

Census Basics and Obtaining Stats from data.census.gov



CENTER FOR PUBLIC AFFAIRS RESEARCH

David Drozd and KaNin Reece

ddrozd@unomaha.edu 402.554.2132

Kanin.L.Reese@census.gov 301.763.3493

30th Annual Nebraska Data Users Conference

August 14, 2019



@UNOmahacpar
#Nebraskabythenumbers



@unocpar

Questionnaires for Major Census Programs

- Short form:
 - **Basic** decennial Census questionnaire sent to most households in 2000 and all households in 2010
 - Records simple demographics like age, gender, race, housing tenure (own or rent)
- Long form:
 - **Detailed** decennial Census questionnaire sent to a sample of about 1 in 6 households in the 2000 Census but not used in 2010 Census (replaced by ACS)
 - Recorded socio-economic and detailed housing information
- American Community Survey (ACS):
 - Continuous sample survey (forms sent every month) compiled to provide **current annual data**
 - Nearly identical to long form – allowed 2010 Census to be short form only (simply a headcount)
 - 2019 ACS (and in future years) continues monthly surveying even though decennial census is not yet currently being conducted
 - The ACS is subject to the federal budget so it will only continue if funded into the future

Census Datafiles

- Summary File 1 (SF 1): Used for both 2000 and 2010 basic demographic data from the short form: age, gender, housing tenure (own vs. rent), etc.
 - SF 2 has the SF 1 tables available by race, for detailed racial combinations, tribes, etc.
- Summary File 3 (SF 3): **Not part of 2010 Census, replaced by ACS datasets**; has detailed socio-economic and housing data from the 2000 long form
 - Also has figures for SF 1 items (age) but they are based on a “weighted” sample, not the official counts

BE CAREFUL – You must go to the right source to get the correct data!

- ACS Datasets: contain data for ACS variables; are based upon the timeframe over which the data was collected

- 1-year: 2016 5-year: 2012-2016

- **Do NOT Compare ACS datasets to SF 1 from the decennial census**

- Compare SF 1 from 2000 to: —————→ SF 1 from 2010
- Compare SF 3 from 2000 to: —————→ ACS datasets



ACS Datasets Correspond to Geography's Population

| Time Period of Data | Population Threshold for Data Release | Nebraska Areas with Data |
|--|--|---|
| Annual Estimates (2005, 2006,...2017) | 65,000 or more | State; Omaha and Lincoln; Douglas, Lancaster, Sarpy Counties; Omaha, Lincoln, Millard Schools |
| 3-Year Aggregates (2005-2007...2011-2013) | 20,000 or more, but no longer produced | All of the above plus regional centers like Kearney, Norfolk, etc. |
| 1-year supplemental estimates (2014, 2015,...2017) | 20,000 or more | All of the above plus regional centers like Kearney, Norfolk, etc. |
| 5-Year Aggregates (2005-2009...2013-2017) | No threshold | All areas--counties, cities, townships, census tracts, zip codes, school districts, legislative districts, etc. |

Advantages of the aggregated 5-year ACS data

- Figures available for all geographies
 - Only way to compare all counties or cities in a state
- For areas that get annual data, the aggregates based on more completed surveys will be more accurate and have smaller margins of error
 - Especially important for sub-groups—only use the 5-year data for anything race or age specific (Black education; Asian home ownership; child poverty)
 - Will help reduce variability in year-to-year figures
 - Some 1-year tables are not released because of inaccuracy concerns—some of those tables may be available in the 5-year data
- When comparing areas, do not compare a 1-year estimate for say Douglas County with a 5-year estimate for another area



Geography

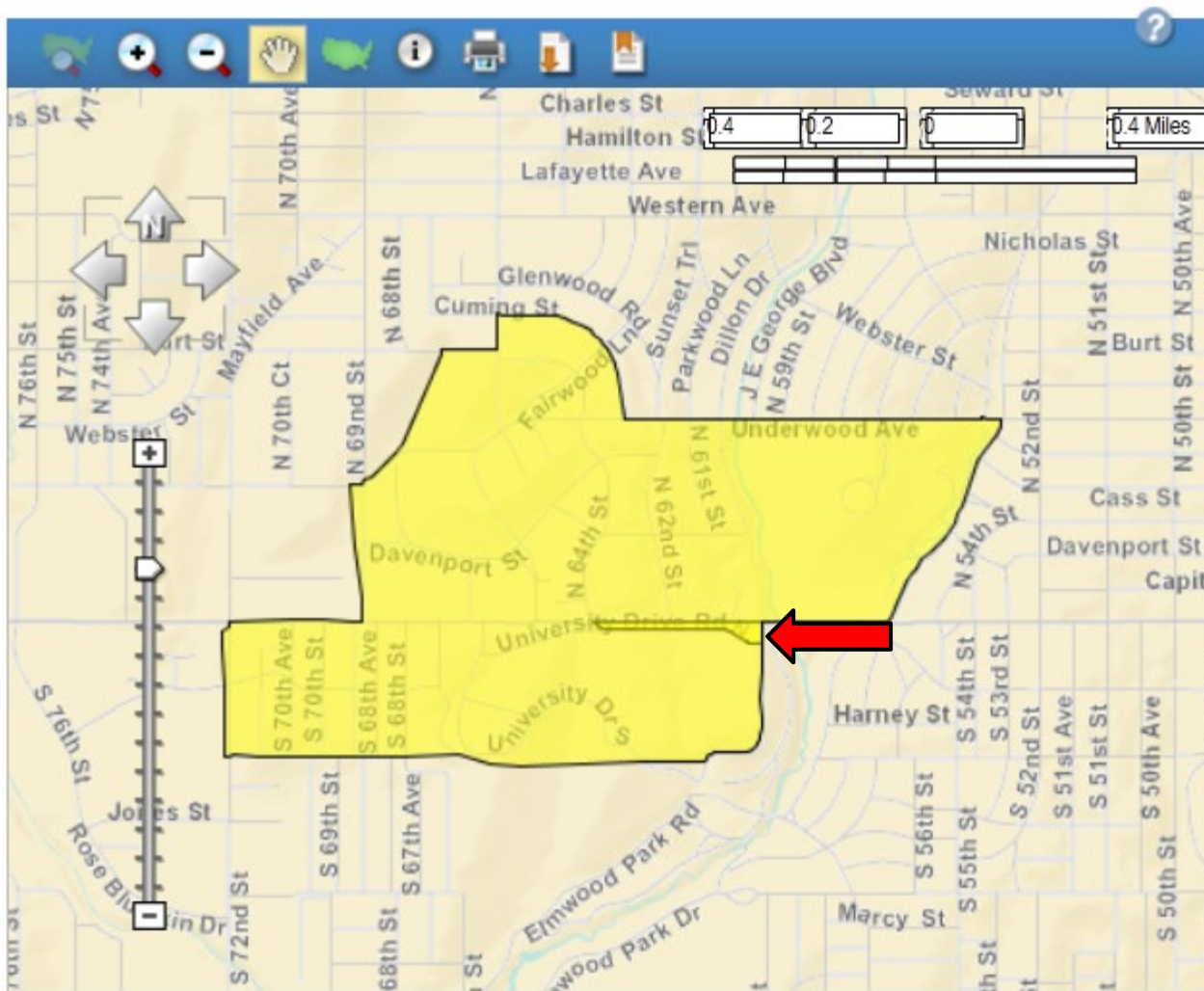
- Size continuum: large to small, or small to large
- Legal/Administrative vs. Census/Statistical
 - Nation—State—County—City—Township
 - Block—Block Group—Census Tract—Zip Code—PUMA—Metro Area (MSA)—Division—Region



*The West North
Central Division of
the United States*

Data available in
Decennial Census.

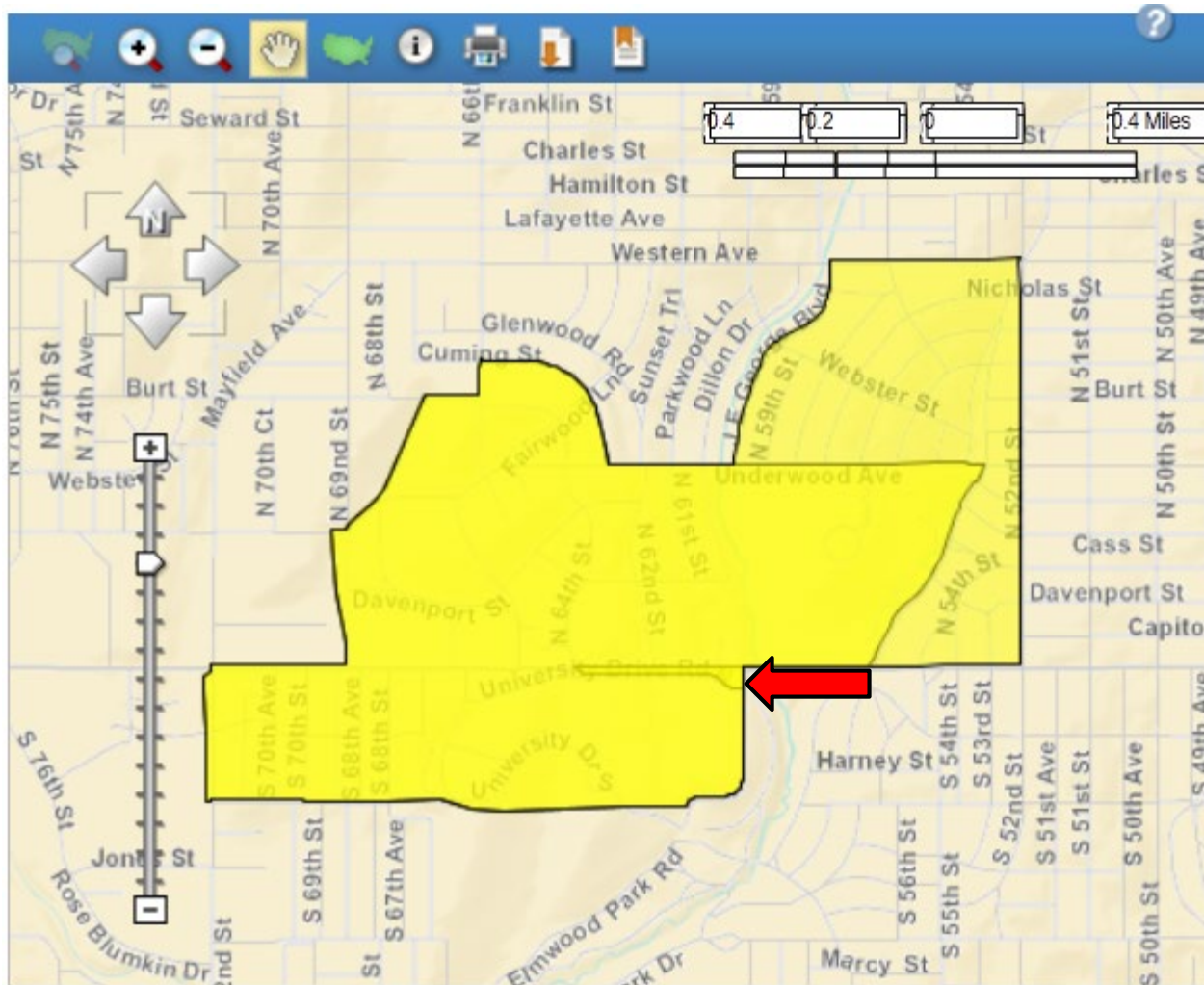
Block 2022 in **Block Group 2**, Census Tract 47 Douglas County, NE



A group of usually about 15-30 blocks comprise a “block group”.

Block group data is available in the ACS but is not very accurate/reliable.

Block 2022 in Block Group 2, **Census Tract 47** Douglas County, NE

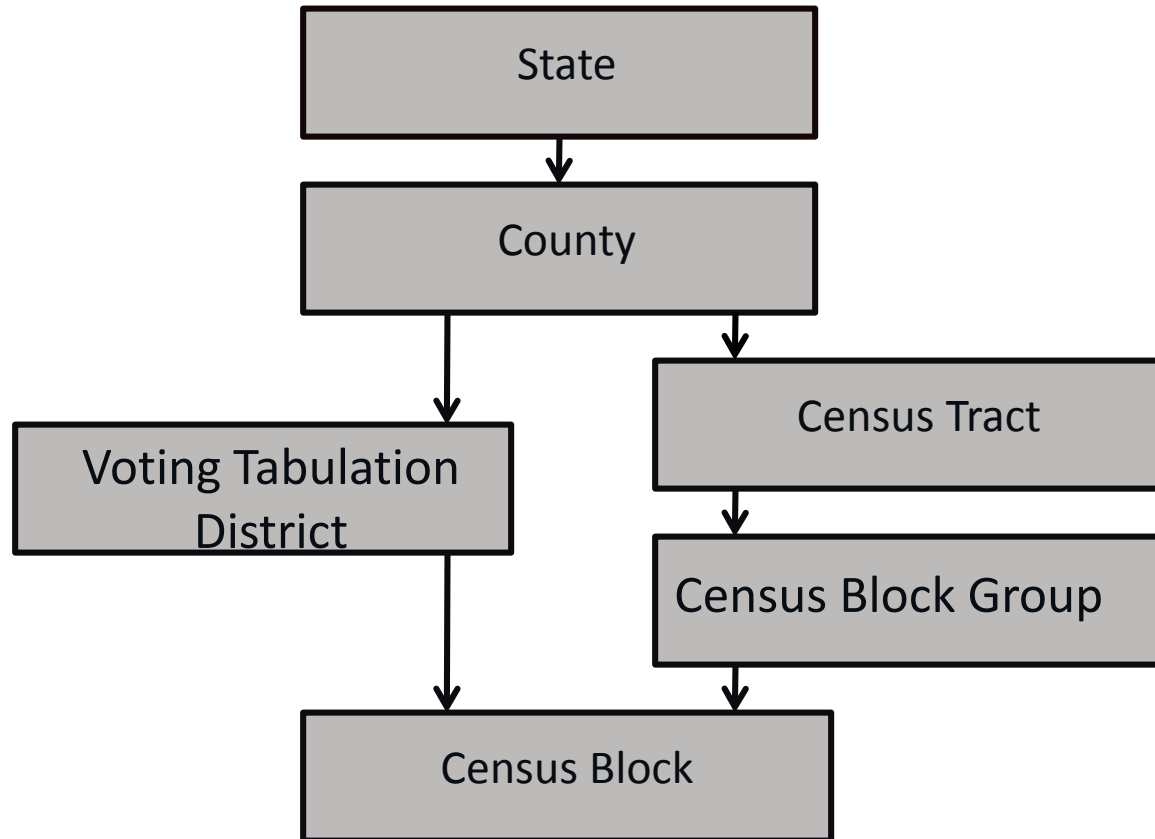


Two or more block groups comprise a “census tract”.

Census tracts typically have ~4,000 people and nest within counties.

Tracts and zip codes are the key geographies for small area analysis.

Census Geography and How it Nests



Important Concepts: Race/Ethnicity

- Race and Ethnicity were asked as two separate questions in 2000 and 2010
 - Same approach in 2020
- First, each person lists whether they are Hispanic/Latino or not
- Then, they list one or more races (White, Black, Asian, etc.)
 - The option to select 2+ races was first used in 2000
 - 2020 fill in boxes for White and Black are new; will be best source for numbers of Somali, Sudanese, etc.

Asked in some form since 1790

What is this person's race?
Mark ☒ one or more boxes **AND** print origins.

☐ White – Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc. ☐

☐ Black or African Am. – Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc. ☐

☐ American Indian or Alaska Native – Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc. ☐

☐ Chinese ☐ Vietnamese ☐ Native Hawaiian

☐ Filipino ☐ Korean ☐ Samoan

☐ Asian Indian ☐ Japanese ☐ Chamorro

☐ Other Asian – Print, for example, Pakistani, Cambodian, Hmong, etc. ☐

☐ Other Pacific Islander – Print, for example, Tongan, Fijian, Marshallese, etc. ☐

☐ Some other race – Print race or origin. ☐

RACE AND ETHNICITY

The United States and the World



EDITED BY RAYMOND SCUPIN

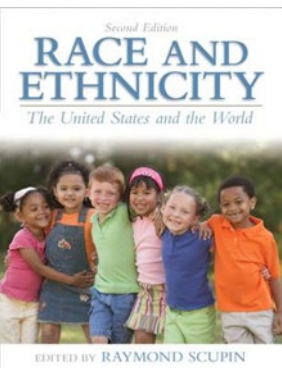
Is this person of Hispanic, Latino, or Spanish origin?

- ☐ No, not of Hispanic, Latino, or Spanish origin
- ☐ Yes, Mexican, Mexican Am., Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, another Hispanic, Latino, or Spanish origin – Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc. ☐


Asked in some form since 1970

Important Concepts: Race/Ethnicity continued

- Since race and ethnicity are two separate questions, we need to work with the “crosstab” of the two to avoid double counting
 - For example, someone who is Hispanic/Latino and selects a race of Black would be listed in both the ethnicity and race data table
 - Typically we want to view race/ethnicity together
 - For example, compare non-Hispanic Whites and minority populations
 - Best practice is to list Hispanic/Latino, and then all races as non-Hispanic
 - Many grants request data for Whites, Blacks, Hispanics, etc. – this can be problematic
 - Use ACS table B03002 or DP-05 or Decennial Census table DP-1 to get the crosstab



ACS DEMOGRAPHIC AND HOUSING ESTIMATES

Geography: Nebraska [CHANGE GEOGRAPHY](#)Year: 2017 [CHANGE YEAR](#)Estimates: 1 Year 

| | | |
|--|-----------|-----------|
| ▼ HISPANIC OR LATINO AND RACE | | |
| ▼ Total population | 1,920,076 | 1,920,076 |
| ^ Hispanic or Latino (of any race) | 209,917 | 10.9% |
| ▼ Not Hispanic or Latino | 1,710,159 | 89.1% |
| White alone | 1,517,634 | 79.0% |
| Black or African American alone | 87,147 | 4.5% |
| American Indian and Alaska Native alone | 12,823 | 0.7% |
| Asian alone | 46,837 | 2.4% |
| Native Hawaiian and Other Pacific Islander alone | 1,130 | 0.1% |
| Some other race alone | 1,662 | 0.1% |
| ▼ Two or more races | 42,926 | 2.2% |

Second Edition
RACE AND ETHNICITY
The United States and the World



EDITED BY RAYMOND SCUPIN

Key Product Types

- Data Profile:
 - Four profiles containing the most commonly used statistics
 - Social (DP2), Economic (DP3), Housing (DP4), Demographic (DP1 or DP5)
- Comparison Profile:
 - Same as data profile but lists multiple time periods side by side to see changes
 - Similar labeling system – CP2, CP3, etc.
- Subject Table:
 - Very useful as gives key statistics split by age, gender, race/ethnicity, etc.
 - Usually in both numbers and
 - A one stop shop for all aspects relating to education (S1501) or poverty (S1701)
- Detailed table:
 - Gives you the raw figures
 - Often best for downloading many geographies
 - Have to calculate percentages yourself (not done for you like in the others)

Important Concepts: Householder and Relationship

- Householder: the first person on the census form (who fills it out)
 - Supposed to be the person “in whose name the residence is owned or rented”
 - Person in household with “time” might fill out the form: grandparent, adult child
 - Can be male or female; is somewhat arbitrary but makes a big difference for how families and items like poverty are defined/calculated
- Relationship: how other people living in the household are connected to the householder
 - Spouse, child (biological, adopted, step), parent-in-law, roommate, unmarried partner, foster child, etc.
 - A “family” household is where at least one other person is related to the householder
 - One person living alone as well as unmarried partners are not families by definition
 - Median family income doesn’t include all households; median household income does



| | | | |
|--------------------------------|--|-----------|-----------|
| ▼ HOUSEHOLDS BY TYPE | | | |
| ▼ Total households | | 754,490 | 754,490 |
| ^ Family households (families) | | 484,989 | 64.3% |
| ▼ Nonfamily households | | 269,501 | 35.7% |
| ▼ Householder living alone | | 220,493 | 29.2% |
| ▼ RELATIONSHIP | | | |
| ▼ Population in households | | 1,868,061 | 1,868,061 |
| Householder | | 754,490 | 40.4% |
| Spouse | | 384,333 | 20.6% |
| Child | | 543,278 | 29.1% |
| Other relatives | | 76,075 | 4.1% |
| ▼ Nonrelatives | | 109,885 | 5.9% |
| Unmarried partner | | 43,790 | 2.3% |



Let's use data.census.gov to find median household & median family income.

2017 1-yr ACS: household=\$59,970 while family=\$75,112 (from B19013 & B19113)

When you wonder if data is available...

- Use the search functions – key words work well
- Look at the questionnaire – if it wasn't asked, it won't be available!
 - ACS questionnaire archive:
 - <https://www.census.gov/programs-surveys/acs/methodology/questionnaire-archive.html>

How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?

☐ None

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6 or more

Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a – h.

| | Yes | No |
|---|--------------------------|--------------------------|
| a. Insurance through a current or former employer or union (of this person or another family member) | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Insurance purchased directly from an insurance company (by this person or another family member) | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Medicare, for people 65 and older, or people with certain disabilities | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability | <input type="checkbox"/> | <input type="checkbox"/> |
| e. TRICARE or other military health care | <input type="checkbox"/> | <input type="checkbox"/> |
| f. VA (including those who have ever used or enrolled for VA health care) | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Indian Health Service | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Any other type of health insurance or health coverage plan – <i>Specify</i> | <input type="checkbox"/> | <input type="checkbox"/> |

Population Estimates Program: Overview

- Provides the official head and housing unit counts in non-census years
 - Shows how the population has changed since the Census
 - Has figures by age, sex, race/ethnicity for counties and states
- As of July 1 of the specific year
- Staggered releases throughout the year
 - Large geographies first, most detailed data last
- The current release/vintage always supersedes prior year's releases
 - Can create confusion for why one 7-1-16 estimate will differ from another—cite the source and release date
- You always have to be going and getting/using the most currently released data
- Estimates differ from projections
 - Estimates are the newest look at our current population
 - Projections predict the population structure in the future



Population Estimates Program: Importance

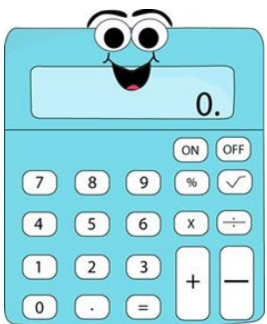
- The estimates give us our best look and official figures for how the population has changed since the Census
 - Some grants and \$ allocations are calculated based on the estimates
 - On demographics, it is the estimates and not the ACS that are the official population source – use it for age, gender, race
- Is Nebraska growing more or less than regional/neighboring states and the U.S.?
- What population components are changing (births, migration)
- How is the state's population distribution (more growth in metro counties) and age/race structure changing?
 - Migration of baby boomers and those age 20-34 is key
 - Are minority growth patterns continuing?



Important
Information

Upcoming Key Data Releases

- September 10, 2019
 - National income, poverty, and health insurance reports from Current Population Survey (CPS)
 - State level health insurance from ACS
 - Supplemental Poverty Measure (national and state rates accounting for noncash program benefits and different costs like child care and medical)
- September 26
 - 2018 one-year ACS (Data Profiles, Detailed Tables)
 - Comparison Profiles and Subject Tables released later on Oct. 17
- December 19
 - 2014-2018 five-year ACS (Data Profiles, Detailed Tables)
- Late December and then March 2020
 - July 1, 2019 population estimates and components of change for states and then counties, respectively



The End Comments, Q & A



Visit our website at:
www.unomaha.edu/cpar