

3. Proposed Revisions to the Hospital Prospective Reimbursement Market Basket Index

by Laura Hodges

The Center for Medicare and Medicaid Services (CMS) recently revised the weights and components to the Hospital Prospective Reimbursement (PPS) market basket index and have proposed that these changes take effect with the FY2003 payment update – the proposed rule can be found in the May 9, 2002 Federal Register. This index reflects changes over time in the costs of furnishing hospital services to Medicare beneficiaries. If approved, the new market basket and the 1992-based PPS market basket in subsequent Health Care Cost Reviews and the Global Insight hospital market basket will be deleted.

The primary difference between the components within the new 1997-based and old 1992-based CMS PPS hospital market basket (PPS) is the compensation measures. The PPS is a *normative input price index* constructed to reflect the rate at which the costs to hospitals of provid-

ing health care—hence prices—would increase absent the widely-acknowledged distortions that affect actual health-care cost and prices. Compensation costs in the old PPS are represented by wage and benefit indices that reflect the actual occupational distribution of hospital employment at the level of nine broad BLS occupational categories, but—following a “normative” approach—use economy-wide occupational Employment Cost Indexes (ECIs) to represent labor costs. The Professional and Technical Occupation category is an exception, and is split equally between the economy-wide ECI and the ECI for all hospital workers to reflect the fact that some element of hospital compensation reflects industry-specific human capital rather than distortion-induced rents.

The new PPS uses exclusively hospital-specific wage and benefit indices to measure compensation costs.

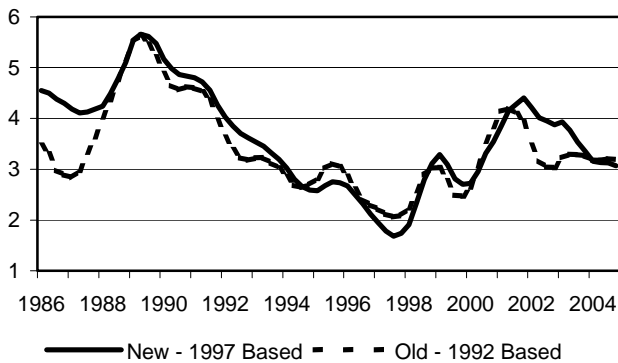
EXHIBIT 1 Weights for the New CMS PPS Market Basket

		New - 1997 Weights
Compensation		61.7%
ECIWSCVHOSNS	ECI, Wages & Salaries, Civilian Hospitals	50.7%
ECIBCVHOSNS	ECI, Benefits, Civilian Hospitals	11.0%
Professional Fees		5.4%
ECIWSSPWP&TNS	ECI, Compensation, Professional and Technical Workers	5.4%
Utilities		1.4%
WPI0542NS	WPI, Commercial Electric Power	0.8%
WPI0552NS	WPI, Commercial Natural Gas	0.3%
CUSEHG01NS	CPI, Water & Sewage	0.2%
Malpractice Insurance		0.8%
MALPRACT	CMS Professional Liability Premium	0.8%
All Other Products		19.5%
WPI0635NS	WPI, Prescription Drugs	5.4%
WPI02NS	WPI, Processed Foods	1.4%
CUSEFVNS	CPI, Food Away from Home	1.3%
WPI061NS	WPI, Industrial Chemicals	2.6%
WPI063711NS	WPI, Blood & Derivatives	0.9%
WPI1562NS	WPI, Medical Instruments & Equipment	2.2%
WPI1542NS	WPI, Photo Supplies	0.2%
WPI07NS	WPI, Rubber & Plastic Products	1.7%
WPI0915NS	WPI, Converted Paper and Paperboard	1.4%
WPI0381NS	WPI, Apparel	0.6%
WPI11NS	WPI, Machinery & Equipment	1.0%
WPI03500NS	WPI, Finished goods less food and energy	1.0%
All Other Services		11.2%
CUSEEDNS	CPI, Telephone Services	0.4%
CUSEEC01NS	CPI, Postage	0.9%
ECIWSSPSVCNS	ECI, Compensation, Service Workers	5.4%
CUSA0NS	CPI, All Urban, All Items	4.5%

EXHIBIT 2

New Wage Measures Makes the Difference

(Percent change, moving average)



During much of the 1980s and early 1990s, hospital wages increased at a faster rate than the overall economy due to market imperfections in the hospital labor markets. This switch to the hospital-specific measures in the new PPS reflects CMS’ belief that the recent surge in hospital wages is reflective of competitive labor market conditions.

Other differences between the components within the new and old PPS is as follows:

- *addition of a separate Blood cost category*
- *switched the inflation proxy for miscellaneous products from WPISOP3000NS to WPISOP3500NS – the primary difference is that the latter excludes food and energy products but both represent the price of finished goods.*

The weighting factors were also updated between the new and old PPS. The weights for compensation costs were basically the same; however, there were a few categories that were different. The weight for non-medical professional fees more than doubled - from 2.1% to 5.4%. The cost share devoted to rubber and plastic products declined from 4.8% to 1.7%. Exhibit 1 shows the new weights for the PPS market basket index.

Background: The Revision Process

There are three stages to revising a market basket:

- 1 Analysis of the market basket structure and definition of cost categories.
- 2 Recalculation of market basket weights based on the composition of input costs for a more recent base year.
- 3 Selection of the wage and price proxies corresponding to each cost category.

Defining Cost Categories within the Market Baskets

Identifying cost categories is dependent on the level of cost detail which can be monitored accurately and consistently. Cost categories are defined to be both exhaustive and mutually exclusive. If the composition of costs has changed or new data have become available, the market basket may be revised to include more detailed categories or to eliminate ones which no longer account for a sufficiently large fraction of costs.

Calculating Weights based on Recent Base Year

If the relative volume of inputs to the production of nursing services changes without a corresponding price movement, or the relative price of inputs change without offsetting changes in volume, then the composition of nursing facility costs will be affected. Since a Laspeyres index is a fixed weight index, periodic updates to the index weights must be made in order to accurately reflect evolving cost structures. CMS primarily uses the Medicare Cost Report data to determine the composition of costs. Periodic updates undermine the consistency of the series; however, some inconsistency is preferable to a completely outdated measure of cost structure.

Selecting Proxy Variables

Given existing data, proxy variables are chosen for conceptual consistency with an appropriate cost category. For the most part, the selected proxies provide close approximations to the desired price category based on producer or consumer price indexes compiled by the US Bureau of Labor Statistics. When there are no closely related price variables for a category, CMS may choose a more general price index to measure that category of the market basket.

Proposed Revisions to the Hospital Prospective Reimbursement Market Basket Index

TABLE 3.1

CMS Hospital Prospective Reimbursement Market Basket (PPS)

(Federal Fiscal Year 1997=1.000)

	1999:1	1999:2	1999:3	1999:4	2000:1	2000:2	2000:3	2000:4	2001:1	2001:2	2001:3	2001:4
Total	1.198	1.205	1.215	1.227	1.238	1.252	1.265	1.276	1.294	1.304	1.312	1.319
%	0.4	0.6	0.8	1.0	0.9	1.1	1.0	0.9	1.4	0.8	0.6	0.5
%CHYA	2.7	2.2	2.2	2.8	3.3	3.9	4.1	4.0	4.5	4.2	3.7	3.4
%MOVAVG	3.0	2.8	2.5	2.5	2.6	3.1	3.6	3.8	4.1	4.2	4.1	3.9
Compensation	1.052	1.058	1.068	1.079	1.088	1.096	1.110	1.123	1.136	1.154	1.171	1.186
%	0.8	0.6	0.9	1.0	0.9	0.8	1.3	1.2	1.2	1.6	1.5	1.3
%CHYA	3.1	2.9	2.9	3.4	3.4	3.7	4.0	4.1	4.5	5.3	5.5	5.6
%MOVAVG	2.8	2.9	2.9	3.1	3.2	3.4	3.6	3.8	4.1	4.5	4.8	5.2
Budget Share	0.616	0.616	0.617	0.617	0.618	0.617	0.618	0.620	0.618	0.621	0.625	0.628
Wages and Salaries												
ECIWSCVHOSNS	1.051	1.056	1.067	1.078	1.086	1.094	1.109	1.121	1.133	1.151	1.169	1.184
%	0.7	0.5	1.0	1.0	0.7	0.8	1.3	1.1	1.0	1.6	1.5	1.3
%CHYA	2.9	2.7	2.7	3.2	3.3	3.6	3.9	4.0	4.3	5.2	5.4	5.6
%MOVAVG	2.8	2.8	2.7	2.9	3.0	3.2	3.5	3.7	4.0	4.4	4.8	5.1
Budget Share	0.506	0.506	0.507	0.507	0.507	0.507	0.508	0.509	0.507	0.510	0.513	0.516
Employee Benefits												
ECIBCVHOSNS	1.054	1.064	1.071	1.083	1.098	1.106	1.118	1.133	1.153	1.168	1.182	1.197
%	1.4	0.9	0.7	1.2	1.4	0.7	1.1	1.3	1.8	1.2	1.2	1.3
%CHYA	4.0	3.8	3.8	4.2	4.2	4.0	4.4	4.6	5.1	5.6	5.7	5.6
%MOVAVG	2.9	3.2	3.5	4.0	4.0	4.1	4.2	4.3	4.5	4.9	5.2	5.5
Budget Share	0.110	0.110	0.110	0.110	0.111	0.111	0.111	0.111	0.112	0.112	0.112	0.113
Professional Fees												
ECIWSSPW&TNS	1.057	1.066	1.073	1.085	1.097	1.114	1.125	1.137	1.156	1.164	1.177	1.185
%	0.2	0.8	0.7	1.0	1.1	1.6	1.0	1.0	1.7	0.7	1.1	0.7
%CHYA	3.0	2.8	2.6	2.9	3.8	4.6	4.8	4.8	5.4	4.5	4.6	4.3
%MOVAVG	3.3	3.2	3.0	2.8	3.0	3.4	4.0	4.5	4.9	4.9	4.8	4.7
Budget Share	0.054	0.054	0.054	0.054	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055
Malpractice Insurance												
MALPRACT	1.017	1.017	1.017	1.017	1.023	1.021	1.024	1.029	1.034	1.040	1.048	1.054
%	0.7	0.0	0.0	0.0	0.5	-0.2	0.3	0.5	0.5	0.6	0.7	0.6
%CHYA	2.1	2.1	1.6	0.7	0.5	0.3	0.6	1.1	1.1	1.9	2.3	2.4
%MOVAVG	1.0	1.5	1.8	1.6	1.2	0.8	0.5	0.6	0.8	1.2	1.6	2.0
Budget Share	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Utilities												
UTILITIES	0.976	0.986	1.033	1.004	1.001	1.031	1.112	1.127	1.234	1.184	1.178	1.109
%	-1.4	1.0	4.7	-2.7	-0.3	3.0	7.9	1.4	9.5	-4.1	-0.5	-5.8
%CHYA	-0.7	-0.7	0.4	1.4	2.5	4.5	7.7	12.2	23.3	14.9	6.0	-1.6
%MOVAVG	-0.5	-0.7	-0.6	0.1	0.9	2.2	4.1	6.8	11.9	14.5	13.9	10.2
Budget Share	0.013	0.013	0.013	0.013	0.012	0.013	0.014	0.014	0.015	0.014	0.014	0.013
All Other												
%	0.0	0.4	0.4	1.0	0.5	0.8	0.7	0.4	1.4	0.5	-0.3	0.1
%CHYA	3.5	1.7	1.2	1.9	2.4	2.7	3.0	2.4	3.3	3.0	1.9	1.7
%MOVAVG	4.5	3.7	2.8	2.1	1.8	2.0	2.5	2.6	2.8	2.9	2.6	2.5
Budget Share	0.309	0.309	0.308	0.308	0.307	0.307	0.305	0.304	0.304	0.302	0.298	0.297
All Other Products												
AOPRODUCTS	1.066	1.068	1.073	1.084	1.088	1.096	1.103	1.105	1.121	1.124	1.114	1.113
%	-0.4	0.3	0.4	1.1	0.4	0.7	0.6	0.2	1.4	0.3	-0.9	-0.1
%CHYA	4.1	1.2	0.5	1.3	2.1	2.6	2.8	2.0	3.0	2.6	1.0	0.7
%MOVAVG	5.7	4.5	3.0	1.7	1.3	1.6	2.2	2.4	2.6	2.6	2.2	1.8
Budget Share	0.198	0.197	0.196	0.197	0.196	0.196	0.195	0.193	0.193	0.192	0.189	0.187
All Other Services												
AOSERVICES	1.047	1.055	1.059	1.068	1.077	1.086	1.094	1.102	1.116	1.126	1.133	1.139
%	0.9	0.7	0.4	0.8	0.8	0.9	0.7	0.7	1.3	0.9	0.6	0.6
%CHYA	2.4	2.7	2.5	2.9	2.8	3.0	3.3	3.2	3.6	3.6	3.5	3.4
%MOVAVG	2.3	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.3	3.4	3.5	3.5
Budget Share	0.112	0.112	0.111	0.111	0.111	0.111	0.111	0.111	0.110	0.110	0.110	0.110

Note: For a detailed description of the CMS designated index proxies, refer to the preceding table

Proposed Revisions to the Hospital Prospective Reimbursement Market Basket Index

TABLE 3.1 (Continued)

CMS Hospital Prospective Reimbursement Market Basket (PPS)

(Federal Fiscal Year 1997=1.000)

	2002:1	2002:2	2002:3	2002:4	2003:1	2003:2	2003:3	2003:4	2004:1	2004:2	2004:3	2004:4
Total	1.329	1.342	1.354	1.362	1.374	1.384	1.396	1.406	1.417	1.428	1.442	1.451
%	0.8	1.0	0.9	0.6	0.9	0.7	0.9	0.7	0.8	0.8	1.0	0.6
%CHYA	2.7	2.9	3.2	3.3	3.4	3.1	3.1	3.2	3.1	3.2	3.3	3.2
%MOVAVG	3.5	3.2	3.0	3.0	3.2	3.2	3.2	3.2	3.1	3.2	3.2	3.2
Compensation	1.199	1.214	1.228	1.238	1.249	1.256	1.270	1.280	1.290	1.298	1.312	1.322
%	1.1	1.3	1.1	0.9	0.9	0.6	1.1	0.8	0.7	0.6	1.1	0.8
%CHYA	5.5	5.2	4.8	4.4	4.1	3.5	3.4	3.4	3.3	3.3	3.3	3.3
%MOVAVG	5.5	5.5	5.3	5.0	4.6	4.2	3.9	3.6	3.4	3.3	3.3	3.3
Budget Share	0.630	0.630	0.630	0.631	0.632	0.631	0.632	0.632	0.633	0.632	0.633	0.634
Wages and Salaries												
ECIWSCVHOSNS	1.196	1.212	1.225	1.235	1.246	1.253	1.267	1.276	1.286	1.294	1.308	1.319
%	1.0	1.3	1.1	0.9	0.9	0.6	1.1	0.8	0.8	0.6	1.1	0.8
%CHYA	5.6	5.2	4.8	4.3	4.2	3.4	3.4	3.3	3.2	3.3	3.3	3.3
%MOVAVG	5.5	5.5	5.3	5.0	4.6	4.2	3.8	3.6	3.3	3.3	3.3	3.3
Budget Share	0.517	0.516	0.516	0.518	0.518	0.518	0.518	0.518	0.519	0.518	0.519	0.520
Employee Benefits												
ECIBCVHOSNS	1.212	1.227	1.242	1.252	1.263	1.271	1.286	1.298	1.307	1.314	1.330	1.338
%	1.3	1.2	1.2	0.8	0.8	0.7	1.2	0.9	0.7	0.5	1.2	0.7
%CHYA	5.1	5.1	5.1	4.6	4.1	3.6	3.5	3.7	3.5	3.3	3.4	3.1
%MOVAVG	5.5	5.4	5.2	5.0	4.8	4.4	4.0	3.7	3.6	3.5	3.5	3.3
Budget Share	0.113	0.113	0.113	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114
Professional Fees												
ECIWSSPW&TNS	1.194	1.205	1.216	1.224	1.237	1.248	1.261	1.272	1.283	1.296	1.309	1.319
%	0.7	0.9	0.9	0.7	1.1	0.9	1.0	0.9	0.9	1.0	1.0	0.8
%CHYA	3.3	3.5	3.2	3.3	3.6	3.6	3.7	3.9	3.7	3.8	3.8	3.7
%MOVAVG	4.2	3.9	3.6	3.3	3.4	3.4	3.6	3.7	3.7	3.8	3.8	3.8
Budget Share	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055
Malpractice Insurance												
MALPRACT	1.061	1.069	1.079	1.088	1.096	1.106	1.115	1.125	1.133	1.143	1.154	1.163
%	0.7	0.8	0.9	0.9	0.8	0.9	0.8	0.8	0.7	0.9	0.9	0.8
%CHYA	2.6	2.8	3.0	3.3	3.3	3.4	3.4	3.3	3.3	3.4	3.5	3.4
%MOVAVG	2.3	2.5	2.7	2.9	3.1	3.2	3.3	3.4	3.4	3.4	3.4	3.4
Budget Share	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Utilities												
UTILITIES	1.084	1.109	1.136	1.115	1.131	1.139	1.170	1.157	1.163	1.169	1.203	1.181
%	-2.3	2.3	2.5	-1.9	1.5	0.7	2.8	-1.1	0.5	0.5	2.9	-1.8
%CHYA	-12.2	-6.4	-3.6	0.5	4.4	2.7	3.1	3.8	2.8	2.7	2.8	2.1
%MOVAVG	1.1	-3.8	-6.1	-5.6	-1.4	0.9	2.6	3.5	3.1	3.1	3.0	2.6
Budget Share	0.012	0.013	0.013	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.012
All Other	1.128	1.142	1.152	1.158	1.164	1.172	1.180	1.188	1.195	1.201	1.210	1.215
%	0.5	1.2	0.9	0.5	0.6	0.7	0.7	0.7	0.6	0.5	0.7	0.4
%CHYA	0.8	1.5	2.8	3.1	3.2	2.6	2.4	2.6	2.6	2.5	2.6	2.3
%MOVAVG	1.8	1.5	1.7	2.1	2.7	2.9	2.8	2.7	2.6	2.5	2.6	2.5
Budget Share	0.296	0.295	0.295	0.294	0.294	0.294	0.293	0.293	0.292	0.292	0.291	0.291
All Other Products												
AOPRODUCTS	1.118	1.133	1.141	1.146	1.151	1.159	1.165	1.173	1.180	1.184	1.193	1.195
%	0.4	1.3	0.7	0.5	0.4	0.6	0.5	0.7	0.5	0.4	0.7	0.2
%CHYA	-0.3	0.7	2.4	3.0	3.0	2.3	2.1	2.4	2.5	2.2	2.4	1.9
%MOVAVG	1.0	0.5	0.9	1.4	2.3	2.7	2.6	2.4	2.3	2.3	2.4	2.2
Budget Share	0.186	0.186	0.185	0.185	0.185	0.184	0.184	0.184	0.183	0.183	0.182	0.182
All Other Services												
AOSERVICES	1.147	1.158	1.173	1.178	1.187	1.196	1.206	1.214	1.222	1.231	1.241	1.249
%	0.7	0.9	1.3	0.5	0.8	0.7	0.9	0.7	0.6	0.8	0.8	0.7
%CHYA	2.8	2.8	3.5	3.4	3.5	3.3	2.8	3.0	2.9	3.0	2.9	2.9
%MOVAVG	3.3	3.1	3.1	3.1	3.3	3.4	3.3	3.2	3.0	2.9	3.0	2.9
Budget Share	0.110	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109

Note: For a detailed description of the CMS designated index proxies, refer to the preceding table