

Esri | California • Hawaii • Nevada
Regional User Group Conference

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Demographic Data in ArcGIS

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Outline

- **What is demographic data?**
- **Esri Demographic data**
 - **Real world examples with GIS**
 - **Redistricting**
 - **Emergency Preparedness**
 - **Economic Development**
- **Next steps**
- **Resources**

ArcGIS 10 — A Complete System with Data

Easier
More Powerful
and Everywhere



What is Demographic Data?

- **Characteristics of a human population**

- **Gender**
- **Race**
- **Age**
- **Income**
- **Spending**
- **Habits**
- ...



Sources of Demographic Data

- **Government**
 - **Census Bureau**
 - Decennial Census
 - American Community Survey
 - **Bureau of Labor and Statistics**
 - Employment
 - Consumer Goods
- **3rd party - value added data**
 - Mediamark Research
 - Esri



Esri's Data

Data enrichment

- **Demographers, statisticians, economist , and geographers**
- **Data mining and scrubbing**
 - Chose relevant proven data
- **Apply complex spatial analytics**
 - Segmentation data



Why is Demographic Data Important?





Demographic Data

ArcGIS Online

A free online repository of GIS maps, apps, and tools

- Includes content from user community and Esri
 - Web map services
 - Layer packages
 - Map packages
 - ...
- Access content through **ArcGIS.com** web site



Redistricting

What is Redistricting?

- **The process of changing boundaries**
 - Congressional districts
 - School districts
 - Water districts
- **Boundaries should be**
 - Contiguous
 - Compact
 - Of equal population



2010 Census Data

- **April 1st 2011 all 2010 census redistricting data will be released (PL 14-171)**
 - **State population counts and ethnic groups**
 - **State housing units counts**
- **Census data will continue to be released well into 2013**
- **Occurs every 10 years**
 - **Census Bureau**

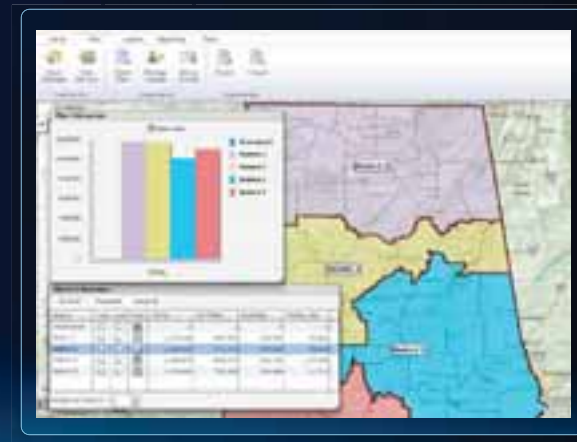
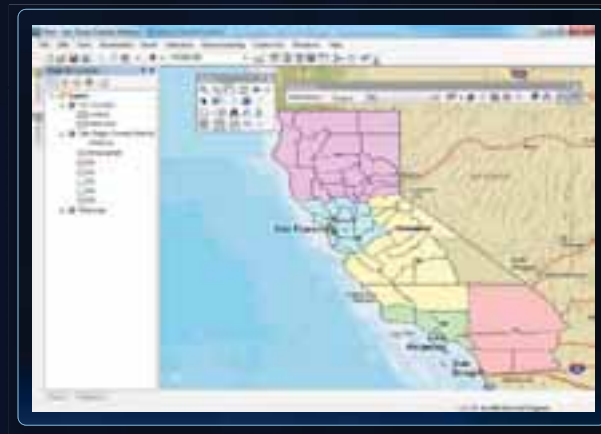




Redistricting

Esri's Redistricting Solutions

- Free **Desktop** Districting add-in
 - Requires ArcGIS
 - Source data
 - Some knowledge of GIS workflows
- Redistricting **Online** application
 - Subscription based
 - No data management
 - Non-GIS users
 - No software to install
 - Community involvement



Esri Data



Esri Demographics

Current Year Estimates and Five Year Projections

- Population & Households
- Age by Sex by Race
- Race and Hispanic Origin
- Industry & Occupation
- Education & Marital Status
- Household & Family Income
- Net Worth & Disposable Income
- Housing by Occupancy
- Home Value
- Quarterly Population & Households



Esri Data and Esri Data & Maps

- **Yearly updates of demographic data**
 - **Current year and 5 year forecast**
- **More data - 5000+ variables**
 - **Demographic**
 - **Lifestyle segmentation**
 - **Spending**
 - **Business**
- **Data aggregated to many levels of geography**



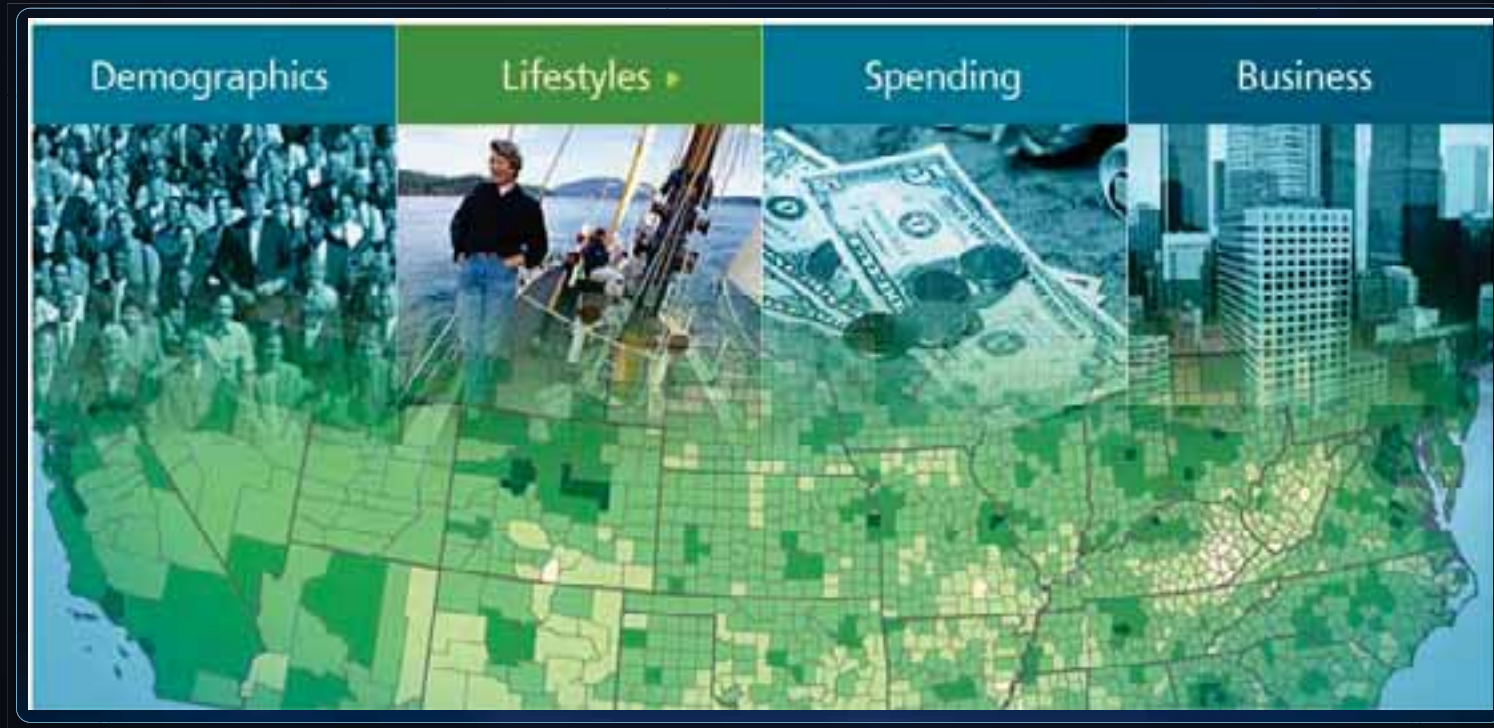
Emergency Preparedness

What You Need to do This

- **Business Analyst Online Report Add-in**
 - **Subscription based**
- **Internet access**
 - **To download data locally**
- **ArcView license level or higher**
- **Network analyst**
 - **Drive times**
 - **Location allocation**



Esri Data



What is Tapestry Segmentation?

Connection between human behaviors and neighborhood structure

- Classification of neighborhoods by their socioeconomic and demographic composition
- Allows for focused marketing campaigns



Urban Melting Pot



High Rise Renters



Retirement Communities

Tapestry's View of Seniors



#14 Prosperous Empty Nesters



#30 Retirement Communities



#50 Heartland Communities



#15 Silver and Gold



#43 The Elders



#57 Simple Living



#29 Rustbelt Retirees



#49 Senior Sun Seekers



#65 Social Security Set

What Tapestry Segmentation Tells Us

04 Boomburbs

Segment Code..... 04
Segment Name..... Boomburbs
LifeMode Group..... L1 High Soc
Urbanization Group..... US Urban C

Demographic

The newest additions to the suburbs, these cities are home to young families who are living a suburban lifestyle. Both the neighborhoods and the families. Boomburbs is the fastest-growing market in the States; the population has been growing at 3.3% annually since 2000. It is also home to one of the concentrations of young families with children. The median age is 33.8 years; more than one-fifth of Boomburbs residents are between 35 and 44 years of age. There is little diversity in the population; white is the predominant race.

Socioeconomic

The Boomburbs market includes one of the highest concentrations of dual-income households, comprising 45 percent of the highest rates of labor force participation at 75 percent. Residents are well educated: more than 80 percent of the population aged 25 years and older hold a high school or graduate degree. The labor force is employed in management, professional, and sales occupations. The median household income is \$117,782, more than 50 percent that of the U.S. median. More than half of the population receive additional income from interest, dividends, or property. The median net worth is \$246,566.

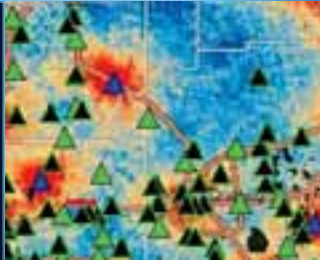
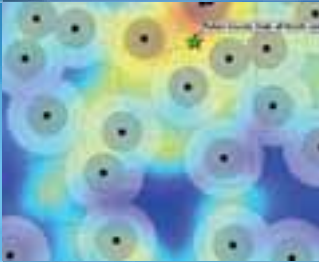
Residential

Boomburbs neighborhoods are concentrated in the West, and Midwest; the highest state concentrations are found in Texas and California. Approximately 80 percent of the housing units in the Boomburbs segment were built after 1989. These are the newest developments in the areas. Most homes are single-family structures. The home ownership rate is 91 percent, compared to 68 percent for the United States. The median home value of \$300,000 is high compared to the U.S. median. Commuting is dominated by dual-career households with their suburban homes. 35 percent of dual-career households work outside their resident county; 35 percent of dual-career households live to work (compared to 23 percent for the United States).

The *Boomburbs* segment is the top market for recent purchases of everything from household furnishings, toys and games, men's business and casual apparel, and big-screen TVs to cars and trees. Their product preferences reflect their suburban lifestyle. This is the top market for households owning projection TVs, DVD players, MP3 players, scanners, and laser printers as well as owning or leasing full-size SUVs. It ranks second for owning flat-screen or plasma TVs, video game systems, and digital camcorders and owning or leasing minivans. Residents own laptop computers, all kinds of software, and two or more cellular phones. They use the Internet to make purchases (especially flowers and tickets to sports events), trade and track investments, do banking, and make travel plans. Personal computer use by children younger than 18 years is the highest here.

Fulton County Dept. of Health and Wellness


Economic Development



What You Need to do This

- **Business Analyst Premium extension**
 - Target marketing tools
 - Segmentation data at block groups
- **ArcView license level or higher**
- **Internet connection**
 - Display online thematic maps

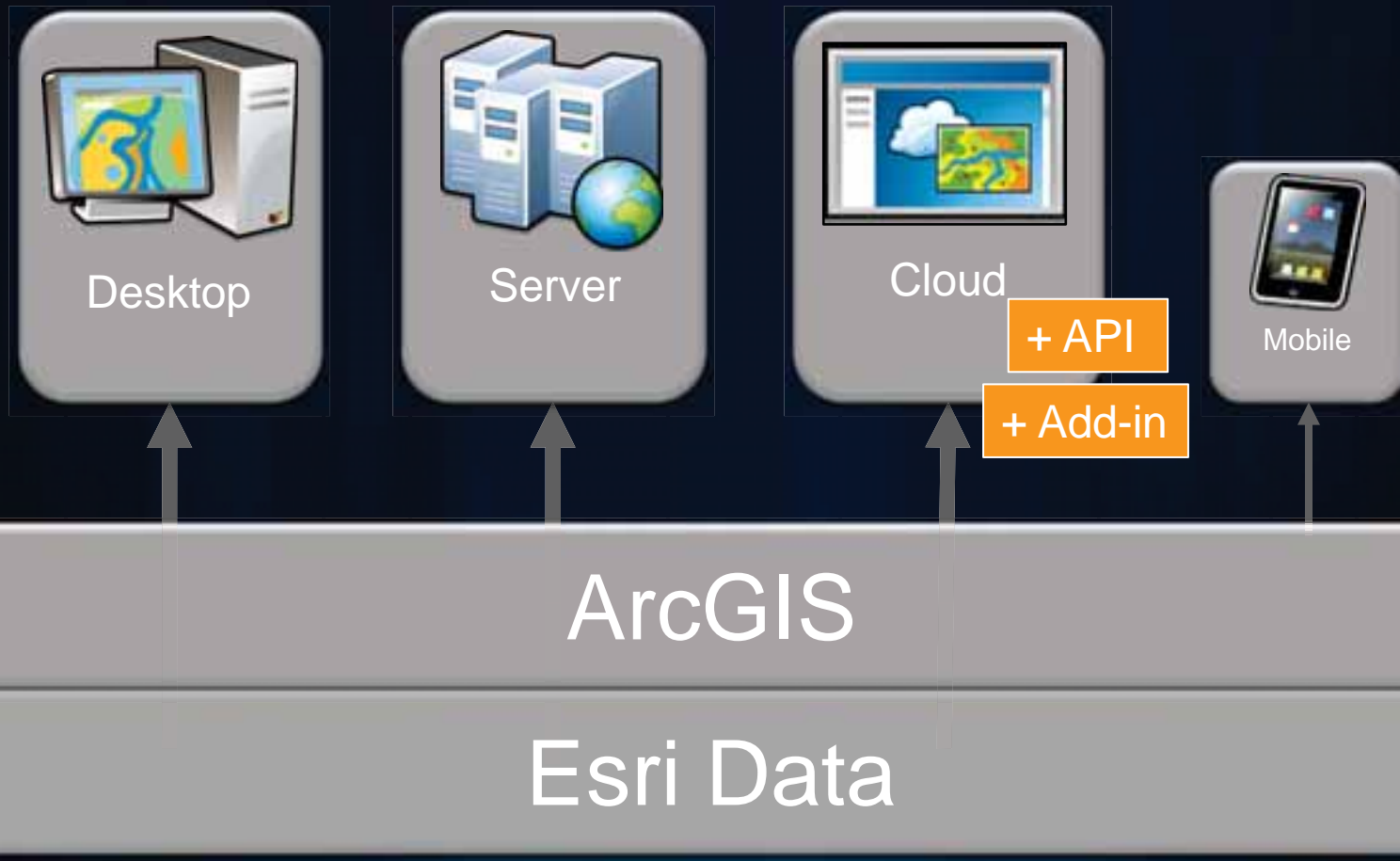
09 Urban Chic



L2 Upscale Averages
U3 Metro Cities I
Mixed
42.0
Upper Middle
Prof/Mgmt
Bach/Grad Degree
Single Family; Multiunits
White

Order from Amazon.com
Trade/track investments
online
Buy natural, organic foods
Listen to classical music
on radio
Spent \$30,000+ on last
vehicle purchase

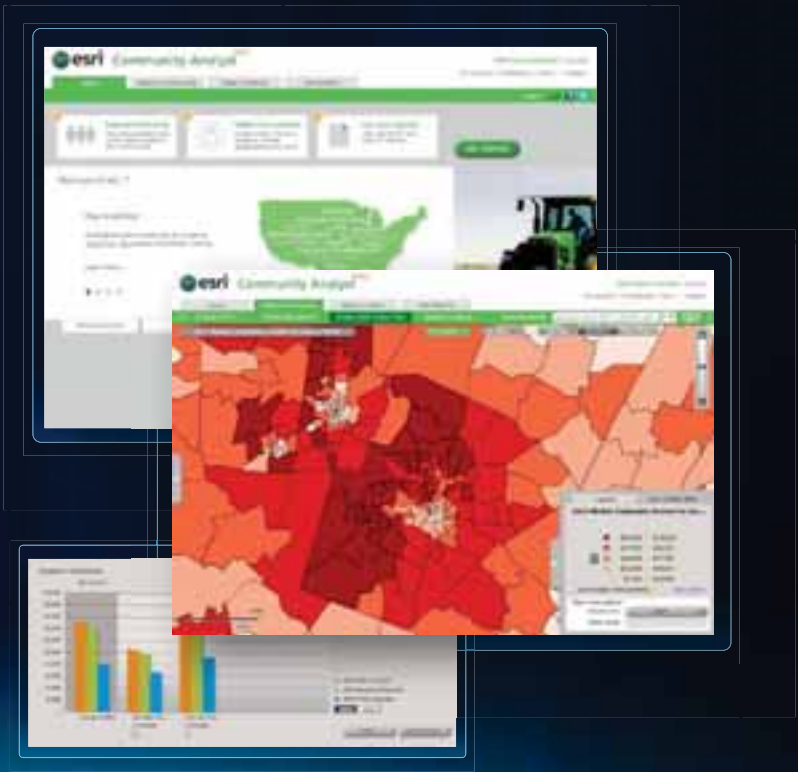
ArcGIS Business Analyst



What is Community Analyst?

Better policy decisions

- **Web-based application**
 - Data exploration, analysis & reporting
- **Data from various sources**
 - Esri
 - Census
 - Third parties
 - Public agencies
- **For everyone**



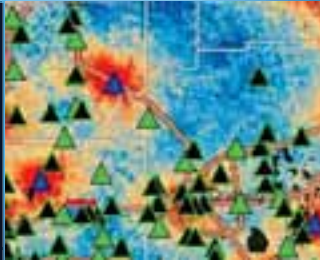
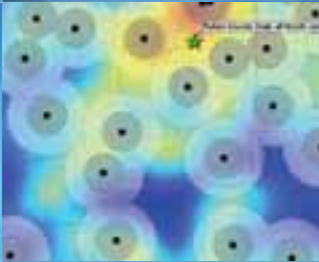
Community Analyst Data

Building Permits
Food Access
Poverty Data
Health Data
Demographics
Lifestyles
Spending
Employment
Behavioral Data
Business
Traffic
Census

New for Community Analyst

Fulton County Dept. of Health and Wellness

Community Analyst



Access Esri Data

- **Online**
 - ArcGIS Online
 - Community Analyst
 - Business Analyst Online

- **Desktop**
 - Business Analyst
 - Data and Maps
 - Individual datasets

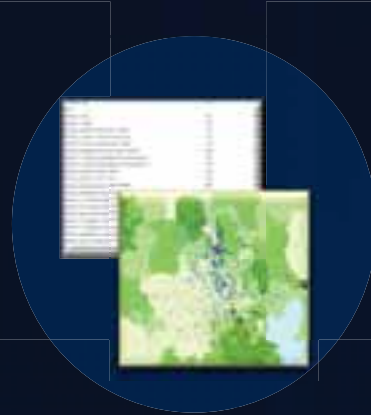


Your Data



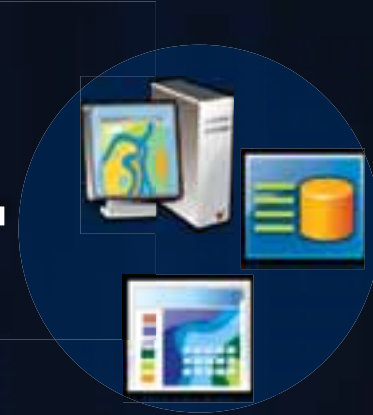
- Districts
- Customers
- Facilities
- Permits

Esri Data



- Current Year Demographics
- Forecasted Demographics
- Tapestry Segmentation
- Supply & Demand

ArcGIS



- Analyses
- Maps
- Models
- Reports

= More Informed
Decisions

Next Steps...

- **ArcGIS Online content**
 - Search for “2010 Demographics”
- **Redistricting tools**
 - Free Desktop Districting Add-in
 - Redistricting Online
- **Business Analyst Online Reports Add-in**
- **Community Analyst**



Resources

- **ArcGIS Online demographic maps**
 - <http://www.esri.com/software/arcgis/arcgisonline/standard-maps.html>
- **List of demographic variables - CYFY**
 - http://www.esri.com/data/esri_data/pdfs/2010-esri-updated-demographics-data-list.pdf
- **Data Methodology Statements**
 - http://www.esri.com/data/esri_data/methodology-statements.html
- **Esri Data and Maps in ArcGIS 10 (free data)**
 - <http://www.esri.com/data/data-maps/J9974EsriDataandMaps10.pdf>
- **Segmentation Use Case**
 - <http://www.esri.com/library/casestudies/arlington-food-assistance.pdf>
- **Community Analyst**
 - <http://communityanalyst.esri.com/>

Resources

- **Community Analyst beta sign-up**
 - <http://www.esri.com/software/arcgis/community-analyst/index.html>
- **Community Analyst Resource page**
 - http://help.arcgis.com/en/communityanalyst/online/data/data_descriptions.html
- **Business Analyst Online**
 - <http://bao.esri.com/>
- **Business Analyst Online Reports Add-in**
 - <http://www.esri.com/software/bao-reports/index.html>
- **Free Districting Add-in**
 - <http://www.esri.com/software/arcgis/extensions/districting/index.html>
- **2010 Census redistricting data**
 - <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- **Esri Data and Census 2010**
 - <http://resources.arcgis.com/Census-2010>

Questions

Thank You



esri