



2009 Methodology Statement: ESRI Data—Tapestry™ Segmentation

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An ESRI White Paper

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Based on the foundation of proven segmentation methodology introduced more than 30 years ago, the Tapestry™ Segmentation system classifies U.S. neighborhoods into 65 market segments. Neighborhoods with the most similar characteristics are grouped together, while neighborhoods showing divergent characteristics are separated.

Attributes Used to Build ESRI Data— Tapestry Segmentation

Each U.S. neighborhood is analyzed and sorted by more than 60 attributes including income, employment, home value, housing type, education, household composition, age, and other key determinants of consumer behavior. U.S. consumer markets are multidimensional and diverse. Using a large array of attributes captures this diversity with the most powerful data available. Data sources include Census 2000 data, ESRI® proprietary demographic updates, the InfoBase-X™ consumer database from Acxiom Corporation, and other sources to capture the subtlety and vibrancy of the U.S. marketplace.

Optimal Number of Segments

A frequently asked question about geodemographic segmentation is: Why does Tapestry Segmentation have 65 segments? Why not 60 or some other number? The 65 segments of Tapestry Segmentation serve to effectively describe U.S. markets. ESRI employed several statistical methods to ensure the optimal number of segments. The most intuitive measure among the batch of statistics used is the concept of *stability*. By examining how many neighborhoods would change their assignment, we could assess the stability of a solution. From an analysis of multiple solutions with different numbers of segments, the solution with 65 segments proved to be the most stable.

Statistical Methods

Tapestry Segmentation combines the traditional statistical methodology of cluster analysis with the latest data mining techniques to provide a robust and compelling segmentation of U.S. neighborhoods. ESRI incorporated and developed these data mining techniques to complement and strengthen traditional methods to work with a large geodemographic database. Many neighborhoods contain large or small values in their geodemographic attributes. Robust methods are less susceptible to extreme values and, therefore, crucial to dealing with neighborhood data. The traditional methodology of cluster analysis has a long track record in developing segmentation systems. Complementary use of data mining techniques and implementation of robust methods enhance the effectiveness of traditional statistical methodology in developing Tapestry Segmentation. For a broader view of consumer markets, cluster analysis was also used to develop the Tapestry Segmentation summary groups. The 65 segments are combined into 12 LifeMode groups based on lifestyle and lifestage. The 11 Urbanization groups present an alternative way of combining the 65 segments based on the segments' geographic and physical features and income. The summary groups are ideal when users want to work with fewer than all 65 segments.

**Verification
Procedures**

Verification procedures follow the creation of the segments to ensure their stability and validity. Replicating the segments with independent samples checks stability. Validity is checked through the use of characteristics that are not used to generate the segments. Linking Tapestry Segmentation to the latest consumer survey data is the critical test. A market segmentation system must be able to distinguish consumer behavior—spending patterns and lifestyle choices—as expected. The validity check provides the answer to the most important question: Does it work?

For more information about Tapestry Segmentation, visit www.esri.com/tapestry or call 1-800-447-9778.

**ESRI'S Data
Development Team**

Led by chief demographer Lynn Wombold, ESRI's data development team has a 30-year history of excellence in market intelligence. The combined expertise of the team's economists, statisticians, demographers, geographers, and analysts totals nearly a century of data and segmentation development experience. The team has crafted data methodologies, such as the demographic update, segmentation, the diversity index, and the Retail MarketPlace database, that are now industry benchmarks.

For more information, visit www.esri.com/data.



About ESRI

For four decades, ESRI has been helping people make better decisions through management and analysis of geographic information. Our culturally diverse staff work with our business partners and hundreds of thousands of people who use GIS to make a difference in our world.

A full-service GIS company, ESRI offers support for implementing GIS technology from the desktop to enterprise-wide servers, online services, and mobile devices. GIS solutions are flexible and customizable to meet the needs of all our users.

Our Focus

At ESRI, we focus on promoting the value of GIS and its applications throughout the world and pay close attention to our users' needs. Our software development and services respond to our customers with products that are easy to use, flexible, and integrated. Our technology is multidisciplinary, productive, and valuable to our users.

We have a strong commitment to educating our customers through ESRI's various training programs. ESRI is a socially conscious business and invests heavily in issues regarding education, conservation, sustainable development, and humanitarian affairs.

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