



FIGHTING POVERTY WITH FACTS

Case researchers use SAS® to understand poverty better and help policy makers, not-for-profits battle its effects

Industry

Education

Business Issue

Develop an advanced portal that combines mapping and real-time data loads to analyze multiple sets of data simultaneously.

Solution

SAS® software provides a richer, more visual portal.

Benefits

SAS® provides advanced calculations in a fraction of the time required.

The researchers at Case Western Reserve University's Mandel School of Applied Sciences Center on Urban Poverty and Social Change have a critical mission: understanding the root causes of poverty in northeastern Ohio. The group draws on statistics to unearth links and explain issues to policy makers and to not-for-profit groups trying to ameliorate poverty's effects.

"By bringing information about poverty into the same picture as information about infant mortality, drug trafficking, crime, juvenile delinquency and housing deterioration, you begin to get people to think comprehensively about the problem and understand that poverty isn't just about income," explains Dr. Claudia Coulton, the Lillian F. Harris Professor at the Mandel School of Applied Sciences and Co-Director of the Center on Urban Poverty and Social Change.

For the past 14 years, the center has relied on SAS to help explore those connections. Now, with SAS' help, the center is supplementing the amount of information available to the community and researchers, including adding enhanced mapping capabilities and a real-time element to the data.

Making an impact on the community

SAS software has been a key player in many projects coming out of the school. Looking at crime data, researchers found that homes near drug trafficking corners have a higher rate of child abuse and neglect. When welfare reform began in the 1990s, research-

ers discovered that while the Cleveland metropolitan area had 40,000 jobs for the women who would be coming off the welfare rolls, the jobs weren't near where the women lived, and public transportation was inadequate. The research convinced government officials to enhance public transportation. The center has also tracked the results of the Early Childhood Initiative, an effort to improve health for all children in northeastern Ohio.

All of the data for these initiatives was offered through a portal that did not require specific SAS programming knowledge. And while nearly 100 researchers and community members used this portal each month, it did have limitations. "People could choose only one data set. For instance, they could choose poverty, but they couldn't choose poverty and crime," explains Coulton. The center gets information from 12 data sources, including local courts, police reports, census data and tax rolls.

The center is also using SAS to help community development corporations. The not-for-profit groups play an integral role in revitalizing blighted areas, and northeast Ohio has many active corporations. But to be effective, these organizations need data for individual properties, and they need it as soon as it is posted. So if a tax delinquency comes up, the corporation can act quickly to buy the property. The current system is not set up to display information on individual properties or load data frequently enough.

“The new SAS portal and tools are going to allow us to help people map the problems and the assets.”

Dr. Claudia Coulton

Co-Director

Center on Urban Poverty and Social Change
Case Western Reserve University

Taking the portal to the next level

Coulton and her staff wanted a better system. “For many years, we just used SAS, but we didn’t know anything about SAS as a company,” she says. When the school approached SAS, it found not just a vendor but also a partner. “As part of our collaboration, SAS provided examples of things they’ve done, and that really helped us refine our conceptualization and figure out how we wanted it to work,” Coulton says. “The new SAS portal and tools are going to allow us to help people map the problems and the assets.”

The center is using a combination of SAS solutions: SAS®9 for the statistical analysis; SAS/IntrNet® to distribute the information; SAS/ACCESS®, which helps users convert SAS to Excel spreadsheets; SAS AppDev Studio™ for standalone development; and SAS OLAP Server, a multidimensional data store that provides quick access to presumed data that is generated from vast amounts of detailed data. “SAS is very powerful. It can manage and process very large data sets in a fairly short period of time. There is a lot of flexibility, a lot of things you can do with it,” says Lisa Nelson, Associate Director for Community Analysis for the Center.

Providing information in real time

The new portal will combine the data with ArcIMS, a robust GIS package that will provide visual maps of the information collected.

“In the past, it was very rigid; all you could get was the percentage of properties in the census tract that were tax delinquent or the rate of violent crimes in the census tract or the median housing values in the census tract,” Coulton says. Gathering the housing information, in particular, had been very tedious because the information must be obtained from several different county offices. The value of a home is found at one office, recent sales at another and tax delinquency at still another. “But now, you can actually zoom into the value of a particular property, or you can draw your own boundaries and say what the values of the properties within this block are,” Coulton says.

“The added information should help the corporations not only make sound decisions about where to invest their money but also help document the impact they are having in the neighborhoods where they are already working,” explains Sharon Milligan, Associate Professor and Co-Director of the Center. “This is something that the community development field needs not just here but around the country.”

Finding the positive in low-income neighborhoods

Another useful aspect of the new portal is its ability to document not just the problems – high tax delinquencies or high crime rates – but also to report on neighborhood assets, such as the availability of after-school programs, libraries and employment training centers.

“We want to be able to show that there are some positive things in the community regardless of the poverty level,” Nelson says.

Nelson has been impressed with the team that SAS assigned to get the portal up and running. “They got a lot done in a short period of time, and brought a lot of functionality that we didn’t have, because this data is complicated.”

The work on the portal has given Coulton new ideas for what she might do next. “We’d like to do other portal-type projects. We’ve talked to people in the field of nonprofit management, and they have a big interest in doing something similar for nonprofit organizations.”

For now, Coulton’s group will concentrate on optimizing this portal. “SAS got us out of a place where we were just floundering,” she concludes.



SAS INSTITUTE INC. WORLD HEADQUARTERS 919 677 8000
U.S. & CANADA SALES 800 727 0025 www.sas.com

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration. Other brand and product names are trademarks of their respective companies. Copyright © 2007, SAS Institute Inc. All rights reserved. 101954_423501.0107