

Use of the American Community Survey Data by State Child Advocacy Organizations

By

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Introduction

The U.S. Census Bureau's American Community Survey (ACS) has become a critical element in the U.S. statistical infrastructure. One important use of ACS data is research and advocacy using child wellbeing indicators derived from ACS. Gutierrez (2022) provides a description of how many national organizations use the ACS for research and advocacy on children. But less is known about how state child advocacy organizations use the ACS. This paper provides the results of a survey of state child advocacy organizations on how they use data from the ACS. In the fall of 2021, the Partnership for America's Children (PAC) conducted a survey of state child advocacy organizations regarding their use of data from the American Community Survey and the results are reported here.

Background on the ACS

According to the Census Bureau (2014, pages 3),

"The ACS is a nationwide, continuous survey designed to provide communities with reliable and timely demographic, housing, social, and economic data every year. Though most of the questions on the ACS were previously included on the 2000 Census, some have been added or modified since then to meet the data needs of various federal agencies"

The ACS includes dozens of questions covering the social, economic, demographic, and housing topics shown in Table 1

Table 1. List of Demographic, Social, Economic and Housing Topics for which data are collected in the American Community Survey	
Age	Income
Ancestry	Industry & Occupation
Citizenship	Language
Class of Worker	Marital Status
Commuting	Migration
Computer & Internet Use	Occupancy
Costs (Mortgage, Rent, Taxes, Insurance)	Plumbing/Kitchen Facilities
Disability	Race
Educational Attainment	Relationship
Employment Status	School Enrollment
Fertility	Sex
Food Stamps (SNAP)	Structure
Grandparents	Tenure (Own/Rent)
Health Insurance	Utilities
Heating Fuel	Vehicles
Hispanic Origin	Veterans
Home Value	Year Built/ Year Moved in
Hours/Week, Weeks/Year	
Source: Daily 2022	

According to the widely read Economist magazine (2021),

“The American Community Survey (ACS), which is sent to around 1% of America’s population every year, is one of the most widely consulted scientific resources in the world. Researchers use its data in more than 12,000 research papers annually, to explore relationships between education, health income demographics and geography.” The widespread use of ACS for research is also documented by Ruggles (2022)

The ACS is often used in the distribution of federal funds to states and localities. In a study done a few years ago, the U.S. Census Bureau (2019, page 2) found:

“Federal agencies use ACS data to distribute more than \$675 billion annually. While state and local government rely on ACS data for comprehensive planning, economic development, emergency management and to broaden their understanding about local issues and conditions.”

In Reamers (2017) review of the 55 largest federal programs (in terms of dollars) that use census-derived data, the ACS was mentioned 33 times in term of eligibility, formulas, preferences, and fees/interest rates. The ACS is also used widely in government regulations and regulation enforcement (Reamer 2022).

ACS Use by Child Advocates and Researchers

Before getting to the results of our survey, it might be useful to look at the larger picture. There are many uses of ACS data by child advocates and researcher. A few examples of use by national organization are reviewed here.

Every Year the Annie E. Casey Foundation publishes a KIDS COUNT Data Book that ranks states on child well-being based on 16 indicators of well-being. Nine of those indicators are derived from the ACS (see Table 2). The URL for the 2021 Data Book and the list of nine ACS indicator is provided below.

https://www.aecf.org/resources/2021-kids-count-data-book?gclid=Cj0KCQiAq7COBhC2ARIsANsPATFPNwW6KSriZx8B4xYmlo6fxQOrrqHZd0im24zOta3bF-AaJLGccPgaAtNxEALw_wcB

Table 2. Nine Measures of Child Well-Being from the American Community Survey Used in the 2021 KIDS COUNT Data Book
Children in Poverty
Children Whose Parents Lack Secure Employment
Children living in Households with High Housing Costs Burden
Teens not in school and not working
Young children not in school
children without health insurance
children in single-parent families
Children in families where the household head lacks a high school diploma
Children living in High-Poverty areas
Source: KIDS COUNT Data Book

In addition to producing their annual KIDS COUNT Data Book, The Annie E. Casey Foundation has a website, the KIDS COUNT Data Center, which provides more than 100 measure of child well-being for states and localities, and many of those measures are derived from the ACS (<https://datacenter.kidscount.org/>)

Soon after the ACS begin publishing annual data in 2006, the potential of developing child well-being measures or risk measures from the ACS was recognized by Census Bureau researchers. A set of child well-being indicators or risk factors from the ACS was developed by Kominiski et al. (2009). These are shown in Table 3.

Table 2. Measures of Child Well-Being or Risk Factors from the ACS

Individual	Familial and Household	Economic	Physical Environment
Presence of disability	Single parent household	Receives food stamps	Overcrowded household
Presence of multiple disabilities	Linguistically isolated household	Household receives public assistance	Household lacks complete kitchen
Not enrolled in school	Non-English-speaking household	Household below poverty	Household lacks complete plumbing
Speaks English less than very well	Parent(s) foreign born and in U.S. for 5 years or less	No employed parent in household	Rented home
Child is foreign born and in U.S. for 5 years or less	Parent(s) has less than high school education	Chronic unemployment in household	Not a single-family home
Cared for by grandparent			
Cared for by grandparent for 3 or more years			

Source: Kominiski et al 2009

State Organizations use of ACS Data

Data for this report

To get a better sense of how state and local child advocates use data from the ACS, the Partnership for America’s Children conducted a survey in the fall of 2021. The survey was sent out to the members of the Partnership for Americas Children and the Annie E. Casey Foundation’s KIDS COUNT network. A list of KIDS COUNT members is available at <https://www.aecf.org/work/kids-count/kids-count-network/kids-count-state-organizations> and a list of members of Partnership for America’s Children is available at <https://foramericaschildren.org/meet-our-members>

There were 22 responses to the survey. A couple of the respondents are local child advocacy organizations, but I will refer to them all as state child advocacy organizations for simplicity. These state vary by size, location, and racial/ethnic composition. It is not clear how representative these 22 responses are of the broader child advocacy community, but it is the best data we have on the use of ACS data by state level child advocacy organizations.

Table 4. States Represented in Survey*	
Arkansas	New York
Colorado	North Carolina
Hawaii	Ohio
Indiana	Oregon
Kansas	Pennsylvania
Kentucky	Rhode Island
Maine	Texas
Mississippi	Utah
New Hampshire	Virginia
New Mexico	Wyoming
* Some states had multiple respondents	

Table 5 shows the eight questions that were included in the survey. All of the questions required an open-ended response.

1	Please list the kinds of demographic comparisons you make using ACS data (such as race, ethnicity, age, family structure).
2	Please list the ways in which you make comparisons among geographic communities using ACS data (such as rural, urban, suburban access to services).
3	Please list the kinds of demographic comparisons you make using ACS data)such as race, ethnicity, age, family structure)
4	Please list examples of how you use the ACS to provide the denominator in assessing access to services where you get the number of kids served from other data (for example, the share of children receiving dental services, or child care subsidies, or school meals)
5	What other ways do you use the ACS?
6	What data do you use from other sources that use the ACS (for example, does your state use the ACS to calculate the share of children being served by various programs, or the share of children with various health conditions)
7	What is the most important use of the ACS for you?
8	If you have a story of where using ACS data created an important policy change for children, please give it here.

Since the responses to the survey were open-ended, analysis was facilitated by converting the responses into a set of categories. I went through the responses to each question and identified some of the most common responses. I then determined the number of respondents who had submitted that response. There was some judgment involved in determining whether responses were similar enough to determine they belonged in the same category but I feel those judgments have little impact on the analysis.

The broad question addressed in this survey (how do child advocates use the ACS?) as well as many of the specific questions in the survey were open to interpretation by respondents. In many cases respondents interpreted questions about how they used ACS as how they used the ACS data to produce measures of child well-

being rather than how they used the data to bring about change, raise public awareness, or lobby state legislatures. Consequently, responses to the opened ended questions used in this survey resulted in wide variation in the types of responses which made analysis more difficult. The way some of the questions were worded also lead respondents in a certain direction.

Results

One way to analyze the data collected in the survey is using a word cloud. A word cloud shows the relative use of a terms by font size. Words that are used more often are in larger fonts and words that are used less often are in smaller fonts. The word cloud generator used here is available free online at <https://www.freewordcloudgenerator.com/generatwordcloud>. The word cloud generator used in this study only shows the fifty words that are the most often used.

Word clouds for each of the eight questions are shown in Appendix A. As readers look over the word clouds for each question, it is clear that some terms appear in each question while others are closely related to the specific question.

Looking at all the words for all the questions from all the respondents shows how often certain terms were used. The word cloud for all words from all respondents is shown below. Word clouds for each individual question are shown in Appendix A.

Word Cloud for All Words, All Questions, All Respondents

Table 6. Terms Mentioned More Than Once in All Text to All Questions

Rank	term (total of 4,574 words)	Number of times appearing in total text
1	child	120
2	children	74
3	age	71
4	poverty	55
5	health	42
6	race	40
7	income	39
8	ethnicity	34
9	families	32
10	health insurance	26
11	compare	20
12	kids	18
13	estimates	15
14	urban	13
15	education	13
16	report	13
17	family structure	12
18	counties	11
19	rural	11
20	housing	10
21	employment	9
22	comparisons	9
23	schools	8
24	5-year	8
25	Analysis	8
26	gender	7
27	trends	7
28	disaggregated	6
29	economic	6
30	demographics	6
31	single-parent	5
32	SAIPE	5
33	Internet	5
34	programs	4
35	food	4
36	Hispanic and Latino	4
37	welfare	3
38	citizen	3
39	mental health	3
40	regional	2
41	suburban	2

Question 1 Please list the kinds of changes you track over time using ACS data (such as changes in poverty, health insurance, income).

The most common substantive terms in response to Question 1 was something related to economics (including poverty, income, and employment). The single most common term was poverty. Every respondent included the term poverty, and it was very often the first substantive term mentioned. Other common terms were health, and race/ethnicity. The words in the question that were used to provide guidance may have triggered respondents to mention those.

economics (poverty, income, employment)	22
health/health insurance	19
housing	14
family	12
race	8

This survey re-enforces a widespread understanding among child advocates and child researchers that poverty is the most widely used measures of child well-being.ⁱ

Question 2 Please list the ways in which you make comparisons among geographic communities using ACS data (such as rural, urban, suburban access to services).

Respondents report that many different types of geographic areas are used in their work. Table 8 provides data on the major geographic levels used by states child advocates.

Table 8. Number of States Using Various Geographic Levels (answers to question 2)	
county	14
urban	9
rural	6
state	5
region	4

Since counties are one of the major substate categories in most states, it is not surprising it is mentioned by more than half the respondents. The list of geographic areas shown in Table 8 underscores the importance of having a data source that provides comparable data for many different types of substate geographic areas.

Question 3 Please list the kinds of demographic comparisons you make using ACS data (such as race, ethnicity, age, family structure).

It is widely recognized that child well-being often differs by race and ethnicity, so it is not surprising to see this is the demographic comparison made most often.

Table 9 Number of States/Responses to Key Terms in Question 3	
race and ethnicity (Hispanic Origin)	20
age	12
family structure	12
economics (poverty, income, employment etc)	8
gender	4

Race and Hispanic origin are the topic mentioned most often in response to Question 3. Age and family structure were listed by about half the respondents. Again, the words used in the question to provide guidance may have influenced responses .

Question 4 Please list examples of how you use the ACS to provide the denominator in assessing access to services where you get the number of kids served from other data (for example, the share of children receiving dental services, or childcare subsidies, or school meals)

The responses to Question 4 were widely varied, with no one response being mentioned more than 5 times.

Table 10. Number of States/Responses to Key Concepts in Question 4	
child care	5
SNAP (Supplemental Nutritional Assistance Program)	3
health	3
foster care	2
medicaid	2
preschool	2
home visiting	2

Question 5 What other ways do you use the ACS?

Answer to question five were difficult to quantify because they varied so much, Table 11 below provides some examples of responses to this question. These indicate a lot of different uses of ACS data by state child advocates.

Table 11. Selected Responses to Question 5
We use ACS data to:
advocate for children and families
track in and out migration to state
to tract our organizations goals
help other organizations
answer ad-hoc data requests from community partners
share data with media and policymakers, and translate data into layman's terms
to calculate a self-sufficiency wage
provide context for languages spoken
estimate the number of children and families that would be eligible for various programs.
housing issues
demonstrate need for services

Question 6 What data do you use from other sources that use the ACS (for example, does your state use the ACS to calculate the share of children being served by various programs, or the share of children with various health conditions)

Table 12. Number of States/Responses to key concepts in Question 6	
local data including PUMAs	8
poverty	8
race	5
health insurance	5
trends over time	4
state data book	4
policy analysis and recommendations	3
advocacy	2
raising public awareness	2

Respondents interpreted question 6 is a number of ways. Some respondents repeated the subjects from the ACS that were most important similar to some of the

previous questions in this survey. Other respondents talked more about statistical uses, such as tracking trends over time or comparing with other states. And some respondents talked about how they used the ACS data in their own state KIDS COUNT reports, raising public awareness, or policy advocacy.

I take two points from Table ____. The fact that ACS provides local (substate) data is critical. Also, the responses to this question reaffirm the importance of data on child poverty.

Question 7 What is the most important use of the ACS for you?

The responses to Question 7 are a mix of subject matter data and uses of data.

Table 13. Number of States/Responses to Key Concepts to Question 7	
local data including PUMAs	8
poverty	8
race	5
health insurance	5
trends	4
state data book	4
PUMAs are relatively small geographic areas identified in the ACS Public-Use Microdata	

Question 8 If you have a story of where using ACS data created an important policy change for children, please give it here.

Responses to this question were difficult to analyze.

Summary

The data analyzed here underscores the extent to which state child advocacy organizations make extensive use the data from the ACS is a variety of ways. I doubt there is any other single source of data as important as the ACS for state and local child advocates or researchers.

ACS is important for child advocates because of four key traits of this data source. First, the ACS provides data on a host of topics related to child well-being including poverty, health, and education. While the ACS data are used for a large number of well-being measures, analysis shows child poverty is the most widely used measure of child well-being among state child advocates using ACS data.

Second, the ACS provides comparable and consistent measures for a wide variety of substate geographic areas. For the vast majority of states, state-wide averages mask big differences within the state so it is important to be able to examine child well-being difference within the state. .

Third , the ACS produced data that is consistent over time which allows advocates to track trends. In terms of tracking public policies or general conditions, tracking trends is important in order to find out if the situation for children is improving or deteriorating.

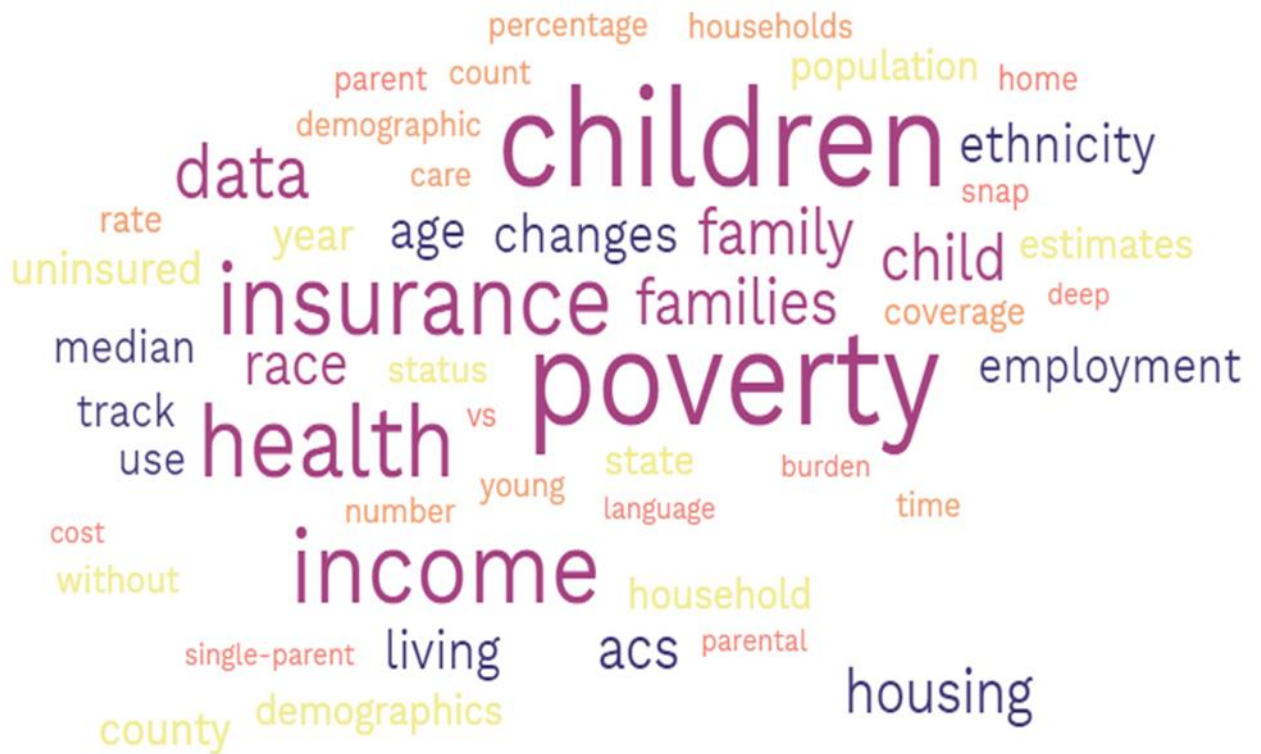
Fourth, for most states, the ACS sample is large enough to produce reliable estimates by race and Hispanic Origin. This allows researchers and advocates to address questions of racial equity by disaggregating data.

No other data source has these four qualities. That is why the ACS is such an important tool for state and local child advocates.

Appendix A – Word Clouds for Each Question

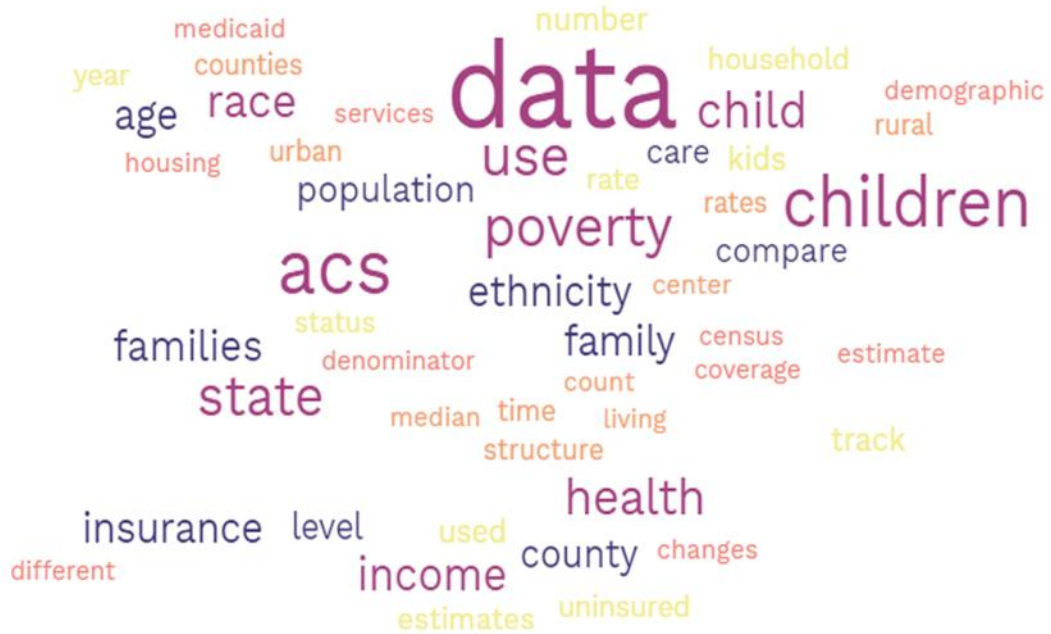
Question 1 Please list the kinds of changes you track over time using ACS data (such as changes in poverty, health insurance, income).

Word Cloud for Question 1



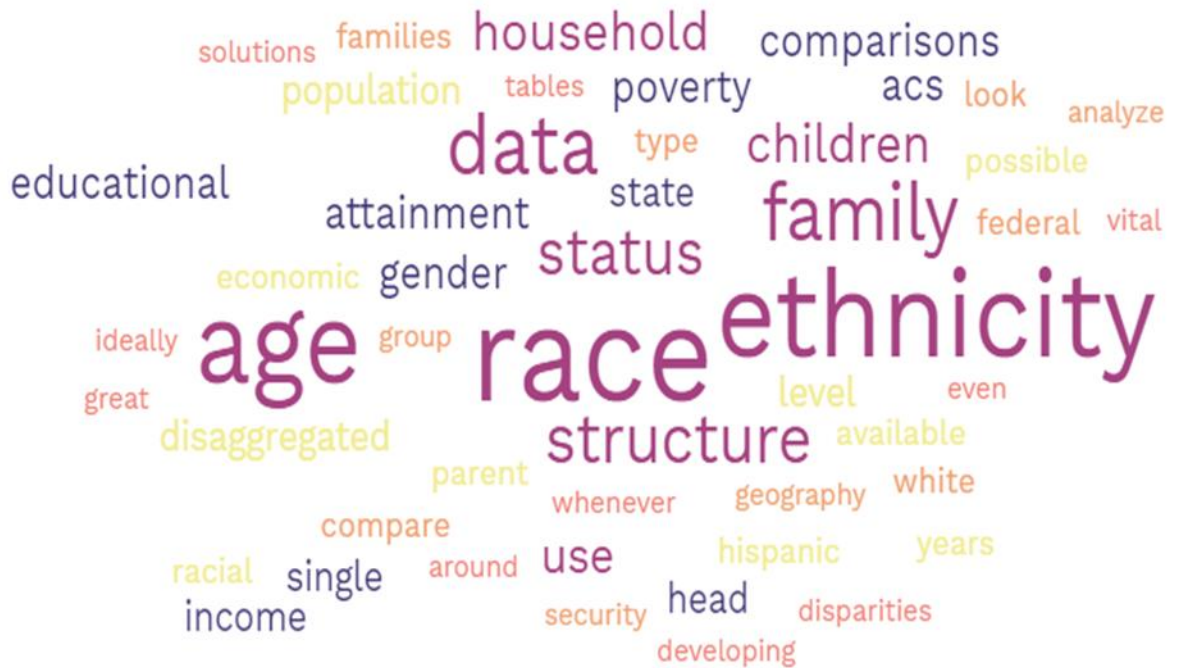
Question 2 Please list the ways in which you make comparisons among geographic communities using ACS data (such as rural, urban, suburban access to services).

Word Cloud for Question 2



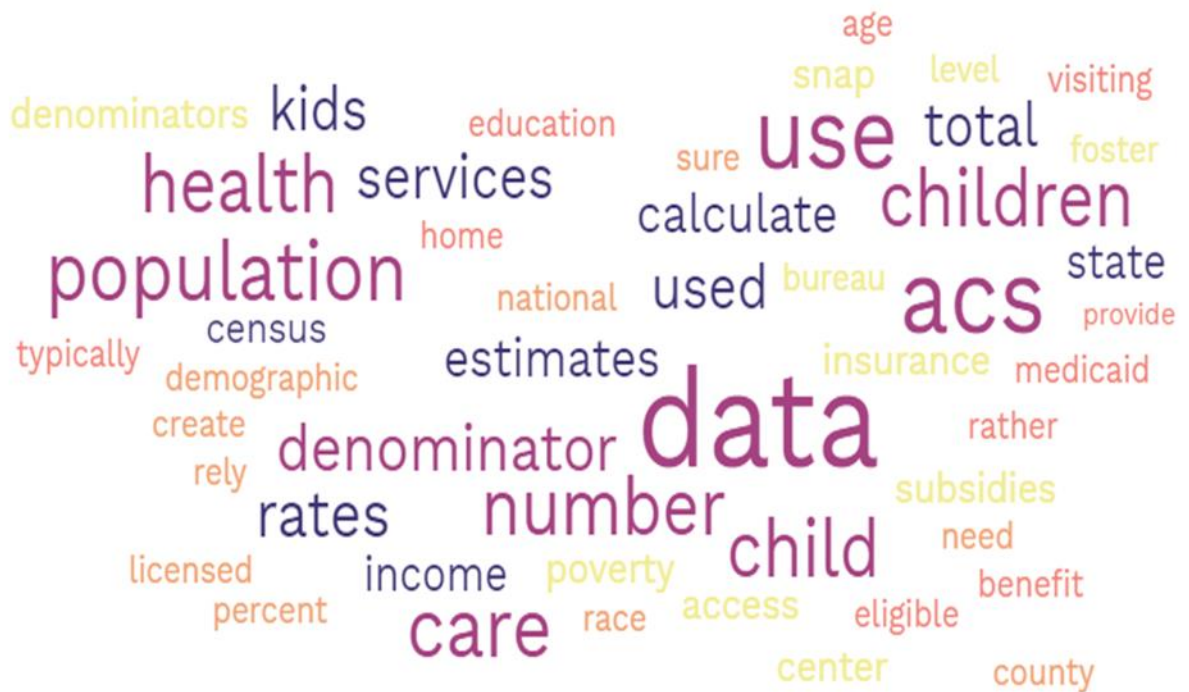
Question 3 Please list the kinds of demographic comparisons you make using ACS data (such as race, ethnicity, age, family structure).

Word Cloud for Question 3



Question 4 Please list examples of how you use the ACS to provide the denominator in assessing access to services where you get the number of kids served from other data (for example, the share of children receiving dental services, or childcare subsidies, or school meals)

Word Cloud for Question 4



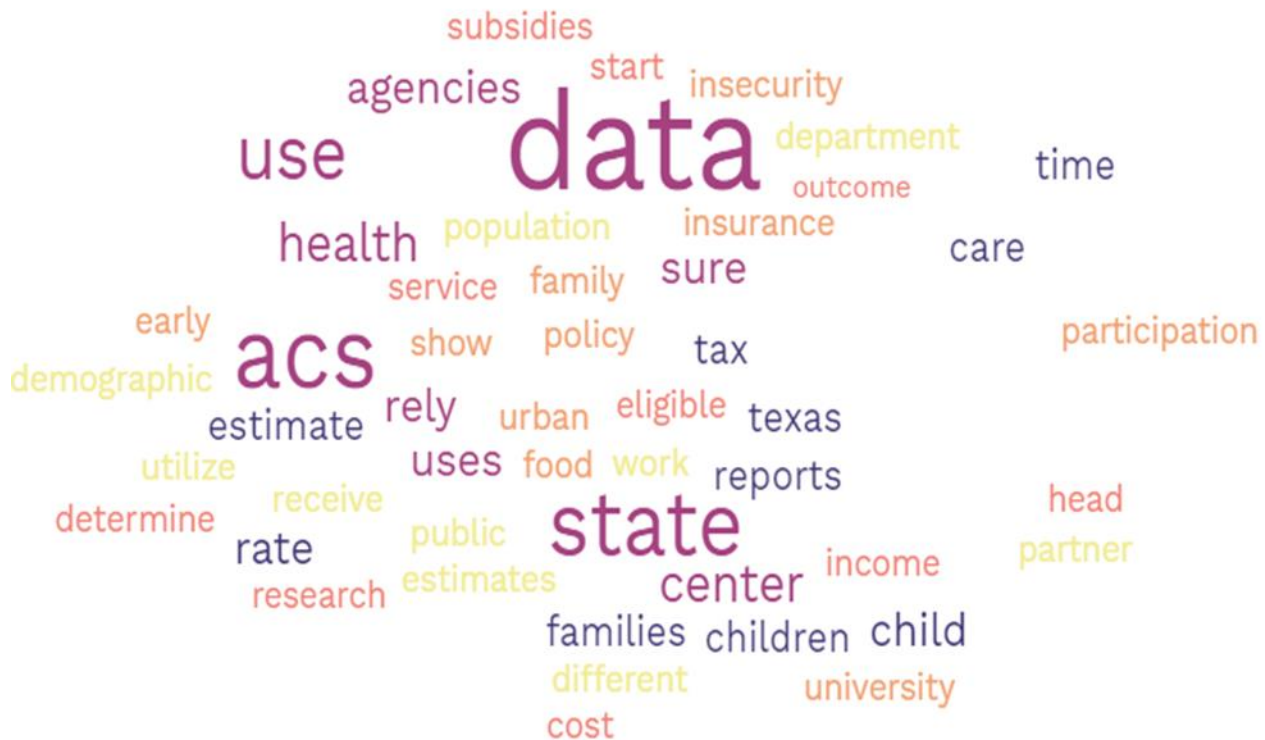
Question 5 What other ways do you use the ACS?

Word Cloud for Question 5



Question 6 **What data do you use from other sources that use the ACS (for example, does your state use the ACS to calculate the share of children being served by various programs, or the share of children with various health conditions)**

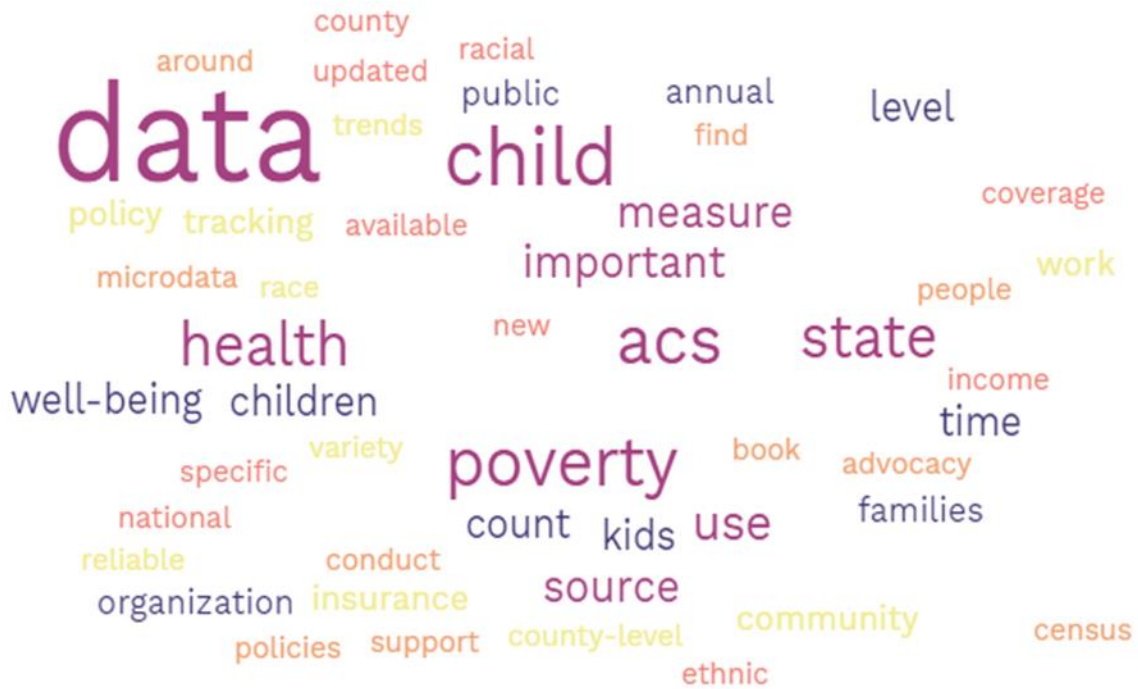
Word Cloud for Question 6



Question 7 **What is the most important use of the ACS for you?**

Question 8 If you have a story of where using ACS data created an important policy change for children, please give it here.

Word Cloud for Question 8



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ⁱ Measuring child poverty involves matching children to their resident parents. The income of the family is used to determine the poverty status of the child. In that context it is important to make sure children maintain the link to their parents in statistical processing. The application of differential privacy in the 2020 Census data de-linked children from their parents.

The Census Bureau is using a new process called differential privacy to help protect confidentiality of respondent's data in the 2020 Census. The application of Differential Privacy separates children from their parents in many households (O'Hare 2021). If the application of differential privacy to the ACS, results in statistically separating children from the parents (or their household) will ruin the measurement of child poverty. That is why there were 160,000 census blocks with children but no adults in the PL 94-171 file. (O'Hare 2021).