

Homelessness Analytics Initiative Methodology

Last Updated: 12/15/2014

Methods and Data Sources Overview

The Homelessness Analytics Initiative (HAI) synthesizes information from an array of federal government and other data sources. Indicators included in HAI are measured at the state, county, Continuum of Care (CoC), Census tract or Census block group level, although the geography level(s) for which specific indicators are available varies. In addition, the locations of U.S. Department of Veterans Affairs (VA) Medical Centers, and other VA health care clinics/providers are represented as points in the Homelessness Analytics Application, and some limited information about each of these facilities is available in the HAI.

Most of the data indicators included in the HAI are publicly available from their respective sources, although a select few are not. In addition, some indicators were calculated using data from one or more data sources. This process was used primarily to create CoC level measures of demographic, health, behavioral health, economic and housing market conditions from county level data sources; and to calculate rates of homelessness.

The remainder of this document provides comprehensive details about the methodology and data sources used to create the HAI including:

- An explanation of the levels of geography represented in the Homelessness Analytics Application
- Descriptions of the various data sources from which HAI indicators were obtained
- A complete list of indicators included in the HAI
- A description of procedures used to transform county level data sources into CoC level indicators
- A description of procedures used to calculate rates of homelessness and other indicators from multiple sources
- A description of the procedures used to create the HAI's modeling tool

Levels of Geography in the Homelessness Analytics Initiative

Indicators included in the HAI are available at one or more of the following levels of geography:

- Census Tract
- Census Block Group
- Continuum of Care (CoC)
- County
- State
- VA Medical Centers and other VA facilities (point level data)

The level of geography at which specific indicators included in the HAI are available varies. This is largely because the various data sources used to create the HAI collect and report counts of homelessness and other economic, housing and social indicators at varying levels of geography, which do not always align with one another. However, as the CoC is the smallest geographic unit at which annual point-in-time counts of the number of persons experiencing homelessness are available, efforts were made to include as many indicators as possible at that geographic level.

Unlike geographies such as counties and states, whose boundaries are effectively permanent, the universe of CoCs and their particular boundaries can change slightly from year to year as some CoCs merge with one another, some disband, and others are created.¹ The HAI includes the universe of CoCs that were in existence in 2012, and therefore provides data for all years only for the 2012 CoCs.

In addition to the indicators available at the CoC, county and state level, the locations of U.S. Department of Veterans Affairs Medical Centers, and other VA health care clinics/providers are represented as points in the HAI's map interface. Users can access information about these facilities by selecting a location of interest in the map interface.

Data Sources

The data sources used to select indicators included in the HAI are described below. Where possible, links are provided to each data source.

50th Percentile Rent Estimates

The U.S. Department of Housing and Urban Development (HUD) estimates 50th percentile rents, which are defined as the dollar amount of gross rents at the 50th percentile of the rent distribution (i.e. the median rent) for housing units of varying size, on an annual basis using data from the Census Bureau and telephone surveys. 50th percentile rent estimate data are used in the HAI to obtain rent level indicators and are available at: <http://www.huduser.org/portal/datasets/50per.html>

American Community Survey (ACS)

The U.S. Census Bureau's American Community Survey (ACS) is a population-based survey that collects information on demographic, social economic and housing characteristics from a representative sample of American households. In contrast to the Decennial Census, which is conducted once every 10 years, the ACS is conducted on annual basis. The HAI primarily uses the ACS 5-year estimates, which, unlike the 1-

¹ In cases where a 2012 CoC was created by the merger of two or more CoCs that occurred in a year prior to 2012, counts of homeless populations and sub-populations were retroactively summed across the merged CoCs for all years for which such counts were available. For example, CA-610 became part of the CA-601 CoC in 2011. Although counts of homelessness were reported separately for these two CoCs prior to 2011, the counts provided in the HAI for CA-601 for years prior to 2011 include the counts for the now defunct CA-610 CoC.

year and 3-year estimates, are available for every county in the United States, to obtain demographic, economic and housing related indicators. The 1-year estimates were used in calculating rates of homelessness at the state level. Note that the year of availability denoted in the HAI for indicators that were obtained from the ACS is the last year of the period from which the estimates were derived (e.g. 2009 for the 2005-2009 5-year estimates). The ACS data are available at: <http://factfinder2.census.gov>

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone-based survey administered by the Centers for Disease Control (CDC) that collects uniform, state-level data on preventative health practices and risk behaviors that are linked to chronic and infectious diseases as well as injuries. BRFSS data are used in the HAI for select indicators of population health and are available at: www.cdc.gov/brfss/.

Community Health Status Indicators (CHSI)

The Community Health Status Indicators (CHSI) Report collates county-level indicators of public health. It is published by the U.S. Department of Health and Human Services (HHS) and uses a variety of Federal data sources, as well as other sources, which have been vetted by HHS. The life expectancy indicator included in the HAI is from the CHSI Report. The CHSI Report can be accessed at: <http://www.communityhealth.hhs.gov>

County Health Rankings

The County Health Rankings is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The County Health Rankings uses a scientific approach to rank counties within states with respect to health outcomes and health factors. The County Health Rankings also provide a wide array of county-level health and socioeconomic related measures and indicators, which are collected from a number of public and private sources. For the HAI, the County Health Rankings are used to obtain select public health and economic indicators. The County Health Rankings are available at: www.countyhealthrankings.org

Decennial Census

Beginning with the 1990 Census, The U.S. Census Bureau has enumerated persons in emergency and transitional shelters as part of its Decennial Census. Although not intended as an official count of the entire homeless population, The Census provides national level age and gender stratified counts of persons enumerated at emergency shelters and transitional housing programs. For the HAI, County level age and gender stratified counts of persons in emergency shelter and transitional housing were obtained from the Census Bureau via a special tabulation request. Additional information about Census enumeration of persons in emergency shelter and transitional housing, including national level estimates, are available at: <http://www.census.gov/prod/cen2010/reports/c2010sr-02.pdf>

Department of Veterans Affairs (VA) Homeless Program Data

The U.S. Department of Veterans Affairs (VA) operates and funds a number of residential homeless assistance programs for veterans experiencing homelessness.

Data from the Compensated Work Therapy/ Transitional Residence (CWT/TR), Domiciliary Care for Homeless Veterans (DHCV), Grant and Per Diem (GPD), Health Care for Homeless Veterans (HCHV), HUD-VA Supportive Housing (HUD-VASH), and Supportive Service for Veteran Families (SSVF) programs, were used to obtain information about the number of beds/units in each of these program types.

Department of Veterans Affairs (VA) National Homeless Registry

The U.S. Department of Veterans Affairs maintains a National Homeless Registry that includes information for all Veterans who have been identified as homeless by the Veterans Health Administration since October of 2004. Information from this Registry was used to match Veterans who used a specialized VA homeless program at any point between 2005 and 2013 with the Census tract and Census block group in which their address of record in the National Homeless Registry was located.

Department of Veterans Affairs (VA) Veterans Health Administration Support Service Center (VSSC) Homeless Services Cube

The VSSC Homeless Services cube brings together data from VA specialized homeless programs. The VSSC Homeless Services Cube provides custom reports of VA homeless program metrics. This data source was used to obtain VA Homeless Program Metrics aggregated to the VA Medical Center level.

Fair Market Rents (FMRs)

The U.S. Department of Housing and Urban Development (HUD) estimates fair market rents (FMRs), which are defined as the dollar amount of gross rents at the 40th percentile of the rent distribution for housing units of varying size, on an annual basis using data from the Census Bureau and telephone surveys. FMRs are used to determine payment amounts for various housing assistance programs. FMR data are used in the HAI to obtain rent level indicators and are available at:

<http://www.huduser.org/portal/datasets/fmr.html>

FBI Uniform Crime Reports (UCR)

The Federal Bureau of Investigation's Uniform Crime Reports (UCR) provide are official measures of crime in the United States. They provide an array of crime statistics and are based on reports from state, county and local law enforcement agencies. UCR data is used in the HAI for select crime indicators. UCR data are available at:

<http://www.fbi.gov/about-us/cjis/ucr/ucr>

Housing Inventory Chart

Each Continuum of Care (CoC) provides a Housing Inventory Chart (HIC) to HUD on an annual basis. The HIC reports the results of a point-in-time count of the inventory of all beds and residential units dedicated to serve persons who meet HUD's homeless definition. The inventory count is required to take place during a single night in the last 10 days of January (the same night as the point-in-time count of homelessness). The HIC provides the number of residential beds within each community, stratified by target population and bed/unit type (i.e. emergency shelter, transitional housing, permanent

supportive housing, rapid re-housing, safe haven). Housing Inventory data are available at: <http://www.hudhre.info>

National Association of State Budget Officers' State Expenditure Report

The National Association of State Budget Officers is the professional organization for state budget and finance officers. Their annual State Expenditure Report provides statistics of state spending in a number of domains including education, public assistance, corrections, Medicaid, and transportation. Select measures of social program spending included in the HAI are obtained from the Expenditure Report. The data are available at: <http://www.nasbo.org/publications-data/state-expenditure-report/>

National Survey on Drug Use and Health (NSDUH)

The National Survey on Drug Use and Health (NSDUH), which is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), is an annual national survey of a random sample of 70,000 persons ages 12 and older. The NSDUH provides state-level data on the use of tobacco, alcohol and illicit drugs and mental health status. The HAI uses NSDUH data for select behavioral health indicators. NSDUH data are available at: <https://nsduhweb.rti.org/>

Point-In-Time (PIT) Estimates of Homelessness

The U.S. Department of Housing and Urban Development (HUD) publishes point-in-time (PIT) estimates of homelessness on an annual basis. The PIT estimates are available at the Continuum of Care (CoC) level. CoCs are required to report PIT counts to HUD as part of their annual applications for federal funding for homeless assistance programs. The counts must take place during a single night in the last 10 days of January, and must enumerate certain sub-groups of the homeless population (e.g. individuals, families, veterans, persons experiencing chronic homelessness). HUD requires that CoCs conduct counts of sheltered homeless people each year and counts of unsheltered homeless people in odd-numbered years. However, many CoCs undertake both sheltered and unsheltered counts on annual basis. The PIT estimates are available at: <http://www.hudhre.info>

Picture of Subsidized Households Dataset

The Picture of Subsidized Households is a U.S. Department of Housing and Urban Development Dataset that provides data on the number of low rent and Section 8 Housing Choice Voucher Program units in PHAs administered by HUD. It is used in HAI to provide indicators of the availability of public and subsidized housing. The PHA Inventory dataset can be accessed at:

<http://www.huduser.org/portal/picture2008/index.html>

Supplemental Nutrition Assistance Program (SNAP) Data

The U.S. Department of Agriculture's Food and Nutrition Service Program provides national and state level data about the Supplemental Nutrition Assistance Program (SNAP), the new name for the federal Food Stamp Program. SNAP data are used by the HAI for information about the amount of the average monthly SNAP benefit provided

to SNAP recipients. SNAP data can be accessed at:
<http://www.fns.usda.gov/pd/snapmain.htm>

Social Security Administration (SSA) Annual Statistical Supplement

The Social Security Administration (SSA) publishes an Annual Statistical Supplement that provides a wide array of data on expenditures, enrollment, and utilization of SSA administered programs. The HAI uses the Annual Statistical Supplement for select social safety net indicators. The data are available at:
<http://www.ssa.gov/policy/docs/statcomps/supplement/>

Veterans Benefit Administration (VBA) Compensation and Pension by County Dataset

The Department of Veterans Affairs's Veterans Benefit Administration (VBA) Compensation and Pension by County dataset provides counts of the number of veterans receiving disability compensation or pension payments from the VA for each county in the United States. The HAI uses this dataset to construct a measure of the proportion of veterans receiving such benefits. The VBA Compensation and Pension dataset is available at: <https://explore.data.gov/Social-Insurance-and-Human-Services/FY08-Veterans-Compensation-and-Pension-by-County/xx6t-m2j9>

Complete List of Indicators Included in the Homelessness Analytics Initiative

The table below provides a complete list of the indicators that are available in the HAI—with data sources, level(s) of geography and years of availability for each indicator. Planned future updates to the HAI will expand the number of available metrics and levels of geography.

List of Data Indicators Included in the VA-HUD Homelessness Analytics Initiative

Last Update Date

12/15/2014

INDICATOR	DATA SOURCE	YEARS OF DATA	LEVEL OF GEOGRAPHY		
			CoC	County	State
HOMELESSNESS COUNT AND RATE VARIABLES					
PIT Count of Persons with HIV/AIDS-Sheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with HIV/AIDS-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with HIV/AIDS-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Chronically Homeless Family Households-Sheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Family Households-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Family Households-Total	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Individuals-Sheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Individuals-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Individuals-Total	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Persons in Families-Sheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Persons in Families-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Chronically Homeless Persons in Families-Total	HUD Point-In-Time Counts	2013	X		X
PIT Count of Total Chronically Homeless-Sheltered	HUD Point-In-Time Counts	2006-	X		X

		2013			
PIT Count of Total Chronically Homeless-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Total Chronically Homeless-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with Chronic Substance Abuse-Sheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with Chronic Substance Abuse-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with Chronic Substance Abuse-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons in Families Age 18-24-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Age 18-24-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Age 18-24-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Over Age 24-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Over Age 24-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Over Age 24-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Under Age 18-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Under Age 18-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families Under Age 18-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Family Households-Emergency Shelter	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Family Households-Transitional Housing	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Family Households-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Households With Only Children-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Households With Only Children-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Households With Only Children-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individual Households-Emergency Shelter	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Individual Households-Transitional Housing	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Individual Households-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Total Unsheltered Households	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals-Emergency Shelter	HUD Point-In-Time Counts	2006-2013	X		X

PIT Count of Individuals-Transitional Housing	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Individuals-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Individuals Age 18-24-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Age 18-24-Safe Haven	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Age 18-24-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Age 18-24-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Over Age 24-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Over Age 24-Safe Haven	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Over Age 24-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Individuals Over Age 24-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families-Emergency Shelter	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons in Families-Transitional Housing	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons in Families-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons In Households With Only Children-Emergency Shelter	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons In Households With Only Children-Transitional Housing	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons In Households With Only Children-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Total Sheltered Persons	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Family Households-Sheltered (ES & TH)	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons in Families-Sheltered (ES & TH)	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Individuals-Sheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons with Severe Mental Illness-Sheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with Severe Mental Illness-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Persons with Severe Mental Illness-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Total Homeless Persons	HUD Point-In-Time Counts	2006-2013	X		X

PIT Count of Family Households-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Family Households-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Persons in Families-Total	HUD Point-In-Time Counts	2006-2012	X		X
PIT Count of Individual Households-Total	HUD Point-In-Time Counts	2006-2012	X		X
PIT Count of Individuals-Total	HUD Point-In-Time Counts	2006-2012	X		X
PIT Count of Total Unsheltered Persons	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Victims of Domestic Violence-Sheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Victims of Domestic Violence-Unsheltered	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Victims of Domestic Violence-Total	HUD Point-In-Time Counts	2006-2013	X		X
PIT Count of Female Veterans-Sheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Female Veterans-Unsheltered	HUD Point-In-Time Counts	2013	X		X
PIT Count of Female Veterans-Total	HUD Point-In-Time Counts	2013	X		X
PIT Count of Total Veterans-Sheltered	HUD Point-In-Time Counts	2009-2013	X		X
PIT Count of Total Veterans-Unsheltered	HUD Point-In-Time Counts	2009-2013	X		X
PIT Count of Total Veterans-Total	HUD Point-In-Time Counts	2009-2013	X		X
PIT Count of Unaccompanied Youth-Sheltered	HUD Point-In-Time Counts	2006-2012	X		X
PIT Count of Unaccompanied Youth-Unsheltered	HUD Point-In-Time Counts	2006-2012	X		X
PIT Count of Unaccompanied Youth-Total	HUD Point-In-Time Counts	2006-2012	X		X
Persons with HIV/AIDS-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with HIV/AIDS-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with HIV/AIDS-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Chronically Homeless Family Households-Sheltered (rate per 10,000	HUD Point-In-Time Counts;	2013	X		X

persons in poverty)	American Community Survey				
Chronically Homeless Family Households-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Family Households-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Individuals-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Individuals-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Individuals-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Total Chronically Homeless-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Total Chronically Homeless-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Total Chronically Homeless-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with Chronic Substance Abuse-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with Chronic Substance Abuse-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with Chronic Substance Abuse-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons in Families Age 18-24-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Age 18-24-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Age 18-24-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Over Age 24-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Over Age 24-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X

Persons in Families Over Age 24-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Family Households-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Family Households-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Family Households-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Households With Only Children-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Households With Only Children-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Households With Only Children-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individual Households-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individual Households-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individual Households-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2012	X		X
Total Unsheltered Households (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals Age 18-24-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Age 18-24-Safe Haven (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Age 18-24-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts;	2013	X		X

poverty)	American Community Survey				
Individuals Age 18-24-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Safe Haven (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons in Families-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons in Families-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons In Households With Only Children-Emergency Shelter (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons In Households With Only Children-Transitional Housing (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons In Households With Only Children-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Total Sheltered Persons (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Family Households-Sheltered (ES & TH) (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons in Families-Sheltered (ES & TH) (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons with Severe Mental Illness-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with Severe Mental Illness-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Persons with Severe Mental Illness-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Total Homeless Persons (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X

Family Households-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Family Households-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Individual Households-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Individuals-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Total Unsheltered Persons (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Unaccompanied Youth-Sheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Unaccompanied Youth-Unsheltered (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Unaccompanied Youth-Total (rate per 10,000 persons in poverty)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Persons with HIV/AIDS-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with HIV/AIDS-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with HIV/AIDS-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Chronically Homeless Family Households-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Family Households-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Family Households-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Individuals-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Individuals-Unsheltered (rate per 10,000 persons	HUD Point-In-Time Counts;	2013	X		X

in the general population)	American Community Survey				
Chronically Homeless Individuals-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Chronically Homeless Persons in Families-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Total Chronically Homeless-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Total Chronically Homeless-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Total Chronically Homeless-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with Chronic Substance Abuse-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with Chronic Substance Abuse-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with Chronic Substance Abuse-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons in Families Age 18-24-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Age 18-24-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Age 18-24-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Over Age 24-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Over Age 24-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Over Age 24-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families Under Age 18-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X

Family Households-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Family Households-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Family Households-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Households With Only Children-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Households With Only Children-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Households With Only Children-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individual Households-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individual Households-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individual Households-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2012	X		X
Total Unsheltered Households (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006-2013	X		X
Individuals Age 18-24-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Age 18-24-Safe Haven (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Age 18-24-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Age 18-24-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Safe Haven (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Individuals Over Age 24-Transitional Housing (rate per 10,000 persons	HUD Point-In-Time Counts;	2013	X		X

in the general population)	American Community Survey				
Individuals Over Age 24-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families-Emergency Shelter (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons in Families-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons in Families-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons In Households With Only Children-Emergency Shetler (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons In Households With Only Children-Transitional Housing (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons In Households With Only Children-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Total Sheltered Persons (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Family Households-Sheltered (ES & TH) (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons in Families-Sheltered (ES & TH) (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Individuals-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons with Severe Mental Illness-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with Severe Mental Illness-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Persons with Severe Mental Illness-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Total Homeless Persons (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Family Households-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Family Households-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Persons in Families-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Individual Households-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X

Individuals-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Total Unsheltered Persons (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Victims of Domestic Violence-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2013	X		X
Female Veterans-Sheltered (rate per 10,000 Female Veterans)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Female Veterans-Unsheltered (rate per 10,000 Female Veterans)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Female Veterans-Total (rate per 10,000 Female Veterans)	HUD Point-In-Time Counts; American Community Survey	2013	X		X
Total Veterans-Sheltered (rate per 10,000 Total Veterans)	HUD Point-In-Time Counts; American Community Survey	2009- 2013	X		X
Total Veterans-Unsheltered (rate per 10,000 Total Veterans)	HUD Point-In-Time Counts; American Community Survey	2009- 2013	X		X
Total Veterans-Total (rate per 10,000 Total Veterans)	HUD Point-In-Time Counts; American Community Survey	2009- 2013	X		X
Unaccompanied Youth-Sheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Unaccompanied Youth-Unsheltered (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
Unaccompanied Youth-Total (rate per 10,000 persons in the general population)	HUD Point-In-Time Counts; American Community Survey	2006- 2012	X		X
HOUSING INVENTORY VARIABLES					
Veterans Affairs Supportive Services for Veterans Families Grant Totals (\$)	VA Supportive Services for Veteran Families Program Data	2012- 2014			X
Number of VA CWT-TR Beds	VA	2012	X		X
Number of VA Domiciliary Care for Homeless Veterans Program Beds	VA	2012	X		X
Number of VA Grant and Per Diem (GPD) Program Beds	VA	2012	X		X
% of Emergency Shelter Beds Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		
% of Permanent Supportive Housing Beds Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		

% of Rapid Rehousing Beds Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		
% of Safe Haven Beds Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		
% of Transitional Housing Beds Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		
% of Total Beds (including ES, TH, RRH, SH) Participating in Community's HMIS	HUD, Housing Inventory Chart	2013	X		
Average Months on Waiting List Among New Admissions to HUD Section 236 Housing	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Months on Waiting List Among New Admissions to HUD Section 8 Housing Choice Voucher Program	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Months on Waiting List Among New Admissions to HUD Section 8 Moderate Rehabilitation	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Months on Waiting List Among New Admissions to HUD public housing units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Months on Waiting List Among New Admissions to HUD Section 8 New Construction or Substantial Rehabilitation	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Months on Waiting List Among All HUD Assisted Housing Programs	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied HUD Section 236 Housing Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied HUD Section 8 Housing Choice Voucher Program Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied HUD Section 8 Moderate Rehabilitation Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied HUD public housing units	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied HUD Section 8 New Construction or Substantial Rehabilitation	HUD Picture of Subsidized Households	2010-2012	X	X	X
% Occupied Total HUD Assisted Housing Programs Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
HUD Continuum of Care Shelter Plus Care (S+C) Funding Amount, New Awards (\$)	HUD CoC Program Awards	2005-2011	X		
HUD Continuum of Care Shelter Plus Care (S+C) Funding Amount, Renewal Grants (\$)	HUD CoC Program Awards	2005-2011	X		
HUD Continuum of Care Supportive Housing Program Funding Amount, New Awards (\$)	HUD CoC Program Awards	2005-2011	X		
HUD Continuum of Care Supportive Housing Program Funding Amount, Renewal Grant (\$)	HUD CoC Program Awards	2005-2011	X		
Average Federal Spending Per HUD Section 236 Housing Unit Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X

Average Federal Spending Per Section 8 Housing Choice Voucher Unit Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Federal Spending Section 8 Moderate Rehabilitation Unit Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Federal Spending Per HUD Public Housing Unit Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Federal Spending Per HUD Section 8 New Construction or Substantial Rehabilitation Unit Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X
Average Federal Spending Per All HUD Assisted Housing Units Per Month	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total HUD Section 236 Housing Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total Section 8 Housing Choice Voucher Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total Section 8 Moderate Rehabilitation Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total HUD Public Housing Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total HUD Section 8 New Construction or Substantial Rehabilitation Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Total HUD Assisted Housing Units	HUD Picture of Subsidized Households	2010-2012	X	X	X
Number of Emergency Shelter Beds-Families	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Emergency Shelter Beds-Individuals	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Permanent Housing Beds Reserved for Chronically Homeless Individuals	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Permanent Housing Beds for Families	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Permanent Housing Units for Families	HUD, Housing Inventory Chart	2013	X		X
Number of Permanent Housing Beds for Individuals	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Rapid Rehousing Beds for Families	HUD, Housing Inventory Chart	2013	X		X
Number of Rapid Rehousing Beds for Individuals	HUD, Housing Inventory Chart	2013	X		X
Number of Save Haven Beds for Families	HUD, Housing Inventory Chart	2006-2012	X		X
Number of Save Haven Beds for Individuals	HUD, Housing Inventory Chart	2006-2013	X		X

Number of Transitional Housing Beds for Families	HUD, Housing Inventory Chart	2006-2013	X		X
Number of Transitional Housing Beds for Individuals	HUD, Housing Inventory Chart	2006-2013	X		X
HUD-VASH vouchers allocated in year	VA	2008-2012	X		X
HUD-VASH-Total across years	VA	2012	X		X
COMMUNITY DEMOGRAPHIC, HEALTH AND BEHAVIORAL HEALTH VARIABLES					
# Motor vehicle thefts per 100,000 people	FBI Uniform Crime Reports	2010, 2012			X
Total Number of Family Households	American Community Survey	2009-2011	X	X	
Total population 18-65 years old	American Community Survey	2010-2011	X	X	X
Total population <18 years old	American Community Survey	2010-2011	X	X	X
Total population 65+ years old	American Community Survey	2010-2011	X	X	X
% Total population that is Asian	American Community Survey	2010-2011	X		X
% Total population that is of black race alone	American Community Survey	2010-2011	X		X
% Total population that is Hispanic/Latino	American Community Survey	2010-2011	X		X
% Total population that is Hawaiian and other Pacific Islander	American Community Survey	2010-2011	X		X
% Total population that is American Indian or Alaska Native	American Community Survey	2010-2011	X		X
% Total population that is some other race alone	American Community Survey	2010-2011	X		X
% of occupied units occupied by householder living alone	American Community Survey	2010-2011	X		X
% Total population that is two or more races	American Community Survey	2010-2011	X		X
% of Civilian Population Age 18+ That is Veteran	American Community Survey	2010-2011	X		X
% of population in poverty that is foreign-born	American Community Survey	2010-2011	X		X
% Total population that is of white race alone, not Hispanic	American Community Survey	2010-	X		X

		2011			
Total population	American Community Survey	2006-2011	X (2009 - 2011 only)	X (2010-2011 only)	X
Total Veterans in Civilian Population	American Community Survey	2006-2011	X (2009-2011 only)	X (2010-2011 only)	
% Adults >=1 drinks last 30 days	CDC, Behavioral Risk Surveillance System	2012			X
Average life expectancy	County Health Rankings	2009	X		
# 18+ year old illicit drug per 100,000 people	SAMHSA, National Survey on Drug Use and Health	2008			X
% of Population with fair or poor health	County Health Rankings	2010-2013	X	X	
Gini coefficient	County Health Rankings	2010	X	X	
# of Homicides per 100,000 people	CDC, Community Health Status Indicators	2009	X		
Health professional shortage area	CDC, Community Health Status Indicators	2009	X		
# of Liquor stores per 10,000 people	County Health Rankings	2010-2011	X	X	
% of Population receiving Medicaid	CDC, Community Health Status Indicators	2009	X		
% of adults without social or emotional support	County Health Rankings	2010-2013	X	X	
% of Births to unmarried women	CDC, Community Health Status Indicators	2009	X		
# Primary care providers per 100,000 people	County Health Rankings	2010-2012	X	X	
% of 18-65 year olds without health insurance	County Health Rankings	2010-2013	X	X	
% Adults engaging in vigorous physical activity	CDC, Behavioral Risk Surveillance System	2011-2012			X
Violent Crime Rate Per 100,000 people	County Health Rankings	2010-2013	X	X	

ECONOMIC AND HOUSING CONDITION CONDITIONS VARIABLES

Median household income in the past 12 months, in dollars	American Community Survey	2009-2011	X	X(2010-2011 only)	X(2010-2011 only)
% Population with income below 50% of poverty threshold in past 12 months	American Community Survey	2009-2011	X	X(2010-2011 only)	X(2010-2011 only)
% of the population at or below poverty threshold	American Community Survey	2009-2011	X	X(2010-2011 only)	X(2010-2011 only)
Total number of persons with income at or below poverty threshold	American Community Survey	2006-2011	X (2009-2011 only)	X(2010-2011 only)	X
Unemployment rate among civilians in labor force	American Community Survey	2009-2011	X	X(2010-2011 only)	X(2010-2011 only)
% of Occupied Housing Units that are female headed with no husband present	American Community Survey	2009-2011	X	X	
Fair Market Rent: efficiency unit	HUD, Fair Market Rents	2008-2013	X		X(2011-2013 only)
Fair Market Rent: one-bedroom	HUD, Fair Market Rents	2008-2013	X		X(2011-2013 only)
Fair Market Rent: two-bedroom	HUD, Fair Market Rents	2008-2013	X		X(2011-2013 only)
Fair Market Rent: three-bedroom	HUD, Fair Market Rents	2008-2013	X		X(2011-2013 only)
Fair Market Rent: four-bedroom	HUD, Fair Market Rents	2008-2013	X		X(2011-2013 only)
Median rent: efficiency	HUD, 50th Percentile Rent Estimates	2008-2013	X		X(2011-2013 only)
Median rent: 1-bedroom	HUD, 50th Percentile Rent Estimates	2008-2013	X		X(2011-2013 only)

Median rent: 2-bedroom	HUD, 50th Percentile Rent Estimates	2008-2013	X		X(2011-2013 only)
Median rent: 3-bedroom	HUD, 50th Percentile Rent Estimates	2008-2013	X		X(2011-2013 only)
Median rent: 4-bedroom	HUD, 50th Percentile Rent Estimates	2008-2013	X		X(2011-2013 only)
% Occupied housing units that are overcrowded (i.e., more than 1 person/room)	American Community Survey	2009-2011	X	X(2010-2011 only)	X(2010-2011 only)
Median monthly owner costs (owner occupied housing units)	American Community Survey	2009-2011	X(2010-2011 only)		X
% Housing units with mortgage costs >30% of income	American Community Survey	2009-2011	X		X(2010-2011 only)
% Owner occupied housing units	American Community Survey	2009-2011	X		X(2010-2011 only)
% Housing units lacking complete plumbing facilities	American Community Survey	2009-2011	X		X(2010-2011 only)
Median property value (owner-occupied housing units)	American Community Survey	2009-2011	X		X(2010-2011 only)
% Occupied renter occupied housing units	American Community Survey	2009	X		
% Housing units with gross rent >30% of income	American Community Survey	2009-2011	X		X(2010-2011 only)
Total housing units	American Community Survey	2009-2011	X	X (2011 only)	X(2010-2011 only)
% Vacant housing units	American Community Survey	2009-2011	X		X(2010-2011 only)

SAFETY NET VARIABLES

Average monthly Supplemental Nutrition Assistance Program/Food Stamp benefit	USDA Food and Nutrition Service, United States Department of Agriculture	2010-2012			X
Average monthly state supplement to SSI payment	Social Security Administration	2011-2012			X
Percent of households in poverty that received Supplemental Nutrition Assistance Program/food stamps in the past 12 months	American Community Survey	2009-2011	X		X(2010-2011 only)
Medicaid expenditures as % of total state spending	National Association of State Budget Officers' State Expenditure Report	2008, 2010-2012			X
Public Assistance expenditures as % of total state spending	National Association of State Budget Officers' State Expenditure Report	2010-2012			X
Percent of households in poverty that received public assistance income in the past 12 months	American Community Survey	2009-2012	X	X(2010-2011 only)	X(2010-2011 only)
Percent of households in poverty that received Supplemental Security Income (SSI) in the past 12 months	American Community Survey	2009-2012	X	X(2010-2011 only)	X(2010-2011 only)
Expenditures on TANF cash assistance from state general fund per capita	National Association of State Budget Officers' State Expenditure Report	2012			X
Medicaid Expenditures from state general fund per capita	National Association of State Budget Officers' State Expenditure Report	2012			X
Total number of veterans receiving either VA compensation or VA pension payments divided by total number of veterans	VBA Compensation and Pension By County Dataset, American Community Survey	2008, 2010-2011	X (2008 only)		X(2010-2011 only)
Ratio of Total Public Housing units and Section 8 vouchers to households in poverty	HUD Picture of Subsidized Households; American Community Survey	2008	X		
AGE DISTRIBUTION OF SHELTERED HOMELESS POPULATION					
Number of Sheltered homeless males, total	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 18-21	U.S. Census Bureau	1990, 2000, 2010		X	X

Number of Sheltered homeless males age 22-24	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 25-27	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 28-30	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 31-33	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 34-36	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 37-39	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 40-42	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 43-45	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 46-48	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 49-51	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 52-54	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 55-57	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 58-59	U.S. Census Bureau	1990, 2000, 2010		X	X

Number of Sheltered homeless males age 60-61	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 62-64	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 65-74	U.S. Census Bureau	1990, 2000, 2010		X	X
Number of Sheltered homeless males age 75+	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 18-21	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 22-24	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 25-27	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 28-30	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 31-33	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 34-36	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 37-39	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 40-42	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 43-45	U.S. Census Bureau	1990, 2000, 2010		X	X

% Total sheltered homeless male population between age 46-48	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 49-51	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 52-54	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 55-57	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 58-59	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 60-61	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 62-64	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population between age 65-74	U.S. Census Bureau	1990, 2000, 2010		X	X
% Total sheltered homeless male population age 75+	U.S. Census Bureau	1990, 2000, 2010		X	X

VA MEDICAL CENTER HOMELESS PROGRAM METRICS

INDICATOR	DATA SOURCE	YEARS OF DATA	LEVEL OF GEOGRAPHY
Average Length of Stay in VA Compensated Work Therapy/Transitional Residence Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Percent of Exits from VA's Compensated Work Therapy/Transitional Residence Program that were to Permanent Housing Destinations	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Unique Number of Veterans Served in VA's Compensated Work Therapy/Transitional Residence Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Average Length of Stay in VA Domiciliary Care for Homeless Veterans Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location

Percent of Exits from VA Domiciliary Care for Homeless Veterans Program that were to Permanent Housing Destinations	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Unique Number of Veterans Served in VA Domiciliary Care for Homeless Veterans Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Average Length of Stay in VA Health Care for Homeless Veterans Emergency Housing Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Percent of Exits from VA Health Care for Homeless Veterans Emergency Housing Program that were to Permanent Housing Destinations	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Unique Number of Veterans Served in VA Health Care for Homeless Veterans Emergency Housing Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Average Length of Stay in VA Grant and Per Diem Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Percent of Exits from VA Grant and Per Diem Program that were to Permanent Housing Destinations	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Unique Number of Veterans Served in VA Grant and Per Diem Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
# of Unique Veterans Served by VA Health Care for Homeless Veterans Outreach	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Average Length of Stay in VA Health Care for Homeless Veterans Contract Residential Housing Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Percent of Exits from VA Health Care for Homeless Veterans Contract Residential Housing Program that were to Permanent Housing Destinations	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Unique Number of Veterans Served in VA Health Care for Homeless Veterans Contract Residential Housing Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Percentage of Veterans discharged from VA Grant and Per Diem or Domiciliary Care for Homeless Veterans programs to an independent housing arrangement.	VSSC Homeless Services Cube	FY 2012-FY 2013	VAMC Location
Number of Veterans who have moved into HUD-VASH housing as a percentage of allocated Project Based Vouchers (PBV)	VSSC Homeless Services Cube	FY 2012-FY 2013	VAMC Location
Percentage of Veterans served in HUD-VASH who meet criteria for chronic homelessness	VSSC Homeless Services Cube	FY 2012-FY 2013	VAMC Location
Number of Veterans Who Moved Into A Unit with the support of the HUD-VA Supportive Housing (HUD-VASH) Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location
Number of Veterans Awarded a Housing Choice Voucher Through the HUD-VA Supportive Housing (HUD-VASH) Program	VSSC Homeless Services Cube	FY 2010-FY 2013	VAMC Location

GEOGRAPHIC DISTRIBUTION OF VETERANS USING VA HOMELESS PROGRAMS

INDICATOR	DATA SOURCE	YEARS OF	LEVEL OF
-----------	-------------	----------	----------

		DATA	GEOGRAPHY	
			Census Block Group	Census Block Group
Total # Users of VA Homeless Programs 2005-2013 in geography	VA National Homeless Registry	2005-2013 (Cumulative)	X	X
Total # Veterans in geography	American Community Survey 5-Year Estimates	2007-2011 (5-Year Estimates)	X	X
Total # of Users of VA Homeless Programs 2005-2013 Per 100 Veterans in geography	VA National Homeless Registry	2005-2013 (Cumulative)	X	X

Procedures Used to Transform County Level Data Sources Into CoC Level Indicators

Continuums of Care (CoCs) are geographic units at which providers of homelessness assistance share federal resources and work collaboratively to develop a strategic plan to address homelessness within their jurisdiction. CoCs vary in size and composition and can be comprised of single cities, individual counties, several counties, or entire states. CoCs are also the smallest geographic unit at which the official point-in-time counts of the homeless population are collected and reported by the Department of Housing and Urban Development (HUD). These CoC level counts are then aggregated to provide state, and national estimates of the size of the overall homeless population and homeless sub-populations.

As CoCs constitute geographies that often have irregular boundaries, CoC-level indicators of demographic, health, economic, housing and safety net characteristics are virtually non-existent in other data sources. Therefore, the HAI team used county level data to construct the CoC-level measures of demographic, health, behavioral health, economic housing and safety net characteristics that are included in the HAI. County level data sources were transformed into CoC level indicators using a two-step process described below (No transformation was required for PIT estimates of homelessness and housing inventory variables, which were available at the CoC level).

Step 1: Matching CoC and County Boundaries

The HAI team used Geographic Information Systems (GIS) software and spatial matching procedures to link all counties with their appropriate CoC. To complete the matches, we superimposed county centroids (i.e., points representing the geographic center of counties) on a map of CoC boundaries. This revealed three types of possible relationships between county and CoC boundaries:

1. The boundary for a single CoC and a single county was identical;
2. A single CoC may be comprised of an aggregation of two or more counties;
and
3. Multiple CoCs fell within a single county.

Step 2: Statistical Adjustment

After appropriately matching CoCs and counties, the HAI team statistically adjusted the CoCs that fit the second and third types of relationships described above to complete the construction of CoC-level variables from county measures (no adjustments were necessary for the CoCs that met the criteria for the first type of relationship). In the case of the second type of relationship, the HAI team constructed CoC-level variables from county measures by taking either the sum or a population-weighted average of the county measures from all of the counties within a given CoC.

For the third type of relationship, where possible, measures were obtained at the sub-county level to match the exact boundaries of the multiple boundaries of CoCs that were nested within a single county. For the most part, this entailed obtaining measures at the

city or town level, and taking the sum or population weighted average of these measures when a CoC boundary included more than one town or city. However, there were certain measures that were not available at geographies smaller than the county. As a result, for such measures, in instances where there are multiple CoCs within a single county, all CoCs in that county were assigned the county level value, and should be interpreted cautiously. The indicators included in the HAI that were not available at the sub-county level are listed below:

- Average life expectancy (in years)
- % of population with fair or poor health
- Gini coefficient of income inequality (household)
- Number of Age-adjusted deaths due to homicide per 100,000 people
- County designated as a health professional shortage area
- Number of Liquor stores per 10,000 people
- % of population who are Medicaid beneficiaries
- % of births to unmarried women
- Number Primary care providers per 100,000 people
- % of 18-65 year olds without health insurance
- % veterans receiving either VA compensation or VA pension payments

Procedures Used to Calculate Rates of Homelessness and Other Indicators From Multiple Sources

Raw counts of the number of persons experiencing homelessness do not account for population size, and therefore have a number of limitations as metrics for understanding the extent of homelessness in a given community. They also make it difficult to compare the severity of the problem of homelessness across communities with different population sizes. Therefore, for each homelessness indicator, the HAI includes both a raw, unadjusted count and a rate per 10,000 persons and per 10,000 persons in poverty. For the indicators of veteran homelessness, the rate is calculated per 10,000 members of the veteran population. Calculating these rate indicators required combining the HUD point-in-time estimates of homelessness (used in the numerator) and American Community Survey data on size of the overall, poverty and veteran populations (used in the denominator). Note that in calculating these rate variables at the CoC level, the 2005-2009 5-Year ACS estimates were used in the denominator for all years for which homeless count data were available. However, in calculating rates of homelessness at the state level, the 1-year ACS estimates from the corresponding year were used in the denominator, with the exception of 2012, where the 2011 ACS state populations were used because 2012 estimates were not yet available.

A small number of other indicators included in the Homelessness Analytics Application were constructed in a similar fashion, using data from one source in the numerator and another source (usually the American Community Survey) in the denominator. For indicators that were created using the procedures described above, all data sources used in their calculation are noted in the complete list of data indicators.

Procedures Used to Create the Modeling Tool

Overview

The modeling tool in the HAI is based on a series of statistical models that were estimated to examine the relationship between eight homeless outcome variables and clusters of variables in three primary domains of interest: 1) demographic, behavioral, and public health; 2) economic; and 3) safety net. Separate models were estimated for each of the eight outcome variables and each of the three predictor clusters. The results of these 24 statistical models provided “weights” (i.e. regression parameter estimates) for each community level indicator. These weights provide an estimate of how much the homeless outcome variable is predicted to change given a one-unit change (either an increase or decrease) in a particular community level indicator. In turn, these weights are used in the modeling tool to allow users to view the expected impact on homelessness of changes in one or more community level indicator. More detailed information about the procedures used to estimate these models is provided below.

Homeless outcome variables

We estimated separate models for the following homeless outcome variables, which were constructed using the 2009 PIT counts were used in constructing:

- Veterans-Total (rate per 10,000 veterans)
- Individuals-Total (rate per 10,000 people)
- Single Adults-Total (rate per 10,000 adults)
- Single Adults-Total (rate per 10,000 adults in poverty)
- Family Households-Total (rate per 10,000 family households)
- Family Households-Total (rate per 10,000 family households in poverty)
- Total Unsheltered Persons (rate per 10,000 people)
- Total Unsheltered Persons (rate per 10,000 people in poverty)

In estimating these models, we applied a natural logarithmic transformation to each outcome variable due to their highly skewed nature.

Community predictors

In developing the HAI, we collected a large number of indicators at the county or state level from the sources described above pertaining to the three primary domains of interest (i.e. demographic, behavioral, and public health; economic; and safety net). Given the large number of predictors that were initially collected in each of these domains, we conducted initial variable screening procedures using univariable linear mixed-effects models. Only those variables that were considered to be modifiable, non-redundant with other predictors ($r < .80$), and had a p-value $< .20$ from univariable models were included in the multivariable models. Variables were removed from multivariable models if they were not statistically significant in any of the models.

The final set of predictors are presented below:

Demographic, Behavioral, and Public health	Economic	Safety Net
% Adult heavy drinkers (men >=2 drinks/day, women >=1 drink/day) last 30 days	Unemployment rate among civilians in labor force	% of households in poverty that received SSI income in the past 12 months
Number of 18+ year old illicit drug users in past month per 100,000 people	Median rent: 2-bedroom	Ratio of Total Public Housing units and Section 8 vouchers (HCV) to households in poverty
Number of Liquor stores per 10,000 people	% Occupied housing units that are overcrowded (i.e., more than 1 person/room)	Expenditures on Medicaid as percent of total state spending
% of births to unmarried women	% Housing units with a mortgage having owner costs 30% or more of income	Per capita Expenditures on TANF cash assistance from state general fund
Number of Age-adjusted deaths due to homicide per 100,000 people	Median property value, owner-occupied housing units	
# Motor vehicle thefts per 100,000 people	% Occupied housing units with gross rent 30% or more of income	
County designated as a health professional shortage area	% Occupied housing units that are renter-occupied	
	% Occupied housing units lacking complete plumbing facilities	

Analysis approach

After identifying the final set of predictors using the procedures described above, the HAI team estimated a final set of multivariable regression models. Because CoCs are nested within states, data from CoCs located within the same state are not considered to be independent from one another and this clustering violates the basic assumption of independence in ordinary least squares (OLS) regression. Therefore, in estimating the models used for the modeling tool, the HAI team employed a linear mixed-effects modeling approach (i.e., multilevel modeling) with random intercepts for U.S. states. In doing so, the HAI team stratified CoCs by metropolitan and non-metropolitan status based on the U.S. Department of Agriculture's rural-urban continuum codes and conducted analyses separately for each stratum. In turn, the modeling tool is based on the results of the models estimated for the metropolitan CoCs.

Model Results

The results for the models that were estimated for each outcome variable (which were all log-transformed) and in each domain are provided below. The unstandardized regression coefficients are shown for each variable, and these unstandardized coefficients served as the weights in developing the modeling tool. Given that the outcome variables are log-transformed, the regression coefficients can be interpreted as follows: the outcome variable changes by 100*(coefficient) percent for a one unit increase in the predictor variable while all other variable in the model are held constant. For example, a one unit increase in the number of age adjusted deaths due to homicides per 100,00 people is associated with roughly a 4.8% increase in the number of total homeless veterans per 10,000 veterans. It is important to note that not all of the predictor variables were found to be statistically significant at the $p < .05$ level in every model, but that the all variables (regardless of their level of significance) were used in developing the modeling tool.

Demographic, Behavioral, and Public health								
	Veterans- Total (rate per 10,000 veterans)	Individuals -Total (rate per 10,000 people)	Single Adults- Total (rate per 10,000 adults)	Single Adults-Total (rate per 10,000 adults in poverty)	Family Households- Total (rate per 10,000 family households)	Family Households-Total (rate per 10,000 family households in poverty)	Total Unsheltered Persons (rate per 10,000 people)	Total Unsheltered Persons (rate per 10,000 people in poverty)
Intercept	0.9126000	0.8971000	2.7697883	4.8690000	0.3956000	3.6150000	-10.7400000	-7.5920000
% Adult heavy drinkers (men >=2 drinks/day, women >=1 drink/day) last 30 days	0.0506100	0.0467300	0.0052460	0.0576100	0.08874*	0.1868*	-0.0944600	-0.0395400
Number of 18+ year old illicit drug users in past month per 100,000 people	0.0000638	0.0001181*	0.0001145*	0.00009086*	0.0001073*	0.00008636*	0.0001837*	0.0001601*
Number of Liquor stores per 10,000 people	0.0417300	0.0227200	-0.0583607	-0.0730600	0.1216*	0.1959*	-0.0853400	-0.0620900
% of births to unmarried women	0.01553*	0.01304*	0.014694*	-0.0070360	0.01077*	-0.02779*	0.0129600	-0.01853*
Number of Age- adjusted deaths due to homicide per 100,000 people	0.04822*	0.0159100	0.0162470	0.03076*	0.0010420	0.0056130	0.0280200	0.0322000
# Motor vehicle thefts per 100,000 people	0.0013360	0.001332*	0.0017172*	0.002049*	0.0005580	0.0004287	0.004048*	0.003961*
County designated as	-0.6439*	-0.2834*	-0.3000746*	-0.5232*	-0.1812000	-0.3074*	-0.0127900	-0.1186000

a health professional shortage area								
R ²	0.37	0.41	0.54	0.49	0.18	0.40	0.53	0.50
Economic								
	Veterans- Total (rate per 10,000 veterans)	Individuals -Total (rate per 10,000 people)	Single Adults- Total (rate per 10,000 adults)	Single Adults-Total (rate per 10,000 adults in poverty)	Family Households- Total (rate per 10,000 family households)	Family Households-Total (rate per 10,000 family households in poverty)	Total Unsheltered Persons (rate per 10,000 people)	Total Unsheltered Persons (rate per 10,000 people in poverty)
Intercept	-0.1150	0.7152	2.2180	4.3700	0.1134	3.2580	-10.7600	-7.5340
Unemployment rate among civilians in labor force	0.0250	0.0413	0.0437	0.0368	0.0334	-0.0553	0.1510	0.09387*
Median rent: 2-bedroom	0.0004	-0.0002	-0.0003	0.0002	-0.0004	-0.0001	0.0004406*	0.0009
% Occupied housing units that are overcrowded (i.e., more than 1 person/room)	-0.0315	-0.05386*	0.0540	0.06891*	-0.07353*	-0.1271*	0.0096	-0.0159
% Housing units with a mortgage having owner costs 30% or more of income	0.0092	0.0006	-0.0017	0.0064	-0.0034	-0.0022	0.0151	0.0215
Median property value, owner-occupied housing units	0.0000	0.0000014*	0.0000	0.000001688*	0.0000	0.00000303*	0.0000	0.0000
% Occupied housing units with gross rent 30% or more of income	-0.0026	0.0153*	0.02731*	0.0053	0.02624*	0.0236	-0.0110	-0.0263
% Occupied housing units that are renter-occupied	0.06469*	0.03624*	0.02474*	0.0100	0.02966*	0.01098*	0.0238	0.0029
% Occupied housing units lacking complete plumbing facilities	-0.0201	0.0911	-0.0022	-0.1425	0.2119*	0.1285	0.04147*	-0.0402
R ²	0.47	0.51	0.56	0.49	0.34	0.45	0.57	0.55
Safety Net								
	Veterans- Total (rate	Individuals -Total	Single Adults-	Single Adults-Total	Family Households-	Family Households-Total	Total Unsheltered	Total Unsheltered

	per 10,000 veterans)	(rate per 10,000 people)	Total (rate per 10,000 adults)	(rate per 10,000 adults in poverty)	Total (rate per 10,000 family households)	(rate per 10,000 family households in poverty)	Persons (rate per 10,000 people)	Persons (rate per 10,000 people in poverty)
Intercept	3.16778	3.140567	5.159641	6.1368787	2.35404	4.298514	-7.61221	-5.906792
% of households in poverty that received SSI income in the past 12 months	-0.030252*	-0.015461*	-0.014532*	0.0028219	-0.01397*	-0.006696	-0.007682	0.008591
Ratio of Total Public Housing units and Section 8 vouchers (HCV)to households in poverty	0.0351465*	0.0198773*	0.01781122*	0.025452442*	0.0140782*	0.01755728*	0.01780478*	0.01942534*
Expenditures on Medicaid as percent of total state spending	-0.026796	-0.016955	-0.030768*	-0.0359124*	-0.005866	-0.007914	-0.041473	-0.045644
Per capita Expenditures on TANF cash assistance from state general fund	0.011297*	0.006362	0.004158	0.0006448	0.009964*	0.013446	-0.003239	-0.003554
R²	0.37	0.43	0.4	0.5	0.26	0.36	0.55	0.53

*=Statistically significant at the p<.05 level

Using Model Results to Generate Predicted Values

We used the weights obtained from the regression models to generate predicted values for each of the outcome variables using the formula below:

$$Y_{\text{predicted}} = Y_{\text{observed}} \times (1 + \beta X)$$

Where:

- $Y_{\text{predicted}}$ is the predicted value for a particular homeless outcome variable for a given CoC
- Y_{observed} is the observed value for a particular homeless outcome variable for a given CoC (based on 2012 PIT counts)
- β represents the coefficients for the full set of community level predictors within a given domain (i.e. Demographic, Behavioral, and Public health; economic; safety net)
- X indicates the unit change in each predictor, relative to a starting value of 0 (i.e. no change)

In effect, the tool works by calculating the cumulative percent by which the outcome variable would be expected to change given increases or decreases in the full set of predictor variables, and then multiplying this by the observed value. As an example of how the modeling tool works in practice, consider the example of a CoC with an observed 40 homeless veterans per 10,000 veterans in 2012. Assuming one unit increases in each of the safety net predictors, the predicted value for the number of veterans per 10,000 veterans would be calculated as follows:

$$Y_{\text{predicted}} = 40 \times (1 + (1 \times -0.03 + 1 \times 0.04 + 1 \times -0.03 + 1 \times 0.01))$$

$$Y_{\text{predicted}} = 40 \times (1 - 0.01)$$

$$Y_{\text{predicted}} = 39.6$$