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Contextual Wave V Database User Guide



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Add Health is supported by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations.

Acknowledgments

Add Health is a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Work on the contextual data linkage was supported by grants to Taylor Hargrove and Lauren Gaydos (R21HD095448 and R24AG045061) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Institute on Aging, and the Network on Life Course Health Dynamics and Disparities. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>).

Introduction

This contextual database further expands the extensive contextual data currently available to users of the National Longitudinal Study of Adolescent to Adult Health (Add Health) through the provision of numerous measures reported by the U.S. Census Bureau's American Community Survey (ACS), rural-urban commuting area codes, U.S. Climate Atlas, and Uniform Crime Report. The data provide an important update to the contextual variables already available for previous waves of the study. Additionally, there are a few new variables in the present database that are absent from other waves. This data release increases the possibilities and quality of the contextual analyses that researchers may conduct using Add Health by permitting various longitudinal analyses of significant socio-economic and geographic characteristics defining the environments in which Add Health respondents lived during Waves I through V. Most of the variables included in this contextual file measure context at the census tract-, county-, and state-levels.

Data Structure and Form

The contextual data file contains one observation for each respondent in the Wave V Add Health survey. The first variable is the respondent identifier (the AID), which permits merging these contextual data with other Add Health data files. Except for AID, the Wave V Geocode Source (MATCH5), and the two measures of rural-urban commuting (TER10156 and TER10157), each measure is numeric. The next variable (MATCH5) describes the geocode source identifying respondent locations. Unlike the Context3 and Tract4 data releases, Context5 lacks a move distance variable; however, the Wave V Grouping File, w1_5grp.xpt, does provide pseudo FIPS codes corresponding to respondents' residences at Waves I through V. These location identifiers are based on 2010 Census geographic boundaries and are longitudinally consistent across all waves. Previous Add Health waves released location identifiers based on the most recent Census for that wave and are therefore not comparable across time. These identifiers are based on Census block group FIPS codes and, consequently, report moves between states, counties, tracts, and block groups.

Variable order in the data reflects the order of presentation in the Data Dictionary.

Variable Naming Conventions

With the exception of AID, all variables in the contextual data file adhere to the following nomenclature:

Add Health is directed by Robert A. Hummer and funded by the National Institute on Aging cooperative agreements U01 AG071448 (Hummer) and U01AG071450 (Aiello and Hummer) at the University of North Carolina at Chapel Hill. Waves I-V data are from the Add Health Program Project, grant P01 HD31921 (Harris) from Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), with cooperative funding from 23 other federal agencies and foundations. Add Health was designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill (<http://www.cpc.unc.edu/addhealth>).

1st character – Summary level of the variable.

Refers to the geographic area to which the variable corresponds. Geographic levels include:

T = Tract

C = County

S = State

N = Nearest climate station

One factor researchers must keep in mind when conducting longitudinal analyses is that administrative boundaries may have changed between 1990 and 2010. Thus, changes observed may, in part, be artifacts of boundary delineation. This contextual database reports measures utilizing the 2010 census boundaries. However, some previously released Add Health contextual files from Waves III and IV provide data based on 2000 census boundaries, while those from Wave I and II provide data based on 1990 boundaries.

Unlike other measures, the climate variables are not based on geographic boundaries, but rather the nearest climate station in the United States. For more information, see the description of the 1980-2010 Climate Atlas of the United States in the Source Description section of this document.

2nd and 3rd characters – Original data source.

The 2nd and 3rd characters are abbreviations representing the original sources of data, or other secondary sources, from which the constructed variables were derived. Additional detail about these sources is available in the Source Description. The sources and their abbreviations include:

AC 2018 American Community Survey 5-Year Estimates

CA 1981-2010 U.S. Climate Atlas

ER U.S. Department of Agriculture's Economics Research Service

UC 2016 Uniform Crime Reports

4th and 5th characters – Year of data.

These digits refer to the year that the variable represents. For instance, the year 2018 is denoted as 18. The names of period estimates specify the last year of data comprising the range. For example, the American Community Survey's 5-year estimates span 2014-2018 and, therefore, have an "18" as the 4th and 5th characters.

6th through 8th characters – Variable number.

The last three characters report the variable number within this Add Health database. Variable numbers range sequentially from 001 to 167. Note that some gaps in the numbering occur as a result of aligning these data with the previously released Tract3 and Tract4 data.

Data Dictionary

The table below lists the whole set of variables comprising this Add Health contextual database. 2018 American Community Survey 5-year data appear first, followed by measures derived from other sources. A formula or short description is presented in the final column in order to provide users variable construction specifics.

Table 1: Contextual Variables Based on ACS Five Year Estimates (2014-2018)

Name	Description	Formula
Population		
T/C/S AC18001	Total population	B01003_001E
T/C/S AC18002	Density — persons per square km	B01003_001E/AREALAND
Race and Ethnic Background		
T/C/S AC18003	Proportion White alone	B02001_002E/B01003_001E
T/C/S AC18004	Proportion Black or African American alone	B02001_003E/B01003_001E
T/C/S AC18005	Proportion American Indian and Alaska Native alone	B0200_1004E/B01003_001E
T/C/S AC18006	Proportion Asian alone, Native Hawaiian and other Pacific Islander	(B02001_005E+B02001_006E)/B01003_001E
T/C/S AC18007	Proportion some other race alone	B02001_007E/B01003_001E
T/C/S AC18008	Proportion two or more races	B02001_008E/B01003_001E
T/C/S AC18009	Proportion Hispanic or Latino:	B03002_012E/B03002_001E
T/C/S AC18010	Proportion Hispanic or Latino and White alone	B03002_013E/B03002_001E
T/C/S AC18011	Proportion Hispanic or Latino and Black alone	B03002_014E/B03002_001E
T/C/S AC18012	Proportion Hispanic or Latino and American Indian or Alaska native alone	B03002_015E/B03002_001E
T/C/S AC18013	Proportion Hispanic or Latino and Asian or Pacific Islander alone	(B03002_016E+B03002_017E)/B03002_001E
T/C/S AC18014	Proportion Hispanic or Latino and some other race alone	B03002_018E/B03002_001E
T/C/S AC18015	Proportion Hispanic or Latino and two or more races	B03002_019E/B03002_001E
Age Structure		
T/C/S AC18016	Proportion 0 to 4 years of age	(B01001_003E+B01001_027E)/B01003_001E
T/C/S AC18017	Proportion 5 to 9 years of age	(B01001_004E+B01001_028E)/B01003_001E
T/C/S AC18018	Proportion 10 to 14 years of age	(B01001_005E+B01001_029E)/B01003_001E

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T/C/S AC18019	Proportion 15 to 17 years of age	$(B01001_006E+B01001_030E)/B01003_001E$
T/C/S AC18020	Proportion 18 to 24 years of age	$(\sum_{i=7}^{10}[B01001_00iE]+\sum_{i=31}^{34}[B01001_00iE])/B01003_001E$
T/C/S AC18021	Proportion 65 to 74 years of age	$(\sum_{i=20}^{22}[B01001_00iE]+\sum_{i=44}^{46}[B01001_00iE])/B01003_001E$
T/C/S AC18022	Proportion 75 years of age or older	$(\sum_{i=23}^{25}[B01001_00iE]+\sum_{i=47}^{49}[B01001_00iE])/B01003_001E$
T/C/S AC18023	Proportion males ages 18-24 all races	$\sum_{i=7}^{10}[B01001_00iE]/B01003_001E$
T/C/S AC18024	Proportion females ages 18-24 all races	$\sum_{i=31}^{34}[B01001_00iE]/B01003_001E$
T/C/S AC18025	Proportion males 18-24 White alone	$(B01001A_007E+B01001A_008E)/B01003_001E$
T/C/S AC18026	Proportion females 18-24 White alone	$(B01001A_022E+B01001A_023E)/B01003_001E$
T/C/S AC18027	Proportion males 18-24 Black or African American alone	$(B01001B_007E+B01001B_008E)/B01003_001E$
T/C/S AC18028	Proportion females 18-24 Black or African American alone	$(B01001B_022E+B01001B_023E)/B01003_001E$
T/C/S AC18029	Proportion males 18-24 American Indian or Alaska native alone	$(B01001C_007E+B01001C_008E)/B01003_001E$
T/C/S AC18030	Proportion females 18-24 American Indian or Alaska native alone	$(B01001C_022E+B01001C_023E)/B01003_001E$
T/C/S AC18031	Proportion males 18-24 Asian or Pacific Islander alone	$(\sum_{i=D,E}[B01001i_007E+B01001i_008E])/B01003_001E$
T/C/S AC18032	Proportion females 18-24 Asian or Pacific Islander alone	$(\sum_{i=D,E}[B01001i_022E+B01001i_023E])/B01003_001E$
T/C/S AC18033	Proportion males 18-24 some other race alone	$(B01001F_007E+B01001F_008E)/B01003_001E$
T/C/S AC18034	Proportion females 18-24 some other race alone	$(B01001F_022E+B01001F_023E)/B01003_001E$
T/C/S AC18035	Proportion males 18-24 two or more races	$(B01001G_007E+B01001G_008E)/B01003_001E$
T/C/S AC18036	Proportion females 18-24 two or more races	$(B01001G_022E+B01001G_023E)/B01003_001E$
T/C/S AC18037	Proportion males 18-24 Hispanic or Latino	$(B01001I_007E+B01001I_008E)/B01003_001E$
T/C/S AC18038	Proportion females 18-24 Hispanic or Latino	$(B01001I_022E+B01001I_023E)/B01003_001E$
T/C/S AC18039	Proportion males 18-24 White alone Non-Hispanic or Latino	$(B01001H_007E+B01001H_008E)/B01003_001E$
T/C/S AC18040	Proportion females 18-24 White alone Non-Hispanic or Latino	$(B01001H_022E+B01001H_023E)/B01003_001E$
Household and Family Types		

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T/C/S AC18041	Proportion occupied housing units married-couple family with own children under 18	$(B25115_005E+B25115_018E)/B25115_001E$
T/C/S AC18042	Proportion occupied housing units female householder with own children under 185	$(B25115_012E+B25115_025E)/B25115_001E$
T/C/S AC18043	Proportion occupied housing units male householder with own children under 185	$(B25115_009E+B25115_022E)/B25115_001E$
T/C/S AC18044	Proportion occupied housing units nonfamily5	$(B25115_014E+B25115_027E)/B25115_001E$
T/C/S AC18045	Proportion families with own children headed by female householder	$B11003_016/(B11003_003+B11003_010+B11003_016)$
T/C/S AC18046	Proportion families with own children headed by male householder	$B11003_010/(B11003_003+B11003_010+B11003_016)$
T/C/S AC18047	Proportion of population 15 years and over divorced or separated	$(\sum_{i=07,10,16,19} [B12001_0iE])/B12001_001E$
Linguistic Isolation, Foreign Born		
T/C/S AC18048	Proportion households linguistically isolated	$(\sum_{i=04,07,10,13} [B16002_0iE])/B16002_001E$
T/C/S AC18049	Proportion foreign born	$B05012_003E/B05012_001E$
Educational Attainment		
T/C/S AC18050	Proportion 25 years and over with less than high school diploma	$(\sum_{i=03,...,10,20,...,27} [B15002_0iE])/B15002_001E$
T/C/S AC18051	Proportion 25 years and over with bachelor's degree or more	$(\sum_{i=15,...,18,32,...,35} [B15002_0iE])/B15002_001E$
Labor Force and Employment Status		
T/C/S AC18052	Unemployment rate all persons 16 years and over	$\sum_{i=08,15,22,29,36,43,50,57,64,71,76,81,86,94,101,108,115,122,129,136,143,150,157,162,167,172} [B23001_0iE] / \sum_{j=07,08,14,15,21,22,28,29,35,36,42,43,49,50,56,57,63,64,70,71,75,76,80,81,85,86,93,94,100,101,107,108,114,115,121,122,128,129,135,136,142,143,149,150,156,157,161,162,166,167,171,172} [B23001_0jE]$
T/C/S AC18053	Unemployment rate males 16 years and over	$(\sum_{i=08,15,22,29,36,43,50,57,64,71,76,81,86} [B23001_0iE]) / (\sum_{j=07,08,14,15,21,22,28,29,35,36,42,43,49,50,56,57,63,64,70,71,75,76,80,81,85,86} [B23001_0jE])$
T/C/S AC18054	Unemployment rate females 16 years and over	$(\sum_{i=94,101,108,115,122,129,136,143,150,157,162,167,172} [B23001_0iE]) / (\sum_{j=93,94,100,101,107,108,114,115,121,122,128,129,135,136,142,143,144} [B23001_0jE])$

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		9,150,156,157,161,162,166,167,171,172 [B23001_0jE])
T/C/S AC18055	Labor force participation rate males 16 years and over	($\sum i=04,11,18,25,32,39,46,53,60,67,74,79,84$ [B23001_0iE])/B23001_002E
T/C/S AC18056	Labor force participation rate females 16 years and over	($\sum i=90,97,104,111,118,125,132,139,146,153$,160,165,170 [B23001_0iE])/B23001_088E
T/C/S AC18057	Among children under 6 living with two parents, Proportion with both parents in the labor force	B23008_004E/B23008_003E
T/C/S AC18058	Among children 6 to 17 living with two parents, Proportion with both parents in the labor force	B23008_017E/B23008_016E
T/C/S AC18059	Proportion white alone males 16 years and over unemployed	(C23002A_08E+C23002A_13E)/(C23002A_06 E+C23002A_11E)
T/C/S AC18060	Proportion White alone females 16 years and over unemployed	(C23002A_21E+C23002A_26E)/(C23002A_19 E+C23002A_24E)
T/C/S AC18061	Proportion Black or African American alone males 16 years and over unemployed	(C23002B_08E+C23002B_13E)/(C23002B_06 E+C23002B_11E)
T/C/S AC18062	Proportion Black or African American alone females 16 years and over unemployed	(C23002B_21E+C23002B_26E)/(C23002B_19 E+C23002B_24E)
T/C/S AC18063	Proportion American Indian or Alaska native alone males 16 years and over unemployed	(C23002C_08E+C23002C_13E)/(C23002C_06 E+C23002C_11E)
T/C/S AC18064	Proportion American Indian or Alaska native alone females 16 years and over unemployed	(C23002C_21E+C23002C_26E)/(C23002C_19 E+C23002C_24E)
T/C/S AC18065	Proportion Asian or Pacific Islander alone males 16 years and over unemployed	(C23002D_08E+C23004E_13E)/(C23002D_06 E+C23002E_11E)
T/C/S AC18066	Proportion Asian or Pacific Islander alone females 16 years and over unemployed	(C23002D_21E+C23002E_26E)/(C23002D_19 E+C23002E_24E)
T/C/S AC18067	Proportion some other race alone males 16 years and over unemployed	(C23002F_08E+C23002F_13E)/(C23002F_06 E+C23002F_11E)
T/C/S AC18068	Proportion some other race alone females 16 years and over unemployed	(C23002F_21E+C23002F_26E)/(C23002F_19 E+C23002F_24E)
T/C/S AC18069	Proportion two or more races males 16 years and over unemployed	(C23002G_08E+C23002G_13E)/(C23002G_0 6E+C23002G_11E)
T/C/S AC18070	Proportion two or more races females 16 years and over unemployed	(C23002G_21E+C23002G_26E)/(C23002G_1 9E+C23002G_24E)
T/C/S AC18071	Proportion Hispanic or Latino males 16 years and over unemployed	(C23002I_08E+C23002I_13E)/(C23002I_06E +C23002I_11E)

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T/C/S AC18072	Proportion Hispanic or Latino females 16 years and over unemployed	$(C23002I_21E + C23002I_26E) / (C23002I_19E + C23002I_24E)$
T/C/S AC18073	Proportion White alone not Hispanic or Latino males 16 years and over unemployed	$(C23002H_08E + C23002H_13E) / (C23002H_06E + C23002H_11E)$
T/C/S AC18074	Proportion White alone not Hispanic or Latino females 16 years and over unemployed	$(C23002H_21E + C23002H_26E) / (C23002H_19E + C23002H_24E)$
Industries		
T/C/S AC18075	Proportion of employed 16 years and over in agriculture, forestry, fishing, hunting, and mining	$(C24030_003E + C24030_030E) / C24030_001E$
T/C/S AC18076	Proportion of employed 16 years and over in construction	$(C24030_006E + C24030_033E) / C24030_001E$
T/C/S AC18077	Proportion of employed 16 years and over in manufacturing	$(C24030_007E + C24030_034E) / C24030_001E$
T/C/S AC18078	Proportion of employed 16 years and over in wholesale trade	$(C24030_008E + C24030_035E) / C24030_001E$
T/C/S AC18079	Proportion of employed 16 years and over in retail trade	$(C24030_009E + C24030_036E) / C24030_001E$
T/C/S AC18080	Proportion of employed 16 years and over in transportation, warehousing, and utilities	$(C24030_010E + C24030_037E) / C24030_001E$
T/C/S AC18081	Proportion of employed 16 years and over in information	$(C24030_013E + C24030_040E) / C24030_001E$
T/C/S AC18082	Proportion of employed 16 years and over in finance, insurance, and real estate	$(C24030_014E + C24030_041E) / C24030_001E$
T/C/S AC18083	Proportion of employed 16 years and over in professional, scientific, management, administrative, and waste management services	$(C24030_017E + C24030_044E) / C24030_001E$
T/C/S AC18084	Proportion of employed 16 years and over in educational, health, and social services	$(C24030_021E + C24030_048E) / C24030_001E$
T/C/S AC18085	Proportion of employed 16 years and over in arts, entertainment, recreation, and food services	$(C24030_024E + C24030_051E) / C24030_001E$
T/C/S AC18086	Proportion of employed 16 years and over in other services (does not include public administration)	$(C24030_027E + C24030_054E) / C24030_001E$
T/C/S AC18087	Proportion of employed 16 years and over in public administration	$(C24030_028E + C24030_055E) / C24030_001E$
Occupations		

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T/C/S AC18088	Proportion of employed 16 years and over in management, professional, and related occupations	(C24010_003E+C24010_040E)/C24010_001E
T/C/S AC18089	Proportion of employed 16 years and over in service occupations	(C24010_018E+C24010_055E)/C24010_001E
T/C/S AC18090	Proportion of employed 16 years and over in sales and office occupations	(C24010_026E+C24010_063E)/C24010_001E
T/C/S AC18091	Proportion of employed 16 years and over in farming, fishing, and forestry occupations	(C24010_029E+C24010_066E)/C24010_001E
T/C/S AC18092	Proportion of employed 16 years and over in construction, extraction, and maintenance occupations	(C24010_030E+C24010_067E)/C24010_001E
T/C/S AC18093	Proportion of employed 16 years and over in production, transportation, and material moving occupations	(C24010_033E+C24010_070E)/C24010_001E
Income and Poverty Status		
T/C/S AC18094	Median household income past 12 months	B19013_001E
T/C/S AC18095	Proportion households receiving public assistance income past 12 months	B19057_002E/B19057_001E
T/C/S AC18096	Median family income past 12 months	B19113_001E
T/C/S AC18097	Proportion families with incomes less than \$15K past 12 months	(B19101_002E+B19101_003E)/B19101_001E
T/C/S AC18098	Proportion families with incomes less than \$25K past 12 months	(B19101_02E+...+B19101_05E)/B19101_001E
T/C/S AC18099	Proportion families with incomes greater than \$50K past 12 months	(B19101_11E+...+B19101_17E)/B19101_001E
T/C/S AC18100	Proportion families with incomes greater than \$75K past 12 months	(B19101_13E+B19101_17E)/B19101_001E
T/C/S AC18101	Per capita income past 12 months	B19301_001E
T/C/S AC18102	Median earnings 16 years and over past 12 months	B20002_001E
T/C/S AC18103	Median earnings males 16 years and over past 12 months	B20002_002E
T/C/S AC18104	Median earnings females 16 years and over in past 12 months	B20002_003E
T/C/S AC18105	Proportion population below the poverty level in past 12 months	B17001_002E/B17001_001E
T/C/S AC18106	Proportion families below the poverty level in past 12 months	B17010_002E/B17010_001E
T/C/S AC18107	Proportion households below the poverty level in past 12 months	B17017_002E/B17017_001E

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Unmarried-Partner Households		
T/C/S AC18108	Proportion households headed by same sex unmarried partners	B11009_003E+B11009_005E/B11009_001E
T/C/S AC18109	Proportion households headed by opposite sex unmarried partners	B11009_004E+B11009_006E/B11009_001E
T/C/S AC18110	Proportion males ages 18 and 19 never married	B12002_005E/((\sum i=05,21,37,52,67,82 [B12002_00iE]))
T/C/S AC18111	Proportion males ages 20 to 24 never married	B12002_006E/((\sum i=06,022,38,53,68,83 [B12002_00iE]))
T/C/S AC18112	Proportion females ages 18 and 19 never married	B12002_0098E/((\sum i=98,114,130,145,160,175[B12002_00iE]))
T/C/S AC18113	Proportion females ages 20 to 24 never married	B12002_099E/((\sum i=99,115,131,146,161,176[B12002_00iE]))
Housing Characteristics		
T/C/S AC18114	Proportion housing units vacant	B25002_003E/B25002_001E
T/C/S AC18115	Proportion occupied units owner occupied	B25003_002E/B25003_001E
T/C/S AC18116	Average household size of occupied units	B25010_001E
T/C/S AC18117	Median year housing unit structures built	B25035_001E
T/C/S AC18118	Median year householders moved into units	B25039_001E
T/C/S AC18119	Proportion occupied units with no telephone service available	(B25043_007E+B25043_016E)/B25043_001E
T/C/S AC18120	Proportion occupied units with no vehicles available	(B25044_003E+B25044_010E)/B25044_001E
T/C/S AC18121	Proportion units lacking complete plumbing facilities	B25047_003E/B25047_001E
T/C/S AC18122	Proportion units lacking complete kitchen facilities	B25051_003E/B25051_001E
T/C/S AC18123	Median contract rent for renter-occupied units paying cash rent	B25058_001E
T/C/S AC18124	Median value for specified owner-occupied units	B25077_001E
Enrolled to Formal Education System		
T/C/S AC18125	Proportion population enrolled in pre-elementary and elementary education	(B14001_03E+B14001_04E+B14001_05E)/B14001_001E
T/C/S AC18126	Proportion population enrolled in mid or high school education	(B14001_06E+B14001_07E)/B14001_001E

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T/C/S AC18127	Proportion population enrolled in college, graduate or professional education	(B14001_08E+B14001_09E)/B14001_001E
Transportation to Work		
T/C/S AC18128	Proportion using car, truck, or van	B08006_002E/B08006_001E
T/C/S AC18129	Proportion using public transportation (excluding taxicab)	B08006_008E/B08006_001E
T/C/S AC18130	Proportion bicycle	B08006_014E/B08006_001E
T/C/S AC18131	Proportion walked	B08006_015E/B08006_001E
T/C/S AC18132	Proportion using taxicab, motorcycle, or other means	B08006_016E/B08006_001E
1981-2010 U.S. Climate Atlas		
NCA10133	Mean number of days with Temperature < 32° F	Spatial join between Number of Days with Temperatures <= 32 layer and Respondent location
NCA10134	Mean number of days with temperature > 90° F	Spatial join between Mean Number of Days with Temperatures >= 90 layer and Respondent location
NCA10135	Mean maximum daily temperatures	Spatial join between Mean Daily Maximum Temperature layer and Respondent location
NCA10136	Mean minimum daily temperatures	Spatial join between Mean Daily Maximum Temperature layer and Respondent location
NCA10137	Mean precipitation	Spatial join between Mean Maximum Daily Precipitation layer and Respondent location
NCA10138	Mean snowfalls	Spatial join between Mean Maximum Daily Snowfall layer and Respondent location
RUCA (Rural-Urban Commuting Area) Codes		
TER10156	RUCA primary code 2010	RUCA Primary Code 2010 in RUCA files
TER10157	RUCA secondary code 2010	RUCA Secondary Code 2010 in RUCA files
Crime Rates from UCR		
CUC16161	Coverage indicator, 2016 (see source description)	COVIND
CUC16162	Adult total arrests per 100,000 population, 2016	(P1TOT/CPOPAST) * 100000
CUC16163	Adult violent arrests per 100,000 population, 2016	(P1VLNT/CPOPAST) * 100000
CUC16164	Adult property arrests per 100,000 population, 2016	(P1PRPT/CPOPAST) * 100000

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2018 ACS, 5-Year Estimate Margin of Error

All of the census data in this contextual database originate from the Census Bureau's ACS 5-year estimates aggregated from 2014-2018. The ACS replaces the decennial census' long-form questionnaires, which gathered data once every ten years from about 1 in every 6 households. Unlike the decennial census, the ACS collects data continuously, though releases it annually, with addresses having a 1-in-40 chance of selection in a given year. As the number of years comprising a measured period increase, the sample size grows, and, consequently, sampling error improves. The accumulated five year sample should, therefore, include approximately 1 in 9 households^{1, 2}. To improve data quality, the Census Bureau only releases 1-year estimates for areas with populations equaling or exceeding 65,000 persons; therefore, the 1-year data exclude estimates for measures at the tract-level³.

Despite the Census Bureau's efforts to reduce sampling error by restricting release of certain geographic areas, these areas may still have significantly small samples even in the aggregated 5-year data. In order to provide users an indication of an estimate's precision, the U.S. Census Bureau includes the margin of error (MOE) corresponding to the 90-percent confidence level for each tract-level estimate comprising the 2018 ACS data. The boundaries for the 90-percent confidence interval for any sample estimate can be derived by subtraction of the MOE from the estimate to obtain the interval's lower-bound and addition of the MOE to obtain its upper-bound. Accordingly, the actual population estimate should fall within the range defined by the lower- and upper-bounds 90 percent of the time⁴.

To afford users of the Wave V Tract-Level Contextual database a similar indication of value precision, the provided data file includes the MOE of contextual measures derived from ACS estimates. Deriving the MOE for the constructed proportions follows steps used in the production of Tract3 and Tract4. They are chiefly prescribed by the Census and involve the calculation of the MOE for aggregates, proportions, and, under certain circumstances, ratios⁴.

Calculation of the MOEs of Aggregated Count Data involves:

1. Obtaining the MOE of each component estimate.
2. Squaring the MOE of each component estimate.
3. Summing the squared MOEs.
4. Taking the square root of the sum of squared MOEs⁴.

$$MOE_{agg} = \pm \sqrt{\sum_c MOE_c^2}$$

To calculate the MOEs of Derived Proportions (the numerator of a proportion is a subset of the denominator):

1. Obtain the MOE for the numerator and the MOE for the denominator of the proportion.
2. Square the derived proportion.
3. Square the MOE of the numerator.
4. Square the MOE of the denominator.

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5. Multiply the squared MOE of the denominator by the squared proportion.
6. Subtract the result of (5) from the squared MOE of the numerator.
7. Take the square root of the result of (6).
8. Divide the result of (7) by the denominator of the proportion.

$$MOE_p = \frac{\pm \sqrt{MOE_{num}^2 - (\hat{P}^2 * MOE_{den}^2)}}{\hat{X}_{den}}$$

The calculation of the MOEs for derived ratios (the numerator of a proportion is not a subset of the denominator) resembles the steps for calculating the MOEs of derived proportions, except step (6) changes from subtraction to addition of (5) to the MOE of the numerator.

$$MOE_R = \frac{\pm \sqrt{MOE_{num}^2 + (\hat{R}^2 * MOE_{den}^2)}}{\hat{X}_{den}}$$

Certain conditions characteristic of these data necessitate applying additional steps during the MOE variable construction process.

Step 1. When multiple estimates involved in the derivation of the proportion equal zero, only 1 of their MOEs appears in the calculation, as recommended in the American Community Survey Multiyear ACS Accuracy of Data (5-year 2014-2018):

With the release of the 5-year data, detailed tables down to tract and block group will be available. At these geographic levels, many estimates may be zero. As mentioned in the 'Calculations of Standard Errors' section, a special procedure is used to estimate the MOE when an estimate is zero. For a given geographic level, the MOEs will be identical for zero estimates. When summing estimates which include many zero values, the standard error and MOE in general will become unnaturally inflated. Therefore, users are advised to sum only one of the MOEs from all of the zero estimates⁵.

Step 2. If the value under the square root (6) yields a negative number or a zero (the denominator and numerator are equal), use addition rather than subtraction in the radical. In other words, apply the more conservative formula for deriving the MOE of a ratio rather than the MOE of a proportion:

If the value under the radical is negative, use the ratio standard error formula⁵.

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Step 3. Should estimates equal zero, then they are uniformly recoded to one, in order to avoid division by zero, per the Hazards and Vulnerabilities Research Institute:

Where the variable estimates were zero, we used a value of one instead to allow calculation of margins of error⁶.

Occasionally, the MOE exceeds the variable's acceptable range of values. For instance, in certain circumstances, a constructed proportion's MOE exceeds one. Since proportions vary between 0 and 1, a MOE of 5 would prove nonsensical when calculating an estimate's lower- and upper-bounds; however, such a large value does suffice in providing a warning to the user regarding the estimate's quality.

If a user prefers a confidence level other than the 90-percent level used in these data, simply multiplying the provided MOE by an established adjustment factor will convert it to the sought confidence level. The adjustment factor equals the factor associated with the desired MOE divided by the factor corresponding to the current MOE, which, in the ACS data, equals 1.645. Two other common confidence levels are 95- and 99-percent, which have corresponding factors of 1.960 and 2.576, respectively⁷.

To obtain the standard error for the ACS derived values, divide the reported MOE by its corresponding factor, 1.64520.

The MOE also allows for the determination of an estimate's reliability through the calculation of its more intuitive coefficient of variance (CV). The CV essentially reports the percentage of an estimate determined by error. The formula below calculates an estimate's CV when using the 90-percent confidence level⁸:

$$CV = \left(\frac{(MOE / 1.645)}{Estimate} \right) \times 100$$

Esri recommends the following estimate reliability rankings:

High Reliability: A small CV of less than or equal to 12 percent denotes a minor amount of error.

Medium Reliability: Estimates with a CV falling in the range of 12 to 40 percent have moderate error.

Low Reliability: A large CV exceeds 40 percent and indicates an unreliable estimate⁷.

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Missing codes

Though the US Census uses sequences of nines to denote values falling into the lowest category of an open-ended distribution (e.g., 9999 indicating less than 10,000) and a terminal digit of 1 to denote values that fall into the highest category of an open-ended distribution (e.g., 1000001 indicating more than 1,000,000), Add Health top- and bottom-coded variables independently of the U.S. Census Bureau.

Three missing data codes are used in Wave V contextual files. They are as follows:

Value	Reason for missing data
92 (or 992, 9992, ...99992)	Cannot be calculated
96 (or 996, 9996, ...99996)	Missing in the source data
98 (or 998, 9998, ...99998)	Geocode missing

Values that cannot be calculated due to missing data or bottom and top coding are represented by 92, 992, etc. The replacement codes of 96, 996, etc. indicate that data were not available for that particular variable, year, and/or summary level from the original source data. See the source notes for more information. A value of 98, 998, etc. indicates that the geocode is missing for that respondent at Wave V

Source Description

This subsection describes each one of the sources used for the generation of the contextual variables comprising the data file; in the cases where it applies, a sub-directory of the variables used for the generation of the contextual information is presented; in other cases, an explanation about the generation of the variables is provided.

AC	2018 American Community Survey 5-Year Estimates
CA	Climate Atlas of the United States
ER	U.S. Department of Agriculture's Economics Research Service
UC	Uniform Crime Reports

AC 2018 American Community Survey 5-Year Estimates

The American Community Survey (ACS) is a household survey conducted by the U.S. Census Bureau. The annual sample size of the survey is about 3 million addresses. An annual ACS represents a sample of only 2.5% of the U.S. population; nevertheless, at the end of a five year round, the cumulated sample is 12.5% of the U.S. population. Starting in 2006, with 2005 survey data, the ACS began releasing 1-year estimates every year; starting in 2008, with the addition of 2006 and 2007 data, it released 3-year estimates every year; and starting in 2010, with 2005 through 2009 data, it released 5-year estimates every year. All the ACS derived variables in these Add Health data are based on the 2018 ACS 5-Year Estimate Summary File. This file contains information on a wide range of topics that cover various demographic, social, and economic characteristics defining population and housing. Due to the increased sample size provided by the aggregated 5-year estimates, they serve as the only source of Census data covering topics of interest to Add Health that are measured at smaller geographic levels, such as the census tract.

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Concern has arisen over inconsistency between the Census 2000 and 2009 ACS 5-year data and the deleterious effect such differences may have on the latter's estimate quality. Indeed, although the ACS provides data similar to that collected by the long-form of the decennial census, some fundamental distinctions between the two data sources exist. The nature, perhaps more so than the extent, of these changes may warrant viewing the ACS as a new survey distinct from the traditional U.S. Census data used in constructing Add Health's CONTEXT1, CONTEXT2, and CONTEXT3 data files. In fact, use of the word "replacement" has received critical attention, for it erroneously implies the interchangeability of the ACS and Census long-form7. Some differences relevant to this Add Health release involve sample size, the nature of period estimates, residence rules, reference periods, and definitions.

The CONTEXT5 data, however, are compatible with the TRACT3, TRACT4, and CONTEXT4 files.

Sample Size

The ACS' annual sample consists of 1 in 40 households, compared to the decennial census' 1 in 6.¹

Period Estimates

ACS data products are period estimates that compile 12, 36, and 60 months of data for 1-year, 3-year, and 5-year periods, respectively. This method of continuous measurement precludes using ACS data as a point estimate, which renders the variables somewhat less intuitive temporally. For example, the 2018 ACS 5-year data measure the period of 2014 to 2018. That is, they do not measure year 2014, year 2018, or the midpoint between 2014 and 2018, but rather, the entire span. A limitation of period estimates rests in their inability to detect major fluctuations within the time span measured. Period estimates tend to smooth curves of change¹. This limitation may function as an asset to researchers seeking a general description of Add Health respondents' environments in the period of time preceding the Wave V in-home interview.

Residence Rules

The ACS residence rule requires that data be collected on anyone "living or staying" at an address for more than 2 months, whereas the decennial long-form obtains data on anyone who "usually" lives at a given address as of April 1st of a census year. This discrepancy in rules results from the disparate goals of the U.S. decennial census and ACS, which further exacerbate differences in their samples. Increasing consistency with the decennial census sample, the ACS began surveying group quarters in 2006.

Reference Periods

In addition to residency, several other items on the two surveys differ in their reference periods. For example,

[Usual] hours worked per week, weeks worked per year, and income items on the ACS refer to the 12 months prior to the day when the household filled out the questionnaire, whereas these items on the long form always referred to the previous calendar year (1999 for the 2000 census)².

Similarly, the ACS uses the last 3-months as the reference period for determining school enrollment, while the 2000 Census' long-form inquired about any enrollment since February 1st of that year.

Item Inconsistency

From one survey to another, particular questions may undergo straightforward wording or response category alteration. The use of period estimates, discrepant residency rules, and differing reference

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periods, also impacts certain items more than others. The U.S. Census Bureau has provided several tables listing recommendations regarding the comparison of variables common to both the 2000 Census and the ACS surveys. Some topics deserving attention when making comparisons across waves include: age and sex; race; Hispanic origin, migration; children, households, and families; income and poverty; and industry and occupation.

For additional information, consult the various resources provided by the U.S. Census Bureau³.

The following table presents an index of the various 2018 ACS 5-year estimates used in the generation of the contextual variables comprising this file.

Table 2: 2018 American Community Survey 5-year estimates

Source Variable Name	Description
B01003001	Total population
B02001002	White alone
B02001003	Black or African American alone
B02001004	American Indian and Alaska Native alone
B02001005	Asian alone
B02001006	Native Hawaiian and Other Pacific Islander alone
B02001007	Some other race alone
B02001008	Two or more races:
B03002001	Total population
B03002012	Hispanic or Latino
B03002013	Hispanic or Latino, White alone
B03002014	Hispanic or Latino, Black or African American alone
B03002015	Hispanic or Latino, American Indian and Alaska Native alone
B03002016	Hispanic or Latino, Asian alone
B03002017	Hispanic or Latino, Native Hawaiian and Other Pacific Islander alone
B03002018	Hispanic or Latino, some other race alone
B03002019	Hispanic or Latino, two or more races
B01001001	Total population
B01001003	Male, under 5 years
B01001004	Male, 5 to 9 years
B01001005	Male, 10 to 14 years
B01001006	Male, 15 to 17 years
B01001007	Male, 18 and 19 years
B01001008	Male, 20 years
B01001009	Male, 21 years
B01001010	Male, 22 to 24 years
B01001011	Male, 25 to 29 years
B01001012	Male, 30 to 34 years
B01001013	Male, 35 to 39 years
B01001014	Male, 40 to 44 years
B01001015	Male, 45 to 49 years
B01001016	Male, 50 to 54 years
B01001017	Male, 55 to 59 years
B01001018	Male, 60 and 61 years
B01001019	Male, 62 to 64 years

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B01001020	Male, 65 and 66 years
B01001021	Male, 67 to 69 years
B01001022	Male, 70 to 74 years
B01001023	Male, 75 to 79 years
B01001024	Male, 80 to 84 years
B01001025	Male, 85 years and over
B01001027	Female, under 5 years
B01001028	Female, 5 to 9 years
B01001029	Female, 10 to 14 years
B01001030	Female, 15 to 17 years
B01001031	Female, 18 and 19 years
B01001032	Female, 20 years
B01001033	Female, 21 years
B01001034	Female, 22 to 24 years
B01001035	Female, 25 to 29 years
B01001036	Female, 30 to 34 years
B01001037	Female, 35 to 39 years
B01001038	Female, 40 to 44 years
B01001039	Female, 45 to 49 years
B01001040	Female, 50 to 54 years
B01001041	Female, 55 to 59 years
B01001042	Female, 60 and 61 years
B01001043	Female, 62 to 64 years
B01001044	Female, 65 and 66 years
B01001045	Female, 67 to 69 years
B01001046	Female, 70 to 74 years
B01001047	Female, 75 to 79 years
B01001048	Female, 80 to 84 years
B01001049	Female, 85 years and over
B01001A007	White male, 18 and 19 years
B01001A008	White male, 20 to 24 years
B01001A022	White female, 18 and 19 years
B01001A023	White female, 20 to 24 years
B01001B007	Black or African American male, 18 and 19 years
B01001B008	Black or African American male, 20 to 24 years
B01001B022	Black or African American female, 18 and 19 years
B01001B023	Black or African American female, 20 to 24 years
B01001C007	American Indian and Alaska Native, 18 and 19 years
B01001C008	American Indian and Alaska Native, 20 to 24 years
B01001C022	American Indian and Alaska Native female, 18 and 19 years
B01001C023	American Indian and Alaska Native female, 20 to 24 years
B01001D007	Asian male, 18 and 19 years
B01001D008	Asian male, 20 to 24 years
B01001D022	Asian female, 18 and 19 years
B01001D023	Asian female, 20 to 24 years

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B01001E007	Native Hawaiian and Other Pacific Islander male, 18 and 19 years
B01001E008	Native Hawaiian and Other Pacific Islander male, 20 to 24 years
B01001E022	Native Hawaiian and Other Pacific Islander female, 18 and 19 years
B01001E023	Native Hawaiian and Other Pacific Islander female, 20 to 24 years
B01001F007	Some other race male, 18 and 19 years
B01001F008	Some other race male, 20 to 24 years
B01001F022	Some other race female, 18 and 19 years
B01001F023	Some other race female, 20 to 24 years
B01001G007	Male two or more races, 18 and 19 years
B01001G008	Male two or more races, 20 to 24 years
B01001G022	Female two or more races, 18 and 19 years
B01001G023	Female two or more races, 20 to 24 years
B01001I007	Hispanic or Latino male, 18 and 19 years
B01001I008	Hispanic or Latino male, 20 to 24 years
B01001I022	Hispanic or Latino female, 18 and 19 years
B01001I023	Hispanic or Latino female, 20 to 24 years
B01001H007	White alone, not Hispanic or Latino male, 18 and 19 years
B01001H008	White alone, not Hispanic or Latino male, 20 to 24 years
B01001H022	White alone, not Hispanic or Latino female, 18 and 19 years
B01001H023	White alone, not Hispanic or Latino female, 20 to 24 years
B25115001	Occupied housing units
B25115005	Married-couple owner occupied housing units, with own children under 18
B25115009	Owner occupied housing units, male householder, no wife present, with own children under 18
B25115012	Owner occupied housing units, female householder, no wife present, with own children under 18
B25115014	Owner occupied housing units, nonfamily households
B25115018	Renter occupied housing units with own children under 18 years (married-couple family)
B25115022	Married-couple renter occupied housing units, with own children under 18
B25115025	Renter occupied housing units, male householder, no wife present, with own children under 18
B25115027	Renter occupied housing units, female householder, no wife present, with own children under 18
B11003003	Married couple families, with own children under 18 years
B11003010	Male householder, no wife present, with own children under 18 years
B11003016	Female householder, no husband present, with own children under 18 years
B12001001	Population 15 years and over
B12001007	Male, 15 years and over, married, spouse absent, separated
B12001010	Male, 15 years and over, divorced
B12001016	Female, 15 years and over, married, spouse absent, separated
B12001019	Female, 15 years and over, divorced

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B16002001	Total households
B16002004	Spanish language spoken at home, linguistically isolated
B16002007	Other Indo-European languages spoken at home, linguistically isolated
B16002010	Asian and Pacific Island languages spoken at home, linguistically isolated
B16002013	Other languages spoken at home, linguistically isolated
B05012001	Total population
B05012003	Foreign-Born
B23001002	Male, 16 years and over
B23001004	Male, 16 to 19 years, in labor force
B23001005	Male, 16 to 19 years, in labor force, in Armed Forces
B23001006	Male, 16 to 19 years, in labor force, civilian
B23001007	Male, 16 to 19 years, in labor force, civilian, employed
B23001008	Male, 16 to 19 years, in labor force, civilian, unemployed
B23001009	Male, 16 to 19 years, not in labor force
B23001011	Male, 20 and 21 years, in labor force
B23001012	Male, 20 and 21 years, in labor force, in Armed Forces
B23001013	Male, 20 and 21 years, in labor force, civilian
B23001014	Male, 20 and 21 years, in labor force, civilian, employed
B23001015	Male, 20 and 21 years, in labor force, civilian, unemployed
B23001016	Male, 20 and 21 years, not in labor force
B23001018	Male, 22 to 24 years, in labor force:
B23001019	Male, 22 to 24 years, in Armed Forces
B23001020	Male, 22 to 24 years, civilian
B23001021	Male, 22 to 24 years, civilian employed
B23001022	Male, 22 to 24 years, civilian unemployed
B23001023	Male, 22 to 24 years, not in labor force
B23001025	Male, 25 to 29 years, in labor force
B23001026	Male, 25 to 29 years, in labor force, in Armed Forces
B23001027	Male, 25 to 29 years, in labor force, civilian
B23001028	Male, 25 to 29 years, in labor force, civilian, employed
B23001029	Male, 25 to 29 years, in labor force, civilian, unemployed
B23001030	Male, 25 to 29 years, not in labor force
B23001032	Male, 30 to 34 years, in labor force
B23001033	Male, 30 to 34 years, in labor force, in Armed Forces
B23001034	Male, 30 to 34 years, in labor force, civilian
B23001035	Male, 30 to 34 years, in labor force, civilian, employed
B23001036	Male, 30 to 34 years, in labor force, civilian, unemployed
B23001037	Male, 30 to 34 years, not in labor force
B23001039	Male, 35 to 44 years, in labor force
B23001040	Male, 35 to 44 years, in labor force, in Armed Forces
B23001041	Male, 35 to 44 years, in labor force, civilian
B23001042	Male, 35 to 44 years, in labor force, civilian, employed
B23001043	Male, 35 to 44 years, in labor force, civilian, unemployed
B23001044	Male, 35 to 44 years, not in labor force

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B23001046	Male, 45 to 54 years, in labor force
B23001047	Male, 45 to 54 years, in labor force, in Armed Forces
B23001048	Male, 45 to 54 years, in labor force, civilian
B23001049	Male, 45 to 54 years, in labor force, civilian, employed
B23001050	Male, 45 to 54 years, in labor force, civilian, unemployed
B23001051	Male, 45 to 54 years, not in labor force
B23001053	Male, 55 to 59 years, in labor force
B23001054	Male, 55 to 59 years, in labor force, in Armed Forces
B23001055	Male, 55 to 59 years, in labor force, civilian
B23001056	Male, 55 to 59 years, in labor force, civilian, employed
B23001057	Male, 55 to 59 years, in labor force, civilian, unemployed
B23001058	Male, 55 to 59 years, not in labor force
B23001060	Male, 60 and 61 years, in labor force
B23001061	Male, 60 and 61 years, in labor force, in Armed Forces
B23001062	Male, 60 and 61 years, in labor force, civilian
B23001063	Male, 60 and 61 years, in labor force, civilian, employed
B23001064	Male, 60 and 61 years, in labor force, civilian, unemployed
B23001065	Male, 60 and 61 years, not in labor force
B23001067	Male, 62 to 64 years, in labor force
B23001068	Male, 62 to 64 years, in labor force, in Armed Forces
B23001069	Male, 62 to 64 years, in labor force, civilian
B23001070	Male, 62 to 64 years, in labor force, civilian, employed
B23001071	Male, 62 to 64 years, in labor force, civilian, unemployed
B23001072	Male, 62 to 64 years, not in labor force
B23001074	Male, 65 to 69 years, in labor force
B23001075	Male, 65 to 69 years, in labor force, employed
B23001076	Male, 65 to 69 years, in labor force, unemployed
B23001077	Male, 65 to 69 years, not in labor force
B23001079	Male, 70 to 74 years, in labor force
B23001080	Male, 70 to 74 years, in labor force, employed
B23001081	Male, 70 to 74 years, in labor force, unemployed
B23001082	Male, 70 to 74 years, not in labor force
B23001084	Male, 75 years and over, in labor force
B23001085	Male, 75 years and over, in labor force, employed
B23001086	Male, 75 years and over, in labor force, unemployed
B23001087	Male, 75 years and over, not in labor force
B23001090	Female, 16 to 19 years, in labor force
B23001091	Female, 16 to 19 years, in labor force, in Armed Forces
B23001092	Female, 16 to 19 years, in labor force, civilian
B23001093	Female, 16 to 19 years, in labor force, civilian, employed
B23001094	Female, 16 to 19 years, in labor force, civilian, unemployed
B23001095	Female, 16 to 19 years, not in labor force
B23001097	Female, 20 and 21 years, in labor force
B23001098	Female, 20 and 21 years, in labor force, in Armed Forces
B23001099	Female, 20 and 21 years, in labor force, civilian
B23001100	Female, 20 and 21 years, in labor force, civilian, employed

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B23001101	Female, 20 and 21 years, in labor force, civilian, unemployed
B23001102	Female, 20 and 21 years, not in labor force
B23001104	Female, 22 to 24 years, in labor force:
B23001105	Female, 22 to 24 years, in Armed Forces
B23001106	Female, 22 to 24 years, civilian
B23001107	Female, 22 to 24 years, civilian employed
B23001108	Female, 22 to 24 years, civilian unemployed
B23001109	Female, 22 to 24 years, not in labor force
B23001111	Female, 25 to 29 years, in labor force
B23001112	Female, 25 to 29 years, in labor force, in Armed Forces
B23001113	Female, 25 to 29 years, in labor force, civilian
B23001114	Female, 25 to 29 years, in labor force, civilian, employed
B23001115	Female, 25 to 29 years, in labor force, civilian, unemployed
B23001116	Female, 25 to 29 years, not in labor force
B23001118	Female, 30 to 34 years, in labor force
B23001119	Female, 30 to 34 years, in labor force, in Armed Forces
B23001120	Female, 30 to 34 years, in labor force, civilian
B23001121	Female, 30 to 34 years, in labor force, civilian, employed
B23001122	Female, 30 to 34 years, in labor force, civilian, unemployed
B23001123	Female, 30 to 34 years, not in labor force
B23001125	Female, 35 to 44 years, in labor force
B23001126	Female, 35 to 44 years, in labor force, in Armed Forces
B23001127	Female, 35 to 44 years, in labor force, civilian
B23001128	Female, 35 to 44 years, in labor force, civilian, employed
B23001129	Female, 35 to 44 years, in labor force, civilian, unemployed
B23001130	Female, 35 to 44 years, not in labor force
B23001132	Female, 45 to 54 years, in labor force
B23001133	Female, 45 to 54 years, in labor force, in Armed Forces
B23001134	Female, 45 to 54 years, in labor force, civilian
B23001135	Female, 45 to 54 years, in labor force, civilian, employed
B23001136	Female, 45 to 54 years, in labor force, civilian, unemployed
B23001137	Female, 45 to 54 years, not in labor force
B23001139	Female, 55 to 59 years, in labor force
B23001140	Female, 55 to 59 years, in labor force, in Armed Forces
B23001141	Female, 55 to 59 years, in labor force, civilian
B23001142	Female, 55 to 59 years, in labor force, civilian, employed
B23001143	Female, 55 to 59 years, in labor force, civilian, unemployed
B23001144	Female, 55 to 59 years, not in labor force
B23001146	Female, 60 and 61 years, in labor force
B23001147	Female, 60 and 61 years, in labor force, in Armed Forces
B23001148	Female, 60 and 61 years, in labor force, civilian
B23001149	Female, 60 and 61 years, in labor force, civilian, employed
B23001150	Female, 60 and 61 years, in labor force, civilian, unemployed
B23001151	Female, 60 and 61 years, not in labor force
B23001153	Female, 62 to 64 years, in labor force
B23001154	Female, 62 to 64 years, in labor force, in Armed Forces

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B23001155	Female, 62 to 64 years, in labor force, civilian
B23001156	Female, 62 to 64 years, in labor force, civilian, employed
B23001157	Female, 62 to 64 years, in labor force, civilian, unemployed
B23001158	Female, 62 to 64 years, not in labor force
B23001160	Female, 65 to 69 years, in labor force
B23001161	Female, 65 to 69 years, in labor force, employed
B23001162	Female, 65 to 69 years, in labor force, unemployed
B23001163	Female, 65 to 69 years, not in labor force
B23001165	Female, 70 to 74 years, in labor force
B23001166	Female, 70 to 74 years, in labor force, employed
B23001167	Female, 70 to 74 years, in labor force, unemployed
B23001168	Female, 70 to 74 years, not in labor force
B23001170	Female, 75 years and over, in labor force
B23001171	Female, 75 years and over, in labor force, employed
B23001172	Female, 75 years and over, in labor force, unemployed
B23001173	Female, 75 years and over, not in labor force
B23008003	Children under 6 years, living with two parents
B23008004	Children under 6 years, living with two parents, both parents in the labor force
B23008016	Children 6 to 17 years, living with two parents
B23008017	Children 6 to 17 years, living with two parents, both parents in the labor force
C23002A006	White alone males 16 to 64 years, in civilian labor force
C23002A008	White alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002A011	White alone males 65 years and over, in labor force
C23002A013	White alone males 65 years and over, in labor force, unemployed
C23002A019	White alone females 16 to 64 years, in civilian labor force
C23002A021	White alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002A024	White alone females 65 years and over, in labor force
C23002A026	White alone females 65 years and over, in labor force, unemployed
C23002B006	Black or African American alone males 16 to 64 years, in civilian labor force
C23002B008	Black or African American alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002B011	Black or African American alone males 65 years and over, in labor force
C23002B013	Black or African American alone males 65 years and over, in labor force, unemployed
C23002B019	Black or African American alone females 16 to 64 years, in civilian labor force
C23002B021	Black or African American alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002B024	Black or African American alone females 65 years and over, in labor force
C23002B026	Black or African American alone females 65 years and over, in labor force, unemployed
C23002C006	American Indian and Alaska Native alone males 16 to 64 years, in civilian labor force

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C23002C008	American Indian and Alaska Native alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002C011	American Indian and Alaska Native alone males 65 years and over, in labor force
C23002C013	American Indian and Alaska Native alone males 65 years and over, in labor force, unemployed
C23002C019	American Indian and Alaska Native alone females 16 to 64 years, in civilian labor force
C23002C021	American Indian and Alaska Native alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002C024	American Indian and Alaska Native alone females 65 years and over, in labor force
C23002C026	American Indian and Alaska Native alone females 65 years and over, in labor force, unemployed
C23002D006	Asian alone males 16 to 64 years, in civilian labor force
C23002D008	Asian alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002D011	Asian alone males 65 years and over, in labor force
C23002D013	Asian alone males 65 years and over, in labor force, unemployed
C23002D019	Asian alone females 16 to 64 years, in civilian labor force
C23002D021	Asian alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002D024	Asian alone females 65 years and over, in labor force
C23002D026	Asian alone females 65 years and over, in labor force, unemployed
C23002E006	Native Hawaiian and Other Pacific Islander alone males 16 to 64 years, in civilian labor force
C23002E008	Native Hawaiian and Other Pacific Islander alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002E011	Native Hawaiian and Other Pacific Islander alone males 65 years and over, in labor force
C23002E013	Native Hawaiian and Other Pacific Islander alone males 65 years and over, in labor force, unemployed
C23002E019	Native Hawaiian and Other Pacific Islander alone females 16 to 64 years, in civilian labor force
C23002E021	Native Hawaiian and Other Pacific Islander alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002E024	Native Hawaiian and Other Pacific Islander alone females 65 years and over, in labor force
C23002E026	Native Hawaiian and Other Pacific Islander alone females 65 years and over, in labor force, unemployed
C23002F006	Some other race alone males 16 to 64 years, in civilian labor force
C23002F008	Some other race alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002F011	Some other race alone males 65 years and over, in labor force
C23002F013	Some other race alone males 65 years and over, in labor force, unemployed
C23002F019	Some other race alone females 16 to 64 years, in civilian labor force

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C23002F021	Some other race alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002F024	Some other race alone females 65 years and over, in labor force
C23002F026	Some other race alone females 65 years and over, in labor force, unemployed
C23002G006	Two or more races alone males 16 to 64 years, in civilian labor force
C23002G008	Two or more races alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002G011	Two or more races alone males 65 years and over, in labor force
C23002G013	Two or more races alone males 65 years and over, in labor force, unemployed
C23002G019	Two or more races alone females 16 to 64 years, in civilian labor force
C23002G021	Two or more races alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002G024	Two or more races alone females 65 years and over, in labor force
C23002G026	Two or more races alone females 65 years and over, in labor force, unemployed
C23002H006	White alone, not Hispanic or Latino alone males 16 to 64 years, in civilian labor force
C23002H008	White alone, not Hispanic or Latino alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002H011	White alone, not Hispanic or Latino alone males 65 years and over, in labor force
C23002H013	White alone, not Hispanic or Latino alone males 65 years and over, in labor force, unemployed
C23002H019	White alone, not Hispanic or Latino alone females 16 to 64 years, in civilian labor force
C23002H021	White alone, not Hispanic or Latino alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002H024	White alone, not Hispanic or Latino alone females 65 years and over, in labor force
C23002H026	White alone, not Hispanic or Latino alone females 65 years and over, in labor force, unemployed
C23002I006	Hispanic or Latino alone males 16 to 64 years, in civilian labor force
C23002I008	Hispanic or Latino alone males 16 to 64 years and over, in civilian labor force, unemployed
C23002I011	Hispanic or Latino alone males 65 years and over, in labor force
C23002I013	Hispanic or Latino alone males 65 years and over, in labor force, unemployed
C23002I019	Hispanic or Latino alone females 16 to 64 years, in civilian labor force
C23002I021	Hispanic or Latino alone females 16 to 64 years and over, in civilian labor force, unemployed
C23002I024	Hispanic or Latino alone females 65 years and over, in labor force
C23002I026	Hispanic or Latino alone females 65 years and over, in labor force, unemployed
C24030001	Total civilian employed population 16 years and over
C24030002	Civilian employed population 16 years and over, male
C24030003	Employed males 16 years and over in agriculture, forestry, fishing and hunting, and mining

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C24030004	Employed males 16 years and over in agriculture, forestry, fishing and hunting
C24030005	Employed males 16 years and over in mining, quarrying, and oil and gas extraction
C24030006	Employed males 16 years and over in construction
C24030007	Employed males 16 years and over in manufacturing
C24030008	Employed males 16 years and over in wholesale trade
C24030009	Employed males 16 years and over in retail trade
C24030010	Employed males 16 years and over in transportation and warehousing, and utilities:
C24030011	Employed males 16 years and over in transportation and warehousing
C24030012	Employed males 16 years and over in utilities
C24030013	Employed males 16 years and over in information
C24030014	Employed males 16 years and over in finance and insurance, and real estate and rental and leasing
C24030015	Employed males 16 years and over in finance and insurance
C24030016	Employed males 16 years and over in real estate and rental and leasing
C24030017	Employed males 16 years and over in professional, scientific, and management, and administrative and waste management services
C24030018	Employed males 16 years and over in professional, scientific, and technical services
C24030019	Employed males 16 years and over in management of companies and enterprises
C24030020	Employed males 16 years and over in administrative and support and waste management services
C24030021	Employed males 16 years and over in educational services, and health care and social assistance
C24030022	Employed males 16 years and over in educational services
C24030023	Employed males 16 years and over in health care and social assistance
C24030024	Employed males 16 years and over in arts, entertainment, and recreation, and accommodation and food services
C24030025	Employed males 16 years and over in arts, entertainment, and recreation
C24030026	Employed males 16 years and over in accommodation and food services
C24030027	Employed males 16 years and over in other services, except public administration
C24030028	Employed males 16 years and over in public administration
C24030029	Civilian employed population 16 years and over, female
C24030030	Employed females 16 years and over in agriculture, forestry, fishing and hunting, and mining
C24030031	Employed females 16 years and over in agriculture, forestry, fishing and hunting
C24030032	Employed females 16 years and over in mining, quarrying, and oil and gas extraction
C24030033	Employed females 16 years and over in construction
C24030034	Employed females 16 years and over in manufacturing
C24030035	Employed females 16 years and over in wholesale trade
C24030036	Employed females 16 years and over in retail trade
C24030037	Employed females 16 years and over in transportation and warehousing, and utilities
C24030038	Employed females 16 years and over in transportation and warehousing
C24030039	Employed females 16 years and over in utilities
C24030040	Employed females 16 years and over in information

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C24030041	Employed females 16 years and over in finance and insurance, and real estate and rental and leasing
C24030042	Employed females 16 years and over in finance and insurance
C24030043	Employed females 16 years and over in real estate and rental and leasing
C24030044	Employed females 16 years and over in professional, scientific, and management, and administrative and waste management services
C24030045	Employed females 16 years and over in professional, scientific, and technical services
C24030046	Employed females 16 years and over in management of companies and enterprises
C24030047	Employed females 16 years and over in administrative and support and waste management services
C24030048	Employed females 16 years and over in educational services, and health care and social assistance
C24030049	Employed females 16 years and over in educational services
C24030050	Employed females 16 years and over in health care and social assistance
C24030051	Employed females 16 years and over in arts, entertainment, and recreation, and accommodation and food services
C24030052	Employed females 16 years and over in arts, entertainment, and recreation
C24030053	Employed females 16 years and over in accommodation and food services
C24030054	Employed females 16 years and over in other services, except public administration
C24030055	Employed females 16 years and over in public administration
C24010001	Total civilian employed population 16 years and over
C24010002	Civilian employed population 16 years and over, male
C24010003	Employed males 16 years and over in management, professional, and related occupations
C24010004	Employed males 16 years and over in management, professional, and related occupations management, business, and financial occupations:
C24010005	Employed males 16 years and over in management, professional, and related occupations management occupations
C24010006	Employed males 16 years and over in management, professional, and related occupations business and financial operations occupations
C24010007	Employed males 16 years and over in management, professional, and related occupations professional and related occupations:
C24010008	Employed males 16 years and over in management, professional, and related occupations computer and mathematical occupations
C24010009	Employed males 16 years and over in management, professional, and related occupations architecture and engineering occupations
C24010010	Employed males 16 years and over in management, professional, and related occupations life, physical, and social science occupations
C24010011	Employed males 16 years and over in management, professional, and related occupations community and social services occupations
C24010012	Employed males 16 years and over in management, professional, and related occupations legal occupations
C24010013	Employed males 16 years and over in management, professional, and related occupations education, training, and library occupations

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C24010014	Employed males 16 years and over in management, professional, and related occupations arts, design, entertainment, sports, and media occupations
C24010015	Employed males 16 years and over in healthcare practitioner and technical occupations
C24010016	Employed males 16 years and over in health diagnosing and treating practitioners and other technical occupations
C24010017	Employed males 16 years and over in health technologists and technicians
C24010018	Employed males 16 years and over in service occupations
C24010019	Employed males 16 years and over in healthcare support occupations
C24010020	Employed males 16 years and over in protective service occupations
C24010021	Employed males 16 years and over in fire fighting and prevention, and other protective service workers including supervisors
C24010022	Employed males 16 years and over in law enforcement workers including supervisors
C24010023	Employed males 16 years and over in food preparation and serving related occupations
C24010024	Employed males 16 years and over in building and grounds cleaning and maintenance occupations
C24010025	Employed males 16 years and over in personal care and service occupations
C24010026	Employed males 16 years and over in sales and office occupations
C24010027	Employed males 16 years and over in sales and related occupations
C24010028	Employed males 16 years and over in office and administrative support occupations
C24010029	Employed males 16 years and over in farming, fishing, and forestry occupations
C24010030	Employed males 16 years and over in construction, extraction, maintenance, and repair occupations
C24010031	Employed males 16 years and over in construction and extraction occupations
C24010032	Employed males 16 years and over in installation, maintenance, and repair occupations
C24010033	Employed males 16 years and over in production, transportation, and material moving occupations
C24010034	Employed males 16 years and over in production occupations
C24010035	Employed males 16 years and over in transportation and material moving occupations
C24010036	Employed males 16 years and over in supervisors, transportation and material moving workers, and other transportation workers except motor vehicle operators
C24010037	Employed males 16 years and over in motor vehicle operators
C24010038	Employed males 16 years and over in material moving workers
C24010039	Civilian employed population 16 years and over, female
C24010040	Employed females 16 years and over in management, professional, and related occupations
C24010041	Employed females 16 years and over in management, professional, and related occupations management, business, and financial occupations
C24010042	Employed females 16 years and over in management, professional, and related occupations management occupations
C24010043	Employed females 16 years and over in management, professional, and related occupations business and financial operations occupations

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C24010044	Employed females 16 years and over in management, professional, and related occupations professional and related occupations:
C24010045	Employed females 16 years and over in management, professional, and related occupations computer and mathematical occupations
C24010046	Employed females 16 years and over in management, professional, and related occupations architecture and engineering occupations
C24010047	Employed females 16 years and over in management, professional, and related occupations life, physical, and social science occupations
C24010048	Employed females 16 years and over in management, professional, and related occupations community and social services occupations
C24010049	Employed females 16 years and over in management, professional, and related occupations legal occupations
C24010050	Employed females 16 years and over in management, professional, and related occupations education, training, and library occupations
C24010051	Employed females 16 years and over in management, professional, and related occupations arts, design, entertainment, sports, and media occupations
C24010052	Employed females 16 years and over in healthcare practitioner and technical occupations
C24010053	Employed females 16 years and over in health diagnosing and treating practitioners and other technical occupations
C24010054	Employed females 16 years and over in health technologists and technicians
C24010055	Employed females 16 years and over in service occupations
C24010056	Employed females 16 years and over in healthcare support occupations
C24010057	Employed females 16 years and over in protective service occupations
C24010058	Employed females 16 years and over in fire fighting and prevention, and other protective service workers including supervisors
C24010059	Employed females 16 years and over in law enforcement workers including supervisors
C24010060	Employed females 16 years and over in food preparation and serving related occupations
C24010061	Employed females 16 years and over in building and grounds cleaning and maintenance occupations
C24010062	Employed females 16 years and over in personal care and service occupations
C24010063	Employed females 16 years and over in sales and office occupations
C24010064	Employed females 16 years and over in sales and related occupations
C24010065	Employed females 16 years and over in office and administrative support occupations
C24010066	Employed females 16 years and over in farming, fishing, and forestry occupations
C24010067	Employed females 16 years and over in construction, extraction, maintenance, and repair occupations
C24010068	Employed females 16 years and over in construction and extraction occupations
C24010069	Employed females 16 years and over in installation, maintenance, and repair occupations
C24010070	Employed females 16 years and over in production, transportation, and material moving occupations
C24010071	Employed females 16 years and over in production occupations

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C24010072	Employed females 16 years and over in transportation and material moving occupations:
C24010073	Employed females 16 years and over in supervisors, transportation and material moving workers, and other transportation workers except motor vehicle operators
C24010074	Employed females 16 years and over in motor vehicle operators
C24010075	Employed females 16 years and over in material moving workers
B19057001	Total Households
B19057002	Households with public assistance income
B19057003	Households with no public assistance income
B19101001	Total families
B19101002	Families with incomes less than \$10,000
B19101003	Families with incomes \$10,000 to \$14,999
B19101004	Families with incomes \$15,000 to \$19,999
B19101005	Families with incomes \$20,000 to \$24,999
B19101006	Families with incomes \$25,000 to \$29,999
B19101007	Families with incomes \$30,000 to \$34,999
B19101008	Families with incomes \$35,000 to \$39,999
B19101009	Families with incomes \$40,000 to \$44,999
B19101010	Families with incomes \$45,000 to \$49,999
B19101011	Families with incomes \$50,000 to \$59,999
B19101012	Families with incomes \$60,000 to \$74,999
B19101013	Families with incomes \$75,000 to \$99,999
B19101014	Families with incomes \$100,000 to \$124,999
B19101015	Families with incomes \$125,000 to \$149,999
B19101016	Families with incomes \$150,000 to \$199,999
B19101017	Families with incomes \$200,000 or more
B20002001	Median earnings in 2009 inflation-adjusted dollars
B20002002	Median earnings males in 2009 inflation-adjusted dollars
B20002003	Median earnings females in 2009 inflation-adjusted dollars
B17001001	Total population for whom poverty status is determined
B17001002	Population with income in the past 12 months below poverty level
B17010001	Total families
B17010002	Families with income in the past 12 months below poverty level
B17017001	Total households
B17017002	Households with income in the past 12 months below poverty level
B11009001	Total Households
B11009002	Unmarried-partner households
B11009003	Unmarried-partner households, male householder and male partner
B11009004	Unmarried-partner households, male householder and female partner

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B11009005	Unmarried-partner households, female householder and female partner
B11009006	Unmarried-partner households, female householder and male partner
B11009007	All other households
B25002001	Total housing units
B25002002	Occupied housing units
B25002003	Vacant housing units
B25003001	Total housing units
B25003002	Owner occupied housing units
B25003003	Renter occupied housing units
B25010001	Average household size of occupied housing units by tenure
B25035001	Median year structure built
B25039001	Median year householder moved into unit by tenure
B25043001	Total housing units
B25043007	Owner occupied housing units, no telephone service
B25043016	Renter occupied housing units, no telephone service
B25043001	Total occupied housing units
B25044001	Total occupied housing units
B25044003	Owner occupied housing units, no vehicle available
B25044010	Renter occupied housing units, no vehicle available
B25047001	Total housing units
B25047003	Housing units lacking complete plumbing facilities
B25051001	Total Housing units
B25051003	Housing units lacking complete kitchen facilities
B25058001	Median contract rent (dollars) for specified renter-occupied housing units paying cash rent
B25077001	Median value (dollars) for specified owner-occupied housing units
B14001001	Total population 3 years and over
B14001003	Population 3 years and over, enrolled in nursery school, preschool
B14001004	Population 3 years and over, enrolled in kindergarten
B14001005	Population 3 years and over, enrolled in grade 1 to grade 4
B14001006	Population 3 years and over, enrolled in grade 5 to grade 8
B14001007	Population 3 years and over, enrolled in grade 9 to grade 12
B14001008	Population 3 years and over, enrolled in college, undergraduate years
B14001009	Population 3 years and over, graduate or professional school
B14001010	Population 3 years and over, not enrolled in school
B08006001	Total workers 16 years and over
B08006002	Car, truck, or van:
B08006008	Public transportation (excluding taxicab):
B08006014	Bicycle

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B08006015	Walked
B08006016	Taxicab, motorcycle, or other means

Notes

1. U.S. Census Bureau, Understanding and Using American Community Survey Data: What All Data Users Need to Know, U.S. Government Publishing Office, Washington, DC, 2020.
2. Citro, C.F. & Kalton, G. (2007). Using the American Community Survey: Benefits and Challenges. Retrieved from www.nap.edu
3. U.S. Census Bureau (2013, February 1). Comparing 2009 American Community Survey Data. Retrieved from http://www.census.gov/acs/www/guidance_for_data_users/comparing_2009/ and http://www.census.gov/acs/www/Downloads/comparing_acs_data/table_comparisons_10.pdf

CA 1981-2010 U.S. Climate Atlas
National Centers for Environmental Information

The U.S. Climate Atlas is a tool that contains comprehensive climate information in the United States. The Atlas compiles data from a number of climate stations for the period 1960 to present. The data are only released every 10 years, and therefore 2010 is the most recent data available for Wave V (collected 2016-2018). This source provides a series of GIS layered data for daily, monthly, and annual averages of climate characteristics for the specified timeframe, and these data show the spatial distribution of the climatic elements. More information on the Climate Atlas can be found at the National Centers for Environmental Information's website: <https://www.ncdc.noaa.gov/about>

A total of six variables in this data file were generated using the information in the Climate Atlas of the United States. To attach these data, the distance from each Wave V respondent to the nearest 10 climate stations, with a maximum distance threshold of 500 km, was determined. Respondent locations were then assigned U.S. Climate Atlas data from the nearest station with non-missing values.

Variable Description
Mean daily minimum temperature, annually (degrees Fahrenheit)
Mean daily maximum temperature, annually (degrees Fahrenheit)
Mean number of days with minimum temperature <= 32 F, annually
Mean number of days with minimum temperature >= 90 F, annually
Mean total precipitation, annually (inches)
Mean total snowfall, annually (inches)

ER Rural-Urban commuting area (RUCA) codes

Rural-Urban Commuting Area Codes (RUCAs) provide a characterization of a census tract in regard to its rural and urban status and commuting patterns. This characterization is made by using measures of population density, urbanization, and daily commuting. This contextual file incorporates the most recent version of the RUCA codes associated with census tracts inhabited by Add Health respondents in Wave V, which are based on data from the 2010 decennial census and the 2006-2010 American Community Survey. These data are sourced from the Economics Research Service of the United States Department of Agriculture at the following website: <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>.

The tables below provide a complete list of RUCA codes and their corresponding definitions:

Primary RUCA Codes, 2010 ¹	
1	Metropolitan area core: primary flow within an urbanized area (UA)
2	Metropolitan area high commuting: primary flow 30% or more to a UA
3	Metropolitan area low commuting: primary flow 10% to 30% to a UA
4	Micropolitan area core: primary flow within an Urban Cluster of 10,000 to 49,999 (large UC)
5	Micropolitan high commuting: primary flow 30% or more to a large UC
6	Micropolitan low commuting: primary flow 10% to 30% to a large UC
7	Small town core: primary flow within an Urban Cluster of 2,500 to 9,999 (small UC)
8	Small town high commuting: primary flow 30% or more to a small UC
9	Small town low commuting: primary flow 10% to 30% to a small UC
10	Rural areas: primary flow to a tract outside a UA or UC
99	Not coded: Census tract has zero population and no rural-urban identifier information

Secondary RUCA Codes, 2010 ¹	
1	Metropolitan area core: primary flow within an urbanized area (UA)
1	No additional code
1.1	Secondary flow 30% to 50% to a larger UA
2	Metropolitan area high commuting: primary flow 30% or more to a UA
2	No additional code
2.1	Secondary flow 30% to 50% to a larger UA
3	Metropolitan area low commuting: primary flow 10% to 30% to a UA
3	No additional code
4	Micropolitan area core: primary flow within an Urban Cluster of 10,000 to 49,999 (large UC)
4	No additional code
4.1	Secondary flow 30% to 50% to a UA
5	Micropolitan high commuting: primary flow 30% or more to a large UC
5	No additional code
5.1	Secondary flow 30% to 50% to a UA

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- 6 Micropolitan low commuting: primary flow 10% to 30% to a large UC
 - 6 No additional code
- 7 Small town core: primary flow within an Urban Cluster of 2,500 to 9,999 (small UC)
 - 7 No additional code
 - 7.1 Secondary flow 30% to 50% to a UA
 - 7.2 Secondary flow 30% to 50% to a large UC
- 8 Small town high commuting: primary flow 30% or more to a small UC
 - 8 No additional code
 - 8.1 Secondary flow 30% to 50% to a UA
 - 8.2 Secondary flow 30% to 50% to a large UC
- 9 Small town low commuting: primary flow 10% to 30% to a small UC
 - 9 No additional code
- 10 Rural areas: primary flow to a tract outside a UA or UC
 - 10 No additional code
 - 10.1 Secondary flow 30% to 50% to a UA
 - 10.2 Secondary flow 30% to 50% to a large UC
 - 10.3 Secondary flow 30% to 50% to a small UC
- 99 Not coded: Census tract has zero population and no rural-urban identifier information

RUCA Data Sources:

Population data for census tracts, by urban-rural components, 2010:

U.S. Census Bureau, Census of Population and Housing, 2010. Summary File 1, FTP download:

<https://www.census.gov/census2000/sumfile1.html>

Assignment of census tracts to specific urban areas or to rural status was completed using ESRI's ArcMap software and Census Bureau shape files:

U.S. Census Bureau. Tiger/Line Shapefiles, Census Tracts and Urban Areas, 2010:

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

Census tract commuting flows, 2006-2010:

U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning Products, Part 3, Worker Home-to-Work Flow Tables.

https://www.fhwa.dot.gov/planning/census_issues/ctpp/data_products/2006-2010_table_list/sheet04.cfm

Tract-to-tract commuting flow files were constructed from ACS data as part of a special tabulation for the Department of Transportation—the Census Transportation Planning Package. To derive estimates for small geographic units such as census tracts, information collected annually from over 3.5 million housing units was combined across 5 years (2006-2010). As with all survey data, ACS estimates are not exact because they are based on a sample. In general, the smaller the estimate, the larger the degree of uncertainty associated with it.²

Notes

1. UA and UC refer to Urbanized Area and Urban Cluster, respectively.
2. 2010 Rural-Urban Commuting Area (RUCA) Codes. Economic Research Service United States Department of Agriculture. <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/documentation>

UC Uniform Crime Report, 2016

The Uniform Crime Report (UCR) is a periodic compilation of reported crimes nationwide; it contains county-level counts of arrests for violent and property offenses. Specifically, ICPSR Study No. 37059: Uniform Crime Reporting Program Data: County-Level Detailed Arrest and Offense Data, United States, 2016, obtained from The United States Department of Justice, Federal Bureau of Investigation¹, provided the variables used to construct the crime measures appearing in this Add Health contextual database.

Source Variable Name	Description
P1TOT	PART 1—TOTAL. Total number of Part I (index) crimes. This is the sum of variables MURDER through ARSON.
P1VLNT	PART 1—VIOLENT CRIMES. Sum of variables MURDER through ASSAULT.
P1PRPTY	PART 1-PROPERTY CRIMES Sum of variables BURGLRY through ARSON
CPOPST	Total county population of agencies reporting arrests
COVIND	Coverage Indicator

Notes

1. United States Department of Justice. Federal Bureau of Investigation. Uniform Crime Reporting Program Data: County-Level Detailed Arrest and Offense Data, United States, 2016. Inter-university Consortium for Political and Social Research [distributor], 2019-01-17.
<https://doi.org/10.3886/ICPSR37059.v3>