The NEO CANDO Database: How it Can be Used to Help Understand the Surrounding Environment

The Northeast Ohio Community and Neighborhood Data for Organizing (NEO CANDO) database is a constantly evolving, web-based information technology tool designed as a “one-stop-shop” to help inform decisions about the surrounding environment. The geographic focus of NEO CANDO is the 17 counties of Northeast Ohio and the various geographic levels within those counties. Within NEO CANDO, users can extract and map data across geography, time, and data source. Available data sources in NEO CANDO include the U.S. Census Bureau, the United States Postal Service, the Internal Revenue Service, the Ohio Department of Health, the Cuyahoga County Juvenile Court, the Cuyahoga Department of Children and Family Services, and the Cleveland Police Department. Demonstrations on how to use NEO CANDO will be available and other information about the Poverty Center’s research will also be presented.

**Key Functionality**
- Flexible geography
  - Drill down from higher to lower geographies
  - Locally defined geographies incorporated
  - Integrated interactive mapping
  - Extract across data sources
  - Extract across time (15 years of historic data for trend analysis)
  - Filter parcel data to meet specific needs
  - Display results in several ways (pdf, mapping, chart, csv, table)
- Metadata driven using portal technology
  - Allows for easy update of database
  - Password protected power-user has access to sensitive information

**Goals**
- **Impact**
  - Bring reality and rationality to decision-making
  - Promote smart social and economic development
  - Lower the cost of planning, project development and strategic work that public and private investors employ to undertake projects

**Data Integration and Acquisition**
- Establish more data partnerships with government, academic and nonprofit organizations
- Data Acquisition Portal (DAP) - online survey tool
- Real-time data served directly to/from data partners

**Outreach and Technical Assistance**
- Train users to delve into the system deeper and find more effective meaning in the data
- Design training sessions that appeal to users across the region from different types of organizations
- Promote communication that engages current users and engages new users
- Incorporate user feedback into the development of new tools, data sources and functionality

**How NEO CANDO Has Been Used**
- Help to better understand communities
- Determine community needs
- Target geographic areas for programs
- Write grants and proposals for program funding
- Monitor program impacts
- Track local effects of policy
- Evaluate progress toward neighborhood change

The NEO CANDO in Practice Series provides more details about how the database has been used.

**Data Sources**
- Cleveland Metropolitan School District
- Cleveland Police Department
- Cuyahoga County Auditor (via Cleveland State University)
- Cuyahoga County Coroner
- Cuyahoga County Employment and Family Services
- Cuyahoga County Juvenile Court
- Cuyahoga County Recorder (via Cleveland State University)
- Federal Reserve Bank Financial Institutions Examination Council (PFIEC)
- Internal Revenue Service
- Ohio Department of Health
- U.S. Census Bureau
- United States Postal Service/U.S. Department of Housing and Urban Development
- Local data warehouse (data and metadata)
- Remote data warehouse with real-time access

**Behind the Scenes**
- Data and metadata warehouse – SAS datasets
- Web portal – Java/JSP environment using a JDBC connection to access metadata to dynamically build selection boxes
- Data Access – A string of SAS commands is created based on user input and sent to a SAS server to generate results
  - Format: html output, mapping output, pdf, and csv
  - Any functionality/data analysis tools available in SAS potentially could be available to the web portal
- Mapping – ArcIMS using Active-X/ASP
  - Results are classified/categorized on-the-fly and dynamically joined to a shapefile for display by building an ArcXML string

**Quick Profiles**
- User provides more details about how the database has been used.

**Work in Progress**
- Enhancing the charting capabilities
- Including additional data sources
- Improving the mapping
  - Draw box on map/radius search to access data
  - Overlay multiple variables on same map
- Real-time virtual data warehousing

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Buckeye Area Development Corporation’s Housing Specialist, Debra Peck-Baumgardner, is committed to improving the social and economic conditions in Cleveland’s Buckeye neighborhood. She takes the approach that change happens within communities, “one house at a time, one block at a time.”

As part of her responsibilities as a Housing Specialist, Debra works with homeowners and landlords within the neighborhood to maintain the condition of their property. The goal of BADC’s housing rehabilitation program is to encourage successful homeownership within the neighborhood, which is defined by BADC as high levels of owner occupied properties, financially sustainable owners, meeting monthly responsibilities, and realizing homeownership as a wealth building tool.

The Neighborhood Model Block Program, in partnership with Cleveland based, Neighborhood Progress Inc., is a targeted community development initiative which focuses resources into a specific street, block, or number of houses within the neighborhood. The program seeks to create and sustain neighborhoods where homeowners are able to maintain their home, build assets, and also to attract new economically diverse residents to the neighborhood.

Debra utilized NEO CANDO in order to compare the model block area to other blocks within the neighborhood, and to the neighborhood as a whole. Debra accessed the average income levels of residents, mortgage information, and the age of residents. She says that putting all the data together, allows the agency to ask the right questions about what types of assistance and change are needed with the targeted area.

NEO CANDO data revealed that the residents in the targeted block area had higher incomes than BADC expected, and were mature homeowners. This finding let Debra know that the model block was a “really solid street to receive efforts in home improvement.” The housing rehab program served 28 homeowners in 2006, providing a 50/50 matching grant, up to $2,000, to homeowners in order to repair the exterior of their homes. “Many homeowners wanted to improve the conditions of their homes,” Debra explained. “The problem was, they didn’t know how to get started. Once they were approached, and given guidance, encouragement, and resources, they were more likely to go ahead with their home improvement project. We are trying to show homeowners that these improvements contribute to the long run investment in protecting the value of their homes.”

NEO CANDO assisted Debra in providing the “framework for the neighborhood.” The ability to access information at the block and parcel level allows her to target capital to specific homeowners and blocks that have the greatest potential for improvement.

Feedback from residents in the model block area has revealed that the efforts of the agency are having a desirable effect. “Residents are happy with the changes they are seeing in the neighborhood, many families have indicated that they want to stay long term.” The investment that BADC makes in individual homes has a systematic effect on surrounding residents and homeowners, by encouraging them to make improvements and maintain the condition of their homes as well. “We have had people tell us that after seeing the changes happening to other homes in the neighborhood, individual homeowners have undertaken improvement projects on their own.” Using NEO CANDO to target promising blocks is the first step in a long term goal for Debra. “Methodical change leads to sustainable change. I want you to come to this neighborhood twenty years from now and see the changes that we helped bring about.”
Steps to a Healthier Cleveland provides information, resources, support and services to Clevelanders seeking to make healthy lifestyle changes. The program educates residents about the health risks of physical inactivity, poor nutrition, and tobacco use and exposure.

The Cleveland Department of Public Health, the administrator of the Steps program, commissioned the Center for Health Promotion Research at Case Western Reserve University to evaluate one of the outstanding program activities of the Steps program, the enhancement and development of community gardens within Cleveland neighborhoods.

Matt Russell, a Center for Health Promotion Research Project Coordinator, explains that the goals of the Steps to a Healthier Cleveland program include “increasing access to fresh and healthy foods, and increasing levels of physical activity among residents.”

Matt utilized NEO CANDO in order to provide an overview of the neighborhoods in which the individual gardens are located. Matt says, “I wanted to provide the reader with a context of the social and demographic makeup of the residents in the neighborhoods.”

In his 2006 Community Garden Report, Matt highlighted ten of the sixteen Steps community gardens in Cleveland. The garden profiles included an overview of the program, and description of the garden that included information on the age of the garden, the number of gardeners, how the produce is used, and other garden facts.

In order to create this basic demographic profile of Cleveland neighborhoods, Matt accessed the Quick Profiles of NEO CANDO, and downloaded reports for each neighborhood. In the report Matt included the total population, the racial/ethnic makeup of the population, age groups, and educational status. Matt says using NEO CANDO “gave me the information that I wanted and was user-friendly.”

See the full report at http://www.case.edu/affil/healthpromotion
Longwood Plaza, a dilapidated shopping center located at the corner of East 40th Street and Community College Boulevard was a thriving open-air market of drug dealing. It was not uncommon to see people wearing bulletproof vests and carrying weapons in the area. The presence of this drug dealing activity made the corner one of the most dangerous areas in the city of Cleveland.

Another problem facing residents of the neighborhood was the lack of nearby shopping centers. Residents were forced to travel more than two miles in order to buy groceries. Many residents in the neighborhood lack personal vehicles, making it even more difficult to buy and bring home affordable groceries, as they were forced to use public transportation.

A redevelopment project of the corner was undertaken by Burten Bell Carr Development and Neighborhood Progress Inc. as a means to eliminate blight, reduce crime, encourage investment in the neighborhood, and provide much needed assets to the neighborhood, including a grocery store, a bank, and various retail outlets. The project has successfully transformed the area which was once a source of danger and violence into an enormous asset which benefits residents of the neighborhood by providing nearby shopping, financial services, and a sense of community and safety.

Jeffrey Sugalski, a Real Estate Development Specialist at Burten Bell Carr Development, and his team from BBDC, submitted a grant proposal to the Dominion East Ohio’s 12th Annual Community Impact Awards highlighting the impact that the new development has had on the neighborhood. The award program honors organizations which have made a significant impact on their community. The development of the Arbor Park Place retail was the first large-scale development in the neighborhood in over forty years.

In his proposal, Jeffrey used the social and economic indicators section of NEO CANDO to look at the amount of crime happening in the census block group around the new shopping center before and after the redevelopment project. He found that between 2002 and 2005, the illicit drug offenses resulting in arrest fell from 104 to 2. Similarly, he found that drug possession arrests fell from 91 to 2 during the same years.

In addition, Jeffrey cited crime data from NEO CANDO showing that both Part I crimes (homicide, rape, robbery, aggravated assault, burglary, larceny-theft, auto theft, and arson) decreased by 50 percent during the same period. Part II crimes (non-aggravated assault, forgery, fraud, embezzlement, receiving stolen property, vandalism, weapons violations, prostitution, drug violations, family offenses, disorderly conduct, kidnapping and other offenses not classified as Part I crimes) went from 193 in 2002 to 35 in 2005.

The use of NEO CANDO data in Jeffrey’s proposal allowed him to pair reliable, factual data with what residents of the neighborhood had already witnessed. The neighborhood was a safer place to be following the development of Arbor Place Plaza.

Jeffrey’s proposal was awarded the top prize in the award contest, and Burten Bell Carr Development received $20,000 (twice as much as any other recipient). In reviewing Jeffrey’s proposal, the award funders stated that the inclusion of the data Jeffrey accessed through NEO CANDO was crucial to the organization’s first place finish. The money will be used by the organization in another redevelopment project with the hopes of continuing its successful efforts to improve conditions in the Central neighborhood.
Hunger, the uneasy or painful sensation caused by involuntary lack of food, has been shown to correlate with conditions of poverty.

Lacking the means to secure an adequate amount of food to maintain the physical health of a family, many individuals rely on food stamps and food pantries to supplement the food they are able to purchase.

In 2006, Terry Lenahan, a Policy and Planning Associate with the Cleveland-based Center for Community Solutions, set out to track hunger in Cuyahoga County and predict where services would be needed in the coming years.

Terry’s measure of hunger included two primary data sources: the number of food stamp recipients and the number of calls to the United Way’s First Call For Help hotline. Food stamp recipient data was obtained through the social and economic indicators section of NEO CANDO.

Using NEO CANDO, Terry was able to obtain the number of individuals receiving food stamp assistance in all thirty-six of Cleveland’s Statistical Planning Areas, as well as the fifty-eight suburban communities surrounding the City of Cleveland for the years 2000 and 2005. Based on this data, Terry was able to determine the rate of food stamp recipients per 1,000 population for both years, and then to chart the percentage increases in the number of food stamp recipients between 2000 and 2005.

Terry discovered that the total number of food stamp recipients was increasing in Cuyahoga County, the City of Cleveland, and within the Cleveland suburbs. In addition, she found the percentage increase was higher in the suburbs (88.6 percent increase) than in the city (28.7 percent increase). The data suggested that while the total number of people receiving food stamps remained much greater in the City of Cleveland, the rate of increase was higher in suburbs.

A similar trend existed in Terry’s analysis of the calls for food assistance placed to First Call for Help. The rate per 1000 population was highest within Cleveland, but the percentage increase was higher in the suburbs.

The final piece of analysis compared the number of food assistance sites in Cuyahoga County to the number of food assistance calls. Terry found that people living within Cleveland accounted for 61 percent of food assistance calls, and that 75 percent of food assistance sites were located in Cleveland. In comparison, the suburbs had only 25 percent of the food assistance sites in the county, yet accounted for 39 percent of food assistance calls.

Based on her findings, policy makers and service delivery organizations, such as food banks and food pantries, are able to anticipate the growing problem of hunger in Cuyahoga County, and begin planning to provide increased service in areas of the county that show an increasing trend of need. Terry feels that NEO CANDO makes it easy to find the specific data she needs to address the social and economic conditions of individuals living in Cuyahoga County. NEO CANDO, in her opinion, makes her job easier, by providing accessible data solutions to address the specific needs of her analysis of social indicators in the area.

Terry’s report can be seen at www.CommunitySolutions.com