differences in average wages across parts of these areas. For example, for all hospitals in the nonmetropolitan area of Washington state, Medicare payments for 2001 were adjusted based on an average wage of $22.71 per hour. Yet, nonmetropolitan hospitals in the western part of the state had average wages of $24.23 per hour. Wages for nonmetropolitan hospitals in the central and eastern parts of the state, however, averaged $21.15 per hour, or 13 percent lower than hospitals in the western part of the state.

Other variation in average wages across the statewide nonmetropolitan areas is associated with the type of community. In three-quarters of all states, the average wages paid by hospitals in large towns are higher than those paid by hospitals in small towns or rural areas. As a result, the Medicare labor cost adjustment may be based on average wages that are below those paid by large town hospitals and above those paid by hospitals in small towns and rural areas. For example, the 2001 labor cost adjustment for hospitals in nonmetropolitan Nebraska was based on an average hourly wage of $17.65; yet, Nebraska hospitals in large towns paid an average wage of $19.54. At the same time, small town Nebraska hospitals paid an average of $16.83 and hospitals in rural areas paid an average of $14.87, or 5 and 16 percent lower, respectively, than the area average (see table 2). In 2001, 38 percent of hospitals in large towns paid wages that were at least 5 percent higher than the average wage in their

area; 16 percent paid wages that were at least 10 percent higher than the area average.[21]

Table 2: Average Hospital Wages across Nonmetropolitan Areas in Selected States, Fiscal Year 1997

	Number of hospitals				Average hourly wage for nonmetropolitan subgroups		
	Large town	Small town	Rural area	Statewide nonmetropolitan average hourly wage	Large town	Small town	Rural area
Nebraska	11	32	32	$17.65	$19.54	$16.83	$14.87
Iowa	15	54	24	17.48	18.81	16.74	15.38
Arizona	6	8	2	18.11	19.14	17.00	16.59
Georgia	23	44	18	18.13	18.88	16.61	17.37
Washington	17	8	15	22.71	23.51	21.72	19.19

Note: Large towns have a population of 10,000 to 49,999, small towns a population of 2,500 to 9,999, and rural areas have populations under 2,500.

Source: GAO analysis of 1997 hospital wages used in construction of 2001 wage index, as reported in Medicare hospital cost reports.

Through Reclassification, Some Hospitals Receive a More Appropriate Labor Cost Adjustment

While reclassification results in more appropriate labor cost adjustments for some higher wage hospitals, the reclassification criteria prevent some of them from reclassifying and exceptions to the criteria allow some lower wage hospitals to do so. In 2001, 419 hospitals, less than 10 percent of all hospitals, reclassified to receive a larger labor cost adjustment. Most of these hospitals had average wages that were above their area's average by enough to meet the standard reclassification wage criterion.[22] Higher wage hospitals in large towns are likelier to reclassify than higher wage hospitals in other community types because many of them are RRCs, which are exempt from the reclassification proximity criterion. Other higher wage hospitals in large towns and many higher wage hospitals in metropolitan areas, small towns, and rural areas cannot reclassify. About

[21]See appendix IV for average wages across community types for all states.

[22]To qualify for reclassification through the MGCRB application process, metropolitan hospitals must meet the standard wage criterion that their average wages are at least 8 percent higher than the average in their area and nonmetropolitan hospitals must have average wages that are at least 6 percent higher than the average in their area, unless they are RRCs. However, RRCs must pay wages that are at least 82 percent of the average in the target area.

one-quarter of hospitals that reclassified had wages that were not high enough to satisfy the standard reclassification wage criterion. These were primarily RRCs. Generally, hospitals that reclassify but do not satisfy the standard wage criterion receive a post-reclassification labor cost adjustment that reflects average wage levels much higher than the wages they actually pay. For hospitals that meet the standard wage criterion, however, reclassification results in an adjustment that better matches their actual labor costs than did their original one.

Not All Higher Wage Hospitals Can Reclassify

Of the 756 hospitals that paid wages sufficiently higher than their area average wage to meet the reclassification wage criteria, 310 (41 percent) were reclassified in 2001 (see table 3). Hospitals that met the wage criteria, but did not satisfy the proximity criterion, did not reclassify. Just over one-quarter of the higher wage hospitals were in large towns, yet large town hospitals made up almost half of the higher wage hospitals that reclassified. Metropolitan hospitals made up 42 percent of the higher wage hospitals, but comprised only 12 percent of the higher wage reclassified hospitals. Higher wage hospitals in large towns are likelier to reclassify than other higher wage hospitals because many are RRCs, and so are exempt from the proximity criterion.

Table 3: Reclassified Hospitals by Wage Level and Community Type, Fiscal Year 2001

		Nonmetropolitan			
	Metropolitan	Large town	Small town	Rural	All
Higher wage hospitals					
Total	317	203	168	68	756
Reclassified	38	149	92	31	310
Percent reclassified	12%	73%	55%	46%	41%
Non-higher wage hospitals					
Total	2,407	386	819	478	4,090
Reclassified	11	75	21	2	109
Percent reclassified	.5%	19%	3%	.4%	3%

Note: Higher wage hospitals are those that have wages high enough relative to other hospitals in their geographic area to meet the standard reclassification criterion, which for metropolitan hospitals is average wages at least 8 percent higher than the average in their geographic area, and for nonmetropolitan hospitals is average wages at least 6 percent higher than the average in their area. Large town, small town, and rural areas were defined using rural urban commuting area (RUCA) codes rather than location in a Medicare nonmetropolitan geographic area. Some nonmetropolitan hospitals were defined by RUCA codes as being urban based on their high levels of commuting to urban areas.

Source: GAO analysis of 1997 hospital wages used in construction of 2001 wage index, as reported in Medicare hospital cost reports and 2001 PPS Payment Impact File. Analysis excludes hospitals reclassified through legislation, hospitals that receive only a standardized amount reclassification, hospitals with missing wage data, and nonmetropolitan hospitals that were defined by RUCA codes as urban.

Close to half of the higher wage hospitals in small towns and rural areas reclassify. Almost 39 percent of the reclassified higher wage small town and rural hospitals were exempt from the proximity criterion because they were RRCs or SCHs. Some nonreclassified, higher wage small town or rural hospitals that were SCHs may have opted out of the PPS to receive cost-based payments from Medicare, making reclassification irrelevant.[23]

In 2001, only 38 of the 317 metropolitan hospitals with wages that were at least 8 percent higher than the average for their area, thus satisfying the standard wage criteria, reclassified to receive a higher labor cost adjustment. Nearly two-thirds of all reclassified metropolitan hospitals

[23]Only about 11 percent of SCHs reclassified in 2001. It can be more financially advantageous for them to be exempt from the PPS and have their payments based on their actual costs.

were in two areas—California and the northeast.[24] Metropolitan areas in these two regions are contiguous, so higher wage hospitals may be more likely than hospitals in other areas to satisfy the proximity criterion.[25]

Certain Hospitals Can Reclassify without Meeting the Standard Wage Criterion

In 2001, 109 (about 25 percent) of all hospitals that reclassified for the Medicare labor cost adjustment paid wages that were too low to meet the standard wage criterion for reclassification. Of these, 89 were RRCs. Roughly 42 percent of these RRCs that reclassified had wage costs below the average in their area. Some of the hospitals that were reclassified in 2001 but that did not satisfy the standard wage criterion were part of countywide reclassifications. Others had been reclassified via legislation.

Reclassified Hospitals That Did Not Satisfy the Standard Wage Criterion Likely Receive a Labor Cost Adjustment Higher than the Wages They Pay

The relationship between a hospital's wages and the average in its geographic area, before and after reclassification, depends on whether it was in a metropolitan or nonmetropolitan area and whether it satisfied the standard reclassification wage criterion (see table 4). Reclassification resulted in higher wage hospitals receiving a labor cost adjustment that more closely reflects the wages they actually paid. For example, prior to their reclassification, the higher wage metropolitan hospitals received a labor cost adjustment based on wages in their original area that averaged 10 percent lower than their own wages. After reclassification, the average wages paid by these hospitals did not differ from the average wages paid by the other hospitals in their area. Higher wage nonmetropolitan hospitals that reclassified joined areas with average wages about 4 percent higher than their own average wages. Before reclassification, the higher wage nonmetropolitan hospitals would have received a labor cost adjustment based on average wages that were much lower than what they actually paid.

In contrast, reclassification resulted in hospitals that did not satisfy the standard wage criterion joining areas that, on average, had much higher average wages. Prior to reclassification, nonmetropolitan hospitals that did not satisfy the standard wage criterion paid wages near the average of

[24]The northeast region includes New York, New Jersey, Pennsylvania, and Connecticut.

[25]Additional Medicare payments for teaching activities and providing a disproportionate share of care to the poor may compensate certain higher wage metropolitan hospitals for their higher labor costs.

their area. After reclassification, they received a labor cost adjustment based on wages that averaged 8 percent above their own average wages.

Table 4: Area Average Wage Compared to Hospital Wage, before and after Reclassification, Fiscal Year 2001

	Difference between area average wage and hospital-specific wage	
Category of hospital	**Before reclassification (percent)**	**After reclassification (percent)**
Metropolitan		
Reclassified – higher wage	-10%	0%
Nonreclassified – higher wage	7	N/A
Nonmetropolitan		
Reclassified – higher wage	9	4
Reclassified – non-higher wage	-1	8
Nonreclassified – higher wage	-4	N/A

Note: N/A means not applicable. Higher wage hospitals are those that have wages high enough relative to other hospitals in their geographic area to meet the reclassification criterion, which for metropolitan hospitals is average wages at least 8 percent higher than the average in their geographic area, and for nonmetropolitan hospitals is average wages at least 6 percent higher than the average in their area. Non-higher wage hospitals are those that cannot satisfy the reclassification wage criterion.

Source: GAO analysis of 1997 hospital wages used in construction of 2001 wage index, as reported in Medicare hospital cost reports and 2001 PPS Payment Impact File. Analysis excludes hospitals reclassified through legislation, hospitals that receive only a standardized amount reclassification, and hospitals with missing wage data.

Budget Neutrality Adjustments Are Relatively Modest, but Would Vary under a State-Specific Option

While geographic reclassification increases the labor cost adjustment, and thus Medicare payments, to hospitals that reclassify, it does not raise total Medicare outlays because any payment increases must be offset by an across-the-board reduction to Medicare payments for all hospitals. In 2002, this budget neutrality adjustment reduced Medicare payments to nonreclassified metropolitan hospitals by about 1 percent and to nonreclassified nonmetropolitan hospitals by about 0.6 percent. If the budget neutrality adjustment were calculated and applied on a state-specific basis, the payment reductions would be different in each state. A state-specific budget neutrality adjustment would reduce payments more in some states and less in other states than the national adjustment. In states in which overall Medicare hospital payments increase more than the national average increase due to reclassification, a state-specific option would result in a bigger payment reduction. A state-specific adjustment

would reduce payments less in states in which hospitals do not benefit as much from geographic reclassification as the average. Hospital payments would not be reduced in states that have no reclassified hospitals under a state-specific budget neutrality option.

Budget Neutrality Adjustment Calculated to Offset Payment Increases to Reclassified Hospitals

To meet the budget neutrality requirement, CMS annually calculates the increase in Medicare payments to reclassified hospitals. This increase is due to the use of a higher wage index or standardized amount, or both. CMS then calculates how much the standardized amount—the fixed, predetermined hospital payment—needs to be reduced so that total Medicare outlays for hospital services do not change because of reclassification.

In 2002, Medicare payments to nonreclassified metropolitan hospitals were about 1 percent lower due to the budget neutrality provision than they would have been in the absence of any geographic reclassifications (see table 5). Payments to nonreclassified nonmetropolitan hospitals were about 0.6 percent lower. The effect of the budget neutrality adjustment on hospital payments varies annually depending on how much Medicare payments are increased due to hospitals being reclassified, compared to total Medicare payments to all hospitals. The budget neutrality adjustment will be higher in those years where reclassified hospitals account for a greater share of Medicare payments.

Table 5: Effect of the Geographic Reclassification Budget Neutrality Requirement on Medicare Inpatient Hospital Payments, by Metropolitan and Nonmetropolitan Status, Fiscal Years 1995 through 2002

	Percent change in per stay payments							
	1995	1996	1997	1998	1999	2000	2001	2002
Metropolitan								
Reclassified	2.4	2.6	3.3	3.2	4.8	4.1	5.4	4.2
Nonreclassified	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.7	-1.0
Nonmetropolitan								
Reclassified	7.4	7.4	8.6	8.7	7.0	6.5	5.9	5.5
Nonreclassified	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.6

Source: Impact Analysis Tables from final PPS rules, published in the Federal Register, 1995-2001.

Effect of State-Specific Budget Neutrality Adjustment Would Depend on Benefits of Reclassification for State's Hospitals

A state-specific adjustment would reduce payments less than a national adjustment in states where reclassified hospitals account for a smaller share of the state's Medicare inpatient hospital spending than the national average. For example, in Colorado, where 3 of 64 hospitals were reclassified in 2000, a state-specific budget neutrality adjustment would have reduced hospital payments by only 0.07 percent, compared to a 0.6 percent reduction under the national budget neutrality calculation.[26] For the states that have no hospitals reclassifying, such as Nevada, there would be no budget neutrality adjustment under a state-specific approach.

Conversely, a state-specific adjustment would reduce Medicare payments more than a national one in states where reclassified hospitals account for a larger share of Medicare inpatient hospital spending than the national average. In New Hampshire, for example, where a large share of the state's hospitals was reclassified (4 of 26 hospitals) a state-specific adjustment would have reduced payments to nonreclassified hospitals by nearly 3 percent, compared to a 0.6 percent reduction under the national adjustment. [27]

Conclusions

Medicare's PPS for inpatient services provides incentives to hospitals to deliver care efficiently by allowing them to keep any difference between their Medicare payments and their costs, and by making them responsible for their costs that exceed Medicare payments. To ensure that the PPS rewards efficiency rather than hospitals' circumstances, payment adjustments are intended to account for cost differences across hospitals that are beyond the control of individual facilities. If these cost differences are not adequately accounted for by the payment adjustments, hospitals are inappropriately rewarded or put under fiscal pressure. The adjustment used to account for geographic differences in wages—the labor cost adjustment—does not adequately account for these cost differences because the geographic areas used to define labor markets are too large in many instances. As a result, refinements are needed to address systematic problems in defining hospital labor markets. Such changes could improve payment accuracy and reduce the need for geographic reclassification by grouping hospitals into areas with average wages that better match their own wages.

[26]We used 2000 data for this analysis because they were the most recent, complete data available.

[27]See appendix V for more information on state-specific budget neutrality.

RRCs and certain other specially designated hospitals have easier access to a higher labor cost adjustment because they are allowed to reclassify under less stringent criteria than other hospitals. These hospitals may face higher costs than other hospitals, but they do not necessarily have labor costs that are higher than the average in their geographic area. Reclassification potentially offers some financial relief to a share of these facilities, but it does not address the problem underlying their financial circumstances or assist all such facilities. Identifying the underlying cause of their higher costs is important to develop mechanisms to address their financial circumstances.

Recommendations for Executive Action

To improve the adequacy of Medicare's labor cost adjustments, we recommend that the Administrator of CMS refine the geographic areas used to more accurately reflect the labor markets in which hospitals compete for employees and the geographic variation in hospitals' labor costs. This could include separating large towns in a state into their own labor market area and removing certain outlying counties in MSAs from the metropolitan geographic area if they exhibit wage costs that are significantly different from the rest of the metropolitan area.

Agency Comments and Our Evaluation

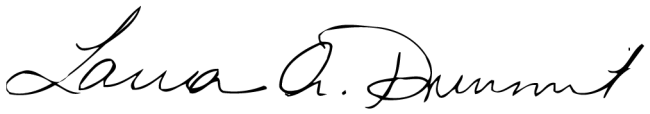
In its written comments on a draft of this report (see app. VI), CMS stated that it agreed with the problems we identified with the current labor market areas. CMS stated that it had conducted its own analyses of alternative approaches to defining geographic areas and consulted with hospital representatives and concluded that there is no consensus on an alternative to Medicare's current geographic areas. CMS stated that it will consider whether changes in MSA definitions based on new census figures should be used for refining the geographic areas. CMS noted that a state-specific budget neutrality approach, which we were required to assess, would require statutory change and could make reclassifications within states highly contentious.

We believe that Medicare's current geographic areas could be refined to better reflect variation in area labor costs. While forthcoming changes to MSA definitions are important to consider in refining Medicare's geographic areas, these changes are unlikely to improve the labor cost adjustment in most large towns. We recognize that consensus on any changes to the geographic areas would be difficult to achieve because any change would redistribute Medicare payments across hospitals so that hospital payments would increase in some areas and decrease in others. Yet, because the refinements would result in Medicare payments that

better match the costs that hospitals face, they would strengthen the incentives of the PPS that encourage hospital efficiency and improve Medicare's payment method. CMS also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Administrator of CMS and interested congressional committees. We will also make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you have any other questions about this report, please call me at (202) 512-7119. Jean Chung, James Mathews, Michael Rose, and Kara Sokol made key contributions to this report.



Laura A. Dummit
Director, Health Care—Medicare Payment Issues

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Appendix I: Scope and Methodology

To conduct this work, we recreated the 2001 labor cost adjustment for each hospital in the country prior to any reclassifications, using aggregated wage and hour data reported on 1997 Medicare hospital cost reports. We used data on reclassifications and hospital characteristics from the PPS Payment Impact Files created each year by CMS. Information on metropolitan areas, such as central and outlying counties and the criteria by which counties are included in an MSA, was obtained from the U.S. Census Bureau Web site as well as interviews with Census Bureau staff.

We used RUCA codes, developed at the Washington, Wyoming, Alaska, Montana, & Idaho (WWAMI) Rural Health Research Center at the University of Washington, to examine segments of nonmetropolitan areas. We assigned 1 of 30 possible RUCA codes to each hospital based on its census tract. These 30 codes were then collapsed into 4 categories: urban, large town, small town, and rural.

We calculated dollar-weighted average hourly hospital wages for each of the nonmetropolitan categories, nationally and by state, by dividing aggregate wages for all hospitals within a category by aggregate hours. We then compared the average hourly hospital wage for each nonmetropolitan subgroup within a state to the statewide nonmetropolitan average hourly wage.

To evaluate the potential payment impact of applying a geographic reclassification budget-neutrality factor on a state-specific basis, we used the 2000 PPS Payment Impact File to calculate the Medicare payments to all hospitals within each state, before and after any geographic reclassifications. We then used the difference between pre- and post-reclassification payments to calculate a budget neutrality factor for each state. These budget neutrality factors were then used to estimate how payments to reclassified and nonreclassified hospitals in each state would differ under a state-specific budget neutrality adjustment, compared to the current national adjustment.

Appendix II: The Effect of Accounting for Occupational Mix on the Wage Index

In BIPA, the Congress required the Secretary of Health and Human Services to collect data on hospitals' mix of occupations and their corresponding wages by September 30, 2003, and calculate wage indexes beginning October 1, 2004, that are adjusted to remove the effects of occupational mix on average wages. Occupational mix data for each acute care hospital will be collected and updated every 3 years. The methodology for adjusting the wage index for occupational mix will be determined after the data have been collected.

Average hospital wages vary because of differences in wages paid across hospitals, but also because hospitals employ different mixes of occupations. As a result, average hospital wages are higher than the national average if the hospitals in an area employ more workers in highly skilled occupations and lower if the hospitals employ fewer workers in more highly skilled occupations. The current calculation of the Medicare wage index does not distinguish between wage differences due to geographic labor cost variation and wage differences due to geographic variation in the mix of more highly and less highly skilled occupations. Thus, Medicare's wage indexes are too high in areas with a more highly skilled mix of hospital workers and too low in areas with a less skilled mix of hospital workers. While geographic differences in wages paid affect hospitals' labor costs, but are beyond an individual hospital's ability to control, occupational mix generally is within the control of a hospital.

Changing the calculation of the wage index to eliminate the effect of occupational mix differences will raise the wage index for some types of hospitals and lower it for others. Wage indexes will be reduced for hospitals, such as metropolitan or teaching hospitals, that tend to hire more employees in highly skilled occupations with higher wages. Wage indexes for rural hospitals, which tend to employ a less skilled mix of employees, are likely to go up.

While national data on the occupational mix of hospital employees are not available, data from California demonstrate the potential effects of changing the wage index calculation to eliminate the effects of

occupational mix differences.[1] Without adjusting for differences in occupational mix, the average hourly wage for hospitals in the Oakland MSA is 57 percent higher than the average hourly wage for nonmetropolitan California hospitals. Hospitals in the Oakland area generally employ a greater proportion of more skilled, and therefore more expensive, staff (see table 6). For example, in Oakland area hospitals, RNs account for approximately 25 percent more of the total hours worked by hospital employees than they do in nonmetropolitan California. Recalculating the wage indexes so that they reflect the same mix of workers in all areas reduces the difference between the Oakland area wages and those paid in nonmetropolitan areas to 50 percent. An occupational mix-adjusted wage index in nonmetropolitan California would be almost 4 percent higher than the current wage index calculation (see table 7). Across metropolitan areas, the change to the wage index would vary.

Table 6: Hospital Wages, Adjusted for Mix of Occupations, Oakland MSA and Nonmetropolitan California, Fiscal Year 1998

	Average hourly wage	Occupational mix-adjusted average hourly wage
Oakland MSA	$36.73	$36.30
Nonmetropolitan areas	$23.40	$24.27
Percent difference	57.0%	49.6%

Source: GAO analysis of wage data from 1998 California Hospital Annual Disclosure Reports. Area average hourly wages shown here differ from those used in calculating Medicare payments, which are based on wages reported in Medicare hospital cost reports.

[1]To evaluate the effects of adjusting the hospital wage index after removing the effects of occupational mix, we obtained occupation-specific hospital wage and staff hour data from the 1998 *California Hospital Annual Disclosure Reports* submitted to the California Office of Statewide Health Planning and Development. We calculated average hourly wages and average share of hours contributed for each reported occupational category. Wages and hours that were associated with expenses that are not covered by Medicare, such as research, were excluded. Using these data, we calculated an unadjusted average hourly wage and an occupational-mix adjusted average hourly wage with the mix of occupation hours held constant for each geographic area. The difference between the two averages is the effect of occupational mix. Our results are only suggestive of the magnitude and direction of changes when CMS modifies its wage index calculation method. CMS has identified the occupational categories for which it will collect wage data, but has not yet determined the methodology for using these data in calculating the wage index.

Table 7: Effect of an Occupational Mix Adjustment on Average Area Wages in California, Fiscal Year 1998

California areas	Percent difference between average wages calculated with and without an occupational mix adjustment
Nonmetropolitan California	3.7%
Bakersfield	3.7%
Chico-Paradise	3.7%
Fresno	2.8%
Los Angeles-Long Beach	-0.6%
Merced	3.7%
Modesto	4.8%
Oakland	-1.2%
Orange County	-1.5%
Redding	0.1%
Riverside-San Bernardino	0.0%
Sacramento	2.6%
Salinas	2.8%
San Diego	-3.7%
San Francisco	0.7%
San Jose	-0.9%
San Luis Obispo-Atascadero-Paso-Robles	1.2%
Santa Barbara-Santa Maria-Lompoc	-1.0%
Santa Cruz-Watsonville	-2.2%
Santa Rosa	-3.1%
Stockton-Lodi	3.1%
Vallejo-Fairfield-Napa	-1.8%
Ventura	0.3%
Visalia-Tulare-Porterville	3.7%
Yolo	-3.2%
Yuba City	-1.5%

Source: GAO analysis of wage data from 1998 California Hospital Annual Disclosure Reports.

Appendix III: Average Hospital Wages in Outlying and Central Counties of Metropolitan Areas, by State, Fiscal Year 1997

State	Average percent difference between outlying and central county wages[a]	State	Average percent difference between outlying and central county wages[a]
Alabama	-8	Montana	N/A
Alaska	N/A	Nebraska	-12
Arizona	-17	Nevada	-26
Arkansas	-6	New Hampshire	N/A
California	-13	New Jersey	-11
Colorado	N/A	New Mexico	11
Connecticut	-7	New York	-14
Delaware	-29	North Carolina	-12
District of Columbia	N/A	North Dakota	-1
Florida	-8	Ohio	-10
Georgia	-19	Oklahoma	-17
Hawaii	N/A	Oregon	2
Idaho	-10	Pennsylvania	-10
Illinois	-1	Rhode Island	N/A
Indiana	-5	South Carolina	-5
Iowa	-2	South Dakota	-23
Kansas	-17	Tennessee	-11
Kentucky	-13	Texas	-7
Louisiana	-9	Utah	N/A
Maine	N/A	Vermont	N/A
Maryland	-12	Virginia	-14
Massachusetts	-2	Washington	-6
Michigan	-7	West Virginia	-6
Minnesota	-11	Wisconsin	-12
Mississippi	6	Wyoming	N/A
Missouri	-15		

Note: N/A means not applicable.

[a]We averaged the percentage difference between outlying and central county wages within each MSA across all MSAs within each state. Then, we averaged the difference within each MSA across all MSAs that had outlying counties within a state. The percentage difference represents the amount by which outlying county wages are greater or less than central county wages, so a negative number indicates lower wages in outlying counties. These comparisons were not possible in the MSAs that do not have any outlying counties, in the states that have no MSAs with outlying counties, or in the states that have only outlying counties of MSAs with central counties in bordering states.

Source: GAO analysis of 1997 hospital wages used in construction of the 2001 wage index, as reported in Medicare hospital cost reports.

Appendix IV: Average Hospital Wages across Community Types in Nonmetropolitan Areas, by State, Fiscal Year 1997

	Number of hospitals				Percent difference from nonmetropolitan average wage		
State	Large town	Small town	Rural	Average hourly wage, all nonmetropolitan hospitals	Large town hospitals	Small town hospitals	Rural hospitals
Alabama	17	26	10	$16.30	2%	-1%	-12%
Alaska	3	8	2	26.98	-5%	2%	-3%
Arizona	6	8	2	18.11	6%	-6%	-8%
Arkansas	16	33	7	16.21	6%	-4%	-18%
California	14	19	7	21.47	-4%	4%	-3%
Colorado	3	20	12	19.52	9%	1%	-20%
Connecticut	1	1	0	25.50	-1%	1%	N/A
Delaware	0	2	0	19.75	N/A	0%	N/A
District of Columbia	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florida	6	17	4	19.42	0%	-2%	2%
Georgia	23	44	18	18.13	4%	-8%	-4%
Hawaii	5	4	4	24.07	-2%	3%	20%
Idaho	7	16	8	18.89	2%	-2%	-9%
Illinois	26	40	5	17.77	4%	-9%	-7%
Indiana	18	25	2	18.73	2%	-4%	8%
Iowa	15	54	24	17.48	8%	-4%	-12%
Kansas	22	30	39	16.56	5%	-4%	-10%
Kentucky	15	35	21	17.27	3%	-3%	1%
Louisiana	13	23	10	16.72	2%	-3%	-1%
Maine	2	13	7	19.08	4%	-2%	1%
Maryland	4	3	1	18.83	0%	0%	0%
Massachusetts	1	1	1	24.39	-4%	20%	6%
Michigan	15	20	23	19.57	5%	0%	-11%
Minnesota	19	35	38	19.33	2%	1%	-8%
Mississippi	27	35	17	16.31	3%	-4%	-10%
Missouri	20	23	17	16.76	4%	-7%	-6%
Montana	6	16	16	18.91	8%	-4%	-16%
Nebraska	11	32	32	17.65	11%	-5%	-16%
Nevada	2	5	3	20.10	5%	-5%	-11%
New Hampshire	6	3	4	21.43	2%	0%	-12%
New Jersey	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Mexico	14	6	3	18.50	0%	-2%	18%
New York	12	18	4	18.50	4%	-5%	-4%
North Carolina	20	25	13	18.38	4%	-3%	-11%
North Dakota	6	6	26	16.80	6%	-3%	-7%
Ohio	30	19	2	18.88	2%	-4%	-25%
Oklahoma	17	39	14	16.31	5%	-6%	-13%
Oregon	17	12	3	22.06	0%	2%	-2%

	Number of hospitals				Percent difference from nonmetropolitan average wage		
State	Large town	Small town	Rural	Average hourly wage, all nonmetropolitan hospitals	Large town hospitals	Small town hospitals	Rural hospitals
Pennsylvania	11	26	6	18.67	1%	0%	-3%
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	9	18	0	18.22	3%	-3%	N/A
South Dakota	8	8	21	16.48	4%	-3%	-10%
Tennessee	19	32	14	17.06	4%	-3%	-7%
Texas	46	83	35	16.33	4%	-6%	-1%
Utah	4	9	7	19.67	3%	-4%	-6%
Vermont	2	6	4	20.19	8%	-3%	-6%
Virginia	8	20	9	17.83	4%	-2%	-6%
Washington	17	8	15	22.71	3%	-4%	-16%
West Virginia	9	15	9	17.92	4%	-1%	-18%
Wisconsin	12	34	21	19.33	3%	-3%	-2%
Wyoming	5	12	6	19.19	2%	1%	-12%

Note: N/A means not applicable.

Source: GAO analysis of 1997 hospital wages used in the construction of the 2001 wage index, as reported in Medicare hospital cost reports. Large town, small town, and rural areas were defined using RUCA codes rather than location in a Medicare nonmetropolitan geographic area. As a result, 45 hospitals that receive the nonmetropolitan labor cost adjustment were excluded from this analysis. Two states and the District of Columbia have no nonmetropolitan areas.

Appendix V: Effect of the Current and a State-Specific Budget Neutrality Option on Hospital Payments, by State, Fiscal Year 2000

			Change in Medicare hospital payments			
			Under national budget neutrality adjustment (current law)		Under state-specific budget neutrality option	
State	Total hospitals	Reclassified hospitals	Reclassified hospitals	Nonreclassified hospitals	Reclassified hospitals	Nonreclassified hospitals
Alabama	109	10	6.3%	-0.6%	6.4%	-0.5%
Alaska	16	1	0.0%	0.0%	0.0%	0.0%
Arizona	61	2	7.9%	-0.6%	8.4%	-0.2%
Arkansas	78	18	7.3%	-0.6%	6.3%	-1.6%
California	405	19	6.6%	-0.8%	7.0%	-0.4%
Colorado	64	3	5.8%	-0.6%	6.4%	-0.1%
Connecticut	33	6	7.5%	-0.6%	7.1%	-1.0%
Delaware	5	2	6.5%	-0.6%	5.6%	-1.5%
District of Columbia	10	0	N/A	-0.6%	N/A	0.0%
Florida	193	10	2.2%	-0.5%	2.6%	-0.2%
Georgia	160	22	10.6%	-0.6%	9.7%	-1.5%
Hawaii	22	1	4.2%	-0.6%	4.9%	0.0%
Idaho	43	8	4.9%	-0.5%	4.0%	-1.3%
Illinois	196	22	6.1%	-0.6%	6.4%	-0.3%
Indiana	112	23	5.0%	-0.6%	4.7%	-0.9%
Iowa	117	8	8.1%	-0.4%	7.3%	-1.2%
Kansas	113	10	10.5%	-0.6%	9.5%	-1.5%
Kentucky	101	20	6.4%	-0.5%	5.4%	-1.5%
Louisiana	128	11	8.0%	-0.5%	8.0%	-0.4%
Maine	37	1	6.0%	-0.6%	6.2%	-0.4%
Maryland	N/A	N/A	N/A	N/A	N/A	N/A
Massachusetts	80	2	1.6%	-0.6%	2.1%	-0.1%
Michigan	156	16	4.2%	-0.6%	4.6%	-0.3%
Minnesota	137	14	7.4%	-0.6%	7.6%	-0.4%
Mississippi	99	19	6.9%	-0.8%	5.5%	-2.1%
Missouri	121	13	7.3%	-0.6%	7.2%	-0.8%
Montana	43	4	13.4%	-0.6%	12.1%	-1.7%
Nebraska	87	9	11.3%	-0.6%	9.9%	-1.9%
Nevada	26	0	N/A	-0.6%	N/A	0.0%
New Hampshire	26	4	9.3%	-0.6%	6.8%	-2.9%
New Jersey	84	26	7.6%	-2.4%	6.9%	-3.0%
New Mexico	34	1	11.6%	-0.6%	11.6%	-0.5%
New York	216	16	5.5%	-0.6%	6.0%	-0.2%
North Carolina	121	20	6.8%	-0.6%	6.4%	-1.0%
North Dakota	46	10	2.6%	-0.3%	2.4%	-0.6%
Ohio	170	31	5.9%	-0.8%	5.7%	-0.9%
Oklahoma	113	12	8.1%	-0.6%	7.6%	-1.0%
Oregon	60	9	4.1%	-0.4%	3.9%	-0.6%

			Change in Medicare hospital payments			
			Under national budget neutrality adjustment (current law)		Under state-specific budget neutrality option	
State	Total hospitals	Reclassified hospitals	Reclassified hospitals	Nonreclassified hospitals	Reclassified hospitals	Nonreclassified hospitals
Pennsylvania	200	13	6.6%	-0.8%	6.9%	-0.5%
Rhode Island	11	2	9.0%	-0.6%	9.2%	-0.4%
South Carolina	61	10	4.4%	-0.6%	4.6%	-0.5%
South Dakota	47	3	8.3%	-0.6%	7.7%	-1.2%
Tennessee	123	12	13.2%	-0.6%	13.2%	-0.6%
Texas	376	39	11.6%	-0.6%	11.7%	-0.6%
Utah	40	7	13.1%	-0.6%	12.3%	-1.3%
Vermont	14	2	3.3%	-0.6%	3.5%	-0.4%
Virginia	92	6	5.5%	-0.6%	5.9%	-0.2%
Washington	86	5	0.4%	-0.6%	0.9%	-0.1%
West Virginia	50	7	10.8%	-0.6%	8.5%	-2.6%
Wisconsin	125	13	4.3%	-0.6%	4.3%	-0.5%
Wyoming	24	1	9.7%	-0.5%	9.6%	-0.5%
National total			**6.8%**	**-0.7%**	**6.5%**	**-0.6%**

Note: N/A means not applicable. Hospitals in Maryland are not paid by Medicare under the PPS, so they were excluded from this analysis.

Source: GAO analysis of data from 2000 Medicare hospital cost reports and the fiscal year 2000 PPS Payment Impact File from the CMS.

Appendix VI: Comments from the Centers for Medicare & Medicaid Services

DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

Administrator
Washington, DC 20201

SEP - 4 2002

To: Laura Dummit
Director, Health Care—Medicare Payment Issues
General Accounting Office

From: Thomas A. Scully
Administrator
Centers for Medicare & Medicaid Services

Subject: General Accounting Office (GAO) Draft Report, *"Medicare Hospital Payments: Refinements Needed to Better Account for Geographic Differences in Wages,"* (GAO-02-963)

Thank you for the opportunity to review and comment on the above-referenced report.

The report accurately summarizes Medicare's policies pertaining to geographic classifications and reclassifications by the Medicare Geographic Classification Review Board (MGCRB). The report also identifies disadvantages with using Metropolitan Statistical Areas (MSAs) to classify hospitals geographically. In particular, the report indicates that, in some cases, using MSAs allows a wide variation in the average hourly wages of hospitals in the same MSA or statewide rural area. Generally, the report found that hospitals in metropolitan areas and in central counties of an MSA typically pay higher wages than hospitals in outlying counties and in rural areas. The report also found that the average wages paid by hospitals in large towns are higher than those paid by hospitals in small towns. In addition, the report indicates that special statutory and regulatory provisions allow many hospitals to reclassify without meeting the standard wage criteria. Finally, the report explored the potential impacts of statewide budget neutrality calculations to offset the effects of reclassification, rather than nationwide offsets that are currently applied.

We agree that GAO has identified problems associated with using MSAs to define labor market areas for purposes of calculating and applying the wage index. As indicated in the report's Recommendations for Executive Action, the Secretary has discretion over the definition of labor market areas.

We would point out, however, that we have previously discussed concerns very similar to those identified in the report, and conducted extensive analysis of various alternative approaches to defining labor market areas, including convening a meeting with representatives of numerous hospital representatives, and solicited public comments on the alternatives. However, no clear

consensus emerged at that time regarding how labor market areas could be improved. (See the May 26, 1993 Federal Register (58 FR 30242), the May 27, 1994 Federal Register (59 FR 27726), and the June 2, 1995 Federal Register (60 FR 29218).) This analysis and consultation led us to the conclusion at that time that continuing to use MSAs as the basis for determining labor market areas was the most reasonable approach.

The draft report recommends that the Secretary refine geographic areas to more accurately reflect labor markets and geographic variations in labor costs. The Census Bureau will implement changes in the definitions of MSAs in 2003. Once those changes are available, we will consider whether further refinements to the use of MSAs as the basis for labor market areas would be appropriate.

Current policy on the budget neutrality states that any changes made by the MGCRB are based on the existing statute. The change discussed by GAO would make the MGCRB changes a highly contentious issue within each state, since any increases to the area wage or standardized rate based on a hospital reclassification would need to be made budget neutral within the state, by reducing payments to other hospitals in the state. Accordingly, we believe this is significant and should be addressed by Congress as a specific statutory change.

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