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The Importance of Knowing Your Neighbor

Simon Thompson, Esri's director of commercial business industry at Esri, believes retailers should use geographic information system (GIS) data and software to better understand their markets because, Dorothy, this isn't Kansas anymore.

He explains, "On my last trip to Kansas, it wasn't the wheat fields or flatness that amazed me but the repetitive retail landscape. It seemed that every town was a clone of the one I had just left—the same restaurant chains, grocers, drugstores, and general merchants."

The U.S. Green Building Council's Green Building Information Gateway is an example of an application that allows users to quickly compare their neighborhood with other sites anywhere in the country. In this case, LEED ratings are being evaluated.

Was it an unholy alliance? Had real estate developers, government, and retailers reached perfect agreement on what every town needed and limited the choice to a small menu of options? "The more I looked, the more I found exceptions," says Thompson. "The harder I tried to quantify the way towns were similar to each other, the more I noticed the differences and came away relieved that local flavors dominate."

Doing business locally is the new kind of normal. After years of building out networks almost without limit, the recent recession changed everything. Retailers that bucked the trend did so because they have what their customers want: stores in the right markets, the right products for their catchment, and enough sales opportunity to overcome competition and changing consumer tastes. Location and geography-based analysis have helped companies shift focus from opening stores to improving store revenue and creating better promotions. Coupons have become cool again. "And we're not just clipping them from the local paper," explains Thompson. "We're willing to get them online because we benefit from letting retailers integrate our online habits with our in-store purchases."

The lifeblood of a store is return customers. With detailed, local knowledge, retailers can go beyond segmentation and customer profiles to individual characteristics, localized assortment management, and product-level stratification. Loyalty and CRM data come alive, so companies can spot trends and respond, reduce markdown risks, and improve the balance sheet.

Thompson concludes, "Like Dorothy, I know there's a journey that we need to take to gain courage, a heart, or knowledge. Are we ready for the challenges on the yellow brick road? I don't know, but GIS sure looks like a good weapon

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The Importance of Knowing Your Neighbor

against the miseries of the Wicked Witch of the Great Recession."

Do others in the industry agree that having products and services that more reflect the local region really help retailers succeed?

How Do You Measure Store Visits?

How often will a customer visit your store if it is 2 minutes away from the customer's home versus 10 minutes away? If there are less affluent people living near the store and more affluent people living further from the store, how much business will you capture from each? This is a question posed by Jim Stone, the founder and president of geoVue.

geoVue is a leading provider of market planning and site selection solutions for operators. The company is located in Woburn, Massachusetts, and has been around since 1994. Stone explains, "The increased focus on localization has cast a new light on a well-established concept in site analysis: the primary trade area. A primary trade area is generally defined as the physical boundary that represents some significant proportion of customers who will frequent a store, usually between 60 and 80 percent. Many techniques have been devised to estimate the size of a primary trade area for a proposed store including standard rings, drive times, and probability-based measures using advanced techniques such as spatial interaction models."

According to Stone, there are two major challenges presented by the use of a single geographic boundary to define a store trade area:

- What does the region outside the trade area look like, and does it really represent the remaining sales beyond 60–80 percent?
- Does the probability of patronage change uniformly from the store to the edge of the trade area for all stores?

After 15 years of analyzing actual customer data for retailers, restaurants, and service companies, geoVue has found that it is almost impossible to consistently predict sales for a store using a single boundary as the measure of a primary trade area. As the distance from a store increases, the distributions of sales for real-world stores are too diverse given the varying quantity and demographic profile of customers.

> "If the *Wizard of Oz* were written today, Dorothy would probably have her own smartphone."
>
> Lori Schafer, Executive Adviser for SAS Institute's Global Retail Division

This is where GIS technology and data are so important. Retailers can use GIS to move into new areas with techniques such as geographically weighted regression, geostatistical analysis, and other models based on continuous measurement of data across different distances from a store. Primary trade areas may be useful for visualizing existing customer data, but accurately modeling potential customers will require better techniques as chain operators seek growth and profitability from fewer, better-located stores.

Letting the Customer Take Charge

"If the *Wizard of Oz* were written today, Dorothy would probably have her own smartphone," says Lori Schafer, executive adviser for SAS Institute's Global Retail Division. Schafer currently serves on the board of directors of the National Retail Federation (NRF) as well as several public and private retailers and technology companies.

"Based on Dorothy's current location, she'd have a GPS-based app showing her how to navigate the Yellow Brick Road back to Kansas," Schafer says. "Along the way, she and her friends could use the smartphone to search for the nearest retailer who carried a heart for the Tin Man, a brain for the Scarecrow, and courage for the Lion. She'd also use the device to do comparative price checks; research which retailers were offering incentives; read reviews from others who purchased those same products; and, via social media, ask opinions of her family back in Kansas. She may even use foursquare to become the Mayor of Oz!"

Schafer goes on to explain that in today's world, Dorothy would be a typical tech-savvy consumer. Customers are now in charge, and successful retailers must not only better understand local customer preferences and differentiate their stores from competition but also engage with customers on their own terms. Today, it's all about bringing the store to the customer, not expecting the customer to find a store.

Savvy retailers understand why it is critical to become more local. They are focusing on understanding neighborhood demographics and tying customer loyalty, purchase, and location data together to tailor assortment, style, size, and even colors to local customer

GIS allows retailers to understand the local market more accurately.

demand. Responding to local customer needs is an essential strategy for most retailers. It's proven to not only enhance customer satisfaction but also drive incremental sales and margin.

Schafer points out some examples, such as Macy's, a chain of mid- to high-range department stores found across the United States, whose core strategic priorities are "differentiating merchandise assortments and tailoring them to local tastes." The company's "My Macy's" initiative is all about making its merchandise specific to customers' needs in every store, in every local market.

Or, consider Best Buy, an international retailer of consumer electronics and entertainment software. This company provides consumers with access to a store-specific web page for each of its locations. Its mobile application includes a store locator and will soon provide the ability to search for a particular item and, based on a customer's current geographic location, show in-stock positions for nearby stores. Both Best Buy and Macy's are testing a mobile-based customer loyalty program that detects when the customer is in the store, then presents relevant incentives based on that customer's specific profile and location.

Over the past several years, retailers have begun implementing analytic software to help them tailor marketing to the local consumer; optimize the price, quantity, and assortment mix based on customers shopping that particular store; and improve operational performance by location. Software applications such as market-basket analysis; demand forecasting; and campaign, assortment, size, price, and promotion optimization have become mainstream in assisting retailers in tailoring merchandising and marketing to the local consumer.

"To date, GIS has been used mainly by retailers' real estate departments for location planning," states Schafer. "Yet GIS should also be a key tool used by retailers' merchandising, marketing, and operations departments in tailoring assortments, services, and incentives to local demand."

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Lori Schafer

GIS can easily be integrated into these analytic software solutions to provide a more precise view of local market conditions. Consider how much more insight a retailer could get by seeing a computerized map showing the precise location of all stores, complete with a detailed view of competitors' relative locations as well as complementary retailers and other services that could draw more traffic. Demographic, store performance, assortment, pricing, and customer data associated with each location is only a click away.

Retailers and retail solution providers need to fully embrace the capabilities that GIS can provide. After all, most consumers are already using GIS on their mobile devices to find what they want. Very soon, consumers will be able to type the name of a product into their smartphones and instantly see the list of local retailers who have that item in stock, associated price and incentives, and directions and drive time. With the rapid surge in GIS-enabled mobility giving today's customers all the information they need in the palm of their hand, retailers need to not only understand who and where their customers are but also how to optimize their stores' merchandise, services, and promotional offerings for that customer. There is no better way to know your customers, assess the marketplace, and improve your business than by incorporating GIS and location data into your business analysis.

For more information, visit esri.com/retail.

Business Sense

Simon Thompson
Commercial Business Industry Manager, Esri

For years, we have built our business networks in an environment where site selection and market analysis dominated decision making. We lived in a "Field of Dreams" where the conventional wisdom encouraged us to "build it and they will come." Today, however, overbuilt equals overexposed; no one can afford one too many storefronts in today's financial waters. It is important to find the optimal number of outlets to meet the needs and wants of customers.

Getting businesses to stop thinking that "more is more" means understanding how to operate in local markets. This localization is very important and provides the mechanisms to improve both the effectiveness and efficiency of any operation. Understanding varying nuances in different neighborhoods can help businesses reach across their many business units and systems and find a united way of operating more efficiently. This process should ultimately provide the correct amount of proper goods and services in the right place and the right time.

A huge task in itself, redefining processes and systems can be more of a challenge in a recession. But the time to shift is now—understanding buyers' cautious spending habits and pinpointing pockets of growth now mean opportunities can be found; performance optimized; and, ultimately, returns maximized.

This is evident across all sectors of business. In this issue of *BusinessGeoInfo*, we bring you articles on how both businesses and communities benefit from knowing their local markets better. Even in the financial marketplace, understanding where risks and policyholders are located leads to more accurate and fair pricing. This saves everyone money.

Esri has a number of GIS software and data products to help organizations of any size become more agile. The latest news, as well as some golden tips, are provided in these pages. If this whets your appetite, don't forget to save the date for the Esri Business GIS Summit, to be held July 10–11, 2011, at the San Diego Convention Center. This conference brings together business owners and users to learn the latest information on how to leverage GIS. I hope to see you there.

Enhancing Shopping Center Performance

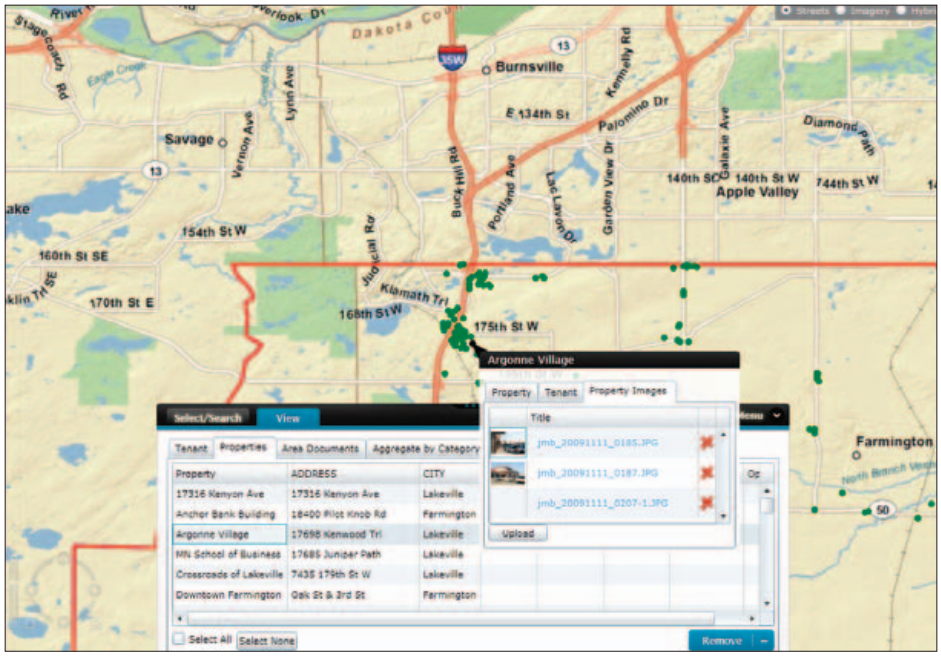
The golden rules for creating a successful shopping center—have a good location and strong anchor store—don't always apply in today's retail environment. Instead, the smallest nuances in a market can make or break a business. Unfortunately, absorbing and understanding research data can be difficult,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

> "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 real-time feedback. The re-lytics program has definitely made us more effective."
>
> John Breitinger, Vice President, NorthMarq

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.

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.



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.

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 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 Breitinger points out, "even the best insights are not useful if they aren't easy to use."

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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 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.

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Enhancing Shopping Center Performance

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 Breitinger. "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.

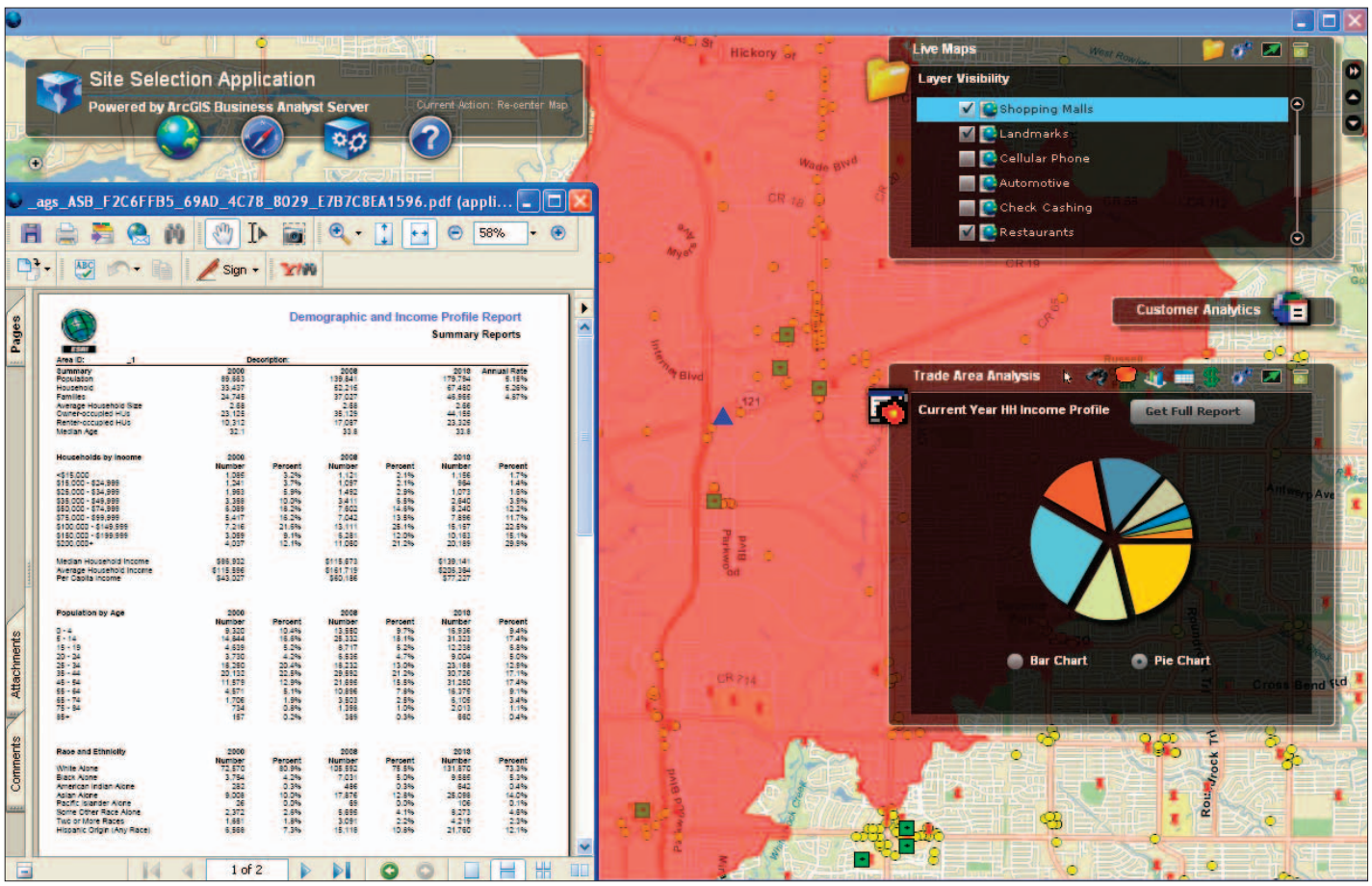
According to Breitinger, property owners, asset managers, and leasing agents are empowered by using the SharePoint site to work together in real time. The technology provides a good platform for sharing data and allows experience, knowledge, and skill to be transferred through human interactions.

"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 Breitinger. "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.

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 re-lytics program surveys and assesses more than 134 categories of goods and services in each shopping center trade area.

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.

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

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.

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

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A Formula for Revitalization Using Esri Business Analyst for Planning Project

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 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.)

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

The Huff Model Modified with Hershey-Specific Assumptions

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 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.

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 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 the facing page.
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.

Werner Enterprises Keeps on Truckin'

In 2008, Werner Enterprises, Inc., one of the five largest truckload carriers in the United States, realized that seeing is everything. A stretch of Interstate 80 in Iowa flooded that year, shutting a portion of the freeway and creating a 110-mile detour for two days. Werner needed to find out which trucks in its fleet were diverted, since the drivers had to avoid the closed portion of the interstate, incurring out-of-route mileage.

"At the time, there was no way for us to see specifically which trucks were affected," says Scott Andersen, manager of logistics analysis and GIS at Werner. "The best we could do was find every truck, one at a time, that might have traveled between Omaha, Nebraska, and Chicago, Illinois, at some point in time. This is not an easy task when you are sifting through drive records for 9,000 trucks."

> "We went from not being able to identify the trucks that were affected to having more than 90 percent accuracy. There was no way we could have done that before."
>
> Scott Andersen, Manager of Logistics Analysis and GIS, Werner Enterprises, Inc.

Two weeks later, Werner's employees found the information, but by then, it was too late. "We didn't recoup any of our costs," says Andersen. This was an eye-opener for the company, and Werner staff wasted no time finding a technology that could help the company see its trucks on the road at all times—before the next business interruption occurred.

Today, GIS technology from Esri helps Werner keep track of its fleet of more than 9,000 trucks. Using ArcGIS and a tractor-tracking device traditionally used by long-haul trucking companies, Werner can now bill mileage to customers more accurately and route its fleet more efficiently.

A Vision for GIS

Every day, thousands of Werner's 18-wheel trucks and their drivers are on the move, delivering food, beverages, manufactured goods, and other freight across the United States.

While staff at Werner uses a traditional tracking device tied to communication networks to deliver information about the trucks on the road back to the main office, it could not visualize where those trucks were located. Displaying the trucks' specific locations, preferred fuel and maintenance stops, and Werner facility locations on a map would provide up-to-the-minute information to help manage this vast inventory of trucks.

Anthony DeCanti, vice president of Werner, understood that organizations running fixed assets like the large transportation fleet at Werner need to carefully manage business costs. Knowing where trucks are located allows companies to be prepared for anything: inclement weather, load changes, or vehicle breakdowns. DeCanti knew about GIS technology and recognized that using GIS software to see exactly where Werner's trucks were located would help the company more accurately plan shorter routes and determine the best locations to stop for fuel, rest, maintenance, or emergencies.

DeCanti directed Werner's IT department to research available GIS solutions, and after looking at many options, the company adopted Esri GIS technology. "We felt there wasn't a better solution out there for managing the large amount of information we had to manage, and we were able to integrate GIS into our existing core business processes," says Andersen.

Putting Werner in the Driver's Seat

Werner implemented Esri's ArcGIS Server, which integrates geographic location into business data to better manage information. Werner uses the software to keep track of its large fleet and outfits its trucks with transmitters that provide two-way text and data communications between the vehicles and Werner's headquarters in Omaha, Nebraska. The data includes the latitude and longitude for each truck. When transmitted back to the main office, the latitude–longitude is geocoded, and the trucks' locations are seen on interactive maps created using ArcGIS Desktop.

Keeping the Business Running

When a rockslide occurred in 2009 on North Carolina's Interstate 40, Werner was ready. With ArcGIS, the company was now able to display the information it needed on a map instead of looking through reams of records by hand. Staff used ArcGIS to find and identify the trucks that had

The fleet of 9,000 Werner Enterprises, Inc., trucks delivers food, beverages, and manufactured goods.

historically passed the particular road segment affected by the slide. This information was then cross-checked with which trucks were actually out on the road at the time as determined by real-time data received from the trucks' transmitters. Hundreds of customers were notified of the disruption in service as well as any charge that would be incurred because of additional mileage. This process only took the company a few days to complete.

"We went from not being able to identify the trucks that were affected to having more than 90 percent accuracy," says Andersen. "There was no way we could have done that before. And to top it off, the analysis was very fast."

Today, data is readily available by clicking a truck icon on the map to access information quickly, including where the truck is heading, the driver's name and the hours or road time he or

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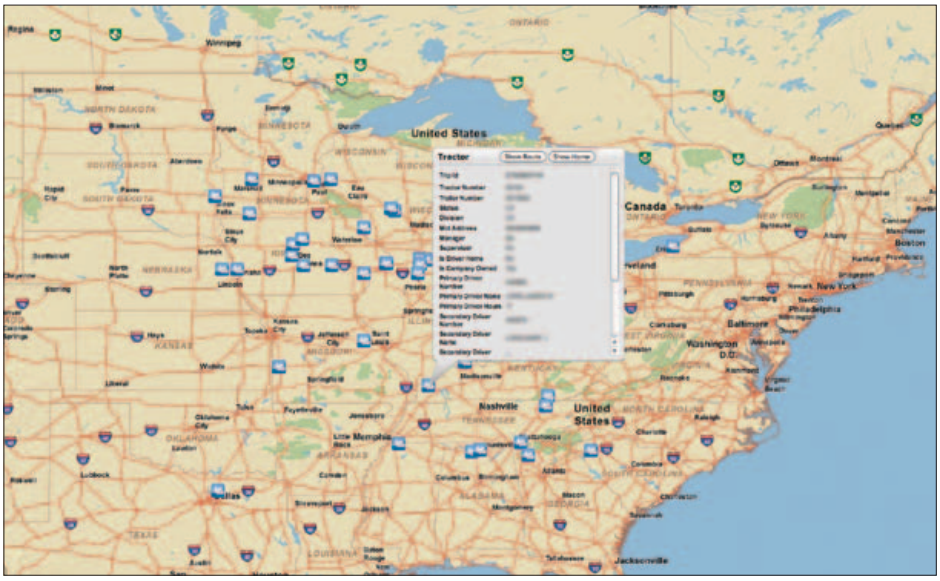

Using ArcGIS technology, Werner can see where the company's trucks are located anywhere and at any time.

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Werner Enterprises Keeps on Truckin'

she has, and what type of freight is being carried. This is crucial for scheduling trucks and drivers. It is also important in ensuring that drivers are not given too many drive hours, trucks are on time for scheduled maintenance, and routes are optimized. Andersen says that consolidating all aspects of on-road operations into the visual and intuitive GIS environment has significantly streamlined Werner's workflows.

"By knowing exactly where our assets are at a given time and comparing that to the origins and destinations of loads we have in our pipeline, we can better allocate our resources and truly understand the costs of doing business," he says.

The company is upgrading from ArcGIS Server 9.3.1 to ArcGIS Server 10, integrating GIS data and maps more completely into its enterprise workflow. Werner chose to implement GIS over the Internet so data could be easily shared throughout its organization using standard web browsers to access the maps and data. Web applications will be used by dispatchers and driver managers.

Corporate Agility Leads to Profitability

Having access to this information and being able to respond to changes in operation are imperative when running a transportation and logistics business. There is little room for error. And being agile, thanks to better access to information, helps the company run profitably and deliver superior performance to customers.

Seeing where the trucks are located also allows Werner to run reports that calculate geographically based information, such as mileage, how large a load a truck can carry to a specific destination, and where drivers need to stop for such things as refueling or deliveries. With this information and the ability to ask questions of the data, Werner staff can run different scenarios and find the best solution that will save the company time and money and keep drivers safe. Werner can now utilize its trucks and drivers in a smart way, reducing costs.

While Werner initially used GIS to gain better insight into fleet operations, today the company uses ArcGIS in many areas of its organization. Having spatially enabled its fleet for display on a map, Werner is further leveraging the analytic power of GIS. Analyzing logistics and common geospatial services throughout the enterprise, such as geocoding, finding the closest important location, and generating and summarizing data within drive-time buffer areas, are all activities the company can do with GIS. Visit Esri's GIS for Logistics web page to learn how GIS helps logistics and other companies manage their fleets.

Using GIS helps Werner save time and money and improve drivers' safety.

When a rockslide occurred in North Carolina and closed a portion of Interstate 40, Werner staff was able to see all the routes feeding into that section of freeway and find the trucks affected by the closure.

Esri Career Opportunities

Are you looking for a career where you can apply your industry expertise in a challenging new way? Join Esri's commercial team of sales, marketing, consulting, and project management experts and help companies worldwide make better decisions using geospatial technology.

Commercial Sales Team
Use your industry knowledge and strong communication skills to effectively describe the business value of GIS software solutions, training, and professional services. Support existing client relationships as well as cultivate new business. Opportunities are available in a number of our regional offices.

- Account Executive, Financial Services
- Account Executive, Insurance
- Account Executive, Retail
- Account Executive, Trucking
- Account Manager, Commercial
- Sales Associate, Commercial

Business Development Manager, Commercial
Expand Esri's relationships with its business partners in the commercial sector by identifying and developing relationships with potential partners and advancing relationships with existing partners.

Business Solution Architect
Play a key role in the definition of new business, working across all levels of the client's organization to understand the business, technical, and functional requirements to craft winning proposals.

These positions are based in Redlands, California, unless noted otherwise. Learn more and apply online at esri.com/careers.

Esri Online

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Visit esri.com/podcasts to see the latest Speaker and Instructional Series podcasts. Here's a glimpse of what you'll find:

- Speaker Series

  Using GIS to Understand the Financial Marketplace
  Esri's Simon Thompson explains why financiers use GIS to understand how to provide the best services with the least risk in the financial industry.

  Why GIS Is Important to Retailers
  Simon Thompson discusses how GIS gives retailers a more comprehensive understanding of their business and customers.

  Esri Business Analyst Online Successfully Fills Commercial Vacancies
  This interview is conducted with Kathie Thurston of the Redlands, California, Chamber of Commerce.

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Follow Simon Thompson, commercial business industry manager, at @SiAction.

Follow *BusinessGeoInfo* newsletter editor Karen Richardson at @mudmo.

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Spring Lineup on Esri TV

Tune in to the latest videos, such as those from Esri describing step-by-step instructions for using ArcGIS.com. Visit youtube.com/esritv.

Find Resources

Visit resources.esri.com to find the information you need including help documentation, tutorials, videos, ArcGIS templates, models, and scripts.

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Live training seminars bring the GIS instruction you need to your desktop. Technical experts lead these hour-long sessions, which are streamed live. Should you miss the interactive presentation, you can access the recording online. Visit training.esri.com for more information.

Esri Newsletters

Esri publishes many newsletters, both online and printed, that provide insight into how GIS is used in many different industries. To subscribe, visit esri.com/subscribe.

Understand Local Markets and Develop Winning Strategies

It's 9:15—no, not the time we are thinking about our second cup of coffee, but September 15, 2008, the day Lehman Brothers filed the largest bankruptcy petition in U.S. history and the starting point of the global financial crisis. For many of us, this is the day the world changed forever. It turned much of our thinking about how we run successful businesses on its head and brought about new realities.

Two years after the onset of the greatest recession in modern history, there is a new kind of normal. We have new consumer behavior, revised expectations, innovative ways of doing business, and different opportunities. GIS software is one of the technologies that has helped organizations survive and thrive in the face of all this change. By finding new strategies and a better understanding of different drivers in local markets and the global economy, the commercial industry is empowered with more accurate information and is forging new directions.

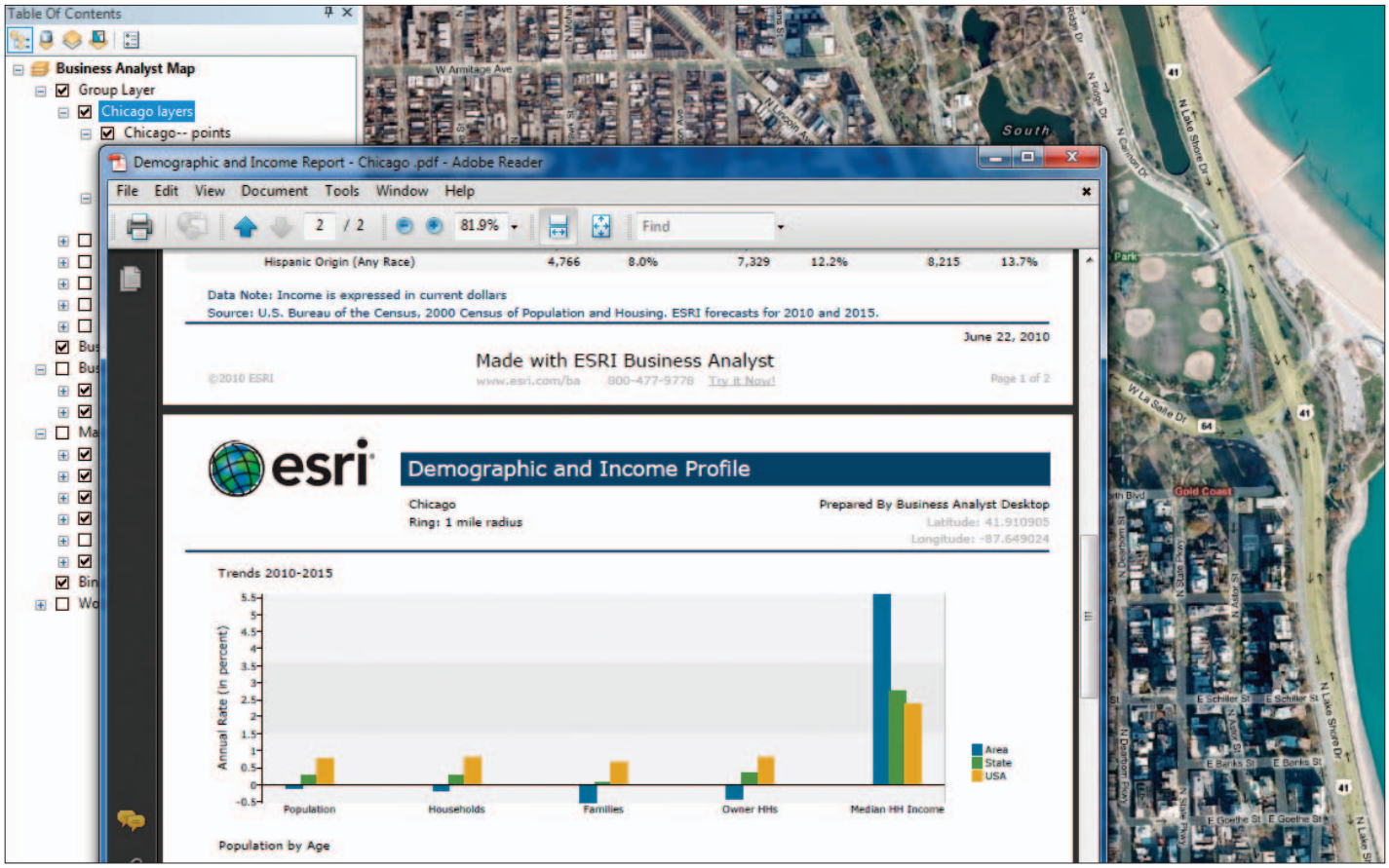
Localization, Not Location

Today, consumers are holding the cards. It's no longer a case of "build it, and they will come." Overinflated expectations of store numbers, profit margins, and gross revenues during the boom years have been replaced with conservative management, controlled build-out, and revised business strategies. Every aspect of driving success and maximizing return on investment is location dependent. Localizing merchandise and correctly configuring sites to maximize profits based on the profile of the people in an area and their needs are significant challenges in today's economy. This is where GIS is helping. Localization is the mechanism to balance market opportunity with supply and demand. To do this, owners and managers need to be able to apply a range of geographic analysis, models, and know-how. Accurately modeling potential requires better techniques as chain operators seek growth and profitability from fewer, better-located stores.

Customers Are Their Locations

Markets are not uniform, nor is their potential. Markets vary based on what is already available; what they can support economically; the types of people in the catchment; and the predominant flavor, lifestyle, or culture of the area. Physical infrastructure like roads and transit networks, together with transportation barriers, limits access and defines whether intersections and destination points are attractive. Cities can change many factors by modifying the transportation networks and building new roads, but retail developments are often organic. Retailers are not part of a master plan; instead, they compete against each other for locations, often pitting neighborhoods in opposition.

The traditional approach to defining markets based on a primary trade area is out of date. Anyone analyzing actual customer data struggles to find that elusive boundary where a customer goes to one store instead of another.



Reviewing demographic reports by geography gives a much more accurate picture of the landscape for business owners and operators.

It's almost impossible to consistently predict sales using primary trade areas, but business owners have become so used to them that they are willing to put up with the failures. Or are they? Where customers live or work is not necessarily where they buy something. Purchasing behavior and shopper frequency are driven by convenience. Organizations need to capture and understand shopping habits, not just buying habits. It's no longer acceptable to use the distance from a store as a model of changes in sales potential or increased competition. The distributions of sales for real-world stores are too divergent and diverse to continue with this historic technique. Today, overbuilt means overexposed.

Bring the Store to the Customer

Given the varying demographic profile of customers, how does one individualize the store, restaurant, or service center to provide the one-to-one, personalized experience consumers now demand? In a world where cheap is chic and coupons are cool, how does a franchise succeed with fewer loyal, value-oriented customers who are trading down and expecting much more? Business owners need to understand not only whether a business is in the right place but also whether there's suitable business for that market. This is where local owners and operators are so important. Owners and operators are the front line in any neighborhood; they care about the local area because they live there, too. They know the neighborhood and customer tastes and have daily exposure to habits and changing behavior. Investing personal assets to create and maintain a business ensures that owners and operators of franchises think long and hard about their every decision.

Smart organizations are using location analysis to empower local operators to use profiles of the people in an area to localize merchandise and correctly configure stores to maximize profits. From beverage selections to localized price promotions and location marketing, getting the product and service mix right affects the bottom line every time. That means configuring the format and size of the store to different market needs, providing product choices, and sometimes even moving to a new location to reduce competition and optimize revenues.

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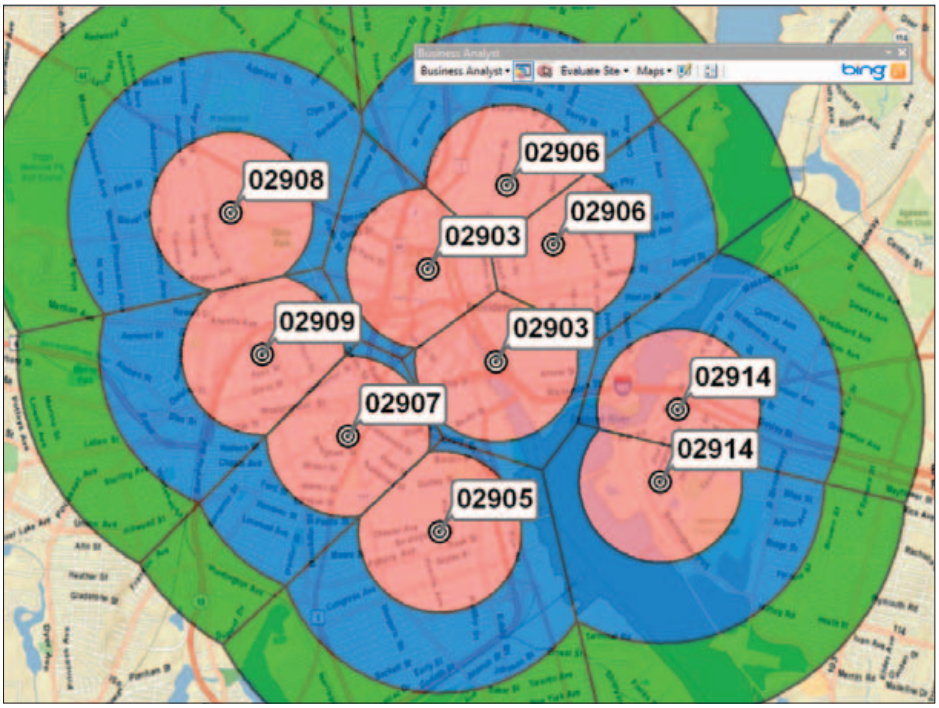
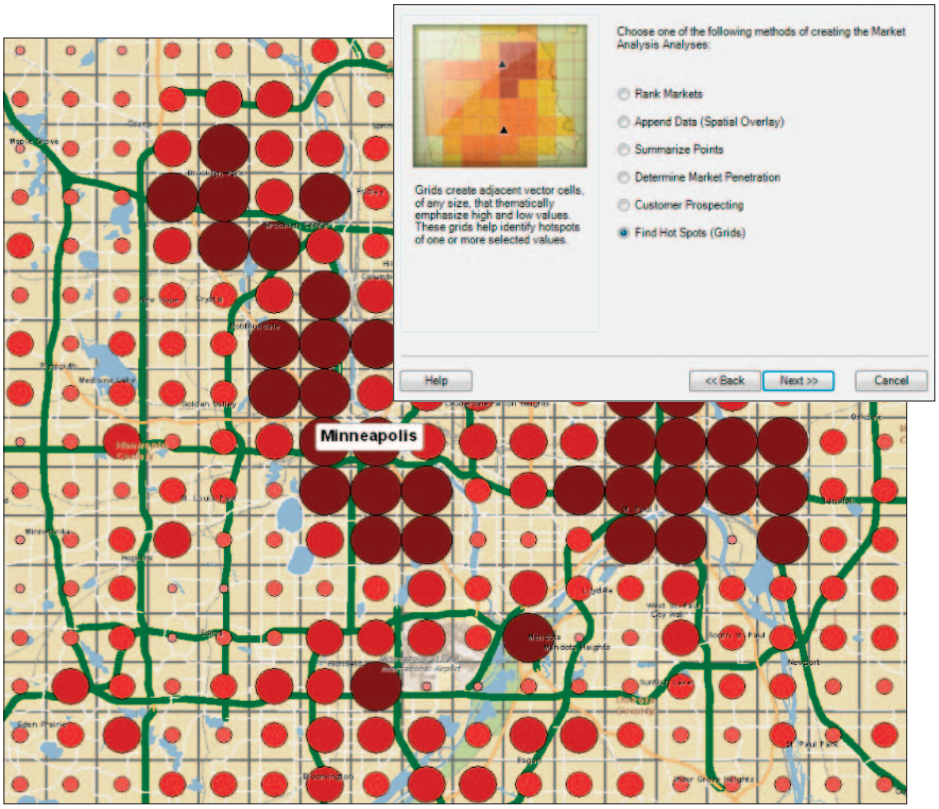


The traditional approach to defining markets based on a primary trade area is out of date. Anyone analyzing actual customer data struggles to find that elusive boundary where a customer goes to one store instead of another. GIS can help.



As an enabler of marketing insight, GIS provides a detailed view into the potential performance of a business under different market conditions and economic factors.

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Understand Local Markets and Develop Winning Strategies

The Circle of Life

Today's GIS technology embraces the modern, consumer-oriented world that we all experience every day. iPhone apps and web-based applications let potential businesses use GIS without training and with minimal financial outlay. Market research; customer analytics; and the creation of extensive demographic, spending, and income reports let anyone in the franchise industry understand surplus and demand in specific locations and create forward-looking plans. A wide range of analytic techniques and sophisticated models has been published by experts and is available via a few mouse clicks. Ranking and scoring a market or franchise territory are now easier than ever. Since this data is continually updated, businesses stay current with market changes and variations in economic factors.

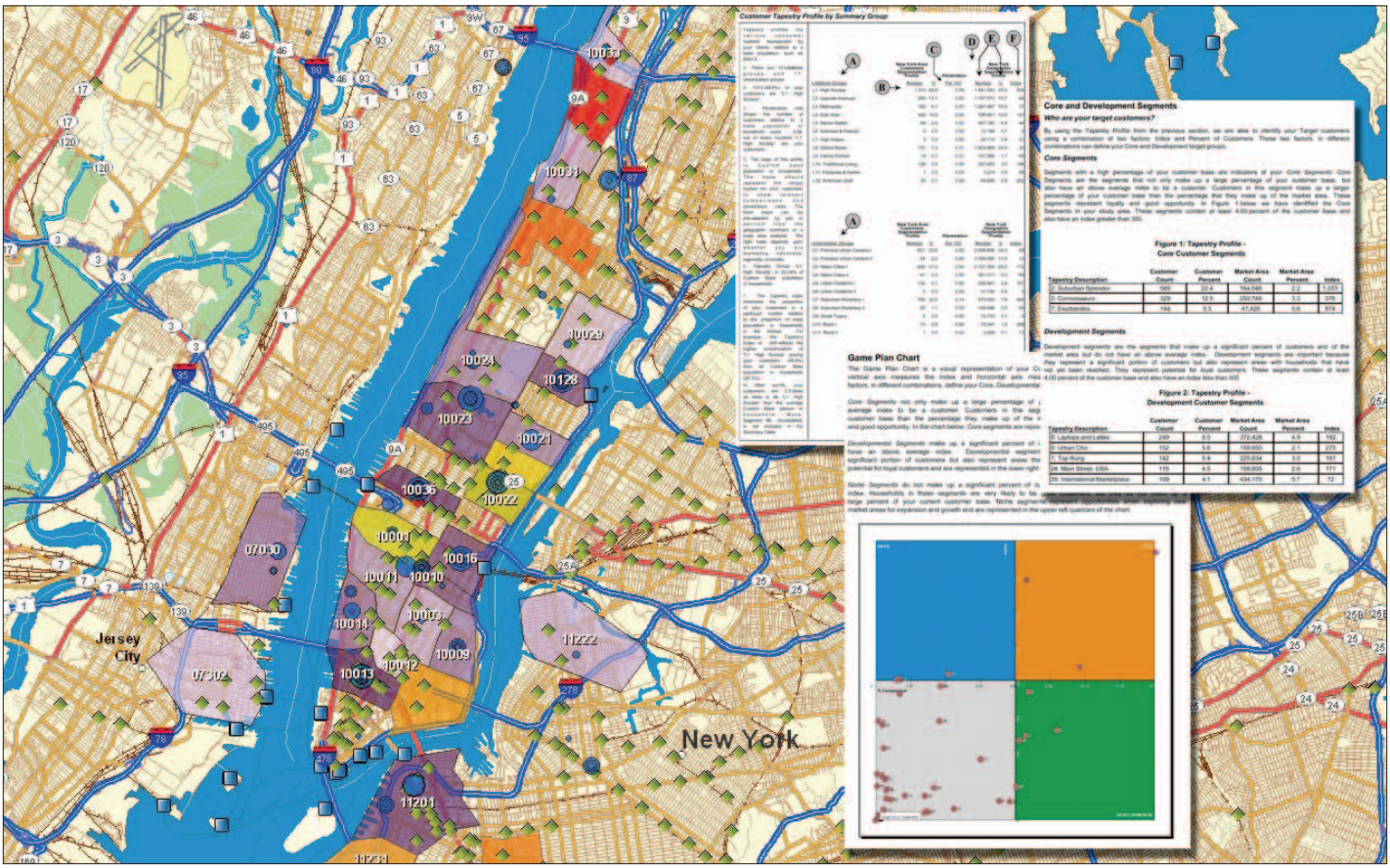
The benefits don't stop there. GIS is applicable throughout the business life cycle. Initially, the technology helps in site selection and market planning by helping owners and operators match opportunity with budgets and expectations. As a retail network matures, GIS helps optimize the growth strategy and maximize returns from investment by creating more efficient systems and optimal store placement. Using GIS, businesses not only understand where and how they should expand but can also better manage the scale, format, and pace of expansion.

> "Giving people the opportunity to own items they need, from washers and dryers to nice, quality furniture, helps them take care of their families."
>
> Charles A. McClure,
> Chairman of McClure Partners

As an enabler of marketing insight, GIS provides a detailed view into the potential performance of a business under different market conditions and economic factors. Using these tools, many franchises have outperformed other industry sectors during the recent recession. Better insight into changing income and age profiles, house valuation, disposable incomes, lifestyles, spending patterns, and consumer habits have helped companies tune their franchises to match consumer demand. By doing so, many have enjoyed increased gross margin, reduced inventory, and enhanced customer loyalty and have balance sheets that are much healthier than many analysts predicted.

Don't Just Get Answers—Get Answers That Matter

Even in an economy that has slowed, GIS is helping business owners and operators understand



This targeted ZIP Code-level marketing analysis was developed by Pueblo County, Colorado for online advertising to pinpoint certain demographic segments of New York City.

their long-term potential, manage the bottom line, and align operations with opportunity. Better business decisions are made asking the right questions. With GIS, franchisees and franchisors get answers that matter. The technology helps test hunches and investigate scenarios with real-world data using insight gained from information and experience. Whether it is used to look at the possibilities for one location or develop growth strategies for an entire store network, GIS can unlock the market potential of areas and reveal what the expectations are for each. For more information, visit esri.com/business.

Geography Matters—Market Correctly to the Correct Market

As anyone who has ever owned a business knows, being in the right location is just the beginning of a successful business. McClure Partners, a full-service real estate brokerage and development company based in Dallas, Texas, has tapped into the power of GIS to create a successful business by understanding and helping improve local marketplaces. The company relies on GIS to open franchises in areas thought to be high-risk segments of the U.S. market. By understanding the market opportunity and current performance and demographic data, along with geographic aspects such as competition, streets, and service areas, McClure Partners has successfully opened a number of Chili's restaurant franchises in locations others deemed unprofitable.

GIS has also helped the company successfully invest in markets for Aaron's Inc., a company specializing in leasing furniture and electronics. McClure Partners uses the same business techniques and models to find the best places to open Aaron's stores in areas that have historically been written off because of low income and unemployment. Bringing in new businesses like these revitalizes communities and brings growth to economically stagnant areas.

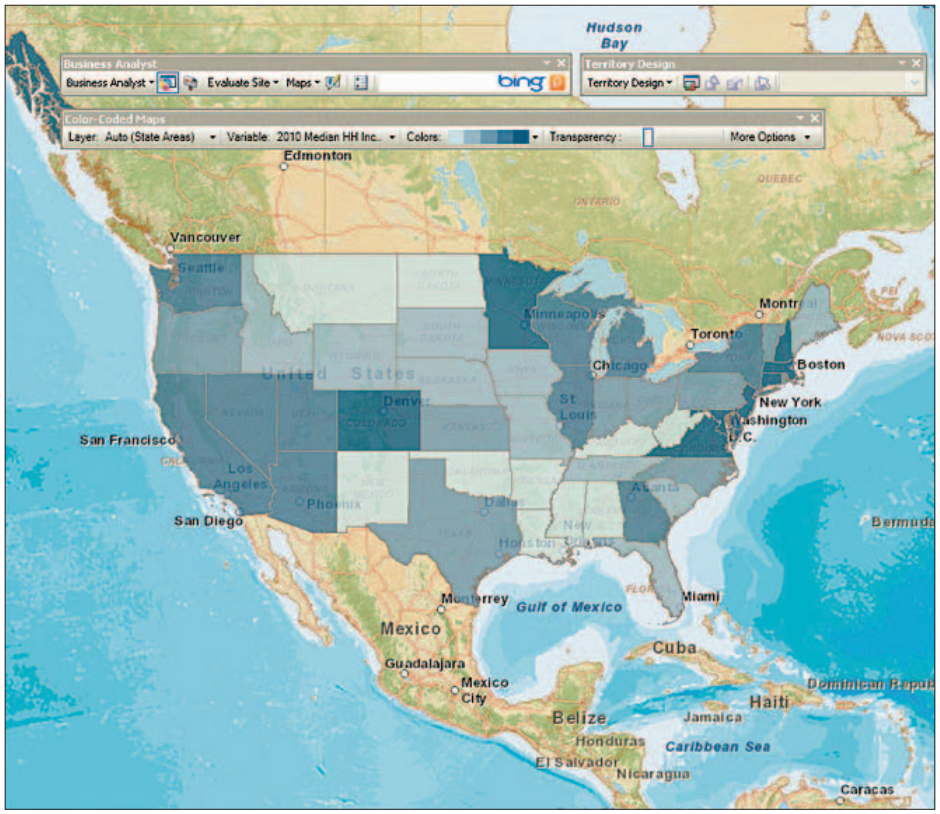
"Giving people the opportunity to own items they need, from washers and dryers to nice, quality furniture, helps them take care of their families," says Charles A. "Mac" McClure, chairman of McClure Partners. "They have a sense of pride that translates into taking care of their homes, cleaning up streets, and making their neighborhoods better places to live."

Business Analyst 10

Dramatic Performance Improvements, Enhanced User Experience

Esri Business Analyst Desktop and Esri Business Analyst Server users can now research their markets, analyze customers, and evaluate sites in even less time. This performance improvement is just one of the many new features that increase users' efficiency. The user interface can be customized to allow users to access the tools and information they need more quickly and easily. Additionally, the latest release incorporates more online resources, including Esri's latest demographic data, thus eliminating the lag time to receive the new data in the software and ensuring availability of the latest information when needed.

The performance improvement from 9.3.1 to 10 for Business Analyst is significant. Processes in Business Analyst 10 are 60 times faster than they were in 9.3.1. This includes delivering faster results in how demographic calculations are made and reports created. The speed of data aggregation for trade areas makes it possible to process data nationwide without having to break up work into smaller groups. With the new business search tool, users can filter, add, and remove criteria quickly and easily and display only the information they want.



With Esri Business Analyst 10, users can customize the interface for quick access to the tools they use most. The new color-coded maps toolbar streamlines the process for creating thematic maps.

Additionally, the new release of Business Analyst focuses on faster performance through a more customized user experience. The Business Analyst toolbar and menu have been redesigned and reorganized, allowing users to work more efficiently. Users can pick what tasks they want and don't want to see on the new, dockable Business Analyst window. This includes adding favorite commands, accessing project files, and running batch tasks. The Custom Data Setup wizard (renamed from Analysis Layer Setup) is now on the Business Analyst menu, and the workflow has been simplified to allow a more streamlined way to bring your own data into Business Analyst. Finally, the format of all reports generated in Business Analyst has been updated, making the reports easier to read and comprehend both on-screen and in print.

With more resources and data available online, Business Analyst users get more timely and direct access to the information they need. The 2010/2015 data is now accessible in Business Analyst 10. However, with the recently released Business Analyst Online (BAO) Reports Add-in, Business Analyst Desktop users can access the data updates as soon as they have been released. The updates are generally available in BAO months before being included in Business Analyst. With the add-in, desktop users can seamlessly incorporate the latest data into their workflows as soon as it is available. With the new Message Center that launches with Business Analyst, users have quick access to recently used projects and maps. They can also connect to the Business Analyst blog and forum, get the latest news, view demos, access help files, check for software updates, and submit product feedback.

Business Analyst is available for use on the desktop and as a server-based, collaborative solution. New with the 10 release is Business Analyst Desktop Premium. This premium version contains everything in the standard version plus more demographic, business, consumer spending, and market potential data, along with all the segmentation tools from the Segmentation Module, as well as the full version of Address Coder software for geocoding and data appending.

For developers who want to create applications that include the demographic data reporting capabilities of Business Analyst, there are now Flex and Silverlight versions of the BAO API. Complete code samples are available on the Business Analyst Resource Center at resources.arcgis.com/ba-online-apis.

More Information

For more information on Business Analyst solutions and help to determine which product is right for you, visit esri.com/ba.

Retail in 2011

Price, Value, Quality, and Convenience Will Attract Cautious Consumers

Lingering effects of the recession, such as high unemployment, loss of income, and fear of the future, continue to dampen shoppers' enthusiasm. How can retailers encourage reluctant consumers to shop this year?

Retailers were cautiously optimistic about the holiday shopping season. Inventories had been carefully monitored to avoid previous "fire sale" prices. The "aspirational" consumer is no more; also gone are over-the-top impulse purchases as well as promotion of last year's practical gifts of a Crockpot, socks, and coffeemakers.

Price, value, quality, and convenience were primary considerations for consumers who spent much more time comparing prices and finding the best deals online. Gift cards, electronics, toys, and clothes were perennial favorites. A surprising number of consumers bought "me gifts"; young shoppers and men indulged themselves. More personal care and beauty products probably appeared under the tree.

Consumers weren't choosy about where they shopped; store types included discount retailers, national chains, warehouse clubs, outlets, specialty stores, and department stores, and shopping online continued to surge as a retail option. Retail "winners" extended "Black Friday" price cuts; offered promotions, coupons, and online features; stocked the most popular merchandise at the best prices; and provided superior customer service.

What's in Store for Retailers in 2011?

As noted in Esri's 2010 Consumer Expenditure database white paper (to read about consumer trends, visit esri.com/data/esri_data/methodology-statements.html), high unemployment and foreclosures continue to drag economic recovery, and consumers will shop cautiously, seek bargains, and cut spending wherever they can. They search for discounts, coupons, and other promotions in stores or online. To compete successfully in 2011, retailers should continue to offer promotions, coupons, and online features; stock the most popular merchandise at the best prices; and provide superior customer service.

Esri's Data for Retailers

To stay competitive, retailers need the best data about consumers, their product preferences, their spending habits, and the best ways to reach them. Where can retailers find this valuable information? Esri offers a comprehensive selection of data that retailers need to make the best business decisions.

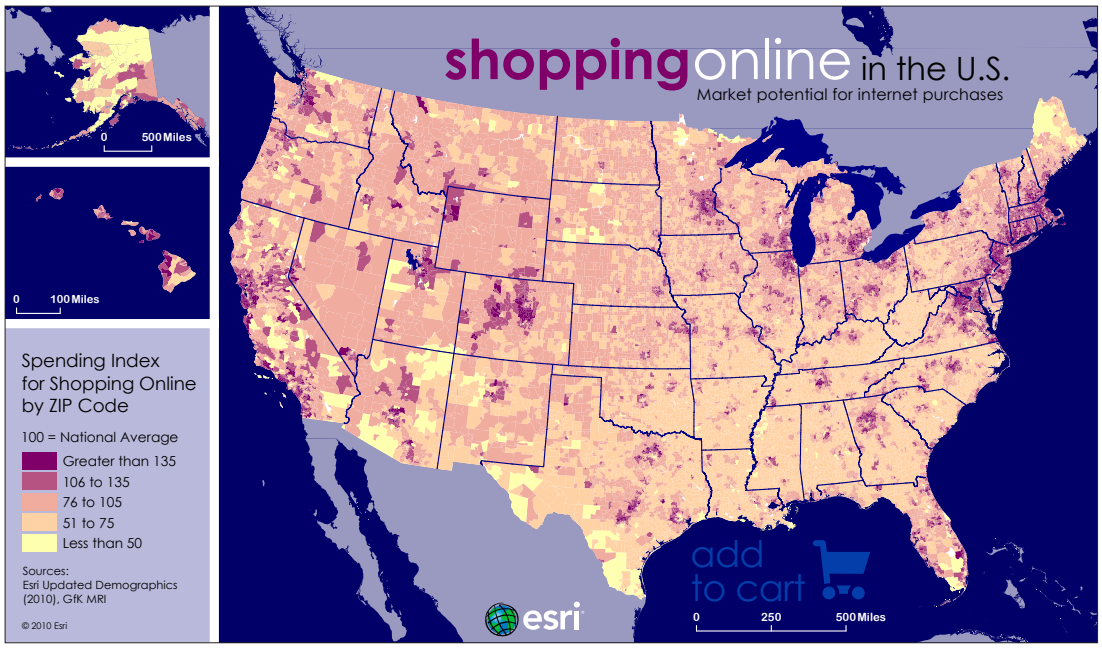
Consumer Spending Data—Esri's 2010 Consumer Spending data provides information about household spending for products and services by area. Hundreds of items in more than 15 popular categories, such as Apparel, Financial, Food & Beverage, Entertainment & Recreation, and Household Goods & Services, are available. Retailers can use the convenient Spending Potential Index (SPI) to determine which products and services consumers want and compare their results to national figures.

Market Potential Data—Esri's 2010 Market Potential data tells retailers about the potential for products and services by market area. More than 2,200 variables in 35 categories, such as Apparel, Electronics, Financial, Groceries, Leisure Activities, Media, and Toys, are included. Retailers can use the Market Potential Index (MPI) to learn if their products and services are preferred by area consumers and compare the local figures to national numbers.

Retail MarketPlace Data—For almost 10 years, Esri's proprietary Retail MarketPlace data has helped organizations accurately measure retail activity by trade area and compare retail sales to consumer spending by NAICS industry classifications such as Food & Drink, Automotive, Electronics & Appliances, and Health & Personal Care. The proprietary Leakage/Surplus factor summarizes the relationship between retail sales (supply) and consumer spending (demand).

Tapestry Segmentation Data—Tapestry Segmentation geodemographic data provides valuable insight into the lifestyles and lifestages of population segments. All U.S. residential neighborhoods are classified into 65 distinct segments based on demographic and socioeconomic characteristics. Retailers can use Tapestry to learn about their best customer types, what they buy, how to communicate with them, and where to find more like them.

For more information about Esri's retail databases, visit esri.com/data.



Esri's 2010 Consumer Spending data provides information about household spending.

Counting on Risk

Explore Information Services Turns to GIS for More Accurate Risk Analysis

Building insurance pricing models that are equitable and fair is highly dependent on accurate location-based information. Insurers need solutions that effectively organize, manage, and analyze extremely large datasets that can be used to measure risk. These include such information as proximity to hazards and emergency services, traffic patterns, commute routes, assets, and crime. The intelligence gained from analyzing all these factors, along with the location of a policy or claim, means better pricing methodologies for the insurance industry.

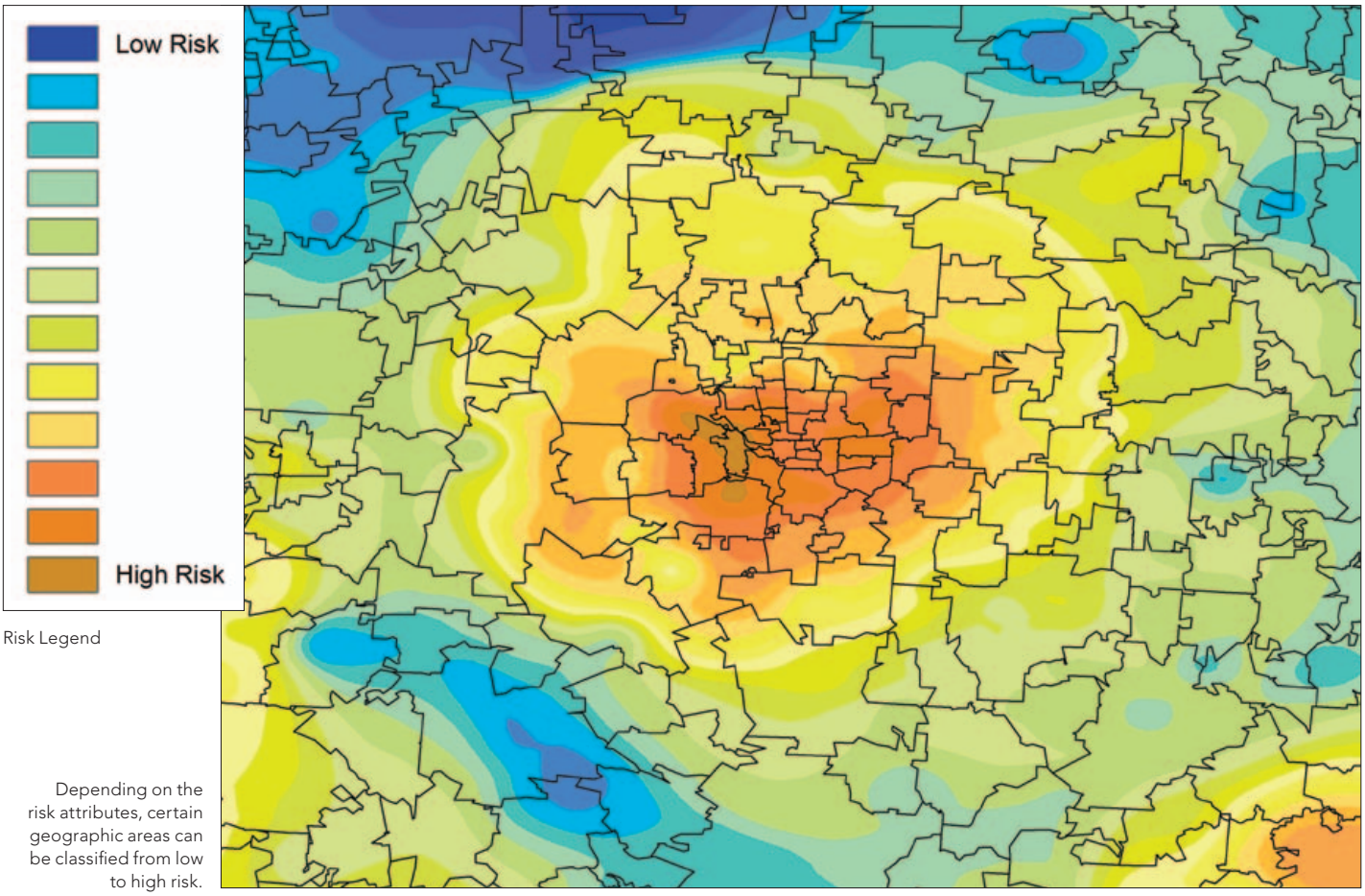
Based in Eagan, Minnesota, Explore Information Services aggregates, analyzes, and delivers location-based risk intelligence to insurance carriers in the United States. For more than two decades, the company has built online solutions that are integrated into insurance underwriting and rating workflows. Explore's solutions help insurers reduce expenses and better align the price of each policy to actual risk exposures using, among other factors, the location of the policy. "GIS allows us to quickly organize a vast amount of location-based data for more accurate modeling," says Deric Morgando, senior GIS and data acquisition analyst for Explore.

> "We've experienced significant growth in our business over the last few years. Nearly two-thirds of the top 100 insurance carriers rely on our solutions to effectively price the products they sell."
>
> Deric Morgando,
> Senior GIS and Data Acquisition Analyst, Explore

The first solution Explore created using GIS and models was FIRESAFE (exploredata.com/firesafe.aspx). FIRESAFE organizes and analyzes data Explore has gathered about fire stations including personnel, equipment capabilities, and jurisdiction boundaries. From this analysis, Explore produces emergency response times to the location of the property and performs the corresponding risk analysis. "As we added data for fire stations from across the country, the analysis started to get pretty complex," says Morgando. "It became apparent that our previous in-house solution was not capable of analyzing the data, and that's when we switched to using GIS from Esri."

Pushing the Limits with GIS

Morgando had previous experience with Esri's ArcGIS software. "I was familiar with the company, having learned the software while working on my master's at Southern Illinois University," says Morgando. "I knew the capabilities of the software and that Explore could really benefit from its open environment and analytic capabilities."



Risk Legend

Depending on the risk attributes, certain geographic areas can be classified from low to high risk.

Morgando came to Explore from Ducks Unlimited, an organization that leads the charge in wetlands and waterfowl conservation. While no longer analyzing wildlife habitats, the premise for working with geospatial data is the same at Explore: to understand a subject's location and the effect of its surroundings. Today, he applies this knowledge to manage a team of GIS professionals who provide spatial modeling of risk throughout Explore.

Morgando uses ArcGIS Server and Microsoft SQL Server to create and maintain FIRESAFE. Depending on the solution, hundreds of attributes are assigned to a particular location and analyzed, then risk scores are assigned. Using ArcGIS and Microsoft SQL Server, Morgando works with very large databases, many containing millions of records. "We've really pushed the limits of Microsoft SQL Server," he explains.

After integrating ArcGIS into FIRESAFE, Explore built additional solutions including Auto Location Insight. Auto Location Insight helps insurance carriers assess location-based risk for automobile policyholders derived from their garage address and the likely commute routes in the area.

The solution provides a more granular risk assessment than traditional ZIP Code-level territories by georeferencing multiple layers of data, such as traffic, weather, and crime, and correlating it with insurance policy claims. This allows insurance carriers to fine-tune premiums to maximize profitability.

"We've experienced significant growth in our business over the last few years. Nearly two-thirds of the top 100 insurance carriers rely on our solutions to effectively price the products they sell," Morgando says.

Most of Explore's GIS work is done on the back end of the solutions it provides for its customers. Explore's actuarial staff takes the geocoded—or geographically located—information that is created and implements it into the company's predictive analytics solutions. The end result is delivered to the customer in various forms such as a table with risk scores that carriers use to more accurately price their policies.

Advantages Found in Data Accuracy

Morgando's staff has achieved higher levels of accuracy for risk assessments using Esri StreetMap Premium. StreetMap Premium is a dataset that works with ArcGIS to geocode information and is based on commerce street data from NAVTEQ and Tele Atlas.

Explore takes real-world data, including traffic and intersection design, into consideration when creating risk scores.

"What I really like is the fact that I can work with a combination of data from more than one provider and build my own geocoders from so many different sources," says Morgando. "We've worked with up to 20 different geocoders at a time, which has minimized the number of unmatched addresses."

Explore's service to customers has increased as well. Before switching to Esri, the entire process of updating, rebuilding, and republishing the street network required the system to be taken offline each quarter. This process could take up to the equivalent of one full-time employee's efforts for a month. Now, with StreetMap Premium, the entire process takes less than two days.

GIS Is Useful throughout the Organization

Morgando has been able to spread the use of GIS and geospatial data throughout Explore. While the ease of using an open environment like Esri's ArcGIS has opened the door to GIS use throughout the organization, Morgando's insight and expertise has helped other teams implement the technology in their solutions.

For Explore, there is no limit to the customer solutions it can create with GIS. "What we are doing with Esri is really a testament to Deric and his team," says Justin Hu, director of product development, Explore. "His knowledge of the software and vision for how it can be applied has really opened doors for us to apply geospatial capabilities. With Esri's technology, Explore's GIS capabilities are second to none."

For more information, visit esri.com/insurance.

Register for the Esri Business GIS Summit

Registration is now open for the Esri Business GIS Summit to be held July 10–11, 2011, in San Diego, California. Attend this event to gain a better understanding of how location-based analysis can improve an organization's overall performance, effectiveness, and efficiency. The summit will deliver thought leadership and technological insight on how geoenabling business processes and workflows can be applied to a variety of commercial industries. "There is no other event quite like this," explains Simon Thompson, director of commercial solutions at Esri. "The summit draws a truly global audience that comes together to share knowledge about GIS, which allows us to really see and understand interconnections of business in this world economy."

Along with keynote presentations, the summit offers a first look at technology trends and demonstrations detailing how GIS can be applied to solve business challenges in many commercial and related industries including retail, real estate, financial services, facility management, logistics and manufacturing, economic development, and health care.

Sessions and networking events offer best practices and insights on how to create more effective business strategies. End-user case studies, return on investment (ROI)-focused strategies, and creative ideas will also be presented.

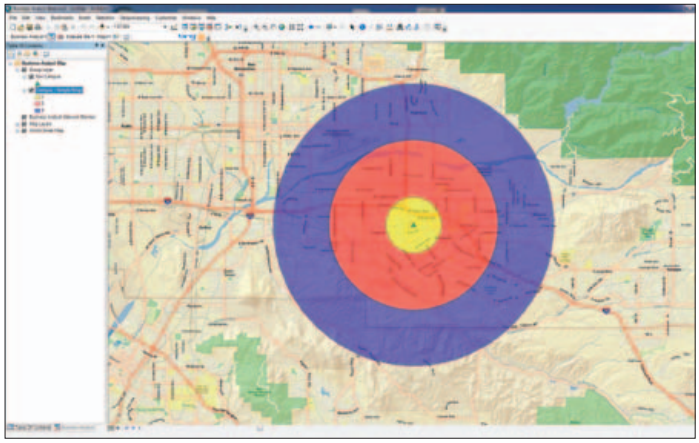
To learn more and register, visit esri.com/bizsummit.

Have It Your Way: Reports and Maps Improved in Business Analyst 10

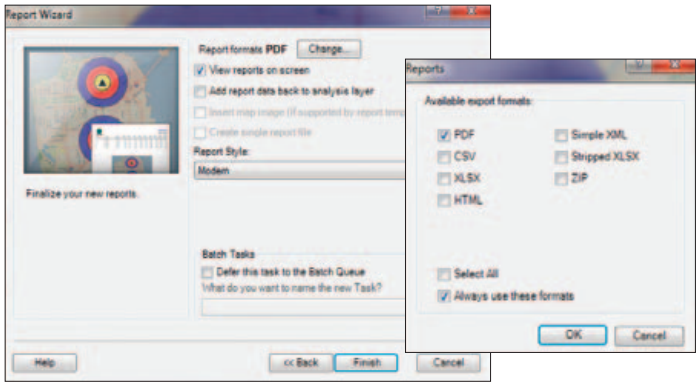
Fast Reports with Business Analyst

One of the most basic and frequent tasks performed by users with Esri Business Analyst is producing a demographic report for a site's trade area. The Business Analyst 10 release sets an ambitious goal to produce each report in less than one second. Reports now work at near-instant speed, so time isn't wasted staring at progress bars.

In this example, 1-, 3-, and 5-mile rings were created around Esri's address in Redlands, California:



Then, Business Analyst > Reports is used to produce the popular Demographic and Income report for this set of ring-based trade areas. The last page of the reports wizard in Business Analyst looks a little bit different than in previous versions. The most significant change is that the output format for reports can be selected. By default, Business Analyst now produces reports directly as PDF files. However, this can be changed to output reports to an Excel file or a number of other popular formats.



Outputting directly to a desired format is one of the key ways users are experiencing significant performance improvements.

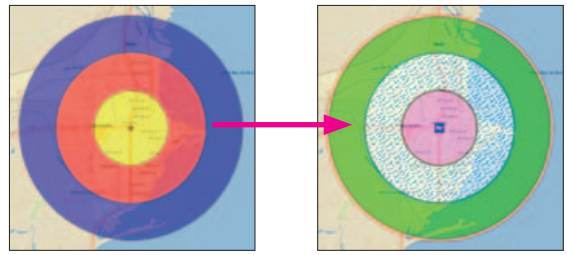
The other key area of improvement in reporting is the ability to take advantage of some new high-performance indexes in the Business Analyst 10 data. The first time ArcMap is started and a Business Analyst report is run, a slight delay of a few seconds occurs while the data is cached into memory. All subsequent reports are fast. When the three-ring trade area in the Redlands example is used, the PDF report is generated in less than one second.

This new improvement will soon be making its way into all the Business Analyst systems. In the near future, Esri Business Analyst Server will be released with this new reporting engine. So, when users run reports in ArcGIS Desktop, Esri Business Analyst Online, or even the iPhone application, the reports will be fast.

Change the Look of Business Analyst

In Business Analyst 10, the ability to change the default cartographic outputs has been changed. Instead of grids being yellow-to-red, they can be changed to display as green-to-blue. And, customers can be indicated as a symbol instead of the dots that are standard.

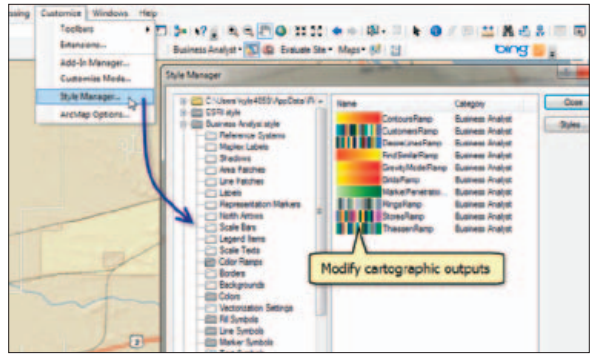
For example, on the left is the familiar look and feel of rings:



It can now be changed with some simple adjustments to look like the one on the right, either once or every time.

This has been accomplished by exposing the Business Analyst tools in the ArcGIS Style Manager. Click Customize > Style Manager > Business Analyst.style to access the folders and tools necessary to make modifications. The yellow folders are customizable.

In this example, clicking MarketPenetrationRamp to change the green default color scheme to another style changes the look of the map. The next time the user creates a Market Penetration analysis, the new style will be applied.



Note that some operating systems, such as Windows 7, might lock the .style files due to security settings. This can be overridden by changing permissions or running ArcMap.exe as an administrator from the \ArcGIS\Desktop10.0\Bin directory. This will allow the cartographic settings to be changed.

Smart Business Solutions with Business Analyst Online

There are a number of new features in Business Analyst Online that make it a productive tool for organizations wanting to discover, organize, and analyze information. Below are a few favorites.

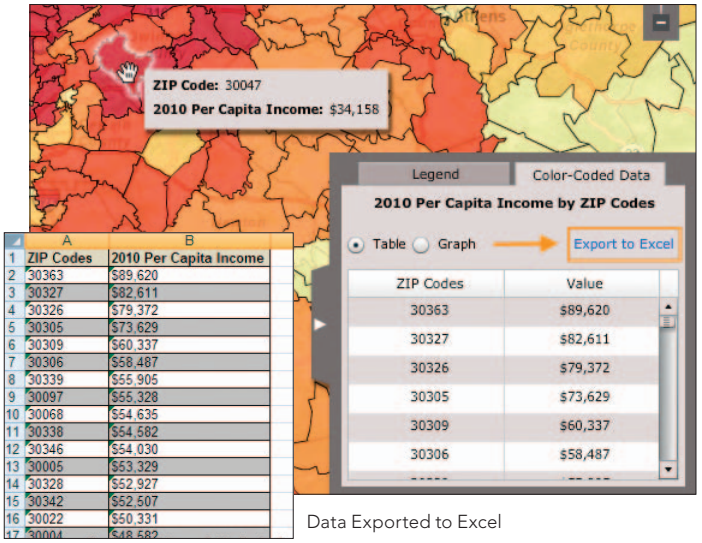
Smart Map Search

Users can select up to five variables, and the Business Analyst Smart Map Search will identify the areas on a map that meet all the criteria. This unique tool has become even more powerful by being able to leverage more data:

- Market Potential—Measure the probable demand for a product or service.
- Retail MarketPlace—See where consumers' needs are being met as well as where there are new market opportunities.
- Consumer Spending Averages and Indexes—Compare spending between sites or search for areas with specific spending levels.

Exporting Color-Coded Map Data to Excel

Business Analyst Online premium subscription members can now export the data seen in color-coded maps to Excel. Simply click the Export to Excel link on the Color-Coded Data tab, and the data visible within the current extent of the map will be exported to Excel.

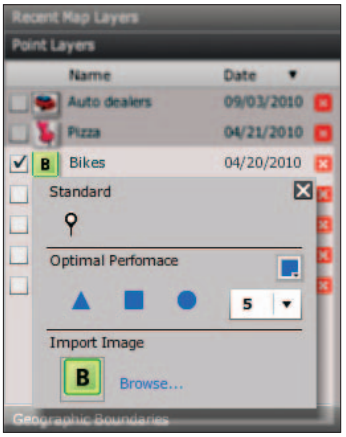


	A	B
1	ZIP Codes	2010 Per Capita Income
2	30363	$89,620
3	30327	$82,611
4	30326	$79,372
5	30305	$73,629
6	30309	$60,337
7	30306	$58,487
8	30339	$55,905
9	30097	$55,328
10	30068	$54,635
11	30338	$54,582
12	30346	$54,030
13	30005	$53,329
14	30328	$52,927
15	30342	$52,507
16	30022	$50,331

Data Exported to Excel

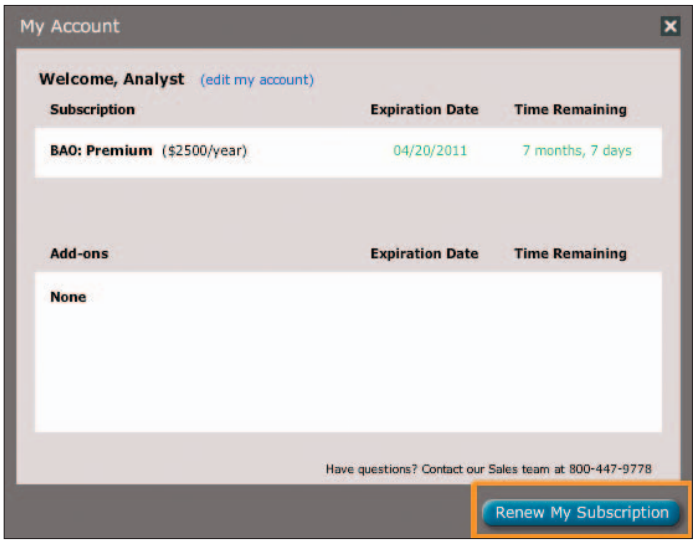
Change the Symbols of Imported Layers

The symbol for imported addresses to Bing search results can be changed on the fly. This is useful if the symbols need to be changed after the locations have been imported or the user wants to distinguish between different layers on the map. Click the symbol icon next to the layer name under My Layers to select a new symbol. An image file can be chosen and stored locally or used with any of the available standard symbols.



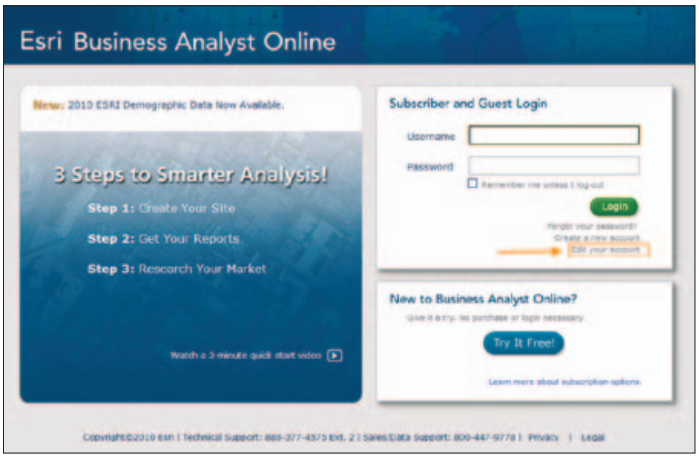
Easier Renewal of Subscriptions

Renewing subscriptions is easier than ever by clicking My Account within Business Analyst Online and clicking Renew My Subscription.



New Login Page

A new link on the login page takes users to where account information can be edited, including e-mail addresses. The ability to edit account information under Preferences within Business Analyst Online is still available; this is simply an additional shortcut.



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