

Neighborhood Vitality Enhanced with Benchmarking and GIS

*Rebecca Beck and Bryan
Bradford*

Most local governments struggle with the issue of neighborhood decline to one degree or another and face difficult challenges in addressing neighborhood problems. In Garland, Texas, officials are attempting to meet these challenges with a combination of data collection, analysis, and long-range planning tools. At the center of Garland's efforts is the neighborhood benchmarking program (NBP), which goes a step beyond the traditional approach to neighborhood assessment and planning. It takes basic planning concepts and marries these with performance indicators, GIS technologies, and administrative strategies.

In response to management's desire to develop a proactive approach to neighborhood vitality, the city's organizational development team (ODT) designed its benchmarking program to monitor neighborhood change and enable early intervention, strategic decisions, and custom-tailored neighborhood efforts and services. While Garland had several programs in place to revitalize neighborhoods that were in decline, its preemptive efforts to maintain the quality of vital neighborhoods were limited.

As Garland approaches buildout, the need to preserve neighborhood vitality has become both a financial and a quality-of-life concern. Given the diminishing opportunities to augment the city's revenues through new construction and development, Garland will grow increasingly dependent on maintaining the condition of its existing tax base.

Garland's existing neighborhoods are aging, increasing the potential for decline and the need for intervention. NBP provides a tool for monitoring changing neighborhood conditions and highlighting opportunities for intervention within a locality, with limited funding.

Goals of Neighborhood Benchmarking

NBP uses a collection of data sources to develop neighborhood profiles and indicators, and the resulting information offers potential uses and benefits. Consequently, Garland has identified many goals for the program. Its primary goals are to:

1. Assess and monitor the condition and health of Garland neighborhoods.

2. Identify problems and challenges that are unique to particular neighborhoods, as well as those that face all Garland neighborhoods.
3. Highlight at-risk neighborhoods and others showing signs of loss in neighborhood appeal or vitality.
4. Tailor neighborhood efforts and services, instead of using a one-size-fits-all approach.
5. Evaluate the effectiveness of code enforcement, grant monies, neighborhood associations, and other efforts used in maintaining or improving neighborhood conditions.
6. Provide information that will enable policymakers to design programs and to target resources to produce the greatest return on investment.
7. Furnish data that will help to determine cause-and-effect relationships regarding neighborhood health or decline.

Many of the NBP goals can be realized immediately; others are ambitious and can only be achieved after several years of gathering and analyzing neighborhood data.

How It Works

In designing this program, ODT wanted to monitor benchmarks from a variety of perspectives. The resulting tools and indicators capture both the objective and the subjective elements of neighborhood vitality. ODT considers three factors most important to assessing neighborhood conditions: the attitudes and opinions of neighborhood residents, actual neighborhood conditions and activities, and the perception of the neighborhood by nonresidents.

As a result, ODT used a three-pronged approach to benchmarking neighborhood conditions, employing a resident opinion survey, data metrics collected from numerous city and external databases, and an appearance assessment or “windshield survey,” as it is often called.

Resident opinion survey. To monitor resident opinions and perceptions, a resident opinion survey is mailed to a statistical sample of households in each neighborhood. The survey asks respondents to identify their primary concerns and priorities for their immediate neighborhoods, including infrastructure conditions, crime rate, nuisances, overall appearance and appeal of the neighborhood, trends, priorities, and demographics. The survey also registers residents’ interest in forming neighborhood associations or crime watch groups.

Survey results are analyzed with an Access database and GIS mapping tools. Where possible, staff members use citizens’ comments from the survey to generate work orders in appropriate city departments for follow-up and resolution. Key survey questions are used as benchmarks of residents’ satisfaction with their neighborhoods.

Sample questions call for ratings of infrastructure conditions, the level of house and yard upkeep by neighbors, overall neighborhood attractiveness, perceptions of changing conditions in the neighborhood, and residents' intentions to stay or move away from the neighborhood in the near future. These indicators are stored in the city's neighborhood information system (NIS), where changes in residents' opinions of their neighborhoods can be tracked over time.

Data metrics. As noted, to monitor neighborhood performance indicators, the city is building an NIS. This system collects data from many different city and external databases and warehouses it in a component of the city's geographic information system (GIS).

To serve as an objective indicator of neighborhood conditions, the NIS collects crime statistics, housing and nuisance code violations, street condition ratings, property values, litter index ratings, and other data from multiple city databases into one location for analysis. In addition, housing turnover rates, census demographics, and economic indicators are added to the system from external sources. The ODT also adds key survey indicators and neighborhood appearance ratings to the NIS.

Coordination of all this data into one location—as well as its analysis at the neighborhood level—enables staff to construct neighborhood profiles, monitor changes in neighborhood indicators and conditions, and develop a coordinated approach to addressing neighborhood issues. By bringing this information together in a GIS environment, staff also hope to identify spatial patterns and citywide neighborhood trends.

Some steps in this initiative include plotting changes in crime statistics alongside instances of housing and environmental code violations, plotting changes in property values alongside changes in crime or code violations, and identifying spatial patterns or relationships between the presence of neighborhood associations and the number of code violations or crimes or the amount of property values.

Appearance assessment. To measure the visual appeal made by a neighborhood to nonresidents, ODT developed a windshield survey for rating house and yard appearances. The assessment tool was designed to maximize objectivity while allowing for the subjective element in potential homebuyers' evaluations of neighborhoods and their houses. Thus, the windshield survey is based on structural integrity and maintenance but also incorporates an element of "curb appeal." Independent, trained observers rate the condition and appearance of both the house and the yard of every randomly selected property in each neighborhood.

Uses and Benefits

In addition to generating long-range benchmarking capabilities, the information acquired through the NBP can be used in many ways to gain immediate benefits. Some of the strategic initiatives and benefits that can result from the availability of NBP data are summarized below.

Partnering with neighborhoods. Recognizing that citizen involvement is key to maintaining neighborhood vitality, city management formed the office of community coordination (OCC). This position serves as a liaison between city government and neighborhood groups; helps start new neighborhood associations; and coordinates city response to neighborhood issues when multiple departments are involved.

The OCC's manager, Jan Dolph, uses the NBP survey results to look for ways to encourage citizen input and neighborhood activities and to identify opportunities to partner with or support neighborhood groups. Results of the survey and appearance assessments are given to neighborhood associations and their council representatives. Dolph also uses the survey to pinpoint neighborhoods that may be interested in forming neighborhood associations or crime watch groups.

Using a different strategic approach for different neighborhood bundles.

From their profiles, neighborhoods can be categorized into varying neighborhood "bundles," or types. By developing a strategic approach to each neighborhood bundle, Garland can maximize its resources and efforts. This assumption is based on the theory that different neighborhood bundles are in contrasting states of decline, stability, or revitalization and therefore have different needs. Because some neighborhood bundles may be classified as "at risk," the city may wish to adopt policies, programs, or other initiatives targeted specifically at these neighborhoods.

Identifying neighborhood patterns or warning signs. Through the resident opinion surveys and the NBP data system, certain indicators of potential neighborhood decline may be isolated. Instability, or high turnover, in a neighborhood, for example, is considered to be one of the warning signs of impending neighborhood decline.

On the resident opinion survey, respondents are asked to indicate if they plan to move from their neighborhoods and, if so, when and why they plan to move. The city may wish to target special efforts toward maintaining stability in neighborhoods that report a high rate of anticipated turnover.

Finding cause-and-effect relationships. Patrick McCully, a Garland police officer and doctoral candidate, will use the data from the NBP to perform high-level statistical analyses that will identify potential cause-and-effect

relationships. Hierarchical, linear models and random-effects models will be used to evaluate the rates of change in various community indicators.

This analysis may lead to plans for how the city will design and deliver services, as well as models of the underlying structure of individual neighborhoods and the factors that make them viable or vulnerable. It also may lead to models that identify indicators of decline and improvement. Monitoring these indicators could potentially enable the city to intervene in a neighborhood in order to slow down or prevent decline and to help steer that neighborhood toward valuable solutions that retain its safety and vibrancy.

Measuring progress and results. NBP also may be used to monitor the impact of neighborhood initiatives, city programs, and neighborhood associations on the condition of the neighborhood. This feedback can be used to promote educated decision making in the future.

Measurement and benchmarking of neighborhood conditions also will enable Garland to monitor the proportion of its own jurisdiction that falls into each neighborhood bundle at any one time and to measure corresponding demand for city resources and services.

Enhancing existing programs. NBP also complements the city's existing community action response team (CART) designed by Assistant City Manager Ron Jones. Notices of survey issues requiring coordinated effort across departmental lines, as well as of neighborhoods classified as at-risk, will be forwarded to CART for a project-based approach to resolving the problem or to improving conditions. Issues that cannot be easily or effectively resolved within current city resources and services will be added to a "gap" analysis schedule for research and policy recommendations.

Setting long-term goals. Over the long term, Garland hopes to identify neighborhoods at risk of entering the early stages of decline; gauge the effectiveness of neighborhood initiatives, revitalization, and code enforcement efforts; forecast the city's overall health and financial future; and enhance the information available to city leaders for making crucial decisions.

Ultimately, Garland hopes to determine which services and programs produce the highest rates of return in terms of maintaining and improving neighborhood conditions. In turn, these conclusions will be used to assist in undertaking a strategic planning effort.

By using neighborhood benchmarking, geographic information systems, gap analyses, and other efforts, the locality hopes to develop a comprehensive strategy for maintaining neighborhood vitality.

Present Status

Garland has completed its pilot program and entered into full implementation of the NBP. The implementation schedule has called for one-third of the city to be surveyed and assessed each year. During the pilot program, resident survey questions were refined, cut, or added; the windshield survey also was tested and refined.

Databases for reporting, analyzing, and tracking survey results and problems also have been designed, with the goal of automating as much of the process as possible, to minimize the amount of staff time required to administer the program. The budget for NBP remains modest, with printing and postage representing the majority of its operating costs.

The program has been well received by neighborhood groups, and the concept is appealing to surrounding local governments. Of particular interest to most of these localities is, again, the fact that the NBP goes a step beyond the traditional approach to neighborhood assessment and planning. It takes basic planning concepts and marries them to performance indicators, GIS technologies, and administrative strategies.

By designing programs to address both the short-term and long-term issues facing neighborhoods, Garland aims to maintain and improve the quality of life in its various communities and to ensure the vitality of the city as a whole.

Rebecca Beck is project manager of organizational development, Garland, Texas ([Rebecca Beck](#)), and Bryan Bradford is director of budget and research, Garland ([Bryan Bradford](#)).