



Neighborhood Change Database 2010

The Urban Institute, a nationally known nonprofit, public policy research organization, and GeoLytics, Inc., a private firm specializing in the development of demographic and geographic data products, are producing an update of an important data resource that will enable policymakers, community organizations, and researchers to examine and analyze changes that have occurred in U.S. neighborhoods over the past four decades. *Neighborhood Change Database (NCDB) 2010* will combine tract-level data from the 1970–2010 decennial censuses and the latest American Community Survey into one easy-to-use product, providing a unique source of data with variables and tract boundaries that are consistently defined across years. *NCDB 2010* is expected to be released for purchase from GeoLytics in fall 2012 (owners of previous versions of the NCDB will be eligible for special upgrade pricing for *NCDB 2010*).

The NCDB is the only source that provides data for the nation's 74,000 census tracts as of each census year going back to 1970 with (1) consistently defined variables and (2) consistent census tract boundaries. These features make it extremely valuable for users who want to examine patterns of neighborhood change over time. Accordingly, *NCDB 2000* has been used extensively by researchers from a variety of fields. NCDB builds off similar efforts by Urban Institute researchers for earlier census years that were not as extensively marketed. Development of these past databases, as well as the current work to produce *NCDB 2010*, has been made possible through the generous support of the Rockefeller Foundation.

Although it would be possible to download some census data at no charge from the Census Bureau's web site, the NCDB lowers the barriers to accessing and using these data for many users. The individual files would have to be read using database or data analysis software and combined with each other to create a complete set of indicators for a particular area. Even if one had the technical capability and skill to accomplish this, it still would be a very time-consuming task. In addition, because of changes made to questionnaires and summary tabulations from census to census, it is very challenging to reliably define the same indicators consistently over time. The NCDB addresses this problem by providing a set of standard, uniformly named data elements that make it easy for users to track the same indicators across census years.

Along with changes in data definitions, the redrawing of census tract and other geographical boundaries must also be taken into account. As populations change, census tracts get redefined so that a reasonably uniform distribution of people in tracts can be maintained. If, for instance, a tract grows in population between censuses, it may be split into two or more separate tracts in

later years. Or several existing tracts may be reconfigured into new tracts for subsequent censuses. This problem is not insignificant. An analysis of 1990 and 2000 census tract boundaries showed that about 46 percent of all tracts were redefined between these two census years.

To make more accurate comparisons of neighborhoods over time, one must adjust for the redefinition of tract boundaries. Using geographic information system (GIS) technology and taking advantage of GeoLytics' access to geographic boundary files and block-level data for previous censuses, a methodology has been developed to "remap" earlier data to a standardized set of 2010 census tract boundaries. Furthermore, each tract will be identified according to the city, county, and metropolitan area in which it is located. Like tracts, the definitions of these areas also change from time to time, making comparisons across years difficult. The NCDB allows consistent analysis of data for these larger geographies, too.

An additional challenge that will be addressed by *NCDB 2010* is the change in how the Census Bureau collects the detailed population, economic, and housing data that were previously part of the decennial census "long form." These detailed indicators, which include items such as household income, employment status, and housing costs, are no longer collected as part of the decennial census but rather through the American Community Survey (ACS). Rather than once every 10 years, the ACS is collected on an ongoing basis. While the advantage is that data updates are more frequent than was the case with the decennial census, the ACS's sample size is much smaller than that of the census long form. As a result, tract data are only available as five-year estimates—that is, five years' worth of ACS data must be combined to produce numbers at the census tract level. *NCDB 2010* will use data from the latest ACS release, the five-year data for 2006–2010, to create updated indicators comparable to those created from previous decennial census long forms.

Another feature of the NCDB is its ability to be used easily by a variety of audiences. *NCDB 2010* will be released on DVD and CD using GeoLytics' data compression and mapping technology. The data can be accessed using the menu-driven, user-friendly mapping and analysis software included on the same disk, or the data can be extracted for use in external database, mapping, and analysis applications.

The NCDB project is being directed by Peter Tatian at the Urban Institute. For more information, please contact ncdb@urban.org.