AARP Public Policy Institute

DATA DIGEST

Valuing the Invaluable: A New Look at State Estimates of the Economic Value of Family Caregiving (Data Update)

This update includes comparisons to FY 2006 Medicaid spending. At the time of the original release, FY 2005 Medicaid spending data were the most recent available. Estimates of the number of caregivers, total economic value of caregiving, and economic value per hour have not changed.

Introduction

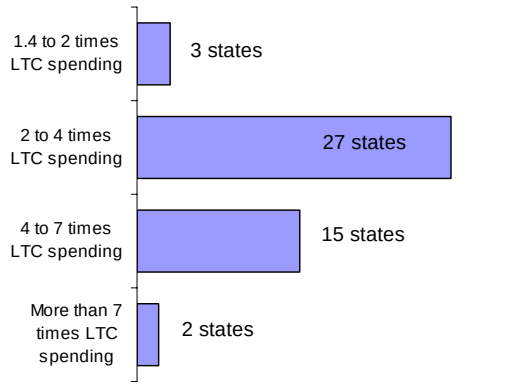
This data digest takes a new look at estimating the economic value of family caregiving at the state level. These estimates provide new detail as to state variation in caregiving prevalence and the average hourly value of caregiving in each state. They also are benchmarked against several measures of Medicaid spending in order to illustrate the magnitude of the economic value of family caregiving. Medicaid, a joint federal-state program, is the largest source of funding for long-term care services in the United States.

Informal, unpaid caregivers provide the vast majority of long-term services and supports received by persons with disabilities of all ages. In fact, their contributions to family members and friends are not only the foundation of the nation's long-term care system but an important component of the U.S. economy, with an estimated economic value of about $350 billion in 2006. This figure is based on estimates of 34 million caregivers,[1] providing, on average, 1,080 hours of care per year, at an average value of $9.63 per hour.[2]

At the state level, the economic value of informal caregiving activities meets or exceeds *total* Medicaid spending in 40 states,[3] including spending for both medical and long-term care services. It is more than twice as much as total Medicaid spending in four states.

In all states, the economic value of caregiving is greater than total Medicaid spending on *long-term care services*.[4] As shown in Figure 1, the economic value of caregiving ranges from about 1.4 to 10 times Medicaid spending for long-term care (LTC).

Figure 1: Number of States*, by Ratio of Economic Value of Caregiving to Medicaid LTC Spending, 2006



* Excludes Arizona and Vermont, because Medicaid LTC spending data are not available for these states.

[1] This estimate includes only adults currently providing care or providing care within the last month. The total number of adults providing care within a full year is significantly higher, and was most recently estimated at 44 million in 2003.

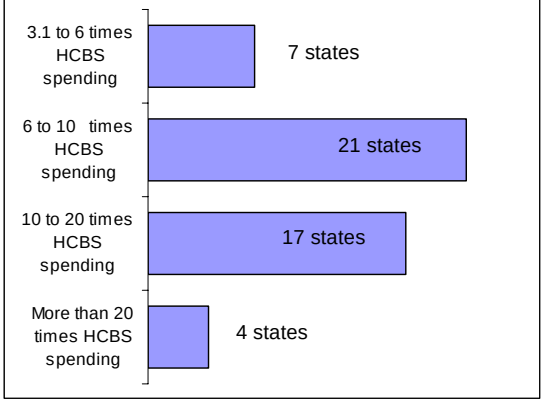
[2] For detailed derivation and discussion of these estimates, please see Gibson, M.J., and Houser, A., *Valuing the Invaluable: A New Look at the Economic Value of Family Caregiving*, AARP Issue Brief IB-82, June 2007.

[3] The District of Columbia is considered to be a state for analysis in this data digest.

[4] Long-term care services include nursing facilities, intermediate care facilities for mental retardation, and home- and community-based services.

In all states, the economic value of caregiving is several times greater than total Medicaid spending on *home- and community-based long-term care services* (HCBS).[5] The economic value of caregiving ranges from about 3 to 30 times Medicaid spending for HCBS (see Figure 2).

Figure 2: Number of States*, by Ratio of Economic Value of Caregiving to Medicaid HCBS Spending, 2006



* Excludes Arizona and Vermont, because Medicaid HCBS spending data are not available for these states.

Findings

Table 1 presents state-by-state estimates of the number of caregivers, economic value per hour and total economic value of caregiving. The state estimates of the economic value of informal caregiving are designed to be consistent with the national estimate of about $350 billion. Total economic value is given by (# of caregivers) x (# of hours per caregiver per year) x (economic value per hour of care).[6]

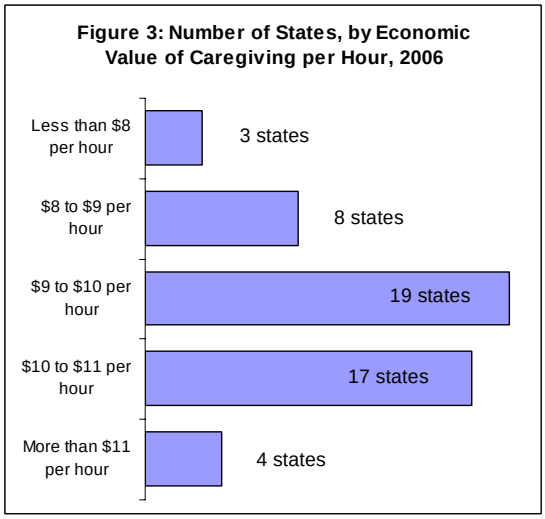
[5] Home- and community-based long-term care services are supportive services used by people who need assistance to function in their daily lives, delivered in a non-institutional setting.

[6] The national average number of hours of care per caregiver per year is used for all states because state-level data are not available for that measure.

See technical notes on page 6 for more details.

Several factors go into determining the number of caregivers in each state. The most important is state population, but caregiving prevalence also varies among states, reflecting differences in the age distribution of the population, rates of disability and chronic conditions, and cultural and economic characteristics. All of the factors affecting the number of caregivers, as well as the economic value of caregiving per hour, are reflected in the total economic value for each state. There is significant variation in economic value per hour between states (see Figure 3).

Figure 3: Number of States, by Economic Value of Caregiving per Hour, 2006



These are some of the more dramatic differences among states:

- Nearly one third of caregivers live in California, Texas, New York, and Florida, the four most populous states in the nation.

- Kansas and West Virginia have similar numbers of caregivers even though Kansas' population is about 50% higher than West Virginia's. Possible

Table 1: Number of Caregivers and the Economic Value of Caregiving, by State, 2006

State	Total State Population	Number of Caregivers	Economic Value per Hour	Total Economic Value (millions)
Alabama	4,600,000	570,000	$7.72	$4,700
Alaska	670,000	68,000	$12.28	$900
Arizona	6,170,000	570,000	$9.14	$5,600
Arkansas	2,810,000	360,000	$9.19	$3,600
California	36,500,000	4,000,000	$10.37	$45,000
Colorado	4,750,000	540,000	$10.68	$6,200
Connecticut	3,500,000	380,000	$11.65	$4,800
Delaware	853,000	100,000	$10.64	$1,150
District of Columbia	582,000	59,000	$10.11	$640
Florida	18,090,000	1,720,000	$9.29	$17,300
Georgia	9,360,000	1,310,000	$8.57	$12,100
Hawaii	1,285,000	106,000	$10.91	$1,250
Idaho	1,466,000	162,000	$8.70	$1,520
Illinois (1)	12,830,000	1,500,000	$9.98	$16,200
Indiana	6,310,000	720,000	$9.58	$7,500
Iowa	2,980,000	310,000	$10.59	$3,500
Kansas	2,760,000	280,000	$9.19	$2,800
Kentucky	4,210,000	520,000	$9.48	$5,400
Louisiana	4,290,000	560,000	$7.34	$4,400
Maine	1,322,000	154,000	$10.09	$1,680
Maryland	5,620,000	600,000	$9.79	$6,300
Massachusetts	6,440,000	700,000	$11.74	$8,900
Michigan	10,100,000	1,280,000	$9.71	$13,400
Minnesota	5,170,000	610,000	$10.91	$7,100
Mississippi	2,910,000	460,000	$7.66	$3,800
Missouri	5,840,000	590,000	$9.15	$5,900
Montana	945,000	110,000	$8.61	$1,030
Nebraska	1,768,000	179,000	$9.90	$1,910
Nevada	2,500,000	260,000	$10.47	$3,000
New Hampshire	1,315,000	147,000	$10.64	$1,680
New Jersey	8,720,000	980,000	$10.61	$11,200
New Mexico	1,955,000	200,000	$8.86	$1,930
New York	19,310,000	2,200,000	$10.27	$24,000
North Carolina	8,860,000	1,080,000	$9.14	$10,700
North Dakota	636,000	56,000	$9.10	$550
Ohio	11,480,000	1,310,000	$9.79	$13,800
Oklahoma	3,580,000	370,000	$8.67	$3,500
Oregon	3,700,000	420,000	$10.26	$4,600
Pennsylvania	12,440,000	1,370,000	$9.77	$14,500
Rhode Island	1,068,000	117,000	$11.41	$1,440
South Carolina	4,320,000	560,000	$9.01	$5,500
South Dakota	782,000	86,000	$9.40	$880
Tennessee	6,040,000	770,000	$8.71	$7,200
Texas	23,500,000	2,700,000	$8.21	$24,000
Utah	2,550,000	330,000	$9.06	$3,200
Vermont (2)	624,000	56,000	$10.57	$640
Virginia	7,640,000	900,000	$10.18	$9,900
Washington	6,400,000	650,000	$10.15	$7,100
West Virginia	1,818,000	270,000	$8.30	$2,500
Wisconsin	5,560,000	600,000	$10.45	$6,800
Wyoming	515,000	55,000	$9.74	$570
United States	**299,000,000**	**34,000,000**	**$9.63**	**$350,000**

This table is unchanged from the original release. Notes: (1) Data on caregiving prevalence were missing for Illinois, so the national average prevalence was used; (2) in Vermont, the median wage for home health aides (one of the inputs to the value per hour calculation), was not available and was estimated as 1.084 times the median wage for personal care aides (the national ratio of the median wage of home health aides to personal care aides).

Table 2: Ratio of Economic Value of Caregiving to Medicaid Spending, by State, 2006

State	Ratio of Economic Value of Caregiving to		
	Total Medicaid Spending	Medicaid LTC Spending	Medicaid HCBS Spending
Alabama	1.22	3.9	14.3
Alaska	0.93	2.7	4.3
Arizona (1)	0.91	n/a	n/a
Arkansas	1.23	3.8	12.9
California	1.44	4.8	9.2
Colorado	2.16	6.2	12.5
Connecticut	1.13	2.1	6.3
Delaware	1.22	4.2	12.3
District of Columbia	0.51	1.9	7.8
Florida	1.35	4.5	15.0
Georgia	1.73	6.4	24.3
Hawaii	1.14	3.9	10.3
Idaho	1.45	4.5	10.3
Illinois	1.57	5.2	18.4
Indiana	1.31	3.1	14.8
Iowa	1.27	3.2	8.6
Kansas	1.28	3.3	6.2
Kentucky	1.23	4.4	15.1
Louisiana	0.91	3.0	11.2
Maine	0.75	2.5	4.8
Maryland	1.20	3.8	9.3
Massachusetts	0.91	2.9	7.2
Michigan	1.63	6.3	19.7
Minnesota	1.31	2.7	4.5
Mississippi	1.16	3.7	30.5
Missouri	0.92	3.6	9.1
Montana	1.40	3.6	8.3
Nebraska	1.28	3.0	8.5
Nevada	2.51	9.6	22.4
New Hampshire	1.52	3.5	8.7
New Jersey	1.25	3.1	8.9
New Mexico	0.78	2.9	4.4
New York	0.55	1.4	3.1
North Carolina	1.18	3.9	8.8
North Dakota	1.08	1.8	7.5
Ohio	1.22	2.9	10.0
Oklahoma	1.18	3.5	8.6
Oregon	1.62	4.7	6.5
Pennsylvania	0.95	2.4	8.5
Rhode Island	0.82	2.6	5.9
South Carolina	1.34	5.8	17.5
South Dakota	1.44	3.5	9.4
Tennessee	1.18	4.5	17.8
Texas	1.42	5.1	11.8
Utah	2.19	9.3	22.8
Vermont (1)	0.67	n/a	n/a
Virginia	2.13	6.7	18.5
Washington	1.28	4.1	6.7
West Virginia	1.17	3.2	8.2
Wisconsin	1.41	3.5	7.6
Wyoming	1.36	3.1	5.6
United States	**1.18**	**3.6**	**9.0**

This table has been updated from the original release to include 2006 Medicaid spending. Notes: (1) Both Arizona and Vermont operate large managed care programs through 1115 waivers, so comparable data on Medicaid LTC and HCBS spending are not available for these states.

reasons for this difference include West Virginia's older population, higher rates of disability rates among older people, and lower per capita income.[7]

- The economic value of caregiving per hour is 60% higher in Massachusetts ($11.74) than in Louisiana ($7.34). This does not mean that an hour of caregiving has any more intrinsic value in Massachusetts than in Lousiana, but rather that a dollar may buy more or less care in one state than in another.

In Table 2, the total economic value of caregiving is compared to three measures: total Medicaid spending, Medicaid long-term care, and Medicaid home- and community-based services spending.

These ratios reflect both state-to-state variation in the economic value of caregiving relative to population, and state-to-state variation in Medicaid spending relative to population.

While there is some variation among states in the economic value of caregiving relative to population, nearly all states are within 20 percent of the national average of $1,180 per person in the country. Instead, state-to-state variation in the ratios of the economic value of caregiving to Medicaid spending is mostly due to variation in state Medicaid spending.

Total Medicaid spending ranges from approximately $600 or less per person in four states to over $2,000 in New York and Washington DC, approximately four times as much as the states which spend the smallest amount per capita.

States vary even more dramatically in Medicaid spending for long-term care and home- and community-based services. Medicaid spending for long-term care ranges from about $120 to more than $900 per person in the state, and spending for HCBS ranges from about $40 to more than $400 per person in the state.

Discussion

Family members and friends are the backbone of long-term care in all states, providing vital assistance with essential daily activities to loved ones every day. In every state, caregivers are a significant fraction of the state population.

The economic value of caregivers' contributions is immense, comparable to total Medicaid spending in the state and exceeding Medicaid spending for long-term care, including both nursing home care and home and community-based services. Compared to HCBS spending alone, the economic value of family caregiving is 3 to 30 times as great.

Unpaid caregivers themselves often need support. Research has shown that services to support caregivers can help to reduce their stress and delay or prevent the institutionalization of a loved one.

State policies to support caregivers include: (1) information and referral to services; (2) assessment of caregivers' own needs, including their health status; (3) respite services so they can have a break from caregiving stresses; and (4) tax incentives to help offset some of their direct expenses.

[7] For these and other measures of the need for long-term care in every state, please see Houser, A., Fox-Grage, W., and Gibson, M.J., *Across the States 2006: Profiles of Long-Term Care and Independent Living*, AARP, 2006.

Better home and community-based services for persons of all ages with disabilities, along with more help for family caregivers, could be achieved at a small fraction of the value of family caregivers' contributions in every state. The data presented here are evidence of the value provided by family caregiving. Recognizing that value and supporting family caregivers is sound fiscal policy.

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Technical Notes

Total economic value is given by (# of caregivers) x (# of hours per caregiver per year) x (economic value per hour of care). However, not all data sources used to produce the national estimate provide data at the state level. The following processes were used to estimate each of the three components of the economic value at the state level, in a manner consistent with the national estimate of $350 billion in Gibson and Houser (2007).

Number of Caregivers

One of the five data sources used to produce the national estimate of the number of caregivers (McKune et al, 2006) is based on survey data that enables direct estimation of caregiving prevalence at the state level. These estimates account for not only differences in the age distribution of the population among states, but also states' unique cultural, economic, and health characteristics.

We sought to use this information about the state-to-state variation in caregiving prevalence, while keeping the total number of caregivers in the country consistent with the midrange estimate of 34 million at the national level.[8]

To do this, we make three assumptions. First, because the caregiving prevalence estimates in McKune et al. are only for care recipients age 60 or older, and the definition of caregiving used in this paper includes all care recipients age 18 or older, we assume that those factors which lead a state to have a higher or lower ratio of (caregivers caring for a recipient age 60+) to (population age 60+ in the state) than another state have the same impact on the incidence of caregiving for recipients age 18-59. Mathematically, this condition may be written as

$$\frac{C_{18-59,stateA}/N_{18-59,stateA}}{C_{18-59,stateB}/N_{18-59,stateB}} = \frac{C_{60+,stateA}/N_{60+,stateA}}{C_{60+,stateB}/N_{60+,stateB}},$$

where C is the number of caregivers with care recipients in a certain age group and N is the total population in a certain age group.

Second, because the 34 million estimate incorporates not only the national prevalence estimate from McKune et al but also data from four other sources, we assume that the ratio of the prevalence of caregiving for care recipients age 60 or older in each state is proportional to the prevalence reported in McKune et al.

[8] See Gibson and Houser (2007), tables 3 for derivation of this estimate.

Third, we assume that the national ratio of the number of caregivers of persons age 18-59 to the number of caregivers of persons age 60+ in 2006 is 0.42, calculated from *Caregiving in the U.S.* survey data.[9]

With these assumptions, a unique solution for the total number of caregivers in every state can be found for any given total at the national level, proportional to

$$\left(\frac{N_{60+,2006}}{N_{60+,2000}} + \alpha * \frac{N_{18-59,2006}}{N_{60+,2000}}\right)(CG\%_{state})N_{18+,2000},$$

where CG% is the caregiving incidence for the state in McKune et al, N is the total population in a certain age group in the state, and α is a constant set to be 0.12 in order that the ratio of the number of caregivers of persons age 18-59 to the number of caregivers of persons age 60+ in 2006 is equal to 0.42.

Number of Hours per Caregiver per Year

Because state-level data are not available, the national estimate of 1,080 hours on average per caregiver per year was used for all states.[10]

Economic Value per Hour of Care

In Gibson and Houser (2007), table 1, four hourly values of caregiving are presented at the national level: high, medium, low, and very low. These are the average private pay cost of hiring a home health aide, average wage in the home health industry, median wage for home health aides, and the federal minimum wage, respectively. The national estimate of $9.63 represents the average of the medium, low, and very low values.

All of the hourly values of caregiving except the medium value (average hourly wage in the home health industry) are available at the state level. Thus, for each state we use a weighted average of the high, low, and very low values (average private pay cost of hiring a home health aide, median wage for home health aides, and the lower of the state or federal minimum wage, respectively):

$$\frac{verylow + low + x * high}{2 + x},$$

where x is a constant set to be 0.428 so that the national average value per hour is equal to $9.63, the same as the national estimate.

[9] Although the data year for the *Caregiving in the U.S.* survey is 2003, the assumption that this ratio remains constant across years is consistent with the assumptions made in Gibson and Houser (2007).

[10] See Gibson and Houser (2007), table 4 for derivation of this estimate.

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