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#### **Project Overview: Summary of Project Details**

**Project Title:** Detailed Household and Housing Unit Characteristics: Data and Replication Code Version 2

Principal Investigator: Nathanael Rosenheim: nrosenheim@arch.tamu.edu

**Citation**: Rosenheim, Nathanael. (2022). "Detailed Household and Housing Unit Characteristics: Data and Replication Code." [Version 2] *DesignSafe-CI*. https://doi.org/10.17603/ds2-jwf6-s535

**Project Description**: People are the most important part of community resilience planning. However, models for community resilience planning tend to focus on buildings and infrastructure. This project provides a solution that connects people to buildings for community resilience models. The housing unit inventory method transforms aggregated population data into disaggregated housing unit data that includes occupied and vacant housing unit characteristics. Detailed household characteristics include size, race, ethnicity, income, group quarters type, vacancy type and census block. Applications use the housing unit allocation method to assign the housing unit inventory to structures within each census block through a reproducible and randomized process. The benefits of the housing unit inventory include community resilience statistics that intersect detailed population characteristics with hazard impacts on infrastructure; uncertainty propagation; and a means to identify gaps in infrastructure data such as limited building data. This project archives example data and python code files. Python is an open source programming language and the code files provide future users with the tools to generate a 2010 housing unit inventory for any county in the United States. This project is the Beta Release, which indicates that the method is reproducible, generalizable, and that the characteristics included provide a valid representation of the social and economic characteristics of a community's population in 2010. Applications of the method are reproducible in IN-CORE (Interdependent Networked Community Resilience Modeling Environment).

**Funding Source: Award name and number**: Center for Risk-Based Community Resilience Planning : NIST-70NANB20H008, NIST-70NANB15H044 (http://resilience.colostate.edu/)

#### **Related Works:**

Rosenheim, Nathanael, Roberto Guidotti, Paolo Gardoni & Walter Gillis Peacock. (2019). Integration of detailed household and housing unit characteristic data with critical infrastructure for post-hazard resilience modeling. *Sustainable and Resilient Infrastructure*. https://doi.org/10.1080/23789689.2019.1681821

Rosenheim, Nathanael. (2021). "Detailed Household and Housing Unit Characteristics: Data and Replication Code." [Version 1] *DesignSafe-CI*. https://doi.org/10.17603/ds2-jwf6-s535

Interdependent Networked Community Resilience Modeling Environment (IN-CORE) : https://incore.ncsa.illinois.edu/

Hazard Reduction and Recovery Center (HRRC):

https://www.arch.tamu.edu/impact/centers-institutes-outreach/hazard-reduction-recovery-center/

**Keywords:** Social and Economic Population Data, Housing Unit, US Census, Synthetic Population

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**DesignSafe-CI project identification number**: Project-2961 - Available at: https://www.designsafe-ci.org/data/browser/public/designsafe.storage.published/PRJ-2961





## **Data Dictionary: Summary of Variables**

| Variable Name | Data Type | Length | Categorical | Variable Label                  |
|---------------|-----------|--------|-------------|---------------------------------|
| huid          | String    |        |             | Housing Unit ID                 |
| blockid       | String    | 15     |             | Block ID                        |
| bgid          | String    | 12     |             | 2010 Census Block Group ID      |
| tractid       | String    | 11     |             | 2010 Census Tract ID            |
| FIPScounty    | String    | 5      |             | County FIPS Code                |
| numprec       | Int       |        |             | Number of Person Records        |
| ownershp      | Int       |        | True        | Tenure Status                   |
| race          | Int       |        | True        | Race of Householder             |
| hispan        | Int       |        | True        | Hispanic Householder            |
| family        | Int       |        | True        | Family Household                |
| vacancy       | Int       |        | True        | Vacancy Type                    |
| gqtype        | Int       |        | True        | Group Quarters Type             |
| incomegroup   | Int       |        | True        | Detailed Household Income Group |
| hhinc         | Int       |        | True        | Five Household Income Groups    |
| randincome    | Float     |        |             | Random Household Income         |
| poverty       | Int       |        | True        | Poverty Status                  |
| guid          | String    |        |             | Building ID from GUID           |
| placeNAME10   | String    |        |             | Place Name 2010                 |
| huestimate    | Float     |        |             | Housing Unit Estimate           |
| x             | Float     |        |             | Longitude                       |
| у             | Float     |        |             | Latitude                        |





### **Variable Details and Notes**

The following pages provide details on each variable. Where applicable notes provide links to verify data. Categorical variables include datails on category codes.





huid: Housing Unit ID

| Variable characteristic | Variable details     |
|-------------------------|----------------------|
| variable type           | string               |
| total cases             | 52,801               |
| valid cases             | 52,801               |
| missing cases           | 0                    |
| unit of measure         | Housing units        |
| unit of analysis        | Housing unit         |
| unique values           | 52,801               |
| minimum length          | 20                   |
| maximum length          | 20                   |
| example 1               | B371559613024031H020 |
| example 2               | B371559605022008H003 |
| example 3               | B371559605031031H015 |
| example 4               | B371559606001026H039 |

Variable Notes: huid







<sup>1.</sup> Housing Unit ID is the Primary Key for the HU Inventory. Use HUID to sort data before Random Merge Order is assigned.

<sup>2.</sup> One Housing Unit could be an occupied house, a single unit in a multi-family structure, a vacant house or a group quarters with a number of persons.

<sup>3.</sup> The Housing Unit ID is a combination of the census block ID, the letter H and a cumulative counter for housing units in the block.

blockid: Block ID

| Variable characteristic | Variable details             |
|-------------------------|------------------------------|
| variable type           | string                       |
| total cases             | 52,801                       |
| valid cases             | 52,801                       |
| missing cases           | 0                            |
| unit of measure         | Housing unit in census block |
| unit of analysis        | Geographic unit              |
| unique values           | 4,104                        |
| minimum length          | 15                           |
| maximum length          | 15                           |
| example 1               | 371559604013019              |
| example 2               | 371559618021038              |
| example 3               | 371559603004024              |
| example 4               | 371559601023001              |

Variable Notes: blockid

1. 2010 Census Block ID





bgid: 2010 Census Block Group ID

| Variable characteristic | Variable details                   |
|-------------------------|------------------------------------|
| variable type           | string                             |
| total cases             | 52,801                             |
| valid cases             | 52,801                             |
| missing cases           | 0                                  |
| unit of measure         | Housing unit in census block group |
| unit of analysis        | Geographic unit                    |
| unique values           | 88                                 |
| minimum length          | 12                                 |
| maximum length          | 12                                 |
| example 1               | 371559615002                       |
| example 2               | 371559605012                       |
| example 3               | 371559619002                       |
| example 4               | 371559601024                       |

Variable Notes: bgid

- 1. 12 Character String that contains 2010 census block group ID.
- 2. Foreign Key with Block Group Data for population dislocation model.



tractid: 2010 Census Tract ID

| Variable characteristic | Variable details             |
|-------------------------|------------------------------|
| variable type           | string                       |
| total cases             | 52,801                       |
| valid cases             | 52,801                       |
| missing cases           | 0                            |
| unit of measure         | Housing unit in census tract |
| unit of analysis        | Geographic unit              |
| unique values           | 31                           |
| minimum length          | 11                           |
| maximum length          | 11                           |
| example 1               | 37155960900                  |
| example 2               | 37155960401                  |
| example 3               | 37155961301                  |
| example 4               | 37155961500                  |

Variable Notes: tractid

1. 11 Character String that contains 2010 census tract ID.





FIPScounty: County FIPS Code

| Variable characteristic | Variable details       |
|-------------------------|------------------------|
| variable type           | string                 |
| total cases             | 52,801                 |
| valid cases             | 52,801                 |
| missing cases           | 0                      |
| unit of measure         | Housing unit in county |
| unit of analysis        | Geographic unit        |
| unique values           | 1                      |
| minimum length          | 5                      |
| maximum length          | 5                      |
| example 1               | 37155                  |
| example 2               | 37155                  |
| example 3               | 37155                  |
| example 4               | 37155                  |

Variable Notes: FIPScounty

1. 5 digit County FIPS code. Every county in the US has a unique code.





numprec: Number of Person Records

| ariable characteristic Variable details    |              |
|--|--------------|
| variable type                              | ımeric (Int) |
| total cases                                | 52,801       |
| valid cases                                | 52,801       |
| missing cases                              | 0            |
| unit of measure                            | Persons      |
| unit of analysis                           | ousing unit  |
| range minimum value: 0.00 to maximum value | : 1,150.00   |
| mean                                       | 2.52         |
| median                                     | 2.00         |
| standard deviation                         | 6.84         |
| 10th percentile                            | 1.00         |
| 25th percentile                            | 1.00         |
| 50th percentile                            | 2.00         |
| 75th percentile                            | 3.00         |
| 90th percentile                            | 5.00         |

#### Variable Notes: numprec

- 1. For occupied housing units the max numprec is 7.
- 2. Households with more than 7 people could have higher numprec values.
- 3. Housing units with numprec = 0 are vacant not occupied housing units.
- 4. Housing units with numprec > 7 are group quarters. Numprec represents the number of people in the group quarters.





ownershp: Tenure Status

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 47,997                               |
| missing cases           | 4,804                                |
| unit of measure         | Housing unit                         |
| unit of analysis        | Household                            |
| range                   | minimum value: 1 to maximum value: 2 |

ownershp: Tenure Status - Categorical codes, labels and frequencies

| Code | Label                           | Count of<br>Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|---------------------------------|---------------------------|--------------------------|-------------------|--------------------|
| 1    | 1. Owned or being bought (loan) | 31,336                    | 65.29%                   | 84,662            | 65.58%             |
| 2    | 2. Rented                       | 16,661                    | 34.71%                   | 44,432            | 34.42%             |

Variable Notes: ownershp

- 1. Based on 2010 Census SF1 Table H16.
- 2. Tenure status is not applicable for vacant not occupied housing units.
- 3. Tenure status is not applicable for group quarters.
- 4. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.H16.





race: Race of Householder

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 47,997                               |
| missing cases           | 4,804                                |
| unit of measure         | Person                               |
| unit of analysis        | Householder                          |
| range                   | minimum value: 1 to maximum value: 7 |

race: Race of Householder - Categorical codes, labels and frequencies

| Code | Label   | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|---|------------------------|--------------------------|-------------------|--------------------|
| 1    | 1. White alone                                      | 15,989                 | 33.31%                   | 38,733            | 30.00%             |
| 2    | 2. Black or African American alone                  | 11,623                 | 24.22%                   | 30,649            | 23.74%             |
| 3    | 3. American Indian and Alaska Native alone          | 17,905                 | 37.30%                   | 50,497            | 39.12%             |
| 4    | 4. Asian alone                                      | 261                    | 0.54%                    | 873               | 0.68%              |
| 5    | 5. Native Hawaiian and Other Pacific Islander alone | 18                     | 0.04%                    | 72                | 0.06%              |
| 6    | 6. Some Other Race alone                            | 1,526                  | 3.18%                    | 6,166             | 4.78%              |
| 7    | 7. Two or More Races                                | 675                    | 1.41%                    | 2,104             | 1.63%              |

Variable Notes: race

- 1. Race is based on the race of the householder.
- 2. Race of householder is not applicable for vacant not occupied housing units.
- 3. Race is missing for population living in group quarters.
- 4. Race is based on 2010 Census SF1 Tables H16 by race.
- 5. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.H6.





hispan: Hispanic Householder

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 47,997                               |
| missing cases           | 4,804                                |
| unit of measure         | Person                               |
| unit of analysis        | Householder                          |
| range                   | minimum value: 0 to maximum value: 1 |

hispan: Hispanic Householder - Categorical codes, labels and frequencies

| Code | Label                             | Count of<br>Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|-----------------------------------|---------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. Householder Not Hispanic       | 45,483                    | 94.76%                   | 119,066           | 92.23%             |
| 1    | 1. Householder Hispanic or Latino | 2,514                     | 5.24%                    | 10,028            | 7.77%              |

Variable Notes: hispan

- 1. Hispanic is based on the ethnicity of the householder.
- 2. Hispanic is missing for vacant not occupied housing units.
- 3. Hispanic is missing for population living in group quarters.
- 4. Hispanic is predicted based on 2010 Census SF1 Tables H7, H15, and H16.
- 5. Hispanic totals will not match the US Census data, but they should be close.
- 6. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.H7.





#### family: Family Household

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 47,997                               |
| missing cases           | 4,804                                |
| unit of measure         | Household                            |
| unit of analysis        | Household                            |
| range                   | minimum value: 0 to maximum value: 1 |

#### family: Family Household - Categorical codes, labels and frequencies

| Code | Label                  | Count of<br>Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|------------------------|---------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. Nonfamily Household | 14,076                    | 29.33%                   | 18,895            | 14.64%             |
| 1    | 1. Family Household    | 33,921                    | 70.67%                   | 110,199           | 85.36%             |

Variable Notes: family

- 1. Family household is based on 2010 Census SF1 Tables P18 by race and ethnicity.
- 2. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.P18.





vacancy: Vacancy Type

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 52,801                               |
| missing cases           | 0                                    |
| unit of measure         | Housing unit                         |
| unit of analysis        | Housing unit                         |
| range                   | minimum value: 0 to maximum value: 7 |

vacancy: Vacancy Type - Categorical codes, labels and frequencies

| Code | Label  | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|--|------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. NA Not Vacant                                 | 48,047                 | 91.00%                   | 133,199           | 100.00%            |
| 1    | 1. For rent                                      | 1,760                  | 3.33%                    | 0                 | 0.00%              |
| 2    | 2. Rented, not occupied                          | 137                    | 0.26%                    | 0                 | 0.00%              |
| 3    | 3. For sale only                                 | 413                    | 0.78%                    | 0                 | 0.00%              |
| 4    | 4. Sold, not occupied                            | 322                    | 0.61%                    | 0                 | 0.00%              |
| 5    | 5. For seasonal, recreational, or occasional use | 307                    | 0.58%                    | 0                 | 0.00%              |
| 6    | 6. For migrant workers                           | 11                     | 0.02%                    | 0                 | 0.00%              |
| 7    | 7. Other vacant                                  | 1,804                  | 3.42%                    | 0                 | 0.00%              |

Variable Notes: vacancy

- 1. Based on 2010 Census SF1 Table H5.
- 2. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.H5.





gqtype: Group Quarters Type

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 52,801                               |
| missing cases           | 0                                    |
| unit of measure         | Housing unit                         |
| unit of analysis        | Group quarters                       |
| range                   | minimum value: 0 to maximum value: 7 |

gqtype: Group Quarters Type - Categorical codes, labels and frequencies

| Code | Label  | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|--|------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. NA (non-group quarters)                       | 52,751                 | 99.91%                   | 129,094           | 96.92%             |
| 1    | 1. Correctional facilities for adults            | 4                      | 0.01%                    | 1,495             | 1.12%              |
| 2    | 2. Juvenile facilities                           | 9                      | 0.02%                    | 45                | 0.03%              |
| 3    | 3. Nursing facilities/Skilled-nursing facilities | 5                      | 0.01%                    | 542               | 0.41%              |
| 4    | 4. Other institutional facilities                | 3                      | 0.01%                    | 92                | 0.07%              |
| 5    | 5. College/University student housing            | 3                      | 0.01%                    | 1,573             | 1.18%              |
| 6    | 6. Military quarters                             | 0                      | 0.00%                    | 0                 | 0.00%              |
| 7    | 7. Other noninstitutional facilities             | 26                     | 0.05%                    | 358               | 0.27%              |

Variable Notes: gqtype

- 1. Based on 2010 Census SF1 Table P42.
- 2. Counts represent number of group quarters. Sum by numprec to get population counts.
- 3. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=DECENNIALSF12010.P42.





incomegroup: Detailed Household Income Group

| Variable characteristic | Variable details                      |
|-------------------------|---------------------------------------|
| variable type           | categorical (Int)                     |
| total cases             | 52,801                                |
| valid cases             | 52,801                                |
| missing cases           | 0                                     |
| unit of measure         | 2012 INFLATION-ADJUSTED DOLLARS       |
| unit of analysis        | Household                             |
| range                   | minimum value: 0 to maximum value: 16 |

incomegroup: Detailed Household Income Group - Categorical codes, labels and frequencies

| Code | Label                          | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|--------------------------------|------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. NA vacant or group quarters | 4,804                  | 9.10%                    | 4,105             | 3.08%              |
| 1    | 1. Less than \$10,000          | 7,710                  | 14.60%                   | 19,038            | 14.29%             |
| 2    | 2. \$10,000 to \$14,999        | 4,480                  | 8.48%                    | 10,636            | 7.99%              |
| 3    | 3. \$15,000 to \$19,999        | 4,981                  | 9.43%                    | 12,942            | 9.72%              |
| 4    | 4. \$20,000 to \$24,999        | 3,614                  | 6.84%                    | 10,068            | 7.56%              |
| 5    | 5. \$25,000 to \$29,999        | 3,551                  | 6.73%                    | 9,640             | 7.24%              |
| 6    | 6. \$30,000 to \$34,999        | 3,213                  | 6.09%                    | 8,722             | 6.55%              |
| 7    | 7. \$35,000 to \$39,999        | 2,077                  | 3.93%                    | 5,634             | 4.23%              |
| 8    | 8. \$40,000 to \$44,999        | 2,205                  | 4.18%                    | 5,678             | 4.26%              |
| 9    | 9. \$45,000 to \$49,999        | 1,902                  | 3.60%                    | 5,322             | 4.00%              |
| 10   | 10. \$50,000 to \$59,999       | 3,019                  | 5.72%                    | 8,708             | 6.54%              |
| 11   | 11. \$60,000 to \$74,999       | 3,938                  | 7.46%                    | 11,353            | 8.52%              |
| 12   | 12. \$75,000 to \$99,999       | 3,643                  | 6.90%                    | 10,705            | 8.04%              |
| 13   | 13. \$100,000 to \$124,999     | 1,613                  | 3.05%                    | 4,681             | 3.51%              |
| 14   | 14. \$125,000 to \$149,999     | 800                    | 1.52%                    | 2,338             | 1.76%              |
| 15   | 15. \$150,000 to \$199,999     | 660                    | 1.25%                    | 1,918             | 1.44%              |
| 16   | 16. \$200,000 or more          | 591                    | 1.12%                    | 1,711             | 1.28%              |

Variable Notes: incomegroup

<sup>3.</sup> Totals by household income group will not match to ACS data.



<sup>1.</sup> Based on 2012 5-year ACS tables B19001 and B19101.

<sup>2.</sup> This variable is designed to provide household income data that are comparable to income distributions by race, Hispanic and families. There are numerous assumptions associated with this variable. The random allocation of income to a physical location does not represent the actual income for the household. This information is designed to be aggregated.

| <ol><li>Compare that the inventor</li></ol> | v counts fall within the AC | S the 90% CI | (confidence interval | ) of the estimate. |
|---|-----------------------------|--------------|----------------------|--------------------|
|---|-----------------------------|--------------|----------------------|--------------------|

5. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=ACSDT5Y2012.B19001







hhinc: Five Household Income Groups

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 52,801                               |
| missing cases           | 0                                    |
| unit of measure         | 2012 INFLATION-ADJUSTED DOLLARS      |
| unit of analysis        | Household                            |
| range                   | minimum value: 0 to maximum value: 5 |

hhinc: Five Household Income Groups - Categorical codes, labels and frequencies

| Code | Label                          | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|--------------------------------|------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. NA vacant or group quarters | 4,804                  | 9.10%                    | 4,105             | 3.08%              |
| 1    | 1. Less than \$15,000          | 12,190                 | 23.09%                   | 29,674            | 22.28%             |
| 2    | 2. \$15,000 to \$24,999        | 8,595                  | 16.28%                   | 23,010            | 17.27%             |
| 3    | 3. \$25,000 to \$74,999        | 19,905                 | 37.70%                   | 55,057            | 41.33%             |
| 4    | 4. \$75,000 to \$99,999        | 3,643                  | 6.90%                    | 10,705            | 8.04%              |
| 5    | 5. \$100,000 or more           | 3,664                  | 6.94%                    | 10,648            | 7.99%              |

Variable Notes: hhinc

- 1. Based on 2012 5-year ACS tables B19001 and B19101.
- 2. Based on incomegroup variable with 5 groups versus 16.



randincome: Random Household Income

| Variable characteristic | Variable details                                 |
|-------------------------|--|
| variable type           | numeric (Float)                                  |
| total cases             | 52,801   |
| valid cases             | 47,997   |
| missing cases           | 4,804  |
| unit of measure         | 2012 INFLATION-ADJUSTED DOLLARS                  |
| unit of analysis        | Household  |
| range                   | minimum value: 1.00 to maximum value: 249,914.00 |
| mean                    | 42,051.04  |
| median                  | 29,566.00  |
| standard deviation      | 40,362.17  |
| 10th percentile         | 6,215.60   |
| 25th percentile         | 14,794.00  |
| 50th percentile         | 29,566.00  |
| 75th percentile         | 57,451.00  |
| 90th percentile         | 92,402.80  |

Variable Notes: randincome

- 1. Household income top coded at \$250,000.
- 2. Based on 2012 5-year ACS tables B19001 and B19101.
- 3. Missing cases are vacant housing units or group quaters. The US Census does not collect income data for populations living in group quarters.
- 4. To verify results compare median income to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=ACSDT5Y2012.B19013





poverty: Poverty Status

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | categorical (Int)                    |
| total cases             | 52,801                               |
| valid cases             | 47,997                               |
| missing cases           | 4,804                                |
| unit of measure         | Household                            |
| unit of analysis        | Household                            |
| range                   | minimum value: 0 to maximum value: 1 |

poverty: Poverty Status - Categorical codes, labels and frequencies

| Code | Label                        | Count of Housing units | Percent<br>Housing units | Sum of<br>Persons | Percent<br>Persons |
|------|------------------------------|------------------------|--------------------------|-------------------|--------------------|
| 0    | 0. At or above poverty level | 33,671                 | 70.15%                   | 85,244            | 66.03%             |
| 1    | 1. Below poverty level       | 14,326                 | 29.85%                   | 43,850            | 33.97%             |

Variable Notes: poverty

1. Based on 2012 US Census Poverty Thresholds

https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html

https://www2.census.gov/programs-surveys/cps/tables/time-series/historical-poverty-thresholds/thresh12.xls

- 2. Based on household size and random income, assuming random income represents household income in the past 12 months.
- 3. To verify results compare table to:

https://data.census.gov/cedsci/table?g=0500000US37155&tid=ACSDT5Y2012.B17019





#### guid: Building ID from GUID

| Variable characteristic | Variable details                     |
|-------------------------|--------------------------------------|
| variable type           | string                               |
| total cases             | 52,801                               |
| valid cases             | 52,801                               |
| missing cases           | 0                                    |
| unit of measure         | Building ID                          |
| unit of analysis        | Building - Structure                 |
| unique values           | 47,078                               |
| minimum length          | 36                                   |
| maximum length          | 3                                    |
| example 1               | ed8cf36b-a291-46e9-b69c-ae2d64675efe |
| example 2               | 37c6df32-3209-4034-8234-78e5018114b7 |
| example 3               | fa67ddd4-9974-44ce-a8ff-c2ced0df5a34 |
| example 4               | 6cf7fa43-b7df-4982-b9a3-960ae5babeae |

Variable Notes: guid

- 1. GUID is the Primary Key for the Building Inventory. Use GUID to merge data with the building inventory.
- 2. Many housing units can be in one building.
- 3. GUID assigned in IN-CORE for building inventory.
- 4. The ID code for the building inventory is the last part of the HUA file name.
- 5. If the building inventory is changed the HUA must be re-run.





#### placeNAME10: Place Name 2010

| Variable characteristic | Variable details |
|-------------------------|------------------|
| variable type           | string           |
| total cases             | 52,801           |
| valid cases             | 52,801           |
| missing cases           | 0                |
| unit of measure         | Census Place     |
| unit of analysis        | Census Place     |
| unique values           | 23               |
| minimum length          | 15               |
| maximum length          | 7                |
| example 1               | Elrod            |
| example 2               | Shannon          |
| example 3               | Rowland          |
| example 4               | Wakulla          |

Variable Notes: placeNAME10

1. The Census Bureau uses this term to refer to most cities,

some towns, villages and boroughs.





huestimate: Housing Unit Estimate

| Variable characteristic Variable details |                     |
|--|---------------------|
| variable type                            | numeric (Float)     |
| total cases                              | 52,801              |
| valid cases                              | 52,575              |
| missing cases                            | 226                 |
| unit of measure                          | Housing Unit        |
| unit of analysis                         | Building            |
| range minimum value: 0.00 to ma          | aximum value: 41.00 |
| mean                                     | 1.66                |
| median                                   | 1.00                |
| standard deviation                       | 2.32                |
| 10th percentile                          | 1.00                |
| 25th percentile                          | 1.00                |
| 50th percentile                          | 1.00                |
| 75th percentile                          | 2.00                |
| 90th percentile                          | 2.00                |

Variable Notes: huestimate

<sup>1.</sup> The estimated number of housing units in a building.

#### x: Longitude

| Variable characteristic | Variable details                               |
|-------------------------|--|
| variable type           | numeric (Float)                                |
| total cases             | 52,801   |
| valid cases             | 52,801   |
| missing cases           | 0  |
| unit of measure         | Degrees  |
| unit of analysis        | Building                                       |
| range                   | minimum value: -79.46 to maximum value: -78.83 |
| mean                    | -79.09   |
| median                  | -79.07   |
| standard deviation      | 0.12   |
| 10th percentile         | -79.27   |
| 25th percentile         | -79.19   |
| 50th percentile         | -79.07   |
| 75th percentile         | -78.99   |
| 90th percentile         | -78.96   |

Variable Notes: x

Estimated location of the building Longitude.
 Based on building inventory.

3. Coordinate Reference System: EPSG:4326.





#### y: Latitude

| aracteristic Variable details                  | Variable characteristic |
|--|-------------------------|
| numeric (F                                     | variable type           |
| total cases 52                                 | total cases             |
| valid cases 52                                 | valid cases             |
| sing cases                                     | missing cases           |
| of measure Deg                                 | unit of measure         |
| of analysis Bui                                | unit of analysis        |
| range minimum value: 34.34 to maximum value: 3 | range                   |
| mean 3   | mean                    |
| median 3                                       | median                  |
| d deviation                                    | standard deviation      |
| percentile 3                                   | 10th percentile         |
| percentile 3                                   | 25th percentile         |
| percentile 3                                   | 50th percentile         |
| percentile 3                                   | 75th percentile         |
| percentile 3                                   | 90th percentile         |

Variable Notes: y

Estimated location of the building Latitude.
 Based on building inventory.

3. Coordinate Reference System: EPSG:4326.









#### **Key Terms and Definitions**

American Community Survey (ACS): "The American Community Survey (ACS) is a nationwide survey designed to provide communities a fresh look at how they are changing. The ACS replaced the decennial census long form in 2010 and thereafter by collecting long form type information throughout the decade rather than only once every 10 years." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_AmericanCommunitySurveyACS).

Census block: "A statistical area bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school districts, and county boundaries. A block is the smallest geographic unit for which the Census Bureau tabulates decennial census data... Over 11 million blocks were identified for the 2010 Census." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Censusblock).

Census block group: "A statistical subdivision of a census tract, generally defined to contain between 600 and 3,000 people and 240 and 1,200 housing units, and the smallest geographic unit for which the Census Bureau tabulates sample data. A sub-division of a census tract (or, prior to 2000, a block numbering area), a block group is a cluster of blocks having the same first digit of their four-digit identifying number within a census tract." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_BlockGroupBG).

Census tract: "A small, relatively permanent statistical subdivision of a county delineated by a local committee of census data users for the purpose of presenting data. Census tracts nest within counties, and their boundaries normally follow visible features, but may follow legal geography boundaries and other non-visible features in some instances, Census tracts ideally contain about 4,000 people and 1,600 housing units." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Censustract).

**Decennial census**: "The census of population and housing, taken by the Census Bureau in years ending in 0 (zero)." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Decennialcensus).

**Ethnicity**: The U.S. Census Bureau adheres to the U.S. Office of Management and Budget's (OMB) definition of ethnicity. There are two minimum categories for ethnicity: Hispanic or Latino and Not Hispanic or Latino. OMB considers race and Hispanic origin to be two separate and distinct concepts. Hispanics and Latinos may be of any race." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Ethnicity).

**Family Household**: "A family includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Familyhousehold).

**Household**: "A household includes all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Household).

**Household Income**: "The sum of the income of all people 15 years and older living in the household." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Householdincome)

**Householder**: "The person, or one of the people, in whose name the home is owned, being bought, or rented." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Householder).

**Housing Unit**: "A house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters.



Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Housingunit).

**Group Quarters**: "The Census Bureau classifies all people not living in housing units as living in group quarters. A group quarters is a place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents... Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_GroupQuartersGQ).

**Income**: "'Money income' is the income received on a regular basis (exclusive of certain money receipts such as capital gains and lump-sum payments) before payments for personal income taxes, social security, union dues, medicare deductions, etc. It includes income received from wages, salary, commissions, bonuses, and tips; self-employment income from own nonfarm or farm businesses, including proprietorships and partnerships; interest, dividends, net rental income, royalty income, or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); any cash public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability benefits; and any other sources of income received regularly such as Veterans' (VA) payments, unemployment and/or worker's compensation, child support, and alimony." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Income).

**Nonfamily Household**: "A nonfamily household consists of a householder living alone (a one-person household) or where the householder shares the home only with people to whom he/she is not related (e.g., a roommate)." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Nonfamilyhousehold).

Race: "The data on race were derived from answers to the question on race. The U.S. Census Bureau collects race data in accordance with guidelines provided by the U.S. Office of Management and Budget (OMB), and these data are based on self-identification. The racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race question include race and national origin or sociocultural groups. OMB requires that race data be collected for a minimum of five groups: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander. OMB permits the Census Bureau to also use a sixth category - Some Other Race. Respondents may report more than one race." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Race).

**Tenure**: "Refers to the distinction between owner-occupied and renter-occupied housing units." (U.S. Census Bureau Glossary: https://www.census.gov/glossary/#term\_Tenure).









