



A Neighborhood Indicator System for Detroit

Empowering Communities Through Information



University of Michigan
Urban and Regional Planning Program
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Summary

A neighborhood indicators system is an information-sharing system that contains a broad variety of data on conditions and trends at the neighborhood level. The City of Detroit Planning & Development Department (P&DD) and the Southwest Detroit Business Association (SDBA) have partnered with students at the University of Michigan's Urban and Regional Planning Program to develop a plan for such a system in Detroit. This proposal for a neighborhood indicators system (NIS) for Detroit grows out of the need to understand and analyze the condition of neighborhoods. Similar systems exist in many cities around the country and the recommendations for Detroit are based on analysis of these existing systems as well as original ideas. The plan for Detroit:

- Introduces various ways of using data to describe neighborhood condition.
- Describes a system that houses, organizes, and distributes data to many kinds of users.
- Demonstrates a pilot model that uses specific sets of data to predict neighborhood condition.

Goals and Objectives

SDBA and P&DD identified several goals for this plan based on their need for information about neighborhoods.

- Maximize the potential of information to help Detroit's neighborhoods.
- Inform resource allocation decisions across the city, especially decisions about the distribution of federal funds to neighborhoods, to ensure that those resources strengthen neighborhoods and combat blight
- Supply decision makers with accurate, balanced information for thoughtful and fair planning outcomes.
- Empower organizations and individuals that work for Detroit's neighborhoods by providing a means to demonstrate the results of their efforts, their need for resources, and their own ability to strengthen neighborhoods.

The objectives of this system are:

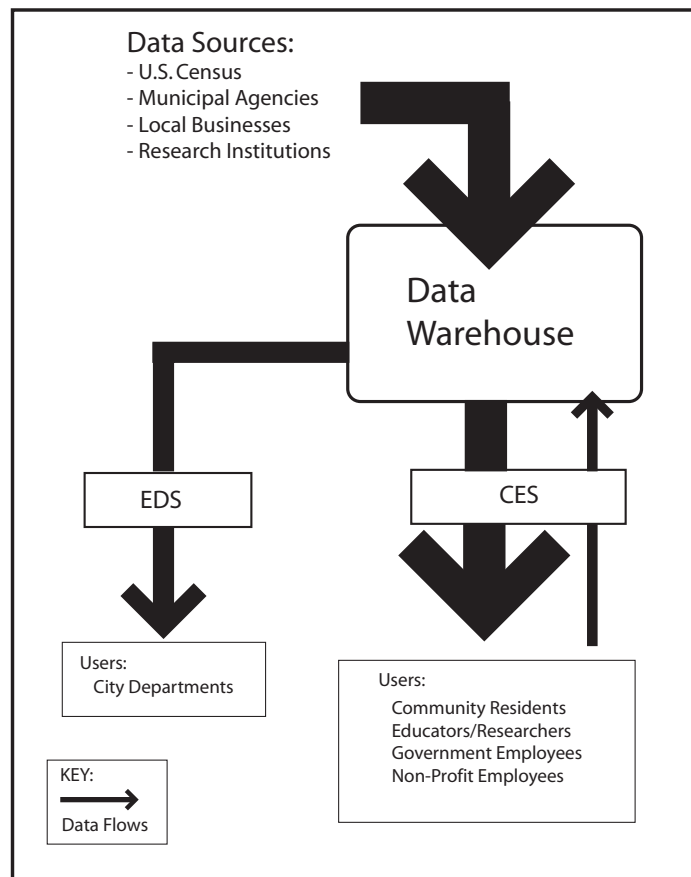
- **Compare areas:** Analyze data to compare neighborhoods. Identify neighborhoods as improving or declining, especially those where revitalization or blight is just beginning. Help decision makers to identify areas to be

targeted for assistance.

- **Improve communication and collaboration:** Facilitate communication and collaboration among those that provide information about neighborhoods and those who use those data.
- **Train for purposes of usability:** Educate community-based organization staff, neighborhood residents, government agency staff, researchers, and other users about effective use of the neighborhood indicator system, and train those users when necessary.

A neighborhood indicator system that allows users to achieve these goals and objectives will be an asset for Detroit, providing a wealth of data and analysis to bring about positive change.

Detroit Neighborhood Indicator System Diagram



Recommendations

Detroit's indicators system will be built on a data warehouse. The data warehouse is the location where data providers place and store data. All NIS have a data warehouse as their foundation. In this central data repository, information is stored and made available for particular applications. Different organizations, agencies, or foundations may design new applications that utilize the data warehouse. The figure below illustrates how the various structures within a neighborhood indicator system would relate to one another. It also illustrates the paths and directions that data about neighborhoods will flow within the system. The following plan outlines two recommended applications as initial uses:

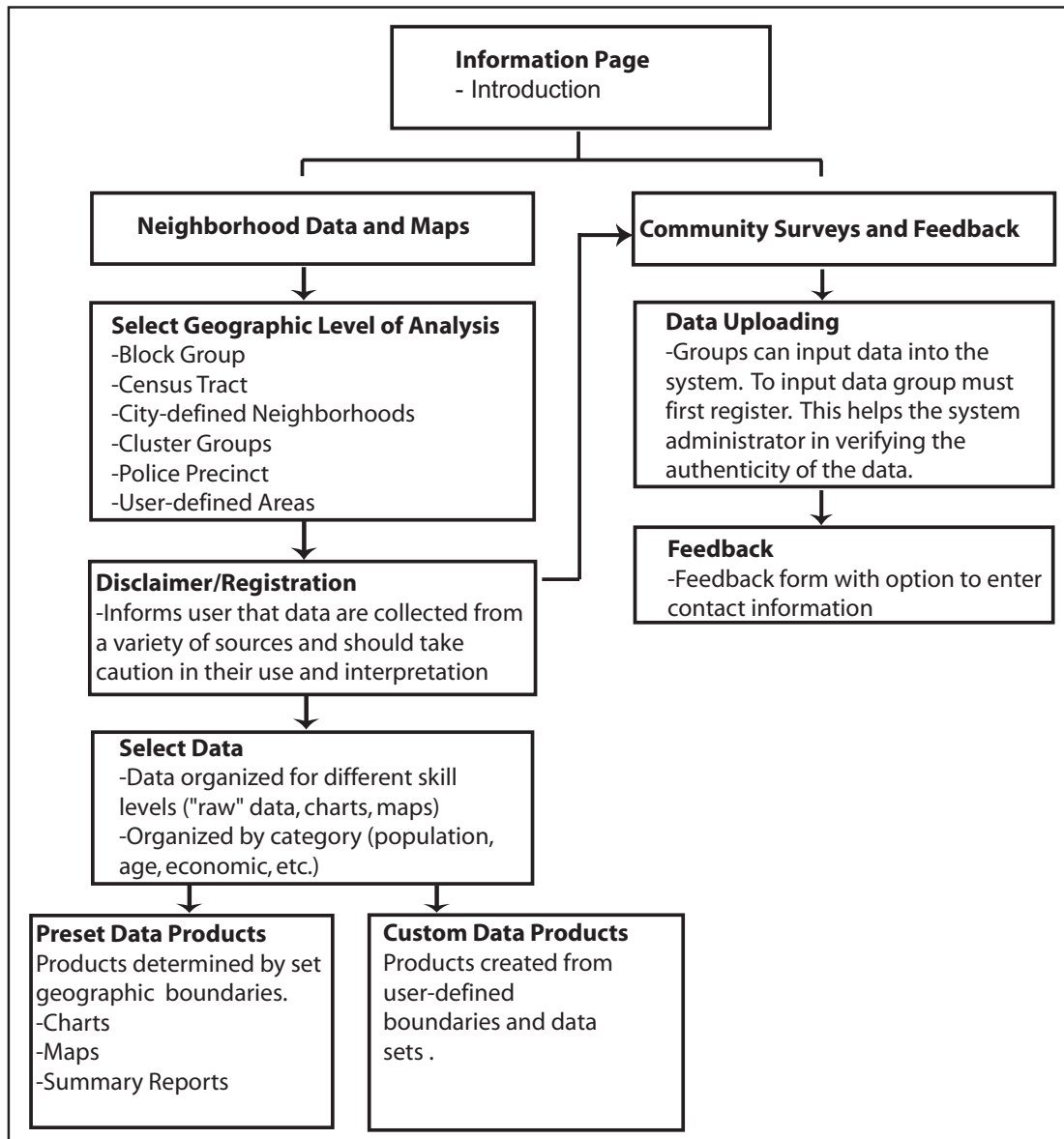
Community Empowerment System (CES): This system component makes the data currently available to P&DD available to a wider audience. It also will function as a place to store other administrative and survey data on neighborhoods in a publicly accessible location. Staff and/or partner organizations will provide training for community organizations and other users. The system will serve as a place where many organizations, residents and researchers can collaborate to get and share information through a web-based interface. The figure on the following page illustrates the structure and some of the functions of a Detroit CES.

A CES can serve two major functions if developed properly.

- Make data about Detroit available to many users with a focus on the community level. In doing so, it can facilitate data collection, aid in the identification of areas of concern or opportunity in Detroit neighborhoods and track trends.
- Facilitate cooperation among organizations and individuals, which will produce other benefits that are difficult to predict. Backed by a data warehouse, the Community Empowerment System encompasses all activities that involve bridging gaps between "raw" neighborhood information and community members. It can serve to provide a deeper understanding of assets or deficits in neighborhoods, especially when they are indicated by an Early Detection System.

A CES makes information on neighborhoods more accessible to more people. It also provides a feedback mechanism to improve the system as well as the data that underlie the system. For these reasons it is a key component of a Detroit neighborhood indicator system.

A User's Guide to the Model Detroit CES



Early Detection System (EDS): This system component provides a way to identify trends in small areas of the city using a small amount of carefully selected data. This section of the report is split into two parts.

- **Part I: How to Build an EDS**

Early detection systems, often called early warning systems, are data-driven information analysis tools designed to provide insight into the health of neighborhoods. Neighborhood health can be defined as the overall quality of life in an area. Factors considered

in the analysis of neighborhood health may include social connectedness, housing stock quality, economic strength and public safety.

The steps to develop an EDS are:

- Define the question the system seeks to answer.
 - Develop criteria for how specific indicators will be selected.
 - Gather additional data if necessary.
 - Establish a database.
 - Test the data for use in the EDS.
 - Analyze the statistical relationships among indicators.
 - Establish thresholds for neighborhood change.
 - Set neighborhood types by showing different levels of neighborhood change.
 - Combine different indicators to produce a comprehensive typology.
 - Produce multiple outputs.
- **Part II: A Pilot EDS**

This section provides a sample EDS focused on physical blight built. Using the process outlined above, the pilot EDS demonstrates the problems and potential of such a system. This section illustrates the type of output an organization may see from an EDS. Technical details are included in appendices for users who want an in-depth look at the pilot system.

An EDS makes inter-neighborhood evaluations about the health of neighborhoods and can track trends within the city. For these reasons, it is a key component of a Detroit neighborhood indicator system.

Implementation

In order to facilitate smooth development and a widely supported system, the Detroit NIS should be developed in a three-phase process:

Phase 1: Setup and Development

- Establish system host
- Identify funding sources
- Assemble and organize data

Phase 2: Construction

- Construct CES interface
 - Maximize use of currently available data
 - Provide summary reports
- Construct EDS interface
 - Test available indicators
 - Incorporate indicators into a system using process outlined in EDS section
- Expand outreach efforts
 - Train persons in the use of the CES and EDS

Phase 3: Refinement and Expansion

- Incorporate user feedback to include more data for CES and Data Warehouse and stronger indicators for EDS
- Increase user base through outreach and community involvement

Conclusion

Within the proposed plan, the Early Detection System provides the Detroit Planning & Development Department and SDBA a narrow view of neighborhood condition, showing decline and improvement as they appear. The Community Empowerment System provides access to those who need data and supports EDS, by providing a fuller view of neighborhood condition. Supported by the data warehouse, these two system elements work in tandem to provide both city departments and city residents with a more accurate picture of Detroit's neighborhoods.