Housing Unit Method Manual:

Population Estimate Instructions and Reporting Forms

Revised January 2018





Bill Walker, Governor

Department of Commerce, Community, and Economic Development Mike Navarre, Commissioner

> Division of Community and Regional Affairs Katherine Eldemar, Director



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I. Population Determinations and Requests for Adjustment

A. Population Determination

The director of the Division of Community and Regional Affairs (DCRA) determines funding for municipalities, communities and reserve that are eligible to receive State revenues under various programs based on their population. Population estimates are established by the state demographer of the Alaska Department of Labor and Workforce Development (DOLWD) for each fiscal year and used to inform funding programs.

Municipalities, communities and reserve are NOT REQUIRED to conduct a local census or population estimate. The documentation prescribed herein needs to be submitted ONLY if they disagree with the population estimate sent to them by DCRA and they wish to request an adjustment. Since the funding allocation is based on the most accurate population estimate available, it is their responsibility to provide the most accurate information about their population.

B. Population Adjustment Request

If the municipality, community, or reserve believes its population estimate does not reflect its permanent resident population, it has until April 1, 2018 to request from the DCRA's director an adjustment to the estimated population. If the request for adjustment is postmarked after April 1, 2018, it will be denied by the director as being untimely filed and if the request for adjustment does not include all of the required documentation set forth in this manual, it will be denied by the director as being unresponsive.

In determining a new population estimate, the municipality, community and reserve must select one of the following estimation methods:

- 1. A housing unit population estimate method, as described in this manual, or
- 2. A **head count census**, as described in the separate Head Count Census Method Manual: Population Count Instructions and Reporting Forms.

Municipalities, communities and reserve with a population of less than 1,000 must use the head count census, which is more reliable than the housing unit method for smaller populations. Municipalities with a population of 1,000 or more may use either method.

C. Documentation Required

The following documentation must be complete and postmarked by *April 1, 2018* and submitted to:

Department of Commerce, Community, and Economic Development Division of Community and Regional Affairs Attn: Manjula Boyina

550 W. 7th Avenue, Suite 1640

Anchorage, AK 99501

Phone: (907) 269-7959 Fax: (907) 269-4539

- 1. **Housing Unit Method (HUM) documentation.** See Section II, Housing Unit Method Population Estimate Procedure for details.
- 2. **Resolution.** The municipality, community or reserve must pass and sign a resolution adopting the results of the local population estimate. (See Attachment A in the Appendix for a sample resolution).

Municipalities, community or reserve that choose to conduct a HUM population estimate should discuss their choice of methodology from among those presented in this manual with Manjula Boyina, Research Analyst, at (907) 269-7959, prior to conducting any field work. Discussion in advance and pre-approval of the sampling techniques and documentation required by the department will avoid any misinterpretations.

D. Point in Time Estimation

The municipality, community or reserve must account for the population of residents (persons who consider a housing unit or group quarter facility within their boundary as their "primary place of residence") at the time of the estimate. In order to ensure that the population number aligns with the previous calendar year as required per regulations, DCRA staff will linearly adjust the new count to align with July 1, 2017, the date of the population estimates as released by DOLWD. See example below for adjustment methodology:

New local count or estimate as of March 1, 2018 (e.g. as determined by the municipality, community or reserve early in the calendar year)	= 1,759
Most recent certified population count (July 1, 2016, for previous fiscal year)	= 1,629

Linear Adjustment Methodolo	ogy
Population Change (from previous certified fiscal year population)	= 130
Number of periods between most previous certified fiscal year population estimate/count and new local estimate/count (e.g. July 1, 2016 and March 1, 2018)	= 20 months
Resulting resident change is	= 6.5 residents/month
Adjusted time periods between each fiscal year	= 12 months
Population adjustments is calculated to be (6.5 x 12)	= 78 residents
The final accepted population level	= 1,707

E. Appeal to the DCCED Commissioner

If DCRA's director does not grant the request for a population adjustment or the municipality, community or reserve has other grounds for challenging the Alaska Department of Labor and Workforce Development (DOLWD) estimate, the director's decision may be appealed to the DCCED Commissioner (3 AAC 180.050). The appeal must be made in writing and postmarked within 10 business days after the municipality, community or reserve receives the decision from the director.

F. Certified Population

After all appeals have been resolved, the commissioner will adjust a certified final municipal, community and reserve population report by June 1. The department's certified population is determined from one of the following:

- 1. A census of the United States Bureau of Census.
- 2. A head count census conducted in accordance with the *Head Count Census Method Manual: Population Count Instructions and Reporting Forms.*
- 3. A housing unit method population estimate conducted in accordance with *this* manual.
- 4. An estimate made by the Alaska Department of Labor and Workforce Development.

Regulations state that the department must use whichever of the above methods indicates the most recent population of the municipality, community and reserve for the previous calendar year. If there is a conflict among the population numbers for the same year from two or more of the sources listed above, it will be resolved by taking them in the order in which the censuses and population estimates are enumerated above. The approved locally conducted census or estimate that includes an adjustment figure takes precedence over the most current DOLWD estimate.

II. Housing Unit Method Population Estimate Procedure and Documentation

The Housing Unit method (HUM) is the most commonly used method for estimating the population a municipality, community or reserve. The estimation is conducted by randomly sampling households to measure their characteristics such as occupancy and residents per household and by applying those characteristics to the total housing unit inventory of the municipality, community or reserve. Because samples are subject to various types of statistical errors, the HUM is truly an estimate of population.

Listed below are the acceptable methodologies and other requirements for each of the component element used in the HUM population estimate. These will assist the municipality, community or reserve with the documentation of all necessary information when conducting the estimate.

Large municipalities and boroughs must measure and report the component elements described below by service areas or cities within their boundaries.

In order to determine the appropriate funding, it is essential to have the most accurate information possible about the population of your community. Since the municipality, community or reserve will be conducting this estimate; it is your responsibility to provide the most accurate information about the population by using the prescribed procedure below.

A. Housing Units Inventory

A housing unit is a house, an apartment, a mobile home or trailer, a group of rooms, or a single room that is occupied, or, if vacant, is intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

1. Acceptable methodologies:

- a. Property Tax Records. Most recent documentation printed directly from the property tax records, including a list of residential units by lot number, structure type, and year built. Attachment C in the Appendix shows how this information may be organized.
- b. 100% Field Survey. If property tax records are not available, numbers from a 100% field survey may be used. Use table format shown in Attachment C to compile results.

2. Requirements:

- a. Include a map showing all housing units by type of structure and outlining municipality boundary, census blocks, service areas or geographic areas that correspond with assessment record tabulations or field survey.
- b. Enumerate and document all housing units by type of structure: single family, duplex, apartments (multiple family), and mobile homes. See Attachment B for illustrations of housing unit types.
- c. Add any new units constructed and occupied since the last property tax assessment record. Attach a list of each new unit (must be completed and habitable) by structure type, address, and permit number.
- d. Add live-aboard boats as housing units. Contact the harbormaster or conduct a boat-to-boat survey. If the number of residents living on each boat cannot be determined, an average population of one (1) will be used per boat.
- e. Deduct housing units demolished since the last property tax assessment records. Attach a list of each demolished property by structure type and address.
- f. Deduct dilapidated, uninhabitable housing, and housing under construction/renovation, from the housing inventory.
- g. Deduct any housing units that can be classified as Labor Camp. These will have to be included as a group quarter facility.
- h. Provide additional documentation for any unusual growth from previous year's data.

3. Required documentation:

- a. Final detailed inventory of housing units by type of structure after adding and removing units as necessary per Requirements above. Follow table format shown as Attachment C.
- Map showing all housing units by type of structure and outline of municipality boundary, census blocks, service areas or geographic areas that correspond with the reference numbers in the inventory. See Attachment D for a sample.
- c. Provide a list of the following units (as applicable) and compile the list using the table format shown as Attachment C.
 - i. New units, if any, added to the housing inventory.

- ii. Demolished units, if any, removed from the housing inventory.
- iii. Uninhabitable and dilapidated units removed from the housing inventory.
- iv. Units under construction/renovation not included in the housing inventory.

B. Group Quarters

A group quarters is a place where people live or stay other than the usual house, apartment, or mobile home. Two general types of group quarters are recognized: institutional (for example, nursing homes, mental hospitals or wards, hospitals or wards for chronically ill patients, hospices, and prison wards) and non-institutional (for example, college dormitories, military barracks, group homes, shelters, missions, and flophouses.) Labor Camps that provide housing for company employees in housing units will be classified as group quarters. Group quarters may have housing units on the premises for staff and guests.

- 1. Requirements: Contact group quarters entities and request a written and signed copy of the residency documentation from the respective entity's administrator/manager. Persons in these facilities must be surveyed to determine their primary place of residence using the Group Quarter Survey Form in Attachment E. See Attachment I for assistance in determining residency.
- 2. Required documentation: Group Quarter Population Summary (Attachment F) which lists each group facility name, service provided/facility purpose, address, contact name, phone number, and surveyed resident population.

C. Occupancy and Residents Per Household

- 1. Acceptable methodologies:
 - a. 100% field survey of the Occupancy and Residency per Household. Use the Field Survey Occupancy and Residents per Household (RPH) form provided as Attachment G.
 - b. Sample field survey of Occupancy and Residency per Household. Municipalities, communities and reserve with less than 2,000 housing units must conduct a 40% random sample of all housing units. Municipalities, communities and reserve with 2,000 to 4,000 housing units are required to sample 25% of all housing units. Municipalities with greater than 4,000 housing units can contact the department for recommended sample size.

Stratify the housing units by structure type before conducting the required random sample. The proportion of a specific housing structure type included in the sample should be same or greater than the proportion of the specific

housing structure type in the 100% inventory. For example, if 25 out of a total of 100 units in a municipality are multi-family units, then the 40% random sample should include 25% or 10 multi-family units. See Attachment H for example showing the stratified sample for the survey.

The required sample sizes of housing units for each structure type can be selected through a random number generating computer program such as Research Randomizer Form v4.0 or Random Integer Generator in random.org, or by using MS Excel. A two-person verification of random selection process is required and must be documented.

The selected sample units for each structure type are then surveyed using the Field Survey – Occupancy and Residents per Household (RPH) form provided as Attachment G.

2. Requirements:

- a. Occupancy and residents per household must be documented for each structure type: single family, duplex, apartments (multiple family), and mobile homes.
- b. Include only persons that are considered residents in the residents per household survey. Residents are those people that consider the surveying unit their primary place of residence. Per 3 AAC 180.900, "primary place of residence" means a place where a person sleeps on a weekly basis; if a person has more than one residence, "primary place of residence" means a place where the person sleeps more often during the calendar year. For example, an individual who is in your community for seasonal subsistence or employment purposes is considered a non-resident. Possible residency situations are presented in the Table of Residence Situations provided as Attachment I.
- c. Dilapidated or uninhabitable housing, including housing under construction or renovation, should be excluded from the housing inventory and not counted as vacant.
- d. Vacancies must be measured exactly as they are found on the "enumeration day." They are a "snapshot" of the current situation. For example, if an apartment is vacant on the enumeration day, but will be inhabited the following week, it must be marked as vacant. Failure to do so is equivalent to counting that relocating family twice, once in its old home and again in its new apartment.
- e. Households that are otherwise occupied but vacant on the day of enumeration or survey must be contacted at least three times before asking a

proxy respondent for the information about the household members unless all members are away for an extended period and not expected to return within the enumeration or survey period. Proxy respondents are adult non-household members who have knowledge about the members of the household in question. Examples include neighbors, rental agents or building managers.

3. Required documentation:

- a. Random sample selection.
- b. Map and location of randomly selected units that were surveyed. See Attachment H for sample of format.
- c. Filled survey forms showing the occupancy and residents per household.
- d. Summary of occupied households and residents per household. Summarize this information gathered from the survey for each structure type.

III. HUM Population Estimate Calculation

The following summarizes the information required, and the steps in the calculations. Municipalities with stratified service areas or geographic regions must utilize a separate form for each area.

For each housing structure type: single, duplex, multi-family, and mobile homes provide:

- A. Total Number of Housing Units from Inventory
- B. Occupancy Rate = Occupied Housing Units from Sample ÷ All Sampled Housing Units (per type)
- C. Average Residents Per Household (RPH) = Total Residents in Surveyed Households ÷ Occupied Housing Units from Survey
- D. Estimated Resident Population = Occupied Resident Households in Survey x Average RPH from Survey

Total Population Estimate is derived by adding Estimated Housing Unit Resident Population (D above) and the Group Quarters Population.

Sample Housing Unit Method (HUM) Calculations

Structure Type	Total Housing Units (From Tax Records or 100% Survey)	Occupancy Rate (From Field Survey)	Average RPH (From Field or Mail Survey)	Resident Population Estimate
	A	В	С	D
Calculations:				$A \times B \times C$
Single Family	329	0.9472	2.72	848
Duplex	98	0.9562	2.54	238
Multi-Family	227	0.9246	2.13	447
Mobile Homes	65	0.9096	2.9	171
Other/Boats	12	N/A	1	12
TOTALS	731			

Estimated Residents Living in Housing	1,716
Group Quarters Population	43
Total Municipal Population Estimate	1,759

IV. Attachments

A. Sample Population Resolution		
A RESOLUTION OF THE	(Municipality, community or reserve) adop	oting the
determination of population.	(Municipanty, community or reserve)	
WHEREAS, the	has conducted a census of the reserve)	ne
population indicating the populat		
; and		
WHEREAS, the governing body of	the mu (Municipality, community or reserve)	ust pass a
Resolution adopting the results of the census	for use by the Department of Commerce,	
Community and Economic Development;		
NOW THEREFORE BE IT RESOLVE (Date)		
(Municipality, community or reserve) Was	(Decoderies)	
PASSED AND APPROVED BY THE	(Municipality, community or reserve) on the	
Day of (Month)	· (Year)	
BY:		
	r/President)	
ATTEST:	<u> </u>	
(Clerk	or Secretary)	

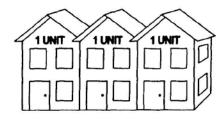
B. Examples of Structure Types



1 Structure with 1 Housing Unit



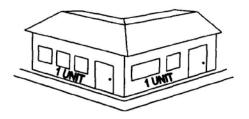
- 1 Structure with
- 1 Housing Unit



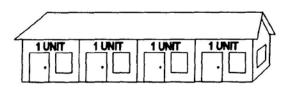
- 1 Structure with
- 3 Housing Units



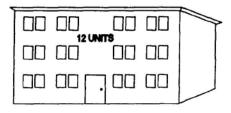
- 1 Structure with
- 2 Housing Units



- 1 Structure with
- 2 Housing Units



- 1 Structure with
- 4 Housing Units



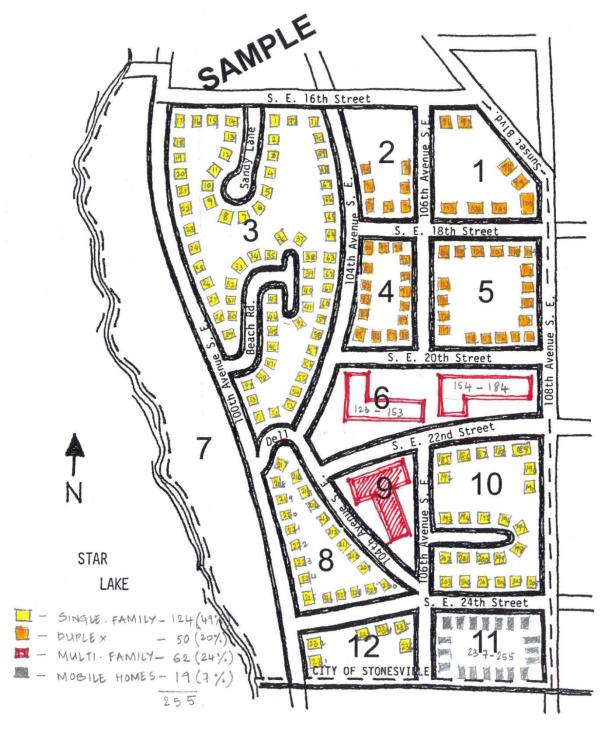
- 1 Structure with
- 5 or more Housing Units

C. Housing Inventory _____(Name of municipality, community or reserve) Enumerator _____ Census Block #/Subdiv. Name _____ Year Single Multi-Address/Lot/Permit # Built Duplex Family Mobile

Total Housing Units

Municipal Totals

D. Housing Inventory - Sample Map



NOTE: Maps may be hand drawn – Block maps are available from U.S. Census' website.

E. Group Quarters Survey Form

Group Quarter Facility Name	Date
Unit #	
E' N	pelow
2. Do you consider this facility yo	ur primary "place of residence"*?
Yes	No (Go to Question 3)
3. (If No) What is the full address residence?	of the place that you consider your primary place of
Street Address Number:	
Street Name:	
Apartment Number:	
Rural Route Address:	
City/Work Site:	
State or Foreign Country:	
ZIP Code:	

^{*&}quot;Primary place of residence" means a place where a person sleeps on a weekly basis; if a person has more than one residence, "primary place of residence" means a place where the person sleeps more often during the calendar year.

F. Group Quarters Population Summary

	(name of municipality, community or reserve)
Date	
Contact	
Page	

Facility	Service/Purpose	Address	Contact Name	Phone	Resident Pop.
<u> </u>					•

Total Group Quarters
Population

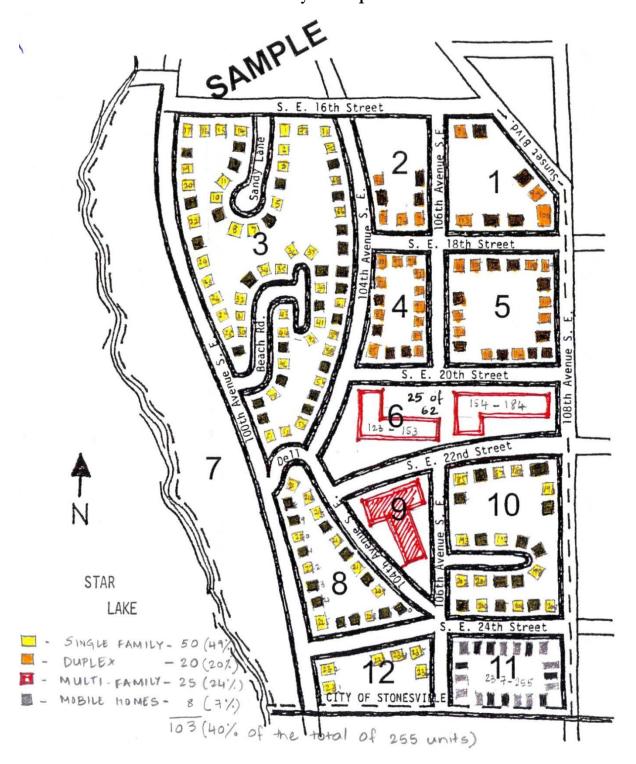
G. Field Survey – Occupancy and Residents per Household (RPH)

LΛ	

Reference Number/Address/Unit#	Single Fa	mily	Duple	x	Multi-Fa	mily	Mobile H	ome
	Occupied	<u> </u>	Occupied (Yes/No)		Occupied		Occupied	
	(Yes/No)	RPH	(Yes/No)	RPH	(Yes/No)	RPH	(Yes/No)	RPH
		-		-				
		 		1				
		-		-		-		
Page Total								

^{*}Include only those persons that consider this unit their primary place of residence. "Primary place of residence" means a place where a person sleeps on a weekly basis; if a person has more than one residence, "primary place of residence" means a place where the person sleeps more often during the calendar year.

H. Selected Units for Field Survey - Sample



I. Table of Residence Situations

Residence Situations	Residency Location
People Away From Their Usual Place of Residence	
People away from their usual residence on Census Day, such as on a vacation or a business trip, visiting, travelling outside the U.S., or working elsewhere without a usual residence there	Counted at the residence where they live and sleep most of the time.
Visitors on Census Day	
Visitors on Census Day who will return to their usual residence	Counted at the residence where they live and sleep most of the time.
Citizens of foreign countries who are visiting the U.S. on Census Day, such as on a vacation or a business trip	Not counted in the census.
People Who Live in More Than One Place	
People living away most of the time while working, such as people who live at a residence close to where they work and return regularly to another residence	Counted at the residence where they live and sleep most of the time. If there is no residence where they can live and sleep most of the time, they are counted where they live and sleep more than anywhere else. If time is equally divided, or if the usual residence cannot be determined, they are counted at the residence where they are staying on Census Day.
People who live at two or more residences (during the week, month, or year), such as people who travel seasonally between residences (for example, snowbirds)	
Children in shared custody or other arrangements who live in more than one residence	
People Without A Usual Residence	
People who cannot determine a usual residence	Counted where they are staying on Census Day.
People at soup kitchens and regularly scheduled mobile food vans	Counted at the residence where they live and sleep most of the time. If they do not have a place they live and sleep most of the time, they are counted at the soup kitchen or mobile food van location where they are on Census Day.
People at targeted non-sheltered outdoor locations	Counted at the outdoor location where people experiencing homelessness stay without paying.
Students	
Boarding school students living away from their parental home while attending boarding school below the college level, including Bureau of Indian Affairs boarding schools	Counted at their parental home rather than at the boarding school.
College students living at their parental home while attending college	Counted at their parental home.
College students living away from their parental home while attending college in the U.S. (living either on-campus or off-campus)	Counted at the on-campus or off-campus residence where they live and sleep most of the time.
College students living away from their parental home while attending college in the U.S. (living either on-campus or off-campus) but staying at their paternal home while on a break or vacation	Counted at the on-campus or off-campus residence where they live and sleep most of the time.
U.S. college students living outside the U.S. while attending college outside the U.S.	Not counted in the census.
Foreign students living in the U.S. while attending college in the U.S. (living either on-campus or off-campus)	Counted at the on-campus or off- campus residence where they live and sleep most of the time.
Movers on Census Day	
People who move into a residence on Census Day who have not been listed on a questionnaire for any residence	Counted at the residence they move into on Census Day.
People who move out of a residence on Census Day and have not moved into a new residence on Census Day and who have not been listed on a questionnaire for any residence	Counted at the residence from which they moved.

If they have already been listed on one
questionnaire, so not list them on any other questionnaire.
Tarana a a
Counted at the residence where they will live and sleep most of the time, even if they are still in the hospital on Census Day.
Not counted in the census.
Not counted in the census.
Counted in the census if they are alive at any time on Census Day.
Counted at the residence where they live and sleep
most of the time.
Counted at the military barracks.
Counted at the residence where they live and sleep most of the time.
Counted at the onshore U.S> residence where they live and sleep most of the time. If they have no onshore U.S. residence, they are counted at their vessel's homeport.
Counted at the facility.
Counted at the facility if they are assigned there.
Counted as part of U.S. overseas population. Counted as part of U.S. overseas population.
Counted at the onshore U.S. residence where they live and sleep most of the time. If they have no onshore U.S. residence where they live and sleep most of the time, they are counted at their vessel. If the vessel is docked in a U.S. port, crewmembers with no onshore U.S. residence are counted at the port. If the vessel is sailing from one U.S. port to another U.S port, crewmembers with no onshore U.S. residence are counted at the port of departure.
Counted at the onshore residence where they live and sleep most of the time.
Not counted in the census.
Counted at the U.S residence where they live and sleep most of the time.

Citizens of foreign countries living in the U.S. who are members of	Counted at the embassy, consulate, United Nations'
the diplomatic community	facility, or other residences where the diplomats live.
Citizens of foreign countries visiting the U.S., such as on a vacation or business trip	Not counted in the census.
U.S. Citizens and Their Dependents Living Outside the U.S.	
U.S. citizens living outside the U.S. who are employed as civilians by the U.S. Government, including dependents living with them	Counted as a part of U.S. oversees populations.
U.S. citizens living outside the U.S. who are not employed by the U.S. Government, including dependents living with them	Not counted in the census.
U.S. military personnel living on or off a military installation outside the U.S., including dependents living with them	Counted as part of the U.S. overseas population.
U.S. military personnel on U.S. military vessels with a homeport outside the U.S.	Counted as part of the U.S. overseas population.
People in Correctional Facilities For Adults	
People in correctional residential facilities on Census Day	Counted at the facility.
People in federal detention centers on Census Day	Counted at the facility.
People in federal and state prisons on Census Day	Counted at the facility.
People in local jails and other municipal confinement facilities on Census Day	Counted at the facility.
People in Group Homes and Residential Treatment Centers for Adults	
People in group homes intended for adults (non-correctional)	Counted at the facility.
People in residential treatment centers for adults (non-correctional)	Counted at the residence where they live and sleep most of the time. If they do not have a residence where they live and sleep most of the time, they are counted at the facility.
People in Health Care Facilities	
Patients in general or Veterans Affairs hospitals (except psychiatric units) on Census Day, including newborn babies still in the hospital on Census Day	Counted at the residence where they live and sleep most of the time. Newborn babies should be counted at the residence where they will live and sleep most of the time.
People in hospitals on Census Day who have no usual home elsewhere	Counted at the facility.
People staying in in-patient hospice facilities on Census Day	Counted at the residence where they live and sleep most of the time. If they do not have a residence where they live and sleep most of the time, they are counted at the facility.
People in nursing facilities/skilled nursing facilities on Census Day	Counted at the facility.
People in Juvenile Facilities	
People in correctional facilities intended for juveniles on Census Day	Counted at the facility.
People in group homes for juveniles (non-correctional) on Census Day	Counted at the facility.
People in residential treatment centers for juveniles (non-correctional) on Census Day	Counted at the facility.
People in Shelters	
People in emergency and transitional shelters (with sleeping facilities) on Census Day	Counted at the shelter.
People in living quarters for victim of natural disasters	Counted at the residence where they live and sleep most of the time. If they do not have a residence where they live and sleep most of the time, they are counted at the facility.

People in domestic violence shelters on Census Day	Counted at the shelter.
People in Transitory Locations	
People at transitory locations such as recreational vehicle (RV) parks, campgrounds, hotels and motels (including those on military sites), hostels, marinas, racetracks, circuses, or carnivals	Counted at the residence where they live and sleep most of the time. If there is no residence where they can live and sleep most of the time, they are counted where they live and sleep more than anywhere else. If time is equally divided, or if the usual residence cannot be determined, they are counted at the residence where they are staying on Census Day.
People in Religious-Related Residential Facilities	
People in religious group quarters such as covenants and monasteries	Counted at the residence where they live and sleep most of the time. If they do not have a residence where they live and sleep most of the time, they are counted at the facility.
People in Workers' Residential Facilities	
People in workers' group living quarters and Job Corps Centers	Counted at the residence where they live and sleep most of the time. If they do not have a residence where they live and sleep most of the time, they are counted at the facility.
Source: U.S. Census Bureau	1