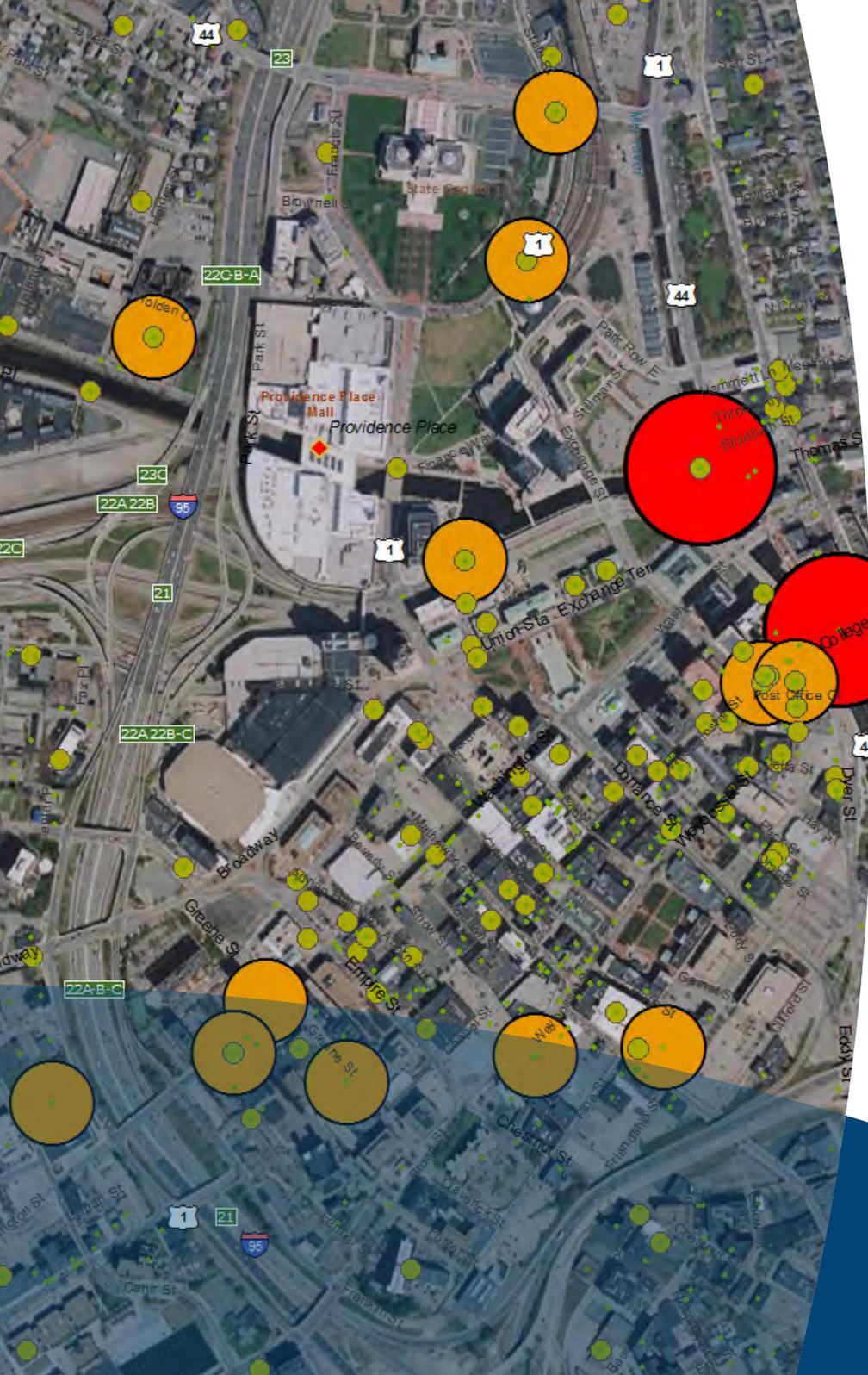


October 2012

# Improving Retail Performance with Location Analytics



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# Location Analytics for Retail

Understanding what is special about individual locations provides the mechanisms for improving the effectiveness and efficiency of retail operations. Location analytics helps businesses stay on top of trends by using geography to provide insight into traditional business analysis.

If you want to know how to deliver what customers want (stores in the right markets, with the right products for their demographic mix) and what you want (enough sales opportunity to overcome competition and changing consumer tastes), you've got to get into location analysis.

For years, business networks incubated in an environment where site selection and market analysis dominated decision making. This "field of dreams" encouraged the conventional wisdom of "build it, and they will come." Now, however, overbuilt equals overexposed; no one can afford even one too many storefronts in today's financial environment. It is important to find the optimal balance of brick-and-mortar and digital storefronts to meet the unique needs and wants of customers in every local market.

Retailers, economic developers, and practically anyone involved in the real estate life cycle can benefit from tuning their business strategies to individual markets and their distinct needs. This

process helps them deliver the right quantity of goods and services to the correct place and at the best time and price to meet market demand or fulfill potential.

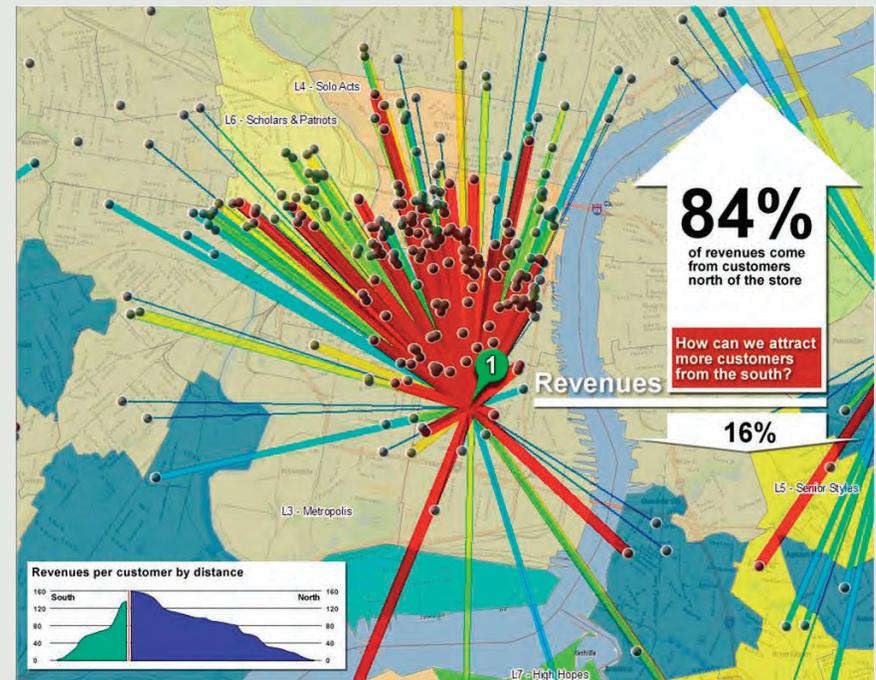
# Finding Success in a Soft Economy

Retail marketers are struggling to accurately predict the drop in consumer spending for 2008 and 2009 and offset the effects of a struggling economy. Along with the ever-changing spending patterns of consumers and the rise and fall of the competition, the market is in a constant state of flux. Even the 80/20 rule, stating that if a majority of the stores are successful, then the chain will be successful, is no longer applicable.

Used for many years by retail organizations for location analysis and determining correct expansion strategies, ArcGIS Business Analyst will continue to be a tool for successful organizations that are intent on keeping their businesses healthy and experiencing optimal growth. As the weak economic climate continues to push retailers to understand every nuance of their market, using ArcGIS Business Analyst for such microanalytics will become even more critical for delving deep into the geographic and demographic shifts in the environment.

## The Geography of Retail Is Changing

Savvy retailers continually assess their sales per square foot, real estate portfolio, management, staffing mix, and competitive pressure of individual stores. Consequently, strategic marketing



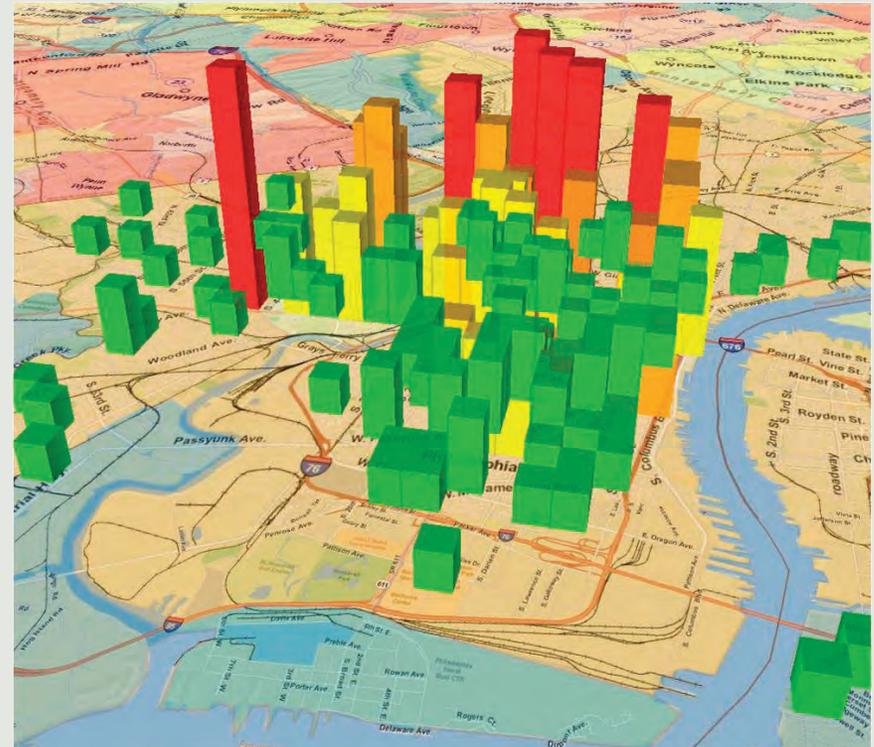
By noting customer information geographically for an individual store location, clear patterns emerge from the analysis.

has realigned itself from looking at the marketing landscape at a national level to drilling down to the regional, and sometimes household, level. Many are now trying to understand the retail landscape at the individual store level. This move allows these

astute retailers to address up-and-coming niche markets and satisfy customers being abandoned by other disappearing retailers.

Retailers are finding they can no longer rely on stable seasonal sales cycles as a compass for driving promotions. Instead, competitive and market pressures are now driving both operational and promotional strategies throughout the year. For example, when a local competitor shuts its doors, ArcGIS Business Analyst can be used by another retailer to evaluate the new landscape of the surrounding marketplace. Using trade area models in ArcGIS Business Analyst, the retailer can reassess its market area in light of the revised competitive landscape. This can answer many questions: Can the retailer save money but maintain market share if it decreases the number of stores in the area? Can stores be consolidated and moved to a more lucrative site now that the competitive landscape has changed? Should the retailer consider moving to accommodate other factors, such as proximity to new customers or employees?

The economic changes many neighborhoods are facing have clear geographic implications: stores are closing and malls are left vacant, and retailers are moving to accommodate shifting consumer appetites. The analytic, modeling, and visualization tools provided by ArcGIS Business Analyst—such as gravity modeling and data-driven ring analysis—along with its mapping and reporting capabilities, help guide a retailer’s decision-making process. The software can assist in determining such issues



By utilizing the ArcGIS Business Analyst Segmentation Module, overlays of successful customer segments and their modeled response rates can be shown in concentrations relative to the store location.

as what mix of products would best suit the customer base abandoned by a previous competitor or how much merchandise should be delivered without having too much. Through careful analysis, adjustments to product mixes and promotional merchandising can be made accordingly, not only nationally but also at the individual store level. All these factors have clear marketing implications—stronger analytic tools like those

found in ArcGIS Business Analyst are needed to strategically and successfully drive sales or determine potential store consolidations on a microgeographic level.

## Demographic Change

A second key driver in retail marketing strategy is the changing face of the consumers themselves. Unanticipated retail leaders have emerged. Brands like H&M, Urban Outfitters, and American Apparel have managed to maintain moderate stability and growth as their core customer constituency of renters, students, and young adults has sustained its buying power through much of the downturn. This is, in part, because this population is not as affected by the real estate, retirement, and investment markets. Those who are affected—homeowners, those near retirement, or others who rely on stock portfolios—will suffer more acutely. Larger retailers with a diverse base of customers are also being forced to reevaluate their buying groups to determine where segments of profitability exist. A retailer's best response to this shifting marketplace is to rapidly adjust merchandising and promotions to the segment's needs.

As the market continues to create ripple effects into various consumer segments, it will become increasingly critical for strategic marketers to listen to, anticipate, and understand their customer base. Here again, ArcGIS Business Analyst and an optional extension, the Segmentation Module, provide crucial marketing information to assist retailers in their efforts.

Assessing existing records within a customer mailing list, the loyalty program, or point-of-sale data can readily be enriched by categorizing the data into the 65 unique, fully documented consumer market segments based on Tapestry Segmentation data included in the Segmentation Module. Features such as property ownership, purchasing habits, savings and investment patterns, hobbies, preferred media, and socioeconomic status will emerge that reveal the changing story of consumer and lifestyle behavior. Analyzing customer retention programs—such as loyalty, layaway, and warranty programs and professional services—that are on the rise because of changing customer attitudes and feedback will also be enhanced by using the Segmentation Module. Visibility into these rapid purchasing and promotional pattern shifts, the long-term viability of a customer segment's purchasing power, and the accuracy of analysis produced by customer and point-of-sale data will be instrumental to the survival of both large and small retailers. Marketers who continually profile their customer base on a store-by-store level with ArcGIS Business Analyst and ArcGIS Business Analyst Segmentation Module will discover purchasing patterns that will drive the correct merchandise mix, promotions, and retention campaigns to keep those stores healthy.

## More Information

For more information, visit [www.esri.com/ba](http://www.esri.com/ba).

(This article originally appeared in the Spring 2009 issue of *BusinessGeoInfo*.)

# Enhancing Shopping Center Performance

*"GIS has allowed us to pull in and coordinate a variety of diverse perspectives in a very efficient way. This process also creates a cycle of learning by constantly providing realtime feedback. The re-lytics program has definitely made us more effective."*

*John Breitinger, Vice President, NorthMarq*

## Results

- \$730,000 new net operating revenue was generated over the previous year's forecast.
- Improved target market and focus achieved approximately \$8 million in incremental value.
- Leasing transaction times were cut by 50 percent.
- Tenant failure rates were reduced by 50 percent, resulting in an increase in income of \$360,000.

The golden rules for creating a successful shopping center—have a good location and strong anchor store—don't always apply in today's retail environment. Instead, the smallest nuances in a market can make or break a business. Unfortunately, absorbing



UP owns 20 shopping centers in the midwestern United States along with its sister company and leasing agent NorthMarq. GIS is part of the solution to provide location analytics, improving the companies' success in leasing vacant space.

and understanding research data can be difficult, as Midwestern shopping center owner United Properties (UP) found out.

The company provides a wealth of research to its leasing agents to help them develop critical insights into their trade areas. Too often, however, the agents didn't understand how best to

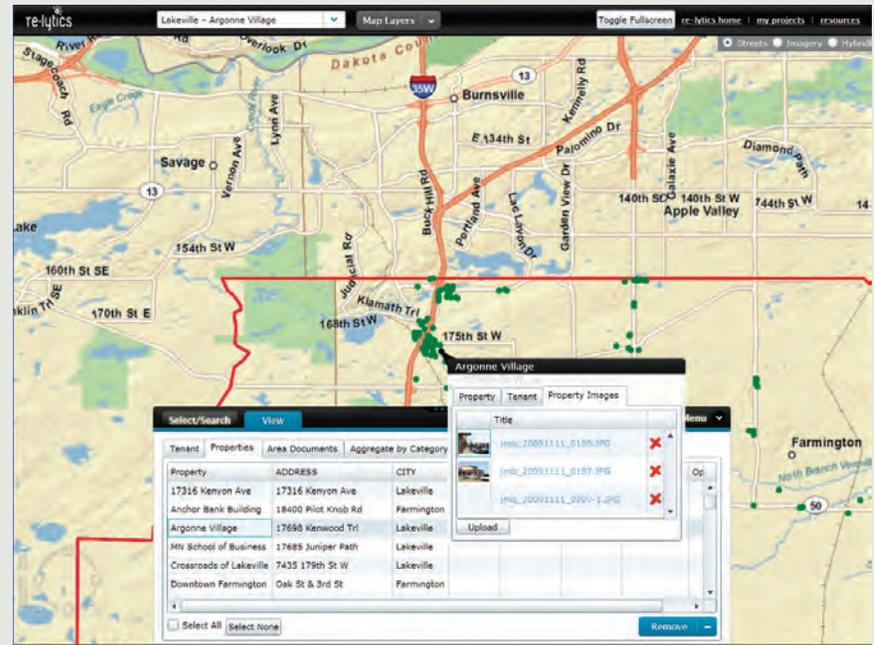
leverage this information. “Giving a 300-page binder of data to our leasing agents just wasn’t proving effective,” says John Breitinger, vice president of NorthMarq, a sister company and leasing agent of UP.

United Properties, the owner of 20 shopping centers in the Midwest, with NorthMarq, a provider of a full range of commercial real estate services nationwide, embarked on the creation of an innovative use of existing research, GIS technology, and location analytics to improve the companies’ success in leasing vacant space. The outcome is re-lytics, a program offering proprietary research, analytics, and a web-based toolkit that supports both leasing and asset management. Development of the web-based program came from Inetium, a Gold Certified Microsoft Partner and sister company.

## ArcGIS and SharePoint Bring Location Data to Life

The original goal of the program was to find a better way to provide leasing agents and asset managers with a tool that would help them develop the critical insights needed to target and engage the best prospects for their space, then put together presentations to help prospects visualize the opportunities.

After reviewing several options, the companies’ team chose Esri ArcGIS Server, ArcGIS Mapping for SharePoint, and the Business Analyst Online API to provide access to the geographic datasets, internal information, and assessment tools that agents need to



Agents use re-lytics, powered by ArcGIS and ArcGIS Mapping for SharePoint, to look at all the information on available properties in Lakeville, Minnesota, a Twin Cities suburb.

do their jobs, as well as a secure site to collaborate and share information.

ArcGIS Server provides an enterprise GIS platform for UP and NorthMarq. ArcGIS Mapping for SharePoint is a set of configurable mapping components that allows SharePoint users to embed an interactive map within an existing Microsoft SharePoint site. The Business Analyst Online API gives the company the ability to create custom web applications that

include demographic data reporting capabilities. The team uses geographic data from ArcGIS.com, a site that connects users to maps, information, and tools published by Esri and other ArcGIS users. With the software and data, leasing agents can now see all the information they need on a map to help their clients find the most appropriate space.

The re-lytics program surveys and assesses more than 134 categories of goods and services in each shopping center trade area. Using ArcGIS, the data can be organized by category to determine spending potential, competitive dynamics, and consumer preferences for every category of retail goods and services in the marketplace. The program is a quick and simple evidence-based approach since, as Breitingering points out, “even the best insights are not useful if they aren’t easy to use.”

## 15 Minutes to a Great Site

One component of re-lytics is a 15-minute tactical analysis. Users employ the tools to quickly assess the market potential for a particular business, evaluate existing competition, and create custom marketing materials including a comparison report that puts everything in context for a prospect. An agent begins by reviewing consumer spending and market potential reports to get a feel for the market potential. Next, the agent uses the map-based tools to review current competition and property availability and see spatial relationships. The agent makes comparisons by selecting the trade areas to be compared then



re-lytics is a program offering proprietary research, analytics, and a web-based toolkit supporting both leasing and asset management. Development of the web-based program came from Inetium, a Gold Certified Microsoft Partner and sister company to UP.

creating either a custom polygon, a radius around an address, or a drive-time distance around an address. Next, the agent selects the categories that need to be considered for that particular retailer, such as key demographics, consumer expenditure, and employment information. A report is generated and made into an Excel spreadsheet. It only takes a few minutes for the agent to add information and a local perspective, such as anchor store and traffic information. A report like this is used to compare a retailer’s existing sites to potential sites.

“Working with Esri software, we were able to provide custom materials to support each pitch, including comparison reports and very useful maps,” asserts Breitingering. “This was a breakthrough in providing context for every decision. We are all

overwhelmed with data. We have found GIS to be a rich platform to aggregate information from many sources and create much better insights and visualizations. This has resulted in more customer engagements and much more substantive discussions.”

## Working Together for the Best Decision

Agents are finding that viable tenants have so many alternatives today that it is difficult to get their attention. With the new ability to depict the market potential of a prospective site in comparison with every other site where a prospect had actual history and experience, agents can engage prospects in discussions. This provides information on what the tenants need to succeed. This feedback is critical in a rapidly changing environment.

According to Breiting, property owners, asset managers, and leasing agents are empowered by using the SharePoint site to work together in real time. The technology provides a good platform for sharing data and allows experience, knowledge, and skill to be transferred through human interactions.

“Embedding our GIS system within a SharePoint environment has allowed us to pull in and coordinate a variety of diverse perspectives in a very efficient way,” says Breiting. “The owner, market analyst, leasing agent, and tenant all bring meaningful insights that are quickly disseminated and discussed. This creates an advantage in observation and orientation in a rapidly changing market, enabling a much higher tempo in decision

making and execution. This process also creates a cycle of learning by constantly providing real-time feedback. The re-lytics program has definitely made us more effective.”

For more on how businesses can operate more effectively with GIS, visit [esri.com/business](http://esri.com/business).

(This article originally appeared in the Winter 2010/2011 issue of *BusinessGeoInfo*.)

# Thinking Strategically with Geographic Information Systems

## Nike Learns Who Its Customers Are by Where They Are

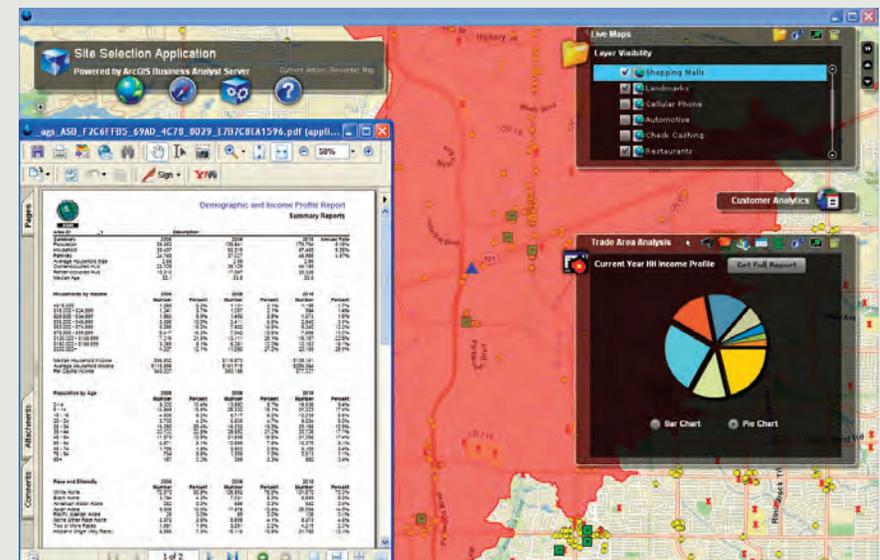
Based near Beaverton, Oregon, a Portland suburb, Nike has redefined the shoe market. The company's success and worldwide reach are due in part to its innovative people and their forwardthinking use of technology to apply resources wisely across the organization.

One of these is geographic information system (GIS) technology. Information like customer and store locations can be placed on a street map along with marketing information, including profiles of areas down to the census block group level or customer address. This makes GIS useful in obvious applications like site selection and property management, but it's also an important technology for the entire retail process, from planning and building to buying and shipping products.

### Seeing Is Everything

Nike first licensed GIS software from Esri in 1993 for use in the company's Sales Department to help staff managers understand where the Nike product was being distributed. Being able to visualize this on a map gave new insights into where to distribute products based on demographic information, sales history, and other factors such as where schools with competitive sports

teams are located. Seeing all this information combined on a map made the decision-making process more fact based and easier to communicate throughout the company and to partners.



Viewing information on a map gives sales staff new insights into where to distribute products based on a comprehensive view of information.

Beginning in 2003, the Sustainable Business and Innovation Department also began using GIS technology to map shoe collection locations for Nike's Reuse-a-Shoe program. The



with its own point of sale and door (or retail store) location data. Using Business Analyst, Nike's regional teams map, analyze, and share key planning information with other departments. GIS provides added business intelligence to retail marketplace strategies and the evaluation of marketplace return on investment.



Nike uses GIS for the entire retail process, from planning and building to buying and shipping products.

## Repeatable Workflows

The process Nike uses to apply GIS is replicable for any location since the data and tools used are standardized. Using Business Analyst, trade area rings of appropriate sizes around doors are created and analyzed using demographic and other data provided through Business Analyst along with data points created from internal information, like customer data. Various reports, such as demographic, income, and retail expenditure for each area of interest, can be easily created and consolidated into one comprehensive report.

The GIS solution includes a secure Internet application, information, and tools that are accessible throughout the company and by Nike affiliates, such as Converse, Cole Haan, Hurley, and Umbro. Business Analyst users create custom reports via pull-down menus that provide information such as retail expenditure and market research information for sports participation. While affiliates cannot change the base data, they can incorporate their business information, such as their own store locations, and benefit from using the Nike information for their own marketing analyses.

## Significant Returns with GIS

GIS reduces the time and effort spent on researching information and creating reports. Analyzing the data provides new insights and improves the quality and scope of business data. Moving

to server-based GIS ensures that data is shared by the company and the same data is used by everyone. Having the information Nike needs in a central place means reports can be run quickly. By seeing the existing suite of markets and activities in stores, analyses such as site selection and market optimization are improved.

Unlimited access to the data and maps allows global employees to see the same information simultaneously, and it can be shared more broadly throughout multiple groups.

## The Road Ahead

GIS data and software have provided an effective solution for Nike. Communication has been enhanced, and the ease of use has made sharing information effective. With GIS, Nike has the technology to keep its finger on the pulse of everyday business operations.

(This article originally appeared in the Summer 2010 issue of *BusinessGeoInfo*.)

# A Formula for Revitalization Using Esri Business Analyst for Planning Project

Hershey, Pennsylvania, experienced a sudden and unexpected loss of visitor and resident patronage in its downtown. In 2008, Hershey Entertainment and Resorts, an entertainment and hospitality company dedicated to preserving the legacy of Milton S. Hershey, hired a GIS consulting firm to help attract consumers back to the area.

Retail trade area analysis is a necessary part of any civic development plan. To find a target market and gain knowledge about local consumers, geographic information must be carefully considered. Because GIS software specializes in extracting and aggregating geographic data, it is an ideal platform for conducting this analysis. Esri Business Analyst, which incorporates the Huff model (a tool for formulating and evaluating geographic business decisions), was instrumental to the process of successfully reenvisioning Hershey's downtown.

## Location-Based Problem

The town of Hershey was originally designed by Milton S. Hershey to serve the needs of chocolate factory employees and their families. Built in the early 1900s, the original town included housing for factory employees as well as schools, churches,

recreational facilities, and a trolley system. By the early 1930s, downtown Hershey had grown to become the center of activity for Hershey residents, with a bank, theater, department store, hotel, amusement park, and community center.

As the town grew and the number of visitors increased, Pennsylvania enhanced the local highway system to accommodate the increase in traffic volume. However, enhanced highways had the unintended effect of directing commerce away from downtown Hershey, enticing residents and visitors to shop in suburban shopping centers.

*To find a target market and gain knowledge about local consumers, geographic information must be carefully considered. Because GIS software specializes in extracting and aggregating geographic data, it is an ideal platform for conducting this analysis.*

## A New Vision

In 2005, Hershey Entertainment and Resorts drafted plans to revitalize the downtown area. The revitalization effort started with the restoration of a prominent downtown building originally

constructed in 1916 for printing candy labels. The newly renovated building opened in the summer of 2006 and is now home to two new restaurants on the ground floor, with the Hershey Entertainment and Resorts corporate offices occupying the two upper floors. Later, an interactive museum, the Hershey Story, was located adjacent to the renovated press building.



Hershey Kiss streetlights line Chocolate Avenue in picturesque Hershey, Pennsylvania.

In 2008, Hershey Entertainment and Resorts contracted Delta Development Group, Inc., a community planning firm located in nearby Mechanicsburg, Pennsylvania, to conduct the next phase of revitalization. With design assistance from EDSA, a landscape architecture and urban design firm from Baltimore, Maryland, Delta began a yearlong process of creating a new vision for the downtown area.

In keeping with Milton Hershey's original vision for downtown Hershey, the revitalization plan was based on the needs of the community while reestablishing a balance between the downtown area and the surrounding resort, school, medical, and commercial areas. The goal was to make downtown Hershey serve the community so residents and visitors wouldn't need to go elsewhere.

### An Integrated Formula

As Delta assessed the ability of Hershey's market area to support revitalization, EDSA evaluated the downtown area's physical opportunities and constraints in preparation for creating conceptual designs. The ultimate challenge facing the team was creating a design concept that best captures the opportunities presented by the local market. The first phase of the analysis would be to profile and measure the local market for real estate uses such as retail, residential, office, and public spaces.

In running demographic reports for comparative analysis, the most difficult task for Delta was determining the geographic trade area for downtown Hershey that would be used as a basis for estimating the amount of retail and restaurant space that could be supported. “The big question we needed to answer was, ‘How far would people be willing to drive to shop and dine

$$\text{Consumer Probability} = \frac{\text{Potential Gross Leasable Area of Hershey Square} \div \text{Distance from Consumer to Hershey Square, Multiplied by a Distance Decay Factor}}{\text{Sum of Gross Leasable Area of Hershey Square AND of Competitive Centers} \div \text{Sum of Distance from Consumer to Hershey Square AND to Competitive Centers, Multiplied by a Distance Decay Factor}}$$

The Huff Model Modified with Hershey-Specific Assumptions

in downtown Hershey?” said Debbie Tollett, senior associate at Delta Development Group. “To answer that question, we used the original Huff gravity model in Business Analyst.” The Huff model is an analytic tool that measures the probability that consumers will drive to a proposed new development site based on the distance they would have to travel to get there, the attractiveness of the development, and the area competition. It is

assumed that the probability that consumers will travel to the site increases as the size of the site increases and as the distance or travel time to the site decreases. (The Huff model was developed by Dr. David Huff of the University of Texas and first published in 1963. To learn more about the Huff model, see “Parameter Estimation in the Huff Model [PDF]” by David L. Huff in the October–December 2003 issue of *ArcUser* magazine.)

Once Delta established the geographic market area, it could conduct a more detailed evaluation of consumer spending and identify target retail tenants for further analysis. However, at this juncture, the analysis had focused on general retail spending. With an estimate from EDSA regarding adjacent land in the downtown area that was available for development, the Delta team approached the analysis by assuming that this land could be developed into Hershey Square, a town center with leasable retail space that could compete with surrounding suburban retail centers.

## Results: Local Market Defined

Based on these inputs and calculations, the Huff model provided spending probabilities by block group that allowed the Delta team to identify a defensible trade area. This resulted in a conceptual design and scale for downtown Hershey that was driven primarily by the local market.

While the Huff model requires the user to have at least a conceptual understanding of how the model works and how various input components impact the model output, the user-friendly Business Analyst interface allowed the Delta team to access precise analytic capability that would otherwise be outside the realm of its expertise. "Before discovering the Huff model operations in Business Analyst, I tried to do the

equation on paper," laughed Tollett. "All the variables that need to be plugged into the formula ate way too much time. Performing the operation in an integrated environment made all the difference in getting the quick and accurate results we needed."

### Bringing the Formula to Life

Applying Hershey-specific assumptions to the Huff model gave a clearer picture of the local market. Those assumptions and the Delta team's input for the model included the following five components:

1. The Huff model substituted Esri's census block group polygons as the consumers and used the estimated total annual consumer spending for retail goods from the Business Analyst demographic data as the data field to be summarized for each block group in the model results.
2. EDSA provided a preliminary assumption of the number of square feet that could physically be developed on the available contiguous parcels identified for



A statue of town founders Milton and Catherine Hershey on the campus of Milton Hershey School.

Many Hershey factory employees reside in neighborhoods like this located in the town of Hershey.



redevelopment in the downtown area. This estimate represented the attractiveness factor, the potential Gross Leasable Area (GLA) of Hershey Square in the formula shown on page 17.

3. Esri's shopping center data layer was used to identify and select competitive retail centers: the 14 retail shopping centers located within 15 miles of Hershey, including a 246,000-square-foot outlet center within a quarter-mile of Chocolate Avenue. As with Hershey Square, the GLA field was identified as the attractiveness factor for the competitive centers in the above formula.

4. Business Analyst calculated the linear distance from each consumer to the proposed location of Hershey Square and to each of the 14 competitive retail centers. These calculations are represented on the right side of the divisor in the formula.

5. Linear distance between consumers and shopping center locations represents only one distance consideration in the Huff model formula. The distance a consumer is willing to travel to shop is also influenced by other considerations such as the type of goods sought. For instance, consumers would be more likely to drive a longer distance to shop for furniture than to shop for groceries. The Huff model provides a distance decay constraint that can be entered in the model to account for this factor. The appropriate constraint is entered as an exponent between 1 and 2. A smaller exponent represents shopping activities for which consumers will travel farther, such as furniture purchases.

Since the Hershey model is based on total retail spending and represents a variety of types of retail goods, an exponent of 1.5 was used in the model assumptions.

(This article originally appeared in the Winter 2010/2011 issue of *BusinessGeoInfo*.)

The Old Spaghetti Factory Finds a New Home

## Esri Business Analyst Online Successfully Fills Commercial Vacancy

How the City of Redlands, California, Markets Itself to Potential Businesses

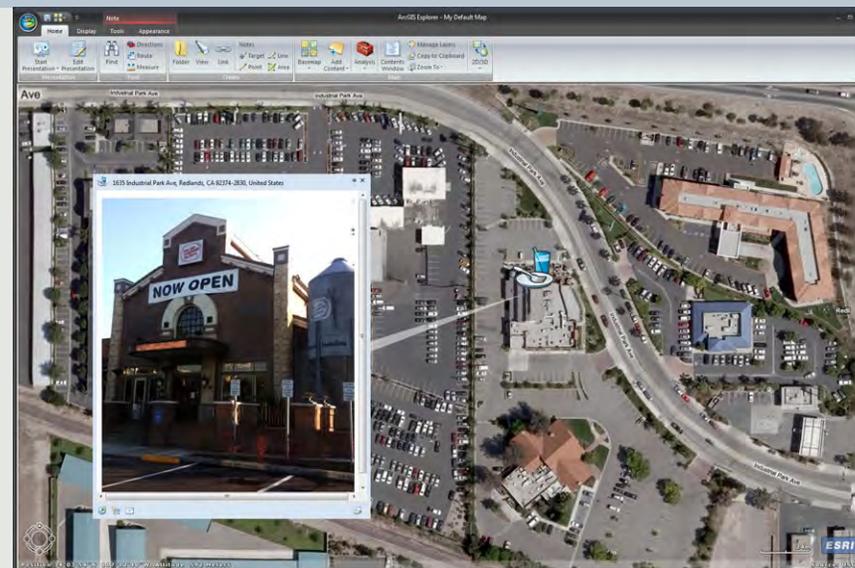
By Matthew DeMeritt, Esri Writer

When a barbecue restaurant closed just off Interstate 10 in Redlands, California, in 2008, workers were laid off and prime real estate stood empty and abandoned. This left the economic development staff at the city's chamber of commerce facing a business challenge: figure out what type of restaurant could thrive in this location and sell the benefits of the area to the prospective tenant. Esri Business Analyst Online software was instrumental in helping the chamber accomplish this.

### A Lack of Data

One of the Redlands Chamber of Commerce's principal missions is to recruit new businesses and fill commercial vacancies. However, until recently, the chamber had nothing data driven to show prospective tenants that moving into sites such as the empty barbecue restaurant on Industrial Park Avenue would be a smart business move.

"We had no tools that allowed us to provide solid information that a developer or business could use to make a good decision," says Kathie Thurston, the chamber's executive director. "We looked to commercial Realtors and city partners to provide us with data, but we never knew if the data was current."



The Old Spaghetti Factory restaurant in Redlands, California, as seen in Esri's ArcGIS Explorer.

The chamber knew it had to provide accurate, up-to-date data that proved Redlands, a city of 60,000 people located halfway between Los Angeles and Palm Springs, was a viable area where businesses could succeed. In 2009, the organization turned to Redlands, California-based Esri for help. Esri showed the city's economic development staff the on-demand reporting and mapping capabilities of Business Analyst Online, Esri's Web-

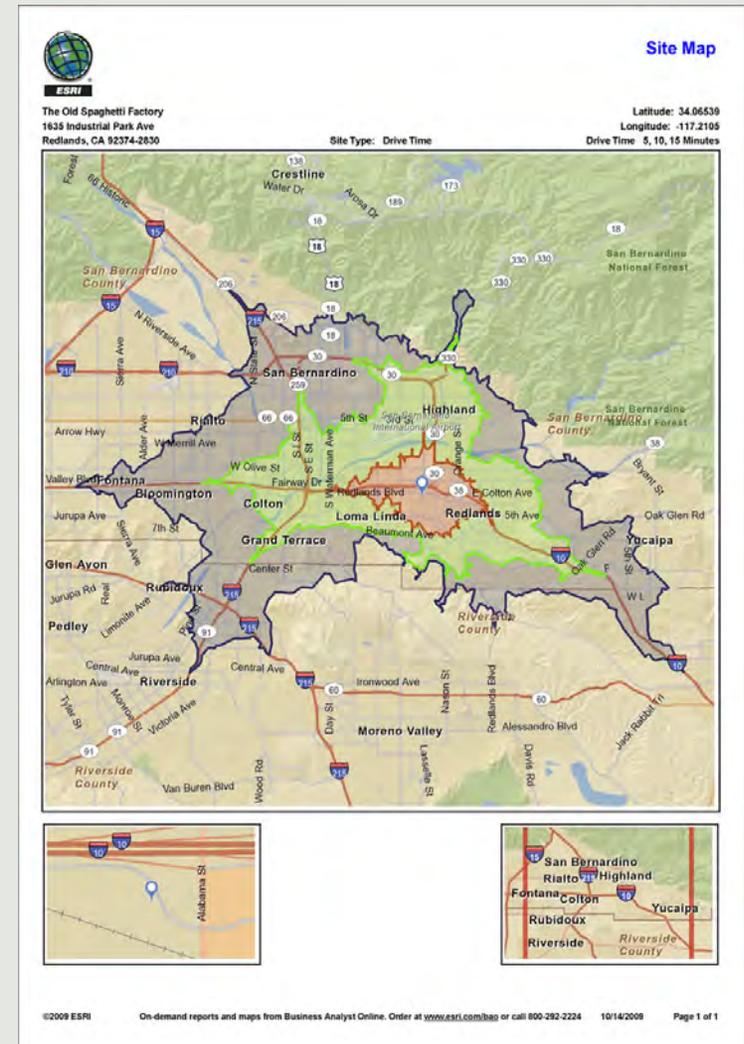
based solution that combines GIS technology with extensive demographic, consumer spending, and business data.

## Reports Give Insight

In 2009, Esri staff members attended the International Conference of Shopping Centers in Las Vegas, Nevada, to show the benefits of Business Analyst Online software. There, they met Ric Holderbaum, real estate director for the Portland, Oregon-based Dussin Group, which owns and manages the Old Spaghetti Factory chain of restaurants.

Holderbaum had mentioned to Esri that the Dussin Group was eyeing Redlands as a possible new location for the Old Spaghetti Factory. To show Holderbaum how maps combined with demographic data could refine Dussin's search, Esri—knowing that the chamber had recently become a user of Business Analyst Online and could further assist him—generated a few simple reports with Business Analyst Online. Intrigued by the specificity of the reports, Holderbaum contacted Thurston to request more detailed analysis of the area.

With the vacant restaurant near Interstate 10 in mind, Thurston set about generating several demographic data reports and a map of the proposed location. This information allowed the city, which partners with the chamber on economic development strategy, to quickly analyze the local market, including the demographic makeup and consumer characteristics of the area.



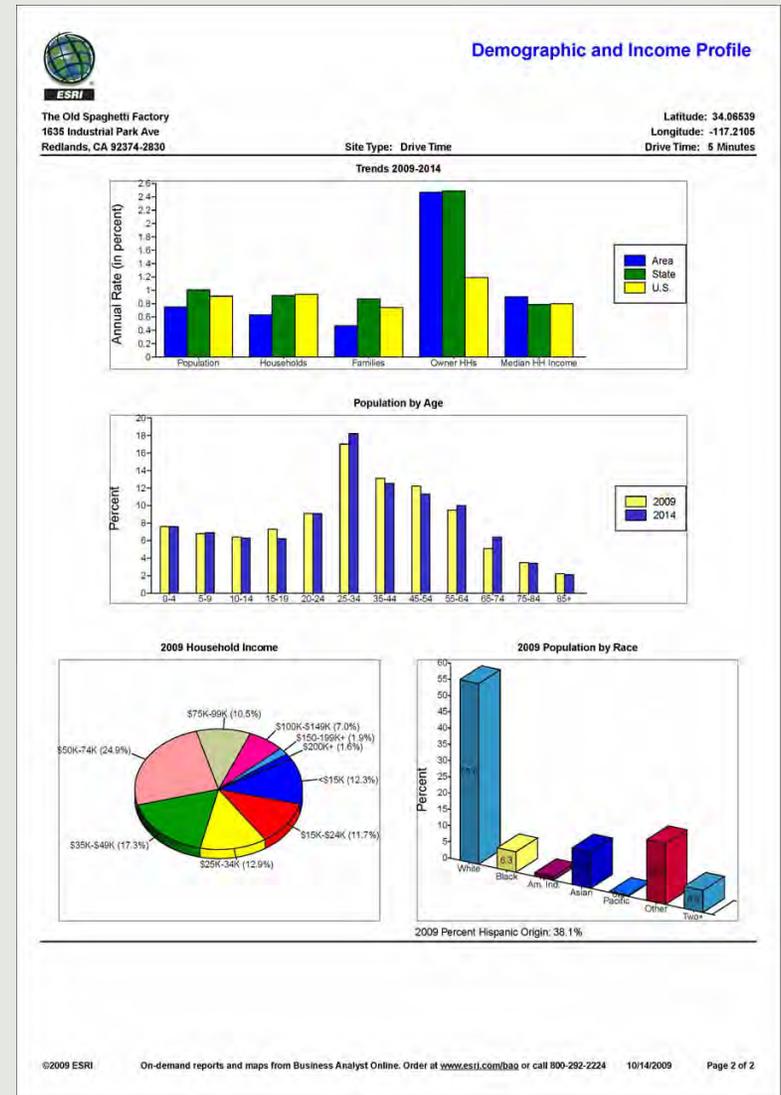
The simple Business Analyst Online interface was used to easily illustrate demographic data for a five-minute drive time around the proposed location for the Old Spaghetti Factory.

Business Analyst Online was used to easily illustrate demographic data such as detailed income and age profiles and retail goods and services expenditures for the area within a five-minute drive time around the location of the vacant restaurant. The information revealed that a large percentage of Redlands' and nearby cities' populations fit the demographic profile of the customers that the Old Spaghetti Factory traditionally serves.

"Doing a drive-time analysis allowed us to generate a polygon for this specific restaurant and its needs," says Thurston. "We were even able to push the drive time out 20 miles east to two very important neighboring towns, Banning and Beaumont, and capture the demographics from those cities." Business Analyst Online was also used to create a traffic count map that highlighted the proposed location's proximity to Interstate 10, which, being only one block, provided an opportunity for the restaurant to advertise to more than 250,000 motorists each day.

## Grand Opening

Based on information generated by Business Analyst Online, representatives from the Dussin Group decided to open the Old Spaghetti Factory where the barbecue restaurant once operated. The new restaurant had its grand opening in December 2009, nearly a year after the previous restaurant closed. Since then, the Old Spaghetti Factory has performed extremely well, with brisk and consistent patronage from locals and freeway commuters.



Business Analyst Online provided accurate, current information about population and income in easy-to-understand graphic reports.

With Business Analyst Online, the chamber was able to promote the area by providing specific data that described residents' dining choices and behavior and gave detailed income and population demographics for Redlands and the surrounding area.

"I always know that when I work with a city that provides Esri data, I can count on information that is accurate, current, and useful for me to make quick, informed decisions," says Holderbaum.

Visit [www.esri.com/bao](http://www.esri.com/bao) for more information.

(This article originally appeared in the June 2010 issue of *ArcWatch*.)

# Improving Market Research in Commercial Real Estate

Edens & Avant owns, operates, and develops community-oriented shopping centers in primary markets throughout the East Coast. More than 130 centers in 14 states make up its portfolio. The company's clients include regional and national retailers such as Fresh Market, Whole Foods, Publix, Starbucks, and Target. The success of the company's shopping centers is based on generating the best mix of retailers and creating high-profile developments that are optimally aligned with neighborhood need and market opportunity. Edens & Avant is headquartered in Columbia, South Carolina, and has regional headquarters in Boston, Massachusetts; Washington, D.C.; Atlanta, Georgia; and Miami, Florida.

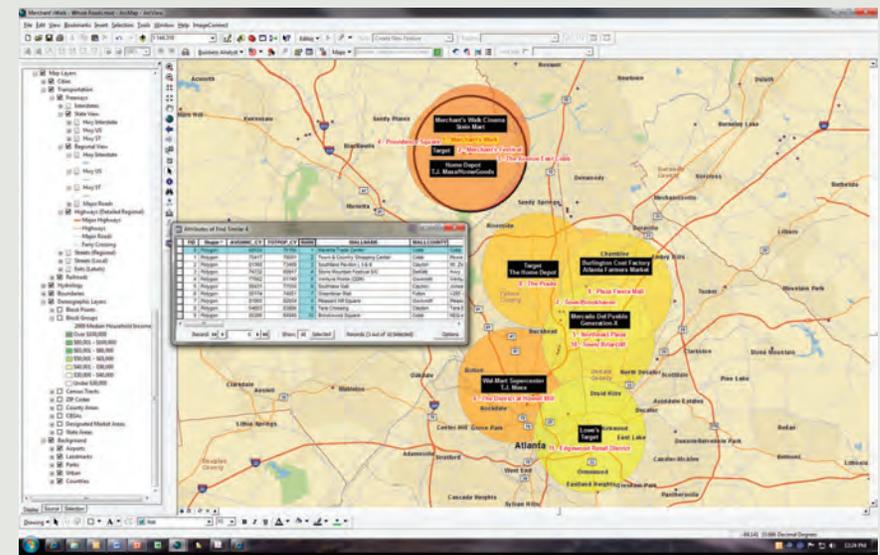
*"Without GIS, our projects wouldn't have been as successful."*

—David Beitz, Director of GIS, Edens & Avant

## Seeing a Place through Data

Edens & Avant required a system to research markets and locations as well as a platform to quickly market that information to prospective retailers. Whether a retailer is looking to open a new store, add a second store, or move across town, the

company has to be ready with a strong case for the retailer to move into an existing shopping center or a new development. Purchasing one-off reports to research each shopping center becomes inefficient when dealing with hundreds of locations that have rapidly changing information like demographic data.



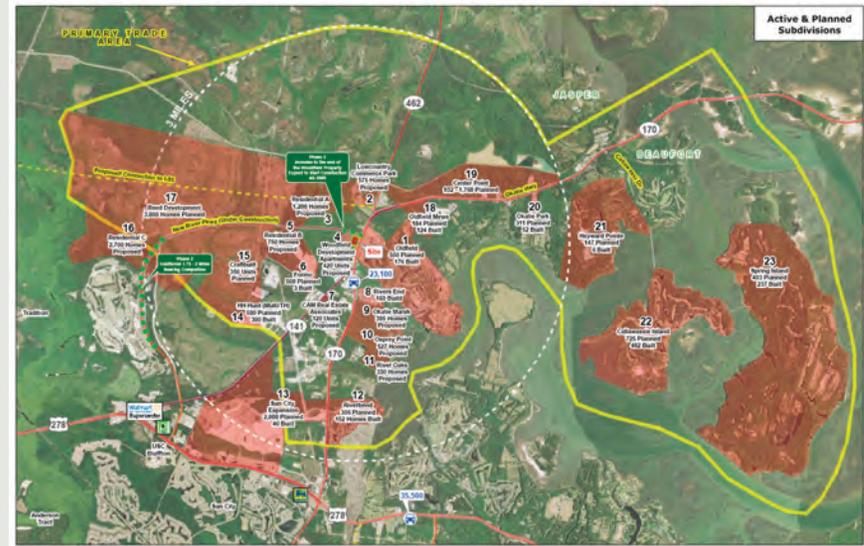
The Find Similar feature in Business Analyst is used to identify new markets that are similar to markets in which retailers are already successful.

In addition, instead of banking on the promise of growth driven by the housing boom—the standard model a few years ago—developers must now create projections based on less robust growth and more conservative economic projections. “Healthy shopping centers are the ones that are located in markets with a diverse workforce and good balance of daytime-to-household population,” says David Beitz, director of GIS, Edens & Avant. As a result, the company needs to analyze, aggregate, and display accurate demographic information on a daily basis.

## Better Decisions through Mapping

Edens & Avant uses Esri Business Analyst software on the desktop and online to help its clients make the most informed decisions.

Clients can see and understand all information available for each shopping center location, including address, major roads, competition, population density, and growth. Business Analyst Online (BAO) is used to generate a customized six-page report annually for each shopping center that is then used by investment leasing and development group agents so they can better visualize and understand their markets. The software helps identify new markets that are similar to those in which the retailers are already successful. If staff members need customized reports or maps, they can request them from the GIS group.



Combining city data with updated information through Bing Maps and Esri demographic data ensures that Edens & Avant has the most current information for its clients.

Integration with Bing Maps provides monthly updates to aerial, road, and hybrid (aerial with labels) maps. “Using Business Analyst and Bing Maps, we are able to find locations fast,” says Beitz. “Being able to view aerial images allows us to give a better context to our clients about location. This is particularly helpful when looking at larger areas.”

Business Analyst streamlines operations. The company looks carefully at optimizing its shopping center portfolio by selling properties in secondary and tertiary markets and buying properties in primary markets with dense populations in core-

based statistical areas (CBSAs). Business Analyst is used to look at daytime population, income changes, and population changes, among other information. "It is very important to know the demographics in order to find areas that will perform best in this new economic climate," says Beitz.

## Results

Business Analyst allows Edens & Avant to research markets and assist in quickly leasing space by providing spatial information via maps and reports that uniquely characterize neighborhoods and are specific to each retailer.

Edens & Avant can now serve its clients' needs internally without outsourcing to third parties. The ability to also combine city building permit data ensures that Edens & Avant has the most current information for its clients. As a result, two planned grocery-anchored shopping centers are going forward in areas where population has doubled even though residential construction recently slowed down. Being able to find and track this growth with Business Analyst allowed the company to minimize the carry time of the land and provide the shopping center sites based on the retailers' timelines. Concludes Beitz, "Without the information to support these decisions and an accurate and appropriate way to communicate it, these projects wouldn't have been as successful."

For more information on how commercial real estate companies use GIS, visit [esri.com/re](http://esri.com/re).

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