# The Medicare Economic Index: Its Background and Beginnings

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## Introduction

Title XVIII of the Social Security Act established the Medicare program to provide health insurance benefits for the aged and disabled. Title XVIII is divided into two sections: Part A, Hospital Insurance (HI) and Part B, Supplementary Medical Insurance (SMI). Part A pays for part of the cost of inpatient hospital care and related health care services provided by skilled nursing facilities and home health agencies. Part B provides coverage for a variety of medical services and supplies furnished by physicians or other health care professionals in connection with physicians' services, outpatient hospital services, and home health services.

In response to concerns about rising physician fees reimbursed under Part B of the Medicare Program, Congress mandated that an additional fee limit be included in the calculation of "reasonable" charges. Under Section 224 of the Social Security Act Amendments of 1972, the prevailing charge—an amount equal to the maximum reasonable charge allowed physicians for a specific procedure in a specific locality—could exceed the July 1972-June 1973 prevailing charge only by an amount reflected by an index of changes in physicians' operating expenses and earnings levels. This index, sometimes labelled the Medicare Economic Index (MEI), was first promulgated in June 1975, and became effective as of July 1, 1975. The value of the Index has been updated annually since then.

This paper will provide a brief overview of the MEI. It will describe the role of the MEI in the reasonable charge process, the construction and data sources for the MEI, and it will present the statistics used in establishing values for the MEI since its inception.

## The Determination of the Reasonable Charge

The Medicare reasonable charge process is similar to the physician fee review system used by most private insurers. The standards used in the Medicare review system are based on claims from physicians within a specified locality, and are updated annually. The standards in effect for any fee screen year (July 1-June 30) are based on charges submitted during the calendar year preceding the fee screen year. For example, the charge limits for the fee screen year ending June 30, 1980 were based on charges received during calendar year 1978. Calculations for the charge limits are performed by the Medicare carriers, the private organizations that receive, process, and reimburse Part B claims.

The reasonable "charge" for a particular procedure for any physician's claim is determined to be lowest of:

1) the submitted charge;
2) the customary charge for that procedure for that physician; or
3) the prevailing charge for that procedure for all peer physicians in that physician's locality.

The first level of review compares the submitted charge to the physician's customary charge for that procedure. The customary charge is defined as the median charge submitted by a physician during the previous calendar year preceding the fee screen year. For example, if during calendar year 1978 a physician had submitted three claims of $10, $14, and $15 for a particular service, the customary charge would be established as $14 (for the fee screen year July 1979-June 1980).

The second level of review involves the prevailing charge. The prevailing charge is based on the submitted charges of all "peer" physicians within a "locality." Typically, peer physicians include all physicians within a particular specialty. (Some carriers do not recognize all of the different specialties, or they distinguish only between general or family practitioners and all other specialists.) A "locality" should represent a distinct physician market area. (Some carriers have defined an entire State as a single locality. Other carriers have combined sets of political subdivisions, such as counties, into two or more localities.)

Prior to the MEI, the (unadjusted) prevailing charge for a procedure was defined as the lowest charge for that procedure (within a specific locality) which was greater than or equal to the seventyfifth percentile of all customary charges submitted by peer physicians weighted by billing volume. With the advent of the MEI, the prevailing charge is the lesser of: (1) the unadjusted prevailing; or (2) the product of the fee screen year 1973 prevailing multiplied by the value of the MEI.

The following table can provide an example. In this illustration, customary charges from five physicians are used to determine the prevailing charge for procedure X for fee screen year (FSY) 1982. The prevailing

charge for this procedure for FSY 1973 was $100. The unadjusted prevailing would have been set at $185 since this is the lowest customary charge above the seventyfifth percentile. However, multiplying the MEI for FSY 1982 (Table 1) by the FSY 1973 prevailing yields a product of $179.00. Hence, the adjusted prevailing for procedure X is $179.00. The MEI can thus reduce allowed charges for both physicians who were at or above the unadjusted prevailing and physicians whose customary charges were less than the unadjusted prevailing.

Determination of FSY 1982
Prevailing Charge for Procedure X

| Physician | Customary Charge | Number of Services Provided |
|---|---|---|
| A | 170 | 10 |
| B | 175 | 20 |
| C | 180 | 40 |
| D | 185[1] | 20 |
| E | 190 | 10 |

| FSY 73 Prevailing | FSY 80 MEI | FSY 80 Unadjusted Prevailing | FSY 80 Adjusted Prevailing |
|---|---|---|---|
| $100 | 1.790 | $185 | $179 |

[1]unadjusted prevailing

## The Determination of the Medicare Economic Index

As noted previously, the MEI was mandated by Congress in 1972. Although the legislation did not require a specific type of Index, the general form of the Index follows the recommendations of the Senate Finance Committee. The MEI consists of two categories, one reflecting increases in physician practice costs and the other reflecting increases in general earning levels.

These categories have been given weights of 40 percent and 60 percent, respectively, reflecting the average division of physician gross revenues between practice expenses and net income. The physician practice costs portion is currently composed of six components with each assigned specific weights. The six components are: (1) Salaries and Wages; (2) Office Space; (3) Drugs and Supplies; (4) Automobile Expense; (5) Malpractice Insurance Premiums; and (6) Other Expenses. The values of these weights are shown in Table 2.

Various proxy indices are used to estimate price changes for those components. The Salaries and Wages component of the MEI is based on the Bureau of Labor Statistics (BLS) index of hourly earnings of nonsupervisory workers in finance, insurance, and real estate. The Office Space component is based on the housing component of the Consumer Price Index (CPI). The Drugs and Supplies component is based on the Drugs and Pharmaceutical component of the Producer Price Index (PPI). Automobile Expense is based on the Private Transportation component of the CPI. The Other Expenses component is based on the entire CPI, and covers costs for items such as: insurance, other than malpractice; depreciation on medical equipment; attorneys' fees; accountants' fees; entertainment; travel; food and lodging while away from home; office furniture and decorations; and other incidental expenses.

When the MEI was originally promulgated, malpractice premium expenses were not included as a separate component of the Index. However, in 1975, as a result of increases in premium rates, malpractice insurance premiums began to constitute a significantly greater share of physicians' office costs. As a result, a decision was made to include malpractice premiums as a separate component of the MEI. The original MEI had included malpractice as part of the Other Expenses category tied to the Consumer Price Index. Data used in calculating the initial malpractice component was acquired from a survey of the major malpractice insurers. Comparable surveys have been conducted annually to update the malpractice price component.

The second category of the MEI, reflecting increases in general earnings levels, has been addressed through the inclusion of the BLS Index of average weekly earnings of nonagricultural production and nonsupervisory workers. This index is modified by excluding increases in worker's productivity. This modification avoids a double counting of gains or losses in earnings resulting from changes in productivity.

## Sources for Physician Data

Fiscal Year (FY) 1973 was established by law as the base year for the MEI; FY 1976 was the initial year of implementation. The components used in calculating the FY 1976 value were derived from the previous calendar year's data. These initial components and weights were based on data published in the November 20, 1972 edition of the journal *Medical Economics* and the 1974 American Medical Association's *Profile of Medical Practice.*

To provide more recent data and to investigate potential refinements of the MEI, HCFA has conducted several surveys of physician practice costs and incomes. These surveys have been conducted annually from 1976 through 1979. Their purpose is to gather data on the previous year's practice costs and the current year's practice patterns.

The initial survey concentrated on office based physicians and was conducted to determine: (1) the principal cost elements; (2) some details of administrative cost (scheduling, billing, forms completion, accounting and collection time, labor, equipment, and services); (3) customary fees for selected services, and typical third-party remuneration; and (4) attitudes toward Medicare and Medicaid participation, acceptance of Medicare benefits assignments, and participation in private health insurance. The initial survey included a national sample of 1,000 physicians and a regional sample of 1,000 additional physicians. Subsequent surveys have expanded both the sample size and the scope of the survey questionnaire.

## Statistics from the MEI

The accompanying Tables document the changes that have been made in the MEI since it first was promulgated in 1975. Table 1 includes the values of the Index from fee screen years 1976 to 1982. The latest MEI was published in July 1981; it now stands at a value of 1.7903. As a result of periodic revisions of the CPI and PPI by the Bureau of Labor Statistics, corrected values for prior fee screen years are always calculated and published each time the MEI is updated. These values are also included in Table 1.

Table 2 contains the weights that have been used in calculating the MEI. The weights have been revised four times, reflecting the availability of more current data on physician practice costs and incomes and the introduction of the malpractice premium component. Finally, Table 3 illustrates the price changes that have been included each year for each of the components, based on 1981 Bureau of Labor Statistics data for the years 1971 through 1980.

**TABLE 1**
**Values[1] of the Economic Index**

| Year of Publication | Fee Screen Year 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 |
|---|---|---|---|---|---|---|---|
| 1975[2] | 1.1793 | | | | | | |
| 1976[3] | 1.1816 | 1.2764 | | | | | |
| 1977[4] | 1.1940 | 1.2849 | 1.3567 | | | | |
| 1978[5] | 1.1901 | 1.2800 | 1.3496 | 1.4257 | | | |
| 1979[6] | 1.1887 | 1.2732 | 1.3431 | 1.4304 | 1.5333 | | |
| 1980[7] | 1.1880 | 1.2725 | 1.3424 | 1.4267 | 1.5289 | 1.6576 | |
| 1981[8] | 1.1761 | 1.2583 | 1.3294 | 1.4098 | 1.5168 | 1.6386 | 1.7903 |
| MEI for Payment Purposes | 1.179 | 1.276 | 1.357 | 1.426 | 1.533 | 1.658 | 1.790 |
| % Change from Previous Year | — | 8.23 | 6.29 | 5.09 | 7.55 | 8.15 | 7.96 |

[1]Because the Bureau of Labor Statistics periodically revised some of the statistics and data on which the MEI is based, previous year's values of the MEI are recomputed each time a new MEI is published. The values used for payment purposes are identified in the next to last row in Table 1. For this purpose, the calculated MEI value is rounded to three decimal places.
[2]*Federal Register*, June 16, 1975.
[3]*Federal Register*, September 8, 1976.
[4]*Federal Register*, September 2, 1977.
[5]*Federal Register*, June 30, 1978.
[6]*Federal Register*, June 29, 1979.
[7]*Federal Register*, June 27, 1980.
[8]Draft Federal Register notice, May 11, 1981.

**TABLE 2**
**Medicare Economic Index**

| | FSY 1976[1] | FSY 1977[2] | FSY 1978[3] | FSY 1979 | FSY 1980 | FSY 1981[4] | FSY 1982[5] |
|---|---|---|---|---|---|---|---|
| 1. Physician Employees Index Weight | .1480 | .1480 | .1720 | .1720 | .1720 | .1760 | .1720 |
| 2. Rental Cost Index Weight | .0560 | .0600 | .0400 | .0400 | .0400 | .0880 | .1000 |
| 3. Auto Expenses Index Weight | .0240 | .0280 | .0200 | .0200 | .0200 | .0240 | .0280 |
| 4. Supplies Index Weight | .0360 | .0360 | .0320 | .0320 | .0320 | .0440 | .0400 |
| 5. Other Index Weight | .1360 | .1120 | .1080 | .1080 | .1080 | .0160 | .0160 |
| 6. Malpractice Premiums[6] Index Weight | — | .0160 | .0280 | .0280 | .0280 | .0520 | .0440 |
| 7. Physician Net Income Index Weight | .6000 | .6000 | .6000 | .6000 | .6000 | .6000 | .6000 |

[1]The weights, excluding the malpractice component, were derived from *Medical Economics* (November 20, 1972) and *Profile of Medical Practice* (1974 edition). The values are 0.37, 0.14, 0.06, 0.09, and 0.34 for components one through five, respectively. In addition to the above weights, a 40-60% breakdown of gross income between office practice costs and physician's earnings was used.

[2]The weights, including the malpractice component, were derived from *Medical Economics* (December 8, 1975) and *Profile of Medical Practice* (1974 edition). The values are 0.37, 0.15, 0.07, 0.09, 0.28, and 0.04 for components one through six, respectively. In addition to the above weights, a 40-60% breakdown of gross income between office practice costs and physician's earnings was used.

[3]The weights, including the malpractice component, were derived from a special study done for HCFA by a consultant in 1977, involving a survey from office based physicians in five specialities. The values are 0.43, 0.10, 0.05, 0.08, 0.27, and 0.07 for components one through six, respectively. In addition to the above weights, a 40-60% breakdown of gross income between office practice costs and physician's earnings was used.

[4]The weights, including the malpractice component, were derived from a special study done for HCFA by a consultant in 1980. The values are 0.44, 0.22, 0.06, 0.11, 0.04, and 0.13 for components one through six, respectively. In addition to the above weights, a 40-60% breakdown of gross income between office practice costs and physician's earnings was used.

[5]The weights, including the malpractice component, were derived from a special study done for HCFA by a consultant in 1981. The values are 0.43, 0.25, 0.07, 0.10, 0.04, and 0.11 for components are through six, respectively.

[6]Derived from a survey of several major insurers.

**TABLE 3**
**Increase Values of the Components of the Medicare Economic Index[1]**

| | FSY 1976[2] | FSY 1977[3] | FSY 1978 | FSY 1979 | FSY 1980 | FSY 1981 | FSY 1982 |
|---|---|---|---|---|---|---|---|
| 1. Physician Employees | 1.1682 | 1.0812 | 1.0557 | 1.0550 | 1.0771 | 1.0777 | 1.0968 |
| 2. Rental Cost | 1.2116 | 1.1076 | 1.0624 | 1.0700 | 1.0863 | 1.1229 | 1.1569 |
| 3. Auto Expenses | 1.1715 | 1.0966 | 1.0988 | 1.0729 | 1.0493 | 1.1489 | 1.1747 |
| 4. Supplies | 1.1006 | 1.1233 | 1.0585 | 1.0485 | 1.0541 | 1.0763 | 1.0941 |
| 5. Other | 1.2176 | 1.0914 | 1.0577 | 1.0645 | 1.0760 | 1.1147 | 1.1346 |
| 6. Malpractice Premiums | — | 1.8400[4] | 1.4170 | 1.1030 | 1.0085 | .9210 | 1.0526 |
| 7. Physician Net Income | | | | | | | |
| a. Gross of Productivity | 1.2156 | 1.0567 | 1.0729 | 1.0772 | 1.0778 | 1.0766 | 1.0720 |
| b. Productivity Measure | 1.0391 | 1.0204 | 1.0326 | 1.0194 | .9980 | .9920 | .9939 |
| c. Net of Productivity | 1.1699 | 1.0356 | 1.0390 | 1.0567 | 1.0800 | 1.0853 | 1.0786 |

[1]Entries are the ratios of the average value of a component for a calendar year to the average value for a preceding calendar year. Data presented are based on 1980 Bureau of Labor Statistics information.

[2]For fee screen year (FSY) 1976, the initial year of MEI implementation increase, values were computed by comparing calendar 1974 values of the components to calendar 1971 values.

[3]For FSY 1977 and all subsequent fee screen years, increase values were computed by comparing the two most recent calendar years preceding the beginning of a fee screen year. For example, FSY 1977 increase values were derived by comparing 1975 data to 1974 data.

[4]The initial increase value for malpractice premiums was derived by comparing 1975 survey data to 1974 data.

Prepared by the Division of Medicare Cost Estimates, Office of Financial and Actuarial Analysis, Health Care Financing Administration, April 1981.