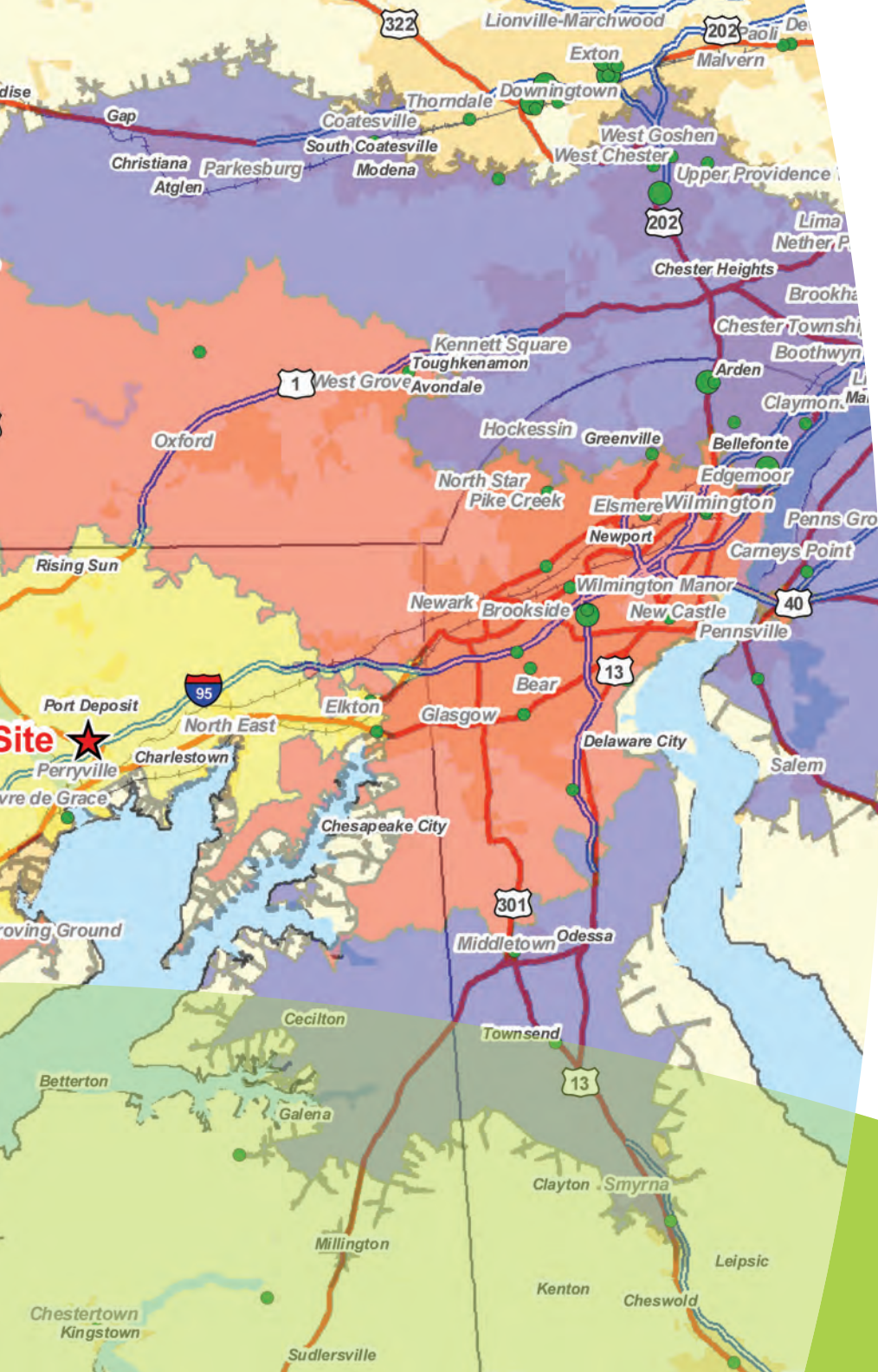


October 2012

# Localization: Not Just Location





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# GIS for Localization: Not Just Location

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 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 at the right time. A huge task in itself, redefining processes and systems can be more of a challenge in a recession.

Tailoring product offerings to shoppers on a store-by-store basis is more effective than a one-size-fits-all approach. Empowering local store managers and real estate departments with decision-making power leads to success. The key is holding the right tools and knowledge framework for a successful business strategy.

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 e-book, 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.

# 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

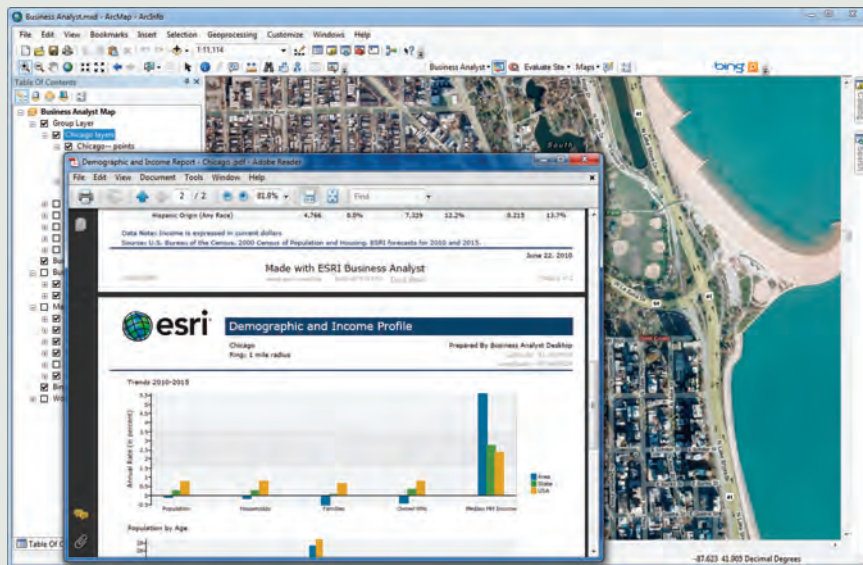
boom years have been replaced with conservative management, controlled build-out, and revised business strategies. Every aspect of driving success and maximizing return on investment is location dependent. Localizing merchandise and correctly configuring sites to maximize profits based on the profile 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 knowhow. 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

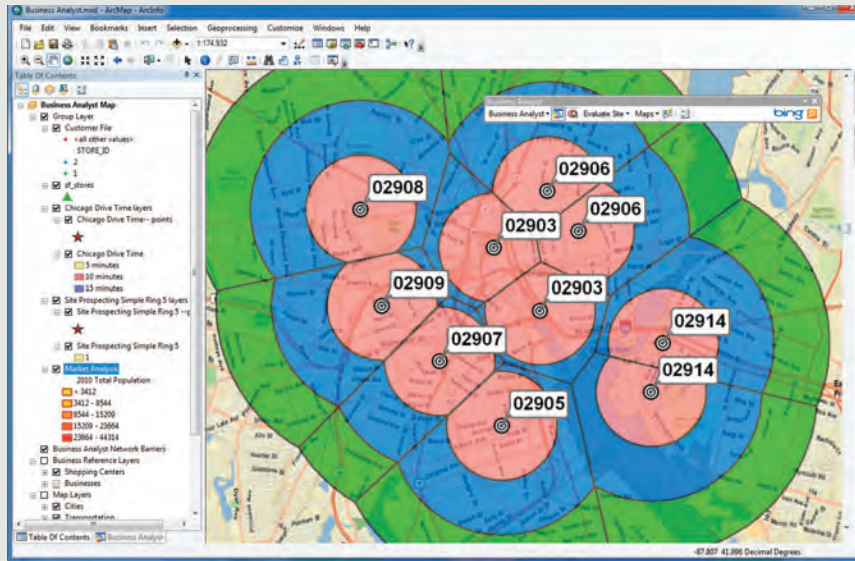
that they are willing to put up with the failures. Or are they? Where customers live or work is not necessarily where they buy something. Purchasing behavior and shopper frequency are driven by convenience. Organizations need to capture and understand shopping habits, not just buying habits. It's no 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.



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.

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.

## The Circle of Life

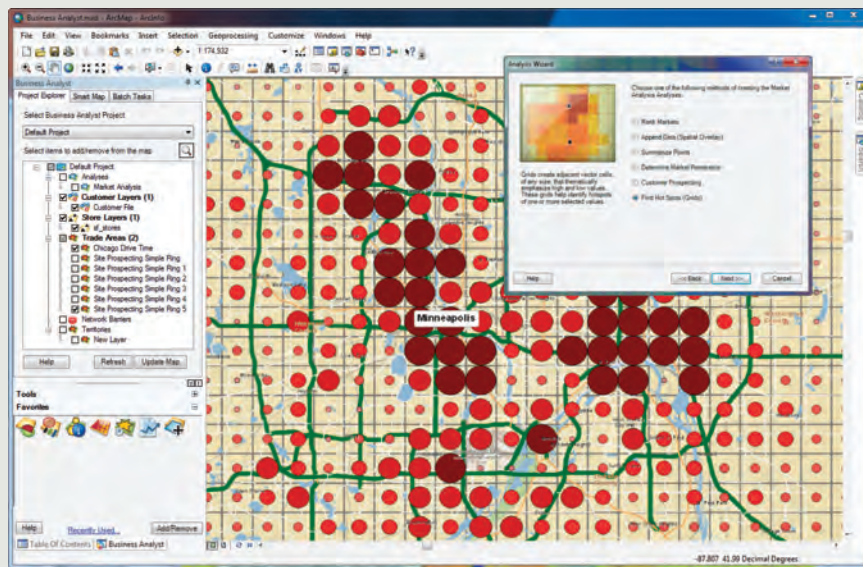
Today's GIS technology embraces the modern, consumer-oriented world that we all experience every day. iPhone apps and web-based applications let potential businesses use GIS without training and with minimal financial outlay. Market research; customer analytics; and the creation of extensive demographic, 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



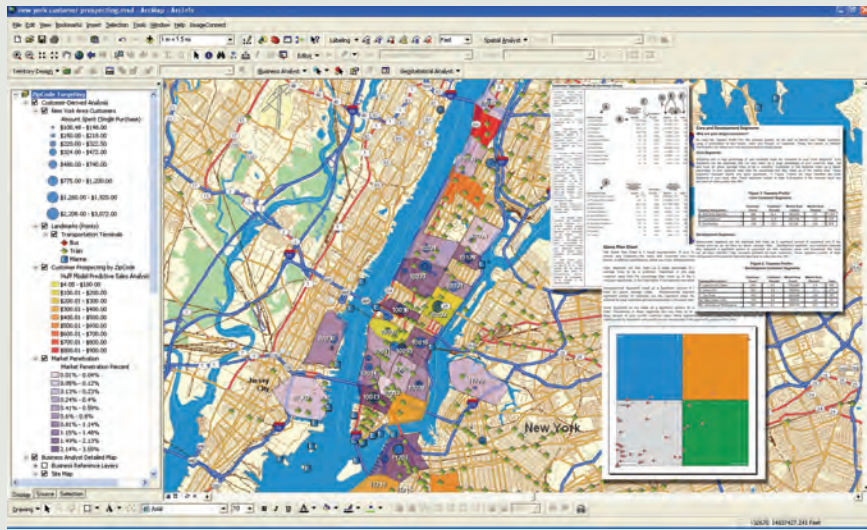
As an enabler of marketing insight, GIS provides a detailed view into the potential performance of a business under different market conditions and economic factors.

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 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](http://esri.com/business).





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.

## 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."

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

# Think Localization

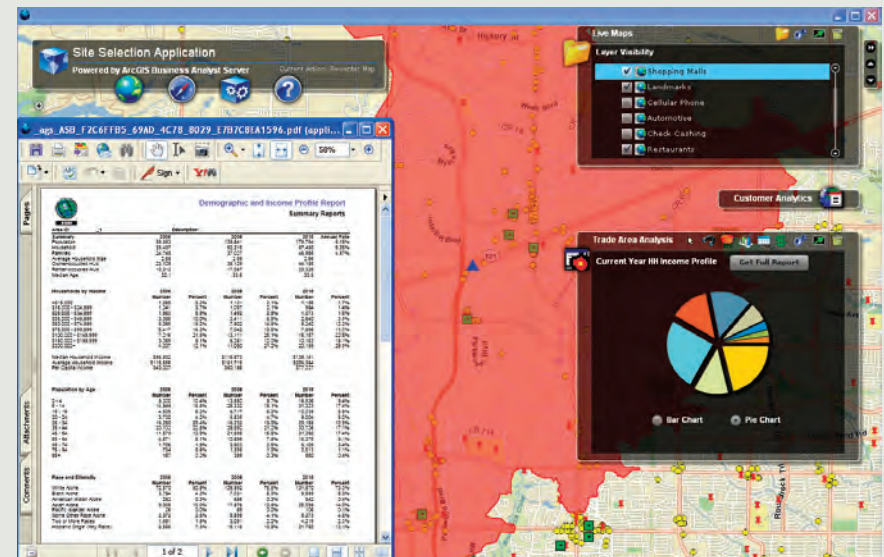
## GIS Helps Retailers Better Understand Local Markets

“Retail localization” is a phrase that is being bandied about more and more in commercial business. What exactly does it mean? If done correctly, retail localization means delivering the right type and volume of products or services to customers within a particular location by understanding the nuances of that area. This recently happened in Esri’s hometown of Redlands, California, where the chamber of commerce used Esri Business Analyst Online (BAO) software and data to provide demographic information about the surrounding communities that prompted the Dussin Group to open an Old Spaghetti Factory restaurant in a vacant building.

Markets vary by what is already available; what they can support economically; and the predominant “flavor,” or lifestyle, of the area. GIS technology can be used to better understand the specific demographics and preferences in individual market areas by visualizing that data in an easy-to-understand format: a map. Instead of sifting through reams of tabular data, being able to see where particular types of people are located makes business decisions more accurate. GIS can be applied to retail localization in four areas of commercial business: real estate, merchandising, marketing, and the supply chain.

### Localization, Not Just Location, Is No. 1 in Real Estate

Using GIS for retail localization positively affects commercial real estate by optimizing the placement of stores for the best market reach, helping evaluate sites, and improving market analysis. It is important to have the right type of operation in the correct



Esri Business Analyst GIS software and data provide in-depth knowledge to understand even small nuances among different neighborhoods.

location. Understanding the market means knowing whether an organization should enter, exit, or expand in it.

Real estate is a no-brainer for GIS; looking at geography means looking at location. Viewing available sites, along with other information such as income, households, and supply and demand, gives the best overall view of the health of a particular market. A great example of this is Edens & Avant, an owner and developer of shopping centers on the East Coast. The company, headquartered in Columbia, South Carolina, helps clients such as Fresh Market, Whole Foods, Starbucks, and Target develop innovative shopping centers. The company uses Esri Business Analyst to look at existing population and demographic information for individual areas by displaying all the information clients need on a map. This makes decision making an easy-to-understand, comprehensive process.

One project, a 61,725-square-foot shopping center development, went forward only because Edens & Avant was able to determine that a large residential base was already in place to support it. Using GIS to analyze demographic information, the company found that the population in targeted areas had grown by 50 percent over the past decade. As a result, the new center was leased and opened on time. David Beitz, an executive with Edens & Avant, explained to me that without the information to support this decision and an appropriate way to communicate it, the project wouldn't have been as successful.

## Customers Are Their Locations

Merchandising is another area where GIS can assist in localizing business—and not just for retail operations. Banks need to understand the loan products they are selling to customers. Realtors need to match the needs of home shoppers to the available housing inventory in an area. Insurers need to understand what risks are in an area to create the best policies. If a company does this correctly by understanding the profile of the people in an area and what their needs are, demand can be met. This is achieved by understanding the demographic makeup of an area; you aren't necessarily going to sell a house with a pool to someone who doesn't like to swim.

One major manufacturer does this very well by using Business Analyst to place its products. Since the products are used for competitive sports, company staff members look at demographic information, the sales history of their stores, and other factors including where schools with competitive sports teams are located. This allows the company to match the correct product to each storefront, all the way down to the colors that are needed for the local teams.

## A "Lightbulb" Moment

The third aspect of localization where GIS can help is in marketing. Think about the coupons the checkout clerk gives you after you purchase groceries or the offers you receive in the mail. These

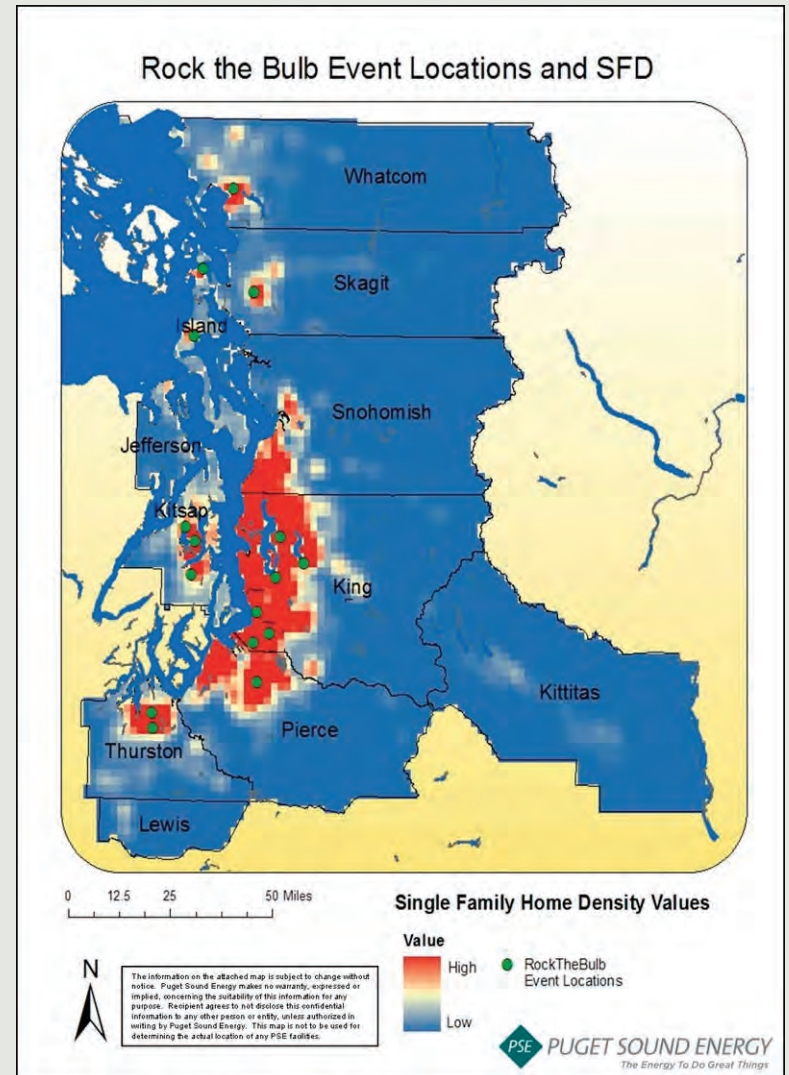
are great examples of localizing the marketplace all the way down to a personal level; they vary from town to town and consumer to consumer.

Puget Sound Energy (PSE), Washington State's oldest utility, put GIS into practice with a marketing program called Rock the Bulb. The utility targeted customers who regularly buy incandescent lightbulbs with the objective of helping them choose compact fluorescent lamp (CFL) bulbs instead. Using ArcGIS Desktop, PSE honed in on the locations of hardware stores and big-box home improvement stores and their proximity to existing customers. If the right threshold was met, an event where customers were asked to trade their old lightbulbs for new ones was staged. Using this data in planning and budgeting, PSE was able to estimate the number of participants that would attend the energy efficiency events.

### Have Your Cake and Eat It Too

Retail operations are also very important when we think about localizing our business strategies. Sometimes we tend to forget about the distribution and supply chain, which is the ability to get products where they need to go at the right time. Having the right products and services in the right location can ultimately mean the difference between success, survival, and insolvency.

What's so wonderful is that GIS can help even the most localized business. Productos Ramo S.A., a snack food company in



Puget Sound Energy uses GIS to help reach the right customers with marketing programs.

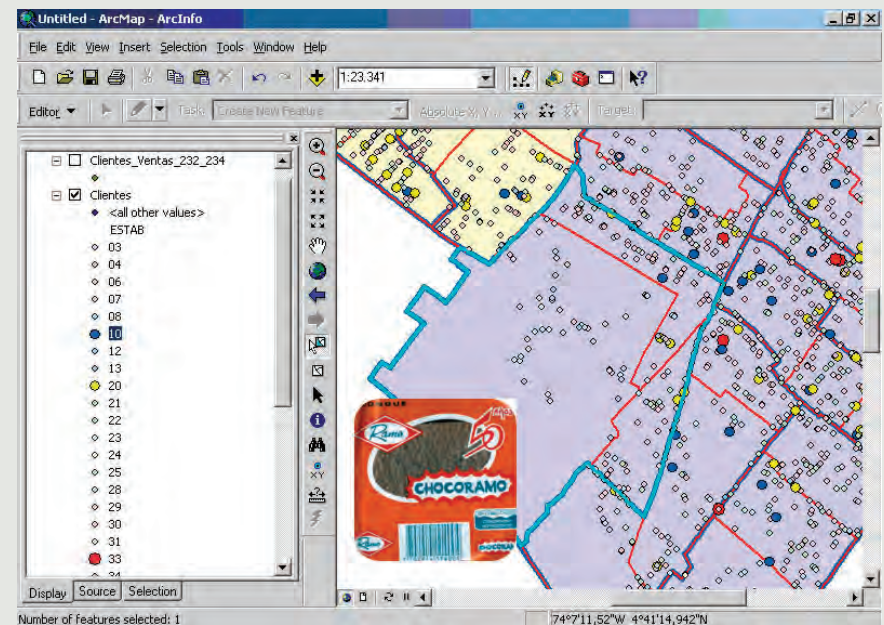


Colombia, produces a well-known product called Chocoramo, a square of cake coated in chocolate. You can't travel to the area without seeing Ramo's freight bicycles on almost every street, delivering Chocoramo and other snacks to small neighborhood stores.

GIS is used to create optimum delivery routes for the company's 700 freight bicycles and trucks. It has also been used to implement a customer survey to find out exactly how many cakes are needed to match demand by customers and where they should be delivered. In addition, the technology is used to produce sales maps to show company executives exactly how many and where products are delivered. By using GIS to implement a door-to-door survey and deliver the appropriate number of cakes to each city, the company has increased the clients in each of its sales and distribution zones by 10 percent. In Bogotá, Colombia, alone, for example, Ramo has found 8,000 new customers. Instead of guessing or extrapolating how many products might be needed in each zone, the company was able to find the exact amount of product to meet customer demand. You can't get much more localized than that.

### Becoming a More Self-Sufficient Marketplace

Doing business locally is becoming a new kind of normal. In today's economic climate, retailers can't afford to guess. They can't expect to apply the same sales models to different geographic markets. They need to understand the differences,



GIS helps even local businesses understand exactly how many products need to be delivered and to which street corners.

even subtle ones, between each marketplace if they are to thrive. Air carrier delays and cancellations from the recent volcano eruption in Iceland are translating into higher costs for shipped products. If prices go higher, fewer people may be interested in buying. If I am a shipper, I'd better ensure that I don't ship more goods than can be sold at my locations. If I am a local businessperson, I will recognize this and look for a more local product to fill the gap where shipped products have become too expensive or even unavailable.



Speaking of goods becoming unavailable, in the case of the Gulf of Mexico oil spill, we will see repercussions on local markets for the rest of the year. Here in the United States, the shrimp comes from Louisiana. Now that this year's shrimp harvest has been decimated, Americans may have to find some other type of fish to eat. Smart retailers will recognize this vacuum and meet my need with other products.

Events such as these make people stop and think about the fact that we've become heavily reliant on many different products brought to us through the globalized supply chain. Maybe it's time to think differently and act locally. We need to understand not only whether a business is in the right place but also whether it's the right business to do at those locations.

For more information about using GIS in business, visit [esri.com/business](http://esri.com/business).

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

# 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.

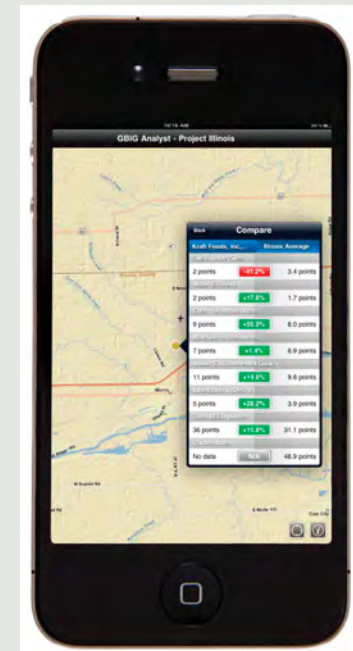
He explains, "On my last trip to Kansas, it wasn't the wheat fields or flatness that amazed me but the repetitive retail landscape. It seemed that every town was a clone of the one I had just left—the same restaurant chains, grocers, drugstores, and general merchants."

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



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.

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 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.”

*“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*

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.

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!”



GIS allows retailers to understand the local market more accurately.

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 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."

*"GIS should also be a key tool used by retailers' merchandising, marketing, and operations departments in tailoring assortments, services, and incentives to local demand."*

*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](http://esri.com/retail).

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

# Esri's 2010/2015 Updated Demographics Data

## Recovery Slowed by Lackluster Income, Cautious Spending, Rising Unemployment, and Low Housing Prices

Retail customers continue to battle the lingering effects of the recession—unemployment, stagnant household incomes, and lower housing prices. “Christmas in July” sales, expanded layaway options, and an earlier back-to-school season are among the campaigns retailers are launching to entice reluctant consumers back into their stores to shop. How can retailers learn about the demographic data trends that will affect their businesses? Esri's 2010/2015 Updated Demographics data reveals intriguing information about the demographic landscape in the United States.

Esri's 2010/2015 Updated Demographics data offers more than 2,000 data variables, including current-year estimates and 2015 forecasts for 11 different U.S. geographies from national to block group levels. This data can help identify areas of high unemployment, adjustments in the housing market, rising vacancy rates, changes in income and consumer spending, and increased population diversity. Agencies, businesses, and organizations can use the data to analyze trends, identify growth, and reveal new market opportunities.

“The challenge of successfully weathering the current economy underscores the importance of having access to accurate

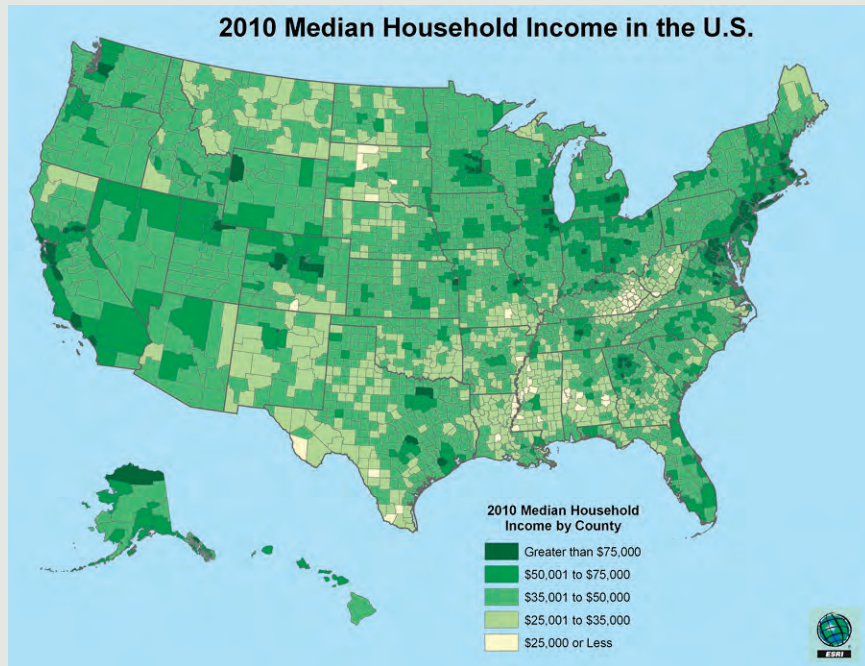
information. Current data can track critical changes and preclude the cost of being wrong,” says Lynn Wombold, Esri's chief demographer and manager of data development. “Esri pays close attention to economic and social trends and how they influence the needs of businesses, consumers, and citizens.”

### Income

U.S. households are still feeling the pinch of the recession. The median household income for 2010 is \$54,442, down slightly from \$54,719 in 2009. In 98 percent of U.S. counties, median household income has declined. Average household income dropped even more, falling from \$71,437 to \$70,135.

### Housing

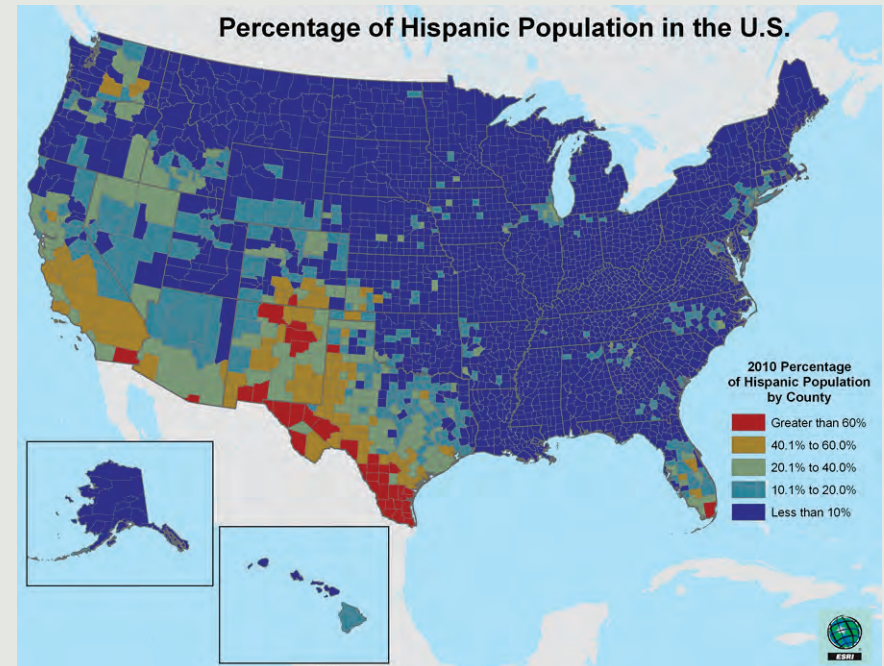
The first quarter of 2010 saw foreclosures jump by 16 percent over the comparable period in 2009. Short sales are still impacting the market in some areas. Housing unit vacancies rose by 7.4 percent, pushing the overall U.S. vacancy rate to nearly 12 percent.



Median household income declined in 98 percent of U.S. counties.

## Population

The U.S. population continues to change and diversify. Population growth and change slowed in most markets due to fewer births and the inability to move. Ten states, including Florida and Michigan, lost population from 2009 to 2010; more than half of all U.S. counties also lost population.



Growth of the Hispanic population is the greatest in counties in Texas, California, and New Mexico.

## Diversity

The most diverse states in 2010 are California, Hawaii, New Mexico, Texas, and Nevada. At 50.5 million, Hispanics now comprise 16.2 percent of the total U.S. population. From 2000 to 2010, this segment grew at an annual rate of 3.5 percent. The Asian population rose and now stands at 14.1 million, comprising 4.5 percent of the U.S. population. This segment grew at an annual rate of 3.2 percent from 2000 to 2010. Now numbering

9.3 million people and 3 percent of the U.S. total, the 2010 multiracial population also expanded and grew at an annual rate of 3.1 percent from 2000 to 2010.

Esri's 2010/2015 Updated Demographics data is available as database variables and in Esri Business Analyst products (online, on desktops and servers, and in an iPhone app); see [esri.com/businessanalyst](http://esri.com/businessanalyst).

For more information about Esri's 2010/2015 Updated Demographics data, visit [esri.com/demographicdata](http://esri.com/demographicdata) or call 1-800-447-9778.

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## Contact Esri

380 New York Street  
Redlands, California 92373-8100 USA

1 800 447 9778  
T 909 793 2853  
F 909 793 5953  
info@esri.com  
[esri.com](http://esri.com)

Offices worldwide  
[esri.com/locations](http://esri.com/locations)