Community Tabulation Areas - DRAFT

Background

The Census Bureau provides aggregated survey data on people and households at several geographic levels. The smallest level, the census block, corresponds to actual city blocks. Census blocks are then aggregated into block groups with target populations of 1,500 and census tracts with target populations of 4,000. Unfortunately, the county is the next largest unit, leaving a large gap in geographic levels for researchers wishing to analyze data at the neighborhood or community level, which is typically considered to be larger than the census tract level.

The closest existing geographies within Houston to fill in this gap are the super neighborhood geographies, which are designated by the City of Houston Planning and Development Department; however, super neighborhood boundaries do not necessarily coincide with census boundaries and they only cover the area within the official limits of the City of Houston. Researchers wishing to study neighborhoods using census data and other data aggregated to census geographies are thereby left to develop methods for apportioning their data to each super neighborhood boundary and are limited in geographic extent to Houston proper.

A geographic boundary developed by the Census Bureau that is similar in size to super neighborhoods are zip code tabulation areas (ZCTAs). Census data and much survey and health data are commonly available aggregated at the zip code level, but because zip code boundaries were developed to optimize mail delivery, they do not necessarily take societal conceptions of community and the physical infrastructure that ties communities together into consideration in their creation.

Purpose

The community tabulation areas (CTAs) developed by the Kinder Institute are designed to serve as approximations of neighborhoods, based specifically on census geographic boundaries, to facilitate the aggregation of census data to geographies larger than census tracts, but smaller than counties. By taking social community boundaries, such as super neighborhoods, market areas, and school districts into account, it is hoped that CTAs will serve as a more suitable approximation of neighborhoods than ZCTAs.

Description

Each census tract is assigned to exactly one CTA and each CTA is composed of one or more census tracts. The CTAs in Harris County contain between 1 and 29 census tracts with a median of 4 census tracts. The *CensusTract2010_CTA_Crosswalk_Harris.txt* file contains a tabular crosswalk linking each 2010 census tract to a particular CTA. There is also a geodatabase feature class of the same name, which contains the same tabular information, but also allows for visual display and spatial analysis of the corresponding census tract boundaries, each assigned to their CTA. The census tracts were then dissolved based on their assigned

CTA to create the *CensusTract2010CTAs_HarrisSplit* geodatabase feature class, which contains only the CTA boundaries for Harris County, without showing the component census tract boundaries.

Methodology

The overall principle in assigning census tracts to CTAs was to follow super neighborhood boundaries and incorporated city boundaries, where they exist, and to follow school district boundaries in unincorporated areas. This assignment process is further elaborated below.

City of Houston

For areas within the City of Houston, super neighborhood boundaries were the primary reference source for grouping census tracts into CTAs. When a census tract lay entirely or almost entirely within a super neighborhood, it was assigned to a CTA of a similar name. In the example to the right, tracts 4108 and 4019 lie completely within the Neartown-Montrose super neighborhood, so they were assigned to the Montrose CTA. Tracts 4105 and 4107.02 lie predominately within the Neartown-Monstrose super neighborhood, so were also assigned to the Montrose CTA.

For tracts spanning two or more super neighborhoods, other factors were taken into consideration to determine to which of the two corresponding CTAs to assign the tract, including number of residential parcels and connectivity of major roadways. The primary factor was the number of residential parcels in each of the neighborhoods within the tract. When one of the two neighborhoods had significantly more residential parcels in a particular census tract than the other neighborhood, then the tract was assigned to the CTA corresponding to the neighborhood with more residential parcels. Connections of major roads were also taken into consideration. For example, if major roads provided significantly more connections between the tract under consideration and other tracts already assigned to one of the two CTAs, but not between the other CTA, then the tract was assigned to the CTA with more connections.

In a small number of cases, the area of the tract, the number of residential parcels, and the connectivity was so close, that a subjective decision was made. When possible, the compact contiguity of the resulting CTA was taken into consideration, with a preference for compact CTAs, rather than extended linear or noncontiguous CTAs.

Beyond super neighborhoods, there were several other community boundary types that were reviewed, including Houston Area Realtors (HAR) market areas, high school attendance boundaries, management districts, and tax increment reinvestment zones (TIRZ). In many
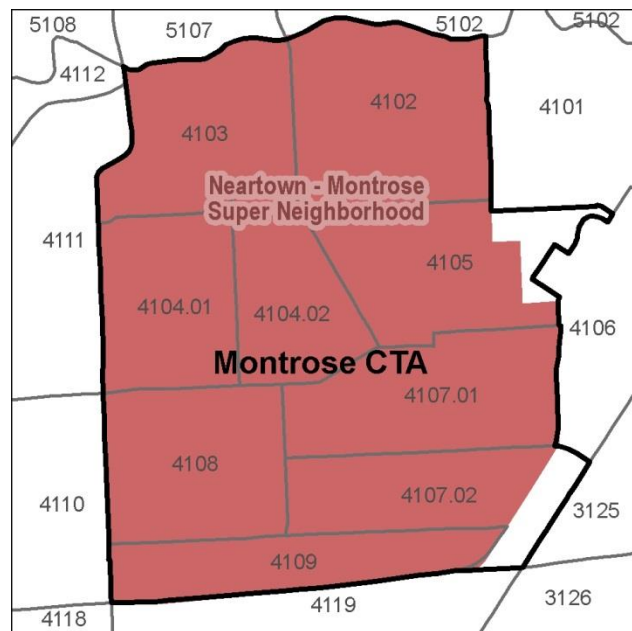
cases these other boundaries were used to confirm agreement with the super neighborhood boundaries, but they were occasionally used to split a super neighborhood or to provide boundary guidance outside city limits.

Other Cities

For areas outside of the City of Houston, other city limits were used for reference. Because outlying cities are closer in size to super neighborhoods than to Houston, no other city besides Houston was assigned more than one CTA.

Unincorporated County

For unincorporated areas of Harris County, the primary reference source was school districts, with HAR market areas playing a secondary role. Since rural school districts are large and are frequently separated by incorporated cities, contiguity was another significant factor. If the unincorporated areas of a particular school district were split into noncontiguous sections, then a separate CTA was created for each section and a directional suffix was added to the CTA name.

Multi-County CTAs

There are a few CTAs, such as Katy, that span multiple counties. For users performing multi-county studies, there is a *KCTA_NAME* field, containing the value "Katy". For users intending to study only Harris County, there is a KCTA_NAME_BYCOUNTY field, which stores the CTA name as "Katy: Harris". Users wishing to identify any partial CTAs within the county could perform a search for the colon character, which is not otherwise included in a CTA name.

Naming

CTAs are assigned names based on the primary reference used in establishing their boundaries, such as a super neighborhood, market area, or school district. When a larger region was subdivided into multiple CTAs, especially in the case of unincorporated school districts, directional suffixes were added to the name, such as Aldine Northeast.

Numbering

Numbering of the CTAs was conducted after the assignment of census tracts had been completed. CTAs were numbered starting from downtown and spiral progressively larger in a clockwise fashion following the concentric beltway pattern, as illustrated below.

CTA Numbering

- 001: Downtown
- 002-031: Inside 610
- 032-087: Inside BW 8
- 088-117: Inside SH 6 & FM 1960
- 118-140: Inside Grand Parkway
- 141-143: Outside Grand Parkway