# AHA Area Wage Index Advisory Review Committee July 2013





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### Agenda

### Area Wage Index Advisory Review Committee (AARC) Open Forum July 11-12, 2013 Hilton Chicago O'Hare Airport

Thursday July 11	Open Forum International			
10:00 a.m.	AARC Preparation Meeting (Closed Session: AARC Members Only)			
	Overview of Open Forum Logistics and Agenda Materials			
	Report from Impact Analysis External Reviewer – Dr. Lane Koenig, President, KNG Health Consulting	Page 97		
11:00 a.m.	Open Forum			
	Opening Remarks from Dr. Ben Chu Chairman, AARC and AHA Board of Trustees			
	Expected Wage Index Changes Due to Updating of Census CBSAs (Handout to be provided at meeting)			

11:30 a.m.	<b>Stakeholder Remarks: Panel 1</b> (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)			
	<ul> <li>Craig Becker, Tennessee Hospital Association, Nashville, Tennessee</li> </ul>			
	<ul> <li>Duane Dauner, California Hospital Association, Sacramento, California</li> </ul>			
	<ul> <li>Stephen Frayne, Connecticut Hospital Association, Wallingford, Connecticut</li> </ul>			
	<ul> <li>Mike Horsley, Alabama Hospital Association, Montgomery, Alabama</li> </ul>			
	Anthony Spezia, Covenant Health, Knoxville, Tennessee			
12:20 p.m.	Lunch for All Attendees International			
1:00 p.m.	<b>Stakeholder Remarks: Panel 2</b> (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)			
	<ul> <li>John Brennan, Newark Beth Israel Medical Center/Barnabas Health, Newark, New Jersey</li> <li>Joseph Coyle, Southern Ocean Medical Center, Meridian Health, Manahawkin, New Jersey</li> </ul>			
	<ul> <li>Raymond Fredericks, JFK Health System, Inc., Edison, New Jersey</li> </ul>			
	<ul> <li>Alexander Hatala, Lourdes Health System, Camden, New Jersey</li> </ul>			
	<ul> <li>Elizabeth Ryan, New Jersey Hospital Association, Princeton, New Jersey</li> </ul>			
1:50 p.m.	<b>Stakeholder Remarks: Panel 3</b> (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)			
	<ul> <li>Stephen Jones, Robert Wood Johnson University Hospital, New Brunswick, New Jersey</li> <li>Peter Kaprielyan, Inspira Health Network, Mullica Hill, New</li> </ul>			
	<ul> <li>Jersey</li> <li>Patricia Ostaszewski, HealthSouth Rehabilitation Hospital of</li> </ul>			
	<ul> <li>Toms River, Toms River, New Jersey</li> <li>Douglas Struyk, Christian Health Care Center, Wyckoff, New Jersey</li> </ul>			
2:30 p.m.	Break			

2:45 p.m.	<ul> <li>Stakeholder Remarks: Panel 4 (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)</li> <li>Stephen Canessa, Southcoast Health System, New Bedford, Massachusetts</li> <li>Patrick Muldoon, HealthAlliance Hospitals, Inc., Leominster, Massachusetts</li> <li>Lynn Nicholas, Massachusetts Hospital Association, Burlington, Massachusetts</li> <li>Erik Wexler, Vanguard Health Systems, Worcester, Massachusetts</li> </ul>
3:25 p.m.	<ul> <li>Stakeholder Remarks: Panel 5 (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)</li> <li>Kevin Dahill, Suburban Hospital Alliance, Hauppauge, New York</li> <li>David Ping, Health Quest, LaGrangeville, New York</li> <li>Kenneth Raske, Greater New York Hospital Association, New York, New York</li> </ul>
3:55 p.m.	<ul> <li>Stakeholder Remarks: Panel 6 (Members will have 6 minutes each for remarks, plus additional time for questions from the AARC)</li> <li>Scott Becker, Conemaugh Health System, Johnstown, Pennsylvania</li> <li>Phillip Good, Great River Medical Center, West Burlington, Iowa</li> <li>Henry Lipman, LRGHEALTHCARE, Laconia, New Hampshire</li> <li>Denis Lukes, Hospital Council of Western Pennsylvania, Warrendale, Pennsylvania</li> <li>Tonya Wells, CHE Trinity Health, Livonia, Michigan</li> </ul>
4:45 p.m.	Closing Remarks Dr. Ben Chu
5:00 p.m.	Break

6:00 p.m.	Reception Athens/Berlin (AARC Members Only)	
6:30 p.m.	<b>Working Dinner Athens/Berlin</b> (AARC Members Only)	
	Update on Hill Activity	
	Review of Committee Charge	Page 7
	Reaction to Stakeholder Remarks	Appendix A
	Potential Recommendations or Options for AHA Board of Trustees' Action	
Friday July 12	Closed AARC Session Breakfast available at 7:30 a.m. Meeting convenes at 8 a.m. International West	
8:00 a.m.	Closed Discussion (AARC Members Only)	
	Continued Discussion of Recommendations or Options Based on Input from Stakeholders	
10:45 a.m.	Closing Remarks Dr. Ben Chu	
11:00 a.m.	Adjourn	



### AHA Area Wage Index Advisory Review Committee

#### Chairman:

**Ben Chu, M.D.** Regional President, Southern California Kaiser Foundation Hospitals Pasadena, CA

**Craig C. Armin** Vice President, Government Programs Tenet Healthcare Corporation Los Angeles, CA

**Bruce P. Bailey** President and CEO Georgetown Hospital System Georgetown, SC

William (Bud) F. Barrow, II President and CEO Our Lady of Lourdes Regional Medical Center Lafayette, LA 70508

Joanne Carrocino, FACHE President and CEO Cape Regional Medical Center Cape May Court House, NJ 08210-9990

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Vickie L. Diamond, RN, MS President and CEO Wyoming Medical Center Casper, WY

M. Beatrice Grause President Vermont Association of Hospitals and Health Systems Montpelier, VT **Daniel L. Gross, RN, DNSc** Executive Vice President Sharp HealthCare San Diego, CA

**Craig W. Jones** President Oklahoma Hospital Association Oklahoma City, OK

#### **Tom Priselac**

President and CEO Cedars-Sinai Health System Los Angeles, CA

**Roger J. Reamer** CEO Memorial Health Care Systems Seward, NE

**Steven Rose, RN, MN** CEO Nanticoke Memorial Hospital Seaford, DE

Mary Starmann-Harrison President and CEO Hospital Sisters Health System Springfield, IL

**Gerald D. Wages** Executive Vice President for External Affairs North Mississippi Medical Center Tupelo, MS



### AHA Area Wage Index Advisory Review Committee Charge

Hospitals repeatedly have expressed concern that the Medicare Area Wage Index (AWI) is greatly flawed in many respects. Members of Congress, Medicare officials and other policymakers also have voiced concerns with the present system. In July 2011, the AHA Board of Trustees created the Medicare Area Wage Index Task Force to identify and evaluate the strengths and weaknesses of the current AWI; develop a set of principles by which to evaluate various proposals to modify the AWI, including review of AHA's existing principles; evaluate proposals and studies to change the AWI; and make recommendations to improve the accuracy, fairness and effectiveness of the AWI.

The Task Force's report and recommendations were shared with the AHA's Regional Policy Boards and Governing Councils on multiple occasions. At its most recent meeting, the AHA Board of Trustees determined that more feedback from the membership would be beneficial. Accordingly, the Board authorized the creation of an AWI Advisory Review Committee (AARC) composed of members of both the Board and Task Force and charged them with:

- Conducting an open session for interested hospital and health system members and state, regional and metropolitan hospital associations to comment on the task force's recommendations and their projected impact; and
- Based on the open session, and feedback received throughout the review process, formulating and making recommendations to the Board for the disposition of the report.

AHA Medicare Area Wage Index Task Force 2011-2012

#### **Executive Summary**

The Medicare hospital inpatient prospective payment system (PPS) is designed to pay hospitals for services provided to Medicare beneficiaries based on a national average payment amount, adjusted for two factors that affect hospitals' costs: the patient's condition and related treatment strategy and market conditions in the hospital's location. One of the significant adjustments in the inpatient PPS is an adjustment for market conditions, or the area wage index (AWI). The AWI is intended to measure differences in hospital wage rates among labor markets; it compares the average hourly wage for hospital workers in each metropolitan statistical area (MSA) or statewide rural area to the nationwide average.

In 2011, the AHA Board of Trustees created a Medicare AWI Task Force to identify and evaluate the strengths and weaknesses of the current hospital AWI; develop a set of principles by which to evaluate various proposals to modify the hospital AWI, including review of AHA's existing principles; evaluate proposals and studies to change the hospital AWI; and make recommendations to improve the accuracy, fairness and effectiveness of the hospital AWI. Since that time, the Task Force has engaged in an extraordinary amount of education, analysis, and discussion about the AWI system.

The Task Force members overwhelmingly agree that the current system is greatly flawed in many respects and that its fundamental problems warrant a full and comprehensive re-evaluation. Specifically, they identified five major issues that must be addressed to improve the AWI system: accuracy and consistency; volatility; circularity; reclassifications and exceptions; and labor markets.

Taking these and other important concerns into account, the Task Force held broad discussions aimed at deriving principles for the hospital field to use in evaluating and recommending for changes to the AWI.

They agreed to nine principles, for example, that comprehensive reform is necessary, but must be implemented in a transitional and budget-neutral manner. They also agreed that the wage index should be as accurate as possible, but the data and methodology should also be as consistent, easy to administer, transparent and as understandable as possible; that the wage index system should minimize volatility and circularity; that the current system of reclassifications and exceptions is unacceptable; and that labor markets should reflect hospitals that compete with one another for labor, but cannot realistically be defined as hard boundaries.

Finally, the Task Force made recommendations to reform the AWI. The members agreed that it is unlikely that any set of recommendations would completely "fix" the wage index system for the hospital field. However, they felt very strongly that there are specific recommendations that would categorically improve the system for the field as a

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whole. Their seven recommendations help address the five major concerns outlined above, and follow from the nine principles identified by the Task Force. Specifically, they recommend improving the wage index by eliminating the current system of reclassifications and exceptions and replacing it with commuting and smoothing adjustments based on up-to-date data. Doing so balances the need to eliminate the burdensome, confusing and sometimes anomalous reclassification system with the need to acknowledge that labor markets cannot realistically be defined as hard boundaries. Their recommendations also seek to improve the consistency of the wage index data, limit the amount of volatility in the improved system, ensure that there is an adequate transition from the current to the improved system, and decrease the problem of circularity.

#### Introduction

Medicare's inpatient PPS sets payments for inpatient services hospitals provide to Medicare beneficiaries. To compute payments, a national rate is adjusted for various factors with the objective of making payments more equitable across hospitals. One of the significant adjustments is the AWI, which is used to account for geographic differences in wages.

Hospitals repeatedly have expressed concern that the wage index is greatly flawed in many respects. Members of Congress and Medicare officials also have concerns with the present system. In response to these growing concerns, there has been a great deal of activity around the hospital wage index. In 2007, the Medicare Payment Advisory Commission (MedPAC) developed an alternative wage index framework. In June 2011, the Institute of Medicine (IOM) issued a report containing recommendations for the Centers for Medicare & Medicaid Services (CMS) on the wage index. In April 2012, CMS issued a congressionally mandated report on an alternative AWI methodology. All of the proposals – MedPAC, IOM and CMS – would require legislative action for adoption.

In July 2011, the AHA Board of Trustees created the Medicare AWI Task Force to lead an in-depth examination the AWI from the hospital field's perspective. The Task Force is comprised of health system and hospital leaders, as well as state and metropolitan hospital association executives from every region of the country. Task Force members were drawn from a range of labor markets, including costly areas such as California, mid-range markets such as Ohio, and less costly areas such as Mississippi. Task Force members are listed in Appendix A.

The Board charged the Task Force with:

- identifying and evaluating the strengths and weaknesses of the current hospital AWI;
- developing a set of principles by which to evaluate various proposals to modify the hospital AWI, including review of AHA's existing principles;

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- using principles developed by the Task Force to evaluate proposals and studies to change the hospital AWI; and
- making recommendations to improve the accuracy, fairness and effectiveness of the hospital AWI.

#### Background

The Medicare inpatient PPS 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, payments are adjusted to account for cost differences across hospitals that are beyond the control of individual organizations. If these cost differences are not adequately accounted for by the payment adjustments, hospitals are either inappropriately rewarded or put under fiscal pressure. For example, adjustments are made for hospitals that operate resident training programs or treat a disproportionate share of low-income patients. Under the *Social Security Act*, the AWI must adjust payments for differences in hospital wage levels across geographic areas. Specifically, the wage index is intended to adjust payments for differences in hospital wage rates by comparing the average hourly wage (AHW) for hospital workers in each labor market to the nationwide average.

The wage index is revised each year based on wage data reported by inpatient PPS hospitals in the 50 states, the District of Columbia and Puerto Rico. The data come from Worksheet S-3 of the cost report that hospitals are required to submit annually to CMS. Physician salaries incurred for Medicare-billable services are not included in these wage data. The wage index also includes an "occupational mix adjustment" that is based on a special occupational mix survey of hospitals conducted by CMS every three years. This survey is used to make an adjustment to the wage index for nursing personnel to ensure that wage index values do not reflect choices hospitals make in the mix of nurses they employ (for example, employing a greater share of registered nurses and smaller share of nurse aides).

The wage index system uses MSAs and statewide rural areas as its labor markets. As a result, there can be substantial differences in the wage indexes of hospitals that are located near each other, but are separated by a labor market boundary. Because a hospital near a border may consider it inequitable that its wage index value is lower than that of a nearby hospital, over the years, numerous exceptions to the basic calculation have been incorporated in the system. These exceptions permit hospitals that meet specific criteria to have their payments adjusted by a higher wage index.

The wage index adjusts a large portion – the labor-related portion – of the national average base rate (usually called the "labor share"). The labor share reflects an estimate of the portion of costs affected by local wage rates and fringe benefits. CMS currently estimates the labor share at 68.8 percent. This percentage is used in calculating payments to hospitals with a wage index above 1.0. Congress legislated a labor share of 62 percent for areas with a wage index less than or equal to 1.0. Figure

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1 depicts how the labor share is used in conjunction with a hospital's wage index to calculate a wage index-adjusted base rate.



Figure 1: Calculation of Wage Index-Adjusted Inpatient PPS Base Rate

#### **Context for Task Force Deliberations**

Task Force members overwhelmingly agreed that the methodology for calculating the AWI is greatly flawed in many respects and that its fundamental problems warrant a full and comprehensive re-evaluation. As a first step, the Task Force discussed the intended purpose of the wage index. Specifically, it examined whether the AWI should continue to be used to adjust payments for differences in hospital wage rates among labor markets, or whether it should be used to incentivize efficiency and bring additional value to the Medicare program and its beneficiaries. Promoting efficiency and value is not an objective of the current wage index system.

While promoting efficient, affordable and high-quality health care is a laudable goal, the Task Force agreed that the purpose of the wage index should continue to be to account for geographic differences in wages across labor markets. Promoting efficiency and value are laudable goals that Medicare and the hospital field should unequivocally strive to achieve. However, these goals are better addressed through other Medicare payment programs and policies that are specifically designed for such a purpose. For example, value-based purchasing, which evaluates the quality of care provided, is required to take into account efficiency measures, such as per-beneficiary spending, and will reward hospitals that provide value to the Medicare program and its beneficiaries.

In addition, the Task Force discussed the impact that today's environment of fiscal restraint will have on wage index reform. They strongly agreed that advocating for reforms to be made with additional funding, rather than being budget neutral, is unrealistic.

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#### Task Force Concerns

Keeping the agreed-upon purpose of the wage index in mind, the Task Force identified five major concerns with the current methodology that must be addressed to improve the wage index system.

<u>Accuracy and Consistency</u>. The AWI is currently based on Worksheet S-3 of the hospital cost report, as well as on a special occupational mix survey of hospitals conducted by CMS approximately every three years. The occupational mix survey adjusts for the fact that some hospitals may use a higher-cost mix of nursing personnel than others; it is a sample of 3,197 hospitals and has a response rate of 91.1 percent. The completion rate of Worksheet S-3 is greater than 90 percent. However, the most recent cost-report data that are available in any given year are four years old; for example, the FY 2012 wage index is based on FY 2008 cost reports. This lag exists for several reasons, including because there is significant review and auditing of the wage index data, and because there is an extensive opportunity for the public (*e.g.*, hospital leaders) to review and comment on the data. The Task Force expressed many concerns about this four-year lag, but was unable to determine a feasible way to shorten the cost report processing timeframe.

Because the AWI is a relative measure that compares hospitals to each other, it is imperative that wage data are reported both accurately and consistently. As such, CMS has published an extensive and complex set of rules and regulations governing exactly what can be reported in the wage data and how it will be counted. The agency's fiscal intermediaries (FIs) and Medicare Administrative Contractors (MACs) work to ensure that these rules and regulations are consistently applied by conducting reviews and audits. Further, a hospital may appeal any mishandling of its wage data by its FI/MAC. For example, a hospital may appeal if it believes its FI/MAC has inappropriately excluded certain wage costs. It also could appeal if the hospital believes erroneous data have been inadvertently submitted by another hospital in its labor market, which could inappropriately affect that labor market's wage index – either in a positive or negative manner.

However, the Task Force was concerned that when hospitals have compared FI/MAC practices across the nation, they have found differences in the collection and/or processing of the data that underlie the wage index. Inconsistent application of definitions, methodologies, rules and interpretations may result in wage indices that are less accurate and consistent than desired.

<u>Volatility</u>. Hospital AWIs vary from year to year, sometimes significantly. This instability occurs for several reasons. First, CMS is required to fully update the wage index every year using the most recent single year of hospital cost report data available. In addition, the size of the wage index dataset is fairly small – it includes only PPS hospitals, of which there are about 3,400. This fairly small sample size of single-year data is highly affected by changes in hospital wages compared to other hospitals, and also because of gains or losses of reclassifications. Finally, the data may be especially unstable in

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payment areas with only a few hospitals, particularly if a sudden change in occupational availability occurs or a union contract changes wages significantly.

Prior to FY 2004, the roughly 1,300 critical access hospitals (CAHs) in the nation also were included in the AWI data. However, they were removed in FY 2004, mainly because some contended that PPS hospitals did not directly compete for labor with their CAH counterparts, but also because there were some concerns about the accuracy of their data. Specifically, CMS did an analysis and found that CAHs generally had the lowest AHWs in their labor market. This could have meant that, because CAHs are not paid using the wage index, they were not devoting many resources to completing the wage index portion of the cost report. In addition, the wages from hospital types other than inpatient PPS hospitals and CAHs, including inpatient rehabilitation facilities, inpatient psychiatric facilities and long-term care hospitals, are not included in the wage index. However, these approximately 1,500 additional freestanding hospitals and 2,300 distinct-part units are paid using the pre-reclassification inpatient wage index in their area.

Task Force members expressed concern that volatility can be very problematic for hospitals, as one of the fundamental values of a PPS is the ability of providers to reasonably estimate payments in advance to inform their budgeting, staffing and other key management decisions. It can make it difficult to inflation-adjust or even pay stable wages in order to recruit and retain a stable and experienced workforce. Figure 2 shows the distribution of PPS hospitals based on the change in their wage indices from FY 2009 to FY 2012 and also from FY 2011 to FY 2012.



# Figure 2: Distribution of PPS Hospitals Based on Change in AWI from FY 2009-2012 and FY 2011-2012

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Source: CMS final IPPS payment impact files for FYs 2009, 2010, 2011 and 2012. Comparisons of wage indexes include only those hospitals present in both years 2009 and 2012, or 2011 and 2012.

Wage index values for certain hospitals showed large changes from FY 2011 to FY 2012. Comparing hospitals' post-reclassification wage index values, 12 percent of hospitals, or 418 hospitals, experienced a change (either an increase or decrease) in their wage index of at least 3 percent. This is noteworthy because decreases of 3 percent or more would have more than offset the FY 2012 net market-basket update of 1.9 percent. From FY 2009 to FY 2012, there was even more volatility – 30 percent of hospitals, or 969 hospitals, experienced a change (either increase or decrease) in their wage index of at least 3 percent.

One possible policy option to limit the amount of volatility in the wage index is to institute a stop-loss and/or a stop-gain policy that would limit the amount by which a hospital's wage index could decrease and/or increase in a single year. For example, under such a policy, if a hospital's wage index was set to decrease by 6 percent in one year and there was a 3 percent stop loss, the hospital's wage index would only decrease by 3 percent instead of 6 percent. The hospital's wage index would then decrease by the remaining 3 percent the following year unless there were other intervening circumstances. Thus, a stop-loss policy would essentially phase in any large wage index declines and eliminate catastrophic decreases. A stop-gain policy would work in the same way, but essentially phase in any large wage index increases.

When modeled in a budget-neutral manner as a one-year, stand-alone policy under the current wage index system, a 3 percent stop-loss, for example, would require each hospital's PPS payments to be cut by 0.04 percent—or about \$46 million across all PPS hospitals. Under the same one-year, budget-neutral, stand-alone simulation, a 3 percent stop-gain policy would require an upward adjustment of about the same amount across all PPS hospitals. Thus, if both policies were implemented, in the absence of any other changes, the net budget neutrality adjustment would be essentially zero.

<u>Circularity</u>. The AWI is based on the hospital cost report, on which all hospitals are required to report their paid wages and salaries. The Task Force found that, while it remains desirable to have a system that measures relative differences in hospital labor markets, in some parts of the country, there could be a problem arising from the use of only hospital data in the wage index. This problem is known as endogeneity, or circularity – the ability of hospitals to influence their own wage index values. There were different perspectives in the Task Force as to whether using only hospital data has led to hospitals having an undue influence on their wage index values. In addition, the degree to which circularity affects wage index values differs across markets, but is especially likely to occur in areas containing only a few hospitals, or in areas with one or a few dominant hospitals. Table 1 shows the number of hospitals in each labor market by metropolitan and non-metropolitan areas.

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Number of providers in market area	Large urban areas	Other urban areas	State rural areas
1	0	58	1
2	0	96	2
3	0	55	1
4	0	38	2
5	0	30	5
6-10	7	41	8
11-20	31	4	9
21 or greater	240	0	20

#### Table 1: Number of Inpatient PPS Hospitals by Labor Market

Source: Institute of Medicine. (2011). Geographic Adjustment in Medicare Payments. Phase 1: Improving Accuracy.

Fifty-nine markets have only one hospital, and 98 markets have only two hospitals. Nearly all of these markets are small to medium metropolitan markets. Thus, the costreport data that hospitals in these areas submit in a given year directly determine their wage index value four years later. In these small to medium markets in particular, the index can reflect hospitals' own decisions about what wages to pay rather than the prevailing wage in the area. It also can reflect difficulties that low wage index hospitals may face in being able to increase wages over time. For example, hospitals whose hourly wages increase at a lower rate than the national average will see a decrease in their wage indices. Their payments will then not increase at the same rate as other parts of the country, which may create pressure to exert even tighter control over costs. If the hospitals' hourly wages increase at a lower rate than the national average again, their wage index could decrease further.

However, at the same time, 360 markets have six or more providers in their market area, with more than two-thirds of those markets having at least 21 providers. There were different perspectives among Task Force members about the degree to which circularity is a problem in these markets.

Some Task Force members expressed concern that the problem of circularity may have contributed to the increasing difference between the lowest and highest wage indices in the nation. For example, in FY 2002, the lowest post-reclassification wage index was 0.7400 and the highest 1.5319 – a 107 percent difference. In FY 2012, however, the lowest post-reclassification wage index was 0.7277 and the highest 1.6996 – a 134 percent difference. However, other Task Force members noted that hospitals make salary and benefit decisions based primarily on market competition, not based on their anticipated wage index value.

The Task Force discussed many potential recommendations to improve the problem of circularity. For example, they discussed using a data source other than the hospital

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cost report to calculate the wage index, several different methodologies for setting a floor for wage index values, and several different methodologies for setting a ceiling on wage index values. They determined that two options merited detailed consideration – specifically, using data from the Bureau of Labor Statistics (BLS) instead of the hospital cost report to calculate the wage index, and implementing a floor for wage index values using an "exponential" methodology. These two options are described in more detail below. They are also described more in Appendix B (Option 1 and Option 2a), as are all the options for improving circularity that the Task Force discussed.

<u>BLS Data</u>. One potential methodology to address circularity is the use of data published by BLS as the basis for calculating the hospital wage index, rather than continuing to use data from the hospital cost report. Specifically, BLS sponsors the Occupational Employment Survey, which provides estimates of wages and employment rates for 800 occupations in 450 industries in the United States. The survey covers all salaried nonfarm workers, excluding self-employed individuals. The data are collected through a voluntary mail survey distributed to about 200,000 establishments nationally every six months, thus building the full sample of 1.2 million establishments over a three-year period. Wages and employment rates are published on the basis of a rolling three-year average. Because the BLS data come from a survey that is based on a probability sample, certain estimations must be made in order to obtain a full dataset. In addition, the survey does not collect data on employee benefits.

BLS data are collected as part of a confidential survey process; therefore, wage data at the establishment level are not publicly available. However, wage data at the area level are available. The methods that BLS uses are transparent and it makes its restricted data available on-site to researchers by application; research to validate wage indices may fall into the category of acceptable use.

Both MedPAC and the IOM have recommended using BLS data to calculate the hospital wage index, primarily because they include data on the wages of health care workers employed in all industries. For example, health care sector data from hospitals, physician practices, skilled nursing facilities, ambulatory surgical centers, home health agencies and hospices are all included. MedPAC and IOM contend that multi-industry data are important to a price index because all employers' wages determine the prevailing market wage. They also state that using all-industry data increases the number of facilities contributing data, thereby addressing the problem of index circularity

As mentioned above, BLS data do not include benefits; however, Task Force members felt that benefits are an important component of the wage index because the portion of total compensation attributable to benefits varies systematically. If benefits were excluded, the wage index would be understated in areas where benefits account for a greater portion of compensation and overstated in areas where benefits account for a lower portion of compensation. They agreed that, were BLS data to be used, benefits data would need to be included, for example, by CMS continuing to require submission of the benefits portion of the cost report's Worksheet S-3.

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After lengthy consideration, the Task Force ultimately decided against recommending the use of BLS data. Several members found the use of BLS data promising, agreeing with MedPAC and IOM that all employers' wages determine the prevailing market wage, and that using the data set would address the problem of circularity. However, they determined that other options for addressing circularity better served the hospital field. Other Task Force members were very concerned about the use of BLS data. They felt that hospital employers differ from the universe of all employers in terms of the wage levels necessary to recruit and retain gualified health care employees, the percentage of compensation paid in benefits, the likelihood of unionization, and other factors that might affect compensation rates for some types of employees. They also were troubled by the fact that the BLS survey is voluntary and a sample of employers, not a census of all employers. They noted that response rates and/or the number of estimations necessary to obtain the full data set could differ across geographic region or by type of employer, thereby affecting the accuracy and consistency of the wage index. They also were very concerned that, because the data are collected as part of a confidential survey process, the data are not fully transparent – wage data at the establishment level are not publicly available and are not audited for accuracy.

<u>Exponential Floor</u>. The other potential methodology to address circularity that the Task Force considered was the use of an exponential floor. Under such a recommendation, all wage indices of less than 1.0 would be raised to the power of 0.6848. Doing so would marginally increase each of these wage indices, with the lowest wage indices receiving the largest increases, as shown in Table 2. Thus, this methodology would, in effect, compress wage index values up towards 1.0. This policy would be implemented in a budget-neutral manner; as a result, each PPS hospital's payments would be cut by about 1.2 percent – or about \$1.3 billion across all PPS hospitals.

Actual Wage	Exponential Wage	Percentage
Index Value	Index Value	Increase
0.4230*	0.5548	31.2
0.6797**	0.7677	12.9
0.7000	0.7833	11.9
0.7500	0.8212	9.5
0.8000	0.8583	7.3
0.8500	0.8947	5.3
0.9000	0.9304	3.4
0.9500	0.9655	1.6
1.0000	1.0000	0.0

#### Table 2: Wage Index Values Under Exponential Floor Methodology

\* Average FY 2013 Puerto Rico wage index.

\*\* This is the lowest pre-reclassification wage index in FY 2013 outside Puerto Rico.

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This calculation is related, but not directly analogous, to how CMS adjusts the geographic adjustment factor currently used for payment of capital-related costs. Local labor costs have a smaller effect on capital costs than they do on operating costs. Therefore, CMS does not apply the full wage index to capital payments – it applies only a portion of the wage index. Specifically, it applies a hospital's actual wage index raised to the power of 0.6848 to the hospital's capital payments. At the time CMS implemented this methodology, it stated that it was using the exponential methodology in place of using a labor share for capital payments. However, it has not updated its calculation of the capital labor share since, and acknowledged that it is unsure of the extent to which the 0.6848 exponential adjustment currently simulates the capital labor share.

Most Task Force members found the use of an exponential floor extremely promising. First and foremost, they stated that it decreased circularity and thereby improved the fairness of the wage index. These members acknowledged that this methodology is arbitrary, because it is not exactly analogous to the capital payment calculation, but found it appealing that it at least had some precedent in existing policy. In addition, they noted that because this type of floor applies to all hospitals with wage indexes of less than 1.0, it does not necessitate the Task Force choosing an arbitrary minimum value for a floor, such as 0.80 or 0.85. It also maintains the incentive for hospitals to accurately report wages because their adjusted wage indices are based on their actual wage index. Other types of floors (such as instituting a hard minimum wage index value) would necessitate choosing an arbitrary cut-off point and may not always maintain the incentive for hospitals to continue accurately reporting wage index data – certain hospitals will know that no matter their actual value, they will always be brought up to the floor. Less than accurate data from certain hospitals would skew everyone's wage index value, since it is a relative measure.

However, several Task Force members were strongly opposed to the use of an exponential floor. They were troubled by the arbitrary nature of the methodology. They also felt that its use did not improve the fairness and accuracy of the wage index because the methodology was not empirically justified – there is no evidence available to show that wage index values of less than 1.0 are inaccurate, do not reflect the wages paid by those hospitals, and should be artificially increased. Finally, these members were concerned about the size of the budget-neutrality adjustment and redistribution necessitated by this methodology and felt that it was excessive.

<u>Reclassifications and Exceptions</u>. The basic AWI system uses MSAs and statewide rural areas as its labor markets. As a result, there can be substantial differences in the wage indexes of hospitals that are located in different MSAs, but that may compete in the same labor market. Because a hospital near a border may consider it inequitable that its wage index value is lower than that of a nearby hospital, over the years, numerous exceptions to the basic calculation have been incorporated in the system. These exceptions permit hospitals that meet specific criteria to have their payments adjusted by a higher wage index.

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Some of these reclassifications and exceptions are budget neutral, meaning that the additional funding to hospitals with these types of adjustments is offset by cuts to funding for all hospitals. Other types of reclassifications and exceptions are non-budget neutral, meaning additional funding to hospitals with these types of adjustments are paid for by additional funding brought into the Medicare system – they are *not* offset by cuts to all hospitals. Table 3 summarizes the different types of reclassifications and exceptions and exceptions and exceptions under the wage index system.

Table 3: Hospital wage index Reclassifications and Exceptions					
Reclassification or exception	Originating legislation	Criteria	Budget neutrality status	Percent of hospitals qualifying for adjustment	Amount of funding redistributed or added in FY 2012
Medicare Geographic Classification Review Board	Omnibus Budget Reconciliation Act of 1989	Reclassification to adjacent labor market area if meet geographic proximity and comparable wage criteria	Budget neutral	19	\$227 million
Out-Migration	Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA)	Located in county where at least 10 percent of hospital workers commute into higher wage index areas; cannot otherwise be reclassified	Non- budget neutral	16	\$39 million
Rural Floor and Imputed Rural Floor	Balanced Budget Act of 1997	Requires urban wage indexes in a state be equal to or greater than the statewide rural wage index in that state; CMS extended exception to states without rural areas by creating an imputed rural floor for them	Budget neutral	10	\$392 million
Section 508	MMA	Fall just beyond the current MGCRB reclassification criteria; <i>expired 3/31/12</i>	Non- budget neutral	2.6	\$227 million
Section 401	Balanced Budget and Refinement Act of 1999	Reclassification to rural area, for example, to allow hospital to become sole community hospital	*	1.2	*
Lugar County	Omnibus Budget Reconciliation Act of 1987	Reclassification to adjacent labor market if adjacent to more than one labor market and more than 25 percent of residents commute to and work in those labor markets	Budget neutral	1	\$14 million
Frontier State	Patient Protection and Affordable Care Act of 2010	Wage index floor of 1.0 for states where at least 50 percent of counties have fewer than six people per square mile (Alaska and Hawaii are not eligible); currently, five states are eligible: Montana; Nevada; North Dakota; South Dakota: and Wyoming	Non- budget neutral	0.7	\$49 million

#### Table 2. Heavital Wave Index Declassifications and Eventions

Source: Report to the Congress: Greater Efficiency in Medicare, MedPAC, June 2007, p. 128. Wage Index Chartpack, American Hospital Association, November 2011.

\*If hospitals obtain special rural hospital status through Section 401 reclassifications, such as sole community hospital status, that status is not budget neutral. If hospitals solely obtain a different wage index through Section 401 reclassifications, however, that different wage index is applied in a budget neutral manner. Because these reclassifications do not necessarily directly result in differing wage indices, we cannot calculate the impact of Section 401 reclassifications.

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The Task Force expressed overwhelming concern about the number of reclassifications and exceptions permitted under the current system. As shown in Figure 3, in FY 2012, 38 percent of hospitals obtained at least one type of reclassification or exception. Adjudicating this process and maintaining a wage index system with so many interacting exceptions is burdensome to CMS and hospitals alike. The rules and regulations governing how and when multiple types of reclassifications can apply are complex and confusing. For example, if a hospital qualifies for both a Medicare Geographic Classification Review Board (MGCRB) reclassification as well as the outmigration adjustment, CMS assumes the hospital wishes to retain the MGCRB reclassification and waive the outmigration adjustment. If a hospital wishes to retain the outmigration adjustment instead, it must follow certain procedures to notify CMS of its choice.



#### Figure 3: Percent of PPS Hospitals with Wage Index Exception or Reclassification, by type, FY 2012

Source: CMS final FY 2012 inpatient PPS payment impact file, released Aug. 2011. Section 508 hospitals per CMS list in 4/7/11 Federal Register (although this reclassification expired on March 31, 2012). Lugar hospitals per Table 9A in FY 2012 inpatient PPS final rule. Out-migration hospitals per Table 4J in FY 2012 inpatient PPS final rule. Some hospitals are reclassified under more than one method - these are counted only once in the 'total' column. The total number of hospitals with each reclassification in FY 2012 is: Frontier (26), Lugar County (39), Section 401 (40), Section 508 (89), Rural or Imputed Rural Floor (336), Out-Migration (556), MCCRGB (655).

The Task Force also expressed concern that reclassifications are costly to hospitals. Specifically, 30 percent of hospitals benefitted from three types of budget-neutral reclassifications – MGCRB, rural and imputed rural floor, and Lugar county – which redistributed about \$633 million in FY 2012, or about 0.6 percent of inpatient PPS

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payments.<sup>1</sup> As more hospitals obtain reclassifications, the necessary budget neutrality adjustments increase. This puts additional fiscal pressure on hospitals without reclassifications, making them less able to compete for labor. They, in turn, may then make greater attempts to obtain reclassifications, which again increase the necessary budget neutrality adjustments.

Certain types of reclassifications are based on comparisons of a hospital's wage index to the wage index of its competing hospitals. For example, to obtain an MGCRB reclassification, a hospital's AHW must be not only significantly higher than the MSA in which it is located, but also reasonably similar to the MSA to which it wants to reclassify. Specifically, an urban hospital's AHW must be at least 108 percent of the AHW of hospitals in the area in which the hospital is located and at least 84 percent of the AHW of hospitals in the area to which it seeks reclassification. For rural hospitals, the thresholds are 106 percent and 82 percent, respectively. In addition, the hospital must meet proximity criteria: an urban hospital must be no more than 15 miles from the area to which it wants to reclassify and a rural hospital no more than 35 miles; alternatively, at least 50 percent of the hospital's employees must reside in the area to which it wants to reclassify. For example, West Hills Hospital in the Los Angeles MSA is reclassified to the Oxnard-Thousand Oaks-Ventura MSA, about five miles away. West Hills' AHW is 116.1 percent of the MSA in which it is located and 110.5 percent of the MSA to which it is reclassified.

Rural and imputed rural floor reclassifications, in contrast, are not based on comparisons of a hospital's wage index to the wage index of its competing hospitals. Rather, they assume that rural wages should always be lower than urban wages, which can lead to anomalous results in states that have a few very costly rural areas or one very expensive, large rural hospital. Because of the possibility for such aberrant results, the Task Force was particularly concerned about these types of reclassifications. For example, Nantucket Cottage Hospital in rural Massachusetts has the highest AHW in the state and is the only hospital setting the rural floor in the state; therefore, all other wage indices in Massachusetts are brought up to Nantucket's level - an average wage index increase of 8.7 percent. Because rural and imputed rural floor reclassifications are budget neutral, large wage index increases such as this also then result in large budget-neutrality cuts to all other hospitals in the nation. Another example is in California. All hospitals in San Diego receive the rural floor wage index, which may seem counterintuitive given that San Diego is a large city that one might expect pays high wages. However, the rural floor is set by hospitals in Northern California. Because labor in Northern California is so much more costly than in Southern California, the rural floor is still higher than San Diego's wage index.

The Task Force discussed that a contributing factor to rural floor reclassifications leading to anomalous results is the decreasing number of hospitals used in the rural

<sup>&</sup>lt;sup>1</sup> The impact of a Section 401 reclassification cannot be calculated because these reclassifications do not necessarily directly result in differing wage indices. 15

floor calculation. Specifically, only rural PPS hospitals, not other types of rural hospitals such as CAHs, are included in the calculation of the rural floor. As more rural hospitals have converted to CAH status over time, the wage index rural floor calculation has been based on fewer hospitals. Since 2000, the number of hospitals used to calculate the wage index rural floor has decreased by two-thirds (see Figure 4).





Source: CMS final inpatient PPS payment impact files for FYs 2000, 2004 and 2012. Counts in FYs 2000 and 2004 are based on the number of hospitals in each post-wage re-classification rural area. Count in FY 2012 is based on the post re-classification area.

Finally, several types of reclassifications, such as 508 (which expired March 31, 2012) and frontier state reclassifications, are not currently budget neutral. Although 508 and frontier state reclassifications are not budget neutral currently, it is possible that in today's environment of fiscal restraint, Congress may begin to require they become budget neutral in order to be continued.

<u>Labor Markets</u>. A major component of the AWI is the labor markets that are used to group together those hospitals competing for the same workers. Currently, the wage index uses MSAs and one residual non-MSA area per state, called the statewide rural area, as its labor markets. MSAs are designed by the Office of Management and Budget (OMB) for the purpose of collecting federal statistics and usually include a city and its surrounding suburbs. Their current composition will be updated in 2013 using 2010 Census data. Other agencies and organizations commonly use MSAs for economic purposes because they reflect the economic integration of a set of geographic areas. The statewide rural area includes all counties in the state that are not in MSAs. There are currently 459 wage index payment areas – 411 MSAs and 48 statewide non-MSAs.

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While the Task Force felt that the use of MSAs was largely appropriate in and of itself, it was concerned about two issues that stem from the strict use of MSAs and statewide rural areas. First, the Task Force felt that some statewide rural areas and MSAs actually combine different labor markets. In moderate to large states, the statewide rural labor market usually includes hospitals that are geographically far apart and that have widely varying AHWs. For example, St. Catherine Hospital in West Kansas is more than 300 miles from and has a FY 2012 AHW that is more than 20 percent lower than Mercy Hospital Independence in Southeast Kansas. Yet, both hospitals receive the statewide rural wage index of 0.8022. Such situations can be even more extreme in larger states. For example, Lamb Healthcare Center in North Texas is over 500 miles from and has a FY 2012 AHW that is over 50 percent lower than Shelby Regional Medical Center in East Texas. Yet, both hospitals receive the statewide rural wage index of 0.8068. Certain MSAs also encompass thousands of square miles and hospitals with widely varying AHWs. For example, the Los Angeles-Long Beach-Glendale, CA MSA encompasses more than 4,000 square miles and 80 hospitals. In FY 2012, the lowest wage hospital in that MSA has an AHW that is almost 60 percent lower than the AHW of the highest wage hospital in the MSA.

In addition, the Task Force was concerned that there can be substantial differences in the wage indexes of neighboring hospitals that are located near each other but are separated by a labor market boundary. These differentials have become known colloquially as "wage cliffs." An example of a wage cliff is found in upstate New York. Northern Duchess Hospital in Rhinebeck and Kingston Hospital, in Kingston are four miles apart, and although their close geographic proximity should mean that they compete against each other for labor, they have different wage indexes because they are classified as operating in different labor markets. In FY 2012, the wage index for Northern Duchess Hospital is 1.2814, whereas the index for Kingston Hospital is 1.0980 – a 17 percent difference.

Any set of administrative market boundaries, especially boundaries set according to a national formula, will be imperfect. Over the years, numerous exceptions to the basic calculation have been incorporated in the system to address these imperfections. However, as described above, adjudicating this exception process and maintaining a wage index system with so many interacting exceptions is burdensome to CMS and hospitals alike. Further, many of the labor market imperfections stem from the fact that, at some wage levels, workers can be enticed to commute across market boundaries to work at hospitals in other labor markets; only very limited exceptions are made in the current system to account for these commuting patterns.

Some have suggested that better accounting for commuting patterns across labor market boundaries would minimize large differences between adjoining areas and, by doing so, also could remove the need for reclassifications and exceptions. Several options for addressing commuting patterns have been set forth. Specifically, MedPAC has recommended that border differences be limited to 10 percent. The IOM has

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recommended an out-commuting adjustment, and CMS has put forth an in-commuting adjustment. These options are described in more detail below.

<u>MedPAC's Recommended Smoothing Adjustment</u>. As part of its 2007 wage index report, MedPAC recommended an adjustment to reduce large differences in wage indices across borders. It made this recommendation as an alternative to the current system of reclassifications and exceptions. MedPAC set a maximum difference of 10 percent in wage index values across any given border. It then compared the wage index of each area to the wage index of each of its neighbors. If any difference was greater than 10 percent, it reduced the difference to 10 percent by increasing the lower wage index. Once this was accomplished, MedPAC revalued the entire set of wage index values to be budget neutral.

<u>Recommended In- and Out-Commuting Adjustments</u>. Both the IOM and CMS have recommended replacing the current system of reclassifications and exceptions with a commuting adjustment. Commuting adjustments can be implemented on the basis of patterns of workers residing elsewhere but commuting to the county where a provider is located (in-commuting), or on patterns of residents leaving a county to work in another county where a provider is located (out-commuting). Both measures capture economic integration to some degree, but the majority of commuting is from lower-wage areas to higher-wage areas. This is because workers tend to seek higher wages and because larger hospitals tend to be located in larger, higher-wage metropolitan areas. Therefore, adjustments based on out-commuting will tend to raise the wage index in areas where a hospital is competing for workers with facilities located in higher-wage markets. Conversely, adjustments based on in-commuting patterns will tend to lower the wage index in areas where hospitals are drawing large pools of workers from lower-wage markets. However, both tend to "smooth" wage index differences across labor markets.

As part of its 2011 report, *Geographic Adjusters in Medicare Payment*, the IOM recommended using an out-commuting adjustment in the wage index. It made its adjustment in a budget-neutral manner. In its 2011 report, it modeled this adjustment using 2000 Census hospital worker commuting data, because such data were not collected as part of the 2010 Census. However, some have voiced concerns that using data from 2000 is not appropriate. As an alternative, the Census also administers the American Community Survey (ACS), which includes data on commuting. However, this survey has not been funded for several years; thus, while it is a theoretical alternative, it may not be a practical one. Finally, CMS has stated that it may be able to collect data from hospitals on their number of employees by zip code of residence, which would be adequate for purposes of this adjustment. While this would lack data from a wider array of industries that are included in the Census and ACS data, it would be fairly straight forward to administer.

As part of its 2012 report to Congress, *Plan to Reform the Medicare Hospital Wage Index*, CMS recommended using an in-commuting adjustment in the wage index. It made its adjustment in a budget-neutral manner. As stated above, an in-commuting

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adjustment is implemented on the basis of the patterns of workers residing elsewhere, but commuting to the area where a provider is located. It will tend to lower the wage index for hospitals located in areas that draw large pools of workers from lower-wage markets. In its report, CMS also used 2000 Census hospital worker commuting data. To obtain more recent data, the same options of the ACS or a CMS survey exist.

#### Wage Index Principles

Taking into account its major concerns about the wage index, as well as other important considerations, the Task Force had a broad discussion of principles for the hospital field to use in evaluating and recommending for changes to the Medicare AWI adjustment. The Task Force agreed on the following principles:

1. Comprehensive reform of the wage index is absolutely necessary.

The wage index is applied on a nationwide basis, which the Task Force agrees is appropriate. However, the nationwide application of the wage index has exposed critical deficiencies in the current system that already have created and may lead to the creation of further inequities. The wage index no longer adequately addresses its intended purpose. Thus, the system needs comprehensive reform that addresses problems with, for example, data accuracy and consistency, large year-to-year changes in wage indices, and the current labor markets and system of reclassifications and exceptions.

2. Wage index reform must be implemented in a transitional and budget-neutral manner.

It is clear that, in today's fiscal environment, wage index reform will be budget neutral and, therefore, redistributional. Because the wage index affects such a large portion of hospital payments, reform must be gradually phased-in to ensure hospitals do not have excessive changes in their payments from year to year.

3. The wage index should reflect, as accurately as possible, relative differences in the labor costs hospitals face in a market area.

Accuracy is a vital component of a successful wage index system. However, absolute accuracy will never be possible and hospitals should not let "the perfect be the enemy of the good."

4. The wage index data and methodology should be as consistent, easy to administer, transparent and as understandable as possible.

The data collection, review and calculation process should be as uniform, standardized, simple and understandable as possible to promote equitable and accurate wage indices across the nation. The calculation and development of each year's wage index should

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include an appeals process to ensure hospitals have the opportunity to correct any data errors.

5. The wage index system should minimize large year-to-year volatility in individual hospitals' wage index values.

To recruit and retain a stable and experienced workforce, hospitals need to pay stable wages from one year to the next. The wage index should be relatively predictable from year to year so that hospitals may make compensation and staffing plans.

6. The wage index should seek to minimize circularity and, thereby, seek to limit the possibility of creating unjustifiably large differences between the highest and lowest wage indices.

While variation in wage indices will exist by definition, the system should seek to minimize the problem of circularity, such as hospitals with low wage indices being unable to increase wages to become competitive in the labor market.

7. While certain adjustments to the wage index may be necessary to accurately capture differences in labor costs across hospitals, the current system of reclassifications and exceptions is unacceptable.

The current system of reclassifications and exceptions is burdensome, costly and often leads to anomalous results.

8. The wage index system should account for the fact that labor markets cannot realistically be defined as hard boundaries.

Under the current system, labor markets are treated as hard boundaries, meaning there can be substantial differences in the wage indexes of neighboring hospitals that are located near each other but are separated by a labor market boundary. This has, in part, led to the numerous exceptions to the basic calculation that have been incorporated in the system. Yet, at some wage levels, workers can be enticed across market boundaries to work at hospitals in other labor markets. Acknowledging and accounting for these circumstances is critical.

9. The wage index system should use labor markets that are defined broadly enough to encompass all hospitals competing for the same workers, but narrowly enough to avoid encompassing hospitals with wage costs that vary widely.

In moderate- to large-sized states, the statewide rural labor market often includes hospitals that are geographically far apart and that have wage costs that vary widely. While any set of administrative market boundaries, especially boundaries set according

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to a national formula, will be imperfect, defining labor markets as appropriately as possible will promote accuracy.

#### Wage Index Recommendations

The Task Force held extensive discussions of potential recommendations to reform the wage index. They agreed that it is unlikely that any set of recommendations would completely "fix" the wage index system for the hospital field. However, they felt very strongly that there are specific recommendations that would categorically improve the system for the field as a whole. The set of recommendations below helps address the Task Force's major concerns about the wage index, and stems from the principles outlined above. The recommendations, if implemented, would improve the wage index by eliminating the current system of reclassifications and exceptions and replacing it with commuting and smoothing adjustments based on up-to-date data. Doing so would balance the need to eliminate the burdensome, confusing and sometimes anomalous reclassification system with the need to acknowledge that labor markets cannot realistically be defined as hard boundaries. The recommendations also would improve the consistency of the wage index data, limit the amount of volatility in the improved system, ensure that there is an adequate transition from the current to the improved system, and decrease the problem of circularity.

Therefore, the Task Force makes the following recommendations on the inpatient hospital wage index (including the Puerto Rico wage index):

1. To improve the accuracy and consistency of the wage index, CMS should designate one FI/MAC to complete all wage index data collection and processing.

Centralizing wage index work will help eliminate differences in the collection and/or processing of the data that underlie the wage index and ensure consistent application of definitions, methodologies, rules and interpretations, thereby improving accuracy and consistency.

2. To ensure wage index reform does not cause sudden and extreme fluctuations in hospital payments, Congress should phase-in reform using a transitional period of at least five years.

As stated above, in today's environment of fiscal pressures, wage index reform will be budget neutral and, therefore, re-distributional. An adequate transition from the current system to the reformed system is important to ensure that changes in hospitals' wage indices are moderated. In a five-year transition, hospitals' wage indices in year one would be calculated as 80 percent of their wage index under the current methodology and 20 percent their wage index under the Task Force's methodology; year two would be 60 percent current methodology and 40 percent Task Force methodology. This would continue until year 5, in which hospitals' wage indices would equal 100 percent of their wage index under the Task Force's methodology.

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It is important to note that the Task Force generally felt a five year phase-in balanced the need to move quickly to a reformed wage index while allowing enough time for providers negatively affected to transition to the new system. However, a few Task Force members wanted a shorter transition period, such as three years or less.

3. To help limit year-to-year volatility in individual hospitals' wage indices, Congress should include all hospitals and hospital distinct-part units paid using the inpatient PPS wage index, including inpatient rehabilitation facilities, inpatient psychiatric facilities, and long-term care hospitals, in the wage index data set.

Increasing the size of the dataset will decrease the amount of volatility hospitals experience in their wage indices. Including data from all hospitals paid using the inpatient PPS wage index is appropriate because these other hospital types both compete with PPS hospitals for labor and also see their payments adjusted using the pre-reclassification inpatient PPS wage index. While the Task Force also discussed the possibility of including CAHs in the wage index data set, they were concerned that, because CAHs do not see their payments adjusted using the wage index, their wage data may not be fully complete.

4. To ensure that hospitals do not experience excessive year-to-year volatility Congress should institute budget-neutral 3 percent stop-loss and stop-gain policies that would limit the amount by which a hospital's wage index could decrease or increase in a single year. These policies should apply both during and after the five-year transitional period.

Stop-loss and stop-gain policies would mitigate extreme wage index decreases and increases, and, thereby, improve the stability of hospital wage indices from year-to-year. Implementing both stop-loss and stop-gain policies could minimize or possibly eliminate the impact of the budget neutrality adjustment necessary for this policy.

5. To decrease the problem of circularity, Congress should increase wage indexes that are less than 1.0 using an exponential methodology similar to what is done with the geographic adjustment factor currently used by CMS in adjusting capital payments. Puerto Rico wage indexes should be increased to, the lowest pre-reclassification wage index outside Puerto Rico (which in FY 2013 is 0.6797).

The Task Force found that the use of only hospital data could lead to the problem of circularity. In small and medium-sized markets in particular, low wage index hospitals may face difficulties in being able to increase wages to become competitive in the labor market. Raising all wage indices of less than 1.0 to the power of 0.6848 would, in effect, compress wage index values up towards 1.0 and help combat the problem of circularity.

It is critical to note that, while most Task Force members supported this recommendation, several were strongly opposed to it. They were troubled by the arbitrary nature of the methodology. They also felt that its use did not improve the fairness and accuracy of the wage index because the methodology was not empirically justified – there is no evidence available to show that wage index values of less than 1.0 are inaccurate, do not reflect the wages paid by those hospitals, and should be artificially increased. Finally, these members were concerned about the size of the budget-neutrality adjustment and re-distribution necessitated by this methodology and felt that it was excessive.

 Congress should eliminate the current system of reclassifications and exceptions, except when reclassifications are done in a non-budget-neutral manner, and replace it with a wage index out-commuting adjustment, together with a 10 percent smoothing adjustment.

Developing a single wage index to accurately capture differences in labor costs across hospitals is a complex task. In certain circumstances, there may be substantial differences in the wage indexes of neighboring hospitals that are located in different market areas, but that compete with one another for labor; this could, in turn, lead to the need for an adjustment. However, the current system of reclassifications and exceptions is unacceptable and should be eliminated, except when reclassifications are done in a non-budget-neutral manner.<sup>2</sup> It should be replaced by an out-commuting adjustment, which more accurately and fairly addresses workforce competition across adjacent market areas, and which accounts for the fact that labor markets cannot realistically be defined as hard boundaries. Although both in-commuting and outcommuting adjustments moderate wage index differences across labor markets in a budget-neutral manner, an out-commuting adjustment tends to raise wage indices, while an in-commuting adjustment tends to lower them. Thus, hospitals' perception of an out-commuting adjustment is likely to be more positive. Implementing a 10 percent smoothing adjustment after application of the out-commuting adjustment will ensure against substantial differences in the wage indexes of neighboring hospitals that are located in different market areas, but that compete with one another for labor.

One Task Force member felt the out-commuting and smoothing adjustments should be implemented by adjusting wage indices on both sides of the relevant labor market borders – i.e., the low wage index should be raised, but the high wage index also should be lowered. This member was concerned that a large budget-neutrality cut will be required to finance all the Task Force's recommendations combined. Implementing the out-commuting and smoothing adjustments by adjusting both sides of the labor market

<sup>&</sup>lt;sup>2</sup> If hospitals obtain special rural hospital status through Section 401 reclassifications, such as sole community hospital status, that status is not budget neutral. If hospitals solely obtain a different wage index through Section 401 reclassifications, however, that different wage index is applied in a budget neutral manner. Therefore, under this recommendation, Section 401 reclassifications would be eliminated when solely used to obtain a different wage index, but not when used to obtain special rural hospital status.
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border would minimize or eliminate the budget-neutrality adjustment necessary for this policy.

7. Congress should require the use of up-to-date data on hospital-specific commuting patterns to administer the out-commuting adjustment.

It is essential that the out-commuting adjustment be based on up-to-date data. Collecting these data on a hospital-specific basis will allow the labor markets used in the wage index, particularly the statewide rural areas, to be refined and help ensure that they are defined broadly enough to encompass all hospitals competing for the same workers, but narrowly enough to avoid encompassing hospitals with wage costs that vary widely.

#### Conclusions

Over the past year, the Task Force has engaged in an extraordinary amount of education, analysis and discussion about the AWI system. Throughout that process, Task Force members overwhelmingly agreed that the current system is greatly flawed in many respects and that its fundamental problems warrant a full and comprehensive re-evaluation.

They also agreed that there was no one solution that would completely "fix" the wage index system for the entire hospital field. However, by not letting the "perfect be the enemy of the good," they were able to make a set of principles and recommendations that help address their major concerns about the wage index. Implementation of these recommendations will require both congressional and administrative action and resources and time for data collection and analysis. Some could be implemented relatively quickly, while others would take more time. But taken together, the Task Force's principles and recommendations will improve the accuracy, fairness and effectiveness of the hospital AWI.

#### Appendix A

#### Medicare AWI Task Force

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Appendix B

#### **Options for Improving Circularity**

#### **Option 1: BLS Data**

In this scenario, wage indices are computed using data from BLS, rather than the hospital cost report. The BLS data include the wages of health care workers employed in all industries. As a caveat to our analysis, we were able to include only 94 percent of PPS hospitals in our analysis of this scenario. This is because we excluded areas with invalid BLS data and areas that did not match up with CMS MSA codes. For example, we excluded seven urban areas because they had no BLS data for registered nurse wages.<sup>3</sup> In addition, for example, we excluded the state of Rhode Island because the BLS data contain different MSA codes for this area than the CMS data. Therefore, it is impossible to be able to assign the right BLS data to each specific Rhode Island hospital.

In addition, we added the costs of benefits to these data. To do so, we used hospital cost-report data to estimate the cost of benefits in each MSA by calculating the percentage of wages and salaries that benefits represented. We then increased the BLS wage index of each MSA by that percent.

Under this scenario, after the budget-neutrality adjustment of 0.86 percent is applied,<sup>4</sup> and compared to hospitals' FY 2012 pre-reclassification wage indices, 1,719 hospitals (53 percent) would have a net gain in payments from using the BLS data; the average net gain is 2.4 percent. In addition, 1,503 hospitals (47 percent) would have a net loss in payments and the average net loss is 3.1 percent. These changes would be phased in over five years per our recommendation on a transition.

As shown in the graphs below, using the BLS data results in a narrower range of wage index values compared to how the wage index is currently calculated. For example, using the BLS data, there no longer would be any hospitals with wage indices in the lowest wage index range of 0.6 - 0.7. There also would be fewer hospitals in the high and low categories of 1.5 - 1.7 and 0.7 - 0.9.

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<sup>&</sup>lt;sup>3</sup> These seven areas are: Merced, CA; Dover, DE; Warner Robins, GA; Iowa City, IA; Anderson, SC; St. George, UT; and Morgantown, WV.

<sup>&</sup>lt;sup>4</sup> Because of the methodology we used, in which we simply increased the BLS wage index of each MSA by its average benefits percentage, the budget neutrality adjustment is large.

The distribution of hospitals by their FY 2012 pre-reclassification wage index is (excluding Puerto Rico):






#### **Option 2a: Exponential Floor**

In this scenario, all wage indices of less than 1.0 are raised to the power of 0.6848. If this were done on FY 2012 wage indices, the budget-neutrality adjustment would be negative 1.2 percent and would apply to all hospitals' payments. Under this scenario, after budget neutrality is applied, 1,870 hospitals (55 percent) would have a net gain in payments from applying an exponential floor; the average net gain is 2.1 percent. In addition, 1,552 hospitals (45 percent) would have a net loss in payments and the average net loss is 1.0 percent.

As shown in the table below, hospital wage indices would change by widely varying amounts under this scenario – from an increase of about 31 percent for Puerto Rico hospitals to an increase of 1.6 percent for hospitals with wage indices of 0.95. These are large changes, and would be phased-in over five years per our recommendation on a transition.

Actual Wage	Exponential Wage	Percentage
Index Value	Index Value	Increase
0.4230*	0.5548	31.2
0.6797**	0.7677	12.9
0.7000	0.7833	11.9
0.7500	0.8212	9.5
0.8000	0.8583	7.3
0.8500	0.8947	5.3
0.9000	0.9304	3.4
0.9500	0.9655	1.6
1.0000	1.0000	0.0

\* Average FY 2013 Puerto Rico wage index.

\*\* This is the lowest pre-reclassification wage index in FY 2013 outside Puerto Rico.

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As shown in the graphs below (and using FY 2012 data), applying an exponential floor results in a narrower range of wage index values compared to how the wage index is currently calculated. For example, there no longer would be any hospitals with wage indices in the lowest wage index range of 0.6 - 0.7. There also would be fewer hospitals in the 0.7 - 0.8 and 0.8 - 0.9 wage index ranges.

The distribution of hospitals by their FY 2012 pre-reclassification wage index is (excluding Puerto Rico):



The distribution of hospitals by their Option 2a wage index is (excluding Puerto Rico):



#### **Option 2b: Exponential Floor with Cap**

In this scenario, all wage indices of less than 1.0 are raised to the power of 0.6848. A cap is then set at the highest pre-reclassification wage index. Going forward, no wage index would be able to increase above this cap. If this policy were implemented with FY 2012 wage indices, the cap would be 1.6645, but would not affect any hospitals in FY 2012. Therefore, the impacts of this policy in FY 2012 would be the same as for Option 2a. Specifically, after the budget-neutrality adjustment of negative 1.2 percent is applied, 1,870 hospitals (55 percent) would have a net gain in payments from applying an exponential floor; the average net gain would be 2.1 percent. In addition, 1,552 hospitals (45 percent) would have a net loss in payments and the average net loss would be 1.0 percent.

While the impacts above would apply in the first year of this policy, they would change as the cap presumably began affecting hospitals in future years. However, we cannot model these future affects of the cap.

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#### **Option 2c: Exponential Floor and Exponential Ceiling**

In this scenario, <u>all</u> wage indices are raised to the power of 0.6848. If this were done on FY 2012 wage indices, the budget-neutrality adjustment would be +0.19 percent and would apply to all hospitals' payments. Under this scenario, after budget neutrality is applied, 2,452 hospitals (72 percent) would have a net gain in payments from applying an exponential floor and ceiling; the average net gain would be 2.9 percent. In addition, 970 hospitals (28 percent) would have a net loss in payments and the average net loss would be 3.2 percent.

As shown in the table below, hospital wage indices would change by widely varying amounts under this scenario – from an increase of about 31 percent for Puerto Rico hospitals to a decrease of about 16 percent for hospitals with the highest wage index value. These are large changes, and would be phased-in over five years per our recommendation on a transition.

Actual Wage	Exponential Wage	Percentage
Index Value	Index Value	Change
0.4230*	0.5548	+31.2
0.6797**	0.7677	+12.9
0.7000	0.7833	+11.9
0.7500	0.8212	+9.5
0.8000	0.8583	+7.3
0.8500	0.8947	+5.3
0.9000	0.9304	+3.4
0.9500	0.9655	+1.6
1.0000	1.0000	0.0
1.0500	1.0340	-1.5
1.1000	1.0674	-3.0
1.1500	1.1004	-4.3
1.2000	1.1330	-5.6
1.2500	1.1651	-6.8
1.3000	1.1968	-7.9
1.3500	1.2282	-9.0
1.4000	1.2591	-10.0
1.4500	1.2897	-11.1
1.5000	1.3200	-12.0
1.5500	1.3500	-12.9
1.6000	1.3797	-13.8
1.6500	1.4090	-14.6
1.7624***	1.4741	-16.4

\* Average FY 2013 Puerto Rico wage index.

\*\* This is the lowest pre-reclassification wage index in FY 2013 outside Puerto Rico.

\*\*\* This is the highest pre-reclassification wage index in FY 2013.

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As shown in the graphs below (and using FY 2012 data), applying an exponential floor and ceiling results in a narrower range of wage index values compared to how the wage index is currently calculated. For example, there no longer would be any hospitals with wage indices in the highest and lowest wage index ranges of 0.6 - 0.7, 1.5 - 1.6 and 1.6 - 1.7. There also would be fewer hospitals in the 0.7 - 0.9 and 1.2 - 1.4 wage index ranges.

The distribution of hospitals by their FY 2012 pre-reclassification wage index is (excluding Puerto Rico):



#### The distribution of hospitals by their Option 2c wage index is (excluding Puerto Rico):



#### **Option 3: Standard Deviation Floor and Ceiling**

In this scenario, a floor is set at the mean wage index minus 1 standard deviation and a ceiling is set at the mean wage index plus 2 standard deviations. If these values were set using FY 2012 wage indices, the floor would be 0.8031 and the ceiling 1.2517. See below for more information.

	Value	Number of Hospitals Affected	Percent of Hospitals Affected	Average change in wage index for hospitals affected by floor/ceiling
Floor: mean minus 1 standard deviation	0.8031	537	16	+5.4%
Ceiling: mean plus 2 standard deviations	1.2517	219	6	-7.3%

In addition, all hospitals would be affected by the budget-neutrality adjustment of +0.51 percent that applied to their payments. Including the budget-neutrality adjustment, 3,212 hospitals, or 94 percent, would have a net gain in payments; the average net gain would be 1.4 percent. In addition, 210, or 6 percent, of hospitals would have a net loss in payments; the average net loss would be 7.1 percent. These changes would be phased-in over five years per our recommendation on a transition.

As shown in the graphs below, applying this standard deviation floor and ceiling results in a narrower range of wage index values compared to how the wage index is currently calculated. Specifically, there no longer would be any hospitals with wage indices in the high and low wage index ranges of 0.6 - 0.8 and 1.3 - 1.7.

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The distribution of hospitals by their FY 2012 pre-reclassification wage index is (excluding Puerto Rico):



#### The distribution of hospitals by their Option 3 wage index is (excluding Puerto Rico):





### Medicare Area Wage Index Task Force





## Task Force Members

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## **Task Force Deliberations**

- Met in November 2011 and January, April and June 2012
- Calls in May, July, August, October 2012
  - Education
  - Key Concerns
  - Principles
  - Recommendations



# **Task Force Deliberations**

- Task Force Report to Board in November
  - Accepted report
  - Requested modeling
- Modeling discussed at Spring RPBs/Governing Councils
- Board determined more feedback needed
  - Created Review Committee + Open



Association

# Accuracy and Consistency Volatility Circularity Labor Markets Reclassifications and Exceptions



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## **Accuracy and Consistency**

- Complex regulations on how hospitals must report wage data
- FIs and MACs work to ensure regulations are applied consistently reviews, audits, appeals
- However, hospital concern that FI/MAC practices not consistent



## Volatility

Wage indices vary from year-to-year, sometimes significantly

Distribution of PPS Hospitals Based on Change in Area Wage Index



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## Circularity

- Concern from low-wage hospitals "downward spiral"
- Known as circularity the fact that hospitals can directly influence their own wage index
  - Because wage index based on hospitalreported data
- Especially likely to occur in areas with only a few hospitals, or one or a few dominant hospitals



## Labor Market

- The 411 metropolitan statistical areas (MSAs) serve as wage index labor markets
- Non-MSA areas grouped into 1 statewide rural labor per state
- Concerns:
  - o "wage cliffs"
  - o 1 statewide area too large



# Wage Index Labor Markets

## Current labor markets often create "wage cliffs"



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### Labor Markets

Concern about one statewide rural area



## **Reclassifications and Exceptions**

- Wage index system can create "wage cliffs"
  - Hospital near a border may have lower wage index than nearby hospital
- Led to numerous exceptions
  - Exceptions permit hospitals that meet specific criteria to have their payments adjusted by a higher wage index
- The Task Force expressed overwhelming concern about the number of reclassifications and exceptions in current system

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Percent of PPS Hospitals with Wage Index Exception or Reclassification, by type, FY 2012

37.6%



# **Task Force Principles**

- 1. Comprehensive reform of the wage index is absolutely necessary.
- 2. Wage index reform must be implemented in a transitional and budget-neutral manner.
- The wage index should reflect, as accurately as possible, relative differences in the labor costs hospitals face in a market area.



# **Task Force Principles**

- 4. The wage index data and methodology should be as consistent, easy to administer, transparent and understandable as possible.
- 5. The wage index system should minimize large year-to-year changes in individual hospitals' wage indices.
- The wage index should minimize circularity and, thereby, seek to limit the possibility of creating unjustifiably large differences between the highest and lowest wage indices.



# **Task Force Principles**

- 7. While certain adjustments to the wage index may be necessary to accurately capture differences in labor costs across hospitals, the current system of reclassifications and exceptions is unacceptable.
- 8. The wage index system should account for the fact that labor markets cannot realistically be defined as hard boundaries.
- 9. The wage index system should use labor markets that are defined broadly enough to encompass all hospitals competing for the same workers, but narrowly enough to avoid encompassing hospitals with wage costs that vary widely.



- 1. CMS should designate one FI/MAC to complete all wage index data collection and processing.
- 2. Congress should phase-in reform using a transitional period of at least 5 years.



- Congress should include all hospitals and hospital distinct-part units paid using the inpatient PPS wage index, including inpatient rehabilitation facilities, inpatient psychiatric facilities, and longterm care hospitals, in the wage index data set.
- 4. Congress should institute budget-neutral 3percent stop-loss and stop-gain policies that would limit the amount by which a hospital's wage index could decrease or increase in a single year. These policies should apply both during and after the five-year transitional period.

 Congress should increase wage indexes that are less than 1.0 using an exponential methodology similar to what is done with the geographic adjustment factor currently used by CMS in adjusting capital payments.



Actual Wage Index Value	Exponential Wage Index Value	Percentage Increase
0.4230	0.6797	60.7
0.6797	0.7677	12.9
0.7000	0.7833	11.9
0.7500	0.8212	9.5
0.8000	0.8583	7.3
0.8500	0.8947	5.3
0.9000	0.9304	3.4
0.9500	0.9655	1.6
1.0000	1.0000	0.0

### 1.2 % budget neutrality adjustment

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 The Congress should eliminate the current system of reclassifications and exceptions, except when reclassifications are done in a nonbudget-neutral manner, and replace it with a wage index out-commuting adjustment, together with a 10-percent smoothing adjustment.



## How Would Hiring a Nurse from a Small Town Affect Wage Indexes?



Big city average wage = \$30/hour

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Association

Out-commuting adjustment: if the small town nurse commutes to the big city hospital for \$30/hour, the small town's wage index increases from \$24/hour to \$26/hour

## How Would Hiring a Nurse from a Small Town Affect Wage Indexes?



Smoothing: after out-commuting applied, further ensure that border differences are limited to no more than 10%

American Hospital Association

 The Congress should require the use of up-todate data on hospital-specific commuting patterns to administer the out-commuting adjustment.



## Modeling Task Force Recommendations

- Calculated hospital-specific and state-level impacts compared to FY 2013 AWIs and operating payments
- Included recommendations:
  - 5-year transition
  - Budget neutrality
  - Stop-gain and stop-loss policies
  - Exponential adjustment
  - Eliminate budget-neutral reclassifications
  - Out-commuting adjustment
  - Smoothing adjustment



## Modeling Task Force Recommendations

- Recommendations we were not able to model:
  - One FI/MAC process data
  - Including data from all hospitals/DPUs paid using wage index
  - Using up-to-date commuting data on hospital-specific commuting patterns



### Distribution of PPS Hospitals Based on Change in FY 2013 Operating Payments Under Task Force Recommendations



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## Medicare Area Wage Index Task Force








#### Payment and Change in Payment by Year of Implementation of Task Force Recommendations (In billions of dollars) Data updated with March 2013 Release of FY 2013 Impact File

			Yea	ar 1	Yea	ır 2	Yea	ar 3	Yea	ar 4	Yea	ar 5		
		Current		Orantian		Onesting		Orenting		Oranatia		On continue		Quantitation
		Inpatient PPS	Inpatient PPS	Operating	<b>-</b>	Cumulative								
01-1-	Number of	Operating	Operating	Payment	I otal Impact	Impact Over								
State	Hospitals	Payments	Payments	Change	by Year 5	5 Years								
Alabama	96	\$1.850	\$1.861	\$0.011	\$1.871	\$0.011	\$1.882	\$0.011	\$1.892	\$0.010	\$1.903	\$0.010	\$0.053	\$0.159
Alaska	6	\$0.150	\$0.150	-\$0.001	\$0.149	-\$0.001	\$0.148	-\$0.001	\$0.147	-\$0.001	\$0.147	-\$0.001	-\$0.004	-\$0.011
Arizona	58	\$1.889	\$1.882	-\$0.006	\$1.876	-\$0.006	\$1.870	-\$0.006	\$1.864	-\$0.006	\$1.858	-\$0.006	-\$0.031	-\$0.094
Arkansas	45	\$1.145	\$1.149	\$0.004	\$1.152	\$0.004	\$1.156	\$0.004	\$1.160	\$0.004	\$1.164	\$0.004	\$0.019	\$0.058
California	311	\$11.174	\$11.157	-\$0.017	\$11.141	-\$0.016	\$11.125	-\$0.016	\$11.109	-\$0.016	\$11.093	-\$0.016	-\$0.081	-\$0.244
Colorado	46	\$1.111	\$1.108	-\$0.003	\$1.105	-\$0.003	\$1.103	-\$0.003	\$1.100	-\$0.003	\$1.097	-\$0.003	-\$0.014	-\$0.043
Connecticut	32	\$1.688	\$1.676	-\$0.012	\$1.665	-\$0.012	\$1.653	-\$0.012	\$1.641	-\$0.012	\$1.630	-\$0.012	-\$0.058	-\$0.174
Delaware	6	\$0.423	\$0.422	-\$0.001	\$0.421	-\$0.001	\$0.420	-\$0.001	\$0.419	-\$0.001	\$0.417	-\$0.001	-\$0.006	-\$0.017
Florida	169	\$7.348	\$7.357	\$0.008	\$7.365	\$0.008	\$7.373	\$0.008	\$7.381	\$0.008	\$7.388	\$0.008	\$0.040	\$0.120
Georgia	108	\$2.864	\$2.870	\$0.005	\$2.875	\$0.005	\$2.881	\$0.006	\$2.886	\$0.005	\$2.891	\$0.005	\$0.027	\$0.081
Hawaii	14	\$0.302	\$0.302	\$0.000	\$0.302	\$0.000	\$0.302	\$0.000	\$0.302	\$0.000	\$0.302	\$0.000	\$0.000	-\$0.001
Idaho	14	\$0.300	\$0.300	\$0.000	\$0.300	\$0.000	\$0.300	\$0.000	\$0.301	\$0.000	\$0.301	\$0.001	\$0.001	\$0.003
Illinois	130	\$5.283	\$5.283	\$0.000	\$5.283	\$0.000	\$5.283	\$0.000	\$5.282	\$0.000	\$5.282	\$0.000	\$0.000	\$0.000
Indiana	89	\$2.535	\$2.533	-\$0.002	\$2.531	-\$0.002	\$2.529	-\$0.002	\$2.527	-\$0.002	\$2.526	-\$0.002	-\$0.009	-\$0.028
Iowa	34	\$0.993	\$0.994	\$0.001	\$0.996	\$0.001	\$0.997	\$0.001	\$0.998	\$0.001	\$1.000	\$0.002	\$0.007	\$0.020
Kansas	55	\$0.955	\$0.957	\$0.002	\$0.959	\$0.002	\$0.962	\$0.002	\$0.964	\$0.002	\$0.966	\$0.002	\$0.012	\$0.035
Kentucky	65	\$2.011	\$2.017	\$0.006	\$2.022	\$0.006	\$2.028	\$0.006	\$2.034	\$0.006	\$2.040	\$0.006	\$0.029	\$0.087
Louisiana	98	\$1.589	\$1.598	\$0.009	\$1.607	\$0.009	\$1.615	\$0.009	\$1.624	\$0.009	\$1.632	\$0.008	\$0.043	\$0.130
Maine	20	\$0.515	\$0.514	-\$0.001	\$0.513	-\$0.001	\$0.512	-\$0.001	\$0.511	-\$0.001	\$0.510	-\$0.001	-\$0.005	-\$0.016
Massachusetts	61	\$3.519	\$3.469	-\$0.050	\$3.419	-\$0.050	\$3.370	-\$0.049	\$3.321	-\$0.049	\$3.273	-\$0.048	-\$0.246	-\$0.744
Michigan	96	\$4.580	\$4.577	-\$0.003	\$4.574	-\$0.003	\$4.571	-\$0.003	\$4,568	-\$0.003	\$4.565	-\$0.003	-\$0.016	-\$0.047
Minnesota	51	\$1.824	\$1.823	-\$0.001	\$1.822	-\$0.001	\$1.821	-\$0.001	\$1.820	-\$0.001	\$1.820	-\$0.001	-\$0.005	-\$0.016
Mississippi	66	\$1.261	\$1.266	\$0.005	\$1.271	\$0.005	\$1.276	\$0.005	\$1.281	\$0.005	\$1.286	\$0.005	\$0.025	\$0.077
Missouri	76	\$2.673	\$2.679	\$0.006	\$2,686	\$0.006	\$2,692	\$0.006	\$2,698	\$0.006	\$2,705	\$0.006	\$0.032	\$0.095
Montana	12	\$0.270	\$0.270	\$0.000	\$0.270	\$0.000	\$0.270	\$0.000	\$0.270	\$0.000	\$0.270	\$0.000	\$0.000	\$0.000
Nebraska	23	\$0.676	\$0.676	\$0,000	\$0.676	\$0,000	\$0.676	\$0,000	\$0.675	\$0,000	\$0.675	\$0,000	-\$0.001	-\$0.003
Nevada	24	\$0 747	\$0 750	\$0.003	\$0 752	\$0.003	\$0 755	\$0.003	\$0 757	\$0,003	\$0 760	\$0.002	\$0.013	\$0.038
New Hampshire	13	\$0.482	\$0.477	-\$0.005	\$0.472	-\$0.005	\$0.468	-\$0.005	\$0.463	-\$0.005	\$0.458	-\$0.005	-\$0.024	-\$0.071
New Jersev	65	\$3 835	\$3 820	-\$0.015	\$3 804	-\$0.015	\$3 789	-\$0.015	\$3 774	-\$0.015	\$3 759	-\$0.015	-\$0.076	-\$0 228
New Mexico	27	\$0.467	\$0.467	\$0,000	\$0.468	\$0,000	\$0.468	\$0,000	\$0.468	\$0,000	\$0.468	\$0,000	\$0.001	\$0,002
New York	168	\$8 793	\$8 790	-\$0.003	\$8 787	-\$0.003	\$8 784	-\$0.003	\$8 780	-\$0.004	\$8 776	-\$0.004	-\$0.017	-\$0.048
North Carolina	28	\$3 734	\$3 741	\$0.007	\$3.748	\$0.003	\$3,755	\$0.007	\$3 762	\$0.007	\$3 768	\$0.007	\$0.034	\$0.104
North Dakota	6	\$0.281	\$0.281	\$0.000	\$0.281	\$0.000	\$0.281	\$0.000	\$0.281	\$0.000	\$0.281	\$0.000	\$0.000	\$0,000

The impact by year 5 compares payment using the AWI in year 5 to payment under the current FY 2013 AWI. The cumulative impact compares each year's payments to the FY 2013 payment and sums those differences.



#### Payment and Change in Payment by Year of Implementation of Task Force Recommendations (In billions of dollars) Data updated with March 2013 Release of FY 2013 Impact File

			Ves	or 1	Ve	ar 2	Ve	ar 3	Vez	r A	Ve	ar 5		
			108	41 1	100		108		100		108			
		Current												
		Inpatient PPS	Inpatient PPS	Operating		Cumulative								
	Number of	Operating	Operating	Payment	Total Impact	Impact Over								
State	Hospitals	Payments	Payments	Change	by Year 5	5 Years								
Ohio	139	\$4.235	\$4.243	\$0.008	\$4.252	\$0.008	\$4.260	\$0.008	\$4.268	\$0.008	\$4.276	\$0.008	\$0.041	\$0.123
Oklahoma	85	\$1.368	\$1.374	\$0.006	\$1.381	\$0.006	\$1.387	\$0.006	\$1.393	\$0.006	\$1.399	\$0.006	\$0.032	\$0.096
Oregon	33	\$0.885	\$0.885	\$0.000	\$0.884	\$0.000	\$0.884	\$0.000	\$0.883	\$0.000	\$0.883	\$0.000	-\$0.002	-\$0.006
Pennsylvania	154	\$4.917	\$4.924	\$0.007	\$4.931	\$0.007	\$4.938	\$0.007	\$4.945	\$0.007	\$4.952	\$0.007	\$0.034	\$0.103
Puerto Rico	52	\$0.190	\$0.192	\$0.002	\$0.194	\$0.002	\$0.196	\$0.002	\$0.198	\$0.002	\$0.200	\$0.002	\$0.010	\$0.029
Rhode Island	11	\$0.391	\$0.388	-\$0.003	\$0.385	-\$0.003	\$0.381	-\$0.003	\$0.378	-\$0.003	\$0.375	-\$0.003	-\$0.017	-\$0.050
South Carolina	56	\$1.743	\$1.748	\$0.006	\$1.754	\$0.006	\$1.759	\$0.005	\$1.765	\$0.005	\$1.770	\$0.005	\$0.027	\$0.083
South Dakota	18	\$0.341	\$0.341	\$0.000	\$0.341	\$0.000	\$0.341	\$0.000	\$0.341	\$0.000	\$0.341	\$0.000	\$0.000	\$0.000
Tennessee	97	\$2.584	\$2.594	\$0.010	\$2.603	\$0.010	\$2.613	\$0.009	\$2.622	\$0.009	\$2.631	\$0.009	\$0.047	\$0.143
Texas	325	\$7.540	\$7.554	\$0.014	\$7.567	\$0.014	\$7.581	\$0.014	\$7.594	\$0.013	\$7.608	\$0.013	\$0.068	\$0.205
Utah	32	\$0.460	\$0.461	\$0.001	\$0.462	\$0.001	\$0.463	\$0.001	\$0.464	\$0.001	\$0.465	\$0.001	\$0.006	\$0.018
Vermont	6	\$0.191	\$0.191	\$0.000	\$0.191	\$0.000	\$0.191	\$0.000	\$0.191	\$0.000	\$0.191	\$0.000	\$0.000	-\$0.001
Virginia	79	\$2.675	\$2.678	\$0.003	\$2.681	\$0.003	\$2.685	\$0.003	\$2.688	\$0.004	\$2.692	\$0.004	\$0.017	\$0.050
Washington	48	\$1.925	\$1.922	-\$0.003	\$1.919	-\$0.003	\$1.916	-\$0.003	\$1.912	-\$0.003	\$1.909	-\$0.003	-\$0.016	-\$0.048
Washington, D.C.	7	\$0.511	\$0.510	\$0.000	\$0.510	\$0.000	\$0.510	\$0.000	\$0.509	\$0.000	\$0.509	\$0.000	-\$0.002	-\$0.005
West Virginia	33	\$0.841	\$0.845	\$0.004	\$0.849	\$0.004	\$0.853	\$0.004	\$0.856	\$0.004	\$0.860	\$0.004	\$0.019	\$0.056
Wisconsin	65	\$1.722	\$1.721	-\$0.001	\$1.719	-\$0.001	\$1.718	-\$0.001	\$1.717	-\$0.001	\$1.715	-\$0.001	-\$0.007	-\$0.020
Wyoming	11	\$0.137	\$0.137	\$0.000	\$0.137	\$0.000	\$0.137	\$0.000	\$0.137	\$0.000	\$0.137	\$0.000	\$0.000	\$0.000

The impact by year 5 compares payment using the AWI in year 5 to payment under the current FY 2013 AWI. The cumulative impact compares each year's payments to the FY 2013 payment and sums those differences.

#### Methodology:

The table shows both the single-year and cumulative impact of phasing in several of the Task Force's wage index recommendations over 5 years. To calculate the impacts, we used the updated March 2013 release of the FY 2013 Final Rule Impact File which was released after our initial round of modeling. It reflects CMS' corrections made through March 2013, where CMS updated certain parameters, including the provider type, hospital-specific rates for Sole Community Hospitals (SCHs) and Medicare Dependent Hospitals (MDHs), low volume adjustment factors and the Value-based Purchasing (VBP) and Readmissions adjustment factors. Because the MDH and low volume provisions expire at the end of FY 2013, we have not included the impact of these provisions in our model. This version of our model includes all updates and the special payment provisions that apply to SCHs. We began with hospitals' FY 2013 area wage index and operating payments. Operating payments, indirect medical education (IME) payments, disproportionate share hospital (DSH) payments, outlier payments, IME payments for Medicare Advantage cases (as CMS includes these payments in its regulatory impact analyses), VBP and readmissions amounts. Note that, in the case of SCHs, it is possible for a SCH's wage index to increase yet for its overall operating payment to show a decrease. This is because these SCHs are paid at the hospital-specific rate but VBP and readmissions amounts are based on the Federal rate.

- We removed all current reclassifications, including the Section 505 out-migration adjustment and the frontier wage index floor;
- We applied the recommended out-commuting adjustment using data on workers in NAICS 62 (health care and social assistance) and the most recent commuting data that were available the county-to-county flows from the U.S. Census Bureau's 2005-2009 American Community Survey;
- We applied the exponential adjustment;
- We applied the 10 percent smoothing adjustment;
- We calculated the transitional wage indices for each of years 1-5 we did not account for any other payment or utilization changes, or for inflation, over the 5 years;
- We applied the 3 percent stop-loss and stop-gain policies in each year; and
- We applied budget neutrality while also re-applying the two statutory reclassifications that are made using new money the Section 505 out-migration adjustment and the frontier wage index floor (except when our calculated wage index was already above 1.0).

We were unable to model three of the Task Force's recommendations.

- First, we could not show any effects of moving to one fiscal intermediary or Medicare Administrative Contractor to process wage index data.
- In addition, we could not model the effect of including wage data from all hospitals and hospital distinct-part units (DPUs) paid using the inpatient wage index, including inpatient rehabilitation facilities (IRFs), inpatient psychiatric facilities (IPFs), and long-term care hospitals (LTCHs), in the wage index data set. This is because while hospitals do report the wage data for their DPUs, the data for all hospital-based providers is lumped together meaning we could not separate the wage data for any IRF/IPF/LTCH DPUs from the wage data for any hospital-based skilled-nursing facilities, home health agencies, or hospices. In addition, only about 1/3 of freestanding IRFs, IPFs and LTCHs reported both their wages and their hours, and of those that reported, much of the data appear to be erroneous.
- Finally, we could not model the effect of using up-to-date commuting data on hospital-specific commuting patterns to administer the out-commuting adjustment. Instead, we used the Census Bureau data specified above.

If you have questions about this methodology, please contact AHA member relations at 800-424-4301.

# Three Wise Men: Evaluation Side-by-Side

	Dobson	Steinwald	Stensland
#1: One FI/MAC complete	Sensible recommendation. Could	No comment.	No comment.
all wage index data	improve accuracy and		
collection and processing.	consistency.		
# 2: Phase-in reform using a transitional period of at least five years.	Phase-in is important.	Five years seems long, but may be justified if reform is comprehensive. However, transition also slows AWI increases. Stop-loss/stop-gain policies reduce need for transition.	No comment.
# 3: Include all hospitals and DPUs paid using the wage index in the wage index data set.	Recommendation addresses critical flaw in AWI. Could be useful to address how occupational mix and labor markets for non-acute care hospitals would be handled. Could be useful to mention SNFs and HHAs.	No comment.	No comment.
#4: Budget-neutral 3 percent stop-loss and stop- gain.	Could be complex.	No comment.	Will reduce volatility and improve accuracy and consistency.
# 5: Increase wage indexes that are less than 1.0 using an exponential methodology.	The problem exponent is attempting to address is unclear. Recommendation is not balanced across the continuum of AWI values. Matching the distribution of cost report AWI values to BLS AWI values may be better solution. The report's implicit recommendation against BLS should be stated explicitly and mention the fact that it goes against recommendations by others who have considered this issue in depth.	Based on an "unsubstantiated premise that AWIs below 1.00 are too low." Circularity would be better addressed by using BLS data.	Recommendation does not distinguish between AWIs that are less than 1.0 because of lower costs of living and those that are less than 1.0 because of circularity. BLS data would do more to reduce circularity than the exponential floor.

	Dobson	Steinwald	Stensland
#6: Eliminate budget-	Recommendation likely improves	Necessary and appropriate.	Out-commuting and smoothing are
neutral reclassifications and	accuracy of labor markets, but		adequate replacement for
replace with and out-	must be carefully modeled to		reclassifications.
commuting adjustment and	show redistribution. The dollar		
10-percent smoothing	magnitude of keeping non-budget-		
adjustment.	neutral reclassifications should be		
	mentioned.		
#7: Use of up-to-date data	Sensible recommendation.	No comment.	No comment.
on hospital-specific	Administrative burden needs to be		
commuting patterns to	assessed and careful definition of		
administer the out-	"commuting patterns" needs to be		
commuting adjustment.	developed.		
Bottom-line Conclusion	Recommendations are carefully	Work is "commendable." Despite	None.
	thought out and represent a step	reservations regarding the exponential	
	forward for wage index policy.	adjustment and the decision not to	
		recommend the use of BLS data, the	
		principles and recommendations	
		would improve the accuracy, fairness,	
		and effectiveness of the hospital AWI.	

# Dobson | DaVanzo

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# Memorandum

Date:	June 3, 2013
То:	Caroline Steinberg The American Hospital Association
From:	Al Dobson, Joan DaVanzo
Subject:	Review and Commentary of Medicare Area Wage Index Task Force Draft Report (2011 – 2012).

Dobson DaVanzo & Associates, LLC, (Dobson | DaVanzo) was asked by the American Hospital Association (AHA) to provide a brief review of the draft report of the AHA Medicare Area Wage Index and Task Force. The AHA Task Force was created to: 1) identify and evaluate strengths and weaknesses of the current AWI; 2) develop a set of principles to guide the evaluation; 3) evaluate existing AWI reform proposals; and 4) ultimately make recommendations to improve "the accuracy, fairness, and effectiveness of the Medicare hospital AWI."

The AHA Task Force was comprised of very senior individuals who dedicated energy and discipline to the process. Hence, the recommendations are carefully thought out and represent a step forward for wage index policy.

This Dobson | DaVanzo report is an informal commentary on the AHA Task Force recommendations contained in the AHA Task Force background paper. No attempt has been made to produce an extensively researched and fully documented working paper. We did, however, draw heavily from our prior experience and Dobson | DaVanzo report produced for the Institute of Medicine (IOM), entitled "An Examination of the Data, Materials, and Assumptions Used in the Institute of Medicine Report, Geographic Adjustment to Medicare Payment: Phase I: Improving Accuracy" (June 10, 2011, Final Report).

The Task Force makes seven recommendations to reform the AWI. While the Task Force recognizes that these recommendations will unlikely completely "fix" the wage index

system, these recommendations could improve the system. The recommendations are as follows:

- To improve the accuracy and consistency of the wage index, CMS [Centers for Medicare & Medicaid Services] should designate one FI/MAC [Fiscal Intermediary and Medicare Administrative Contractors] to complete all wage index data collection and processing.
- 2) To ensure wage index reform does not cause sudden and extreme fluctuations in hospital payments, Congress should phase-in reform using a transitional period of at least five years.
- 3) To help limit year-to-year volatility in individual hospitals' wage indices, Congress should include all hospitals and hospital distinct-part units paid using the inpatient PPS [Prospective Payment System] wage index, including inpatient rehabilitation facilities, inpatient psychiatric facilities, and long-term care hospitals, in the wage index data set.
- 4) To ensure that hospitals do not experience excessive year-to-year volatility Congress should institute budget-neutral 3 percent stop-loss and stop-gain policies that would limit the amount by which a hospital's wage index could decrease or increase in a single year. These policies should apply both during and after the five-year transitional period.
- 5) To decrease the problem of circularity, Congress should increase wage indexes that are less than 1.0 using an exponential methodology similar to what is done with the geographic adjustment factor currently used by CMS in adjusting capital payments. Puerto Rico wage indexes should be increased to, the lowest pre-reclassification wage index outside Puerto Rico (which in FY 2013 is 0.6797).
- 6) Congress should eliminate the current system of reclassifications and exceptions, except when reclassifications are done in a non-budget-neutral manner, and replace it with a wage index out-commuting adjustment, together with a 10 percent smoothing adjustment.
- 7) Congress should require the use of up-to-date data on hospital-specific commuting patterns to administer the out-commuting adjustment.

After a brief introduction section on the definitional issues contained in the recommendations, we address each of these seven recommendations in turn. We conclude with a discussion that another formal recommendation might be added to the above list of seven.

#### Definitional issues

The AWI is arguably one of the most contentious components of CMS's administered pricing system armamentarium. It has been problematic since PPS was first implemented

in 1983. And, as the Task Force Report indicates, it is highly problematic 30 years later, in that nearly 40 percent of IPPS hospitals observed at least one type of reclassification or exception to the AWI. The AWI methodology and resultant values are widely perceived to be arbitrary, capricious, and unfair.

The Task Force Report highlights the following concerns with the AWI:

- Reporting Lags: There is a four-year data lag for wage index information, and a three-year reporting cycle for the occupational mix survey. No "fixes" are readily apparent for this problem, as the wage index information is tied to the Medicare Cost Report (MCR) reporting cycle.
- 2) Difference in Reporting Requirements: Differences exist in FI/MAC synthesis and reporting of the MCR to CMS across the country. This calls for consistency of reporting with attempts to reduce reporting errors.
- 3) Volatility: Individual hospital AWI reported measures vary markedly one year to the next. This can cause financial distress for individual hospitals, as there is limited stability in the index over time. This is a primary problem to be addressed in any attempts to reform the AWI.
- 4) Circularity: At the individual hospital level, a hospital can influence its own wage index values if there are a small number of hospitals in a given labor market area. Fifty-nine labor markets (13 percent) have a single hospital and 98 labor markets (21 percent) have only two hospitals. There are 459 wage index payment areas 411 metropolitan statistical areas (MSAs) and 48 statewide non-MSA. Therefore, about one-third of labor market areas have less than two hospitals, and can more easily influence their AWI, impacting the remaining two thirds of hospitals.
- 5) Inherent Data Limitations: The current AWI uses hospital MCR data which may not reflect the behavior of other industries employing health care workers and are otherwise limited (e.g., do not control for all types of labor in the occupational mix adjustments).
- 6) Reclassifications and Exceptions: Nearly 40 percent of AWI hospitals receive some type of reclassification or exception, indicating the underlying AWI is frequently considered inappropriate and is thus over-ridden. Yet, these policy corrections indicate that the system is in approximate "political" equilibrium.
- 7) Labor Markets: MSAs and statewide rural areas are used to define labor markets. These areas often combine different sub-labor markets with widely different labor market characteristics. Even more problematic, resulting labor market boundaries produce "wage cliffs" where hospitals on adjacent sides of labor

market boundaries receive substantially different wage adjustments. This is widely perceived as inequitable by hospitals receiving the lower wage adjustment. This has been a problem with Medicare IPPS since its inception.

The above issues, in varying fashions, all relate to the primary purpose of the AWI adjustment, which is to measure how prices (wages) vary across labor markets for a given occupational mix of labor (Q). If the AWI conflates wages (P) with occupational mix (Q), it is no longer an accurate indication of wage variation one hospital to the next, as occupational mix varies. The AWI price index is considered a Laspeyres Price Index; it is designed to hold occupational mix constant across hospitals, while allowing wages to vary. This is a useful conceptualization, as it guides analysis of the degree to which the AWI is accurate and as implemented meets its intended purpose of measuring wage differences across labor markets with consistent occupational mix.

For instance, the current AWI only controls for the occupational mix components of nurse labor (RN, CPN, CNA) and medical assistant staffing categories. Given this limitation, the current AWI controls for about 40 percent of hospital occupational mix nationally. Thus, the current AWI is not a pure Laspeyres Price Index and, hence, does not serve as an accurate wage index to the extent that the remaining 60 percent of occupational mix categories vary across hospitals. This has been a key conceptual flaw with the AWI and results from the types of occupational measures included in the CMS occupational mix survey.

#### Comments on Task Force Recommendations

In this section, we provide comments for each Task Force recommendation.

1) To improve the accuracy and consistency of the wage index, CMS should designate one FI/MAC to complete all wage index data collection and processing.

This is a sensible recommendation as it could improve accuracy and consistency of the AWI by consolidating reporting responsibilities. If a single entity were charged with AWI data collection, reporting problems identified by prior studies of the AWI process might be addressed, such as:

- Misstated and misclassified wages during reporting process
- Differential reporting of pension and post retirement benefits
- Misstated fringe benefits, home office, and non-salary costs
- Handling of contract labor expenses
- Inclusion of non-allowed Part B expenses

In the past, because CMS has consolidated responsibilities across FI/MACs, there is precedent for the recommendation.

2) To ensure wage index reform does not cause sudden and extreme fluctuations in hospital payments, Congress should phase-in reform using a transitional period of at least five years.

Phase-ins are typically applied to changes in CMS administrative rulemaking to avoid dislocation in the sectors under consideration. Given the importance of the wage index, and the possible magnitude of suggested corrections, this is a critical concern. For instance, for a hospital with 50 percent Medicare revenues and an AWI applied to 70 percent of its expenses, a 10 percent change in the wage index produces a 3.5 percentage point change in the hospital's total margin  $(0.5 \times .0.7 \times 0.1 = 3.5 \text{ percentage point change})$ . For a typical hospital, this could represent upwards of 100 percent of the hospital's total margin. A seemingly small percentage point difference in total margin can cause a hospital severe financial distress. Hence, getting correct measures of the AWI and phasing-in recommendations that could dramatically change a hospital's AWI payment is important.

3) To help limit year-to-year volatility in individual hospitals' wage indices, Congress should include all hospitals and hospital distinct-part units paid using the inpatient PPS wage index, including inpatient rehabilitation facilities, inpatient psychiatric facilities, and long-term care hospitals, in the wage index data set.

This recommendation addresses a critical flaw in the current AWI, in that the AWI does not reflect all types of hospitals and post-acute care providers. Providers excluded from the reporting and calculation of AWI have noted that the acute care hospital AWI may not be appropriate for them and that lack of an exception process gives them no way to correct errors. In addition, no occupational mix adjustments are made for exempted providers. The lack of exceptions for these hospitals means that boundary problems are not in any way addressed for excluded provider types.

This would suggest that occupational mix issues and boundary problems for excluded providers need to be addressed if they are to be included in the AWI process. Accordingly, the Task Force Report might address how occupational mix and boundary issues will be explicitly addressed for non-acute care hospitals.

Also, no mention is made of skilled nursing facilities (SNFs), home health agencies (HHAs), and physicians. The Institute of Medicine (IOM) work tried to address the provider omission problem more generally by including explicit reference to physicians and other excluded providers.

4) To ensure that hospitals do not experience excessive year-to-year volatility Congress should institute budget-neutral 3 percent stop-loss and stop-gain policies that would limit the amount by which a hospital's wage index could decrease or increase in a single year. These policies should apply both during and after the five-year transitional period.

Stop-loss and stop-gain provisions are common forms of risk attenuation. The Task Force Report indicates that this recommendation would be a permanent fixture of AWI regulations. This means that continued "rolling" adjustments (i.e., calculating AWI using the rolling-average of the MCR input data) would need to be made to the AWI to account for the stop-loss/gain provisions made at one point in time and cumulatively made over time. This could require complex iterative adjustments and corrections in practice.

5) To decrease the problem of circularity, Congress should increase wage indexes that are less than 1.0 using an exponential methodology similar to what is done with the geographic adjustment factor currently used by CMS in adjusting capital payments. Puerto Rico wage indexes should be increased to the lowest pre-reclassification wage index outside Puerto Rico (which in FY 2013 is 0.6797).

The exponential methodology appears to be based on the notion that without it, circularity forces the AWI down in labor markets with few hospitals. The Task Force Report suggests that wage indexes with values less than 1.0 should be increased, as "Low wage index hospitals may have difficulties in being able to increase wages to become competitive in the labor market" and the recommendations will decrease the problem of circularity.

In our view, circularity is more likely to cause the opposite problem. Circularity typically means that individual hospitals in labor markets with only a few hospitals – especially dominant hospitals can influence their AWI by increasing their wage levels. In turn, this allows them to pay higher wages in the future. Since one-third of the nation's AWI labor markets have two or fewer hospitals within them, circularity is a major flaw associated with the use of the MCR as a source of AWI information as it is limited to only IPPS hospitals.

This critique rests upon a definitional issue, but it was unclear to us exactly the problem the "exponential methodology" is attempting to address. Furthermore, the Task Force itself was split on of the need for the proposed use of the exponential process.

Ignoring the definitional issues for a moment, we note that the Bureau of Labor Statistics (BLS) wage index distributions are tighter than those of the MCR-based wage indices. This suggests that one approach to calibrate the "exponential" adjustment would be to select an exponent that produces AWI distributional results comparable to those of the BLS-based wage indices.

In any event, the problem being addressed by the Task Force exponential approach was not entirely clear to this set of reviewers. Our proposed "solution" of matching wage index distributions based on MCR to those based on BLS addresses the broad distribution of AWI indexes produced by the MCR data in calculating the AWI and does not depend on assumptions of circularity. But it would necessitate consideration of high-end wage index values as well as low-end values. In this sense the AHA Task Force recommendation is not balanced across the continuum of AWI values.

6) Congress should eliminate the current system of reclassifications and exceptions, except when reclassifications are done in a non-budget-neutral manner, and replace it with a wage index out-commuting adjustment, together with a 10 percent smoothing adjustment.

This is a very complex recommendation, both in concept and in eventual implementation. The recommendation calls for elimination of the "current system of reclassifications and exceptions, except when reclassifications are done on a budget neutral basis." The budget neutral basis criteria appear to be a rather large exception to the elimination of the exception process. The dollar magnitude of this effect should be provided to the reader in order that this recommendation can be fully assessed.

The recommendation also calls for a wage index out-commuting adjustment with an additional 10 percent smoothing adjustment. Of all the technical issues addressed by the Task Force, the boundary problem is perhaps the most technically complex. Unfortunately, there are as many solutions to the boundary problem as there are reviewers, with no one solution obviously superior to others. Labor market definitions typically reflect geographic considerations, yet they also need to reflect economic interactions, such as commuting patterns.

As noted above, CMS uses 459 wage index areas – 411 for metropolitan statistical areas (MSAs) and 48 rest-of-state areas. The nucleus of an MSA has at least 50,000 people. MSAs and MicroSA's reflect economic integration as: 1) at least 25% of the outlying county's working residents commute to the central entity (nucleus) and, 2) at least 25% of the outlying county's workforce commutes to the central county.

It is important to note, however, that the use of MSAs or any other geographic area designation to represent labor markets is never perfect. While it is true that the more areas that are used, the more likely it is that each area will reflect a prevailing labor market, it is also apparent that a larger number of areas creates more labor market boundaries between labor markets. This situation results in seemingly intractable "wage cliffs" where hospitals geographically located near each other receive different wage index adjustments. The boundary problem has proven to be particularly vexing over time and has led to nearly 40 percent of hospitals receiving an exception status under the current CMS AWI adjustment system. The exception status, in and of itself, is not a reason to reject a labor market definition that creates over 400 labor market areas, but rather a critical concern in the overall wage adjustment process. Thus, a fairly noncontroversial

recommendation to continue to use MSAs and rest-of-state areas to define labor markets sets the stage for the most difficult issue of all: how to handle boundary problems.

CMS has struggled with the boundary problem from the earliest days of IPPS. Numerous reclassification exception processes have been the inevitable result. MedPAC has contemplated the boundary (cliff) problem for many years and, as a result, has proposed a series of "nearest neighbor" solutions. These solutions "blend and smooth" the differences in wage index values one hospital to the next, with a goal of reducing the proximate differences to a maximum of some pre-specified level (e.g., 10%). This solution has the advantage that it does not require an external measure of commuting patterns.

The Task Force accepts the use of MSAs and rest-of-state areas to define labor market areas. This labor market definition, however, necessitates the need for a countervailing recommendation to account for the resulting boundary problems. Acumen LLC's analysis of the 2007 MedPAC proposed revisions is instructive.<sup>1</sup> Acumen notes the following in its comparison of the MedPAC smoothing approach to the current Medicare AWI:

- While reducing the size of wage cliffs, the MedPAC approach increases the number of boundaries by using counties as the unit of analysis
- The MedPAC approach reduces the AWI for a large percent of hospitals creating a large class of "loser" hospitals
- Lower threshold values (more precision) produce additional changes in the AWI, leading to an interactive solution approach with its own set of computational complexities
- May not entirely reduce the perceived need for exceptions as winners and losers under the MedPAC proposal are sizeable. A more accurate AWI is not necessarily going to be widely accepted by those hospitals that lose their exceptions

The Task Force recommends that wage indexes be based on commuting patterns which would replace the current system of reclassifications and exceptions. While the two joint recommendations serve as guidelines, they are not unambiguous answers to the problem at hand. The first recommendation is highly technical in its import, while the second could prove to be highly contentious.

The Task Force rejects the MedPAC "nearest neighbor" approach, as did an earlier Acumen Report. Instead, the Task Force takes a somewhat different conceptual approach in using commuting patterns to lower boundary wage index differences. The Task Force

<sup>&</sup>lt;sup>1</sup> MaCurdy, T., DeLeire, T., Lopez de Nava, K., Kamenecka, P., Tan Y., McClellan. 2010. "Revision of Medicare Wage Index: Final Report, Part II." Acumen. p. 91

approach emphasizes an "out-commuting" adjustment which smoothes the MSA-based boundary definition. The Task Force notes that its approach would tend to raise wage indices. While this would be well received by affected hospitals, it could produce sizable budget neutrality adjustments. Applying a "10 percent smoothing adjustment after application of the out commuting adjustment reduces any remaining tendency for large across border wage differences". The recommended approach would be somewhat data intense as commuting patterns would need to be measured. It is also somewhat arbitrary as only one direction of the commuting pattern (out as opposed to both in and out) is recommended.

While the Task Force recommendation, and others like it, are likely more accurate as labor market indicators than the current AWI system, this approach needs to be carefully modeled to show the extent of payment redistribution relative to the existing system of exceptions and reclassifications.

While the current AWI system is far from perfect, it represents a system that has been in a continual state of reform, revision, and adjustment for 30 years. Payment accuracy is not always universally embraced. The Task Force's smoothing approach with transitions and hold-harmless provisions needs to be carefully simulated before implementation.

# 7) Congress should require the use of up-to-date data on hospital-specific commuting patterns to administer the out-commuting adjustment.

While this is a perfectly sensible recommendation, the extent of data collection burden and some notion of how a "hospital-specific basis" is interpreted will need to be carefully defined. Presumably, all hospitals and all PAC providers will be included in the definition. In addition, a careful definition of "commuting patterns" will need to be developed. Existing data on commuting patterns are likely not adequate and are not routinely collected. This could undermine the feasibility of the recommendation.

#### An Additional Implicit Recommendation

An implicit recommendation made by the Task Force is that the current system of MCRbased wage index data should continue to drive the AWI system. As the IOM and MedPAC considered this issue, they both recommended the use of BLS estimates over estimates based on MCRs. This topic would seem to call for an explicit recommendation. The BLS labor market estimates are considerably more inclusive in that they:

- Reflect 800 occupations across 450 industries
- Comprise a sample of 200,000 establishments every six months
- Do not misclassify Medicare allowed expenses (as they do not make the distinction between Medicare allowed and non-allowed expenses)
- Are carefully reviewed for accuracy at three levels of review, so likely have less reporting error across time and across wage index areas

- Less extreme values at either end of the destination
  - Three year rolling averages representing the use of a 1.2 million establishment sample
  - Considerably more observations per market area thus reducing, if not eliminating, circularity
  - Use of imputation strategies for missing data

The BLS data do not, however:

- Account for differences between full and part time workers
- Cover wages and workers not covered by unemployment
- Adjust for occupational mix
- Include benefits or other wage related costs

MCR Worksheet S-3 wage data specifically reflect the acute care hospital industry and, through a special occupational mix survey conducted every three years, account for just under half of the potential for occupational mix differences across hospitals compared to 40 percent using MCR. They also include benefits data and are generally more extensive for hospital employers. The MCR reporting lag is comparable to that for BLS data.

The Task Force Report indicates a preference for MCR data, primarily because these data better reflect the unique nature of acute care hospital employment practices, and the MCR data are publically available while access to the BLS data can be obtained only under the most stringent conditions, (e.g., on site use).

The Task Force Report notes that both MedPAC and IOM have recommended the use of BLS estimates, primarily because of their broader representation of industries using health care labor. This representation of more numerous hospitals reduces the problem of circularity. But in the end, the Task Force recommended against the use of BLS estimates. This recommendation should be explicitly formulated as one of the report's formal recommendations given its importance, and the fact that it goes against recommendations by others who have considered this issue in depth.

AHA Medicare Area Wage Index Task Force, 2011 – 2012

Review of the Draft Report of the Task Force Bruce Steinwald, President Bruce Steinwald Consulting May 28, 2013 The draft report of the American Hospital Association (AHA) Task Force on the Medicare Area Wage Index (AWI) contains the following sections: Introduction, Background, and Context sections that provide information about the AWI and the charge from the AHA Board to the Task Force to address issues of concern to hospitals; a section describing those concerns, which also contains analysis of options to address them; a section on principles developed to evaluate and guide changes to the Medicare AWI; and seven specific recommendations of the Task Force for changing the way the AWI is calculated and applied. This review will address the content of these sections individually. The report also contains an executive summary, conclusion, and appendices, which will not be separately addressed.

### Introduction, Background, and Context

The draft report accurately describes the AWI as an important element in the Prospective Payment System (PPS) used by the Medicare program to pay hospitals for services provided to Medicare beneficiaries. The report also appropriately identifies several documented and suspected flaws in the way the AWI is calculated, leading to the Board's charge to the Task Force to make recommendations to improve the hospital AWI. The Task force concluded that the AWI "should continue to . . . account for geographic differences in wages across labor markets," as opposed to promoting other goals, such as value and efficiency. The report acknowledges that changes in the AWI would likely need to be made in a budget-neutral fashion.

The dedication of substantial resources (including time) to the Task Force and the approach it has taken to evaluate problems with the AWI and recommend changes are commendable. It is very difficult for a large membership organization like the AHA to support an entity like the Task Force knowing that its recommendations, if implemented, would almost certainly create "winners and losers" among its constituency. The recognition that such changes would almost certainly need to be budget neutral is also both sensible and commendable.

2

#### **Task Force Concerns**

The Task Force identified the following concerns regarding the AWI and discussed various options to address them: accuracy and consistency, volatility, circularity, reclassifications and exceptions, and labor markets. All of the Task Force's concerns are legitimate and evaluated comprehensively in the report. However, two issues -- the use of Bureau of Labor Statistics (BLS) data and the use of an exponential floor -- to address the problem of circularity deserve special consideration. Most past discussions of circularity have focused on the ability of hospitals in markets with no or few competitors to raise their AWIs by paying higher wages to hospital employees. However, some Task Force members are concerned about the relationship between low wages and low AWIs.

*BLS Data* – The report notes that both the Medicare Payment Advisory Commission (MedPAC) and the Institute of Medicine (IOM) have recommended replacing hospital cost report data with BLS data for purposes of calculating the AWI.<sup>i</sup> Both organizations believe the range of employees whose wages are included in AWI calculations should be broadened. This has the advantage of reducing both circularity and volatility, and it would reduce hospitals' reporting burdens and alleviate concerns regarding the accuracy of Medicare contractor processing of cost report data. While it is true that estimating non-wage benefits and problems with low numbers in some areas must be addressed, these are technical issues that can be handled in a number of ways.

Some of the Task Force concern appears to be based on reluctance to rely on a federal agency which, unlike the Centers for Medicare & Medicaid Services (CMS), has little contact with the hospital industry. However, rather than using BLS data in its current form with its current limitations, the IOM report contemplates the establishment of an ongoing relationship between CMS and BLS that would continuously improve the data for calculating the AWI and provide ample opportunity for hospital industry representatives to review the data and methods for construction of the AWIs. In addition, confining the BLS data to health sector employees rather than all industries, as the IOM recommended, would promote the similarity between hospital employees and other employees included in the AWI calculations.

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*Exponential Floor* – Precedent for using an exponential floor to raise AWI values below 1.00 to a higher value is found in Medicare's application of this method in adjusting capital payments. However, this method is used in lieu of calculating a labor share of capital costs and, since the AWI is applied only to the labor share of operating costs, the use of an exponential floor would be duplicative. The only justification for applying an exponential floor is if the AWIs below 1.00 are, for some reason, inaccurately low. However, there is no evidence to support this view. Indeed, if the dominant effect of circularity is to enable some hospitals in small markets to raise their AWIs though their wage-setting practices, then the application of an exponential floor would make some inaccurate AWIs more inaccurate. If, instead, the exponential floor is seen as a device to help certain hospitals in need, then its application would seem to contradict the Task Force's agreement that the wage index should continue to account for geographic differences in wages across labor markets.

#### **Wage Index Principles and Recommendations**

Because the Task Force's principles and recommendations complement one another, they are discussed in tandem below. In general, with one exception, the principles and recommendations are logical and supported by the evidence cited in the report. Reviewer comments are summarized under four topics: need for reform, circularity, smoothing, and transition.

*Need for reform* – Supported by its evidence and analysis, the Task Force appropriately concludes that comprehensive reform of the wage index, including elimination of the current system of reclassifications and exceptions, is necessary and should be accomplished in a budget-neutral manner.<sup>ii</sup> This conclusion is consistent with the work of MedPAC and the IOM and other organizations over the past several years.

*Circularity* – The Task Force's recommendation to apply an exponential methodology to address circularity is based on an unsubstantiated premise that AWIs below 1.00 are too low. The issue of circularity would be better addressed, more consistently with the Task Force's own analysis and concerns, by replacing hospital cost report data with health-sector BLS data for calculating the wage

index over time. This change would also address issues of volatility, accuracy, and ease of administration.

Smoothing – The Task Force appropriately concludes that labor markets should not be treated as hard boundaries and that wage indexes should be adjusted using smoothing methods based on up-to-date data on labor markets and commuting patterns. It is significant that the Task Force recognizes that there is no perfect system of markets and adjustments but that the current system could be made more accurate and fair with data-driven adjustments reflecting the extent to which hospitals in different markets compete for labor. While IOM, MedPAC and CMS have all analyzed different smoothing methods, it is likely that more work will need to be done in order to accommodate other potential reforms in the wage index.

*Transition* – The Task Force recommends a 5-year transition to a reformed wage index system. Keeping in mind that the inpatient PPS was phased in over a 3-year period in the 1980s, 5 years seems rather long. However, if significant changes are made in the wage index, such as replacing hospital cost report data with BLS data and instituting a sophisticated smoothing system, a longer transition may be justified. While it is natural to focus on hospitals whose AWI adjustments will be reduced under a reformed system, it is also worth remembering that those hospitals whose adjustments will increase have been disadvantaged by the present system for decades. Fairness to them might dictate that the transition should be no longer than necessary. Also, if a stop-loss/stop-gain measure is put in place, as the Task Force recommends, the need for a longer transition is reduced.

## Conclusion

In the draft report's conclusion, the Task Force reiterates that, while perfection may be unattainable, the current Medicare hospital wage index system is greatly flawed and in need of reform. Despite reservations regarding the treatment of the circularity problem and the decision not to recommend the use of BLS data, this reviewer agrees with the final statement that the Task Force's principles and recommendations, if adopted, would "improve the accuracy, fairness, and effectiveness of the hospital AWI."

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<sup>&</sup>lt;sup>i</sup> Medicare Payment Advisory Commission, Report to the Congress: Promoting Greater Efficiency in Medicare, June 2007. Institute of Medicine, Geographic Adjustment in Medicare Payment – Phase I: Improving Accuracy, 2011. <sup>ii</sup> Except when reclassifications are implemented in a non-budget-neutral manner.

June 3, 2013

Linda Fishman American Hospital Association Liberty Place, Suite 700 Washington, DC 20004-2802

Dear Ms. Fishman:

You requested that I review and critique a preliminary draft of the AHA Medicare Area Wage Index Task Force report. I want to commend your task force for being willing to spend the time to evaluate the current wage index system and consider alternatives that remove the current system of reclassifications and exceptions. In this letter, I discuss how your draft proposals address your goals of reducing volatility, improving accuracy and consistency, reducing circularity, eliminating reclassifications and exceptions, and dealing with labor markets which are not always clearly delineated. None of my comments are a formal endorsement of your proposals. The purpose of this letter is purely to comment on whether your proposals would have a high probability of achieving your objectives.

### Volatility will be reduced with your proposals

As you state, there is significant volatility in hospital wage indexes. In my past examination of this volatility, I found that MSAs that experienced a large increase in the wage index in one year tended to face a decline in the wage index the following year. Similarly, hospitals facing a big drop in the wage index in one year were more likely to have an increase in the next year. This suggests a need to smooth the wage index from year-to-year. Your proposal for a budget-neutral three percent stop-loss and stop-gain limit on annual changes will meet your objective of reduced volatility. The wage index will still reflect long-term trends in labor markets.

### Accuracy and Consistency will be modestly improved with your proposals

The report concludes that little can be done to use more timely data. I concur and would argue in this context timeliness of the data is not a primary concern for accuracy or consistency. The nature of labor markets is that they change rather slowly. The wage index should capture these slow movements even if 3-year old BLS or 4-year-old cost report data is used.

One problem with using a single year's data is that the data can contain statistical anomalies due to a bonus in a labor contract or a one-time adjustment in pension plan liabilities. Therefore, to accurately describe the underlying labor market around a hospital, it is better to use several years of data to smooth out these one-year anomalies or to use stop-loss and stop-gain provisions as you propose. Your proposal to limit one-year movements in the wage index will not only reduce volatility as discussed above, it will also improve accuracy and consistency.

# BLS data would do more to reduce circularity than the use of the budget-neutral exponential floor. Eliminating reclassifications will help with one form of circularity.

The common type of circularity is where:

- 1. Hospitals in a market face financial pressure
- 2. Wages grow slower than the national average due to the financial pressure
- 3. The wage index falls
- 4. Falling wage indexes cause more financial pressure

For example, consider a market where a single insurer has an 80 percent share of the private insurance market. The insurer's market power allows it to constrain the growth rate of prices for hospital services to a rate lower than national averages. Lower prices mean lower revenue growth for hospitals and an inability to raise wages as fast as in other parts of the country. In contrast, a market with several insurers and only one or two hospital chains is likely to receive higher rates from insurers. Higher rates from private insurers can lead to higher wage growth and a higher wage index.

The proposal to use a budget-neutral exponential adjustment would compress the wages of all hospitals. But it would not distinguish between wages that are low due to a hospital being located in a low-cost-of-living market and wages that are low due to hospitals facing pressure to keep wages low **relative** to the cost of living. In addition, it would do nothing for hospitals in high-cost-of-living areas that face more than average financial pressure to constrain wage rates.

The IOM/MedPAC/Acumen solution to this issue was to use BLS data which would make the wage index less dependent on the local hospitals' financial condition. Some members of your Task Force preferred this method. However, other members raised concerns including that "hospital employers differ from the universe of all employers in terms of the wage levels necessary to recruit and retain qualified health care employees." But this should not be a concern as long as the ratio of hospital wages to wages in other sectors is similar across the nations as the Table 1 below shows:

	Hospital RN wage	Nursing home RN wage	Weighted RN wage (80% hospital/20% SNF for illustration)	Wage index
High wage	\$50/hour	\$40	\$48	
market	(125% of hospital ave.)	(80% of hospital)	(125% of average)	1.25
Medium	\$40/hour	\$32		
wage market	(hospital average)	(80% of hospital)	\$38.4	1.00
Low wage	\$30/hour	\$24	\$28.8	
market	(75% of hospital ave.)	(80% of hospital)	(75% of average)	0.75

Table 1: Relative wages across healthcare sectors in the wage index

The purpose of Table 1 is to show that expanding the wage index to using data other than simply hospital wages will not affect the wage index as long as the wages for other employers of healthcare workers were at similar relative levels (e.g., SNFs paying 80% of hospital compensation). The case where it would make a difference is if hospitals were under unusual financial stress on one market relative to the financial stress faced by other employers. In general, expanding the source of data to other health care employers or to all employers would increase the wage index for hospitals under financial stress and reduce it for hospitals that are in the strongest financial position and can afford to pay unusually high wages. For example, hospitals in strong financial condition that are located in a growing market may pay 1.3 times the SNF RN compensation while a hospital in weak financial position in a difficult market may only pay 1.1 times the average SNF RN wage. Using compensation from all employers would bring the wage index for these hospitals closer together.

Another concern is that the survey is voluntary. But the BLS imputes missing data, which would prevent gaming of the system by not reporting data.

In sum, the BLS approach preferred by a minority of your Task Force would do more to reduce the common form of circularity than the draft recommendation for a budget-neutral exponential floor.

A second type of circularity is reclassification circularity. This is where:

- 1. Reclassification increases hospital revenue
- 2. Higher revenue allows higher wages
- 3. Higher wages (106%+ of the market wages) are needed to keep reclassification

In contrast, the hospitals with low wages due to being under more financial pressure cannot reclassify and will face more financial pressure due to paying for other hospitals' reclassifications. For example, in the 2007 MedPAC examination of the wage index, we discussed an example of a town where one hospital reclassified and the other hospital in the town could not reclassify. The reclassifying hospital had more advanced services including a cardiac catheterization lab. The other hospital did not. The higher-tech hospital had a higher average wage and so it could reclassify. The more financially challenged competitor could not reclassify due to having lower wages. Your proposal to eliminate reclassifications will result in all hospitals in the same town (or the same county) receiving the same wage index. The problem of circularity driving reclassifications will be solved by your proposal to eliminate reclassifications.

Whether or not you propose using BLS or cost report data to compute wage indexes, an improvement over the current "average wage" system with an occupational mix adjustment would be to use a fixed weight index. This would help the problem of lower-tech hospitals appearing to have lower wages due to the types of employees they have rather than purely due to labor market forces. The occupational mix adjustment helps, but a fixed weight index would be better.

# The goal of replacing reclassifications and exceptions can be accomplished with the combination of a budget neutral out-commuting adjustment and a smoothing adjustment

Clearly some system to adjust for big differences across county borders is appropriate. Wages do not shift by 10 or 15 percent at a county border. Because labor markets do not have clear boundaries, it makes sense to have smooth transitions across boundaries rather than the system of reclassifications.

The system of using out-commuting does smooth the wage index, but it also flawed. Outcommuting ignores the fact that commuting workers need compensation for commuting. For example, assume a person is located in a small rural community working at the local hospital for \$20 per hour. The urban hospital an hour away will not be able to hirer that person for \$20 or even \$22 due to the person wanting to avoid a 2 hour commute every day.<sup>1</sup> The out-commuting adjustment ignores these commuting costs. That is why MedPAC also recommended eliminating out-commuting. However, that said, out-commuting could be used to replace exceptions and reclassifications. The magnitudes of distortions with out-commuting are generally less than the current reclassification, wage index floors, and exceptions process.

Your proposal to add smoothing at the end of the process of computing wage indexes will prevent large inequities in the wage index. Unlike the current wage index, this will assure that competing hospitals in the same county or neighboring county all receive similar wage indexes.

### Resilience

One goal that was not explicitly stated in your paper is resilience. No matter how perfect a wage index is, it will be subject to future pressures to change or be modified with new special exceptions. Your proposal to add smoothing to the wage index will make it more resilient. First, it will make arguments for exceptions less plausible given that competing hospitals will have similar wage indexes. Second, if an exception is implemented, the smoothing will mitigate the damage this does to neighboring hospitals that compete with a hospital that received an exception. Adding smoothing to your proposal makes it more likely that you achieve the objectives you set out to achieve and makes it more likely that the changes you achieve will be resilient to being eroded by future changes to the wage index.

Regards,

eff Stendard

Jeff Stensland 202-220-3726

<sup>&</sup>lt;sup>1</sup> A \$22 wage would be a 10% increase in pay. But that 10% increase in pay would only be \$16 per day on a pre-tax basis or roughly \$12 after taxes. A nurse is highly unlikely to be willing to drive an extra 80 miles per day (40 miles each way) for a net extra compensation of \$12. That is why seeing a 10% difference in wages between hospitals 40 miles from each other can be reasonable. Your proposed smoothing adjustment would prevent differences greater than 10 percent between neighboring counties.



July 2, 2013

Linda E. Fishman Senior Vice President, Public Policy Analysis & Development American Hospital Association 325 Seventh Street, N.W. Washington, DC 20004

#### Re: Modeling of AHA Medicare Area Wage Index Task Force Recommendations

Dear Ms. Fishman,

At the request of the American Hospital Association (AHA), KNG Health Consulting, LLC undertook a review of the statistical programs used to model the recommendations of the AHA Medicare Area Wage Index Task Force (Task Force). The purpose of the review was to validate that the modeling was done correctly and consistently with the recommendations of the Task Force.

Two reviewers, including myself, conducted a thorough review of the programming code and Medicare payment parameters used to model the Task Force Recommendations. Both reviewers are experienced programmers and modelers. In addition, in 2007, I modeled the wage index method proposed by the Medicare Payment Advisory Commission for the AHA, which included elements recommended by the Task Force. Thus, we are qualified to assess the quality of the programming and the validity of the model.

It is our view that the model is valid, as the programming appears to be correctly implementing the recommendations of the Task Force.

Sincerely,

Landing

Lane Koenig, Ph.D. President KNG Health Consulting, LLC 15245 Shady Grove Road, Suite 305 Rockville, MD 20850



# **Overview of Circularity and BLS Data**

The area wage index is currently based on Worksheet S-3 of the hospital cost report, on which all hospitals are required to report their paid wages and salaries. A problem with using only hospital data in the wage index is endogeneity, or circularity – the ability of hospitals to influence their own wage index values. This is especially likely to occur in areas containing only a few hospitals, or in areas with one or a few dominant hospitals. Table 1 shows the number of hospitals in each labor market by metropolitan and non-metropolitan areas.

Number of providers in	Large urban areas	Other urban	State rural
market area		areas	areas
1	0	58	1
2	0	96	2
3	0	55	1
4	0	38	2
5	0	30	5
6-10	7	41	8
11-20	31	4	9
21 or greater	240	0	20

Table 1: Number of Inpatient Prospective Payment System Hospitals by Labor	•
Market	

Source: Institute of Medicine. (2011). Geographic Adjustment in Medicare Payments. Phase 1: Improving Accuracy.

Fifty-nine markets have only one hospital, and 98 markets have only two hospitals. Nearly all of these markets are small to medium metropolitan markets. Thus, the cost report data that hospitals in these areas submit in a given year directly influence each hospital's index value 4 years later. In these markets in particular, the index can reflect hospitals' own decisions about what wages to pay rather than the prevailing wage in the area. It can also reflect difficulties that low wage index hospitals may face in being able to increase wages to become competitive in the labor market.

Some have expressed concern that the problem of circularity has, in part, led to an increasing difference between the lowest and highest wage indices in the nation. For example, in FY 2002, the lowest post-reclassification wage index was 0.7400 and the highest 1.5319 – a 107% difference. In FY 2012, however, the lowest post-reclassification wage index was 0.7277 and the highest 1.6996 – a 134% difference.

As a solution, some have suggested that an alternative data source, such as the Occupational Employment Survey, published by the Bureau of Labor Statistics (BLS), would be preferable. These data sets are extremely different; their key characteristics are summarized in Table 2 and described in more detail below.

Characteristic	Cost Report Wage Data	BLS Wage Data
Employers included	Inpatient PPS hospitals	Sample of employers from all
	participating in Medicare	industries
Inclusion of benefits	Included	Excluded
Inclusion of contract labor	Included	Excluded
Dataset year	Single year	3-year rolling average
Data lag	4 years	2-5 years (due to rolling average)
Frequency of data updates	Full annual update	Partial semi-annual update/full
		update every 3 years
Transparency	Fully transparent	Partially transparent
Administrative Burden	Significant	Minimal
Occupational mix	Partially adjusted	Fully adjusted
Other	Includes overtime, jury duty,	Excludes overtime, jury duty, shift
	shift differentials;	differentials;
	Excludes on-call pay;	Includes on-call pay;
	Standardized for full- and	Full- and part-time employees
	part-time employees.	weighted equally.

Table 2: Key Characteristics of Cost Report and BLS Wage Data

# HOSPITAL COST REPORT DATA

The wage index adjustment is currently computed as the average hourly wage (AHW) paid by all inpatient prospective payment system (PPS) hospitals in each labor market area divided by the AHW for all inpatient PPS hospitals nationwide. The data come from Worksheet S-3 of the cost report that hospitals are required to submit annually to the Centers for Medicare & Medicaid Services (CMS), as well as from a special occupational mix survey of hospitals conducted by CMS every 3 years. The index is updated each year on the basis of the latest available complete set of data, after review and verification or correction of any questionable data.

<u>Accuracy</u>. The completion rate of Worksheet S-3 is greater than 90 percent. The occupational mix survey has a response rate of 91.1 percent. However, the rules and regulations governing exactly what can be reported in the cost report wage data are extensive and complex; concerns have been raised that inconsistent application of definitions, methodologies, rules, and interpretations may result in wage indices that are less accurate than desired. For more information, see "Consistency of the Area Wage Index Data."

The cost report data currently used in the wage index are limited to the hospital industry; they do not include wages from the broader health care sector or non-health care industries. However, the data come from a census of all inpatient PPS hospitals, not a sample of these hospitals. A problem with using only hospital data in the wage index is endogeneity, or circularity – the ability of hospitals to influence their own wage index values. This is especially likely to occur in areas containing only a few hospitals, or in areas with one or a few dominant hospitals (for more information, see "Circularity in the Area Wage Index").

In addition, some have contended that because a wage index produced by hospital-only data does not reflect the wages from other employers competing for health care workers, it reflects the actual costs incurred for labor rather than the prevailing wage in each labor market. For example, a nurse can work in a physician practice, a school, a government agency, or a manufacturing plant. When hospitals compete for workers, they place their compensation packages against those of other employers in the market, and not just other hospitals. Wage data from these other employers help to determine the prevailing area wage for a given occupation.

Hospital cost report data contain information on both wages and benefits, such as health insurance and pensions, reported in dollar values. This is important because the portion of compensation paid in benefits varies geographically, thereby affecting the value of the wage index. Table 3 shows that high-wage areas generally pay a higher portion of total compensation in benefits relative to low-wage areas.

Percentile	Low-wage hospital	High-wage hospital	
	(wage index <= 0.90)	(wage index => 1.10)	
10 <sup>th</sup>	1.22	1.24	
25 <sup>th</sup>	1.23	1.26	
50 <sup>th</sup>	1.25	1.28	
75 <sup>th</sup>	1.28	1.31	
90 <sup>th</sup>	1.30	1.34	

# Table 3: Benefits as an Add-on to Base Wages

Source: Institute of Medicine. (2011). Geographic Adjustment in Medicare Payments. Phase 1: Improving Accuracy.

In addition to benefits, the cost report data currently include the wages of contract workers, such as nurses, supplied by outside firms.<sup>1</sup> Contract services are used for professions in short supply, for services where the patient volume is insufficient to hire a staff employee, or to fill vacancies created by turnovers. Nationally, in 2002, contract

<sup>&</sup>lt;sup>1</sup> Contract wages were included in the wage index until 1988, when data problems caused CMS to exclude them. CMS reincorporated contract labor wages in 1994 after revising the rules for reporting them. The following year, CMS incorporated wages for high-level administrators hired under management contracts. At the time, hospitals in nonmetropolitan areas were thought to use more contract labor than hospitals in metropolitan areas, to deal with nursing and other shortages of skilled workers.

workers accounted for about 8 percent of all hospital personnel expenses, but hospitals vary in their reliance on contractors, and the trend differs by profession. In North Carolina, for example, rural hospitals use more contract therapists and certified registered nurse anesthetists than urban hospitals do, while urban hospitals use more contract pharmacy and surgical technicians and more contract clinical lab scientists.<sup>2</sup> Contract labor generally costs more per hour than directly employed labor, partly because a fee is paid to the firm supplying the worker, in addition to compensation to the worker. Therefore, including wages for contract workers produces higher index values in payment areas that rely more on contractors relative to payment areas that rely less on contractors. Opinions vary regarding the appropriateness of including contract wages in the wage index.

The cost report data include shift differentials, overtime pay, and jury duty. Some contend this is appropriate because overtime can be a cost associated with local labor shortages, shift differentials can vary by market as well depending on local labor market conditions, and jury duty pay can also vary by market. However, CMS does not include on-call pay in the wage index.

<u>*Timeliness*</u>. A given year's wage indices are based on data that are 4 years old. For more information, see "Frequency of Area Wage Index Updates."

<u>*Transparency*</u>. The cost report data used to construct the wage index are highly transparent. Because the cost reports are publicly available, a hospital can compute its own average hourly wage and wage index, compare it with the average hourly wages and indexes of other nearby hospitals, and plan for appeal through reclassification or other means.

<u>Administrative Burden</u>. Using Worksheet S-3 and the occupational mix survey as the basis for the wage index requires significant administrative resources from both hospitals and CMS. Hospitals must record and report data at the level of detail required by CMS and CMS and its contractors must review and manage the complex data. Moreover, the occupational mix survey involves a reporting and review effort separate from that for Worksheet S-3. Partly for this reason, this survey is limited to the nursing occupations.

<u>Inputs and Weighting</u>. The cost report contains data on total wages and total hours at the hospital level for the entire hospital fiscal year. CMS divides total wages by total hours to compute an AHW for each hospital, thus standardizing for differences between hospitals in their use of full- and part-time employees. For each labor market, CMS computes an AHW for all the hospitals in the area. The AHW for each labor market is divided by the national AHW to produce a wage index for each market. At this stage, the wage index is called a "raw" index because it is unadjusted for occupational mix.

To compute the occupational mix adjustment to the wage index, national occupationspecific weights are needed. These weights – expressed as the percentage of hours

<sup>&</sup>lt;sup>2</sup> Broome, S. 2010. 2010 NCHA workforce report. Cary: North Carolina Hospital Association.

worked in each occupation – assign a level of importance to specific occupations and improve index accuracy. However, the weights available from the occupational mix survey cover nurses only, which make up 42.5 percent of the hospital workforce. This means that less than half of hospital wages are standardized for occupational mix. To include all workers in the occupational mix adjustment, the occupational mix survey would have to be expanded to cover all hospital occupations.

## **BLS DATA**

BLS sponsors the Occupational Employment Survey, which provides estimates of wages and employment rates for 800 occupations in 450 industries in the United States. The survey covers all salaried non-farm workers, excluding self-employed individuals. The data are collected through a voluntary mail survey distributed to about 200,000 establishments nationally every 6 months, thus building the full sample of 1.2 million establishments over a three-year period. Wages and employment rates are published on the basis of a rolling 3-year average; the total national sample size starts with 6 panels of 200,000 each, although some data are removed if they are deemed out of scope.

The initial hospital wage index, used for the first two years of the inpatient PPS (fiscal years 1984 and 1985), was created from BLS data. While the BLS data represented the best national and regional data available at the time, technical limitations of these data were recognized from the start. Many of these limitations still exist and are described in greater detail below. In response, a provision of the Deficit Reduction Act of 1984 required CMS to develop a new data collection tool, which eventually became known as Worksheet S-3 of the cost report.

<u>Accuracy</u>. The rules and regulations around how BLS data are reported are simpler than those for the cost report; however, the BLS data come from a survey that is based on a probability sample, not a census, as are hospital cost report data. Therefore, certain estimations must be made in order to obtain a full dataset. If more of these estimations are necessary in some geographic areas than in others, it could affect the accuracy and consistency of the data across areas. For more information, see "Consistency of the Area Wage Index Data."

The BLS data are collected from all industries. As explained above, some contend that multi-industry data are important to a price index because all employers' wages determine the prevailing market wage. Included in these data are health care sector data from hospitals, physician practices, skilled nursing facilities, ambulatory surgical centers, home health agencies, and hospices, for example. Thus, a BLS-based wage index could be based on either all-industry or health care sector-only data. Using all-industry data to account for additional employers increases the number of facilities contributing data, thereby addressing the problem of index circularity (for more information, see "Circularity in the Area Wage Index"). In addition, data become more stable from year-to-year because the sample size increases (for more information, see "Frequency of Area Wage Index Updates"). However, health care employers may differ from the universe of all employers in terms of the percentage of compensation paid in

benefits, the likelihood of unionization, and other ways that might affect compensation rates for some types of employees.

Unlike hospital cost report data, BLS OES data do not include benefits. The median value of benefits as a percentage of base wages is 25 percent in low-wage areas and 28 percent in high wage areas. If benefits are excluded, the wage index would be understated compared to today's wage index in areas where benefits account for a greater portion of compensation and overstated in areas where benefits account for a lower portion of compensation.

Several alternative sources for obtaining benefit information are available. First, CMS could continue to require submission of the benefits portion of the cost report's Worksheet S-3. Some have pointed out that using data from two different sources can create inaccuracies and inconsistencies in wage index values though, and that continued use of Worksheet S-3 defeats an advantage of using BLS data, which is to eliminate the need for hospitals to complete the form.

However, benefits and wages are actually reported in two places on the cost report: on Worksheet S-3, as well as Worksheet A. When the Medicare Payment Advisory Commission (MedPAC) analyzed the wage index and recommended using BLS data, they also recommended that CMS eliminate Worksheet S-3. They then recommended that CMS instead include benefits in the wage index by requiring all hospitals to record all their benefit costs on Worksheet A. MedPAC found that in most cases, Worksheet A data were exactly or approximately equal to Worksheet S-3 data. In some cases, they may differ because hospitals use generally accepted accounting principles for worksheet S-3 and Medicare accounting for worksheet A. However, Office of Inspector General (OIG) auditors informed MedPAC that they believed the data should match and that hospitals are required to follow Medicare accounting even on worksheet S-3. Clarifying the reporting rules could resolve this problem and make Worksheet A a useable data source on benefits. In addition, when MedPAC computed its benefits adjustment for hospitals, it used benefit data from hospital as well as skilled-nursing facility and home health agency cost reports. It did so to help lessen the effect of circularity -- the ability of hospitals to influence their own wage index values.

In addition, while benefit data are not available in the BLS OES, they are available in another BLS survey, the National Compensation Survey (NCS). However, this survey contains occupation-level all-industry benefit data for only 15 metropolitan statistical areas; expanding the survey would be costly. The Institute of Medicine (IOM) nevertheless favored using the NCS to compute a benefits adjustment in the wage index. Specifically, they stated that the NCS could be used to construct a regression from which a coefficient for benefits could be used to adjust wages.

Finally, it is possible (although perhaps not likely) that the BLS OES survey could be expanded to include benefit data.

Another difference between the cost report and BLS wage data is that BLS data do not capture the wages of contract labor. While the use of contract labor may be necessary

because of scarcity in the type of labor that a hospital needs, it may also reflect management decisions unaffected by other pressures. Some have argued that contract wages do not belong in the wage index and that the lack of contract wages in BLS data is not necessarily a drawback.

Alternative sources for obtaining contract labor information are available. First, these costs are reported on Worksheet S-3. However, as discussed above, continued use of the S-3 is not ideal. In addition, contract labor is also reported on Worksheet A, although it is lumped in with other costs. A recommendation could certainly be made, if desired, to modify Worksheet A so that contract labor is reported separately.

While MedPAC did not comment on contract labor in its report, the IOM did. Specifically, it stated it will consider whether or not the wage index should include the price of contract labor in its report due June 2012. If appropriate, the committee will identify and recommend potential sources of contract labor data.

Finally, it is possible (although perhaps not likely) that the BLS OES survey could be expanded to include contract labor data.

In contrast to the cost report data, BLS data exclude shift differentials, overtime pay, and jury duty, but include on-call pay.

<u>*Timeliness.*</u> The data that BLS uses for a given year's index range from being 2 to 5 years old, which is the result of using a rolling average to compute wage rates. For more information, see "Frequency of Area Wage Index Updates."

<u>*Transparency*</u>. BLS data are collected as part of a confidential survey process, and therefore, wage data at the establishment level are not publicly available; wage data at the area level are available. The methods that BLS uses are transparent and it makes its restricted data available on-site to researchers by application; research to validate wage indexes may fall into the category of acceptable use.

<u>Administrative Burden</u>. If BLS data were used to construct the wage index, the administrative burden is minimal – only those hospitals in the sample need to complete the survey. In addition, the triennial occupational mix survey could be eliminated, along with all or part of Worksheet S-3 of the cost report, thus lessening hospitals' and CMS's administrative burden. As discussed above, obtaining and using benefits information from Worksheet S-3 would require maintaining that portion of the worksheet, however.

<u>Inputs and Weighting</u>. The BLS data contain total wages and number of workers in a series of wage ranges for the single pay period for which each establishment was surveyed. Total hours are not reported, meaning BLS counts full-time and part-time workers equally.

The BLS data contain occupation-level data, meaning it is possible to construct an index using fixed national weights, and therefore holding all hospitals accountable to a single national standard for the amount of each occupation used. However, some hospitals

argue that they are reliant on a different mix of occupations than other hospitals. In some states, laws require a specific nurse-to-patient ratio or limit the scope of practice of some types of nurses. In California, for example, the law requires one registered nurse (RN) for every five medical/surgical patients and one RN for every two intensive care patients. In addition, California law limits the scope of practice for licensed practical nurses (LPNs), with the effect being that RNs provide the majority of inpatient care. The question then arises as to whether these local differences should be accounted for.

Benefits and Contract Labor Percentages, FY2008						
by Type of Hospital						
			Contract			
	Number of	Benefits	Labor			
	Hospitals	Percent	Percent			
US total	3377	23.0%	5.2%			
Urban	2454	22.8%	5.3%			
Rural	923	25.0%	4.4%			
Major teaching	243	24.0%	7.0%			
Other teaching	800	22.6%	5.1%			
Non-teaching	2334	22.6%	3.9%			
DSH	2694	23.2%	5.2%			
Non-DSH	683	21.9%	5.4%			
New England	142	22.5%	4.9%			
Middle Atlantic	383	26.6%	5.7%			
South Atlantic	579	21.3%	4.8%			
East North Central	501	24.2%	3.4%			
East South Central	322	22.0%	5.0%			
West North Central	261	23.9%	4.0%			
West South Central	528	20.1%	5.8%			
Mountain	217	21.3%	5.9%			
Pacific	394	22.7%	7.1%			
Puerto Rico	50	18.0%	3.1%			
Voluntary	2060	23.0%	4.7%			
Proprietary	705	19.5%	5.3%			
Government	612	25.3%	7.3%			
Under 25 beds	158	24.6%	4.4%			
25 to 49 beds	444	22.2%	5.2%			
50 to 99 beds	630	23.5%	3.8%			
100 to 299 beds	1491	23.1%	5.1%			
300 to 499 beds	450	23.1%	5.5%			
500 beds or more	204	22.7%	5.3%			
AHW Ranges						
Under \$28.00	551	22.1%	3.9%			
\$28.00 to \$30.99	618	22.5%	4.3%			
\$31.00 to \$33.99	779	22.0%	4.5%			
\$34.00 to \$37.99	733	22.1%	4.7%			
\$38.00 or more	696	24.4%	6.3%			
SOURCE: CMS FY20	08 Medicar	e cost repoi	rt data from			
4th guarter 2011 HCR	RIS file.	-1				

Benefits and Contract Labor Percentages, FY2008							
by State							
			Contract				
	Number of	Benefits	Labor				
	Hospitals	Percent	Percent				
US total	3377	23.0%	5.2%				
Alabama	94	23.8%	3.1%				
Alaska	6	25.9%	4.9%				
Arizona	54	20.2%	6.6%				
Arkansas	46	20.9%	5.0%				
California	295	22.5%	7.7%				
Colorado	45	20.9%	5.0%				
Connecticut	32	25.1%	6.3%				
DC	7	18.5%	8.6%				
Delaware	5	27.4%	1.7%				
Florida	165	20.7%	5.2%				
Georgia	107	21.7%	3.7%				
Hawaii	14	21.8%	3.6%				
Idaho	14	23.5%	4.3%				
Illinois	128	23.1%	3.4%				
Indiana	84	24.3%	2.6%				
lowa	34	25.9%	3.3%				
Kansas	53	20.0 %	4.8%				
Kentucky	65	21.0%	<del>4</del> .0%				
	03	21.9%	5.0 %				
Louisiana	97	21.0%	0.0%				
Mandand	20	24.5%	3.9%				
Managene	46	20.0%	1.2%				
Massachusetts	60	19.8%	4.6%				
Michigan	96	25.4%	3.1%				
Minnesota	50	24.2%	3.0%				
Mississippi	64	21.9%	4.1%				
Missouri	78	23.4%	4.8%				
Montana	12	23.4%	4.5%				
Nebraska	21	23.6%	5.8%				
Nevada	23	21.7%	6.7%				
New Hampshire	13	26.8%	5.4%				
New Jersey	65	25.2%	3.4%				
New Mexico	28	18.1%	8.9%				
New York	170	28.1%	6.8%				
North Carolina	86	21.1%	4.5%				
North Dakota	6	24.3%	1.2%				
Ohio	131	23.2%	3.6%				
Oklahoma	82	20.3%	6.6%				
Oregon	33	24.3%	3.5%				
Pennsylvania	148	24.9%	5.3%				
Puerto Rico	50	18.0%	3.1%				
Rhode Island	11	25.6%	3.9%				
South Carolina	54	22.7%	3.3%				
South Dakota	19	24.2%	3.1%				
Tennessee	99	21.2%	6.4%				
Texas	303	19.7%	5.6%				
Utah	30	25 3%	3 3%				
Vermont	8	20.070	3.570				
Vermont	0	∠ <del>4</del> .0 /0	J. 1 /0				
Virginia	77	20.6%	4.1%				
--------------------	-------------	---------------	---------------	-----			
Washington	46	22.9%	6.1%				
West Virginia	32	28.3%	2.1%				
Wisconsin	62	26.5%	4.1%				
Wyoming	11	25.1%	6.3%				
SOURCE: CMS F	Y2008 Med	icare cost re	eport data fi	rom			
4th quarter 2011 H	ICRIS file.						

Benefits percent is de	fined as :						
subtotal wage-relate	d costs / (sı	ubtotal salar	ries + subto	tal other wa	ges and rel	ated costs)	
Subtotal wage							
related costs	worksheet	S-3 Part III,	line 5, colu	mn 3			
Subtotal salaries	worksheet	S-3 Part III,	line 3, colu	mn 3			
Subtotal other wages							
& related costs	worksheet	S-3 Part III,	line 4, colu	mn 3			
Contract labor percen	t is defined	as :					
contract labor wages	s & related o	osts / (subt	otal salaries	s + subtotal	other wage	s and relate	d costs)
Contract labor wages	are the sum	n of:					
Contract labor	worksheet	S-3 Part II,	line 9, colur	nn 1			
Pharmacy services							
under contract	worksheet	S-3 Part II,	line 9.01, co	olumn 1			
Laboratory services							
under contract	worksheet	S-3 Part II,	line 9.02, co	olumn 1			
Contract labor -							
physician part A	worksheet	S-3 Part II,	line 10, colu	ımn 1			
				_			
Teaching physicians							
under contract	worksheet	S-3 Part II,	line 10.01, c	column 1			

Occupational Employment Statistics (OES) Survey: An Overview

> George Stamas January 27, 2012





# Joint Federal-State program

- Cooperative effort between the Bureau of Labor Statistics and the State workforce agencies
- The BLS national office, BLS regional offices, and State agencies each have specific roles in the survey process
- Produce estimates of occupational employment and wages with accompanying measures of reliability for each industry.



Publish occupational estimates and their reliability measures at the National, State, and sub-State geographic levels.

## **OES Survey**

- The survey collects occupational employment and wage data by industry from establishments:
  - Total number of employees
  - Occupational employment by wage interval
- Use Federal Statistical Classifications
  - Industries are defined by the North American Industry Classification System (NAICS)
  - Occupations are defined by the Standard Occupational Classification (SOC)



#### **Establishment survey**

- Data are collected from establishments
- 1.2 million establishments over a 3-year cycle (400,000 per year)
- Collection changed from once per year to twice per year to counteract seasonal effects
- Reference dates: May 12 and November 12



Sampling frame derived from Unemployment Insurance (UI) System

- The sampling frame consists of all nonfarm establishments in the UI system
- Data are collected from establishments in metropolitan and non-metropolitan areas
- Virtual certainty strata where all establishments are included in the OES sample
- A probability sample of establishments in noncertainty strata is surveyed.
- Federal government and State government data from annual censuses.



# Survey design

- Three-year sample 1.2 million establishments
  - Stratified by
    - 4- and some 5-digit NAICS
    - MSA and up to four exhaustive balance-of-State areas\*
    - Certainty/non-certainty by employment size
    - Approximately Probability Proportional to Size sample
- Semiannual panels
  - 200,000 establishments each
- Six panels pooled across three years



\*Some States were grandfathered with more areas

# More survey design

- Imputation for nonresponse not weight adjustment
  - Nearest neighbor for occupational employment
  - Mean of cell for wage distribution
  - Every sample unit is coded with a response
- Weights are adjusted by benchmarking to Quarterly Census of Employment and Wages (QCEW)
- Multiple levels of benchmarking



Combinations of area, industry, and size

# **OES Survey forms**

- Two types: structured and unstructured
- Structured forms are specific to industries or groups of industries
- Structured forms list occupations that are commonly found in the surveyed industries and include occupational definitions
- Occupations based on Standard Occupational Classification (SOC)



Unstructured forms are not industry-specific and do not list occupations

#### Standard Occupational Classification

About 90 healthcare occupations of 801 civilian occupations in the SOC 2000

- 51 in the Healthcare Practitioner and Technical major group
- 15 in the Healthcare Support major group
- Others scattered in other major groups



#### **Additional Health Detail for SOC 2010**

Proposed SOC 2010	From SOC 2000				
Health care social workers	Medical and public health social workers				
Community health workers	Community and social service specialists, all other*; Health educators*				
Exercise physiologists	Therapists, all other*				
Nurse anesthetists	Registered nurses*				
Nurse practitioners	Registered nurses*				
Nurse midwives	Registered nurses*				
Magnetic resonance imaging technologist	Radiologic technologist and technicians*				
Ophthalmic medical technicians	Health technologists and technicians, all other*				
Phlebotomist	Health support workers, all other*				
*Title remains but excludes the additional workers covered by new title(s).					



# Survey form

- Identify the establishment
- Instructions for completing
- Occupational titles and descriptions
- Wage grid with two scales
- "Unstructured reporting" pages
- One "unstructured form" and about 100 industry specific forms.



#### OCCUPATIONAL EMPLOYMENT REPORT OF PLASTICS AND RUBBER PRODUCTS MANUFACTURING (326000)

In Cooperation with the U.S. Department of Labor



Form Approved O.M.B. No. 1220-0042

What this report is about: This form asks for information about the occupations and wage ranges of the employees described in item 3 below. Please complete items 1 through 5 on this page. Next, please provide the information requested beginning on page 1 for the employees who worked during or received pay for the pay period that included the reference date in item 3, printed directly above your establishment name. The instructions on pages II and III explain how to provide the information. Please see our website at http://www.bis.gov/OES for more information on the OES Program, including a display of national, state and metropolitan area employment and wage estimates by occupation.

<ul> <li>Which of the following options describes the status of the location(s) in item 3 as of the reference date also printed in item 3?</li> <li>Operating: Go to item 2.</li> <li>Temporarily closed during the reference month: Report data for employees.</li> <li>Permanently out of business: Return the form to the address at the top.</li> <li>Sold or merged: Enter the new name and address below, then go to item 2.</li> </ul>	This form asks for information about the employees described below. Our estin employment for these employees appears at the top right corner of the label. I make any needed address corrections.	nate of Please
New Name:	<ul> <li>How many employees, both full and part-time, worked at this location(s) during the pay period that included the reference date printed in item 3?</li> <li>Enter the number here</li> <li>Include         <ul> <li>Full or part-time paid workers</li> <li>Workers on paid leave</li> <li>Workers assigned temporarity to other units</li> <li>Incorporated firms - paid owners, officers, and staff</li> <li>Do all employees reported above work at one location?</li> </ul> </li> </ul>	ng
	Please tell us who to contact if we have questions about your data.     Name:	FOR XFFICE SE ONLY
	Title:	



н

OCCUPATIONAL TITLE AND DESCRIPTION OF DUTIES			NUMBER OF EMPLOYEES IN SELECTED WAGE RANGES (Report Part-time Workers According to an Hourly Rate)											
DESCRIPTION OF DUTIES		Α	в	с	D	E	F	G	н	- 1	J	к	L	т
	Hourly (part-time or full-time)	under \$6.75	\$8.75 - 8.49	\$8.50 - 10.74	\$10.75 - 13.49	\$13.50 - 16.99	\$17.00 - 21.49	\$21.50 - 27.24	\$27.25 - 34.49	\$34.50 - 43.74	\$43.75- 55.49	\$55.50 - 69.99	\$70.00 and over	Total
	Annual (full-time only)	under \$14,040	\$14,040- 17,679	\$17,680 22,359	\$22,360 28,079	\$28,080 - 35,359	\$35,360 44,719	\$44,720 - 58,679	\$56,680 71,759	\$71,760- \$0,959	\$91,000 - 115,439	\$115,440 - 145,599	\$145,600 and over	Employment
Mechanical Engineers -		А	в	с	D	E	F	9	н	I	J	к	L	т
Perform engineering duties in planning and designing to machines, and other mechanically functioning equipment	ois, engines, t.													
	17-2141													

#### Arts, Design, Entertainment, Sports, and Media Occupations

Commercial and industrial Designers -	Α	в	c	D	E	F	0	н	-	Ĺ	к	L	т
Develop and design manufactured products, such as cars, home													
appliances, and children's toys. Combine artistic talent with research on													
product use, marketing, and materials to create the most functional and													
appealing product design.													
27-1021													

#### Building and Grounds Cleaning and Maintenance Occupations

Janitors and Cleaners, Except Malds and Housekeeping Cleaners -	Α	в	С	D	E	F	G	н	Т	J	К	L	т
Keep buildings in clean and orderly condition. Perform heavy cleaning													
duties, such as cleaning floors, shampooing rugs, washing walls and													
glass, and removing rubbish. Duties may include tending furnace and													
boller.													
37-2011													

#### Sales and Related Occupations

Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products -	Α	в	с	D	E	F	0	н	Ι	ſ	к	L	т
Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.													
41-4012													



#### Instructions for Completing the Supplemental Page

Please use these supplemental pages to report employees whose occupations were not found on the preceding pages. Please write in each unique occupational title, a short description of duties, the number of employees found in each wage column, and the total employment for each occupation. Refer to pages ii and iii for detailed instructions on how to report by occupation, how to determine wages, and how to complete the report. If you need additional space to report the workers in your establishment, please photocopy this page.

OCCUPA	TION	AL TITLE AND					I	NUMBE (Report	(ER OF EMPLOYEES IN SELECTED WAGE RANGES of Part-time Workers According to an Hourty Rate)								
DESCR	IPTIO	N OF DUTIES			A	в	с	D	E	F	0	н	g to an	J	K	L	т
			(	Hourly (part-time or full-time)	under \$6.75	\$6.75 - 8.49	\$8.50 10.74	\$10.75 - 13.49	\$13.50 16.99	\$17.00 - 21.49	\$21.50 27.24	\$27.25 - 34.49	\$34.50 - 43.74	\$43.75 55.49	\$55.50 - 69.99	\$70.00 and over	Total
				Annual (full-time only)	under \$14,040	\$14,040 17,679	\$17,680 22,359	\$22,380 28,079	\$28,080 35,359	\$35,360 44,719	\$44,720 56,679	\$56,630 - 71,759	\$71,760 90,999	\$91,000 115,439	\$115,440 - 145,599	\$145,500 and over	Employment
					Α	в	С	D	E	F	9	н	I.	J	к	L	т
					Α	в	С	D	Е	F	0	н	1	J	К	L	т
					А	в	с	D	E	F	9	н	1	J	к	L	т
					А	в	с	D	E	F	9	н	1	J	к	L	т
					А	в	С	D	E	F	9	н	Т	J	к	L	т
FOR OFFICE	<b>PIPS</b>	Schedule Number	NAICS C	Code Unit Total Emp	iky <b>men</b> t	Rade	wed By	Date R	erieved				Subto	tai Emp pa	loymer ige	nt - this	
USE ONLY													Total E	Employr on thi	nent Id s form	entified	



Supplemental 2

# Non-form reporting

- Some firms return printouts or electronic payroll files, which are then used by OES State or regional office staff to code the firms' employees to occupations
- Many firms report data over the phone
- In the most recent panel completed--
  - About 9.5% report by email through the BLS
  - Expanding web reporting options—8% received through our website



# **OES Scope**

#### IN

- Full or part-time paid workers
- Workers on paid leave
- Workers assigned temporarily to other units
- Paid owners, officers, and staff of incorporated firms

#### OUT

- Proprietors, owners, and partners of unincorporated firms
- Unpaid family workers
- Workers on unpaid leave
- Contract workers and temporary workers not on establishment payroll



# **OES Wage data**

- OES collects data by wage intervals, not actual wage levels
  - Federal and some state government reports are wage rate for individual jobs
- Data from BLS National Compensation Survey are used to estimate mean wages in each interval
- Wages collected in earlier panels are "aged" using Employment Cost Index



#### OES Wage intervals as of 2008 estimates

#### Hourly Rates

under \$9.25 \$9.25 - 11.49 \$11.50 - 14.49 \$14.50 - 18.24 \$18.25 - 22.74 \$22.75 - 28.74 \$28.75 - 35.99 \$36.00 - 45.24 \$45.25 - 56.99 \$57.00 - 71.49 \$71.50 - 89.99 \$90.00 and over

#### Annual Rates

- Under \$19,240
- \$19,240 23,919
- \$23,920 30,159
- \$30,160 37,959
- \$37,960 47,319
- \$47,320 59,799
- \$59,800 74,879
- \$74,880 94,119
- \$94,120 118,559
- \$118,560 148,719
- \$148,720 187,199
- \$187,200 and over



# **OES Wage definition**

- Wages for the OES survey are straight-time, gross pay, exclusive of premium pay
- Included: base rate, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay including commissions and production bonuses and tips
- Excluded: back pay, jury duty pay, overtime pay, severance pay, shift differentials, nonproduction bonuses, employer cost of supplementary benefits and tuition reimbursements 128



# **Estimates produced**

- Cross-industry occupational employment and wage estimates by geographic area:
  - National
  - States and the District of Columbia
  - Guam, Puerto Rico, and U.S. Virgin Islands
  - Over 375 metropolitan areas & 34 metro divisions
- Industry-specific occupational employment and wage estimates – BLS publishes national level (U.S.) only:
  - 2-digit NAICS sectors
  - 3-digit NAICS subsectors
  - 4-digit NAICS industry groups
  - Selected 5-digit NAICS industries



### Data items available

- Employment estimates
- Hourly and annual mean wage estimates
- Hourly and annual percentile wage estimates (10th, 25th, median, 75th, 90th)
- Employment and mean wage percent relative standard errors (PRSEs) measure of sampling error



# **Reliability of estimates**

As with any sample-based survey, the OES survey's estimates are subject to two types of error

- Sampling Error
  - The error inherent to using a sample to make inferences about a universe. Because the OES survey is a probability sample, its sampling error can be measured.
- Nonsampling error
  - Any error other than sampling error, such as mistakes in filling out the survey forms, editing errors, or keypunch errors.



# **Relative standard errors**

**National Occupational Wage Estimates** 

#### May 2010

Relative Standard Errors	.5 percent of less	.5 to 1 Percent	1 to 2 Percent	2 to 3 Percent	3 to 5 Percent	More than 5 Percent
Number of occupatio ns	165	270	254	51	72	6



#### **Distribution by Sampling Error** Area Estimates in 25 Occupation Groups

#### May 2010 Estimates

Percent Relative Standard Error	Number of Estimates	Percentage of Estimates
0 up to 5	11,424	77%
5 up to 10	2,330	16%
10 up to 20	522	4%
20 up to 30	43	0%
30 or more*	564	4%



\* BLS does not publish OES estimates with a relative standard error of 30% or more and publishes Relative standard 133 ors for all mean wage estimates.



#### **Response Rate by Industry Sector May 2011 Panel**



#### Response Rate by Establishment Size Class May 2011 Panel



125 YEARS BLS 1=1-4; 2=5-9; 3=10-19; 4=20-49; 5=50-99; 6-100-249; 7=250-499; 8=500-999; 9=1,000 or more employees at the establishment

#### **Selected Healthcare Occupations, May 2010**

Occupation (SOC code)	Employment	Hourly mean wage
Registered Nurses*(291111)	2,655,020	32.56
Nursing Aides Orderlies and Attendants*(311012)	1,451,090	12.09
Home Health Aides(311011)	982,840	10.46
Licensed Practical and Licensed Vocational Nurses(292061)	730,290	19.88
Medical Assistants(319092)	523,260	14.31
Pharmacy Technicians(292052)	333,500	14.10
Dental Assistants(319091)	294,030	16.41
Pharmacists(291051)	268,030	52.59
Emergency Medical Technicians and Paramedics(292041)	221,760	16.01
Radiologic Technologists and Technicians*(292037)	216,730	26.80
Healthcare Support Workers All Other*(319799)	193,980	15.23
Physical Therapists(291123)	180,280	37.50
Dental Hygienists(292021)	177,520	33.02
Medical Records and Health Information Technicians(292071)	176,090	16.83
Medical and Clinical Laboratory Technologists(292011)	164,430	27.34
Medical and Clinical Laboratory Technicians(292012)	156,480	18.36
Speech-Language Pathologists(291127)	112,530	33.60
Respiratory Therapists(291126)	109,270	26.54
Occupational Therapists(291122)	100,300	35.28
Surgical Technologists(292055)	92,260	19.86
Health Technologists and Technicians All Other*(292799)	87,900	20.31
Physician Assistants(291071) 136	81,420	41.89



#### Medical Records and Health Information Technicians by Selected Industries—May 2010

Industry (NAICS Code)	Employment	Hourly mean wage
Total	176,090	\$16.83
Hospitals (622000)	69,470	17.80
Offices of Physicians (621100)	41,450	13.96
Nursing Care Facilities (623100)	13,260	16.05
Federal State and Local Government (OES designation) (99-100)		
(00 100)	10,040	20.62
Outpatient Care Centers (621400)	6,740	15.12
Professional Scientific and Technical Services (541000)	6,770	19.80
Home Health Care Services (621600)	5,200	16.88



#### OES Website: http://www.bls.gov/oes/home.htm

### Data available in 3 forms:

- Downloadable zipped Excel files
- Drill-down tables
- Form-based query tool

View Favorites Tools	Help			PA.	
Occupational Employment	Statistics Home Page				
	UNITED ST.	ATES DEPARTMENT OF LABOR			
	www.bls.gov	Search: All BLS.gov	Y for:	Search 🤍	
			Newsroom   Tutoria	ls   Release Calendar 🧱	
	A DUREA	U OF LABOR STATISTICS			
	Home Subject Are	as Databases & Tables Publications Economic Releases		A - Z Index   About BLS	
	INFLATION Y SPENDI		IN INJURIES		
	Occupational	Employment Statistics	OES 🛃 FOI	NT SIZE: 🖃 🕀 PRINT: 🚔	
		Employment Statistics			
	BROWSE OES	The Occupational Employment Statistics (OES) program pi 800 occupations. These are estimates of the number of people e	roduces employment and wa employed in certain occupati	uge estimates for over ions, and estimates of	
	OES OVERVIEW	the wages paid to them. Self-employed persons are not include	d in the estimates. These est	timates are available for	
	OES NEWS RELEASES	the nation as a whole, for individual States, and for metropolitar estimates for specific industries are also available.	n and nonmetropolitan areas	; national occupational	
	OES DATABASES	· · · · · · · · · · · · · · · · · · ·			
	OES TABLES	On This Page	and a lite of		
	OES PUBLICATIONS	OES Data Highlights     OES News Releases     W	OES FAQs		
	CONTACT OFS	» <u>OES Databases</u> »	OES Special Notices		
		» <u>OES Tables</u> »	OES Related Links Contact OES		
	SEARCH OES				
	OES TOPICS	OES Data Highlights			
	ARCHIVED DATA				
	CHARTS & MAPS Occupational Employment Statistics (OES) Highlights:				
	RESPONDENTS	An Occupational Analysis of Industries with the M	lost Job Losses		
	TECHNICAL DOCUMENTATION ▶	November 2009			
		Three industry sectors have accounted for nearly two-thirds of total job losses in the current recession:			
		construction, manufacturing, and administrative and support services. This highlight looks at the occupational composition of these sectors as of May 2008, several months into the recession. Although not all occupations in			
		an industry may be equally affected by job losses, this analys	is illustrates the types of occ	supations that are	
		prevalent in each industry and therefore may be at risk during	g an economic downturn.		
		Between December 2007 and October 2009, employment in the or over 1.5 million jobs. Approximately 65 percent of jobs loss	he construction sector fell by t in this sector were among a	/ almost 21 percent,	
		contractors, which perform specific activities associated with o	construction projects, such a	s plumbing, masonry,	
		or electrical work.			
		Chart 1: Employment and mean h	ourly wages for the largest		



### **Methodology Statement**

# For a description of OES estimation methodology, see—

http://www.bls.gov/oes/2010/may/methods\_statement.pdf



### Users of OES data

- Human resources professionals
- Career and guidance counselors
- Individual job seekers
- State and local employment & training agencies
- Government development planners
- Workforce Investment Boards
- Private developers
- Businesses for location or marketing decisions



Federal agencies

# BLS Employment Projections

- OES data are used as an input to the occupation-by-industry matrix
- This matrix is the foundation for calculating occupational employment projections
- Projections data also form part of the occupational profiles in the Occupational Outlook Handbook



#### Foreign Labor Certification (FLC) Program

- Overseen by the Employment and Training Administration (ETA) at the Department of Labor
- Employers must receive program approval in order to bring foreign workers into the U.S.
- Employer must ensure that foreign worker receives at least the "prevailing wage rate" for that occupation and area
- OES Wage data are used as an input into these "prevailing wage rates"
- FLC Program maintains an online wage library at www.flcdatacenter.com



#### Other Sources for Occupational Wages

#### BLS—

National Compensation Survey

- Current Population Survey (CPS) (in cooperation with the Bureau of the Census)
- Bureau of the Census

American Community Survey (ACS)


# **Contact Information**

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The inpatient prospective payment system (PPS) base payment rate is comprised of a labor-related share and a non-labor-related share. The laborrelated share represents the proportion of hospitals' costs which is attributable to wages and wage-related costs, such as employees' salaries and benefits. When calculating hospitals' payments, the wage index is applied only to the laborrelated share of the base rate. A wage index of less than 1.0 lowers the payment a hospital receives compared to the base rate, while a wage index of greater than 1.0 increases the payment a hospital receives compared to the base rate.

Every 4 years, CMS updates its calculation of the national labor-related share by estimating the proportion of hospitals' costs which is attributable to wages and wage-related costs. It is currently set at 68.8 percent. However, for hospitals with wage indices less than or equal to 1.0, the law requires CMS to use the actual national labor-related share it has estimated, or 62 percent, whichever is lower.

FY 2012	vvage mu	ex Aneci	s the basi	e Payme	int for impa	atient nosp	litais,
Wage index	FY12 Base Rate	Labor- related Share	Labor- related Portion	Wage Index	Wage - adjusted Labor- related Portion	Non-labor- related Portion	Wage adjuste Base Rate
Highest	\$5,209.74	0.688	\$3,584.30	1.6996	\$6,091.88	\$1,625.44	\$7,717.
Exactly 1	\$5,209.74	0.620	\$3,230.04	1.0000	\$3,230.04	\$1,979.70	\$5,209.
Lowest	\$5,209.74	0.620	\$3,230.04	0.7277	\$2,350.50	\$1,979.70	\$4,330.

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A hospital's wage index greatly affects its Medicare inpatient PPS payments. In the example above, the calculation for the highest wage index area is as follows:

•the FY 2012 base rate of \$5,209.74 is multiplied by the labor-related share of 68.8 percent to obtain a labor-related portion of \$3,584.30;

•the labor-related portion is multiplied by the wage index of 1.6996 to obtain a wage-adjusted labor-related portion of \$6,091.88;

•this is then added to the non-labor-related portion to obtain a wageadjusted base payment of \$7,717.32.



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Hospital wage indices vary from year-to-year, sometimes significantly. For example, from FY 2011 to FY 2012, 12 percent of hospitals or 418 hospitals experienced a change (either increase or decrease) in their wage index of at least 3 percent. However, over a three-year period, hospitals can experience even more volatility in their payments. For example, from FY 2009 to FY 2012, 30 percent of hospitals or 969 hospitals experienced a change (either increase or decrease) in their wage index of at least 3 percent.

Wage indices can both increase and decrease because of changes in hospital wages compared to other hospitals, and also because of the gain or loss of a reclassification. These changes can cause substantial volatility in hospital payment rates from year-to-year. This can be very problematic for hospitals, as one of the fundamental values of a PPS is the ability of providers to reasonably estimate payments in advance to inform their budgeting, marketing, staffing and other key management decisions.





In FY 2012, almost 40 percent of all PPS hospitals have an exception or reclassification under one or more of the policies described below.

**Frontier State:** Created by the Patient Protection and Affordable Care Act of 2010, this exception implements a wage index floor of 1.0 for states where at least 50 percent of the counties have fewer than six people per square mile (Alaska and Hawaii are not eligible). Currently, five states are eligible: Montana; Nevada; North Dakota; South Dakota; and Wyoming.

**Lugar County:** The Omnibus Budget Reconciliation Act of 1987 created the Lugar County reclassification. Entire counties may be reclassified to an adjacent CBSA if they are adjacent to more than one CBSA and, taken together, the commuting pattern to those CBSAs would classify them to a single CBSA under Office of Management and Budget rules.

**Section 401:** The Balanced Budget and Refinement Act of 1999 allowed hospitals to be classified for wage index purposes as rural although they are in an urban area. This reclassification may, for example, allow a hospital to obtain sole community hospital status.

**Section 508:** Created by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Section 508 provided a reclassification for hospitals that do not meet the geographic reclassification regulations under MGCRB. They expired at the end of Fiscal Year 2011, but Congress may extend them as it has done historically.

**Rural Floor or Imputed Rural Floor:** The Balanced Budget Act of 1997 created a wage index exception that requires that any CBSA wage index in a state be equal to or greater than the statewide rural wage index in that state. The rural floor exception was extended to states without rural areas and an imputed rural floor was created for those states.

**Out-Migration:** Created by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, the out-migration adjustment allows wage indices for counties in lower wage index areas to be blended with higher wage index areas in proportion to the number of county residents who are hospital workers and who commute to those higher wage index areas.

**Medicare Geographic Classification Review Board (MGCRB) Decisions:** The Omnibus Budget Reconciliation Act of 1989 created the MGCRB. Hospitals may request reclassification to an adjacent labor market area if they meet conditions of geographic proximity and have comparable wage costs.

MGCRB, Lugar county, and rural or imputed rural floor reclassifications are budget neutral. Frontier state, Section 508 and out-migration exceptions and reclassifications are not.

Source: *Report to the Congress: Greater Efficiency in Medicare*, MedPAC, June 2007, p. 128. *IPPS Advisory,* American Hospital Association, April 2011.

#### The percentage of hospitals with reclassifications or exceptions in each state varies widely.



Percent of PPS Hospitals With Reclassifications or Exceptions by State, FY 2012

In FY 2012, nationwide, almost 40 percent of IPPS hospitals, or 1,287 hospitals, have a reclassification or exception using one or more of the seven methods described on the previous slide. Reclassifications or exceptions occurred in all states except Hawaii and the District of Columbia. In eleven states, at least 60 percent of hospitals have a reclassification or exception.

Source: CMS FY 2012 IPPS Final Rule Impact File, released August 2011. Analysis does not include Maryland, which has been granted a waiver under the IPPS.

#### Hospitals in CBSAs that cross state lines can have different wage indices.

Wage Indices and Average Base Payment Amount for CBSAs that Span More Than Two States and Have Different Wage Indices for Different States, by Area, FY 2012

CBSA Code	CBSA Name	State	FY12 Wage Index	FY12 Wage- adjusted Base Payment	CBSA Code	CBSA Name	State	FY12 Wage Index	FY12 Wage- adjusted Base Payment
10900	Allentown-Bethlehem-Easton, PA-NJ	NJ	1.1264	\$5,662.80	37620	Parkersburg-Marietta-Vienna, WV-OH	OH	0.8403	\$4,693.90
10900	Allentown-Bethlehem-Easton, PA-NJ	PA	0.9386	\$5,011.42	37620	Parkersburg-Marietta-Vienna, WV-OH	WV	0.7547	\$4,417.41
19060	Cumberland, MD-WV	MD	0.9324	\$4,991.39	39300	Providence-New Bedford-Fall River, RI-MA	MA	1.3452	\$6,447.04
19060	Cumberland, MD-WV	WV	0.7791	\$4,496.22	39300	Providence-New Bedford-Fall River, RI-MA	RI	1.0561	\$5,410.82
22020	Fargo, ND-MN	MN	0.9168	\$4,941.00	43580	Sioux City, IA-NE-SD	IA	0.9309	\$4,986.54
22020	Fargo, ND-MN	ND	1.0000	\$5,209.74	43580	Sioux City, IA-NE-SD	NE	0.9309	\$4,986.54
24220	Grand Forks, ND-MN	MN	0.9168	\$4,941.00	43580	Sioux City, IA-NE-SD	SD	1.0000	\$5,209.74
24220	Grand Forks, ND-MN	ND	1.0000	\$5,209.74	44600	Steubenville-Weirton, OH-WV	OH	0.8403	\$4,693.90
25180	Hagerstown-Martinsburg, MD-WV	MD	0.9324	\$4,991.39	44600	Steubenville-Weirton, OH-WV	WV	0.7393	\$4,367.67
25180	Hagerstown-Martinsburg, MD-WV	WV	0.9318	\$4,989.45	45500	Texarkana, TX-Texarkana, AR	AR	0.7925	\$4,539.51
28700	Kingsport-Bristol-Bristol, TN-VA	TN	0.7768	\$4,488.80	45500	Texarkana, TX-Texarkana, AR	ТΧ	0.8068	\$4,585.70
28700	Kingsport-Bristol-Bristol, TN-VA	VA	0.7949	\$4,547.26	48540	Wheeling, WV-OH	OH	0.8403	\$4,693.90
30300	Lewiston, ID-WA	ID	0.8801	\$4,822.46	48540	Wheeling, WV-OH	WV	0.7393	\$4,367.67
30300	Lewiston, ID-WA	WA	1.0077	\$5,237.34	48864	Wilmington, DE-MD-NJ	DE	1.0747	\$5,477.49
30860	Logan, UT-ID	ID	0.8547	\$4,740.42	48864	Wilmington, DE-MD-NJ	MD	1.0747	\$5,477.49
30860	Logan, UT-ID	UT	0.8690	\$4,786.60	48864	Wilmington, DE-MD-NJ	NJ	1.1264	\$5,662.80
35084	Newark-Union, NJ-PA	NJ	1.1264	\$5,662.80	49660	Youngstown-Warren-Boardman, OH-PA	OH	0.8403	\$4,693.90
35084	Newark-Union, NJ-PA	PA	1.1091	\$5,600.79	49660	Youngstown-Warren-Boardman, OH-PA	PA	0.8430	\$4,702.62

Source: FY 2012 Final IPPS Rule. Base rate is defined as (labor rate \* wage index) + non-labor rate.

Wage indices are calculated for each CBSA. However, for CBSAs that cross state lines, the wage index for the same CBSA can be different from one state to the other. This is because the rural floor may come into play in one state and not the other.

In FY 2012, of the 34 CBSAs that cross state lines, 17 have different wage indices for each state. For example, hospitals in the West Virginia part of the Wheeling CBSA have a wage index of 0.7393, while hospitals in the Ohio part of the CBSA have a wage index of 0.8403. This is because the wage index of all hospitals in the Wheeling, WV CBSA are brought to their respective states' rural floor. The Ohio rural area wage index, which serves as the wage index floor, is higher than the West Virginia floor.





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The nationwide AHW has increased greatly in recent years. It increased between 3.4 and 6.3 percent each year from FY 2005 to FY 2012. In total, this represents an almost 40 percent increase from FY 2005 to FY 2012.

This increase is significant because each year, a hospital may see its wage index decline relative to last year because, even though its AHW rose, its AHW did not rise as quickly as those of other hospitals.

FY 2012 AHW, FY 2010-2012 Rolling Average of AHW and FY 2012 Final Wage Index, by Area

		-	-		_	-			
		FY 2012	FY2010-2012 Rolling	FY 2012			FY 2012	FY2010-2012 Rolling	FY 2012
Area	State	AHW	Average AHW	Wage Index	Area	State	AHW	Average AHW	Wage Index
Alaska Rural Areas	AK	\$46.5362	\$43.3274	1.2723	Redding, CA	CA	\$53.9758	\$48.2597	1.4757
Anchorage, AK	AK	\$43.4281	\$41.5355	1.2723	Riverside-San Bernardino-Ontario, CA	CA	\$41.1050	\$39.5566	1.1950
Fairbanks, AK	AK	\$40.7722	\$38.8181	1.2723	Sacramento-Arden-Arcade-Roseville, CA	CA	\$48.5034	\$47.3829	1.3318
Alabama Rural Areas	AL	\$26.6167	\$25.8373	0.7277	Salinas, CA	CA	\$57.2427	\$54.8299	1.5650
Anniston-Oxford, AL	AL	\$29.4694	\$27.5375	0.8057	San Diego-Carlsbad-San Marcos, CA	CA	\$42.4019	\$40.6974	1.1950
Auburn-Opelika, AL	AL	\$29.6311	\$28.0434	0.8101	San Francisco-San Mateo-Redwood City, CA	CA	\$56.4333	\$54.1652	1.5429
Birmingham-Hoover, AL	AL	\$30,5956	\$29.7942	0.8365	San Jose-Sunnvvale-Santa Clara, CA	CA	\$60.1234	\$57,2608	1.6438
Columbus, GA-AL	AL	\$33.0688	\$31,4161	0.9041	San Luis Obispo-Paso Robles, CA	CA	\$45.5257	\$43,1554	1.2446
Decatur. AL	AL	\$26.2393	\$26.1327	0.7277	Santa Ana-Anaheim-Irvine, CA	CA	\$43.0326	\$41.5730	1.1950
Dothan, AL	AL	\$26,1899	\$25,9103	0.7277	Santa Barbara-Santa Maria-Goleta, CA	CA	\$43,7293	\$41,7284	1.1956
Florence-Muscle Shoals Al	AI	\$27 8332	\$27 5655	0 7691	Santa Cruz-Watsonville CA	CA	\$60,3347	\$57 2788	1 6996
Gadsden Al	AI	\$29 1853	\$27 4793	0 7980	Santa Bosa-Petaluma CA	CA	\$57 1848	\$54 8480	1 5634
Huntsville Al	AI	\$32 1482	\$31,2822	0.8789	Stockton CA	CA	\$47 1748	\$44 2853	1 3012
Mobile Al	AI	\$29,4123	\$27 6831	0.8041	Valleio-Fairfield CA	CA	\$51 7193	\$50,5039	1 4140
Montgomery Al	AL	\$29,9783	\$29,5106	0.8196	Visalia-Porterville CA	CA	\$37 9338	\$36,8872	1 1950
Tuscaloosa Al	AL	\$32 3134	\$31 4048	0.8834	Yuha City, CA	CA	\$41 7292	\$38,8186	1 1950
Arkansas Bural Areas	AR	\$26,8204	\$25,9959	0.7408	Boulder CO	0,1	\$36,6935	\$35,5416	1.0032
Favetteville-Springdale-Rogers AR-MO		\$33.4821	\$21,0305	0.0154	Colorado Bural Areas	00	\$35,8043	\$33.3410	0.0780
Fort Smith AB-OK		\$28 1312	\$27 3703	0.3134	Colorado Springs CO	00	\$31,7055	\$33,0520	0.9789
Lot Springe AP		¢20.1012	¢27.5705	0.7031	Dopyor Aurora Proomfield CO	00	¢20 0107	¢33.0323	1.0447
Intersprings, An	An AD	\$33.3333 \$29.2056	\$32.1240 \$27.2465	0.9119	Fort Collins, Loveland, CO	00	¢30.2127	\$37.0032 \$22.5617	0.0790
Little Pock North Little Pock Conway AP	An AD	\$20.2000	¢20.2722	0.7711	Grand Junction CO	00	¢34.3003 ¢24.0715	¢33.3017	0.9709
LILLE NUCK-NUTLIT LILLE NUCK-CUTIWAY, AN	An	\$31.3090 \$33.6593	\$30.373Z	0.0015	Gradov CO	00	\$34.0715 ¢25.0209	\$33.7327 \$33.7360	0.9000
Dipo Duff AD	An	\$33.0003 \$29.6015	\$32.4110 \$97.4197	0.9202	Buchlo CO	00	\$30.0290 \$20.0199	\$33.7200 \$30.7656	0.9769
Fille Diuli, An	An	\$20.0013	\$27.4137 ¢07.0050	0.7690	Pueblo, 60 Dridesport Stamford Narwally CT	00	\$30.9100	\$29.7000 \$44.0100	0.9769
Texarkana, TX-Texarkana, AR	AR	\$28.9891	\$27.8052	0.7925	Bridgeport-Stariford-Norwalk, CT		\$47.0602	\$44.8182	1.2800
Arizona Rural Areas	AZ	\$32.0798	\$31.2059	0.8770	Connecticut Rural Areas		\$41.5303	\$39.5862	1.2048
Flagstaff, AZ	AZ	\$45.0197	\$43.4732	1.2308	Hartford-West Hartford-East Hartford, CT		\$39.4750	\$38.8344	1.2048
Lake Havasu City-Kingman, AZ	AZ	\$36.2399	\$35.9151	0.9908	New Haven-Miliford, CI		\$41.9685	\$40.4119	1.2048
Phoenix-wesa-Glendale, AZ	AZ	\$37.7782	\$36.5919	1.0328	Norwich-New London, CT		\$41.3459	\$40.0344	1.2048
Prescott, AZ	AZ	\$44.7837	\$40.1585	1.2244	Washington-Arlington-Alexandria, DC-VA	DC	\$38.5770	\$37.1722	1.0546
	AZ	\$34.4870	\$33.6287	0.9428	Delaware Rural Areas	DE	\$36.6244	\$34.8672	1.0013
Yuma, AZ	AZ	\$34.4653	\$32.9358	0.9422	Dover, DE	DE	\$36.2646	\$34.9647	1.0013
Bakerstield-Delano, CA	CA	\$43.4134	\$41.0689	1.1950	Wilmington, DE-MD-NJ	DE	\$39.3111	\$37.7026	1.0747
California Rural Area	CA	\$43.7089	\$41.7716	1.1950	Cape Coral-Fort Myers, FL	FL	\$33.8389	\$32.1404	0.9251
Chico, CA	CA	\$39.5218	\$38.7305	1.1950	<sup>2</sup> Crestview-Fort Walton Beach-Destin, FL	FL	\$32.2043	\$30.6487	0.8804
El Centro, CA	CA	\$34.9582	\$32.3603	1.1950	Deltona-Daytona Beach-Ormond Beach, FL	FL	\$32.2149	\$30.9197	0.8807
Fresno, CA	CA	\$40.8362	\$39.5387	1.1950	Florida Rural Areas	FL	\$30.5125	\$29.6480	0.8342
Hanford-Corcoran, CA	CA	\$39.5694	\$39.1412	1.1950	Fort Lauderdale-Pompano Beach-				
Los Angeles-Long Beach-Glendale, CA	CA	\$44.2500	\$42.1979	1.2098	Deerfield Beach, FL	FL	\$36.2014	\$35.1163	1.0163
Madera-Chowchilla, CA	CA	\$31.7133	\$30.2255	1.1950	Gainesville, FL	FL	\$34.8853	\$32.9138	0.9537
Merced, CA	CA	\$44.2552	\$42.2570	1.2099	Jacksonville, FL	FL	\$32.3156	\$31.3600	0.8835
Modesto, CA	CA	\$45.6487	\$43.1331	1.2480	Lakeland-Winter Haven, FL	FL	\$31.2175	\$30.0502	0.8535
Napa, CA	CA	\$52.1348	\$50.2636	1.4254	Miami-Miami Beach-Kendall, FL	FL	\$36.8880	\$35.4660	1.0085
Oakland-Fremont-Hayward, CA	CA	\$56.6902	\$55.2884	1.5498	Naples-Marco Island, FL	FL	\$35.7039	\$34.3256	0.9761
Oxnard-Thousand Oaks-Ventura, CA	CA	\$46,4944	\$43.6826	1.2927	North Port-Bradenton-Sarasota, FL	FL	\$33.4204	\$32,5752	0.9137

FY 2012 AHW, FY 2010-2012 Rolling Average of AHW and FY 2012 Final Wage Index, by Area

		- El onto		EV and a		-	F1/ 0010		El/ conto
		FY 2012	FY2010-2012 Rolling	FY 2012			FY 2012	FY2010-2012 Rolling	FY 2012
Area	State	AHW	Average AHW	Wage Index	Area	State	AHW	Average AHW	Wage Index
Ocala, FL	FL	\$31.0211	\$30.0390	0.8481	Lewiston, ID-WA	ID	\$32.1905	\$31.8994	0.8801
Orlando-Kissimmee-Sanford, FL	FL	\$33.2099	\$31.8684	0.9080	Logan, UT-ID	ID	\$31.2658	\$30.8185	0.8547
Palm Bay-Melbourne-Titusville, FL	FL	\$33.1850	\$32.2110	0.9073	Pocatello, ID	ID	\$33.6528	\$32.3069	0.9201
Palm Coast, FL	FL	\$33.1158	\$31.0769	0.9054	Bloomington-Normal, IL	IL.	\$34.7695	\$33.3008	0.9506
Panama City-Lynn Haven-					Cape Girardeau-Jackson, MO-IL	IL.	\$31.1080	\$30.7465	0.8505
Panama City Beach, FL	FL	\$31.0447	\$29.3031	0.8487	Champaign-Urbana, IL	IL.	\$35.5347	\$34.9031	0.9715
Pensacola-Ferry Pass-Brent, FL	FL	\$28.6424	\$28.1894	0.8342	Chicago-Joliet-Naperville, IL	IL	\$38.1744	\$36.6153	1.0436
Port St. Lucie, FL	FL	\$35.5426	\$35.5135	0.9717	Danville, IL	IL	\$35.6920	\$33.0327	0.9758
Punta Gorda, FL	FL	\$33.0012	\$31.7421	0.9022	Davenport-Moline-Rock Island, IA-IL	IL	\$33.0599	\$30.0342	0.9136
Sebastian-Vero Beach, FL	FL	\$33.3770	\$32.6279	0.9125	Decatur, IL	IL	\$29.1967	\$28.0077	0.8373
Tallahassee, FL	FL	\$31.6749	\$30.6215	0.8659	Illinois Rural Areas	IL	\$30.6258	\$29.2978	0.8373
Tampa-St. Petersburg-Clearwater. FL	FL	\$33.0107	\$31.7168	0.9025	Kankakee-Bradley, IL	IL.	\$35.3337	\$35,3800	0.9660
West Palm Beach-Boca Raton-					Lake County-Kenosha County, IL-WI	IL.	\$37,1238	\$36,5187	1.0150
Boynton Beach, FL	FL	\$35,2088	\$34,1119	0.9626	Peoria, IL		\$32,4450	\$32,0058	0.8871
Albany, GA	GA	\$31.6500	\$31,1403	0.8652	Bockford, IL		\$36.0402	\$35.0906	0.9854
Athens-Clarke County GA	GA	\$34 2240	\$32 7483	0.9357	Springfield II	1	\$31 7919	\$31 4489	0.8692
Atlanta-Sandy Springs-Marietta GA	GA	\$34 7279	\$33 4482	0.9495	St Louis MO-II		\$33,0491	\$31,6888	0.9035
Augusta-Richmond County GA-SC	GA	\$34 7105	\$33,3246	0.9490	Anderson IN	IN	\$33,8586	\$32,3373	0.9257
Brunswick GA	GA	\$33 1669	\$32 2408	0.9068	Bloomington IN	IN	\$32,6189	\$32 1491	0.8918
Chattanooga TN-GA	GA	\$31,8231	\$30 8648	0.8700	Cincinnati-Middletown OH-KY-IN	IN	\$33,9106	\$33.0472	0.9284
Columbus GA-Al	GA	\$33,0688	\$31,4161	0.9041	Columbus IN	IN	\$35,3428	\$33,4669	0.9662
Dalton GA	GA	\$29,9099	\$29,4352	0.8177	Elkhart-Goshen IN	IN	\$33,9587	\$32 8721	0.9413
Gainesville GA	GA	\$33,7821	\$32 9746	0.9236	Evansville IN-KY	IN	\$31 2912	\$29,6949	0.8554
Georgia Bural Areas	GA	\$28 1024	\$27 1824	0.7683	Fort Wayne IN	IN	\$33,7487	\$32 0743	0.0001
Macon GA	GA	\$34 2104	\$33,8855	0.9353	Gary IN	IN	\$33,3616	\$32,0256	0.9121
Rome GA	GA	\$31.8487	\$30 5431	0.8707	Indiana Bural Areas	IN	\$30,9785	\$29,6350	0.8540
Savannah GA	GA	\$32,7470	\$31 2418	0.8953	Indianapolis-Carmel IN	IN	\$34 5144	\$33,3956	0.9436
Valdosta GA	GA	\$29,6951	\$28 5226	0.8118	Kokomo IN	IN	\$32,8567	\$32,2844	0.8982
Warner Bohins GA	GA	\$31 4652	\$30,6389	0.8603	Lafavette IN	IN	\$34 2740	\$32,3664	0.0002
Hawaji Bural Areas	HI	\$41 3128	\$39,7059	1 1295	Louisville- lefferson County KY-IN	IN	\$32 0898	\$30,9654	0.3370
Honolulu HI	HI	\$41.8011	\$40 3462	1 1428	Michigan City-La Porte IN	IN	\$33,6070	\$32,4735	0.0178
	14	\$36 5091	\$34 5897	0.9981	Muncie IN	IN	\$28 2548	\$28,2946	0.8540
Cedar Banids IA	IA	\$31,8111	\$30.8476	0.8697	South Bend-Mishawaka IN-MI	IN	\$33,9476	\$33 5634	0.0010
Davenport-Moline-Bock Island IA-II		\$33.0599	\$30,0342	0.0037	Terre Haute IN	IN	\$33.5470	\$32 1105	0.9201
Des Moines-West Des Moines IA		\$35,1311	\$33,4600	0.9100	Kansas City MO-KS	KS	\$34 5377	\$33,3433	0.0100
		\$30,7328	\$29,8830	0.3003	Kansas Bural Areas	KS	\$29 1082	\$28 1074	0.3442
lowa City IA		\$36,0631	¢23.0000	0.0432		KS	\$31,0620	\$20.1074	0.8730
Iowa Oity, IA		\$31,0606	\$20.8/10	0.3000	Manhattan KS	KS	\$28,8823	\$30.1410	0.0733
Omaha Council Pluffe NE IA	14	\$31.0000	\$29.0410	0.0492	St Josoph MO KS	KO KC	\$20.0023 \$27.2940	\$27.7410 \$25.0029	1.0022
Sioux City, IA, NE, SD	14	\$33.3079	¢33.7079	0.9730	Topoka KS	KO	\$37.3040 \$22.5710	\$33.9920 \$21.7092	0.0005
Motorlog Codor Falls IA	14	\$34.0400 \$20.2000	\$31.0004 \$20.5562	0.9309	Wishita KS	KO KC	\$32.37 TU	¢31.7902	0.0905
Poice City Nampa ID		\$30.3880 \$32.6006	\$29.0003 \$20.5449	0.0492	Rowling Groop KV	NO KV	¢21.2240	\$30.7903 \$20.1179	0.0000
Coour d'Alono ID		\$33.0900 \$22.2619	\$32.0440 \$22.0546	0.9210	Cincipneti Middletown OH KV IN			\$30.1170 \$22.0472	0.0004
Idaba Falla, ID		000.0010 000.0010	\$32.0340 \$22.1140	0.9121	Clorkovillo TN KV		00 E100	000.0472	0.9204
IUAIIU FAIIS, IU		\$33.8094 \$07.1000	\$33.1140	0.9403	Liansville, IN-KY	KY KV	\$29.0124 \$21.0000	\$27.8298	0.0009
IUATIO RUTALAFEAS	י וט	\$27.1298	\$26.3068	U./41/	Elizabeultown, KY	I KY	\$31.2808	\$29.4575	0.8552

FY 2012 AHW, FY 2010-2012 Rolling Average of AHW and FY 2012 Final Wage Index, by Area

	1	EV 2012		EV 2012		-	EV 2012	EV2010 2012 Delling	EV 2012
4700	Ctoto	FY ZUIZ	FYZUIU-ZUIZ KOIIIng	FY 2012 Were Index	Area	Ctoto		FY2010-2012 Kolling	FY ZUIZ Were Index
	Jale		Average Arriv	Waye muex	Alea	Jidle	ANW	Average Arriv	Waye muex
EVANSVIIIE, IN-KY	KY IOV	\$31.2912	\$29.6949	0.8554	Lansing-East Lansing, Mi	IVII	\$37.8033	\$35.4493	1.0335
Huntington-Asniand, WV-KY-UH	KY IO/	\$32.0707	\$31.2157	0.8768	Michigan Rurai Areas	IVII	\$30.1983	\$29.9292	0.8256
Kentucky Rural Areas	KY	\$28.7356	\$27.6892	0.7906	Monroe, MI	MI	\$32.6412	\$31.5499	0.9590
Lexington-Fayette, KY	KY	\$31.8095	\$30.7321	0.8696	Muskegon-Norton Shores, MI	MI	\$36.2145	\$34.4983	0.9901
Louisville-Jefferson County, KY-IN	KY	\$32.0898	\$30.9654	0.8773	Niles-Benton Harbor, MI	MI	\$31.7329	\$31.1188	0.8675
Owensboro, KY	KY	\$30.2625	\$29.5505	0.8274	Saginaw-Saginaw Township North, MI	MI	\$32.5089	\$32.2959	0.8887
Alexandria, LA	LA	\$29.6326	\$28.4923	0.8169	South Bend-Mishawaka, IN-MI	MI	\$33.9476	\$33.5634	0.9281
Baton Rouge, LA	LA	\$31.3688	\$29.8695	0.8576	Warren-Troy-Farmington-Hills, MI	MI	\$35.1233	\$34.0731	0.9603
Houma-Bayou Cane-Thibodaux, LA	LA	\$28.9611	\$27.9358	0.7923	Duluth, MN-WI	MN	\$38.3283	\$37.3073	1.0479
Lafayette, LA	LA	\$30.3588	\$29.6897	0.8300	Fargo, ND-MN	MN	\$29.5413	\$28.5732	0.9168
Lake Charles, LA	LA	\$28.9605	\$28.1240	0.7923	Grand Forks, ND-MN	MN	\$28.5327	\$27.9114	0.9168
Louisiana Rural Areas	LA	\$28.9801	\$27.6891	0.7923	La Crosse, WI-MN	MN	\$35.2546	\$34.3859	0.9639
Monroe, LA	LA	\$29.4081	\$28.1216	0.8040	Mankato-North Mankato, MN	MN	\$34.5145	\$32.8289	0.9436
New Orleans-Metairie-Kenner, LA	LA	\$32,4299	\$31.4417	0.8869	Minneapolis-St. Paul-Bloomington, MN-WI	MN	\$39.7771	\$38.3542	1.0875
Shreveport-Bossier City, LA	LA	\$31,1988	\$29,9521	0.8530	Minnesota Rural Areas	MN	\$33.0446	\$31,8065	0.9168
Barnstable Town, MA	MA	\$46,4663	\$44,5079	1.3452	Rochester, MN	MN	\$38,4376	\$37,5510	1.0509
Boston-Quincy, MA	MA	\$44,9899	\$43,1378	1.3452	St. Cloud, MN	MN	\$40.9599	\$40.3131	1.1198
Cambridge-Newton-Framingham MA	MA	\$40 7161	\$39,3753	1 3452	Cane Girardeau-Jackson MO-II	MO	\$31,1080	\$30 7465	0.8505
Massachusetts Bural Areas	MA	\$49 2030	\$49 2030	1 3452	Columbia MO	MO	\$29,2638	\$28,9657	0.8040
Peabody MA	MA	\$38,8664	\$37.9808	1 3452	Eavetteville-Springdale-Bogers AB-MO	MO	\$33,4821	\$31.0327	0.9154
Pittsfield MA	MΔ	\$38,8341	\$37.2249	1 3452	lefferson City MO	MO	\$30,3690	\$30.0597	0.8487
Providence-New Bedford-Fall River RI-MA	MA	\$38,6312	\$37.2245 \$37.4754	1 3/52		MO	\$30,50/1	\$20,5150	0.8364
Springfield MA	MA	¢27.5072	¢26,2200	1.0452	Konsos City MO KS	MO	¢24 5277	¢20.0100	0.0304
Weregeter MA	IVIA MA	\$37.3972	\$30.3200	1.0402	Miccouri Durol Arooo	MO	¢04.0077	\$33.3433 \$97.300E	0.9442
Paltimora Towaan MD	MD	040.0142	\$39.2904 \$25.4155	0.0005	Springfield MO	MO	\$20.3990	\$21.0200 \$20.0000	0.0040
Datumore Towson, WD	MD	\$30.000 \$26.0111	000.4100 005.0000	0.9995	Springileid, MO	MO	\$32.0004	\$30.2329 \$35.0029	0.0749
Cumberland MD M/	IVID	\$30.9111 ¢20.4000	\$30.0320 \$00.1000	1.0091	St. Jusephi, MU-NS	IVIO MO	\$37.304U	\$30.9920 ©1.000	1.0220
	IVID	\$20.4990	\$20.1200	0.9324	St. Louis, MO-IL	IVIO MO	\$33.0491	\$31.0000	0.9035
Hagerstown-Wartinsburg, MD-WV	MD	\$34.0825	\$32.6952	0.9324	Guitport-Blioxi, MS	IVIS	\$30.6486	\$30.2911	0.8379
Maryland Rural Areas	MD	\$34.1044	\$32.5521	0.9324	Hattlesburg, MS	IVIS	\$29.5519	\$27.8808	0.8080
Salisbury, MD	MD	\$33.0798	\$31.5253	0.9324	Jackson, MS	MS	\$29.6549	\$28.4910	0.8107
Washington-Arlington-Alexandria, DC-VA	MD	\$38.5770	\$37.1722	1.0546	Memphis, IN-MS-AR	MS	\$33.6583	\$32.4116	0.9202
Wilmington, DE-MD-NJ	MD	\$39.3111	\$37.7026	1.0747	Mississippi Rural Areas	MS	\$27.6234	\$26.8410	0.7552
Bangor, ME	ME	\$35.7679	\$34.4547	0.9780	Pascagoula, MS	MS	\$28.1200	\$28.1687	0.7688
Lewiston-Auburn, ME	ME	\$32.9069	\$31.6184	0.8996	Billings, MT	MT	\$31.9952	\$31.2062	1.0000
Maine Rural Areas	ME	\$31.0965	\$29.9374	0.8502	Great Falls, MT	MT	\$30.5299	\$29.0913	1.0000
Portland-South Portland-Biddeford, ME	ME	\$35.1152	\$34.7060	0.9600	Missoula, MT	MT	\$32.7305	\$31.3388	1.0000
Ann Arbor, MI	MI	\$36.5952	\$35.4405	1.0005	Montana Rural Areas	MT	\$30.8841	\$29.4053	1.0000
Battle Creek, MI	MI	\$36.3426	\$34.7121	0.9936	Asheville, NC	NC	\$32.4213	\$31.5043	0.8864
Bay City, MI	MI	\$33.0348	\$32.5709	0.9032	Burlington, NC	NC	\$31.0899	\$30.3059	0.8500
Detroit-Livonia-Dearborn, MI	MI	\$34.6906	\$33.8846	0.9484	Charlotte-Gastonia-Rock Hill, NC-SC	NC	\$33.2808	\$32.3760	0.9098
Flint, MI	MI	\$39.8970	\$38.9539	1.0908	Durham-Chapel Hill, NC	NC	\$35.0972	\$33.7268	0.9595
Grand Rapids-Wyoming, MI	MI	\$33.6292	\$32.4738	0.9195	Fayetteville, NC	NC	\$33.8088	\$32.8737	0.9243
Holland-Grand Haven, MI	MI	\$31.4359	\$30.6022	0.8594	Goldsboro, NC	NC	\$32.1915	\$31.8883	0.8801
Jackson, MI	MI	\$32.8469	\$31.5702	0.8981	Greensboro-High Point, NC	NC	\$32.2521	\$31.4729	0.8818
Kalamazoo-Portage, MI	MI	\$36.0446	\$35.5108	0.9855	Greenville, NC	NC	\$34.7804	\$32.9837	0.9509

FY 2012 AHW, F	Y 2010-2012 Rolling Average of	f AHW and FY 2012 Final V	Vage Index, b	v Area
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Area State Attiv Areage Attiv Verage Attiv Verag			FY 2012	FY2010-2012 Rolling	FY 2012			FY 2012	FY2010-2012 Rolling	FY 2012
History-Lond-Morganton, NC NC \$\$33.4888 \$\$30.7006 0.8778 Higston, WT NY \$\$33.4893 \$\$23.3374 0.9148   Subsamula, NC NC \$\$30.3270 \$\$23.372 \$\$23.372 \$\$23.0764 \$\$30.3270 \$\$23.9762 <th>Area</th> <th>State</th> <th>AHW</th> <th>Average AHW</th> <th>Wage Index</th> <th>Area</th> <th>State</th> <th>AHW</th> <th>Average AHW</th> <th>Wage Index</th>	Area	State	AHW	Average AHW	Wage Index	Area	State	AHW	Average AHW	Wage Index
Jacksformlin, NC NC \$29,319 \$28,0974 0.8333 New York, Nruh Ansa YY \$45,918 \$24,8322 1,280   Rahegh-Cary, NC NC \$53,03270 \$25,9702 0.8333 New York, Nruh Ansa YY \$48,10077 \$46,1508 1.3142   Winging Bach-Norfak-Neeport News, W NC \$52,24455 \$51,5899 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$51,5997 0.0907 \$770 \$770 \$770 \$770 \$770 \$7712 \$52,7525 0.5333 \$24,5927 0.9770 \$7712 \$772,828,877 0.0000 277,7124 \$52,7524 0.000 277,7124 \$52,7524 0.000 277,7124 \$52,7524 0.000 277,7124 \$52,7524 0.000 277,7144 0.000 \$53,9147 0.0333 91,910,914 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924	Hickory-Lenoir-Morganton, NC	NC	\$31.8868	\$30.7006	0.8718	Kingston, NY	NY	\$33.4593	\$32.3374	0.9148
North Caroline Rural Areas NC \$29,0768 0.827 S29,0768 0.0872   Racky Manu, NC NC \$52,4528 \$53,3331 0.9008 Peoglykeepse-Revoluting-Middletown, NY YK \$48,057 \$54,5528 \$53,3331 0.9008   Winnington, NC NC \$52,2461 \$53,1326 0.9008 Peoglykeepse-Revoluting-Middletown, NY YK \$53,1541 \$53,0538 \$52,1755 0.9872   Winnington, NC NC \$53,3531 0.53,0756 0.53,0330 Uita-Rone, NY NY \$53,7356 \$53,45927 0.9770   Bismator, ND NC \$52,03718 \$20,3719 0.9712 North Association North Associatio	Jacksonville, NC	NC	\$29.4419	\$28.0547	0.8303	Nassau-Suffolk, NY	NY	\$45.9418	\$44.2332	1.2560
Bategit-Cary, NC NC §34.5828 §33.5331 0.9455 New York-White New Wyrk. NY §44.0577 §46.1508 1.3142   Vergina Baezh-Morolk-Newport News, W. NC \$32.9485 \$31.5898 0.0008 Poguikespeia-Hewburgh-Middletown, W NY §43.15416 \$30.5333 20.8577 9.770   Winstor-Salem, NC NC \$53.3282 \$32.15765 0.8139 Winstor-Salem, NC NW \$31.4958 \$30.4116 0.8821   Bismarck, ND ND \$22.2124 \$22.82582 0.0000 Arcon, OH OH \$31.9898 \$30.3419 0.8721 0.9821   Grand Fords, ND-MN ND \$22.527 22.7174 \$30.0410 0.0000 Cantor-Massilon, OH OH \$33.1989 \$30.3419 0.8721 0.9264 0.9272 0.9264 0.9242 0.9264 0.9242 0.9264 0.9272 0.9264 0.9264 0.9272 0.9271 0.9331 0.9331 0.9331 0.9324 0.9264 0.9224 0.9264 0.9271 0.9331 0.9331	North Carolina Rural Areas	NC	\$30.3270	\$29.5702	0.8303	New York Rural Areas	NY	\$29.9967	\$29.0768	0.8572
Bocky Mouri, NC NC \$32,989,7 S31,2689 0.3008 Poughisepasi-Hwong-Middletown, N NY \$41,351.3 \$39,7185 11.305   Winnington, NC NC \$53,2661 \$31,2668 0.8088 Rokenser, NV NY \$35,7366 \$34,9927 0.9770   Winnington, NC NC \$53,3382 \$32,1765 0.8033 Uilce-Amem, NY NY \$35,7365 \$30,3765 0.8033 Uilce-Amem, NY NY \$31,868 \$30,0660 0.8739   Bismatck, ND ND \$222,5413 \$28,8732 1.0000 Cinch-Massillon, OH OH \$33,1968 \$33,0472 0.9234   Orich Dakota Runzi ND \$22,5373 \$23,114 1.0000 Cinch-Massillon, OH OH \$32,39166 \$33,0472 0.9234   Lincoln, NE NE \$33,1034 \$32,0494 0.3734 Countrabus, OH OH \$32,3016 \$33,0472 0.9224   Marchedar-Mashua NE \$33,3017 0.3733 Digran, OH OH \$32,30168 \$33,0472 0.9224	Raleigh-Carv, NC	NC	\$34.5828	\$33.5331	0.9455	New York-White Plains-Wayne, NY-NJ	NY	\$48.0677	\$46.1508	1.3142
Wingstein, Horolie, Newport News, W. NC 532.5461 531.2669 0.8898 Rochester, MY W Stat.1416 Stat.0330 0.80624   Winsdors, Alex NC S33.3828 S32.1037 0.01977 Systause, NY W WS S53.656 S54.4567 0.9770   Winstors-Salem, NC NC S33.3288 S32.1037 0.0000 Arco, OH W S51.4958 S50.3416 0.8811   Biomarck, ND ND S22.1527 S28.5527 1.0000 Canton-Asssition, OH H S31.8980 S30.3416 0.8721   Grand Forks, ND-MN ND S22.5527 S27.9114 S30.1094 0.0000 Canton-Asssition, OH H S33.1980 S32.2529 S31.4566 S49.4231 S30.0941 0.0000 Circuian-Asssition, OH H S32.2529 S31.4562 0.99224   North-Dourcal Diation, No-H S33.1094 0.03944 Columan-Asset Ass S32.4217 0.9921   North-Dourcal Diation, No-H S33.6164 0.9394 Columan-Asset Ass S32.1491 S32	Rocky Mount, NC	NC	\$32,9485	\$31,5899	0.9008	Poughkeepsie-Newburgh-Middletown, NY	NY	\$41,3513	\$39,7185	1,1305
Winngton, N.C. N.C. \$33.3826 \$32.1037 0.9172 Syraause, IW WY \$33.7356 \$34.5927 0.9770   Bismarck, ND NO \$27.124 \$28.6926 1.0000 Aron, 0.H OH \$31.9638 \$30.6660 0.8731   Bismarck, ND ND \$27.1254 \$28.6926 1.0000 Chrich-Massilion, 0.H OH \$31.9938 \$30.80416 0.8731   Grand Foks, ND-MN ND \$28.517 \$27.171 1.0000 Chrichmat-Midleown, 0.H-4X'-IN OH \$33.3916 \$33.0472 0.9271   Minch Daido Rumal Burds, NE-4A NE \$31.8314 \$33.0944 0.3874 Outmation, 0.H OH \$33.27691 \$32.2778 0.9272   Marchestart-Manual Areas NE \$33.4048 \$33.0044 0.3873 Dayton, OH OH \$33.27791 \$32.2778 0.9272   Marchestart-Manual, NH NH \$38.0161 \$33.3044 0.8763 Dayton, OH S32.27691 \$32.2771 0.9043   Marchestar-Manual, NH NH \$38.0161	Virginia Beach-Norfolk-Newport News, VA	NC	\$32,5461	\$31,2668	0.8898	Rochester, NY	NY	\$31,5416	\$30.5393	0.8624
Winston-Salem, NC NC \$30,785 \$0,27765 0,333 Unca-Rome, NY WY NY \$31,4953 \$30,0416 0,871   Farga, ND-WN ND \$227,2124 \$286,856 1,0000 Arron, 0H OH \$31,9938 \$30,8460 0,8739   Farga, ND-WN ND \$228,527 20,001 Canton-Massilino, 0H OH \$31,9938 \$30,8460 0,8739   Grand Fards, ND-MN ND \$228,527 \$27,911,41 1,0000 Canton-Massilino, 0H OH \$33,2916 \$32,2559 \$31,4586 0,8992   Lincoh, NE NE \$34,2018 \$33,0044 0,8783 Bygtn, 0H OH \$33,7491 \$32,2768 0,9227   Manchesher-Nashua, AH NH \$36,6468 \$31,8014 0,0399 Imma, 0H OH \$32,9735 \$32,777 0,8733   Bockingham County-Strafford County, NH NH \$36,89117 \$33,3102 1,0875 Mansfield, OH OH \$32,4733 \$32,978 0,8403   Botaritory-Barries Markana, MH NJ	Wilmington, NC	NC	\$33,3828	\$32,1037	0.9127	Syracuse, NY	NY	\$35,7356	\$34.5927	0.9770
Bismarck, ND ND \$27,2124 \$26,8266 1.0000 Grand Foks, ND-AM ND \$28,2427 \$27,917.4 1.0000 Grand Foks, ND-AM ND \$28,5327 \$27,917.4 1.0000 Grand Foks, ND-AM ND \$28,5327 \$27,917.4 1.0000 Grand Foks, ND-AM ND \$28,527.5 \$27,917.4 0.9344 Grand Foks, ND-AM ND \$28,527.5 \$27,917.4 0.9344 Grand Foks, ND-AM ND \$28,527.5 \$27,917.4 0.9344 Grand Foks, ND-AM ND \$28,597.9 \$33,707.0 0.9720 Hontington-Ashland, WF-Kr-OH OH \$33,7491 \$32,2591 0.8760 Grand Foks, ND-AM ND \$28,519.1 \$22,517.0 8,761 Hontington-Ashland, WF-Kr-OH OH \$32,0707 \$33,225.7 0.8760 Hontington-Ashland, WF-Kr-OH OH \$32,0707 \$33,225.7 0.8760 Hontington-Ashland, WF-Kr-OH OH \$22,733 \$22,733 \$22,577 0.04763 Hontington-Ashland, WH-Kr-OH OH \$22,733 \$22,733 \$22,737 0.04433 Hontown-Stand Foks, ND-AM NH \$33,0161 \$35,9044 1.1264 Sandusky, OH OH \$20,277 0.04263 \$22,8217 0.04433 Hantown-Bethelem-Easton, PA-NJ NJ \$33,065 1.1264 Grand Honton, NJ NJ \$33,1497 \$35,1497 \$35,1497 \$25,578 0.0463 Strutter Honton, NJ NJ \$33,1497 \$35,986 1.1264 Grand Honton, NJ NJ \$33,1497 \$35,986 1.1264 Grand Honton, NJ NJ \$33,1497 \$35,4712 1.1264 Honton, NC MC \$32,1492 \$22,577 \$46,1500 \$33,145 \$33,115 \$31,112 \$33,105 \$31,126 \$33,115 \$33,116 \$1,1027 \$33,116 \$33,116 \$33,110 \$33,116 \$33,105 \$31,1264 \$3	Winston-Salem, NC	NC	\$30.3188	\$30,5765	0.8303	Utica-Rome, NY	NY	\$31,4953	\$30,4116	0.8611
Fargo, IN-MN ND \$29,9413 \$28,572 1 0000 Cartin-Massilion, OH OH \$31,8893 \$33,3419 0 0.721   Grand Forks, ND-MN ND \$27,1254 \$56,178 1 0000 Circlinati-Middlebrow, OH-W-VII OH \$33,3419 0 2924   Uncoln, NE NE \$34,4231 \$33,0094 0 3934 Cournbus, OH-W-VII OH \$35,2854 0 8924   Uncoln, NE NE \$33,1914 \$30,0096 0.8733 Cournbus, OH OH \$33,2491 \$32,2276 0 9227   Ornalar-Council Biufs, NE-IA NE \$35,614 \$30,0064 0.9309 Huntington-Akaland, WI-Kr-OH OH \$32,2471 0.8227   Maanchester-Nashua, WH NH \$36,6468 \$35,1802 1.0675 Manafied (OH OH \$32,31915 \$32,24712 0.9033   Brockingham County-Stratford County, NH NH \$38,9117 \$33,3125 1.264 Sandusky, OH OH \$32,3472 0.3403 \$22,8527 0.3403   Brockingham County-Stratford County, NH NH	Bismarck, ND	ND	\$27,2124	\$26,8266	1.0000	Akron, OH	OH	\$31,9638	\$30,8660	0.8739
Orand Forks, ND-MM ND S22, 1527 S27, 9114 1,0000 Cincinstal Middletown, 0H-KY-N 0 H S33, 30472 0,2924   Morth Dakota Rural Areas ND S27, 154 S66, 1798 1,0000 Cievaland-Eyria-Mentor, 0H 0H S32, 529 S31, 4568 0,8924   Lincoln, NE NE S31, 3014 S33, 0094 0,9384 Columbus, 0H 0H S32, 472 0,9294   Monta-Council Buffs, NE-LA NE S31, 0017 0,3733 Dayron, 0H 0H S33, 2177 0,9271   Manchester-Nastau, NH NE S34, 0448 S31, 10064 0,309 Huntington-Anland, W-KY-OH OH S32, 0172 0,3271 0,3733 S29, 778 0,8403   New Manpshire Rural Areas NH S38, 0161 S35, 5044 1,1087 Ohio Rural Areas OH S32, 733 S29, 778 0,8403   Allentown-Bethelmen-Easton, PA-NJ NJ S34, 3037 S33, 4053 1,1264 Syningfield, OH OH S22, 789 0,8403   Allentown-Betruswick, NJ NJ S38	Fargo, ND-MN	ND	\$29.5413	\$28,5732	1.0000	Canton-Massillon, OH	OH	\$31,8989	\$30.3419	0.8721
North S22,1254 S26,1798 1.0000 Circulation OH S32,2259 S31,4586 0.8892   Lincoln, NE NE S34,2231 S33,0094 0.9384 Oclumbus, OH OH S33,002 S35,2854 0.9892   Unradin, NE S31,014 S30,094 0.9374 OH S33,2074 0.9374   Staux Chy, Ah-KS NE S35,5877 S33,7079 0.93730 Linna, OH OH S33,20707 S31,2157 0.87768   Staux Chy, Ah-KS NH S36,6468 S35,1002 1.0875 Manchester-Nashua, NH NH S36,6461 S35,1002 1.0875 Ohio Rural Areas OH S32,9735 S31,2771 0.9403   Rockingham County-Strafford County, NH NH S36,3661 S35,3002 1.284 Springfield, OH OH S32,7710 0.4403   Rockingham County-Strafford County, NH NJ S33,3027 S33,486 1.1284 Springfield, OH OH S23,1710 0.2403   Cardon-NJ NJ S38,36861 S35,3661 </td <td>Grand Forks ND-MN</td> <td>ND</td> <td>\$28,5327</td> <td>\$27,9114</td> <td>1 0000</td> <td>Cincinnati-Middletown OH-KY-IN</td> <td>OH</td> <td>\$33,9106</td> <td>\$33,0472</td> <td>0.9284</td>	Grand Forks ND-MN	ND	\$28,5327	\$27,9114	1 0000	Cincinnati-Middletown OH-KY-IN	OH	\$33,9106	\$33,0472	0.9284
Lincoln, NE NE S34, 3231 S33, 0094 0.9384 Control S43, 3002 S35, 2854 0.9922   Nebraska Rural Areas NE S31, 5879 S33, 7079 0.9730 Dayton, 0H OH S33, 7041 S32, 2768 0.9922   Neaha-Counci Buffs, NE-IA NE S34, 0488 S31, 8064 0.9303 Dayton, 0H OH S33, 7115 S32, 2768 0.9922   Situx City, N-NE-SD NE S34, 0488 S31, 8064 0.9303 Dayton, 0H OH S33, 9115 S32, 25412 0.9271   New Hampshire Rural Areas NH S38, 0161 S35, 5871 0.53102 10.875 Otion Rural Areas OH S30, 7353 S29, 7978 0.9403   Allentotivy-Hammotion, NJ NJ S34, 3307 S33, 4053 1.1264 Springfield, OH OH S29, 3400 S29, 5527 0.9403   Allentotivy-Hammotion, NJ NJ S34, 88811 31, 284 S12, 1872 S12, 1872 S12, 1872 0.2643   New Kork-White Plains-Wayne, NF-NJ NJ S34,	North Dakota Rural Areas	ND	\$27,1254	\$26,1798	1.0000	Cleveland-Elvria-Mentor, OH	OH	\$32,5259	\$31,4586	0.8892
Nebraska Hural Areas NE \$31.9314 \$30.6906 0.8733   Omaha-Council Burlfs, NE-IA NE \$33.7079 0.9730   Omaha-Council Burlfs, NE-IA NE \$33.7079 0.9730   Manchester-Nashua, NH NE \$34.0488 \$31.8079 0.9730   Manchester-Nashua, NH NH \$36.6488 \$31.8071 0.9730   Manchester-Nashua, NH NH \$36.6488 \$31.8105 0.9730   Manchester-Nashua, NH NH \$36.6488 \$33.1079 0.9730   Manchester-Nashua, NH NH \$36.6488 \$33.1075 0.9730   Merkampshire Burla Areas OH S32.9735 \$27.978 0.3403   Rockingham County-Strafford County, NH NH \$36.93117 \$33.53102 1.1264 Ohio Rural Areas OH \$27.6030 \$26.4231 0.8403   Camden, NJ NJ \$39.5828 \$38.8124 1.1264 Tiedeo, OH OH \$33.135 \$32.557 0.9053   New Vrok-White Hans-Wayne, NY-NJ NJ \$30.8908 \$37.9486 <td>Lincoln. NE</td> <td>NE</td> <td>\$34.3231</td> <td>\$33.0094</td> <td>0.9384</td> <td>Columbus, OH</td> <td>OH</td> <td>\$36,3002</td> <td>\$35,2854</td> <td>0.9924</td>	Lincoln. NE	NE	\$34.3231	\$33.0094	0.9384	Columbus, OH	OH	\$36,3002	\$35,2854	0.9924
Omaha-Council Bluffs, NE-IA NE \$33,5879 \$33,27079 \$0,9730 Huntington-Ashland, WV-KY-OH OH \$32,2077 \$31,2157 0.878   Strux City, IA-NE-SD NE \$34,0488 \$31,8064 0.9309 Huntington-Ashland, WV-KY-OH OH \$32,2077 \$31,2157 0.8768   Manchester-Mashua, H NH \$36,0468 \$35,1002 1.0875 Mansfield, OH OH \$32,2735 \$31,2171 0.9043   New Hampshire Rural Areas NH \$38,0161 \$35,59044 1.0875 Parkersburg-Maretal-Ummer, W-OH Huston-State State S	Nebraska Bural Areas	NF	\$31,9314	\$30,6906	0.8783	Davton OH	OH	\$33,7491	\$32 2768	0.9227
Situx City, IA-NE-SD NE \$34,0488 \$31,8064 0.9309   Manchester-Nashua, NH NH \$36,0468 \$35,1602 1.0875   Manchester-Nashua, NH NH \$36,0468 \$35,1022 1.0875   Manchester-Nashua, NH NH \$36,0161 \$35,50444 1.0875   Minethum-Bethlehem-Easton, PA-NJ NJ \$34,3071 \$33,3005 1.1264   Stantisky, OH Sandsky, OH OH \$229,3700 \$286,627 0.8403   Carden, NJ NJ \$36,8861 1.264 Springfield, OH OH \$22,3400 \$226,627.0 0.8403   Stopsey Bural Areas NJ \$33,9908 \$37,9486 1.1264 Teledo, OH OH \$22,310.0 0.8403 0.8403   New York-White Plains-Wayne, N'N-U NJ \$46,1508 1.1264 Teledo, OH OH \$32,213 0.8403   Niemark-Union, NJ-PA NJ \$46,05691 \$39,3201 1.1264 Vaneginou-Warren-Boardman, OH-PA OH \$32,4039 0.3733 0.8799   Tiretont	Omaha-Council Bluffs NF-IA	NF	\$35,5879	\$33,7079	0.9730	Huntington-Ashland WV-KY-OH	OH	\$32 0707	\$31,2157	0.8768
Manchester-Nashua, NH NH S36.6468 S35.1802 1.0875   New Hampshire Rural Areas NH S36.0161 S35.302 1.0875   New Hampshire Rural Areas NH S36.017 S35.3102 1.0875   Rockingham Courty-Strafford County, NH NH S36.017 S35.3102 1.0875   Allentom-Bethlehem-Easton, PA-NJ NJ S34.3307 S33.4053 1.1264   Allento City-Hammonton, NJ NJ S38.828 S38.8124 1.1264   Springfield, OH OH S21.771 0.9043   New Varsey Nural Areas NJ S34.053 1.1264   New Varsey Nural Areas NJ   1.264   New Varsey Nural Areas NJ   1.264 Wheeling, WV-OH OH S32.1313 0.8403   New Varsey Nural Areas NJ    1.264 Wheeling, WV-OH OH S32.1313 0.8403   New Arsey Nural Areas NJ   Parkersburn, MPA O	Sioux City IA-NE-SD	NE	\$34,0488	\$31 8064	0.9309	Lima OH	OH	\$33,9115	\$32 5412	0.9271
New Hampshire Rural Areas NH \$38.0161 \$35.9044 1.0875   Rockingham County-Strafford County, NH NH \$36.9117 \$35.3102 1.0875   Binchow-Bethinem-Easton, PA-NJ NJ \$33.4053 1.1264 Sandusky, 0H OH \$27.76030 \$26.4231 0.8403   Carnden, NJ NJ \$33.4053 1.1264 Sandusky, 0H OH \$27.6030 \$26.4231 0.8403   Carnden, NJ NJ \$33.95828 \$38.8124 1.1264 Sandusky, 0H OH \$21.712 \$31.0622 0.8672 0.8403   Carnden, NJ NJ \$38.9908 \$37.9486 1.1264 Steubenville-Weirton, 0H-WV OH \$23.105 \$32.5578 0.9053   New York-White Plains-Wayne, NY-NJ NJ \$46.1067 \$46.107 Youngstow-Waren-Boardman, 0H-PA OH \$22.73760 0.8403   New York-White Plains-Wayne, NY-NJ NJ \$36.497 \$37.711 1.1264 Youngstow-Waren-Boardman, 0H-PA OH \$22.7373 0.7947   Mimington, DE-MO-NJ NJ \$38.1	Manchester-Nashua NH	NH	\$36 6468	\$35,1802	1 0875	Mansfield OH	OH	\$32,9735	\$31 2771	0.9043
Backingham County-Strafford County, NH NH \$36.9117 \$35.3102 1.0875   Allentovm-Bethletem-Easton, PA-NJ NJ \$34.3037 \$33.4053 1.1264 Sandusky, OH OH \$27.6030 \$26.4231 0.8403   Allentovm-Bethletem-Easton, PA-NJ NJ \$33.4053 1.1264 Sandusky, OH OH \$27.6030 \$26.4231 0.8403   Allentovm-Bethletem-Easton, PA-NJ NJ \$33.4053 1.1264 Sandusky, OH OH \$33.1135 \$32.5578 0.9053   Waw Jersey Rural Areas NJ   1.1264 Teledo, OH OH \$32.1375 0.823.7360 0.8403   New Wark-Union, NJ-PA NJ \$46.1508 1.3142 Teledo, OH OH \$32.122 \$27.3703 0.7947   Osean City, NJ NJ \$38.7649 \$37.7413 1.1264 Teledo, OH OK \$32.1829 \$29.8133 0.8403   Nienarcheurig, NJ NJ \$38.7649 \$37.713 1.1264 Natona City, OK OK \$32.1829 \$29.8193 <t< td=""><td>New Hampshire Bural Areas</td><td>NH</td><td>\$38,0161</td><td>\$35,9044</td><td>1 0875</td><td>Ohio Bural Areas</td><td>OH</td><td>\$30,7353</td><td>\$29,7978</td><td>0.8403</td></t<>	New Hampshire Bural Areas	NH	\$38,0161	\$35,9044	1 0875	Ohio Bural Areas	OH	\$30,7353	\$29,7978	0.8403
Allentiown-Bethlehem-Easton, PA-NU NJ \$\$33,403 1.1264 SandusKy, OH OH \$\$23,3403 \$\$29,6527 0.8403   Atlantic City-Hammonton, NJ NJ \$\$33,4033 1.1264 Springfield, OH OH \$\$23,3403 \$\$29,6527 0.8403   Cardner, NJ NJ \$\$36,8861 \$\$35,9861 1.1264 Springfield, OH OH \$\$23,1135 \$\$22,5578 0.9033   View Jersey Rural Areas NJ   1.1264 Vieubruile-Weirton, OH-WV OH \$\$24,5512 \$\$23,3760 0.8403   New York-White Plains-Wayne, NY-NJ NJ \$\$46,1506 1.3142 Youngstown-Waren-Boardman, OH-PA OH \$\$24,5512 \$\$23,7360 0.8403   New York-White Plains-Wayne, NY-NJ NJ \$\$46,1507 \$\$36,3869 1.1264 Wheeling, WV-OH OH \$\$32,21312 \$\$27,3703 0.7947   Springfield, OH NJ \$\$36,0499 \$\$37,413 1.1264 Viungstow-Waren-Boardman, OH-PA OH \$\$32,4295 \$\$27,7874 0.7947   Vineland-Milville-Bridgeton, NJ	Bockingham County-Strafford County NH	NH	\$36 9117	\$35,3102	1.0875	Parkersburg-Marietta-Vienna WV-OH	OH	\$27,6030	\$26 4231	0.8403
Attantic City-Harmmonton, NJ NJ S339.3828 S338.3824 1.1264 Springfield, OH OH S31.7192 S31.3035 Q230.3021 Q2030   Carnden, NJ NJ S339.828 S338.9081 1.1264 Springfield, OH OH S31.7192 S31.0362 Q2030 Q9030   New Work-White Plains-Wayne, NV-NJ NJ S38.90861 1.1264 Steuberville-Weirton, OH-WV OH S31.7192 S31.305 Q9030 Q90300 Q9030 Q9040	Allentown-Bethlehem-Faston PA-N.I	N.I	\$34,3307	\$33,4053	1 1 2 6 4	Sandusky OH	OH	\$29,3400	\$29,6527	0.8403
Carnelen, NJ NJ \$36.8861 \$35.9661 1.1264 Springer, Grin OH \$25.4268 0.2842   Edison-New Brunswick, NJ NJ \$36.8861 \$35.9661 1.1264 Toledo, OH OH \$25.4268 0.28403   Wew Jersey Rural Areas NJ  1.1264 Toledo, OH OH \$32.1356 \$25.4268 0.8403   New York-White Plains-Wayne, NY-NJ NJ \$46.5691 \$39.3201 1.1264 Wheeling, WV-OH OH \$24.5512 \$22.7303 0.8403   New York-White Plains-Wayne, NY-NJ NJ \$40.5691 \$39.3201 1.1264 Winelion, WV-OH OH \$24.512 \$22.81312 \$27.3703 0.7947   Ocean City, NJ NJ \$36.1497 \$35.4712 1.1264 Wareline-Milville-Bridgeton, NJ NJ \$33.7649 \$37.7413 1.1264 Oklahoma Rural Areas OK \$29.0591 \$27.7874 0.7947   Vineland-Miliville-Bridgeton, NJ NJ \$35.3001 \$33.7064 0.9668 Bend, OR OR \$30.0165 \$37.2355<	Atlantic City-Hammonton N.I	N.I	\$39 5828	\$38,8124	1 1 2 6 4	Springfield OH	OH	\$31 7192	\$31,0362	0.8672
Edison-New Brunswick, NJ NJ \$38.9908 \$37.9486 1.1264   New Jersey Rural Areas NJ   1.1264   New York-Mithe Plains-Wayne, NY-NJ NJ \$44.0677 \$46.1508 1.3142   New Wark-Union, NJ-PA NJ \$44.0577 \$46.1508 1.3142   New Wark-Union, NJ-PA NJ \$38.9005 \$56.8869 1.1264   Tenton-Ewing, NJ NJ \$36.1497 \$35.4712 1.1264   Vineland-Miliville-Bridgeton, NJ NJ \$38.7649 \$37.7413 1.1264   Ubloquerque, MM NM \$35.5354 \$31.3123 \$27.7874 0.7947   Vineland-Miliville-Bridgeton, NJ NJ \$33.7064 0.9669 Bend, OR OK \$32.0165 \$37.2339 1.1147   Task, OK OK \$30.0165 \$37.2391 0.81127 1.0469   Vineland-Malucy and Markas NM \$32.4784 \$31.353 0.8892 New Marko Cural Areas OK \$30.0165 \$37.2359 1.0667   Sata Fe, NM NM	Camden N.I	N.I	\$36,8861	\$35,9861	1 1264	Steubenville-Weirton OH-WV	OH	\$25,4269	\$25 1468	0.8403
New Jersey Rural Areas NJ  1.1264 Wheeling, WV-OH OH \$24.5512 \$23.7360 0.8403   New Jork-White Plains-Wayne, NY-NJ NJ \$46.1508 1.3142 Wheeling, WV-OH OH \$24.5512 \$23.7360 0.8403   Newark-Union, NJ-PA NJ \$46.5691 \$39.3201 1.1264 Wheeling, WV-OH OH \$24.5512 \$22.3730 0.7947   Ocean City, NJ NJ \$38.6055 \$36.8869 1.1264 Lawton, OK OK \$32.4129 \$22.8193 0.8793   Vineland-Millville-Bridgeton, NJ NJ \$38.7649 \$37.7413 1.1264 Oklahoma City, OK OK \$32.41591 \$27.7874 0.7947   Vineland-Millville-Bridgeton, NJ NJ \$33.3001 \$33.7964 0.9669 Bend, OR OR \$40.7725 \$39.3705 1.1147   Carson City, NM NM \$32.4784 \$31.3553 0.8879 Oravallis, OR OR \$37.2061 \$35.3104 1.0273   Santa Fe, NM NM \$32.4784 \$31.3553 <td>Edison-New Brunswick N.I</td> <td>N.I</td> <td>\$38,9908</td> <td>\$37,9486</td> <td>1 1264</td> <td>Toledo OH</td> <td>OH</td> <td>\$33 1135</td> <td>\$32 5578</td> <td>0.9053</td>	Edison-New Brunswick N.I	N.I	\$38,9908	\$37,9486	1 1264	Toledo OH	OH	\$33 1135	\$32 5578	0.9053
Number of National Action Number of National Action Number of National Action Number of National Actional Act	<sup>1</sup> New Jersey Bural Areas	N.I			1 1 2 6 4	Wheeling WV-OH	OH	\$24 5512	\$23,7360	0.8403
New ark-Union, NJ-PA NJ \$40.5691 \$33.3201 1.1264 National Nationa Natexpectements National National Natextemation Nation	New York-White Plains-Wayne NY-N.I	N.I	\$48.0677	\$46 1508	1 3142	Youngstown-Warren-Boardman OH-PA	OH	\$30,2103	\$29,8313	0.8403
Corean City, NJ NJ S38.6055 S36.8869 1.1264   Lawton, OK OK S32.1829 \$29.8193 0.8799   Vineland-Millville-Bridgeton, NJ NJ S38.7649 \$37.7412 1.1264   Wineland-Millville-Bridgeton, NJ NJ S38.7649 \$37.7413 1.1264   Wineland-Millville-Bridgeton, NJ NJ S38.7649 \$37.7126 1.1264   Wineland-Millville-Bridgeton, NJ NJ S38.7649 \$37.7126 1.1264   Albuquerque, NM NM \$35.3001 \$33.7964 0.9669   Eas Cruces, NM NM \$32.23916 \$31.2718 0.8970   Santa Fe, NM NM \$32.4784 \$31.3553 0.8879   Santa Fe, NM NM \$32.4784 \$31.32775 1.0490   Oregon Rural Areas NV \$32.4784 \$33.4058 1.0273   Carson City, NV NV \$32.40557 \$41.2075 1.1635   Las Vegas-Paradise, NV NV \$33.4058 1.0609 Salem, OR OR \$40.5223 \$3	Newark-Union N.I-PA	N.I	\$40,5691	\$39,3201	1 1 2 6 4	Fort Smith AB-OK	OK	\$28 1312	\$27 3703	0 7947
Description No Construction No Construction Cons	Ocean City NJ	N.I	\$38 6055	\$36,8869	1 1264	Lawton OK	OK	\$32 1829	\$29.8193	0.8799
Non-burgin No Construction	Trenton-Ewing N.I	N.I	\$36 1497	\$35 4712	1 1264	Oklahoma City OK	OK	\$32,4039	\$31 1378	0.8859
Minimington, DE-MD-NJ NM \$33.7064 0.9669   Albuquerque, NM NM \$35.5354 \$31.3123 0.9715   Tulsa OK OR \$40.7725 \$39.3705 1.1147   Farmington, NM NM \$35.5354 \$31.3123 0.9715 Tulsa OK OR \$40.7725 \$39.3705 1.1147   Corvalis, OR OR \$40.7725 \$39.3705 1.1147   Corvalis, OR OR \$40.7725 \$39.3705 1.1147   Corvalis, OR OR \$41.6652 \$39.5567 1.1391   New Mexico Rural Areas NM \$32.4784 \$31.3553 0.8879 Medford, OR OR \$37.2061 \$35.3104 1.0273   Santa Fe, NM NV \$34.954 \$33.4058 1.0299 Portland-Vancouver-Hillsboro, OR-WA OR \$40.5223 \$39.1516 1.1078   Las Vegas-Paradise, NV NV \$34.4355 \$36.4965 1.0509 Albona, PA PA \$32.2350 \$30.6369 0.8813   Binghamton, NY NY <t< td=""><td>Vineland-Millville-Bridgeton N.I</td><td>N.I</td><td>\$38 7649</td><td>\$37 7413</td><td>1 1 2 6 4</td><td>Oklahoma Bural Areas</td><td>OK</td><td>\$29,0591</td><td>\$27 7874</td><td>0 7947</td></t<>	Vineland-Millville-Bridgeton N.I	N.I	\$38 7649	\$37 7413	1 1 2 6 4	Oklahoma Bural Areas	OK	\$29,0591	\$27 7874	0 7947
Miningsh, DL NR Social Socia	Wilmington DF-MD-N.I	N.I	\$39,3111	\$37,7026	1 1 2 6 4	Tulsa OK	OK	\$30,6581	\$30,4156	0.8382
Brainington, NM NM \$35,5354 \$33,3123 0.9715   Las Cruces, NM NM \$35,5354 \$31,3123 0.9715   Las Cruces, NM NM \$32,3916 \$31,2718 0.8902   New Keico Rural Areas NM \$32,3718 0.8902   Santa Fe, NM NM \$32,3744 \$31,3553 0.8879   Santa Fe, NM NM \$38,3684 \$37,2775 1.0490   Carson City, NV NV \$37,6699 \$36,0923 1.0299   Las Vegas-Paradise, NV NV \$34,9954 \$33,4058 1.0000   Nevada Rural Areas NV \$34,9954 \$33,4058 1.0000   Albany-Schenectady-Troy, NY NY \$33,4058 1.0509   Binghamton, NY NY \$33,64965 1.0509   Buffalo-Niagara Falls, NY NY \$33,1210 0.8872   Buffalo-Niagara Falls, NY NY \$31,619 \$29,7639 0.8722   Limira, NY NY \$31,9370 \$33,7281 0.8722   Limara, NY	Albuquerque NM	NM	\$35,3001	\$33,7964	0.9669	Bend OB	OR	\$40,7725	\$39 3705	1 1147
Date of the second se	Farmington NM	NM	\$35,5354	\$31 3123	0.9715	Corvallis OB	OR	\$39,0165	\$37 2359	1 0667
Introducts Intro Source Intro <t< td=""><td>Las Cruces NM</td><td>NM</td><td>\$32,3916</td><td>\$31 2718</td><td>0.8902</td><td>Fugene-Springfield OB</td><td>OR</td><td>\$41 6652</td><td>\$39,5567</td><td>1 1391</td></t<>	Las Cruces NM	NM	\$32,3916	\$31 2718	0.8902	Fugene-Springfield OB	OR	\$41 6652	\$39,5567	1 1391
NM Stata Fe, NM NM Stata Se4 Stata Vegas-Paradise, NV NV \$37.6699 \$36.0923 1.0299   Carson City, NV NV \$37.6699 \$36.0923 1.0299 Portland-Vancouver-Hillsboro, OR-WA OR \$40.5223 \$39.1516 1.1078   Las Vegas-Paradise, NV NV \$\$4.9554 \$33.4058 1.0000 Allentown-Bethlehem-Easton, PA-NJ PA \$32.2350 \$30.6369 0.8813   Albany-Schenectady-Troy, NY NY \$31.6019 \$30.5262 0.8640 Erie, PA PA \$32.2350 \$30.6369 0.8813   Buffalo-Niagara Falls, NY NY \$31.1807 \$29.7639 0.8572 Lancaster, PA PA \$32.5289 \$29.9520 0.8893   Elmira, NY NY \$31.1807 \$29.7639 0.8722 Lancaster, PA PA \$32.6303 \$32.9206 0.9748   Lehanon, PA NY \$31.9370 \$30.7281 0.8732 Lehanon, PA PA \$33.6022 \$34.2255 0.9788   Lehanon, PA PA \$30.6302	New Mexico Bural Areas	NM	\$32 4784	\$31,3553	0.8879	Medford OB	OR	\$37,2061	\$35,3104	1 0273
Ochsen Dr, NM Organ City, NV NM \$37.6699 \$38.0923 1.0219 Organ Mathematical Stress Organ Mathemati	Santa Fe NM	NM	\$38,3684	\$37,2775	1 0490	Oregon Bural Areas	OR	\$37,3442	\$35 5352	1.0273
Normalise N Solution of the construction of the c	Carson City NV	NV	\$37,6699	\$36,0923	1.0299	Portland-Vancouver-Hillsboro OB-WA	OR	\$40 5223	\$39,1516	1 1078
NV \$34.9954 \$33.4053 1.0000 Allentown-Bethlehem-Easton, PA-NJ PA \$34.3307 \$33.4053 0.9386   Reno-Sparks, NV NV \$34.4385 \$36.4965 1.0000 Allentown-Bethlehem-Easton, PA-NJ PA \$32.2350 \$30.6369 0.8813   Albany-Schenectady-Troy, NY NY \$31.6019 \$30.5262 0.8640 Erie, PA PA \$29.4888 \$29.3519 0.4300   Binghamton, NY NY \$32.6497 \$33.4059 0.9243 Johnstown, PA PA \$32.629 \$32.2068 0.9243   Buffalo-Niagara Falls, NY NY \$31.1807 \$29.7639 0.8572 Lancaster, PA PA \$33.6032 \$34.2255 0.9788   Glens Falls, NY NY \$31.9370 \$33.7281 0.8732 Lebanon, PA PA \$30.6303 \$29.0638 0.8430   Linacaster, PA PA \$33.6032 \$34.2255 0.9788 Lebanon, PA PA \$30.6380 \$29.0638 0.8430   Linacaster, VA NV \$31.705 \$33.	Las Vegas-Paradise NV	NV	\$42 5575	\$41 2075	1 1635	Salem OB	OR	\$40,5812	\$38 7612	1 1094
Nordadi Hatar Nado NY Status Status Histori	Nevada Bural Areas	NV	\$34 9954	\$33,4058	1,0000	Allentown-Bethlehem-Faston PA-N.I	ΡΔ	\$34,3307	\$33,4053	0.9386
Nicko parks, W NY \$30.505 0.000	Reno-Sparks NV	NV	\$38,4385	\$36,4965	1.0500		ΡΔ	\$32,2350	\$30,6369	0.8813
Andury Oct. NY NY S32.3706 S31.221 0.8350   Binghamton, NY NY \$32.3706 \$31.2410 0.8850 Harrisburg-Carlisle, PA PA \$33.6629 \$32.2068 0.9243   Buffalo-Niagara Falls, NY NY \$35.6497 \$34.1069 0.9747 Johnstown, PA PA \$32.5289 \$29.9520 0.8893   Elmira, NY NY \$31.1807 \$29.7639 0.8572 Lancaster, PA PA \$35.8032 \$34.2255 0.9788   Glens Falls, NY NY \$31.9370 \$30.7281 0.8732 Lebanon, PA PA \$30.6032 \$34.2255 0.9788   Harrisburg-Carlisle, NA PA \$30.6032 \$34.2255 0.9788 0.8430   Libraca, NY NY \$31.9370 \$30.7281 0.8732 Lebanon, PA PA \$30.6032 \$34.2255 0.9788   Meward-Libraco NY \$31.7053 \$33.0742 0.8675 Neward-Libraco PA \$30.6030 \$30.701 11.101	Albany-Schenectady-Troy NY	NV	\$31,6019	\$30,5262	0.8640	Frie PA	ΡΔ	\$29.4888	\$29,3519	0.8430
Buffalo-Niagara Falls, NY NY \$35.6497 \$34.1069 0.9747 Introduct gramatics, PA PA \$32.5289 \$29.9520 0.8893   Elmira, NY NY \$31.1807 \$29.7639 0.8572 Lancaster, PA PA \$32.5289 \$29.9520 0.8893   Glens Falls, NY NY \$31.1807 \$29.7639 0.8572 Lancaster, PA PA \$33.8032 \$34.2255 0.9788   Idense falls, NY NY \$31.7053 \$30.7281 0.8732 Lebanon, PA PA \$30.8030 \$29.0838 0.8430   Itacaster, PA NY \$31.7053 \$33.0742 0.8675 Newark-Inion N LPA PA \$30.3800 \$29.0838 0.8430	Ringhamton NY	NY	\$32,3706	\$31 2410	0.8850	Harrisburg-Carlisle PA	PA	\$33,6629	\$32,2068	0.9243
Definition (Night Cate), (Night Cat	Buffalo-Niagara Falls, NY	NY	\$35.6497	\$34 1069	0.0000	Johnstown PA	PA	\$32 5289	\$29,9520	0.8893
Clining rit Gold rot G23,703 Co.72 Clining rit FA G30,002 G42,233 0.3706   Glens Falls, NY NY \$31,9370 \$30,7281 0.8732 Lebanon, PA PA \$30,8600 \$29,0838 0.8430   Haraca NY NY \$31,7053 \$33,0742 0.8675 Newark-Lining N LPA PA \$30,8800 \$29,0838 0.8430	Elmira NV	NV	\$31 1807	\$20,7630	0.8572	Lancaster PA	PΔ	\$35,8032	\$34 2255	0.0000
Additional in the second secon	Glens Falls NY	NY	\$31,9370	\$30,7281	0.8732	Lehanon PA	PA	\$30,3830	\$29.0838	0.8430
	Ithaca NV	NV	\$31,7053	\$33.0742	0.8675	Newark-Union N I-PA	ΡΔ	\$40 5691	\$39 3201	1 1091

FY 2012 AHW, FY 2010-2012 Rolling Average of AHW and FY 2012 Final Wage Index, by Area

		EV 2012	EV2010 2012 Delling	EV 2012		-	EV 2012	EV2010 2012 Delling	EV 2012
Area	State	AHW	Average AHW	Wage Index	Area	State	AHW	Average AHW	Wage Index
Pennsylvania Rural Areas	PA	\$30.8350	\$29.6046	0.8430	Tennessee Rural Areas	TN	\$28.4106	\$27.6227	0.7768
Philadelphia, PA	PA	\$38.9604	\$37.5650	1.0651	Abilene, TX	TX	\$32.1493	\$29.8130	0.8789
Pittsburgh, PA	PA	\$31.3788	\$30.1013	0.8579	Amarillo, TX	TX	\$31.3078	\$30.0394	0.8559
Reading, PA	PA	\$33.2476	\$31.7750	0.9090	Austin-Round Rock-San Marcos, TX	TX	\$34.5366	\$33.2840	0.9442
ScrantonWilkes-Barre, PA	PA	\$30.1055	\$28.9543	0.8430	Beaumont-Port Arthur, TX	TX	\$31.4746	\$29.6188	0.8605
State College, PA	PA	\$33.0582	\$31.2078	0.9038	Brownsville-Harlingen, TX	TX	\$34.3698	\$32.9130	0.9397
Williamsport, PA	PA	\$29.3391	\$27.0390	0.8430	College Station-Bryan, TX	TX	\$33.8233	\$32.3356	0.9247
York-Hanover, PA	PA	\$35.1699	\$33.8843	0.9616	Corpus Christi, TX	TX	\$31.3764	\$30.1467	0.8578
Youngstown-Warren-Boardman, OH-PA	PA	\$30.2103	\$29.8313	0.8430	Dallas-Plano-Irving, TX	TX	\$35.2990	\$34.0528	0.9650
Aguadilla-Isabela-San Sebastián, PR	PR	\$12.7444	\$11.9640	0.3912	El Paso, TX	TX	\$31.2667	\$30.1310	0.8548
Fajardo, PR	PR	\$13.8690	\$13.4293	0.3912	Fort Worth-Arlington, TX	TX	\$34.3144	\$33.0218	0.9382
Guayama, PR	PR	\$13.1004	\$12.4882	0.3912	Houston-Sugar Land-Baytown, TX	TX	\$36.3811	\$34.8487	0.9947
Mayaqüez, PR	PR	\$13.2004	\$12.7077	0.3912	Killeen-Temple-Fort Hood, TX	TX	\$34.7010	\$31.6535	0.9487
Ponce, PR	PR	\$15.0224	\$14.7071	0.4107	Laredo, TX	TX	\$29.1031	\$28.6507	0.8068
<sup>2</sup> Puerto Rico Rural Areas	PR			0.3912	Longview, TX	TX	\$30.9694	\$29.1385	0.8689
San Germán-Cabo Rojo, PR	PR	\$16.7321	\$16.2035	0.4574	Lubbock, TX	TX	\$32.1845	\$31.0195	0.8799
San Juan-Caguas-Guavnabo, PR	PR	\$15.7285	\$15,1396	0.4300	McAllen-Edinburg-Mission, TX	TX	\$32,2769	\$31.1077	0.8824
Yauco, PR	PR	\$13.6300	\$12.3504	0.3912	Midland, TX	TX	\$37.3765	\$33.9511	1.0218
Providence-New Bedford-Fall River, RI-MA	RI	\$38.6312	\$37,4754	1.0561	Odessa, TX	TX	\$35,4444	\$33.8103	0.9690
<sup>1</sup> Rhode Island Rural Areas	RI				San Angelo, TX	TX	\$30.6034	\$29,1023	0.8367
Anderson, SC	SC	\$31.3325	\$30.9463	0.8566	San Antonio-New Braunfels, TX	TX	\$32.8364	\$31.5387	0.8978
Augusta-Richmond County, GA-SC	SC	\$34,7105	\$33.3246	0.9490	Sherman-Denison, TX	TX	\$29,5581	\$28.8699	0.8136
Charleston-North Charleston-Summerville, SC	SC	\$32.6741	\$32.0789	0.8933	Texarkana, TX-Texarkana, AR	TX	\$28.9891	\$27.8652	0.8068
Charlotte-Gastonia-Rock Hill, NC-SC	SC	\$33.2808	\$32.3760	0.9098	Texas Rural Areas	TX	\$29.5099	\$28.0402	0.8068
Columbia, SC	SC	\$32.0247	\$30.8699	0.8756	Tyler, TX	TX	\$30,7565	\$29.3078	0.8409
Florence, SC	SC	\$30.5399	\$29.3418	0.8349	Victoria. TX	TX	\$29.8683	\$28,1224	0.8166
Greenville-Mauldin-Easley, SC	SC	\$34.1287	\$33.2962	0.9330	Waco, TX	TX	\$31.8994	\$30.3594	0.8721
Myrtle Beach-North Myrtle Beach-Conway, SC	SC	\$31.2042	\$30.2513	0.8532	Wichita Falls, TX	TX	\$37.9465	\$34.8638	1.0375
South Carolina Rural Areas	SC	\$30.0403	\$29.2357	0.8241	Logan, UT-ID	UT	\$31.2658	\$30.8185	0.8690
Spartanburg, SC	SC	\$33.1336	\$32.0198	0.9059	Ogden-Clearfield, UT	UT	\$33.6428	\$32.6472	0.9218
Sumter, SC	SC	\$28.4370	\$28.4641	0.8241	Provo-Orem, UT	UT	\$33.7693	\$32.6110	0.9232
Rapid City, SD	SD	\$38.8240	\$37.2867	1.0615	Salt Lake City, UT	UT	\$34.4426	\$32.9897	0.9417
Sioux City, IA-NE-SD	SD	\$34.0488	\$31.8064	1.0000	St. George, UT	UT	\$33.4613	\$32.5221	0.9148
Sioux Falls, SD	SD	\$33.4433	\$32.2709	1.0000	Utah Rural Areas	UT	\$31,7871	\$30,1853	0.8690
South Dakota Rural Areas	SD	\$29.6088	\$29.0272	1.0000	Blacksburg-Christiansburg-Radford, VA	VA	\$29.8971	\$28.9867	0.8174
Chattanooga, TN-GA	TN	\$31.8231	\$30.8648	0.8700	Charlottesville, VA	VA	\$32.9043	\$32.0768	0.8996
Clarksville, TN-KY	TN	\$29.5124	\$27.8298	0.8069	Danville, VA	VA	\$28.5777	\$28.3081	0.7949
Cleveland, TN	TN	\$27.9977	\$26.6759	0.7768	Harrisonburg, VA	VA	\$32.2286	\$31.7963	0.8811
Jackson, TN	TN	\$29.4034	\$29.0999	0.8039	Kingsport-Bristol-Bristol, TN-VA	VA	\$27.0966	\$27.0015	0.7949
Johnson City, TN	TN	\$27.7009	\$26.9605	0.7768	Lynchburg, VA	VA	\$31.2226	\$29.6862	0.8537
Kingsport-Bristol-Bristol, TN-VA	TN	\$27.0966	\$27.0015	0.7768	Richmond, VA	VA	\$34.9703	\$33.2834	0.9560
Knoxville, TN	TN	\$28.8254	\$27.5524	0.7882	Roanoke, VA	VA	\$33.8692	\$31.8032	0.9260
Memphis, TN-MS-AR	TN	\$33.6583	\$32.4116	0.9202	Virginia Beach-Norfolk-Newport News. VA	VA	\$32.5461	\$31.2668	0.8898
Morristown, TN	TN	\$25.7139	\$24.9844	0.7768	Virginia Rural Areas	VA	\$29.0763	\$28.1155	0.7949
Nashville-Davidson-Murfreesboro-Franklin. TN	TN	\$33.6163	\$32.9081	0.9191	Washington-Arlington-Alexandria. DC-VA	VA	\$38.5770	\$37.1722	1.0546

Area	State	FY 2012 AHW	FY2010-2012 Rolling Average AHW	FY 2012 Wage Index	Area
Winchester, VA-WV	VA	\$32.9439	\$33.5145	0.9006	Racine, WI
Burlington-South Burlington, VT	VT	\$37.7016	\$36.4107	1.0307	Sheboygan
Vermont Rural Areas	VT	\$34.6270	\$33.3349	0.9467	Wausau, W
Bellingham, WA	WA	\$42.2351	\$39.8893	1.1547	Wisconsin I
Bremerton-Silverdale, WA	WA	\$40.5612	\$37.8034	1.1089	Charleston,
Kennewick-Pasco-Richland, WA	WA	\$34.1702	\$34.3222	1.0077	Cumberlan
Lewiston, ID-WA	WA	\$32.1905	\$31.8994	1.0077	Hagerstown
Longview, WA	WA	\$37.4972	\$37.3219	1.0252	Huntington
Mount Vernon-Anacortes, WA	WA	\$36.0016	\$35.1275	1.0077	Morgantow
Olympia, WA	WA	\$39.9060	\$38.5863	1.0957	Parkersbur
Portland-Vancouver-Hillsboro, OR-WA	WA	\$40.5223	\$39.1516	1.1078	Steubenvill
Seattle-Bellevue-Everett, WA	WA	\$41.2303	\$39.8180	1.1272	Washington
Spokane, WA	WA	\$38.1162	\$36.7949	1.0420	West Virgin
Tacoma, WA	WA	\$40.9513	\$39.2478	1.1195	Wheeling, W
Washington Rural Areas	WA	\$36.8569	\$35.4657	1.0077	Winchester
Wenatchee-East Wenatchee, WA	WA	\$36.9325	\$34.4204	1.0097	Casper, WY
Yakima, WA	WA	\$37.6867	\$35.4502	1.0303	Cheyenne,
Appleton, WI	WI	\$33.3400	\$32.3657	0.9115	Wyoming R
Duluth, MN-WI	WI	\$38.3283	\$37.3073	1.0479	
Eau Claire, WI	WI	\$34.5779	\$33.3431	0.9453	
Fond du Lac, WI	WI	\$34.2138	\$33.2909	0.9354	
Green Bay, WI	WI	\$35.1164	\$33.2362	0.9601	Source: F
Janesville, WI	WI	\$34.3602	\$33.2936	0.9394	<sup>1</sup> All count
La Crosse, WI-MN	WI	\$35.2546	\$34.3859	0.9639	<sup>2</sup> This area
Lake County-Kenosha County, IL-WI	WI	\$37.1238	\$36.5187	1.0150	compute
Madison, WI	WI	\$40.7368	\$39.3609	1.1137	CMS did
Milwaukee-Waukesha-West Allis, WI	WI	\$36.1881	\$35.3392	0.9893	2008 IPF
Minneapolis-St. Paul-Bloomington, MN-WI	WI	\$39.7771	\$38.3542	1.0875	FY 2012
Oshkosh-Neenah, WI	WI	\$33.5451	\$32.3833	0.9171	2012 IPP

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Area	State	FY 2012 AHW	FY2010-2012 Rolling Average AHW	FY 2012 Wage Index
Racine, WI	WI	\$31.4412	\$33.2399	0.8939
Sheboygan, WI	WI	\$33.9019	\$32.6582	0.9269
Wausau, WI	WI	\$33.2120	\$33.2494	0.9080
Wisconsin Rural Areas	WI	\$32.6948	\$32.0069	0.8939
Charleston, WV	WV	\$30.1623	\$28.7810	0.8246
Cumberland, MD-WV	WV	\$28.4996	\$28.1200	0.7791
Hagerstown-Martinsburg, MD-WV	WV	\$34.0825	\$32.6952	0.9318
Huntington-Ashland, WV-KY-OH	WV	\$32.0707	\$31.2157	0.8768
Morgantown, WV	WV	\$30.1945	\$29.3271	0.8255
Parkersburg-Marietta-Vienna, WV-OH	WV	\$27.6030	\$26.4231	0.7547
Steubenville-Weirton, OH-WV	WV	\$25.4269	\$25.1468	0.7393
Washington-Arlington-Alexandria, DC-VA	WV	\$38.5770	\$37.1722	1.0546
West Virginia Rural Areas	WV	\$27.0429	\$26.1961	0.7393
Wheeling, WV-OH	WV	\$24.5512	\$23.7360	0.7393
Winchester, VA-WV	WV	\$32.9439	\$33.5145	0.9006
Casper, WY	WY	\$35.8110	\$33.3887	1.0000
Cheyenne, WY	WY	\$35.5974	\$33.2121	1.0000
Wyoming Rural Areas	WY	\$33.6551	\$32.6474	1.0000

ource: FY 2012 Final IPPS Rule.

All counties within the State or territory are classified as urban.

This area has no average hourly wage because there are no wage data available to compute an average hourly wage. However, there is one hospital in rural Puerto Rico and CMS did compute a wage index for rural Puerto Rico per the policy described in the FY 2008 IPPS final rule (72 FR 47323). For a complete discussion on the computation of the FY 2012 rural Puerto Rico wage index, please see section III.F.2. of the preamble to the FY 2012 IPPS final rule.

In FY 2012, average hourly wages range from \$12.74 in the Aguadilla-Isabela-San Sebastian, Puerto Rico CBSA and \$24.5512 in the Wheeling, West Virginia-Ohio CBSA to \$60.33 in the Santa Cruz-Watsonville, California MSA.

Wage indices in FY 2012 range from 0.3912 in many areas of Puerto Rico and 0.7277 in Dothan, Alabama, Decatur, Alabama, and rural areas of Alabama, to 1.6996 in the Santa Cruz-Watsonville, California CBSA.





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Each year, about one-third of hospitals see their wage indices decline relative to the prior year because, even though their AHWs rose more than the market basket update, they did not rise as quickly as those at other hospitals. This is occurring, in part, due to wages increasing faster than the hospital market basket (the rate of inflation for the goods and services that hospitals purchase).

#### Average Hourly Wages (AHWs), the basis for area wage indices, vary greatly across the US.



A hospital's wage index is based on the AHW in its area relative to other areas. AHWs vary greatly across the country, with the highest generally in the West and Northeast, and the lowest generally in the South Central and Southwest.

In FY 2012, AHWs range from a low of \$12.74 in the Aguadilla-Isabela-San Sebastian, Puerto Rico CBSA and \$24.55 in the Wheeling, West Virginia-Ohio CBSA to a high of \$60.33 in the Santa Cruz-Watsonville, California CBSA.

Source: CMS FY 2012 IPPS Final Rule Public Use Files, released August 2011. Analysis excludes Maryland hospitals, public health service hospitals, and those missing AHW data. AHW is weighted by FY 2012 IPPS revenue.



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# The percent of hospitals in each state with decreases in wage indices despite increases in AHWs can vary widely from year to year.

Hospitals with Decreases in Their Wage Indices Even Though Their AHWs Increased More Than the Market Basket, Year-to-Year Comparison, FY2005-2012

	FY2009-2010		FY2010-2011 FY2011-201		1-2012		FY200	9-2010	FY2010-2011		FY2011-2012		
	Number	Percent	Number	Percent	Number	Percent		Number	Percent	Number	Percent	Number	Percent
Total	977	30.1%	1105	33.4%	1028	31.2%	Montana	2	15.4%	0	0.0%	0	0.0%
Alabama	33	35.9%	11	11.6%	30	31.9%	Nebraska	6	30.0%	6	30.0%	7	35.0%
Alaska	2	33.3%	0	0.0%	0	0.0%	Nevada	3	13.6%	10	45.5%	7	31.8%
Arizona	3	6.4%	27	52.9%	21	39.6%	New Hampshire	9	69.2%	0	0.0%	5	38.5%
Arkansas	15	32.6%	21	44.7%	25	54.3%	New Jersey	13	19.7%	23	34.8%	9	13.8%
California	122	41.6%	26	8.7%	49	16.7%	New Mexico	1	3.7%	8	29.6%	10	35.7%
Colorado	1	2.3%	8	18.2%	18	40.0%	New York	15	8.7%	101	57.4%	35	20.6%
Connecticut	8	26.7%	0	0.0%	12	37.5%	North Carolina	37	42.0%	37	43.0%	24	28.2%
DC	1	14.3%	5	71.4%	3	42.9%	North Dakota	3	50.0%	0	0.0%	0	0.0%
Delaware	1	20.0%	3	60.0%	3	60.0%	Ohio	51	40.8%	17	13.6%	40	31.3%
Florida	39	23.5%	42	25.1%	89	54.3%	Oklahoma	15	19.0%	16	19.8%	22	27.2%
Georgia	38	38.0%	56	52.8%	51	47.2%	Oregon	6	18.8%	23	71.9%	9	28.1%
Hawaii	6	42.9%	0	0.0%	8	57.1%	Pennsylvania	61	43.0%	39	26.4%	54	36.5%
Idaho	2	14.3%	6	42.9%	6	46.2%	Puerto Rico	24	53.3%	24	49.0%	0	0.0%
Illinois	15	11.9%	21	16.3%	52	41.3%	Rhode Island	0	0.0%	0	0.0%	5	45.5%
Indiana	29	40.3%	34	44.2%	34	42.5%	South Carolina	15	28.8%	15	28.3%	21	38.9%
lowa	12	35.3%	16	47.1%	3	8.8%	South Dakota	6	33.3%	0	0.0%	0	0.0%
Kansas	7	14.0%	32	62.7%	15	28.3%	Tennessee	37	37.0%	37	37.0%	44	44.4%
Kentucky	24	36.9%	27	41.5%	28	43.1%	Texas	104	36.5%	117	40.1%	79	26.7%
Louisiana	8	8.7%	28	28.9%	34	35.8%	Utah	0	0.0%	16	53.3%	2	6.7%
Maine	8	38.1%	10	47.6%	9	45.0%	Vermont	3	50.0%	2	33.3%	0	0.0%
Massachusetts	8	13.8%	19	31.7%	0	0.0%	Virginia	12	15.8%	41	53.9%	22	28.9%
Michigan	44	46.8%	46	48.9%	32	34.0%	Washington	30	63.8%	32	68.1%	13	28.3%
Minnesota	21	41.2%	10	19.6%	25	50.0%	West Virginia	18	56.3%	8	25.0%	9	28.1%
Mississippi	12	18.8%	33	49.3%	24	37.5%	Wisconsin	29	49.2%	11	17.7%	16	26.2%
Missouri	16	21.1%	41	53.2%	24	30.8%	Wyoming	2	18.2%	0	0.0%	0	0.0%



### The types of reclassifications and exceptions hospitals receive varies widely by state.

Number and Percent of Hospitals Receiving Reclassifications and Exceptions by Type of Status and State, FY 2012

									Total Number of	Percentage of
		MGCRB						Rural Floor or	Hospitals	Hospitals that
	PPS	Wage	Section		Out-	Section		Imputed Rural	Reclassified or	are Reclassified
	Hospitals	Reclass	508	Lugar	Migration	401	Frontier	Floor	Excepted	or Excepted
US Total	3423	655	89	39	556	40	26	336	1287	37.6%
Alabama	95	15	1	0	31	0	0	3	40	42.1%
Alaska	6	1	1	0	0	0	0	4	5	83.3%
Arizona	57	4	0	0	1	0	0	0	5	8.8%
Arkansas	47	12	0	1	8	1	0	0	18	38.3%
California	308	47	1	0	55	3	0	99	145	47.1%
Colorado	46	10	1	0	5	0	0	7	17	37.0%
Connecticut	32	10	13	2	2	1	0	12	30	93.8%
DC	7	0	0	0	0	0	0	0	0	0.0%
Delaware	5	3	0	0	0	0	0	0	3	60.0%
Florida	168	33	0	3	17	3	0	5	44	26.2%
Georgia	108	21	0	2	13	0	0	0	27	25.0%
Hawaii	14	0	0	0	0	0	0	0	0	0.0%
Idaho	15	2	0	1	4	0	0	0	4	26.7%
Illinois	130	17	0	0	9	1	0	0	21	16.2%
Indiana	89	27	1	2	10	1	0	1	32	36.0%
Iowa	34	6	4	0	3	0	0	5	13	38.2%
Kansas	55	9	0	0	2	2	0	1	13	23.6%
Kentucky	65	25	0	0	7	2	0	1	32	49.2%
Louisiana	97	9	0	0	22	0	0	10	35	36.1%
Maine	20	6	0	0	3	0	0	0	6	30.0%
Massachusetts	61	19	1	0	18	1	0	60	60	98.4%
Michigan	100	48	32	3	53	2	0	0	69	69.0%
Minnesota	51	7	0	0	7	0	0	0	11	21.6%
Mississippi	64	21	3	1	4	0	0	0	25	39.1%
Missouri	80	15	0	0	6	4	0	4	28	35.0%
Montana	12	4	0	0	0	0	9	0	12	100.0%
Nebraska	23	7	0	0	1	0	0	0	7	30.4%
Nevada	24	2	0	1	1	0	0	0	3	12.5%
New Hampshire	13	2	0	0	7	1	0	8	11	84.6%

		MGCRB						Rural Floor or	Total Number of Hospitals	Percentage of Hospitals that
	PPS	Wage	Section		Out-	Section		Imputed Rural	Reclassified or	are Reclassified
	Hospitals	Reclass	508	Lugar	Migration	401	Frontier	Floor	Excepted	or Excepted
New Jersey	67	18	7	0	11	0	0	39	53	79.1%
New Mexico	28	7	0	1	2	0	0	0	9	32.1%
New York	170	32	8	2	29	4	0	5	47	27.6%
North Carolina	89	17	1	5	23	1	0	4	40	44.9%
North Dakota	6	1	0	0	0	0	4	0	5	83.3%
Ohio	138	26	0	1	26	1	0	9	52	37.7%
Oklahoma	85	17	0	0	9	1	0	2	26	30.6%
Oregon	33	7	0	1	1	1	0	3	12	36.4%
Pennsylvania	152	19	11	2	27	3	0	16	55	36.2%
Puerto Rico	51	0	0	0	0	0	0	12	12	23.5%
Rhode Island	11	8	0	0	0	0	0	0	8	72.7%
South Carolina	55	11	0	3	18	0	0	0	24	43.6%
South Dakota	19	1	1	0	2	0	11	0	14	73.7%
Tennessee	99	15	0	0	27	0	0	11	45	45.5%
Texas	320	48	0	4	51	4	0	4	77	24.1%
Utah	32	8	0	0	7	0	0	2	15	46.9%
Vermont	6	2	1	0	0	0	0	0	3	50.0%
Virginia	81	8	1	0	7	2	0	2	18	22.2%
Washington	48	11	0	0	7	1	0	2	17	35.4%
West Virginia	32	10	0	1	3	0	0	3	15	46.9%
Wisconsin	64	6	0	3	17	0	0	2	21	32.8%
Wyoming	11	1	1	0	0	0	2	0	3	27.3%

Source: CMS final FY2012 inpatient PPS payment impact file, released Aug. 2011. Section 508 hospitals per CMS list in 4/7/11 Federal Register. Lugar hospitals per Table 9A in FY2012 inpatient PPS final rule. Out-migration hospitals per Table 4J in FY2012 inpatient PPS final rule. Some hospitals are reclassified under more than one method - these are counted only once in the 'total' column. Chart assumes Section 508 program is extended in FY 2012.





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Hospitals generally obtain a reclassification or exception because it results in a higher wage index, and therefore higher payments, for the hospitals. The average increase a hospital receives in its area wage index varies by type of reclassification or exception, from 1.9 percent for out-migration to 16.6 percent for frontier.



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Even within a reclassification or exception type, the average increase in wage index varies widely. For example, in FY 2012, although the average increase for hospitals receiving the rural floor was 7.1 percent, almost 25 percent of these hospitals had an increase of 10 percent or more while about 30 percent had an increase of less than 2 percent.



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Several types of reclassifications are budget neutral – MGCRB, rural and imputed rural floor, and Lugar county. Thus, additional funding to hospitals with these types of reclassifications is offset by cuts to funding for all hospitals. In FY 2012, 30 percent of all PPS hospitals have a *budget neutral* wage index reclassification, redistributing a total of \$633 million, or less than 1 percent, of PPS hospital payments.

# **Certain states have a net gain and others a net loss from budget neutral reclassifications or exceptions.** Total Payment and Percent of Payment Redistributed to Hospitals as a Result of Budget Neutral Reclassifications or Exceptions by

State, FY 2012

					Rural Floor or Imputed Rural			Lugar County			
			MGCI	RB Wage Reclassi	fication	Floor Reclassification				Reclassificati	on
		Estimated									
		FY12 PPS									
	PPS	Payment	Total			Total			Total		
	Hospitals	(millions)	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent
Total Redistribution	3423	\$107,365.0	655	\$226,673,479	0.21%	336	\$392,300,000	0.37%	39	\$13,932,543	0.013%
Alabama	95	\$1,818.1	15	\$2,916,337	0.2%	3	-\$7,500,000	-0.41%	0	-\$235,966	-0.013%
Alaska	6	\$143.5	1	-\$852,279	-0.6%	4	\$2,300,000	1.60%	0	-\$18,625	-0.013%
Arizona	57	\$1,782.4	4	-\$2,963,992	-0.2%	0	-\$8,800,000	-0.49%	0	-\$231,323	-0.013%
Arkansas	47	\$1,136.9	12	\$10,101,403	0.9%	0	-\$5,000,000	-0.44%	1	\$452,346	0.040%
California	308	\$10,619.6	47	-\$21,887,684	-0.2%	99	\$20,300,000	0.19%	0	-\$1,378,258	-0.013%
Colorado	46	\$1,064.0	10	-\$3,201,963	-0.3%	7	\$4,300,000	0.40%	0	-\$138,098	-0.013%
Connecticut	32	\$1,629.1	10	-\$3,259,007	-0.2%	12	\$30,000,000	1.84%	2	-\$211,438	-0.013%
DC	7	\$482.2	0	-\$2,863,954	-0.6%	0	-\$2,500,000	-0.52%	0	-\$62,586	-0.013%
Delaware	5	\$413.9	3	\$2,391,073	0.6%	0	-\$2,000,000	-0.48%	0	-\$53,721	-0.013%
Florida	168	\$7,208.7	33	-\$4,465,470	-0.1%	5	-\$29,100,000	-0.40%	3	-\$775,799	-0.011%
Georgia	108	\$2,865.4	21	\$6,079,453	0.2%	0	-\$13,000,000	-0.45%	2	\$662,706	0.023%
Hawaii	14	\$309.6	0	-\$1,838,681	-0.6%	0	-\$1,100,000	-0.36%	0	-\$40,181	-0.013%
Idaho	15	\$283.9	2	\$851,368	0.3%	0	-\$1,000,000	-0.35%	1	-\$23,136	-0.008%
Illinois	130	\$5,148.2	17	-\$20,457,602	-0.4%	0	-\$26,300,000	-0.51%	0	-\$668,162	-0.013%
Indiana	89	\$2,444.8	27	\$17,727,268	0.7%	1	-\$11,100,000	-0.45%	2	-\$73,638	-0.003%
lowa	34	\$985.6	6	-\$3,766,955	-0.4%	5	-\$3,000,000	-0.30%	0	-\$127,912	-0.013%
Kansas	55	\$946.7	9	-\$4,006,503	-0.4%	1	-\$3,500,000	-0.37%	0	-\$122,863	-0.013%
Kentucky	65	\$1,989.0	25	\$5,635,894	0.3%	1	-\$8,500,000	-0.43%	0	-\$258,143	-0.013%
Louisiana	97	\$1,605.6	9	-\$4,292,136	-0.3%	10	-\$7,200,000	-0.45%	0	-\$208,387	-0.013%
Maine	20	\$503.3	6	\$932,657	0.2%	0	-\$2,100,000	-0.42%	0	-\$65,320	-0.013%
Massachusetts	61	\$3,435.1	19	-\$20,401,292	-0.6%	60	\$274,800,000	8.00%	0	-\$445,828	-0.013%
Michigan	100	\$4,544.2	48	\$10,421,229	0.2%	0	-\$21,400,000	-0.47%	3	\$1,416,246	0.031%
Minnesota	51	\$1,727.3	7	-\$9,472,234	-0.5%	0	-\$8,100,000	-0.47%	0	-\$224,179	-0.013%
Mississippi	64	\$1,254.8	21	\$20,510,882	1.6%	0	-\$5,600,000	-0.45%	1	\$38,046	0.003%
Missouri	80	\$2,639.0	15	-\$9,363,738	-0.4%	4	-\$10,500,000	-0.40%	0	-\$342,499	-0.013%
Montana	12	\$272.0	4	-\$1,615,499	-0.6%	0	-\$800,000	-0.29%	0	-\$35,303	-0.013%
Nebraska	23	\$654.7	7	-\$3,103,284	-0.5%	0	-\$2,400,000	-0.37%	0	-\$84,973	-0.013%
Nevada	24	\$715.2	2	-\$4,247,415	-0.6%	0	-\$3,700,000	-0.52%	1	-\$92,818	-0.013%
New Hampshire	13	\$433.0	2	-\$2,571,808	-0.6%	8	\$6,300,000	1.45%	0	-\$56,202	-0.013%
New Jersey	67	\$3,826.9	18	\$78,555,714	2.1%	39	\$54,200,000	1.42%	0	-\$496,667	-0.013%

			MGCRB Wage Reclassification			Rural Floor or Imputed Rural Floor Reclassification			Lugar County Reclassification		
		Estimated									
	PPS	Payment	Total			Total			Total		
	Hospitals	(millions)	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent
New Mexico	28	\$478.7	7	-\$1,796,999	-0.4%	0	-\$1,600,000	-0.33%	1	-\$62,123	-0.013%
New York	170	\$8,639.8	32	-\$8,639,691	-0.1%	5	-\$47,500,000	-0.55%	2	-\$1,089,469	-0.013%
North Carolina	89	\$3,606.2	17	-\$1,287,852	0.0%	4	-\$15,500,000	-0.43%	5	\$2,415,089	0.067%
North Dakota	6	\$273.8	1	-\$1,626,179	-0.6%	0	-\$800,000	-0.29%	0	-\$35,537	-0.013%
Ohio	138	\$4,176.6	26	-\$5,775,386	-0.1%	9	-\$15,800,000	-0.38%	1	-\$478,741	-0.011%
Oklahoma	85	\$1,375.2	17	-\$871,894	-0.1%	2	-\$5,700,000	-0.41%	0	-\$178,474	-0.013%
Oregon	33	\$839.1	7	-\$3,672,643	-0.4%	3	-\$3,500,000	-0.42%	1	-\$91,848	-0.011%
Pennsylvania	152	\$4,774.4	19	-\$2,380,791	0.0%	16	-\$17,300,000	-0.36%	2	-\$441,760	-0.009%
Puerto Rico	51	\$188.6	0	-\$1,120,243	-0.6%	12	\$100,000	0.05%	0	-\$24,481	-0.013%
Rhode Island	11	\$376.1	8	\$16,698,074	4.4%	0	-\$2,200,000	-0.58%	0	-\$48,809	-0.013%
South Carolina	55	\$1,746.8	11	-\$1,552,696	-0.1%	0	-\$7,200,000	-0.41%	3	\$1,283,540	0.073%
South Dakota	19	\$345.2	1	-\$2,050,081	-0.6%	0	-\$900,000	-0.26%	0	-\$44,800	-0.013%
Tennessee	99	\$2,618.5	15	\$6,681,172	0.3%	11	-\$7,700,000	-0.29%	0	-\$339,844	-0.013%
Texas	320	\$7,380.1	48	-\$18,355,433	-0.2%	4	-\$34,000,000	-0.46%	4	\$1,974,796	0.027%
Utah	32	\$449.8	8	-\$1,645,783	-0.4%	2	-\$1,700,000	-0.38%	0	-\$58,381	-0.013%
Vermont	6	\$198.1	2	-\$962,827	-0.5%	0	-\$600,000	-0.30%	0	-\$25,710	-0.013%
Virginia	81	\$2,535.4	8	\$1,564,431	0.1%	2	-\$10,800,000	-0.43%	0	-\$329,052	-0.013%
Washington	48	\$1,828.4	11	-\$1,899,151	-0.1%	2	-\$7,300,000	-0.40%	0	-\$237,293	-0.013%
West Virginia	32	\$800.0	10	\$6,141,079	0.8%	3	-\$2,200,000	-0.27%	1	-\$28,800	-0.004%
Wisconsin	64	\$1,695.5	6	-\$8,012,277	-0.5%	2	-\$6,400,000	-0.38%	3	\$1,764,628	0.104%
Wyoming	11	\$156.0	1	-\$926,613	-0.6%	0	\$0	0.00%	0	-\$20,249	-0.013%

Source: CMS final FY2012 inpatient PPS payment impact file, released Aug. 2011. Lugar hospitals per Table 9A in FY2012 inpatient PPS final rule. Rural floor numbers per final FY2012 IPPS rule.

Under budget neutral reclassifications, certain states receive more reclassification funds than they are cut and certain states do not, meaning certain states have a net gain from budget neutral reclassifications and others have a net loss.





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Three types of reclassifications and exceptions are not budget neutral and instead add funding to the inpatient payment system – section 508, outmigration and frontier. Thus, additional funding to hospitals with these types of reclassifications are paid for by additional funding brought into the Medicare system. They are *not* offset by cuts to all hospitals. In FY 2012, about 19 percent of all PPS hospitals have a *non-budget neutral* wage index reclassification, totaling \$315 million, or 0.30 percent, in additional PPS payments to hospitals.

#### Most, but not all states, have hospitals with non-budget neutral reclassifications or exceptions.

Total Payment and Percent of Payment Received by Hospitals with a Non-Budget Neutral Reclassification or Exception, by State, FY 2012

	PPS Hognitals	Estimated FY12 IPPS Payment Millions		Out-Migration			Section 508			Frontier	
	позрітаіз	WIIIIUIIS		out-wigration			Section 500			FIUILLEI	
			Total			Total			Total		
			Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent
US Total	3423	\$107,365.0	556	\$39,083,640	0.036%	89	\$227,294,705	0.21%	26	\$48,861,026	0.05%
Alabama	95	\$1,818.1	31	\$3,668,669	0.202%	1	\$420,880	0.02%	0	\$0	0.00%
Alaska	6	\$143.5	0	\$0	0.000%	1	\$0	0.00%	0	\$0	0.00%
Arizona	57	\$1,782.4	1	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Arkansas	47	\$1,136.9	8	\$91,101	0.008%	0	\$0	0.00%	0	\$0	0.00%
California	308	\$10,619.6	55	\$4,240,020	0.040%	1	\$10,974,762	0.10%	0	\$0	0.00%
Colorado	46	\$1,064.0	5	\$0	0.000%	1	\$0	0.00%	0	\$0	0.00%
Connecticut	32	\$1,629.1	2	\$42,253	0.003%	13	\$8,042,856	0.49%	0	\$0	0.00%
DC	7	\$482.2	0	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Delaware	5	\$413.9	0	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Florida	168	\$7,208.7	17	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Georgia	108	\$2,865.4	13	\$315,720	0.011%	0	\$0	0.00%	0	\$0	0.00%
Hawaii	14	\$309.6	0	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Idaho	15	\$283.9	4	\$51,559	0.018%	0	\$0	0.00%	0	\$0	0.00%
Illinois	130	\$5,148.2	9	\$100,787	0.002%	0	\$0	0.00%	0	\$0	0.00%
Indiana	89	\$2,444.8	10	\$91,115	0.004%	1	\$3,567,223	0.15%	0	\$0	0.00%
lowa	34	\$985.6	3	\$30,828	0.003%	4	\$1,507,609	0.15%	0	\$0	0.00%
Kansas	55	\$946.7	2	\$31,947	0.003%	0	\$0	0.00%	0	\$0	0.00%
Kentucky	65	\$1,989.0	7	\$530,987	0.027%	0	\$0	0.00%	0	\$0	0.00%
Louisiana	97	\$1,605.6	22	\$630,190	0.039%	0	\$0	0.00%	0	\$0	0.00%
Maine	20	\$503.3	3	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Massachusetts	61	\$3,435.1	18	\$12,402,800	0.361%	1	\$4,315,661	0.13%	0	\$0	0.00%
Michigan	100	\$4,544.2	53	\$2,268,482	0.050%	32	\$89,302,911	1.97%	0	\$0	0.00%
Minnesota	51	\$1,727.3	7	\$376,446	0.022%	0	\$0	0.00%	0	\$0	0.00%
Mississippi	64	\$1,254.8	4	\$183,015	0.015%	3	\$5,013,206	0.40%	0	\$0	0.00%
Missouri	80	\$2,639.0	6	\$118,005	0.004%	0	\$0	0.00%	0	\$0	0.00%
Montana	12	\$272.0	0	\$0	0.000%	0	\$0	0.00%	9	\$13,183,842	4.85%
Nebraska	23	\$654.7	1	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Nevada	24	\$715.2	1	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
New Hampshire	13	\$433.0	7	\$5,359,579	1.238%	0	\$0	0.00%	0	\$0	0.00%

		Estimated FY12 IPPS									
	PPS	Payment					0				
	Hospitals	Willions		Out-Migration	1		Section 508			Frontier	
			Total			Total			Total		
			Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent	Hospitals	Net Dollars	Percent
New Jersey	67	\$3,826.9	11	\$0	0.000%	7	\$24,547,737	0.64%	0	\$0	0.00%
New Mexico	28	\$478.7	2	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
New York	170	\$8,639.8	29	\$178,119	0.002%	8	\$49,733,311	0.58%	0	\$0	0.00%
North Carolina	89	\$3,606.2	23	\$1,929,447	0.054%	1	\$878,409	0.02%	0	\$0	0.00%
North Dakota	6	\$273.8	0	\$0	0.000%	0	\$0	0.00%	4	\$24,520,913	8.96%
Ohio	138	\$4,176.6	26	\$235,013	0.006%	0	\$0	0.00%	0	\$0	0.00%
Oklahoma	85	\$1,375.2	9	\$76,764	0.006%	0	\$0	0.00%	0	\$0	0.00%
Oregon	33	\$839.1	1	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Pennsylvania	152	\$4,774.4	27	\$629,228	0.013%	11	\$18,234,683	0.38%	0	\$0	0.00%
Puerto Rico	51	\$188.6	0	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
Rhode Island	11	\$376.1	0	\$0	0.000%	0	\$0	0.00%	0	\$0	0.00%
South Carolina	55	\$1,746.8	18	\$466,472	0.027%	0	\$0	0.00%	0	\$0	0.00%
South Dakota	19	\$345.2	2	\$6,871	0.002%	1	\$537,703	0.16%	11	\$10,988,420	3.18%
Tennessee	99	\$2,618.5	27	\$1,816,333	0.069%	0	\$0	0.00%	0	\$0	0.00%
Texas	320	\$7,380.1	51	\$1,060,500	0.014%	0	\$0	0.00%	0	\$0	0.00%
Utah	32	\$449.8	7	\$3,788	0.001%	0	\$0	0.00%	0	\$0	0.00%
Vermont	6	\$198.1	0	\$0	0.000%	1	\$9,917,635	5.01%	0	\$0	0.00%
Virginia	81	\$2,535.4	7	\$197,961	0.008%	1	\$300,121	0.01%	0	\$0	0.00%
Washington	48	\$1,828.4	7	\$330,605	0.018%	0	\$0	0.00%	0	\$0	0.00%
West Virginia	32	\$800.0	3	\$58,641	0.007%	0	\$0	0.00%	0	\$0	0.00%
Wisconsin	64	\$1,695.5	17	\$1,560,399	0.092%	0	\$0	0.00%	0	\$0	0.00%
Wyoming	11	\$156.0	0	\$0	0.000%	1	\$0	0.00%	2	\$167,851	0.11%

SOURCE: CMS final FY2012 inpatient PPS payment impact file, released Aug. 2011.

Section 508 hospitals per CMS list in 4/7/11 Federal Register. Out-migration hospitals per Table 4J in FY2012 inpatient PPS final rule.

Frontier states are MT, ND, NV, SD, and WY. Hospitals in these states have a wage index floor of 1. Counts above reflect only those hospitals that benefit from the wage floor. Hospitals located in areas where the wage index is already over 1 are not counted. The same is true for sole community hospitals that are paid on the basis of their hospital specific rate. Some hospitals are reclassified under more than one method - these are counted only once in the 'total' columns.



# All reclassifications and exceptions affect approximately .5% of inpatient PPS payments nationwide.

Hospitals with Reclassifications or Exceptions and Estimated Payment Impact of Reclassifications and Exceptions, by State, 2012

	PPS Hospitals with Reclassifications or Exceptions	Net Impact of All Re Excep	eclassifications and ptions		PPS Hospitals with Reclassifications or Exceptions	Net Impact of Al Ex	t Impact of All Reclassifications and Exceptions		
US Total	3423	\$575,245,393*	0.5%	New Jersey	67	\$156,806,78	3 4.1%		
Alabama	95	-\$730,081	0.0%	New Mexico	28	-\$3,459,123	3 -0.7%		
Alaska	6	\$1,429,096	1.0%	New York	170	-\$7,317,73	0 -0.1%		
Arizona	57	-\$11,995,314	-0.7%	North Carolina	89	-\$11,564,90	7 -0.3%		
Arkansas	47	\$5,644,850	0.5%	North Dakota	6	\$22,059,19	7 8.1%		
California	308	\$12,248,840	0.1%	Ohio	138	-\$21,819,114	4 -0.5%		
Colorado	46	\$959,940	0.1%	Oklahoma	85	-\$6,673,604	4 -0.5%		
Connecticut	32	\$34,614,664	2.1%	Oregon	33	-\$7,264,49	1 -0.9%		
DC	7	-\$5,426,540	-1.1%	Pennsylvania	152	-\$1,258,64	0 0.0%		
Delaware	5	\$337,353	0.1%	Puerto Rico	51	-\$1,044,724	4 -0.6%		
Florida	168	-\$34,341,269	-0.5%	Rhode Island	11	\$14,449,26	5 3.8%		
Georgia	108	-\$5,942,121	-0.2%	South Carolina	55	-\$7,002,684	4 -0.4%		
Hawaii	14	-\$2,978,862	-1.0%	South Dakota	19	\$8,538,112	2 2.5%		
Idaho	15	-\$120,210	0.0%	Tennessee	99	\$457,66 <sup>-</sup>	1 0.0%		
Illinois	130	-\$47,324,977	-0.9%	Texas	320	-\$49,320,13	7 -0.7%		
Indiana	89	\$10,211,969	0.4%	Utah	32	-\$3,400,37	6 -0.8%		
lowa	34	-\$5,356,430	-0.5%	Vermont	6	\$8,329,09	7 4.2%		
Kansas	55	-\$7,597,419	-0.8%	Virginia	81	-\$9,066,53	9 -0.4%		
Kentucky	65	-\$2,591,261	-0.1%	Washington	48	-\$9,105,83	8 -0.5%		
Louisiana	97	-\$11,070,333	-0.7%	West Virginia	32	\$3,970,920	0 0.5%		
Maine	20	-\$1,232,663	-0.2%	Wisconsin	64	-\$11,087,25	0 -0.7%		
Massachusetts	61	\$270,671,340	7.9%	Wyoming	11	-\$779,01 <sup>-</sup>	1 -0.5%		
Michigan	100	\$82,008,867	1.8%						
Minnesota	51	-\$17,419,966	-1.0%	impact file releas	rial FY2012 Inpatient Pr ed Aug. 2011	-S payment			
Mississippi	64	\$20,145,148	1.6%	The dollar amoun	ts shown are an estima	te of the gain			
Missouri	80	-\$20,088,233	-0.8%	in FY2011, not FY	/2012.	America	n Lleenitel		
Montana	12	\$10,733,040	3.9%	*Includes redistrib	outions from budget neu	utral America	In Hospital		
Nebraska	23	-\$5,588,258	-0.9%	redistributions ar	nd exceptions and addi	tional ASSO			
Nevada	24	-\$8,040,234	-1.1%	funds from non-k	oudget neutral redistribu	utions and			
New Hampshire	13	\$9,031,570	2.1%	exceptions.					



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Only PPS hospitals, not critical access hospitals (CAHs), are included in the calculation of the rural floor. As more rural hospitals have converted to CAH status over time, the area wage index rural floor calculation has been based on fewer hospitals. Specifically, since 2000, the number of hospitals used to calculate the wage index rural floor has decreased by two-thirds.
## The number of hospitals used in the rural floor calculations varies widely by state

	FY2000	FY2004	FY2012	l i i i i i i i i i i i i i i i i i i i	FY2000	FY2004	FY2012
US Total	1805	1031	599	Nebraska	65	7	2
Alabama	45	36	33	Nevada	10	5	2
Alaska	13	8	1	New Hampshire	10	7	4
Arizona	14	8	4	New Jersey	0	0	0
Arkansas	40	23	12	New Mexico	22	11	10
California	36	27	7	New York	30	25	25
Colorado	33	14	10	North Carolina	45	35	21
Connecticut	2	2	2	North Dakota	28	7	0
Delaware	1	1	0	Ohio	34	18	16
DC	0	0	0	Oklahoma	60	38	25
Florida	24	19	9	Oregon	28	11	3
Georgia	72	39	26	Pennsylvania	34	19	28
Hawaii	11	5	5	Puerto Rico	7	4	1
Idaho	28	7	2	Rhode Island	0	0	0
Illinois	59	32	15	South Carolina	24	20	13
Indiana	33	18	6	South Dakota	36	13	10
lowa	88	38	9	Tennessee	53	39	33
Kansas	82	41	17	Texas	132	93	58
Kentucky	51	37	20	Utah	14	16	5
Louisiana	44	39	26	Vermont	11	5	3
Maine	21	12	6	Virginia	36	25	27
Massachusetts	3	1	1	Washington	40	13	5
Michigan	44	29	16	West Virginia	27	14	9
Minnesota	80	37	11	Wisconsin	58	28	8
Mississippi	64	52	23	Wyoming	23	14	8
Missouri	54	28	19	SOURCES: CMS final inpatient PPS payment impact files for fiscal years 2000, 2004 and 2012. Counts in 2000 and 2004 are based on the number of hospitals in each post-wage reclass rural area. Count in 2012 is based on the post reclass CBSA			
Montana	36	9	3				

Estimated Number of Hospitals Used to Calculate Rural Area Wage Index FYs 2000, 2004 and 2012

The number of hospitals used to calculate the wage index rural floor varies greatly by state, and in 12 states, less than 5 hospitals are used.

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