

Equity Counts: Development of Common Measures

A Brief Technical Guide

Prepared for: The Aspen Institute Forum for
Community Solutions' Opportunity Youth Forum

September 2019

EQUAL
MEASURE

FINDING
PROMISE
FUELING
CHANGE

Introduction

About Equity Counts

Equity Counts is a new project of the Aspen Institute Forum for Community Solutions' (FCS) Opportunity Youth Forum (OYF) that began in the Fall 2018. Funded with 12 months of initial support from The Ballmer Group, the goal of Equity Counts is to assist OYF member communities to increase their capacities for data collection and data use, with a focus on utilizing data to promote equitable outcomes. Six OYF communities (see box at right) participated in the Equity Counts Data Collection Pilot (DCP) in 2018-2019 to define measures and participate in a data collection effort focused on select core opportunity youth (OY) population-level data points in their communities. Equal Measure worked with the pilot communities to develop community-wide indicators of OY success and progress at the population level and to disaggregate, when possible, by key demographic factors such as race/ethnicity, gender, and age. These indicators will serve as important baseline information for later years of the project and provide a critical context for how OY efforts are progressing in the OYF communities.

Equity Counts Data Collection Pilot (DCP) Communities

- *Austin Opportunity Youth Collaborative, Austin, TX*
- *Boston Opportunity Youth Collaborative, Boston, MA*
- *Thrive Chicago, Chicago, IL*
- *Oakland-Alameda County Opportunity Youth Initiative, Alameda County, CA*
- *Project U-Turn, Philadelphia, PA*
- *Santa Clara County Opportunity Youth Partnership, Santa Clara County, CA*

OYF Common Measures

Equal Measure, in conjunction with OYF and the six Equity Counts Data Collection Pilot communities, developed four community-level OYF Common Measures. In addition to capturing youth disconnection, these measures are a new way of segmenting the OY population based on their progress in attaining a high school degree, a postsecondary credential, and getting a job. These measures are:



Community Disconnection Rate: The rate of young people disconnected from work and school (i.e., opportunity youth).



High School Disconnection Rate: The rate of young people without a high school diploma/GED and not working who are disconnected from high school.



Postsecondary Disconnection Rate: The rate of young people with a high school diploma/GED, without a postsecondary credential who are disconnected from postsecondary education and not working.



Workforce Disconnection Rate: The rate of young people with a postsecondary credential, but not enrolled in postsecondary, who are disconnected from the workforce.

In addition to these four measures, two other measures that are important to track at the community-level to further understand the community context are:

- **High School Attainment Rate:** The rate of young people who have earned a high school credential (diploma or GED).
- **Postsecondary Attainment Rate:** The rate of young people with a postsecondary credential (specifically, a 2- or 4-year college degree).

Tracking these measures consistently and reliably over time and across OYF communities can help measure progress and identify areas of success and need. In particular, these data points can be used by OYF communities and FCS to understand the OY population within and across OYF communities,

help to align goals and strategies, improve the ability to “tell the story” and case-make, and through disaggregation, understand priority populations.

Disaggregating for equity in the OYF Common Measures by race/ethnicity, gender, and other descriptors such as age and nativity is critical to help communities set goals and hold themselves accountable to advancing equitable outcomes. Examining the six measures *without* disaggregation may hide critical and inequitable differences between groups. Our goal was, when possible, to disaggregate these measures by key background variables in order to track progress on advancing equitable outcomes.

Data Source: American Community Survey

In order to calculate the OYF Common Measures across OYF communities, we determined that the American Community Survey (ACS: <https://www.census.gov/programs-surveys/acs/>), an annual, publicly available, nationally representative survey administered by the U.S. Census Bureau, was the most appropriate data source. While ACS has its limitations (see text box on page 4), it encompasses all of the OYF communities, is reliable and consistent, and provides information on educational enrollment and attainment, employment, and demographic variables.

Others who examine community-level indicators of opportunity youth, such as Measure of America¹ and some of the DCP communities, use ACS data as well. Using ACS, we were able to calculate the six OYF Common Measures for each of the DCP communities, thus achieving our Year 1 Equity Counts goal of piloting data measures at the community-level (see Appendix A for the six measures by community).² The formulas for these OYF Common Measures are unique and were developed with input from the DCP sites and generated to capture more nuanced disconnection and importantly, progress in improving connection rates (decreasing disconnection rates) over time. Going forward, these annual snapshots are the closest we can come to tracking community-level progress in connecting opportunity youth to specific education and employment pathways.

Purpose of this Guide

This guide was developed as a technical supplement to the OYF Common Measures for each of the DCP communities. The guide provides more technical information about the data source – the American Community Survey – including the key variables used in the analysis, the geographic areas for the six DCP communities, and the reliability of the estimates. This is not meant to be a step-by-step guide, though with the information in this document, individuals with knowledge of the ACS and statistical packages should be able to replicate or closely parallel our results and methodology.

This guide contains the following sections:

- American Community Survey (ACS): Additional Details
- The Creation of Geographic Areas
- ACS Variables
- Analytical Considerations
- Calculating the Common Measures

Appendices D-F include the codes used for creating geographic boundaries, the ACS variable names and values used in our analysis, and a list of additional ACS resources. More information on Equity

¹ A note about Measure of America (MOA): MOA provides data and research on disconnected youth in the U.S. Data analyzed and published by MOA, however, do not reflect the geographic parameters of the OYF Equity Counts communities. Generally, data published by MOA includes a much larger geographic footprint than is meaningful to the OYF communities. In addition, other than the disconnection rate, the MOA data do not report (as far as we know) disconnection from particular segments of the education-to-workforce continuum (high school, postsecondary, workforce).

² While Year 1 of Equity Counts was focused on developing community-level measures for the six pilot sites, we are in the process of providing the OYF Common Measures for all of the OYF communities.

Counts and our learning from Year 1 can be found in *Equity Counts: Tracking Opportunity Youth Outcomes* and *Equity Counts: Using Data to Increase Equity and Improve Metric Outcomes for Opportunity Youth*.

American Community Survey: Additional Details

The American Community Survey (ACS), part of the U.S. Census Bureau, is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than \$675 billion in federal and state funds are distributed each year.³ The ACS is conducted every year to provide up-to-date information about the social and economic needs of communities throughout the U.S. and how people live--their education, housing, jobs, and more. For example, results may be used to decide where new schools, hospitals, and emergency services are needed.⁴

Benefits of the ACS

- ✓ **Feasible to collect** – Data are publicly available on the Census website
- ✓ **Consistency in timing and methods** – Collected through an annual survey from a representative sample of the U.S. population
- ✓ **Credibility** – Acknowledged as a credible source across sectors and used by community leaders and policymakers
- ✓ **Accuracy** – Utilizes a reliable sample of the U.S. population
- ✓ **Geographic scope** – Representative of the community as a whole
- ✓ **Geographic specificity** – Data can be analyzed according to customized geographic areas using Public Use Microdata Areas (PUMAs)
- ✓ **Ability to disaggregate** – Data can be disaggregated according to a variety of demographic characteristics

Limitations of the ACS

- ✓ **Delayed** – Data are not available until approximately 10 months after being collected
- ✓ **Presents an annual “snapshot”** – Doesn’t track the same individuals over time
- ✓ **Level of detail**. Some variables are not as detailed as some would like. Data reflecting postsecondary enrollment and attainment, for example, are limited to 2- and 4-year college degrees.⁵
- ✓ **Provides estimates, not actual counts** – The survey is distributed to a sample of people rather than the full population. Some samples are so small that the data can’t be disaggregated

Coverage and Administration

Every year, the U.S. Census Bureau contacts over 3.5 million households across the country to participate in the American Community Survey. About 1 in 38 U.S. households per year receives an invitation to participate in the ACS. The Census selects a random sample of addresses to be included in the ACS. Addresses are sampled rather than people to ensure good geographic coverage. A sample of people living in group quarters, such as college dormitories, nursing homes, and prisons, are also interviewed in person to ensure coverage of everyone in the country. Individuals can complete the questionnaire online or on a paper form. Those who do not complete the survey may receive a personal visit from Census Bureau staff. ACS data are *cross-sectional* rather than longitudinal; in other words, the same people are not surveyed each year, but rather new samples are created each year (see text box at right for benefits and limitations of ACS for the purposes of tracking outcomes for opportunity youth).

³ <https://www.census.gov/programs-surveys/acs/about.html>

⁴ <https://www.census.gov/programs-surveys/acs/about/acs-and-census.html>

⁵ For more information on the ACS and the variables used to examine OY outcomes, see *Equity Counts: Development of Common Measures, A Brief Technical Guide*.

Types of Files Available

ACS Public Use Microdata Sample (PUMS) data is available as 1-year estimates and 5-year estimates. These files are produced so that data users can create custom tables that are not available through pre-tabulated or summary ACS data products.⁶ 1-year estimates represent 12 months of collected data. They are the most current data, but are not as precise, given that there are fewer cases in these files. 5-year estimates represent 60 months of collected data, and are more precise, but far less current.⁷ 3-year estimates used to be released, but the Census discontinued these releases (see Appendix C for descriptions and uses of the different files). Data is generally released the fall of the year after the survey (for example, 2017 data was released in fall 2018).

The 1-year PUMS data estimates best fulfill the intended purpose for Equity Counts and Aspen FCS – to consistently provide the most up-to-date estimates on the OYF communities, to observe yearly trends over time, and to use the data to case-make and refine strategy. Although the 1-year estimates are less reliable than the 5-year estimates, we concluded that the 1-year data is more actionable and thus more relevant to the network.⁸ We employ some reliability tests and redact results that do not meet adequate standards of reliable estimates (please refer to the “Analytical Considerations” section later in this document for more details).

The Creation of Geographic Areas

After downloading the ACS data, the first part of our analysis was to define the geographic areas for the six DCP communities in order to appropriately calculate the community-level measures. To create the geographic scopes for these communities, we used the smallest unit of geographic analysis available in the 1-year ACS data: Public Use Microdata Areas (PUMAs). PUMAs are statistical geographic areas (last defined in 2010) used for the dissemination of Public Use Microdata Sample (PUMS) data, which Equal Measure uses for this analysis. The most current PUMAs nest within states or equivalent entities, contain at least 100,000 people, are built on census tracts and counties, and are geographically contiguous.⁹

For each DCP community, we developed a list of PUMAs for that community that we vetted with each collaborative to confirm that these PUMAs reflect where the collaboratives focus and where the priority populations for their work may live. The 1-year PUMS data was downloaded from the Census website, and these PUMAs were used as the basis for the analysis for the communities. For a list of PUMAs of the six DCP sites, please refer to Appendix D.

American Community Survey Variables

The ACS PUMS data is split into two separate files: a household file and an individual file. As we are interested in characteristics of individuals rather than households, we used a range of variables and questions from the individual file.

Equal Measure utilized three types of ACS individual variables in this analysis:

- Variables used to define geographies for communities (such as state and PUMA codes)
- Variables used for the six common measure outcomes (such as age, school enrollment status, employment status, and highest level of educational attainment)
- Variables used for disaggregation of common measure outcomes (such as race, ethnicity, gender, and age)

⁶ <https://www.census.gov/programs-surveys/acs/technical-documentation/pums.html>

⁷ https://www.census.gov/content/dam/Census/library/publications/2018/acs/acs_general_handbook_2018_ch03.pdf

⁸ OYF collaboratives are located in a wide range of communities – in different states, regions, and communities of varying sizes. The 1-year data is not reliable enough to provide estimates for some of the smaller communities in the OYF network. In these cases, we had to use 5-year estimate data instead. However, we used 1-year data for the six DCP communities.

⁹ <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html>

Some of these variables were recoded to collapse categories from the original variable in order to facilitate analysis. For example, the highest educational attainment variable includes every primary and secondary school grade, but we recoded this such that anybody with a highest level of attainment of grade 12 (no diploma) or less as having less than a HS diploma or GED. Please see Appendix E for a full list of variables used in this analysis.

Analytical Considerations

This section includes a few of the methodological points we considered in our analysis.

Application of weights

The Census Bureau uses a number of methods to ensure a representative sample of people are offered and complete the ACS. However, for a number of reasons, some over-sampling and some under-sampling still occur, as they do for most surveys. Thus, the Census Bureau develops a set of weights. If analyses are run using these weights, then these estimated results should be representative of the actual makeup of communities. Each individual case is assigned a weight based on a combination of demographic characteristics and the number of people with similar demographics in that area that completed the ACS.

In our analyses, we use the individual person weight (variable “PWGTP” in the ACS data). This is a weight commonly used by researchers that partner with OYF collaboratives and data experts at these collaboratives.

Design Factors

In addition to typical sampling and non-sampling errors that most population-level surveys are subject to, “estimates made with PUMS data are subject to additional sampling error because the PUMS data consists of a subset of the full ACS sample.”¹⁰ To account for this, the Census Bureau has calculated and produced design factors for PUMS files each year since 2004. There is a design factor for many variables in the ACS, including all of the variables we use in our analysis. The design factor for each variable is also different by state.

Design factors are at least 1.0 and can go up to 2.5 or 3.0. Design factors are effectively multipliers of the standard error. For example, if the calculated standard error is 5.0 and the design factor is 2.0, then the corrected standard error is $5.0 \times 2.0 = 10.0$. In our analysis, we use the design factors in calculating standard error estimates that are more conservative and reliable given that we are using PUMS data.

Checks on reliability

We made determinations about whether an estimate was reliable (and thus an estimate we felt comfortable presenting) based on the margins of error, coefficients of variance, and sample cell sizes. According to the Census, “there are no hard-and-fast rules for determining an acceptable range of error in ACS estimates. Instead, data users must evaluate each application to determine the level of precision that is needed for an ACS estimate to be useful.”¹¹ Through a review of resources that apply reliability measures on ACS data and consulting with partners from a few OYF collaboratives, we decided on a set of reliability criteria. We applied reliability rules on estimates for all communities, and redacted (i.e., removed from data tables) any estimates that did not meet these criteria. Redacted cells are marked with 3 asterisks “***” in our tables. Below are our considerations for reliability:

¹⁰ Page 10, “Public Use Microdata Sample (PUMS) Accuracy of the Data,” U.S. Census Bureau, 2017. https://www2.census.gov/programs-surveys/acs/tech_docs/pums/accuracy/2017AccuracyPUMS.pdf?#

¹¹ Page 46, “Understanding and Using American Community Survey Data: What All Data Users Need to Know,” U.S. Census Bureau, July 2018. <https://www.census.gov/programssurveys/acs/guidance/handbooks/general.html>

- If the coefficient of variance (standard error/estimated percentage) is less than 0.4, keep the estimate and do not redact
- If margin of error is less than 10 percent, keep the estimate and do not redact
- If estimated percentage is less than 20 percent AND the margin of error is less than the estimated percentage, keep the estimate and do not redact.
- Any estimates that do not meet these rules are redacted.
- Any estimates that are 100 percent or 0 percent are redacted because the standard error is 0 or undefined.

Also, there are two other criteria that are flagged:

- If a denominator for an estimate has less than 1000 weighted cases.
- If the smallest cell in an analysis has less than 400 weighted cases.

In these instances, these estimates are reviewed and the choice to redact is made on a case-by-case basis. In general, we aimed to present as many estimates as we could without providing data that was highly unreliable.

OYF Common Measures and Supplemental Measures

In collaboration with the FCS and six DCP collaboratives, we developed definitions for four primary outcomes (community disconnection rate, high school disconnection rate, postsecondary disconnection rate, and workforce disconnection rate), as well as two supplementary measures (high school attainment rate and postsecondary attainment rate). In this section, we provide definitions for these measures, as well as the formulas we used to calculate those measures. These formulas were used in our analysis of ACS data to produce estimates for each community.

Community Disconnection Rate: A community's disconnection rate reflects the percent of young people in the community ages 16 to 24 who are not working *and* not in school (i.e., opportunity youth).

$$\text{Community Disconnection Rate} = \left(\frac{\text{\# of young people not working and not in school}}{\text{\# of 16-24 year olds in the community}} \right) \times 100$$

Segmented disconnection rates

The three disconnection rates below, which we refer to as "segmented disconnection rates," reflect a more nuanced understanding of a community's disconnection rate by reporting the percent of youth who are disconnected from a particular segment of the education-to-workforce continuum (high school, postsecondary, the workforce). To determine each rate, we focus on the segment of the 16-24 year old population that we would reasonably expect to be connected to that portion of the education-to-workforce continuum (i.e., the "denominator" in each calculation). We then calculate the percentage of those youth who are not connected to that pathway. The youth reflected in each segmented disconnection rate are opportunity youth – collectively, the opportunity youth reflected in the three segmented disconnection rates below capture all of a community's opportunity youth. These rates are exhaustive in that they capture the disconnection "type" of all opportunity youth, and mutually exclusive because each opportunity youth in a community is captured in only one of the three segmented disconnection rates.

High School Disconnection Rate: This rate reflects the percent of 16-24 year-olds in the community who "should be" enrolled in high school, but aren't. The rate is calculated by looking at the number of 16-24 year-olds without a HS diploma or GED and not working who are not enrolled in high school.

$$\text{HS Disconnection Rate} = \left(\frac{\text{\# of young people not enrolled in HS}}{\text{\# of 16-24 year olds without a HS diploma or GED and not working}} \right) \times 100$$

Postsecondary Disconnection Rate: This rate reflects the percent of 16-24 year-olds in the community who “should be” enrolled in a postsecondary institution, but aren’t. The rate is calculated by looking at the number of 16-24 year-olds with a high school diploma or GED – but not a postsecondary credential and not working – who are not enrolled in a postsecondary institution. 16-24 year-olds who are both enrolled in postsecondary *and* working are connected, so they are added to the denominator for the postsecondary disconnection rate.

$$\text{PS Disconnection Rate} = \left(\frac{\text{\# of young people not enrolled in a PS institution}}{\text{\# of 16-24 year olds with a HS diploma or GED who don't have a PS credential and aren't working} + \text{\# of 16-24 year olds with a HS diploma or GED who don't have a PS credential and are enrolled in PS AND working}} \right) \times 100$$

Workforce Disconnection Rate: This rate reflects the percent of 16-24 year-olds in the community who “should be” employed, but aren’t. The rate is calculated by looking at the number of 16-24 year-olds with a postsecondary credential (namely, a 2-year or 4-year college degree) – but not enrolled in a PS institution – who are not currently working. We only include young people with a postsecondary credential in this rate because, since they hold a credential, we expect them to be employed.

$$\text{Workforce Disconnection Rate} = \left(\frac{\text{\# of young people not working}}{\text{\# of 16-24 year olds with a PS credential, and not enrolled in a PS institution}} \right) \times 100$$

Supplemental Measures: attainment rates for young people

In addition to tracking connection to education and employment pathways, capturing the percentage of 16-24 year-olds who have earned a high school diploma/GED and postsecondary credential is important to monitoring the educational attainment of a community’s young people.

High School Attainment Rate: This rate reflects the percent of eligible 16-24 year-olds in the community who have earned a high school credential (diploma or GED). The rate is calculated by looking at the number of 16-24 year-olds not enrolled in high school who have earned a high school credential.

$$\text{HS Attainment Rate} = \left(\frac{\text{\# of young people with a HS diploma or GED}}{\text{\# of 16-24 year olds not enrolled in high school}} \right) \times 100$$

Postsecondary Attainment Rate: This rate reflects the percent of eligible 16-24 year-olds in the community who have earned a postsecondary credential (specifically, a 2- or 4-year college degree). The rate is calculated by looking at the number of 16-24 year-olds with a high school diploma/GED and not enrolled at a postsecondary institution who have earned a postsecondary credential.

$$\text{PS Attainment Rate} = \left(\frac{\text{\# of young people with a PS credential}}{\text{\# of 16-24 year olds with a HS diploma or GED and not enrolled at a PS institution}} \right) \times 100$$

Disaggregating for Equity in the OYF Common Measures

In addition to tracking connection to education and employment pathways, capturing the extent that various subpopulations (e.g., racial/ethnic groups, gender) are represented among disconnected youth provides insight into whether some groups are disproportionately disconnected. Equity outcomes are

calculated by looking at the number of disconnected youth of a specific subpopulation relative to the number of youth of the same subpopulation who are expected to be connected. For example, if 10 out of 30 Hispanic young people are disconnected, the equity outcome is 33 percent. If 15 out of 100 White young people are disconnected, the equity outcome is 15 percent. Comparing these rates among subpopulations can reveal disproportionate levels of disconnection.

$$\text{Sample Formula} = \left(\frac{\text{\# of [population subgroup] who are disconnected}}{\text{\# of [population subgroup] in the pool of possibly connected 16-24 year olds}} \right) \times 100$$

$$\text{Sample Formula} = \left(\frac{\text{\# of [population subgroup] who are disconnected from HS}}{\text{\# of [population subgroup] in the pool of possibly HS connected 16-24 year olds}} \right) \times 100$$

In some communities, and for some measures, when we disaggregate by various characteristics (particularly those with multiple categories) the number of cases gets very small and the estimates, therefore, unreliable. As described under “*Analytical Considerations*” we applied a number of criteria to determine whether we felt comfortable presenting an estimate. Estimates that did not meet these criteria were redacted and not presented in our results. This was more likely to occur in disaggregating data when the number of cases gets smaller and smaller.¹²

Conclusion

For communities, collaboratives, and partners focused on decreasing the number of Opportunity Youth, using a clear and consistent metric for communicating about the state of OY, and tracking their reconnection to education and employment pathways, is paramount. The measures described in this brief outline an effective approach for capturing a more nuanced understanding of the extent that Opportunity Youth are disconnected from specific points along the education-to-career continuum. These measures use the best available data to consistently compare youth disconnection (and connection) across communities and over time. In addition, these annual snapshots are the closest we can come to tracking community-level progress in connecting opportunity youth to specific education and employment pathways. By utilizing these measures, and standardizing how communities talk about youth disconnection, communities can focus efforts to close specific disconnection rates and better articulate their vision for opportunity youth while “speaking the same language.”

More information on Equity Counts and our learning from Year 1 can be found in *Tracking Opportunity Youth Outcomes: Measures for Capturing Community-level Opportunity Youth outcomes* and *Equity Counts: Deepening Impact by Increasing Data Capacity*.

¹² One solution to this problem, is to use the 5-year files which have larger sample sizes. However, it then becomes challenging to look at trends over time, year to year. For some small OYF communities, we will likely use 5-year files.

Appendix A: Equity Counts Data (2017 1-year ACS estimates; 6 Data Collection Pilot (DCP) communities)

	Austin	Boston	Chicago	Oakland	Philadelphia	Santa Clara County	Total (DCP)
Total 16-24 year old population	264,972	113,503	326,190	177,558	193,713	211,269	1,287,205
Number of Opportunity Youth	21,657	4,922	47,478	14,262	33,808	13,729	135,856
OYF Common Measures							
Community Disconnection Rate	8.2%	4.3%	14.6%	8.0%	17.5%	6.5%	10.6%
HS Disconnection Rate	10.0%	7.6%	14.1%	10.0%	13.3%	5.3%	10.7%
HS Connection Rate	90.0%	92.4%	85.9%	90.0%	86.7%	94.7%	89.3%
Postsecondary Disconnection Rate	24.1%	8.6%	40.4%	18.0%	44.7%	17.9%	28.4%
Postsecondary Connection Rate	75.9%	91.4%	59.6%	82.0%	55.3%	82.1%	71.6%
Workforce Disconnection Rate	7.0%	5.6%	10.6%	14.6%	14.3%	10.5%	10.3%
Workforce Connection Rate	93.0%	94.4%	89.4%	85.4%	85.7%	89.5%	89.7%
Supplemental Measures							
HS/GED Attainment Rate	94.0%	96.9%	93.6%	94.1%	94.8%	95.3%	94.5%
Postsecondary Attainment Rate	24.1%	55.7%	32.2%	31.6%	18.5%	48.3%	31.8%

**Values reflect the weighted estimates from the ACS 1-year file from 2017.*

Appendix B: Equity Counts Disaggregated Data (2017 1-year ACS estimates; 6 Data Collection Pilot (DCP) communities)

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Summary: OYF Common Measures						
Community Disconnection Rate	8.2	4.3	14.6	8.0	17.5	6.5
HS Disconnection Rate	10.0	7.6	14.1	10.0	13.3	5.3
Postsecondary Disconnection Rate	24.1	8.6	40.4	18.0	44.7	17.9
Workforce Disconnection Rate	7.0	5.6	10.6	14.6	14.3	10.5
OYF Common Measures						
Community Disconnection Rate	8.2	4.3	14.6	8.0	17.5	6.5
<i>Total number of youth disconnected</i>						
	21,657	4,922	47,478	14,262	33,808	13,729
<i>Percent of males and females that are disconnected</i>						
Male	8.4	4.5	16.4	8.5	18.5	5.9
Female	7.9	4.2	12.8	7.6	16.4	7.1
<i>Percent of Racial/Ethnic groups that are disconnected</i>						
Hispanic, any race	9.9	7.1	12.9	7.8	19.9	12.1
White	5.3	1.5	5.4	8.3	9.6	2.2
Black or AA	10.5	9.8	25.6	15.7	23.0	5.3
American Indian or Alaskan Native	***	***	***	***	***	***
Asian or Pacific Islander	3.6	0.5	6.5	5.2	8.3	5.1
Other race	***	***	***	***	***	2.1
Two or more race	***	***	19.4	8.0	***	1.2
Hispanic, any race	9.9	7.1	12.9	7.8	19.9	12.1
White, non-Hispanic	5.3	1.5	5.4	8.3	9.6	2.2
Non-white, non-Hispanic	7.8	6.4	21.9	8.0	21.2	5.0
White	7.7	2.1	8.5	7.2	11.8	7.4
Non-white	7.5	6.6	19.5	8.4	21.5	5.8

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Hispanic	9.9	7.1	12.9	7.8	19.9	12.1
non-Hispanic	7.0	3.6	15.4	8.1	16.9	3.7
Age						
16-19 years old	7.9	3.2	6.6	5.2	12.3	2.4
20-24 years old	8.4	***	19.4	10.1	21.1	9.5
Nativity						
Native-born	8.0	4.7	15.6	8.4	17.4	5.8
Foreign-born	9.3	3.1	6.8	6.5	18.1	9.2
Having children						
No children	9.1	7.1	17.9	9.7	23.1	8.4
With children	4.6	***	0.7	2.8	3.6	0.3
Income						
200% or less of poverty line	9.1	7.4	18.7	12.4	23.9	10.2
More than 200% of poverty line	7.6	2.4	10.6	6.2	10.2	5.3
HS Disconnection Rate	10.0	7.6	14.1	10.0	13.3	5.3
Total number of youth disconnected from high school						
	5,584	1,005	10,912	3,846	5,530	2,607
Percent of males and females that are disconnected from HS						
Male	10.4	8.9	16.7	7.8	13.7	6.0
Female	9.6	6.1	10.9	12.6	12.8	4.7
Percent of Racial/Ethnic groups that are disconnected from HS						
Hispanic, any race	10.9	***	11.4	10.5	25.0	13.6
White	4.9	1.0	5.2	***	***	0.1
Black or AA	***	***	21.1	***	9.3	***
American Indian or Alaskan Native	***	***	***	***	***	***

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Asian or Pacific Islander	***	***	***	9.7	***	1.9
Other race	***	***	***	***	***	***
Two or more race	***	***	***	***	***	***
Hispanic, any race	10.9	***	11.4	10.5	25.0	13.6
White, non-Hispanic	4.9	1.0	5.2	***	***	0.1
Non-white, non-Hispanic	***	***	18.8	11.5	9.6	17.7
White	8.6	3.3	8.2	6.2	18.6	7.0
Non-white	8.8	7.9	17.8	11.4	10.2	4.4
Hispanic	10.9	***	11.4	10.5	25.0	13.6
non-Hispanic	9.3	6.1	15.9	9.7	9.3	1.2
Age						
16-19 years old	6.9	6.4	3.8	5.6	6.6	0.7
20-24 years old	50.7	***	75.7	73.0	69.4	81.9
Nativity						
Native-born	9.7	***	14.9	9.5	12.0	2.1
Foreign-born	13.0	***	***	12.0	***	24.5
Having children						
No children	15.8	22.3	34.0	35.3	32.8	29.5
With children	6.0	***	0.6	2.7	3.8	0.3
Income						
200% or less of poverty line	14.1	11.8	16.7	14.3	15.5	16.2
More than 200% of poverty line	8.3	1.6	10.2	7.8	8.5	2.2
Postsecondary Disconnection Rate	14.7	5.1	27.1	11.1	32.3	10.2
Total number of youth disconnected from postsecondary						
	14,613	3,105	32,630	8,168	26,327	8,172
Percent of males and females that are disconnected from Postsecondary						

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Male	16.6	5.5	29.5	12.8	37.6	8.5
Female	13.0	4.8	24.9	9.4	27.8	12.2
Percent of Racial/Ethnic groups that are disconnected from Postsecondary						
Hispanic, any race	21.7	10.5	27.4	12.3	41.9	22.5
White	8.8	0.9	7.9	12.5	12.2	2.8
Black or AA	17.8	18.6	49.2	***	53.2	***
American Indian or Alaskan Native	***	***	***	***	***	***
Asian or Pacific Islander	5.8	0.2	9.2	4.6	11.3	4.2
Other race	***	***	***	***	***	***
Two or more race	***	***	37.0	***	***	2.8
Hispanic, any race	21.7	10.5	27.4	12.3	41.9	22.5
White, non-Hispanic	8.8	0.9	7.9	12.5	12.2	2.8
Non-white, non-Hispanic	12.1	9.2	39.3	9.3	45.6	4.8
White	14.2	2.0	15.8	11.2	14.4	13.0
Non-white	13.8	9.9	36.6	10.9	47.2	7.8
Hispanic	21.7	10.5	27.4	12.3	41.9	22.5
non-Hispanic	11.1	4.1	27.0	10.6	31.0	3.8
Age						
16-19 years old	15.5	2.2	15.1	7.0	23.0	5.8
20-24 years old	14.2	7.2	32.5	13.5	38.2	12.7
Nativity						
Native-born	14.5	5.6	29.0	11.9	32.3	11.0
Foreign-born	16.7	3.2	13.2	8.0	32.2	7.2
Having children						
No children	17.3	***	32.5	12.0	43.6	11.4
With children	***	***	***	***	***	***
Income						

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
200% or less of poverty line	13.6	11.0	31.6	17.8	46.3	13.8
More than 200% of poverty line	15.6	2.3	22.5	7.9	18.9	8.9
Workforce Disconnection Rate	7.0	5.6	10.6	14.6	14.3	10.5
Total number of youth disconnected from the workforce						
	1,460	812	3,936	2,248	1,951	2,950
Percent of males and females that are disconnected from the workforce						
Male	7.5	4.2	11.2	17.9	12.8	10.7
Female	6.6	6.7	10.1	11.6	15.4	10.3
Percent of Racial/Ethnic groups that are disconnected from the workforce						
Hispanic, any race	***	***	***	***	***	***
White	***	4.3	6.7	***	***	5.6
Black or AA	***	***	***	***	***	***
American Indian or Alaskan Native	***	***	***	***	***	***
Asian or Pacific Islander	***	***	***	***	***	17.1
Other race	***	***	***	***	***	***
Two or more race	***	***	***	***	***	***
Hispanic, any race	***	***	***	***	***	***
White, non-Hispanic	***	4.3	6.7	***	***	5.6
Non-white, non-Hispanic	***	***	***	18.2	***	14.3
White	8.5	3.7	6.9	***	14.2	7.1
Non-white	2.7	***	18.9	***	***	13.0
Hispanic	***	***	***	***	***	***
non-Hispanic	7.8	5.3	10.4	14.6	13.3	10.8
Age						
16-19 years old	***	***	***	***	***	***
20-24 years old	7.1	5.6	10.7	14.6	14.3	10.2

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Nativity						
Native-born	7.3	5.0	10.3	15.4	16.1	9.7
Foreign-born	***	***	***	***	***	12.4
Having children						
No children	6.7	***	***	***	***	***
With children	***	***	***	***	***	***
Income						
200% or less of poverty line	***	***	28.5	***	29.1	***
More than 200% of poverty line	5.8	5.3	4.6	13.1	4.2	10.8

Supplemental Measures

HS/GED Attainment Rate	94.0	96.9	93.6	94.1	94.8	95.3
<i>Total number of eligible youth with a HS diploma/GED</i>						
	182,979	95,584	228,200	126,357	142,503	149,345
<i>Percent of males and females with a HS diploma/GED</i>						
Male	93.5	95.6	91.8	93.9	93.3	94.6
Female	94.4	98.0	95.3	94.3	96.2	95.9
<i>Percent of Racial/Ethnic groups with a HS diploma/GED</i>						
Hispanic, any race	91.9	92.6	90.4	89.6	87.2	90.4
White	96.4	99.1	99.1	98.3	98.2	97.9
Black or AA	91.4	95.8	89.3	90.8	94.4	97.4
American Indian or Alaskan Native	***	***	***	***	***	***
Asian or Pacific Islander	99.1	99.3	98.7	96.2	96.9	97.1
Other race	***	***	***	***	***	***
Two or more race	76.3	83.4	98.1	93.6	***	***
Hispanic, any race	91.9	92.6	90.4	89.6	87.2	90.4
White, non-Hispanic	96.4	99.1	99.1	98.3	98.2	97.9

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Non-white, non-Hispanic	94.8	97.0	91.4	94.8	95.0	97.3
White	94.6	98.3	96.1	97.7	94.4	94.1
Non-white	93.7	95.7	90.9	92.0	94.9	95.6
Hispanic	91.9	92.6	90.4	89.6	87.2	90.4
non-Hispanic	95.2	97.8	95.0	95.9	96.3	97.7
Age						
16-19 years old	87.9	94.3	92.7	91.4	92.2	97.4
20-24 years old	95.9	97.9	93.8	95.0	95.7	94.6
Nativity						
Native-born	94.7	98.4	93.3	94.9	95.4	96.7
Foreign-born	87.9	91.8	95.2	91.2	90.0	90.4
Having children						
No children	95.4	95.8	94.1	94.2	94.7	94.8
With children	15.7	***	62.5	53.3	42.8	92.3
Income						
200% or less of poverty line	92.3	94.8	91.6	89.9	92.3	91.7
More than 200% of poverty line	95.2	98.0	95.3	95.9	97.3	96.5

PS Attainment Rate **24.1** **55.7** **32.2** **31.6** **18.5** **48.3**

Total number of eligible youth with a postsecondary credential						
	20,754	14,459	37,047	15,403	13,615	28,086
Percent of males and females with a postsecondary credential						
Male	18.7	46.2	30.1	28.4	14.8	45.0
Female	31.3	65.8	34.5	35.3	22.5	51.8
Percent of Racial/Ethnic groups with a postsecondary credential						
Hispanic, any race	15.2	35.7	19.3	14.1	13.6	11.6
White	31.0	91.0	70.1	44.4	45.4	68.4

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Black or AA	***	14.2	11.5	32.2	8.0	***
American Indian or Alaskan Native	***	***	***	***	***	***
Asian or Pacific Islander	***	79.6	53.9	45.2	40.6	77.6
Other race	***	***	***	***	***	***
Two or more race	***	***	***	18.4	***	***
Hispanic, any race	15.2	35.7	19.3	14.1	13.6	11.6
White, non-Hispanic	31.0	91.0	70.1	44.4	45.4	68.4
Non-white, non-Hispanic	32.5	24.8	16.1	39.8	10.8	48.6
White	24.6	84.2	50.9	37.9	35.9	42.2
Non-white	23.5	22.1	16.3	29.5	10.7	55.3
Hispanic	15.2	35.7	19.3	14.1	13.6	11.6
non-Hispanic	31.0	61.8	38.5	39.6	19.7	71.8

Age						
16-19 years old	2.2	***	2.2	***	***	1.4
20-24 years old	27.2	59.0	35.3	34.9	21.8	54.2

Nativity						
Native-born	25.0	59.7	32.4	32.8	18.1	44.6
Foreign-born	16.1	***	30.5	26.6	***	59.4

Having children						
No children	24.4	***	32.7	32.7	18.7	49.5
With children	***	***	***	***	***	***

Income						
200% or less of poverty line	24.1	37.0	19.9	18.8	13.6	37.6
More than 200% of poverty line	24.1	65.9	40.7	36.1	24.7	51.1

Opportunity Youth Demographics						
Total # of 16-24 year olds in the community	264,972	113,503	326,190	177,558	193,713	211,269

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Number of Opportunity Youth in the community	21,657	4,922	47,478	14,262	33,808	13,729
<i>Breakdown of OY by type of disconnection</i>						
Disconnected from High School	25.8	20.4	23.0	27.0	16.4	19.0
Disconnected from Postsecondary	67.5	63.1	68.7	57.3	77.9	59.5
Disconnected from the Workforce	6.7	16.5	8.3	15.8	5.8	21.5
<i>Gender breakdown of OY</i>						
Male	52.5	50.2	55.3	53.5	52.3	47.9
Female	47.5	49.8	44.7	46.5	47.7	52.1
<i>Race/Ethnicity breakdown of OY</i>						
Hispanic, any race	48.0	34.3	30.5	29.1	20.6	62.6
White	28.2	***	9.5	24.9	15.1	8.2
Black or AA	10.5	43.8	53.4	21.4	56.0	2.6
American Indian or Alaskan Native	0.1	***	***	***	1.2	***
Asian or Pacific Islander	2.7	1.4	3.1	18.4	4.3	25.2
Other race	0.0	2.0	***	***	2.4	0.0
Two or more race	10.0	3.4	3.6	6.0	0.0	0.1
Hispanic, any race	53.3	35.5	31.6	31.0	20.6	63.2
White, non-Hispanic	31.4	***	9.8	26.5	15.1	8.3
Non-white, non-Hispanic	15.3	48.9	58.6	42.6	64.2	28.5
White	76.0	***	27.3	34.7	26.0	48.6
Non-white	24.0	71.1	72.7	65.3	74.0	51.4
Hispanic	48.0	34.3	30.5	29.1	20.6	62.6
non-Hispanic	52.0	65.7	69.5	70.9	79.4	37.4
<i>Age breakdown of OY</i>						
16-18 years old	23.7	22.3	8.1	15.4	16.3	7.5
19-24 years old	76.3	77.7	91.9	84.6	83.7	92.5

	Austin	Boston	Chicago	Oakland / Alameda County	Philadelphia	Santa Clara County
Educational Attainment of OY						
Less than high school	25.8	20.4	23.0	27.0	16.4	19.0
High school diploma or GED	49.4	49.9	46.7	44.9	62.8	37.0
Some college	18.1	13.2	22.0	12.4	15.1	22.5
College degree	6.7	16.5	8.3	15.8	5.8	21.5
Nativity of OY						
Native-born	88.2	83.6	94.5	83.8	89.0	71.1
Foreign-born	11.8	***	5.5	16.2	11.0	28.9
OY with children						
No children	88.0	***	99.2	92.4	96.6	99.0
With children	12.0	***	0.8	7.6	3.4	1.0
Income of OY						
200% or less of poverty line	42.5	66.7	62.5	46.3	72.4	38.1
More than 200% of poverty line	57.5	33.3	37.5	53.7	27.6	61.9
College degree	6.7	16.5	8.3	15.8	5.8	21.5

*** denotes that the sample size is too small to report this data.

NOTE: The number of youth included in the OYF common measure rates (community disconnection, HS disconnection, PS disconnection, workforce disconnection) varies.

SOURCE: Equal Measure analysis of 2017 American Community Survey (ACS) data

Appendix C: 1-Year versus 5-Year ACS Data Files

Distinguishing Features of ACS 1-Year, 1-Year Supplemental, 3-Year, and 5-Year Estimates			
1-Year Estimates	1-Year Supplemental Estimates	3-Year Estimates ¹	5-Year Estimates
12 months of collected data Example: 2015 ACS 1-year estimates Dates collected: January 1, 2015, to December 31, 2015	12 months of collected data Example: 2015 ACS 1-year Supplemental Estimates Dates collected: January 1, 2015, to December 31, 2015	36 months of collected data Example: 2011-2013 ACS 3-year estimates Dates collected: January 1, 2011, to December 31, 2013	60 months of collected data Example: 2011-2015 ACS 5-year estimates Dates collected: January 1, 2011, to December 31, 2015
Data for areas with populations of 65,000 and more	Data for areas with populations of 20,000 and more	Data for areas with populations of 20,000 and more	Data for all areas
Smallest sample size	Smallest sample size	Larger sample size than 1-year	Largest sample size
Less reliable than 3-year or 5-year	Less reliable than 5-year	More reliable than 1-year; less reliable than 5-year	Most reliable
Most current	Most current	Less current than 1-year; more current than 5-year	Least current
Annually released: 2005 ACS 1-year data to present	Annually released: 2014 ACS 1-year data to present	Annually released: 2005–2007 ACS 3-year data to 2011–2013 ACS 3-year data	Annually released: 2005–2009 ACS 5-year data to present
Best used when	Best used when	Best used when	Best used when
Currency is more important than precision Analyzing large populations	Currency is more important than precision Analyzing smaller populations Examining smaller geographic areas because the standard 1-year estimates are not available	More precise than 1-year, spans fewer years than 5-year Analyzing smaller populations Examining smaller geographic areas because the standard 1-year estimates are not available	Precision is more important than currency Analyzing very small populations Examining tracts and other small geographic areas because 1-year estimates are not available

Source: United States Census Bureau. July 2018. *Understanding and Using American Community Survey Data: What All Data Users Need to Know*.

Appendix D: PUMAs for DCP communities

Site	PUMA code	Description of PUMA area
Austin	05302	Austin City (North) PUMA
Austin	05303	Austin City (Northeast) PUMA
Austin	05304	Austin City (Southeast) PUMA
Austin	05305	Austin City (Northwest) PUMA
Austin	05306	Austin City (Central) PUMA
Austin	05307	Austin City (South) PUMA
Austin	05308	Austin City (Southwest), Lost Creek & Barton Creek PUMA
Boston	03301	Boston City--Allston, Brighton & Fenway PUMA
Boston	03302	Boston City--Back Bay, Beacon Hill, Charlestown, East Boston, Central & South End PUMA
Boston	03303	Boston City--Dorchester & South Boston PUMA
Boston	03304	Boston City--Mattapan & Roxbury PUMA
Boston	03305	Boston City--Hyde Park, Jamaica Plain, Roslindale & West Roxbury PUMA
Chicago	03501	Chicago City (North)--Edgewater, Uptown & Rogers Park PUMA
Chicago	03502	Chicago City (North)--Lake View & Lincoln Park PUMA
Chicago	03503	Chicago City (North)--West Ridge, Lincoln Square & North Center PUMA
Chicago	03504	Chicago City (Northwest)--Irving Park, Albany Park, Forest Glen & North Park PUMA
Chicago	03520	Chicago City (Northwest)--Portage Park, Dunning & Jefferson Park PUMA
Chicago	03521	Chicago City (West)--Austin, Belmont Cragin & Montclare PUMA
Chicago	03522	Chicago City (Northwest)--Logan Square, Avondale & Hermosa PUMA
Chicago	03523	Chicago City (West)--North & South Lawndale, Humboldt Park, East & West Garfield Park PUMA
Chicago	03524	Chicago City (West)--West Town, Near West Side & Lower West Side PUMA

Site	PUMA code	Description of PUMA area
Chicago	03525	Chicago City (Central)--Near North Side, Loop & Near South Side PUMA
Chicago	03526	Chicago City (Southwest)--Brighton Park, New City, Bridgeport & McKinley Park PUMA
Chicago	03527	Chicago City (Southwest)--Gage Park, Garfield Ridge & West Lawn PUMA
Chicago	03528	Chicago City (South)--Chicago Lawn, Englewood/West Englewood & Greater Grand Crossing PUMA
Chicago	03529	Chicago City (South)--South Shore, Hyde Park, Woodlawn, Grand Boulevard & Douglas PUMA
Chicago	03530	Chicago City (South)--Ashburn, Washington Heights, Morgan Park & Beverly PUMA
Chicago	03531	Chicago City (South)--Auburn Gresham, Roseland, Chatham, Avalon Park & Burnside PUMA
Chicago	03532	Chicago City (South)--South Chicago, Pullman, West Pullman, East Side & South Deering PUMA
Oakland	00101	Alameda County (North)--Berkeley & Albany Cities PUMA
Oakland	00102	Alameda County (Northwest)--Oakland (Northwest) & Emeryville Cities PUMA
Oakland	00103	Alameda County (Northeast)--Oakland (East) & Piedmont Cities PUMA
Oakland	00104	Alameda County (North Central)--Oakland City (South Central) PUMA
Oakland	00105	Alameda County (West)--San Leandro, Alameda & Oakland (Southwest) Cities PUMA
Oakland	00106	Alameda County (North Central)--Castro Valley, San Lorenzo & Ashland PUMA
Oakland	00107	Alameda County (Central)--Hayward City PUMA
Oakland	00108	Alameda County (Southwest)--Union City, Newark & Fremont (West) Cities PUMA
Oakland	00109	Alameda County (South Central)--Fremont City (East) PUMA
Oakland	00110	Alameda County (East)--Livermore, Pleasanton & Dublin Cities PUMA
Philadelphia	03201	Philadelphia City (Far Northeast) PUMA
Philadelphia	03202	Philadelphia City (Near Northeast-West) PUMA

Site	PUMA code	Description of PUMA area
Philadelphia	03203	Philadelphia City (Near Northeast-East) PUMA
Philadelphia	03204	Philadelphia City (North) PUMA
Philadelphia	03205	Philadelphia City (East) PUMA
Philadelphia	03206	Philadelphia City (Northwest) PUMA
Philadelphia	03207	Philadelphia City (Central) PUMA
Philadelphia	03208	Philadelphia City (West) PUMA
Philadelphia	03209	Philadelphia City (Center City) PUMA
Philadelphia	03210	Philadelphia City (Southwest) PUMA
Philadelphia	03211	Philadelphia City (Southeast) PUMA
Santa Clara County	08501	Santa Clara County (Northwest)--Mountain View, Palo Alto & Los Altos Cities PUMA
Santa Clara County	08502	Santa Clara County (Northwest)--Sunnyvale & San Jose (North) Cities PUMA
Santa Clara County	08503	Santa Clara County (Northwest)--San Jose (Northwest) & Santa Clara Cities PUMA
Santa Clara County	08504	Santa Clara County (North Central)--Milpitas & San Jose (Northeast) Cities PUMA
Santa Clara County	08505	Santa Clara County (North Central)--San Jose City (East Central) & Alum Rock PUMA
Santa Clara County	08506	Santa Clara County (East)--Gilroy, Morgan Hill & San Jose (South) Cities PUMA
Santa Clara County	08507	Santa Clara County (Southwest)--Cupertino, Saratoga Cities & Los Gatos Town PUMA
Santa Clara County	08508	Santa Clara County (Central)--San Jose (West Central) & Campbell Cities PUMA
Santa Clara County	08509	Santa Clara County (Central)--San Jose City (Northwest) PUMA
Santa Clara County	08510	Santa Clara County (Central)--San Jose City (Central) PUMA
Santa Clara County	08511	Santa Clara County (Central)--San Jose City (South Central/Branham) & Cambrian Park PUMA
Santa Clara County	08512	Santa Clara County (Central)--San Jose City (Southwest/Almaden Valley) PUMA

Site	PUMA code	Description of PUMA area
Santa Clara County	08513	Santa Clara County (Central)--San Jose City (Southeast/Evergreen) PUMA
Santa Clara County	08514	Santa Clara County (Central)--San Jose City (East Central/East Valley) PUMA

Appendix E: List of ACS variables used in analysis

Variable name	Variable description	Value Codes
PUMA	Public use microdata area code (PUMA) based on 2010 Census definition	
ST	State Code based on 2010 Census definitions	
SCH	School enrollment	
	b	N/A (less than 3 years old)
	1	No, has not attended in the last 3 months
	2	Yes, public school or public college
	3	Yes, private school or college or home school
SCHG	Grade level attending	
	bb	N/A (not attending school)
	1	Nursery school/preschool
	2	Kindergarten
	3	Grade 1
	4	Grade 2
	5	Grade 3
	6	Grade 4
	7	Grade 5
	8	Grade 6
	9	Grade 7
	10	Grade 8
	11	Grade 9
	12	Grade 10
	13	Grade 11
	14	Grade 12
	15	College undergraduate years (freshman to senior)
	16	Graduate or professional school beyond a bachelor's degree
SCHL	Educational attainment	

Variable name	Variable description	Value Codes
	bb	N/A (less than 3 years old)
	1	No schooling completed
	2	Nursery school, preschool
	3	Kindergarten
	4	Grade 1
	5	Grade 2
	6	Grade 3
	7	Grade 4
	8	Grade 5
	9	Grade 6
	10	Grade 7
	11	Grade 8
	12	Grade 9
	13	Grade 10
	14	Grade 11
	15	12th grade - no diploma
	16	Regular high school diploma
	17	GED or alternative credential
	18	Some college, but less than 1 year
	19	1 or more years of college credit, no degree
	20	Associate's degree
	21	Bachelor's degree
	22	Master's degree
	23	Professional degree beyond a bachelor's degree
	24	Doctorate degree
SEX	Sex	
	1	Male
	2	Female

Variable name	Variable description	Value Codes
ESR	Employment status recode	
	b	N/A (less than 16 years old)
	1	Civilian employed, at work
	2	Civilian employed, with a job but not at work
	3	Unemployed
	4	Armed forces, at work
	5	Armed forces, with a job but not at work
	6	Not in labor force
RAC1P	Recoded detailed race code	
	1	White alone
	2	Black or African American alone
	3	American Indian alone
	4	Alaska Native alone
	5	American Indian and Alaska Native tribes specified; or American Indian or Alaska Native, not specified and no other races
	6	Asian alone
	7	Native Hawaiian and Other Pacific Islander alone
	8	Some Other Race alone
	9	Two or More Races
AGEP	Age in years	
POVPIP	Income-to-poverty ratio	
	0-500	Income is between 0-500 percent of poverty line (e.g., an individual with a value of 250 has an income 250% the poverty line)
	501	Income is more than 500 percent of poverty line
RC	Related Children	
	0	Has no related children
	1	Has related children
NATIVITY	Nativity	

Variable name	Variable description	Value Codes
	1	Native
	2	Foreign-born

Appendix F: Additional ACS resources

“Understanding and Using American Community Survey Data: What All Data Users Need to Know.” July 2018. U.S. Census Bureau.

https://www.census.gov/content/dam/Census/library/publications/2018/acs/acs_general_handbook_2018.pdf

“American Community Survey Information Guide.” U.S. Census Bureau.

https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf

“A Compass for Understanding and Using American Community Survey Data: What PUMS Data Users Need to Know.” February 2009. U.S. Census Bureau.

<https://www.census.gov/content/dam/Census/library/publications/2009/acs/ACSPUMS.pdf>

Additional guidance for data users (ACS portal with information for ACS users):

<https://www.census.gov/programs-surveys/acs/guidance.html>

PUMS Technical Documentation (PUMS portal with links to various PUMS data topics):

<https://www.census.gov/programs-surveys/acs/technical-documentation/pums/documentation.html>

“American Community Survey Data Suppression.” September 2016. U.S. Census Bureau.

https://www2.census.gov/programs-surveys/acs/tech_docs/data_suppression/ACSO_Data_Suppression.pdf

“American Community Survey Design and Methodology, Chapter 11: Weighting and Estimation.”

January 2014. U.S. Census Bureau. https://www2.census.gov/programs-surveys/acs/methodology/design_and_methodology/acs_design_methodology_ch11_2014.pdf