

Quantifying the Distribution and Completeness of Select Demographic Variables in 2016

November 2019

Brief #4121 2016 TAF

TAF data quality brief—Eligibility information

This analysis focused on 49 states and the District of Columbia. Arkansas and Puerto Rico were excluded from the 2016 TAF RIF.

Key Findings

- This brief examines five key demographic variables in the T-MSIS Analytic Files: age, gender, income, race/ethnicity, and ZIP code. We calculated the percentage of records with complete data for each variable, and further examined the distribution of valid values for age, gender, and race/ethnicity.
- For all states, age and gender data are usable (Figures 1 through 3).
- Most states have complete ZIP code data for beneficiary place of residence on at least 90 percent of records (Figure 1). ZIP code data are missing for greater than 10 percent of records in 8 states, and three states are missing ZIP code data for all records, rendering them unusable (Figure 1).
- There are high rates of missing values for race/ethnicity data. In the majority of states, race/ethnicity data are
 missing for more than 10 percent of records and 4 states are missing race/ethnicity data on all records,
 rendering them unusable (Figure 1).
- There are high rates of missing values for income data. Sixteen states are missing income data on all records, rendering them unusable (Figure 1). In the majority of states, income data are missing for more than 10 percent of records.

Background

The T-MSIS Analytic Files (TAF) are an enhanced set of data on beneficiaries in Medicaid and the Children's Health Insurance Program (CHIP). These data include select demographic characteristics, which are critical to understanding those whom the programs serve. This brief examines the completeness and face validity of selected demographic variables in the 2016 TAF annual Demographic and Eligibility (DE) file.¹

We focused on five key demographic variables in the DE file that are important for analytic purposes: age group, gender, income, race/ethnicity, and ZIP code. Table 1 lists these variables, along with their element names in the DE file and a brief description.

¹ In this brief, we define "completeness" as the proportion of records with valid, non-missing values.



Table 1. Key demographic variables in the DE file

| Variable | TAF Data Element Name | Description |
|----------------|-----------------------|---|
| Age group | AGE_GRP_FLAG | A beneficiary's age in years during the last month of enrollment in the calendar year, or as of the date of death if within the calendar year, grouped into 10 age categories |
| Gender | GNDR_CD | A beneficiary's biological sex |
| Income | INCM_CD | A code indicating a family's income level category |
| Race/Ethnicity | RACE_ETHNCTY_FLAG | A code indicating a beneficiary's race and ethnicity |
| ZIP code | ELGBL_ZIP_CD | The ZIP code corresponding to a beneficiary's residence. When residence ZIP code is unavailable, the ZIP code corresponding to the mailing address is used instead |

u

Note:

The age group, gender, income, race/ethnicity, and ZIP code variables in the DE file were each constructed using a "last-best" method for selecting values from the monthly TAF Beneficiary Summary Files (BSF). The "last-best" method selects a variable's value from the most recent month in the BSF for which a non-missing value exists. If a value was missing in the BSF for all months in 2016, we used the "last-best" value from a previous calendar year.

Methods

We used the 2016 DE file to calculate the percentage of enrollment records with complete data.² For the age group, gender, income, and race/ethnicity variables, all non-missing values represent valid values.³ We therefore considered non-missing values to represent complete data for these variables.⁴ We also examined the ZIP code of residence on the enrollment record. For ZIP code, we considered complete data to include all values other than missing values or any 0-filled, 8-filled, or 9-filled values, which also represent missing data.⁵

We grouped states into categories of low concern, medium concern, and high concern about the usability of their data, depending on the percentage of enrollment records with complete data. We placed states in which 10 percent or less of the records were missing data for the relevant demographic variable in the low-concern category. The medium-concern category includes states where 10 to 20 percent of the records had missing information. The high-concern category includes states with missing information for more than 20 percent of the

- ² This analysis used the TAF data that were released as TAF Research Identifiable Files (RIFs). During the transformation into RIFs, some TAF data elements were suppressed, changed, or renamed. For more details on the difference between the pre-RIF and RIF versions of the TAF data, including a crosswalk of variable names, see TAF DQ Brief #9010, "Production of the TAF Research Identifiable Files (RIFs)."
- ³ In the creation of the TAF, all invalid values for categorical variables are recoded to null. Therefore, no additional recoding is necessary when working with the TAF.
- ⁴ Age group is equal to null if the source value from T-MSIS for that variable is missing, unknown, or not on the valid value list or within the range of valid values; gender is equal to null if the source value is missing, unknown, not on the valid value list or within the range of valid values, or equal to U; income is equal to null if the source value is missing, unknown, not on the valid value list or within the range of valid values, or equal to 88 or 99; race/ethnicity is equal to null if the source value is missing, unknown, not on the valid value list or within the range of valid values, or equal to 8.
- ⁵ ZIP code is equal to null if the source value for residence ZIP code and the mailing address ZIP code are missing, unknown, or invalid. Typically 0-filled, 8-filled, and 9-filled values indicate missing or unknown values. As a check on this decision, we confirmed that there are no valid residential 00000, 88888, or 99999 ZIP codes in the United States Postal Service system.

records. States in which more than 50 percent of the records were missing the relevant data element were considered to have unusable data.

We also examined the distribution of valid values for age group, gender, and race/ethnicity to check for face validity. For the age group variable, percentages for each of the valid values were combined into the following edited categories as described below⁶:

Table 2. Valid age values

| Valid value | Description | Edited age category |
|-------------|-------------|---------------------|
| 1 | Age <1 | Age 0–18 |
| 2 | Age 1–5 | Age 0–18 |
| 3 | Age 6–14 | Age 0–18 |
| 4 | Age 15–18 | Age 0–18 |
| 5 | Age 19–20 | Age 19–64 |
| 6 | Age 21–44 | Age 19–64 |
| 7 | Age 45–64 | Age 19–64 |
| 8 | Age 65–74 | Age 65+ |
| 9 | Age 75–84 | Age 65+ |
| 10 | Age 85–125 | Age 65+ |

We examined the distribution of the age group and gender variables, by state and Medicaid expansion status of the state. We stratified by Medicaid expansion status because, in states that opted to expand Medicaid, the expansion population is relatively large, and the age and gender distribution systematically differs from the traditional Medicaid population. We did not stratify based on other optional coverage groups because the populations are not as large and do not have the same impact on the age and gender distribution for a state's Medicaid and CHIP population.

To assess the validity of the race/ethnicity data, we compared the 2016 TAF data to the 2016 American Community Survey (ACS) 5-year estimates. The ACS is an annual survey conducted by the U.S. Census Bureau that collects social, economic, housing, and demographic indicators on the U.S., states, counties, and local areas. We considered a state to have a data quality concern if the TAF data reflected zero enrollees in a race/ethnic group that, according to the ACS, comprised more than 10 percent of the state's population. Although it is possible these race/ethnicity groups make up a smaller proportion of the Medicaid population than the overall population in the state, reporting zero, or nearly zero beneficiaries within a race/ethnicity group while that group makes up more than 10 percent of the population indicates potential issues with reporting and warrants further investigation.

⁶ The age categories were constructed to better align with Medicaid enrollment categories, which are typically based on whether the beneficiary is a child (0-18), adult (19-64), or elderly (65 and over).

⁷ The data tables from the U.S. Census Bureau's American Community Survey can be found at https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2016/.

We did not analyze income data beyond missing rates because there are no available benchmarks by which to compare the findings in the TAF. Furthermore, because Medicaid policies regarding income eligibility vary by state, checking for consistency across states is not feasible.

Findings

Overall, we found that age and gender data are well populated, with at least 99 percent of records populated for all states (Figure 1, Table 3). ZIP code data are also well-populated, with 43 states reporting complete data for at least 90 percent of their enrollees. This suggests that geographical analyses of beneficiaries are likely possible in most states.

Figure 2 and Table 4 show that reported age information conforms to expected patterns given the states' expansion status, with states that did not implement Medicaid expansion for adults almost always having a smaller proportion of adults than expansion states.

An examination of the gender variable shows that, as expected, states that did not expand Medicaid for adults tend to serve a greater proportion of women than do expansion states (Figure 3, Table 5). This reflects that women are more likely to be categorically eligible for Medicaid in non-expansion states: pregnant, aged, or parent of a dependent child. The Medicaid expansion extended Medicaid benefits to all adults at or below 138 percent of the federal poverty level regardless of gender, and expansion states tend to cover a higher proportion of men than do non-expansion states.

Race/ethnicity data had high rates of missing values in many states. Only 21 states report complete race/ethnicity data for at least 90 percent of their records (Figure 1, Table 3). The high rate of missing information may be due to states not collecting race or ethnicity data or to technical difficulties in reporting. In addition, Office of Management and Budget (OMB) guidance that self-identification is the preferred means of obtaining information about race and ethnicity may result in states not having complete data because some individuals may not disclose this information.⁸

When comparing the TAF race/ethnicity data to the ACS, we found additional evidence of data quality issues (results not shown). Four states (Connecticut, the District of Columbia, Florida, and Idaho) had zero beneficiaries in the "Hispanic" race/ethnicity group, while this group makes up greater than 10 percent of each state's population, according to the ACS. Similarly, Arkansas had zero beneficiaries in the "Black" race/ethnicity group, but greater than 10 percent of the state's population falls into this group.

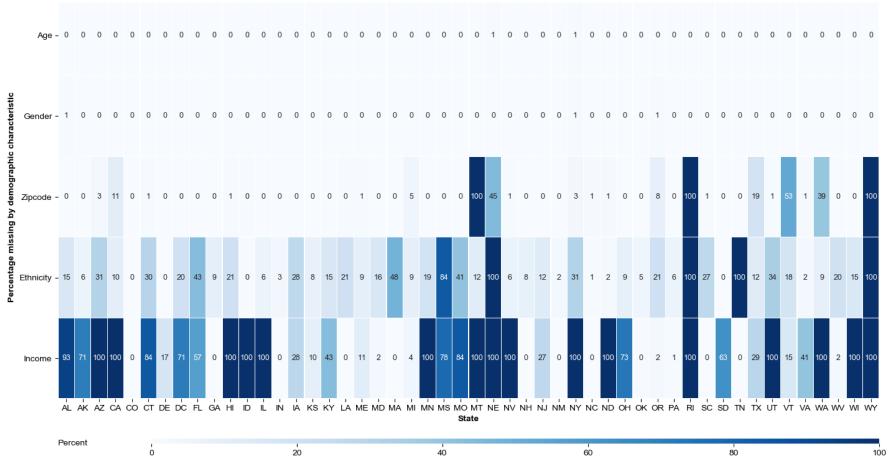
Income data also exhibit high rates of missing values. Only 15 states report complete income data for at least 90 percent of their records (Figure 1, Table 3). In fact, 24 states report income

⁸ The OMB Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity were last revised in 1997. The 1997 revisions can be found at https://www.census.gov/topics/population/race/about.html.

information on less than 30 percent of their eligibility records, with 17 states of those states reporting no income information at all. The high rates of missing values in the race/ethnicity and income variables suggest that they are not usable for analytic purposes in the majority of states.

TAF DQ BRIEF #4121

Figure 1. Percentage of DE records with missing values in select key demographic variables, 2016



Note: States are listed in alphabetical order. Darker shading reflects higher percentage of missing data and a higher level of concern regarding data quality. We placed states in which 10 percent or less of the records were missing data for the relevant demographic variable in the low-concern category. The medium-concern category includes states where 10 to 20 percent of the records had missing information. The high-concern category includes states with missing information for more than 20 percent of the records. States in which more than 50 percent of the records were missing the relevant data element were considered to have unusable data.

Table 3. Percentage of DE records with missing values in key demographic variables, 2016

| | ge of DE records | Percentage of DE records with missing values | | | | • |
|----------------------|-------------------|--|--------|----------|--------------------|--------|
| State | Number of records | Age | Gender | Zip Code | Race/ ethnicity | Income |
| Alabama | 1,442,554 | 0.0 | 0.7 | 0.0 | 15.4 | 93.1 |
| Alaska | 209,479 | 0.0 | 0.0 | 0.1 | 5.9 | 70.5 |
| Arizona | 2,371,561 | 0.0 | 0.0 | 2.5 | 30.7 | 100.0 |
| California | 17,904,993 | 0.0 | 0.0 | 10.8 | 10.1 | 100.0 |
| Colorado | 1,650,232 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Connecticut | 1,063,490 | 0.0 | 0.0 | 0.8 | 29.9 | 84.0 |
| Delaware | 295,447 | 0.0 | 0.0 | 0.0 | 0.0 | 17.0 |
| District of Columbia | 289,446 | 0.0 | 0.0 | 0.0 | 20.4 | 71.1 |
| Florida | 5,155,437 | 0.0 | 0.0 | 0.0 | 43.1 | 56.7 |
| Georgia | 2,499,610 | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 |
| Hawaii | 422,812 | 0.0 | 0.0 | 0.6 | 20.8 | 100.0 |
| Idaho | 365,363 | 0.0 | 0.0 | 0.5 | 0.5 | 100.0 |
| Illinois | 3,745,261 | 0.0 | 0.0 | 0.0 | 5.9 | 100.0 |
| Indiana | 1,847,148 | 0.0 | 0.0 | 0.2 | 2.9 | 0.2 |
| lowa | 819,163 | 0.0 | 0.0 | 0.0 | 27.6 | 28.1 |
| Kansas | 520,366 | 0.0 | 0.0 | 0.0 | 7.7 | 9.6 |
| Kentucky | 1,647,161 | 0.0 | 0.0 | 0.0 | 15.5 | 43.3 |
| Louisiana | 1,738,008 | 0.0 | 0.0 | 0.4 | 20.9 | 0.0 |
| Maine | 327,920 | 0.0 | 0.0 | 1.1 | 9.4 | 11.0 |
| Maryland | 1,537,003 | 0.0 | 0.0 | 0.0 | 15.8 | 2.4 |
| Massachusetts | 2,237,905 | 0.0 | 0.0 | 0.0 | 47.7 | 0.0 |
| Michigan | 2,924,436 | 0.0 | 0.0 | 4.6 | 9.3 | 3.6 |
| Minnesota | 1,391,607 | 0.0 | 0.0 | 0.0 | 18.9 | 100.0 |
| Mississippi | 910,978 | 0.0 | 0.0 | 0.0 | 83.9 | 77.9 |
| Missouri | 1,273,466 | 0.0 | 0.0 | 0.2 | 40.7 | 84.2 |
| Montana | 284,731 | 0.0 | 0.0 | 100.0 | 11.6 | 100.0 |
| Nebraska | 306,239 | 0.7 | 0.1 | 44.7 | 100.0 | 100.0 |
| Nevada | 843,902 | 0.0 | 0.1 | 0.8 | 6.3 | 100.0 |
| New Hampshire | 260,615 | 0.0 | 0.0 | 0.0 | 8.1 | 0.0 |
| New Jersey | 2,122,175 | 0.0 | 0.0 | 0.0 | 12.4 | 27.3 |
| New Mexico | 971,772 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| New York | 8,597,399 | 0.9 | 0.8 | 3.4 | 31.0 | 100.0 |
| North Carolina | 2,420,314 | 0.0 | 0.0 | 1.4 | 1.1 | 0.0 |
| North Dakota | 97,388 | 0.0 | 0.0 | 1.4 | 1.9 | 100.0 |
| Ohio | 3,607,512 | 0.0 | 0.0 | 0.1 | 8.9 | 72.7 |
| Oklahoma | 1,025,676 | 0.0 | 0.0 | 0.0 | 5.0 | 0.4 |
| Oregon | 1,443,402 | 0.0 | 0.8 | 8.2 | 21.1 | 2.3 |

TAF DQ BRIEF #4121

Table 3 (continued)

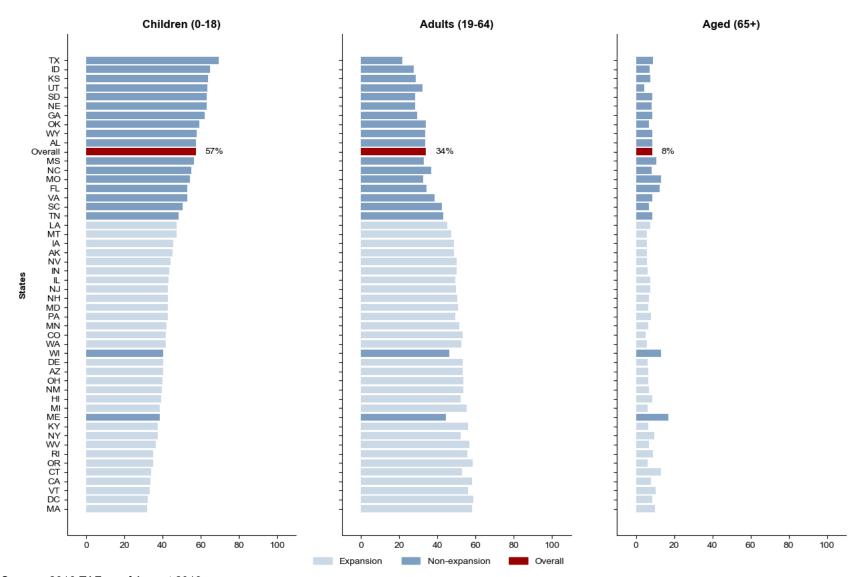
| | | Percentage of DE records with missing values | | | | |
|----------------|-------------------|--|--------|----------|--------------------|--------|
| State | Number of records | Age | Gender | Zip Code | Race/ ethnicity | Income |
| Pennsylvania | 3,548,843 | 0.0 | 0.0 | 0.2 | 5.6 | 1.1 |
| Rhode Island | 360,468 | 0.0 | 0.0 | 100.0 | 100.0 | 100.0 |
| South Carolina | 1,414,121 | 0.0 | 0.0 | 0.7 | 27.4 | 0.0 |
| South Dakota | 155,391 | 0.0 | 0.0 | 0.0 | 0.2 | 62.6 |
| Tennessee | 1,795,766 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 |
| Texas | 5,950,670 | 0.0 | 0.0 | 18.6 | 12.4 | 29.0 |
| Utah | 441,691 | 0.0 | 0.0 | 0.9 | 33.7 | 100.0 |
| Vermont | 226,877 | 0.0 | 0.0 | 52.5 | 18.0 | 15.1 |
| Virginia | 1,427,708 | 0.0 | 0.0 | 1.4 | 2.4 | 40.6 |
| Washington | 2,199,600 | 0.0 | 0.0 | 39.4 | 8.6 | 100.0 |
| West Virginia | 693,203 | 0.0 | 0.0 | 0.0 | 20.2 | 2.2 |
| Wisconsin | 1,465,731 | 0.0 | 0.0 | 0.0 | 15.0 | 100.0 |
| Wyoming | 99,032 | 0.0 | 0.0 | 100.0 | 100.0 | 100.0 |

Note

States are listed in alphabetical order. We placed states in which 10 percent or less of the records were missing data for the relevant demographic variable in the low-concern category. The medium-concern category includes states where 10 to 20 percent of the records had missing information. The high-concern category includes states with missing information for more than 20 percent of the records. States in which more than 50 percent of the records were missing the relevant data element were considered to have unusable data.

Figure 2. Percentage of beneficiaries in each age category, by state and adult expansion status, 2016

Age categories



Source: 2016 TAF as of August 2019.

Table 4. Percentage of beneficiaries in each age category, by state and adult expansion status, 2016

| State | Number of records | Percentage of children (0–18) | Percentage of adults (19–64) | Percentage of aged (65+) | Expansion status in 2016 |
|----------------------|-------------------|-------------------------------|------------------------------|--------------------------|--------------------------|
| Alaska | 209,478 | 45.4 | 48.8 | 5.8 | Expansion |
| Arizona | 2,371,545 | 40.3 | 53.1 | 6.6 | Expansion |
| California | 17,904,991 | 33.9 | 58.3 | 7.9 | Expansion |
| Colorado | 1,650,221 | 41.8 | 53.2 | 5.0 | Expansion |
| Connecticut | 1,063,490 | 33.9 | 52.9 | 13.2 | Expansion |
| Delaware | 295,447 | 40.5 | 53.3 | 6.2 | Expansion |
| District of Columbia | 289,356 | 32.3 | 59.0 | 8.7 | Expansion |
| Hawaii | 422,812 | 39.2 | 52.3 | 8.5 | Expansion |
| Illinois | 3,745,258 | 43.3 | 49.3 | 7.4 | Expansion |
| Indiana | 1,847,148 | 43.6 | 50.1 | 6.2 | - |
| | | 45.5 | 48.7 | 5.8 | Expansion |
| lowa | 819,163 | | | | Expansion |
| Kentucky | 1,647,161 | 37.7 | 56.0 | 6.3 | Expansion |
| Louisiana | 1,738,002 | 47.6 | 45.1 | 7.4 | Expansion |
| Maryland | 1,536,999 | 42.8 | 50.7 | 6.5 | Expansion |
| Massachusetts | 2,237,905 | 32.1 | 58.1 | 9.8 | Expansion |
| Michigan | 2,924,156 | 38.6 | 55.3 | 6.1 | Expansion |
| Minnesota | 1,391,454 | 42.0 | 51.5 | 6.4 | Expansion |
| Montana | 284,731 | 47.2 | 47.2 | 5.6 | Expansion |
| Nevada | 843,880 | 44.1 | 50.2 | 5.7 | Expansion |
| New Hampshire | 260,615 | 42.8 | 50.3 | 6.9 | Expansion |
| New Jersey | 2,122,159 | 42.8 | 49.7 | 7.5 | Expansion |
| New Mexico | 971,772 | 39.6 | 53.7 | 6.7 | Expansion |
| New York | 8,519,320 | 37.4 | 52.2 | 9.5 | Expansion |
| North Dakota | 97,388 | 57.6 | 32.2 | 10.3 | Expansion |
| Ohio | 3,606,966 | 39.9 | 53.8 | 6.4 | Expansion |
| Oregon | 1,443,401 | 35.2 | 58.5 | 6.2 | Expansion |
| Pennsylvania | 3,548,837 | 42.7 | 49.4 | 7.9 | Expansion |
| Rhode Island | 360,467 | 35.3 | 55.7 | 9.0 | Expansion |
| Vermont | 226,877 | 33.4 | 56.2 | 10.4 | Expansion |
| Washington | 2,199,585 | 41.7 | 52.6 | 5.7 | Expansion |
| West Virginia | 693,203 | 36.4 | 56.7 | 6.9 | Expansion |
| Alabama | 1,442,320 | 57.7 | 33.6 | 8.7 | Non-expansion |
| Florida | 5,155,436 | 53.1 | 34.3 | 12.6 | Non-expansion |
| Georgia | 2,499,610 | 62.0 | 29.5 | 8.5 | Non-expansion |
| Idaho | 365,363 | 65.0 | 27.7 | 7.3 | Non-expansion |
| Kansas | 520,366 | 63.7 | 28.7 | 7.6 | Non-expansion |
| Maine | 327,920 | 38.5 | 44.4 | 17.1 | Non-expansion |

Table 4 (continued)

| State | Number of records | Percentage of children (0–18) | Percentage of adults (19–64) | Percentage of aged (65+) | Expansion status in 2016 |
|----------------|-------------------|-------------------------------|------------------------------|--------------------------|--------------------------|
| Mississippi | 910,978 | 56.4 | 33.0 | 10.6 | Non-expansion |
| Missouri | 1,273,466 | 54.6 | 32.4 | 13.0 | Non-expansion |
| Nebraska | 304,126 | 63.0 | 28.2 | 8.1 | Non-expansion |
| North Carolina | 2,420,235 | 55.1 | 36.7 | 8.2 | Non-expansion |
| Oklahoma | 1,025,676 | 59.3 | 34.0 | 6.8 | Non-expansion |
| South Carolina | 1,414,093 | 50.5 | 42.5 | 7.0 | Non-expansion |
| South Dakota | 155,389 | 63.3 | 28.2 | 8.5 | Non-expansion |
| Tennessee | 1,795,766 | 48.4 | 43.0 | 8.7 | Non-expansion |
| Texas | 5,950,669 | 69.4 | 21.8 | 8.8 | Non-expansion |
| Utah | 441,691 | 63.4 | 32.1 | 4.5 | Non-expansion |
| Virginia | 1,427,676 | 52.9 | 38.4 | 8.7 | Non-expansion |
| Wisconsin | 1,465,731 | 40.5 | 46.4 | 13.1 | Non-expansion |
| Wyoming | 99,031 | 57.8 | 33.5 | 8.7 | Non-expansion |

Figure 3. Percentage of beneficiaries in each gender category, by state and adult expansion status, 2016

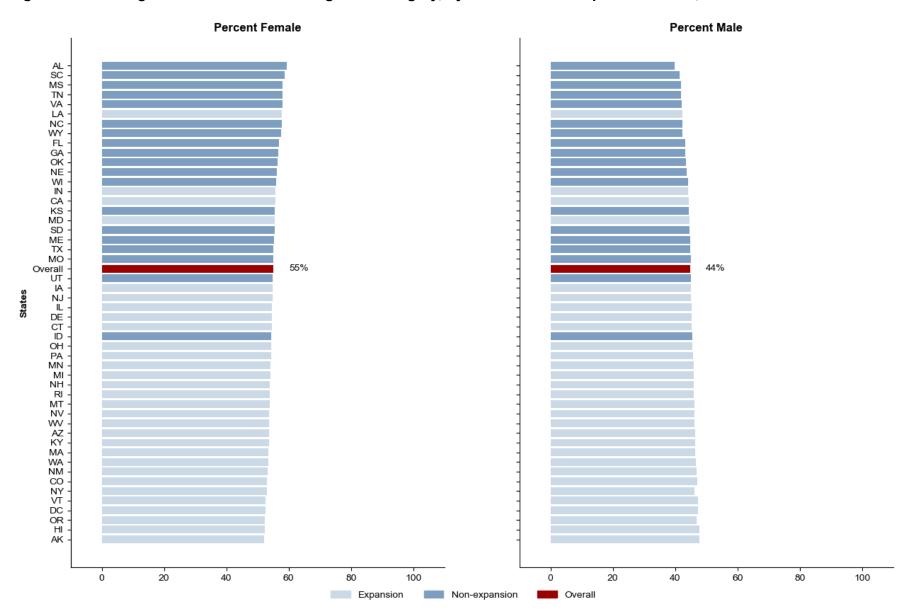


Table 5. Percentage of beneficiaries in each gender category, by state and adult expansion status, 2016

| State | Number of records | Percent female | Percent male | Expansion status in 2016 |
|----------------------|-------------------|----------------|--------------|--------------------------|
| Alaska | 209,479 | 52.1 | 47.9 | Expansion |
| Arizona | 2,371,561 | 53.7 | 46.3 | Expansion |
| California | 17,904,990 | 55.7 | 44.3 | Expansion |
| Colorado | 1,650,217 | 53.0 | 47.0 | Expansion |
| Connecticut | 1,063,490 | 54.7 | 45.3 | Expansion |
| Delaware | 295,439 | 54.7 | 45.3 | Expansion |
| District of Columbia | 289,408 | 52.6 | 47.4 | Expansion |
| Hawaii | 422,812 | 52.3 | 47.7 | Expansion |
| Illinois | 3,745,261 | 54.7 | 45.3 | Expansion |
| Indiana | 1,846,740 | 55.8 | 44.2 | Expansion |
| Iowa | 819,163 | 54.9 | 45.1 | Expansion |
| Kentucky | 1,647,156 | 53.6 | 46.4 | Expansion |
| Louisiana | 1,738,008 | 57.7 | 42.3 | Expansion |
| Maryland | 1,537,001 | 55.5 | 44.5 | Expansion |
| Massachusetts | 2,237,905 | 53.5 | 46.5 | Expansion |
| Michigan | 2,924,156 | 54.1 | 45.9 | Expansion |
| Minnesota | 1,391,607 | 54.1 | 45.9 | Expansion |
| Montana | 284,731 | 53.9 | 46.1 | Expansion |
| Nevada | 842,782 | 53.7 | 46.2 | Expansion |
| New Hampshire | 260,615 | 54.0 | 46.0 | Expansion |
| New Jersey | 2,122,175 | 54.9 | 45.1 | Expansion |
| New Mexico | 971,772 | 53.2 | 46.8 | Expansion |
| New York | 8,525,152 | 53.0 | 46.2 | Expansion |
| North Dakota | 97,386 | 56.7 | 43.3 | Expansion |
| Ohio | 3,606,989 | 54.4 | 45.6 | Expansion |
| Oregon | 1,431,966 | 52.3 | 46.9 | Expansion |
| Pennsylvania | 3,548,839 | 54.3 | 45.7 | Expansion |
| Rhode Island | 360,468 | 53.9 | 46.1 | Expansion |
| Vermont | 226,877 | 52.7 | 47.3 | Expansion |
| Washington | 2,199,531 | 53.4 | 46.6 | Expansion |
| West Virginia | 693,200 | 53.7 | 46.3 | Expansion |
| Alabama | 1,432,708 | 59.4 | 39.9 | Non-expansion |
| Florida | 5,155,235 | 56.8 | 43.2 | Non-expansion |
| Georgia | 2,499,587 | 56.8 | 43.2 | Non-expansion |
| Idaho | 365,363 | 54.4 | 45.6 | Non-expansion |
| Kansas | 520,366 | 55.5 | 44.5 | Non-expansion |
| Maine | 327,906 | 55.2 | 44.8 | Non-expansion |

Table 5 (continued)

| State | Number of records | Percent female | Percent male | Expansion status in 2016 |
|----------------|-------------------|----------------|--------------|--------------------------|
| Mississippi | 910,959 | 58.1 | 41.9 | Non-expansion |
| Missouri | 1,273,466 | 55.0 | 45.0 | Non-expansion |
| Nebraska | 305,977 | 56.3 | 43.7 | Non-expansion |
| North Carolina | 2,420,238 | 57.7 | 42.3 | Non-expansion |
| Oklahoma | 1,025,676 | 56.5 | 43.5 | Non-expansion |
| South Carolina | 1,414,099 | 58.6 | 41.4 | Non-expansion |
| South Dakota | 155,388 | 55.5 | 44.5 | Non-expansion |
| Tennessee | 1,795,766 | 58.0 | 42.0 | Non-expansion |
| Texas | 5,949,411 | 55.1 | 44.9 | Non-expansion |
| Utah | 441,687 | 54.9 | 45.1 | Non-expansion |
| Virginia | 1,427,675 | 58.0 | 42.0 | Non-expansion |
| Wisconsin | 1,465,731 | 55.9 | 44.1 | Non-expansion |
| Wyoming | 99,032 | 57.6 | 42.4 | Non-expansion |

Tasnuva Khan¹, Esa Eslami¹, Lello Guluma¹, Kimberly Proctor², and Jessie Parker². Quantifying the Distribution and Completeness of Select Demographic Variables in 2016." TAF DQ Brief #4121. Baltimore, MD: CMS, 2019.

Reviewers: Keith Branham²; Jeffrey Galecki²; Allison Barrett¹; Carol V. Irvin¹

¹Mathematica, ²Centers for Medicare & Medicaid Services, Center for Medicaid and CHIP Services, Data and Systems Group, Division of Business and Data Analytics

Correspondence should be addressed to MACBISData@cms.hhs.gov