To Subscribe: https://fulfillment.healthaffairs.org
Federal budget legislation enacted during the 1980s looked to Medicare, the federal health insurance program for the elderly and disabled, as a prime target for savings. In this DataWatch, I use two approaches to estimate the impact of such legislation on gross federal spending for Medicare. Each approach is imperfect; yet both yield similar implications: that current federal spending for Medicare is about 82 percent of what it would have been in the absence of legislation.

The first approach shows the effect the Congressional Budget Office (CBO) expected the legislation to have at the time of enactment, assuming no further legislative changes and no major changes in underlying trends in the health sector; The estimates for each year’s legislation were based on a unique set of economic and spending projections believed applicable at the time the estimates were made. There is no assurance that these estimates accurately reflect savings actually achieved. The second approach shows how actual spending diverged from what spending would have been had previous trends continued. It is unlikely, however, that previous trends would have continued whether or not Medicare legislation was passed. One reason is that important technological advances in the health care sector have made it possible to provide beneficial services to more enrollees and, to a greater extent, outside of the hospital.

Except for 1988, the provisions examined were contained in the annual budget reconciliation acts passed from 1981 through 1990. In 1988, there was no budget reconciliation act, but the Medicare Catastrophic Coverage Act was passed. Almost all of the new Medicare benefits provided under this act were subsequently repealed, however. Only new benefits under the Hospital Insurance program were implemented, and they were in place only for calendar year 1989. The only new Medicare benefit to survive repeal of the Medicare Catastrophic Coverage Act was a relaxation of the blood deductible requirement.¹

Sandra Christensen is principal analyst/economist at the Congressional Budget Office in Washington, D.C.
Only legislative changes that altered payment or coverage provisions are included in this analysis. Those changes that altered Medicare receipts through premiums or taxes are not considered. Thus, the effects shown are those on gross federal disbursements under Medicare, rather than on costs net of offsetting receipts.

In brief, the analysis indicates that legislation over the decade reduced expected costs by 1.9 percent a year, on average, relative to what spending under Medicare would otherwise have been, as projected by CBO at the time of enactment. Physicians and hospital outpatient departments account for a disproportionately large share of the anticipated savings, while expected savings from other service categories (hospital inpatient, nursing, and home health) are small in proportion to base disbursements for them.

Overall, Medicare spending per enrollee in 1990 was about 82 percent of what it would have been if its growth rate between 1975 and 1980 had continued. Growth in real spending per enrollee for physician services during the 1980s was nearly as rapid as it was in the late 1970s, while growth in spending for most other service categories decelerated. A major exception, however, is spending for skilled nursing facilities (SNFs). From 1975 through 1980, real spending per enrollee for SNFs fell. This trend was reversed during the 1980s. In 1988, growth in SNF spending accelerated sharply because of a (court-induced) revision in the manual used by administrative agents to determine Medicare coverage, which greatly relaxed the definition of covered care to make it conform with legislative language. Growth in SNF spending further accelerated in 1989 under provisions of the Medicare Catastrophic Coverage Act, which briefly eliminated the requirement for a hospital stay prior to a covered SNF stay and reduced the copayments required of enrollees for SNF stays.

Estimated Impact Using CBO Cost Estimates

Exhibit 1 shows CBO’s estimates of three-year savings under each bill, presented as a percentage of base disbursements under Medicare—that is, as a percentage of expected Medicare spending for the same period in the absence of the legislation. For the bill passed in 1990, for example, estimated savings for 1991–1993 are shown as a percentage of estimated baseline spending for 1991–1993. Estimates for three rather than five years are used because only three-year estimates are available for the early 1980s. One-year estimates are not used because they understate the expected effects of provisions that became effective sometime after the start of the fiscal year, and because they overstate the effects of provisions that simply shifted spending from one fiscal year to another.
### Exhibit 1

<table>
<thead>
<tr>
<th>Year of enactment</th>
<th>Expected savings as percent of base</th>
<th>Percent distribution of expected savings by service category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administrative</td>
<td>Total benefits</td>
</tr>
<tr>
<td>1981</td>
<td>2.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>1982</td>
<td>5.5</td>
<td>0.3</td>
</tr>
<tr>
<td>1983</td>
<td>-0.1</td>
<td>2.4</td>
</tr>
<tr>
<td>1984</td>
<td>1.8</td>
<td>1.4</td>
</tr>
<tr>
<td>1985</td>
<td>1.3</td>
<td>-0.7</td>
</tr>
<tr>
<td>1986</td>
<td>-0.4</td>
<td>8.3</td>
</tr>
<tr>
<td>1987</td>
<td>3.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>1988(^a)</td>
<td>-0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1989</td>
<td>1.1</td>
<td>-6.1</td>
</tr>
<tr>
<td>1990</td>
<td>4.2</td>
<td>-0.5</td>
</tr>
</tbody>
</table>

Average 1981–1990 1.9%  -0.4%  100.4%  55.6%  0.7%  1.2%  8.9%  33.9%

**Source:** Congressional Budget Office.

**Note:** This exhibit uses three-year estimates made at the time of enactment for each bill (for example, 1982–1984 for 1951 bill). Negative values for percent of base indicate net costs rather than savings. Except for the "percent of base" column, averages are weighted by the percentages in that column.

\(^a\) Only the benefit expansion associated with the blood deductible is shown for legislation in 1988 because other new Medicare benefits enacted in 1988 were repealed.

Legislation was expected to result in small net increases in Medicare disbursements in three of the years examined (those with negative values for savings as a percentage of base spending), but savings in the other seven years were expected to be large enough to yield annual savings of 1.9 percent of base spending, on average, for legislation passed from 1981 through 1990. Nearly 56 percent of the anticipated savings were expected to come from changes in payment provisions for hospital inpatient services, while about 34 percent of expected savings resulted from provisions affecting physician services.

The estimated average reduction due to legislation can be used to assess the expected effects on current spending for Medicare. If any initial projection for Medicare spending had been reduced by 1.9 percent each year, cumulatively from 1982 on, spending for 1990 would be 84 percent of the original projection for that year. Spending for 1991 would be 82 percent of the original projection.

Exhibit 2 compares the share of total savings expected from each service category with the share of disbursements accounted for by that category in the year of enactment. For example, 51.6 percent of anticipated savings under the 1981 bill were expected to come from the hospital inpatient category (Exhibit 1), which accounted for 65.3 percent of Medicare disbursements in 1981. Thus, this category’s share of antici-
Exhibit 2
Expected Medicare Savings Share Relative To Share Of Previous Year’s Disbursements, By Service Category

<table>
<thead>
<tr>
<th>Year of enactment</th>
<th>Expected savings as percent of base</th>
<th>Administrative</th>
<th>Total benefits</th>
<th>Hospital inpatient</th>
<th>Skilled nursing facility</th>
<th>Home health/hospice</th>
<th>Hospital outpatient</th>
<th>Physician and lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>2.6%</td>
<td>0.38</td>
<td>1.03</td>
<td>0.79</td>
<td>5.79</td>
<td>1.11</td>
<td>4.48</td>
<td>0.60</td>
</tr>
<tr>
<td>1982</td>
<td>5.5</td>
<td>0.12</td>
<td>1.02</td>
<td>1.27</td>
<td>0.61</td>
<td>0.49</td>
<td>0.70</td>
<td>0.48</td>
</tr>
<tr>
<td>1983</td>
<td>-0.1</td>
<td>1.00</td>
<td>1.00</td>
<td>1.37</td>
<td>12.36</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1984</td>
<td>1.3</td>
<td>0.57</td>
<td>1.01</td>
<td>0.50</td>
<td>-1.44</td>
<td>0.70</td>
<td>0.19</td>
<td>2.61</td>
</tr>
<tr>
<td>1985</td>
<td>1.5</td>
<td>-0.29</td>
<td>1.03</td>
<td>1.02</td>
<td>-1.27</td>
<td>0.33</td>
<td>0.30</td>
<td>1.37</td>
</tr>
<tr>
<td>1986</td>
<td>-0.4</td>
<td>3.66</td>
<td>0.94</td>
<td>1.29</td>
<td>1.06</td>
<td>0.99</td>
<td>0.68</td>
<td>0.19</td>
</tr>
<tr>
<td>1987</td>
<td>3.0</td>
<td>-0.06</td>
<td>1.02</td>
<td>0.89</td>
<td>-0.40</td>
<td>0.14</td>
<td>1.19</td>
<td>1.36</td>
</tr>
<tr>
<td>1988</td>
<td>-0.0</td>
<td>0.00</td>
<td>1.01</td>
<td>1.79</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1989</td>
<td>1.1</td>
<td>-2.74</td>
<td>1.09</td>
<td>0.45</td>
<td>0.11</td>
<td>0.30</td>
<td>1.04</td>
<td>2.38</td>
</tr>
<tr>
<td>1990</td>
<td>4.2</td>
<td>-0.23</td>
<td>1.03</td>
<td>0.84</td>
<td>0.20</td>
<td>0.07</td>
<td>1.56</td>
<td>1.41</td>
</tr>
</tbody>
</table>

Average 1981–1990 1.9% -0.19 1.03 0.91 0.52 0.50 1.42 1.23

Source: Congressional Budget Office.

Note: This exhibit uses three-year estimates made at the time of enactment for each bill (for example, 1982–1984 for 1981 bill). Negative values for percent of base indicate net costs rather than savings. Except for the “percent of base” column, averages are weighted by the percentages in that column.

a Only the benefit expansion associated with the blood deductible is shown for legislation in 1988 because other new Medicare benefits enacted in 1988 were repealed.

Estimated Impact Using Projection Of Pre-1980 Trends

Exhibit 3 presents an alternative measure of the impact of legislation enacted since 1980. It compares real spending per enrollee for 1988 and
### Exhibit 3
Comparison Of Actual And Pre-1980 Trend Values For Real Medicare Disbursements Per Enrollee, 1988 And 1990

<table>
<thead>
<tr>
<th>1988</th>
<th>Total Medicare</th>
<th>Adminis-</th>
<th>Total Hospital</th>
<th>Skilled Home</th>
<th>Hospital Facility</th>
<th>Hospice</th>
<th>Hospital Outpatient</th>
<th>Physician and lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975–1980</td>
<td>7.6%</td>
<td>-0.1%</td>
<td>7.9%</td>
<td>7.0%</td>
<td>-2.9%</td>
<td>16.3%</td>
<td>16.1%</td>
<td>9.2%</td>
</tr>
<tr>
<td>1980–1988</td>
<td>5.3</td>
<td>1.1</td>
<td>5.4</td>
<td>3.3</td>
<td>1.1</td>
<td>9.0</td>
<td>9.8</td>
<td>9.2</td>
</tr>
</tbody>
</table>

#### 1988 disbursements (in 1990 dollars)
- Trend: 3,511
- Actual: $2,960
- $67
- $2,893
- $1,636
- $24
- $80
- $221
- $931

#### Ratio of actual to trend
- 84.3%
- 110.4%
- 83.1%
- 75.4%
- 141.9%
- 59.5%
- 63.9%
- 100.0%

<table>
<thead>
<tr>
<th>1990</th>
<th>Total Medicare</th>
<th>Adminis-</th>
<th>Total Hospital</th>
<th>Skilled Home</th>
<th>Hospital Facility</th>
<th>Hospice</th>
<th>Hospital Outpatient</th>
<th>Physician and lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975–1980</td>
<td>7.6%</td>
<td>-0.1%</td>
<td>7.9%</td>
<td>7.0%</td>
<td>-2.9%</td>
<td>16.3%</td>
<td>16.1%</td>
<td>9.2%</td>
</tr>
<tr>
<td>1980–1990</td>
<td>5.5</td>
<td>1.1</td>
<td>5.6</td>
<td>3.4</td>
<td>169</td>
<td>105</td>
<td>9.5</td>
<td>8.3</td>
</tr>
</tbody>
</table>

#### 1990 disbursements (in 1990 dollars)
- Trend: 4,064
- Actual: $3,326
- $69
- $3,257
- $1,676
- $102
- $110
- $260
- $1,018

#### Ratio of actual to trend
- 81.8%
- 113.4%
- 80.3%
- 71.1%
- 639.5%
- 60.1%
- 55.8%
- 91.7%

**Source:** Congressional Budget Office.

**Notes:** For 1990, benefits by service category are estimates that may change.

1990 with what spending would have been if the growth trends of 1975–1980 had continued. The years 1975–1980 were used to generate the growth trends because there were no major changes in payment or coverage provisions during this period. Before 1975, significant changes were made, including extension of coverage to the disabled population and implementation of a cost-based limit on growth in Medicare’s payment rates for physicians. After 1980, many cost-cutting provisions were put in place, beginning with those contained in the 1981 budget reconciliation act and implemented in 1982.

Fiscal year 1988 was selected for one comparison because that is the latest year for which actual spending by service category is known, and because 1988 spending was unaffected by the new benefits briefly provided in 1989 under the Medicare Catastrophic Coverage Act. A comparison using fiscal year 1990 is also shown, although there are two problems with spending figures for this year. First, disbursements by service category are only estimates for 1990 (which may change), although overall spending for benefits and for administration are actual values. Second, disbursements under the Hospital Insurance program in fiscal year 1990 include some costs incurred in calendar year 1989 for benefits provided only during that year under the Medicare Catastrophic Coverage Act.
Comparison of trend values with actual spending in 1988. The average annual growth rate in real spending per enrollee under Medicare during 1975–1980 was 7.6 percent (Exhibit 3). During the subsequent years through 1988, annual growth was only 5.3 percent. Growth rates fell most sharply for hospital inpatient costs, although they also fell for home health and hospital outpatient costs. The decline in spending for SNF services that occurred during 1975–1980 was reversed in the 1980s. Growth rates for physicians’ costs were virtually unchanged between the two periods, despite the disproportionately large cuts made for them in the annual budget reconciliation bills.

If the growth rates observed from 1975 through 1980 had continued through 1988, real Medicare spending per enrollee for 1988 would have been $3,511 (in 1990 dollars). Actual spending was $2,960, only 84 percent of projected spending under the previous trend. Actual hospital inpatient costs per enrollee were only 75 percent of the trend value, while home health and hospital outpatient costs were even further below their trend values. Actual SNF costs were 142 percent of the trend value. Actual physicians’ costs were virtually identical to the trend value, despite a freeze on physician fees under Medicare from July 1984 through May 1986 (which left Medicare’s payment rates unchanged from July 1983).

The decline in the rate of growth for overall Medicare spending contrasts with the experience of the rest of the health sector. Nationwide, the growth rate for real per capita spending for personal health care was essentially the same between 1980 and 1988 as it was between 1975 and 1980. Consequently, growth in other spending for health must have accelerated by enough to offset the lower growth rate for Medicare.\(^5\) Hence, the assumption used here—that growth in Medicare spending would have continued at its previous 1975–1980 rate in the absence of legislation—may be too conservative. If, instead, growth in Medicare would otherwise have accelerated during the 1980s (as did growth in other spending for health), then the legislation examined here may have reduced Medicare spending by more than the results in Exhibit 3 indicate.

Comparison of trend with actual spending in 1990. The comparison of actual to trend growth for 1990 is not substantially different from the comparison made above for 1988. Between 1980 and 1990, annual growth in Medicare spending was 5.5 percent, compared with annual growth of 7.6 percent during the trend period. Overall, Medicare disbursements in 1990 were only about 82 percent of what they would have been had the trends from 1975–1980 continued. Estimated spending for hospital inpatient, hospital outpatient, and home health services was less than 72 percent of trend values by 1990. Even spending for physician
Spending for SNF services was an estimated 640 percent of trend for fiscal year 1990, although spending is expected to be lower for 1991 (400–450 percent of trend), because the effects of expanded SNF benefits under the Medicare Catastrophic Coverage Act will no longer be evident.

Conclusion

Growth in spending for physician services has not slowed substantially relative to previous trends, despite the disproportionate impact on physicians of budget reconciliation bills. Apparently, growth in the volume of physician services has accelerated by enough to offset most of the enacted reductions in payment rates. Although not all of this growth was in response to fee cuts, growth in the volume of services was enough to completely offset the fee freeze in place from 1984 through 1986 but was insufficient to offset entirely the effects of subsequent fee cuts for “over-valued” procedures.

Growth in federal spending for hospital inpatient services has slowed significantly, and legislation may have played a role in this, primarily by reducing admission rates for the Medicare population. In 1984, Medicare’s peer review organizations (PROs) were set up to monitor inpatient cases for appropriateness of treatment and site of care. Simultaneously, admission rates among the Medicare population—which had been increasing through 1983—began to decline. Although admission rates inched up again after 1987, rates in 1989 for people age sixty-five and over (a proxy for the Medicare population) were still only 85 percent of rates in 1983. Perhaps Medicare’s preadmission approval requirements for certain procedures, coupled with retrospective payment denials for care deemed inappropriate, encouraged physicians either to forgo some elective procedures for their Medicare patients or to move them to the outpatient sector. Lower hospital admission rates, together with limited increases in payments per admission, reduced inpatient costs relative to the previous trend.

Costs in hospital outpatient departments have also dropped relative to previous trend, indicating that hospital inpatient costs have not simply been shifted to the outpatient sector. For 1988, costs for hospital inpatient and outpatient services combined were only 76 percent of trend. For 1990, these combined costs are expected to be less than 72 percent of trend.

Despite the limited effect legislation has had on slowing the growth of federal spending for physician services, and despite a substantial increase in spending for services in skilled nursing facilities, overall growth in real
Medicare spending per enrollee was substantially slower during the 1980s, compared with the last half of the 1970s. This slowing was primarily the result of slower growth in spending for hospital inpatient services, which accounted for two-thirds of federal Medicare spending in 1980.

NOTES

1. None of the new Medicaid benefits provided under the Medicare Catastrophic Coverage Act were repealed.
2. The figures in the “savings as a percent of base” column are used to obtain weighted averages for the percent distribution of expected savings in Exhibit 1, and for the relative share of expected savings in Exhibit 2. The weighted averages take appropriate account of both the size and sign of the savings estimates made for each year. The distributions and relative shares shown for individual years are difficult to interpret appropriately without reference to the size and sign of the “percent of base” column.
3. For a breakdown of Medicare disbursements by service category, contact the author at the Congressional Budget Office, U.S. Congress, Washington, D.C. 20515.
4. The implicit price deflator for gross national product (GNP) was used throughout to obtain constant dollars. This deflator gives a conservative estimate of the budget-reducing impact of legislation, compared with the estimated impact had the fixed-weight deflator been used instead.
5. Growth in nationwide health spending is used for this comparison to the Medicare experience because there are no published figures for non-Medicare spending.
6. In the latter 1970s and 1980s, advances in technology—especially in anesthesia—made it safe to perform many procedures on an outpatient basis. Movement to the outpatient sector is more rapid, however, when insurers require it whenever feasible. Medicare lagged behind private insurers in implementing preadmission approval for hospital stays. Further, Medicare enrollees are at higher risk of developing complications, so that the outpatient setting may be unsafe for many of them even when it is generally safe for younger people.