

Documentation for the State Health Expenditure Data Files

State Health Expenditures by State of Residence

This paper provides key information on the State Health Expenditures by state of residence (1991-2014) data files released by the CMS Office of the Actuary on June 14, 2017.

I. Data Overview and Important Notes

The State Health Expenditures by state of residence are constructed by adjusting our state of provider estimates for border-crossing patterns in consuming health care; in other words, we re-allocate spending from the state in which a health service or good was consumed to the state in which a patient lives. Documentation that discusses the data and methods used for both the state of provider estimates and residence estimates in detail are available elsewhere on our website.¹

Please note the following:

- Only the health spending by state of residence estimates adjust for border-crossing and thus re-assigns spending to the state in which a patient lives. As a result, per capita estimates are only appropriate when using state of residence estimates.
- As with all other National Health Expenditure Accounts estimates, all spending levels are expressed in nominal terms unless otherwise specified.
- While these files contain US government data and are thus in the public domain, citation of the source is requested.
 - **SUGGESTED CITATION FOR STATE OF RESIDENCE DATA:** Centers for Medicare & Medicaid Services (2017). *Health Expenditures by State of Residence*. Retrieved (date accessed) at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/resident-state-estimates.zip>

¹ Please see the “Downloads” section on each of the following page:
<http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.html>

II. Data File Information

The State Health Expenditures data files are posted to the CMS website as a collection of zipped CSV-formatted files. The following tables provide the location and key information necessary to navigate the State Health Expenditure data files.

Table 1: State Health Expenditure Data by State of Residence File Names, Contents, Notes, and References

URL: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/resident-state-estimates.zip>

File Names and Location	Contents	Notes and References
US_AGGREGATE14.CSV	Total personal health care spending by state and by service, 1991-2014	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
US_POPULATION14.CSV	US Population by State, 1991-2014	NOTE: Population obtained from the U.S. Bureau of the Census, July, 2017. SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
US_PER_CAPITA14.CSV	Per capita personal health care spending by state and by service, in dollars, 1991-2014 (<i>aggregate spending divided by population</i>)	NOTE: Population obtained from the U.S. Bureau of the Census, July, 2017. SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
MEDICARE_AGGREGATE14.CSV	Total Medicare personal health care spending by state and by service, 1991-2014	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
MEDICARE_ENROLLMENT14.CSV	Medicare enrollment by state, 1991-2014	NOTE: Enrollees reflect the number of persons enrolled in the Hospital and/or Supplementary Medical Insurance programs as of July 1, 1991-2014. SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

File Names and Location	Contents	Notes and References
MEDICARE_PER_ENROLLEE14.CSV	Per enrollee Medicare personal health care spending by state and by service, 1991-2014 (<i>aggregate spending divided by enrollment</i>)	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
MEDICAID_AGGREGATE14.CSV	Total Medicaid personal health care spending by state and by service, 1991-2014	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
MEDICAID_ENROLLMENT14.CSV	Medicaid enrollment by state, 1991-2014	NOTE: Enrollees measured in fiscal person years, adjusted to a calendar year basis. SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
MEDICAID_PER_ENROLLEE14.CSV	Per enrollee Medicaid personal health care spending by state and by service, 1991-2014 (<i>aggregate spending divided by enrollment</i>)	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
PHI_AGGREGATE14.CSV	Total private health insurance personal health care spending by state and by service, 2001-2014	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
PHI_ENROLLMENT14.CSV	Private Health Insurance Population by State, 2001-2014	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.
PHI_PER_ENROLLEE.CSV	Per enrollee private health insurance personal health care spending by state and by service, in dollars, 2001-2014 (<i>aggregate spending divided by enrollment</i>)	SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Table 2: Variable Names and Descriptions for State Health Expenditure Data Files

VARIABLE	DESCRIPTION
Code	Numerical code assigned to each Item
Item	Identifies health spending level of aggregation/payer/service/good, enrollment, or population; appropriate units/scale (e.g. millions of dollars)
Group	Level of aggregation by geography
Region_Number	Numerical Code Assigned to each Region, for sorting purposes
Region_Name	Bureau of Economic Analysis Region Name
State_Name	U.S. State Name
Y1991	Spending, population, or enrollment level for 1991
Y1992	Spending, population, or enrollment level for 1992
Y1993	Spending, population, or enrollment level for 1993
Y1994	Spending, population, or enrollment level for 1994
Y1995	Spending, population, or enrollment level for 1995
Y1996	Spending, population, or enrollment level for 1996
Y1997	Spending, population, or enrollment level for 1997
Y1998	Spending, population, or enrollment level for 1998
Y1999	Spending, population, or enrollment level for 1999
Y2000	Spending, population, or enrollment level for 2000
Y2001	Spending, population, or enrollment level for 2001
Y2002	Spending, population, or enrollment level for 2002
Y2003	Spending, population, or enrollment level for 2003
Y2004	Spending, population, or enrollment level for 2004
Y2005	Spending, population, or enrollment level for 2005
Y2006	Spending, population, or enrollment level for 2006
Y2007	Spending, population, or enrollment level for 2007
Y2008	Spending, population, or enrollment level for 2008
Y2009	Spending, population, or enrollment level for 2009
Y2010	Spending, population, or enrollment level for 2010
Y2011	Spending, population, or enrollment level for 2011
Y2012	Spending, population, or enrollment level for 2012
Y2013	Spending, population, or enrollment level for 2013
Y2014	Spending, population, or enrollment level for 2014
Average_Annual_Percent_Growth	Average annual growth rate for spending, population, or enrollment, 1991-2014

Table 3: Code Key

CODE	DESCRIPTION
1	Personal Health Care
2	Hospital Care
3	Physician & Clinical Services
4	Other Professional Services
5	Dental Services
6	Home Health Care
7	Prescription Drugs and Other Non-durable Medical Products
8	Durable Medical Products
9	Nursing Home Care
10	Other Health, Residential, and Personal Care
11	Population or Enrollment

NOTE: Level of aggregation, payer, and unit of analysis is specified in the Item column and is evident in each filename.

III. How to Use the State Health Expenditures Data Files and Data

The state health spending data as presented can be accessed and easily mined for any purpose, at any level of complexity, and with a variety of software.

The CSV files can be opened for immediate and intuitive viewing in Microsoft Excel. To take advantage of Excel's analysis tools, data filters, pivot tables/charts, and general chart/graph functionality:

- Save a copy of the CSV files as Excel spreadsheets.
- Highlight all data rows/columns pertinent to your needs.
- Select the data analysis function that you would like to use. In Excel, selected functions can be found as follows:
 - Data Filters: select the Filter command from the Data Ribbon. Click on the filter icon in each column to customize/sort the data to your specifications.
 - Pivot Tables/Charts and other chart/graph options: select applicable command from the Insert ribbon and follow the on-screen instructions.

Please consult the help documentation of the version of Microsoft Excel that you are running for specific instructions on how to use these or any other data analysis functions.

The data can just as easily be read into econometric or other data management/data analysis software.

The following calculations/metrics are typically used when analyzing the State Health Expenditures data:

Calculation/Metric	Purpose	Example:
Descriptive Statistics	To provide basic statistics for a given variable; typically provided with regression analysis.	Mean, Standard Deviation, Maximum, Minimum
Average Annual Growth	To provide the rate of change in a particular variable from one year to the next or the average rate of change over a period of years.	$AAG = (\text{growth in final year of analysis} / \text{growth in first year of analysis})^{1/(\text{number of years})} - 1 * 100\%$
Percent Distribution	Typically used to determine the share of spending associated with a given payer, service within a state; a state's spending as a share of the national total, etc.	$\% \text{ spending associated with hospital care in State A} = \text{total hospital spending for State A} / \text{total personal health care spending in State A} * 100\%$
Location Quotient	Standardizes the relationship of spending among the states to the percent difference between spending in a state to the national average.	$LQ = \text{per capita total personal health care spending for State X} / \text{average per capita total personal health care spending for US} * 100\%$