

Dynamic Neighborhoods

New Tools for Community and
Economic Development

A project of



Executive Summary

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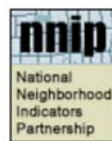


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**Participating Cities:
Chicago, Cleveland, Dallas, Seattle**

Project Partners:



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The most important partners, of course, were the leadership in the four participating cities: local government officials and civic leaders who provided data, advice, logistical support, and valuable feedback throughout the project.

Finally, as the project neared completion, we had the opportunity to present the findings and tools to numerous groups of community, civic, government and business leaders, and to begin applying the tools to particular neighborhoods and issues in the field. In addition to benefiting from this key feedback and testing on the front lines, we are very grateful to those who are already picking up, enhancing and expanding upon the work.

Dynamic Neighborhoods

New Tools for Community and Economic Development

Introduction

Living Cities launched the Dynamic Neighborhood Taxonomy project (DNT) as an ambitious effort to generate new insights on the dynamics of neighborhood change and develop a new generation of tools for investment in urban communities. This executive summary presents highlights of the project. A full report is available at www.rw-ventures.com.

The project was designed to improve our understanding of how neighborhoods operate, including how they change over time, what factors determine their success, and how these dynamics vary across different types of neighborhoods. More importantly, DNT aimed to enhance the community development field's on-going capacity to routinely, accurately and more easily analyze the challenges and opportunities for development in particular places. Ultimately, the goal was to develop new tools for businesses, investors, funders, governments and community development practitioners to much better tailor and target their investments and interventions in neighborhoods.

The project examined hundreds of indicators of neighborhood change for every neighborhood in four sample cities (Chicago, Cleveland, Dallas and Seattle) from 1986-2006. The analysis of this data has three components: a descriptive analysis of how neighborhoods have changed over the past twenty years; a series of regression models investigating the key drivers of neighborhood change; and a typology of neighborhoods to identify how patterns and drivers of change vary by neighborhood type.

The project's findings produced a **new framework for understanding neighborhoods**, setting community and economic development goals and implementing development strategies. The project also generated a **set of innovative tools** for neighborhood analysis and investment that can help tailor interventions to different types of communities.

A Note on the Implications of the Economic Downturn

Since the end of the time period analyzed by the project, cities and neighborhoods have experienced dramatic changes, most notably due to the foreclosure crisis and collapse of the housing market. Despite the devastating impact of these phenomena on urban neighborhoods, they confirm the findings of the project about the mechanisms that continue to be at the heart of neighborhood change. Similarly, the longer term shifts observed by the project (such as the return to central cities and the importance of density) remain true and will be important to the recovery. One of the key implications of this work – the need for specialized analytics and tools to target interventions in particular neighborhoods – has been reinforced by current events, and some of the tools developed by the project are already being applied to mitigate the effects of the foreclosure crisis and guide neighborhood stabilization interventions.

I. A New Framework for Community and Economic Development

A. Redefining the Neighborhood

The findings of the Dynamic Neighborhood Taxonomy project suggest rethinking our approach to neighborhood development. Too often in the community and economic development field we imagine neighborhoods as static, self-contained entities.

Neighborhoods are, in fact, dynamic and in constant motion: even the most stable neighborhood is constantly renewing its population, housing stock and business base. The findings show that **the primary mechanisms of neighborhood change are the flows of people and investment in and out of the neighborhood.** In stable neighborhoods, the people and businesses leaving the neighborhood are replaced by similar people and businesses, preserving the overall character of the community. Neighborhoods change when the flows of people and investments into the neighborhood are different (in numbers or characteristics) from the ones leaving.

Neighborhoods Are Dynamic Entities

- Over a 10 year period, 70% of households in the four sample cities moved at least once.
- Households moving into the neighborhood are the primary mechanism of neighborhood change.
- Healthy neighborhoods have a continual flow of households, businesses and capital.

These flows depend in part on forces that operate at a much larger scale than the neighborhood itself. Indeed, the project found that **over one third of neighborhood change can be accounted for by regional trends.**

The forces that interact with characteristics of the neighborhood to determine the flow of people, businesses and money include regional labor, housing and business markets; political systems, such as local, state and federal governments; and social networks. For example, the flow of money into the neighborhood is in part determined by the quality of the regional labor market. This in turn is a function of both political and social systems, which influence the amount of human capital through formal education and informal socialization, and facilitate access to jobs through interpersonal networks. The ability of neighborhood residents to find good jobs in turn determines their consumption patterns, ability to invest

Neighborhoods Are Not Self-Contained

- Over one third of neighborhood change depends on regional trends.
- Key neighborhood-level factors include proximity to downtown, access to transit and sound socioeconomic conditions.

in the housing stock and other factors which define the neighborhood.

Neighborhood-specific characteristics make a community more or less attractive to prospective residents and investors, as well as current residents, in this larger context. As a result, factors such as location within the region and access to transit particularly influence the types of people and businesses that choose to locate in the neighborhood and what types of economic activity take place there. Overall, new residents are attracted to areas that have undervalued housing, but sound socioeconomic conditions (such as income diversity and low unemployment rates); are close to the jobs and amenities of the central business district; and have good access to transit and supermarkets. **The evolution of a neighborhood depends on how characteristics of the place interact with broader economic marketplaces, as well as social and political systems.**

Consider the case of “Port of Entry” neighborhoods. This is one of the types identified by the DNT Typology (described below), and it is characterized, among other things, by the presence of large immigrant populations. Factors such as availability of jobs and affordable housing attract a nucleus of immigrants to a specific neighborhood. Their social ties may facilitate the arrival and the location in the same neighborhood of other immigrants from the same country. Once the nucleus of an immigrant community is established, a reinforcing process of neighborhood specialization may begin, as the core attracts more of certain type of public services (ESL classes, worker centers, and so forth), and generates economic activity responding to that particular market (such as ethnic retail stores and restaurants), in turn attracting more immigrants. Similar interactions of characteristics of place with larger social, economic and political systems explain the emergence and dynamics of bohemian (young, singles), starter home, retirement and other types of communities – and indicate how communities may change over time.

Neighborhoods Are Specialized

- The project identified nine broad neighborhood types and over 30 detailed neighborhood sub-types.
- Each type undergoes distinct patterns of change, presenting specific challenges and opportunities.
- Specialization occurs in an iterative pattern of specific types of households and amenities concentrating in the context of the regional economy.

In this sense, neighborhoods are not just physical places – **they are better understood as dynamic systems arising from the interaction of economic, social and political systems with place.** From this more dynamic, systems perspective, neighborhood health is determined by how well the neighborhood “system” attracts household and business investment in the context of larger housing, retail and other markets; builds capacity in its residents and

Neighborhoods Are Complex, Adaptive Systems

- They arise from the interaction of economic, social and political systems with place.
- Healthy neighborhoods create capacity and opportunity for their residents by connecting them to the larger systems.
- Healthy neighborhoods enable transactions which deploy their real estate and business assets in the context of regional markets.
- By developing and deploying their people and assets, healthy neighborhood systems are integral to healthy and prosperous regions.

connects them to broader labor markets; creates the civic engagement to attract more services and public investment from the broader political system; and so forth.

In effect, neighborhood health can be defined in terms of the ability of the neighborhood to facilitate the economic and social transactions that allow its residents and assets to be deployed productively within the larger systems. By doing this, **healthy neighborhoods do two things: they increase the core capabilities and opportunities of their residents by connecting them to larger systems; at the same time, they help the larger systems work better by leveraging all of the resources and assets that neighborhoods can provide.**

B. Rethinking Community Development

This framework of dynamic neighborhoods has direct implications for community and economic development practice, starting with the goals of community development interventions. **Community and economic development should aim at maximizing the connections and transactions that link the neighborhood, its assets and residents to the larger systems.** Neighborhoods that are isolated from regional markets, disconnected from employment networks, and disenfranchised in the political process become traps that prevent their residents from improving their outcomes.

Indeed, as we focus on developing the assets in our neighborhoods (resident base, residential and commercial real estate, local firms and organizations), it becomes apparent that the assets become valuable when deployed, and deployment is the byproduct of market and other systems that go well beyond the neighborhood. In this sense, **the asset-based approach to community development needs to develop a deep understanding of how the dynamics of specific economic systems translate particular assets into value to meet the needs of neighborhood residents.** For example, if the problem is lack of retail development, analysis of the retail market might reveal that land assembly costs and lack of accurate market information are preventing retailers from locating in the community. Interventions could be designed to develop more accurate information on the neighborhood's unmet demand for retail and services and to help streamline the land acquisition processes for commercial development.

Taking this one step further, **development approaches would be more effective to the extent that they are tailored to the dynamics, stages and functions of each neighborhood type.** There is a tendency in the community economic development field to replicate “best practices” without reference to context, implementing popular interventions (community policing one year, enterprise centers the next) without sufficient regard to the specific features of each neighborhood. When it comes to community economic development, one size does not fit all. Picking up the same example, community development organizations are well positioned not just to understand the local barriers to retail development, but also to target particular goods and services (be it child care services for starter home communities or entertainment venues for bohemian ones) that best fit or promote the desired type of neighborhood.

In fact, based on the results of the DNT work, one could imagine an enhanced comprehensive neighborhood planning approach which brings more business planning principles to community and economic development. A business plan enables a business to think strategically about its position in the market place, its key advantages and challenges, and helps identify the activities needed in order to attract investment and sell its products. A similar process could be applied to a neighborhood, on a larger scale: given a detailed analysis of neighborhood assets, challenges and opportunities, a comprehensive planning process could identify a vision and goals for development of those assets in the larger regional context; and strategies, programs, products and services to address barriers and facilitate connections, transactions and investment. In this approach, interventions would be tailored and driven by the functions the neighborhood serves, what types of people and investment it seeks to attract or retain, and what it takes to engage the larger systems to create the right balance of amenities to attract the desired investments and demographics.

This approach also leads to a different conception of the role of community development organizations: in addition to focusing on more traditional, real estate-centered development strategies, CDCs could deploy their deep and specialized knowledge of their communities to help understand where their neighborhoods are and want to be, and the local leverage points to enhance the relevant system connections and transactions to get there. CDCs could then develop tailored products to attract new residents and investment to their communities, and could broker the participation of current residents and organizations in the broader social and economic systems.

Broadly, then, **a key role of neighborhood development practitioners is to develop a detailed understanding of the neighborhood’s assets and dynamics and a sophisticated capacity to identify local leverage points which generate increased connections and transactions.** This means examining what neighborhood assets are undervalued (or under-deployed in the larger marketplace) and why; developing specialized information and other local services to reduce market transaction costs; brokering relationships and invest-

ment; targeting particular types of asset development; creating infrastructure and enabling environment for targeted demographic segments and businesses to thrive; and generally addressing market and other system imperfections to enhance the ways in which the neighborhood serves its residents.

As the field continues developing this new framework and practice, it will be particularly important to enable easier and more routine analysis of the challenges and opportunities presented by particular places, and of what interventions will best suit each neighborhood and its residents. Up to now, this type of analysis has been an expensive proposition for neighborhood organizations, as it was carried out as a one-off, customized effort requiring a great deal of time and expertise. What has been missing in the field is a set of more standard tools that would make this type of information more accessible to the people who need it – practitioners and investors making decisions on what development strategies to pursue in particular places.

II. New Tools for Neighborhood Analysis and Investment

In the private sector, businesses invest a great deal of resources in sophisticated market analysis, and routinely apply state of the art analytic tools to identify investment opportunities and devise commercial strategies. The Dynamic Neighborhood Taxonomy was conceived as a baseline R&D project to begin developing a similar capacity for the community and economic development field. The project's findings also reinforced the need for a new generation of tools for neighborhood investment.

The tools are organized here in three broad sections: tools that can help identify challenges and opportunities for development within neighborhoods; tools to track neighborhood change and prioritize interventions; and, impact measurement tools that can help evaluate what is and is not working and adjust strategies and interventions accordingly.

A. Tailoring Interventions

The DNT project developed a comprehensive typology of neighborhoods based on analysis of the key patterns and drivers of change. Drawing on the features of each neighborhood's real estate, business composition and demographics, the **DNT Neighborhood Typology** groups all neighborhoods into nine broad types and 33 detailed sub-types. While the typology was based on the neighborhoods in the four DNT sample cities, it already is proving to be a valuable tool in informing neighborhood analysis and investment in other cities.

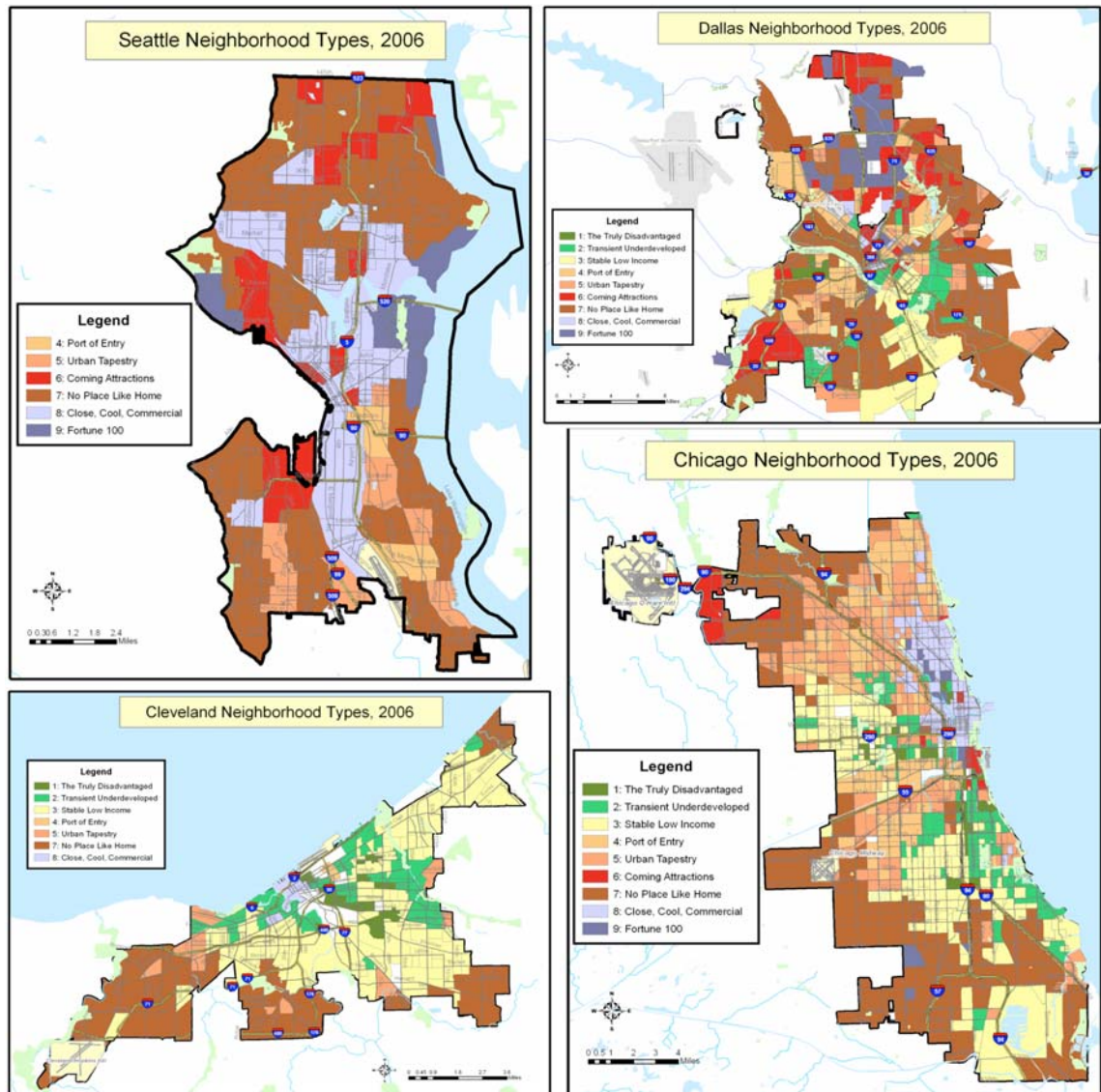


Figure 1: DNT Neighborhood Types in Chicago, Cleveland, Dallas and Seattle

The distinctive features of the typology for economic development intervention:

- **It is dynamic:** it shows how neighborhoods can change over time.
- **It is multi-dimensional:** it is based on the factors that proved to make the most difference to the economic performance of neighborhoods, and identifies the challenges and opportunities in each place.
- **It is layered:** it can be used to classify neighborhoods in terms of broad types or more detailed sub-types – but it can also be used to identify, for any given neighborhood, its closest peers across key social, economic and physical characteristics.

Given these features, **the typology has numerous economic development applications,**

including tailoring interventions to the needs and opportunities of specific neighborhood types; anticipating and managing neighborhood change; and benchmarking neighborhood performance, allowing for different measures of success in different types of neighborhoods (for example, homeownership rates and tenure are more important in retirement communities than in bohemian ones). The typology can also help identify truly comparable neighborhoods, enabling the identification of meaningful best practices and facilitating impact analysis.

B. Tracking Neighborhood Change

A threshold issue in neighborhood investment is the capacity to quickly assess the trends in a community and understand what areas are in need of intervention. A key contribution of the DNT project is a sophisticated baseline indicator of neighborhood performance, which enables highly detailed and robust analysis of how neighborhoods are doing over time: the **Dynamic Neighborhood Taxonomy Repeat Sales Index (DNT RSI)**.

Repeat sales indices are the leading method in the private sector to measure trends in housing markets, particularly those attributable to changing demand for the amenities in the neighborhood. These indices measure the appreciation in the housing stock that is driven by increasing demand for the neighborhood – a powerful indicator of a healthy community. Until now, however, repeat sales indices had not been successfully developed at the neighborhood level.

Unlike other repeat sales indices, the DNT RSI can generate estimates at small levels of geography, from neighborhoods to individual properties. For this reason, the index has a variety of applications. Local governments could monitor trends in neighborhood desirability and allocate resources; real estate investors could uncover investment opportunities in previously neglected urban markets; and foundations could benchmark the performance of the areas in which they are investing.

The DNT RSI is also the baseline for additional tools that can further inform neighborhood development strategies, as follows.

Pattern Search

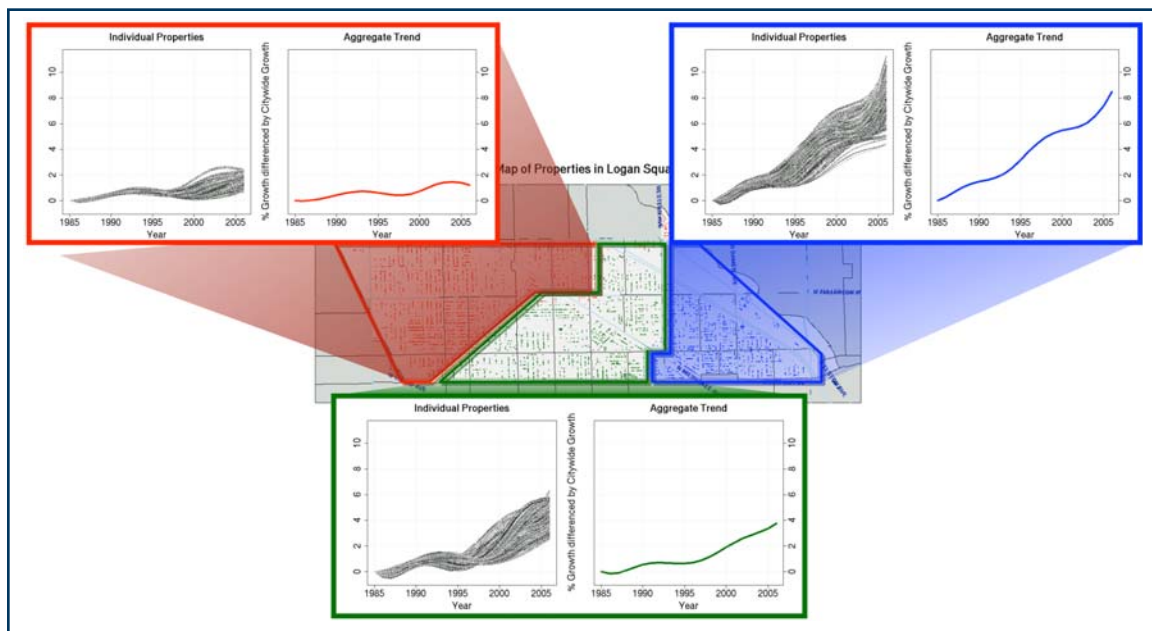
DNT's Pattern Search tool **enables researchers, practitioners and investors to find areas that are undergoing similar changes – or have in the past**. This information can then be used to analyze the characteristics and drivers of such patterns of change as gentrification and anticipate their effects in other neighborhoods.

NeighborScope

NeighborScope identifies “actual” neighborhoods by surfacing areas that share common trends. **Rather than relying on predefined neighborhood boundaries, this tool uses individual property records to provide a much more informed picture of which geographies are really connected and their dynamics.**

This is an important feature because neighborhood analysis and development planning efforts typically start with a set of predefined neighborhood boundaries (such as census tracts or standard community areas) which may or may not correspond to areas that present a unified set of development challenges and opportunities.

Looking more closely at neighborhoods may uncover important differences in what is actually happening within and across their boundaries. For example, a conventional analysis of change in housing values for the Logan Square community area in Chicago would reveal significant appreciation between 1990 and 2006, raising some concerns about possible displacement of the original residents. The reality is quite different. A NeighborScope analysis of this community reveals that there are actually three distinct trends taking place in different sub-neighborhoods, with very different implications for economic development. These trends are summarized in the figure below which shows the individual RSI trend lines for each property, as well as the aggregate for the three types of areas in which the Logan Square community is divided.



The southeastern portion of the neighborhood has experienced dramatic appreciation over the time period. The northwestern portion of the neighborhood, on the other hand, has had little appreciation, more or less keeping pace with the city as a whole. The central section of

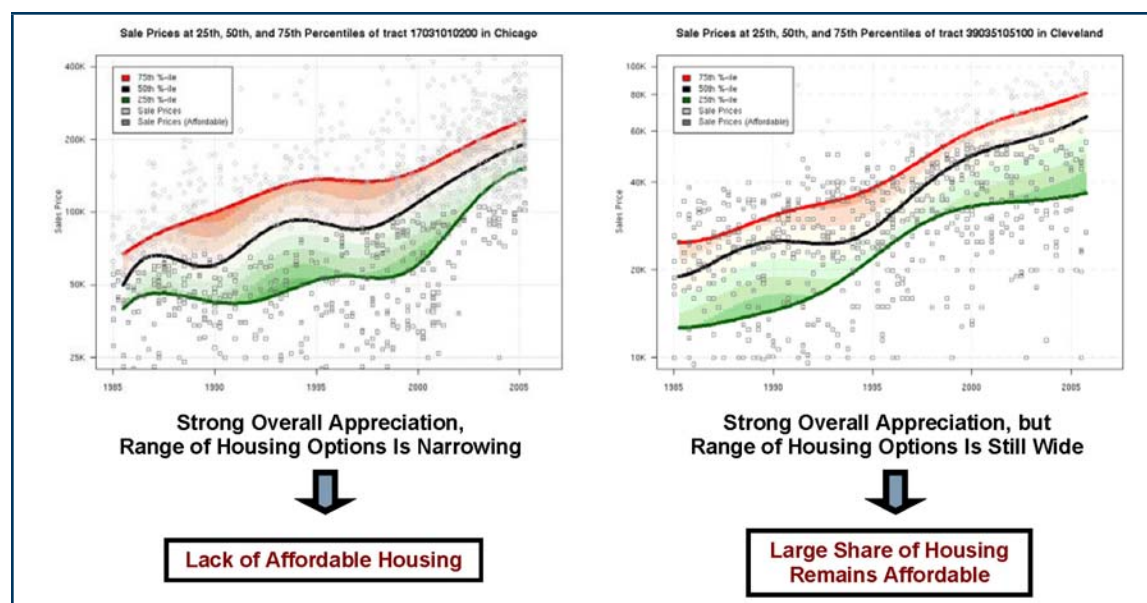
this community has followed yet a different pattern: values have increased significantly, but started rising much later than in the southeastern section.

Analyzing building permits, business and demographic data reveals that an influx of higher income white households in the Southeastern portion of the neighborhood is pushing the original Hispanic population northwest, to the portion of the community that has experienced less appreciation and investment. Trends in the central portion of the community (which has started experiencing some of the same changes as the Southeast in recent years) suggest that this gentrification pattern might be gradually moving from East to West, and might thus affect the rest of the community area before long.

Housing Diversity Reports

The Housing Diversity Report **tracks changes in the affordability and mix of the housing stock in a neighborhood**. The traditional examination of trends in median values alone often misses what is actually happening on the ground: neighborhoods with similar patterns of overall appreciation can have significant differences in affordability.

The figure below illustrates two census tracts that had similar appreciation patterns as measured in terms of median housing values (the black line in the charts). However, as the tract on the left appreciated, the supply of affordable housing units dried up, and the diversity of housing options in the neighborhood narrowed considerably (as shown by the red and green lines, which track changes in the 75th and 25th percentile of housing prices respectively). In the tract on the right, appreciation and affordability were linked, and the diversity of housing options in the neighborhood actually increased.



What we really want to know, then, is how the *distribution* of housing prices in a neighborhood changes over time. This tool enables us to develop early warnings for possible displacement (such as in areas where the range of housing option is narrowing); identify priority areas to target with preservation efforts (such as areas where a portion of the housing stock is still affordable); and ultimately help achieve the goal of creating and preserving mixed income communities, by helping monitor and influence the availability of different housing options in the neighborhood.

C. Monitoring Impact

After identifying a target area and applying an appropriate development strategy, it is crucial to determine whether the intervention is having the desired impact. The question of whether particular initiatives or interventions are actually working arises almost daily in the field of community and economic development. Several of the metrics and indicators developed by the project, including the RSI, can be used to set up periodic status reports to monitor key trends in the target areas where interventions are taking place. The DNT Typology can be used to compare the trends in the target area to those in comparable neighborhoods, which did not have the intervention – to evaluate the impact of the intervention.

In implementing the Neighborhood Stabilization Program, for instance, it would be possible to monitor the extent to which the selected property acquisition and disposition strategy is affecting varied trends in the neighborhood. This information, in conjunction with the other tools described here, could then be used to identify which properties and which uses will make the most difference in particular neighborhoods

Moreover, the DNT **Impact Analyst** can estimate the impact of interventions with a great deal of detail and nuance. The Impact Analyst tool uses point-level data on an outcome of interest (be it crime, in which case the tool would examine individual crime occurrences, or housing values, in which case it would look at the price of individual homes) to determine how the impact of a particular intervention (e.g. a new shopping center, a transit

Sample Application: Guiding Neighborhood Stabilization Interventions

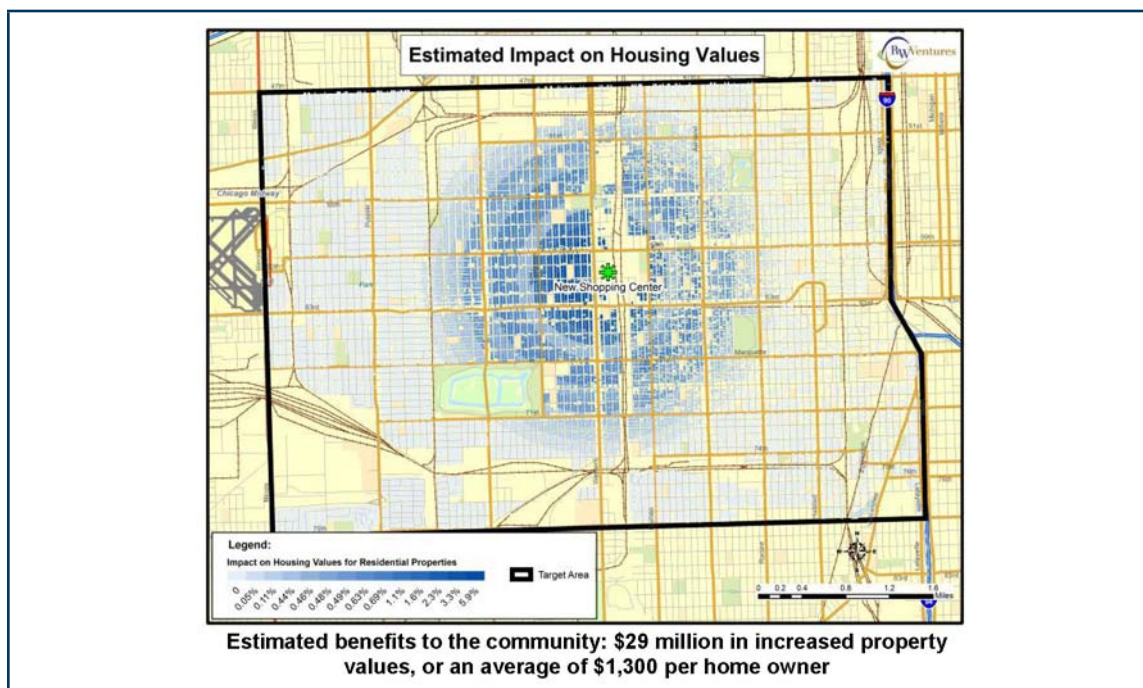
Among other things, the DNT tools can help inform the implementation of the Neighborhood Stabilization Program in particular places:

- The RSI and NeighborScope can help target “vital nodes” within the neighborhood and guide the acquisition of individual properties.
- The Typology can help identify the most appropriate disposition strategy, consistent with neighborhood type and desired trajectories.
- Impact monitoring and reporting tools can help track the outcomes of the program and adjust acquisition and disposition strategies accordingly.

stop, or an affordable housing project) varies over space and time.

This tool can be applied to existing interventions to evaluate their effectiveness, and it has already been used to evaluate the impact of Low Income Housing Tax Credit projects on surrounding property values and crime.

The Impact Analyst can also be applied to prospective projects to anticipate their effect on the community. The picture below (developed for a TIF application in Chicago) displays the expected home value impact of a new shopping center, based on the impact that similar shopping centers have had on surrounding property values. The shading of the color indicates the magnitude of the impact, which is highest (approximately 6% increase in values) closer to the shopping center and then declines with distance. This quantifies the expected benefits that a proposed development (in this case a shopping center) will bring to the community.



D. Applications for Investors

These tools are especially useful to a wide range of investors in urban neighborhoods. **Real estate developers** and businesses can use the RSI and other metrics to assess the investment potential of different neighborhoods, based on past performance, comparables and risk. **Foundations** can use them to target and prioritize investments across neighborhoods, monitor the impact of their funding, and gain a better sense of the returns. **Local governments** can use the tools to inform policy decisions on effectively tailoring public services.

Community groups can use the DNT tools to compare each neighborhood to its closest peers, identify what changes lie ahead and appropriate development goals, and prioritize interventions that would enable the neighborhood to achieve those goals.

The tools can also be applied in instances in which an organization is working on a particular intervention, rather than in a particular neighborhood. For instance, tools like the neighborhood typology can be used to profile neighborhoods based on their need for child care centers, and see what factors should be influenced to bring more facilities to the neighborhoods that need them the most. Similarly, the **Affordability Reports** can be used to drive affordable housing policy – identifying areas that are in most need of affordability preservation and areas where it is too late for preservation and new affordable units need to be created.

This list could go on, but the key point is that there is tremendous potential for the application of more powerful analytics to the design and planning of community and economic development interventions, and the initial tools developed by the DNT project provide a useful basis to move in this direction.

III. Conclusion – Building on DNT

The database, analytic models and new tools collaboratively developed by the DNT project create a new level of capacity for the field to understand, analyze and tailor interventions for community economic development. For instance, it is now possible to analyze what is happening in particular places (whatever size and shape of geography is of interest) at a much more granular level than before, uncovering dynamics and changes that would otherwise go undetected and revealing how to influence them. The tools also readily apply to new neighborhoods and policy areas, ranging from public safety to workforce development. In fact, they are already being used for such diverse purposes as improving property assessment processes; evaluating the impact of Low Income Housing Tax Credit projects; identifying opportunities for workforce housing development; and evaluating a major community development initiative.

Fundamentally, the community and economic development field has matured to the point where it can offer more nuanced and sophisticated understandings of the dynamics of neighborhood change, and develop and apply more advanced, business-like tools to drive neighborhood investment and development. The DNT project took an important step towards this next generation of economic development capacity. As these initial results and prototype tools are disseminated and applied, there will be additional opportunities to improve and expand upon them, and develop new ones, leading to a better understanding of neighborhood dynamics, more effective investment strategies and, ultimately, healthier and more productive neighborhoods.