



# Demographic Terminology & Definitions

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## **Demographic Terminology & Definitions**

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As with each scientific discipline, a vocabulary of terminology is used to precisely describe the data, measurements of the data, and ultimately, conversion of the data into knowledge. The study of demographics is rich with a specialized vocabulary, which is all too often complicated, when the use of ordinary words takes on a different meaning. This guide has been prepared by FeedDealer.com and their parent company Strategic Mapping & Data Services LLC to provide the user with an understanding of the data as well as the understanding of methodologies used in the preparation of the provided reports.

The data and reports prepared by FeedDealer.com utilize a variety of data sources in an attempt to provide a clear and concise picture of the target market and it's potential. A description of the data and the terminology used is provided for each of the data sources from which the reports are generated.

### **General Terminology:<sup>1</sup>**

#### **Age**

Age is generally derived from date of birth information, and is based on the age of the person in complete years.

#### **Ancestry**

Refers to a person's self-identification of heritage, ethnic origin, descent, or close identification to an ethnic group.

#### **Annual Payroll (in thousands of dollars)**

Payroll includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation allowances, sick-leave pay, and employee contributions, to qualified pension plans paid during the year to all employees.

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<sup>1</sup> United States Department of Agriculture: NRCS – General Population Census Glossary

For corporations, payroll includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit or other compensation of proprietors or partners. Payroll is reported before deductions for social security, income tax, insurance, union dues, etc. This definition of payroll is the same as that used by the Internal Revenue Service (IRS) on Form 941.

**Area**

The size, in square miles or square meters, recorded for each geographic entity.

**Average**

The number found by dividing the sum of all quantities by the total number of quantities.

**Average Family Size**

A measure obtained by dividing the number of members of families by the total number of families.

**Average Household Size**

A measure obtained by dividing the number of people in households by the total number of households.

**Average Household Size of owner-occupied units**

A measure obtained by dividing the number of people living in owner-occupied housing units by the number of owner-occupied housing units

**Block**

A subdivision of a census tract (or, prior to 2000, a block numbering area), a block is the smallest geographic unit for which the Census Bureau tabulates 100-percent data. Many blocks correspond to individual city blocks bounded by streets, but blocks – especially in rural areas – may include many square miles and may have some boundaries that are not streets. The Census Bureau established blocks covering the entire nation for the first time in 1990. Previous censuses back to 1940 had blocks established only for part of the nation. Over 8 million blocks are identified for Census 2000.

**Census**

A complete enumeration, usually of a population, but also of businesses and commercial establishments, farms, governments, and so forth.

**Census (decennial)**

The census of population and housing, taken by the Census Bureau in years ending in 0 (zero). Article I of the Constitution requires that a census be taken every ten years for the purpose of reapportioning the U.S. House of Representatives.

**Census (economic)**

Collective name for the censuses of construction, manufactures, minerals, minority- and women-owned businesses, retail trade, service industries, transportation, and wholesale trade, conducted by the Census Bureau every five years, in years ending in 2 and 7.

**Decennial**

Occurring or being done every 10 years.

**Decennial Census**

The census of population and housing, taken by the Census Bureau in years ending in 0 (zero). Article I of the Constitution requires that a census be taken every ten years for the purpose of reapportioning the U.S. House of Representatives. Title 13 of the U. S. Code provides the authorization for conducting the census in Puerto Rico and the Island Areas.

**Demographic Profile**

A profile includes tables that provide various demographic, social, economic, and housing characteristics for the U.S., regions, divisions, states, counties, minor civil divisions in selected states, places, metropolitan areas, American Indian and Alaska Native areas, Hawaiian home lands and congressional districts. It includes 100-percent and sample data from the decennial censuses.

**Earnings**

Earnings is defined as the algebraic sum of wage or salary income and net income from self-employment. Earnings represent the amount of income received regularly before deductions for personal income taxes, Social Security, bond purchases, union dues, Medicare deductions, etc.

**Family**

A group of two or more people who reside together and who are related by birth, marriage, or adoption.

**Family Household (Family)**

A family includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family in census tabulations. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may comprise a group of unrelated people or one person living alone.

**Family Size**

Refers to the number of people in a family.

**Household**

A household includes all the people who occupy a housing unit as their usual place of residence.

**Household Size**

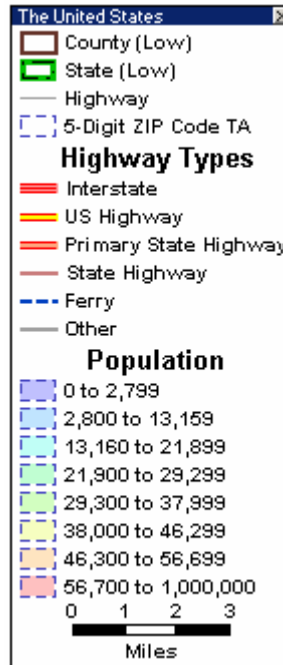
The total number of people living in a housing unit.

**Income**

"Total income" is the sum of the amounts reported separately for wages, salary, commissions, bonuses, or tips; self-employment income from own nonfarm or farm businesses, including proprietorships and partnerships; interest, dividends, net rental income, royalty income, or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); any public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability pensions; and any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony.

**Legend**

The part of a map that lists and explains the colors, symbols, line patterns, shadings, and annotations used on the map (example shown on next page).



## Mean

This measure represents an arithmetic average of a set of numbers. It is derived by dividing the sum of a group of numerical items by the total number of items in that group. For example, mean family income is obtained by dividing the total of all income reported by people 15 years and over in families by the total number of families.

## Mean Income

Mean income is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income, the means are based on households having those types of income.

## Median

This measure represents the middle value (if n is odd) or the average of the two middle values (if n is even) in an ordered list of data values. The median divides the total frequency distribution into two equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median.

## Median Age

This measure divides the age distribution in a stated area into two equal parts: one-half of the population falling below the median value and one-half above the median value.

**Median Income**

The median income divides the income distribution into two equal groups, one having incomes above the median, and other having incomes below the median.

**Metropolitan**

Refers to those areas surrounding large and densely populated cities or towns.

**Per capita Income**

Average obtained by dividing aggregate income by total population of an area.

**Percentage**

This measure is calculated by taking the number of items in a group possessing a characteristic of interest and dividing by the total number of items in that group, and then multiplying by 100.

**Population**

All people, male and female, child and adult, living in a given geographic area.

**Population Density**

Total population within a geographic entity divided by the number of square miles of land area of that entity measured in square kilometers or square miles.

**Population Estimates**

The Census Bureau's Population Estimates Program publishes population numbers between censuses. Estimates usually are for the past, while projections are estimates of the population for future dates. July 1 estimates are published for years after the last decennial census (2000), as well as those for past decades. Data for births, deaths, and domestic and international migration are used to update the decennial census base counts. These estimates are used in federal funding allocations; as inputs to other federal agencies' statistics and per capita time series; as survey controls; and in monitoring recent demographic changes. With each new issue of July 1 estimates, the estimates for the years since the last census are revised.

**Rate**

This is a measure of occurrences in a given period of time divided by the possible number of occurrences during that period.

**Ratio**

This is a measure of the relative size of one number to a second number expressed as the quotient of the first number divided by the second.

**Sampling Error**

Errors that occur because only part of the population is directly contacted. With any sample, differences are likely to exist between the characteristics of the sampled population and the larger group from which the sample was chosen. Sampling error, unlike non-sampling error, is measurable.

**Sex**

An individual's gender classification - male or female.

**Sex Ratio**

A measure derived by dividing the total number of males by the total number of females, and then multiplying by 100.

**Sample Data**

Population and housing information collected from the census long form for a one in six sample of households in the United States and Puerto Rico, and on a continuous basis for selected areas in the American Community Survey.

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**Spouse**

A person legally married to another person.

**Standard Deviation**

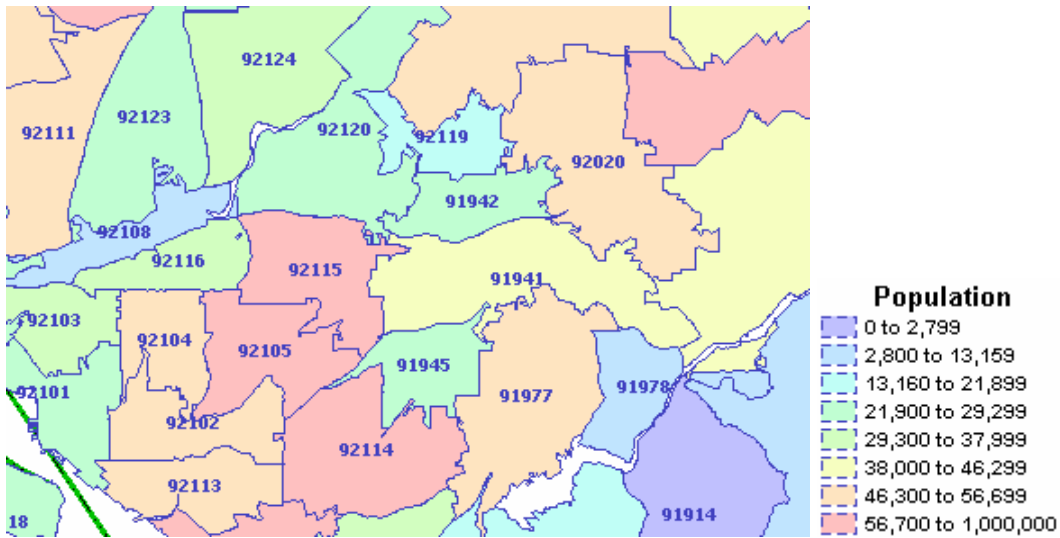
A measure which shows the average variability in population from the mean. It is defined as the square root of the variance.

**Standard Error (ACS)**

The standard error is a measure of the deviation of a sample estimate from the average of all possible samples.

**Thematic Map**

A map that reveals the geographic patterns in statistical data (example on next page).



## ZIP Code

A ZIP (Zone Improvement Plan) Code is a five-, seven-, nine-, or eleven-digit code assigned by the U.S. Postal Service to a section of a street, a collection of streets, an establishment, structure, or group of post office boxes, for the delivery of mail.

The Census Bureau uses only 5-digit ZIP codes for the addresses and address ranges in most Census 2000 operations.

# ESRI<sup>2</sup> Community Sourcebook Reports:

## Income

<u>Household Income</u> <sup>2</sup>	
Median 2006	\$51,546
Median 2011	\$60,704
	<u>2006</u>
Base	114,048,424
% <\$25K	22.7
% \$25K-50K	25.8
% \$50K-100K	31.8
% \$100K-150K	12.1
% \$150K+	7.7
Per Capita Income	\$27,084

Household income in 2006 and 2011 is a forecast based upon 2000 census income tabulations. Income represents the annual income for the preceding year in current dollars, including an adjustment for inflation or cost-of-living increase.

## Population

<u>Total Population</u>	
2000	281,421,906
2006	303,582,361
2011	323,785,827
% Annual Rate '00-'06	1.2

Population is the total number of residents of an area. Residence refers to the "usual place" where a person lives, which is not necessarily the legal residence. For example, college students are counted where they attend school. 2000 census (actually head count) and ESRI provided projections and adjustments for 2006 and 2011. The "% Annual rate 00-06" is the rate at which the population grew or decreased between 2000 and 2006.

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<sup>2</sup> ESRI  
380 New York Street  
Redlands, California 92373  
www.esri.com

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Per Capita Income	\$27,084

Household income is the total income from all wage earners (over age 15) residing in that household. The Base is the number of households used in the calculation. Per capita income is the average income for all persons calculated from the aggregate income of persons 15 years and older

## Household

<u>Households</u>	
2000	105,480,101
2006	114,049,635
2011	121,863,482
% Annual Rate '00-'06	1.3
Average Size 2006	2.59

A household is an occupied housing unit.

## Average Household Size

Average size is calculated by dividing the number of persons in households by the number of households.

## Householder

One person in each household is designated as the householder. In most cases, this is the person, or one of the persons, in whose name the home is owned being bought, or rented. If no such person in the household exists, any adult household member 15 years old and over is designated as the householder.

## Spending Potential<sup>3</sup>

<u>Spending Potential Index*</u>	
Auto Loan	105
Home Loan	109
Investments	112
Retirement Plans	112
Home Repair	111
Lawn & Garden	103
Remodeling	113
Appliances	103
Electronics	105
Furniture	109
Restaurants	110
Sporting Goods	104
Theater/Concerts	108
Toys & Hobbies	106
Travel	114
Video Rental	101
Apparel	112
Auto Aftermarket	106
Health Insurance	102
Pets & Supplies	103

The Spending Potential Indexes (SPIs) measure spending per consumer household for a product or service in a county, ZIP Code, or other trade area. The SPIs compare the expenditures per consumer household for a specific product/service in the trade area with the corresponding expenditure for that product/service nationally.

The index is tabulated to represent a value of 100 as the average spending, a value of more than 100 indicating high spending, and a value of less than 100 indicating low spending, relative to the U.S. For example, an index of 120 implies that spending in the trade area is likely to be 20 percent higher than the U.S. average; an index of 85, 15 percent lower.

### **Methodology used to Calculate SPIs:**

Data for ESRI's consumer spending reports are calculated from the Bureau of Labor Statistics' Consumer Expenditure Surveys (CEX). ESRI extracted demographic and economic data for households from the CEX Interview Surveys, 2001, 2002 and 2003, to construct a conditional probability model. The model links the spending of consumer units or households surveyed in the CEX to all households with similar socioeconomic characteristics. Spending patterns are further differentiated by geography--region of the U.S., urban vs. rural, and metropolitan vs. non-metropolitan--and updated to current prices using the annual Consumer Price Index. Expenditures represent annual averages or totals.

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<sup>3</sup> This section on SPI's is from the ESRI help file provided with their data

### Computation of a Spending Potential Index

For any trade area, the expenditure per consumer household for a particular product or service can be computed by linking the expenditure data to the demographic characteristics of the population. The SPI is defined as the ratio of the local average to the U.S. average expenditure. The following equation shows how the index is derived:

For trade area "t",

$$\text{SPI} = (\text{Local Average Expenditure}/\text{U.S. Average Expenditure}) \times 100$$

### How High is High?

The SPI exhibits different ranges of values for different products/services. In general, products pertaining to specific lifestyles or income levels will show a wider range of SPI values than products, which are consumed by everybody.

When tabulated to the U.S. with the appropriate weights, the SPI has an average value of 100, but the distribution of SPI's among ZIP Codes show how different products can lead to different levels in the index. Below is a table showing the various values of the SPI's for all ZIP Codes in the country.

This is a rough guide for determining "how high is high":

#### Medians and Percentiles of Spending Potential Indices:

	All U.S. Counties			
		Somewhat High	Very High	Extremely High
		Percentiles		
	<i>Median</i>	<i>75th</i>	<i>90th</i>	<i>95th</i>
<b>Financial Services:</b>				
Auto Loan	85	93	104	117
Home Loan	66	81	103	124
Investments	46	68	99	129
Retirement Plans	64	80	103	126

**Medians and Percentiles of Spending Potential Indices:**

**All U.S. Counties**

Somewhat High      Very High      Extremely High

**Percentiles**

	<i>Median</i>	<i>75th</i>	<i>90th</i>	<i>95th</i>
<b>The Home:</b>				
<b>Home Improvements</b>				
Home Repair	71	84	102	122
Lawn & Garden	86	95	107	120
<b>Furnishings</b>				
Computers and Hardware-Personal	68	81	101	120
Major Appliances	77	87	102	118
TV, Radio, Sound Equipment	73	84	100	115
Furniture	69	82	101	120
<b>Entertainment:</b>				
Dine Out/Carry Out	72	83	100	116
Sports Equipment	59	67	78	91
Fees & Tickets	62	79	101	122
Toys & Games	75	86	101	117
Travel	69	83	101	119
Cable TV	77	87	100	113
<b>Personal:</b>				
Apparel & Services	50	60	73	86
Auto Repairs	74	85	101	117
Health Insurance	86	94	103	115
Pets & Supplies	91	102	115	131

## **Variable Definitions**

Following are the definitions of the various Spending Potential Indices (SPI) reported in the ESRI report:

### **Financial Services**

**Auto Loan** - Lease payments, finance charges, and principal paid for cars, trucks and vans (new and used).

**Home Loan** - Interest on mortgage and home equity loans, principal reduction of mortgage and home equity loans, and special or lump-sum mortgage and home equity payments.

**Investment** - Purchase price of stocks, bonds, or mutual funds (including broker fees).

**Retirement Plans** - Deductions for government retirement, railroad retirement, private pensions, and self-employment retirement plan.

### **The Home**

**Home Improvements Home Repair** - Contractor labor and material costs associated with painting or papering, plumbing or water heater installation or repair, heating, air conditioning or electrical work, roofing and gutters, and other repair and maintenance work, replacement or repair of appliances, repair or replacement of hard-surfaced flooring, replacement of installed wall-to-wall carpeting, materials and equipment for painting and wallpapering, materials and supplies for plumbing, water heating installation and repairs, electrical work, heating and air conditioning jobs, hard-surfaced flooring, and masonry and brick work.

**Lawn & Garden** - Gardening and lawn care services, lawn mowing equipment and other yard machinery, power and non-power tools, rental and repair of lawn equipment and tools, fresh flowers, potted plants, and other landscaping supplies.

**Remodeling** - Improvement-type upkeep and other managerial services, contractors, labor and material costs, cost of supplies rented for additions, maintenance and repairs, new construction, appliances provided by contractor for additions, alterations and new constructions, materials and supplies purchased for insulation,

dwelling under construction, additions, finishing, remodeling, landscaping, building outdoor patios, walks, fences or other enclosures, driveways, or permanent swimming pools, capital improvements, and installed wall-to-wall carpeting.

**Furnishings - Appliances** - Purchase and installation of refrigerators, home freezers, clothes washers and dryers, stoves and ovens, microwave ovens, portable dishwashers, and other small electrical kitchen appliances.

**Electronics** - Radios, phonographs, tape recorders and players, sound components and component systems, accessories and other sound equipment. Records, tapes, CDs (including those purchased from club), and needles. Televisions (including black and white, color, and large screen color TV projection equipment), VCRs, videodisk players and video cameras, videocassettes, tapes, discs, and video game hardware and software, computers, computer hardware, software and accessories for non-business use.

**Furniture** - Mattresses and springs, other bedroom furniture, sofas, living room chairs and tables, kitchen and dining room furniture, modular wall units, shelves, cabinets, other living/family room furniture, and office furniture for home use.

## **Entertainment**

**Restaurants** - Dining out at restaurants (including alcoholic beverages).

**Sporting Goods** - Ping-Pong, pool tables, other similar items, general sports equipment, health and exercise equipment, bicycles, camping equipment, hunting and fishing equipment, winter sports equipment, and water sports equipment.

**Theater/Concerts** - Entertainment admission fees including movies, theater, concert, opera, other musical series, and season tickets.

**Toys & Hobbies** - Toys, games, hobbies, tricycles, playground equipment, and play on arcade pinball/video games.

**Travel** - Airline fares, lodging away from home, and auto rental (out-of-town trips).

**Video Rental** - Rental of videocassettes, tapes, discs, and film.

## **Other:**

**Personal Apparel** - Men's suits, sport coats, coats and jackets, underwear, socks, nightwear, sweaters and vests, activewear, shirts, pants, shorts, and accessories. Women's coats and jackets, dresses, sport coats and tailored jackets, sweaters and vests, shirts and blouses, skirts and culottes, pants, shorts, activewear, nightwear, undergarments, hosiery, suits, and accessories. Boys' and girls' coats and jackets, sweaters, shirts, underwear, nightwear, socks and hosiery, suits, dresses and skirts, shirts and blouses, sport coats, vests, pants, shorts and short sets, activewear, uniforms, and accessories. Infants coats, jackets, snowsuits, underwear (including diapers), sleepwear, and accessories; footwear for men, women, boys and girls; watches and jewelry.

**Auto Aftermarket** - Motor oil, motor tune-up, lubrication and oil changes, tires (new, used, or recapped), shock absorber replacement, clutch and transmission repair, motor repair and replacement, and brake work (including brake adjustment).

**Health Insurance** - Commercial health insurance, Blue Cross/Blue Shield, health maintenance plans, Medicare payments, commercial Medicare supplements, dental insurance, and other health insurance.

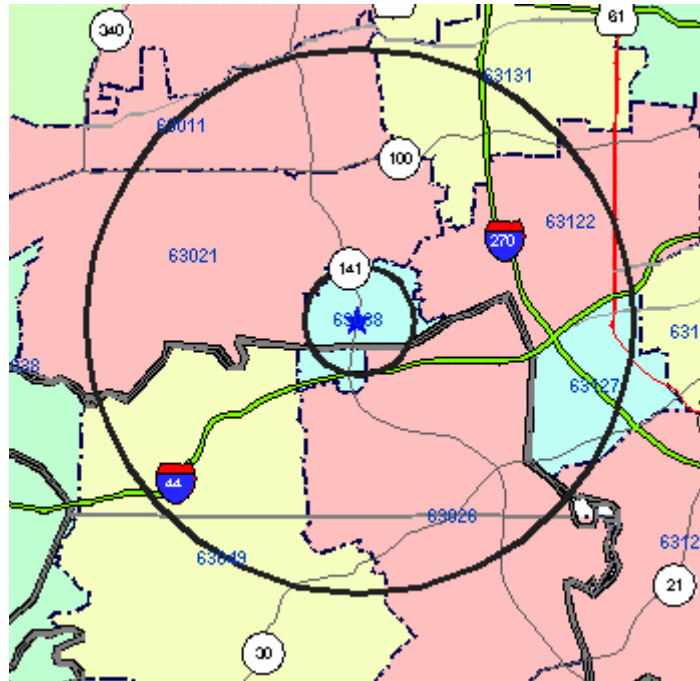
**Pets & Supplies** - Pets, pet food, pet supplies, pet services, medicine for pets, and veterinary services.

## **ZIP Codes**

Data for residential ZIP Codes are estimated by ESRI. The building blocks of ESRI's ZIP Codes are census geographic areas. Because ZIP Code boundaries change frequently, census geography provides a comparatively stable base for the development of ZIP Code data.

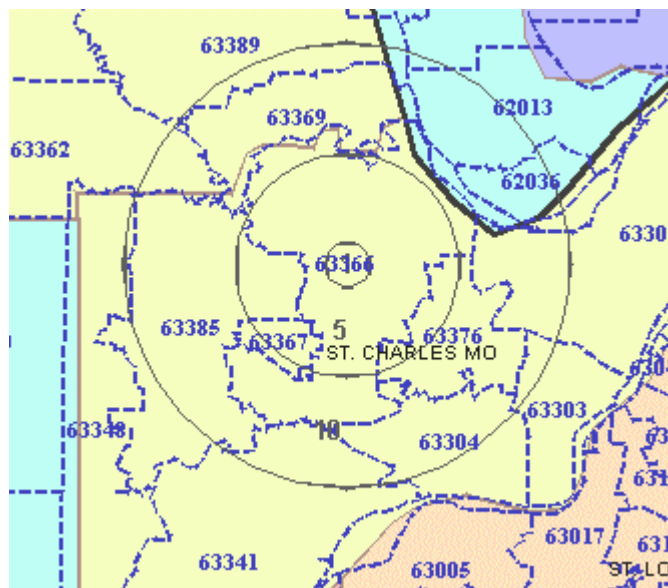
It should be noted that non-residential zip codes would not report Census/ESRI data (like PO Box ZIP Codes)!

With this all in mind, it is also important to review how zipcodes are selected for these demographic reports. If for example Zip code 63088 was requested along with a 5-mile radius, the potential zip codes could be mapped as shown on the next page.



Only those zip codes whose geometric midpoint was within the radius of the circle would be included in the report. In this example zip codes 63021, 63122, 63088, 63127 and 63026 would be included. It should be noted that the smaller the radius the more likely zip codes of interest will be excluded, while the larger the radius the less likely a Zip code will be excluded.

When the selection of counties is based upon a Zip code radius search, similar inclusion and exclusion rules apply. For example, when 63366 is used as the center point of a search, only St. Charles County would be included in the selection of reports.



## **The Right Site™ Reports:**<sup>4</sup>

Another demographic tool provided by FeedDealer.Com are Right Site™ reports. These detailed reports provide a variety of demographic and site specific data useful to assist in the feasibility study of a location. Unlike the ESRI reports, Right Site™ reports breaks most of the demographic data out by age, sex, and education instead of just presenting the aggregate data. Right Site™ reports also provide two key index's for evaluation of the data, an EASI™ Rank and an EASI™ Score.

EASI Rank and EASI Score are both reflections of the concentrations of a particular variable compared to average. The EASI Rank gives the actual rank in concentration terms. For example, a rank of "1" for counties is the highest rank in the list of 3,141 (out of 3,141 counties in the United States). The EASI Score takes the results of the EASI Rank and puts them into a frequency distribution of five equal groups (quintiles or 20% groups). An "A" represents the highest concentrations (highest 20%) while an "E" represents the lowest 20%. (Note: Cloudy, crime, rain are all variables where a high score might not be considered good but if there is a high concentration of the variable they would get an "A".) Variables are usually scored from the highest concentration to the lowest concentration, the exceptions (Cooling and Heating Degree-Days) are noted later with the words "Inverse Rank."

### **EASI Rank:**

EASI Rank is a ratio type rank, for a particular geography. It represents the concentration of the variable compared to the average concentration. For example, if a county had the concentration or ratio of "males over 75 years old" (highest of the 3141 counties) it would get a "1" if it had the lowest ratio value it would get a "3141." The number of records for that type of geography determines the highest rank value. Ties are reported as the average of all tied numbers in sequence (if 511, 512 and 513 were tied; they would all be reported as 512).

### **EASI Score:**

Takes the results of the EASI Rank and arranges them into a quintile (20% per group) frequency distribution. Note: (A = top 20%=> highest; B = next 20%=> second highest; C = next 20%=> average; D = next 20%=> second lowest; E = bottom 20%=>lowest).

(Note: The ranking counts are: ZIP Codes=29,467; Cities=3,733; Counties=3,141; Sectional Centers=881; Metropolitan Areas=318; TV Markets (DMA's)=211; Bureau of Economic Areas=174; Area Codes=122; States=51; Divisions=9; Regions=4; US=1. These counts appear under the title EASI Rank in all reports.)

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<sup>4</sup> Easy Analytic Software, Inc.  
931 W. 75<sup>th</sup> St., Suite 137-205  
Naperville, IL 60565  
[www.easidemographics.com](http://www.easidemographics.com)

**EASI Quality of LIFE:**

A measure to represent an overall “quality of life” (EASI Quality of Life). Some variables are considered, by EASI’s research, as a positive influence and have been scored with a positive weight while those that are considered by EASI to be a negative are given a negative weight. We have included the following factors: EASI Weather Index (20 weight), EASI Total Crime Index (-2 weight), Earthquake Index (-1 weight), Culture Index (3 weight), Amusement Index (3 weight), Restaurant Index (5 weight), Medical Index (3 weight), Religion Index (1 weight), and Education Index (2 weight).

**EASI Weather Index:**

A weighted average of the factors listed below. Some variables are considered, by EASI’s research, as a positive influence and have been scored with a positive weight while those that are considered to be a negative are given a negative weight. The determination of the key variables and their type of weights have been made by EASI. The variables and the weights are: Average Temperature (1 weight); Average Annual Heating (-9 weight); Average Annual Cooling (-6 weight); Percent of Possible Sunshine (2 weight); Mean Sky Cover (Sunrise to Sunset) (-1 weight); Mean Number of Days Clear (1 weight); Mean Range of Temperature (high minus low daily average) (-1 weight); Mean Number of Days Snow (-1 weight); Average Annual Precipitation (-1 weight); Average Annual Snowfall (-1 weight).

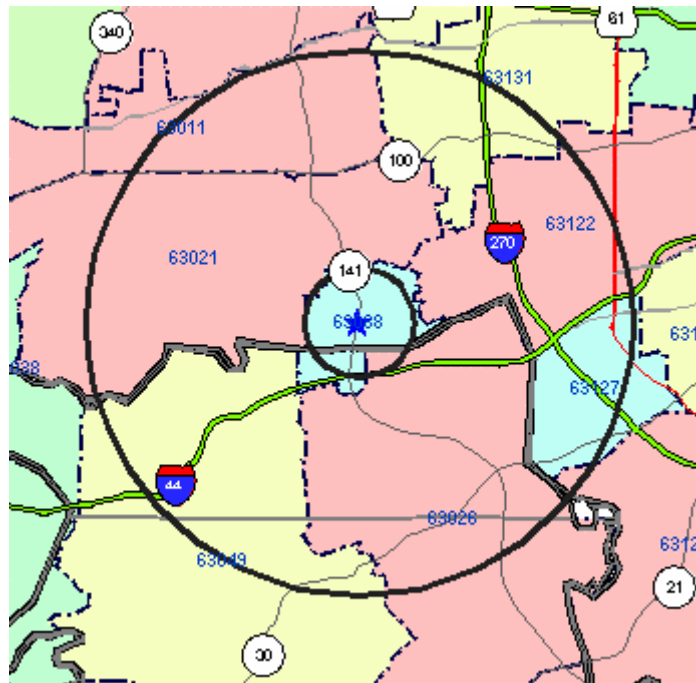
**EASI Crime Index:**

The weights developed by EASI for the Crime Index are: Murder (20 weight); Forcible Rape (10 weight); Robbery (6 weight); Aggravated Assault (6 weight); Burglary (3 weight); Larceny (1 weight); Motor Vehicle Theft (1 weight); Arson (1 weight). Note: A score of “A” indicates a high concentration of crime rather than a low crime area.

## Saturn System Reports:<sup>5</sup>

The most detailed demographic tool provided by FeedDealer.Com are Saturn System reports developed by Strategic Mapping and Data Services LLC. The Saturn System reports are based upon a center point (ZipCode or Latitude/Longitude) and report on the human and agricultural demographic features within a series of circles. Unlike the most of the other reporting tools available, the Saturn System calculates the information as though each of the three circles (based upon three radii) were unique geographical locations. For example, if the report is prepared around zipcode 63088 and the three radii are 3, 5, 15 miles, then the Saturn System reports would produce a demographic report showing the human population within the 3 mile radius, another report showing the human population within the 5 mile radius, and a similar report for the 15 mile radius.

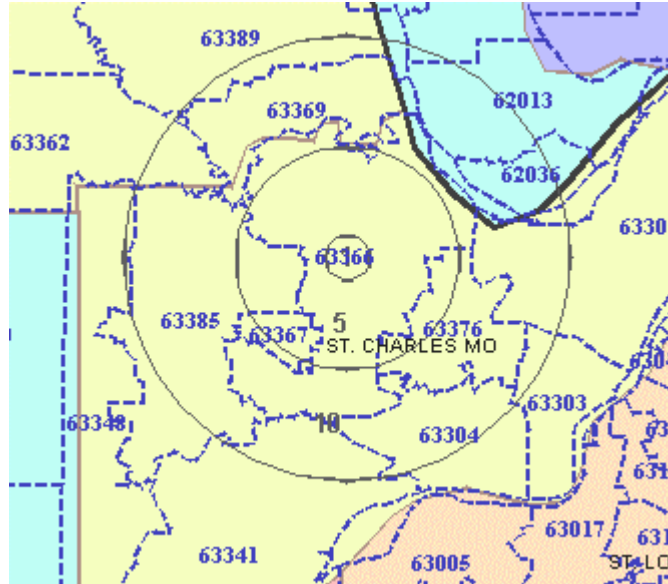
It should be noted, that the demographic data presented in the Saturn System reports is based upon ZipCode level data. With this all in mind, it is also important to review how zipcodes are selected for these reports. In our example ZipCode 63088 was requested along with a 5-mile radius, the zipcodes included in the 5-mile radius and the resultant demographic calculations would be seen by the software as follows.



Only those ZipCodes whose geometric midpoint was within the radius of the circle would be included in the report. In this example ZipCodes 63021, 63122, 63088, 63127 and 63026 would be included.

<sup>5</sup> Strategic Mapping & Data Services LLC

The selection of counties in the Saturn System reports is based upon a ZipCode radius search, similar inclusion and exclusion rules apply. For example, when 63366 is used as the center point of a search, only St. Charles County would be included in the selection of reports. It should be noted, that unlike the ZipCode level reports, the county level reports are simple reports and not radius totaling reports.



The first report produced by the Saturn System is the ZipCode listing, which lists the ZipCodes that fall within the largest radius in distance order. The ZipCode along with its distance from the center point and the county and state is also shown. A sample output is shown below.

ZipCode Listing				
Center ZipCode: 63088				
ZipCode	Distance	City	County FIP s	State
63088		VALLEY PARK	29189	MO
63021	2.32	BALLWIN	29189	MO
63022	3.87	BALLWIN	29189	MO
63099	4.04	FENTON	29189	MO
63024	4.28	BALLWIN	29189	MO
63011	4.54	BALLWIN	29189	MO
63127	4.61	SAINT LOUIS	29189	MO
63122	4.7	SAINT LOUIS	29189	MO
63026	4.95	FENTON	29189	MO
63131	5.18	SAINT LOUIS	29189	MO

On each page of radii based Saturn System report, the miles for each radii are listed, as shown below.

<b>Saturn System - 1.3</b>	
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<b>Market Information</b>	
Center ZipCode: 63088	Radius 1: 3 Miles
	Radius 2: 5 Miles
	Radius 3: 15 Miles

**Saturn System - Market Information:**


The Market Information section of the Saturn System provides demographic information about the age, race profile, income (both disposable as well as total income), male/female ratio, and population. Usually population information is reported for 1990, 1997 and 2000 with estimates for 2002 and 2005. In some cases 1980 population data is also reported.

Population information can assist in quantifying the overall market size and the growth potential for the specified geography. The report is provided in radius form as shown immediately below, and in county format shown further below.

**Radii format Saturn System - Market Information**

	Radius 1	Radius 2	Radius 3
Population information which assists in qualifying the market size and possible future growth potential.			
1980 Population	51602	167381	1177099
1990 Population	51602	168516	1178662
1997 Population	60197	182572	1198133
2000 Population	56771	179196	1177484
2002 Population Projection	63619	189114	1222282
2005 Population Projection	57497	181346	1174243
Population Growth	1	.7	.1

## County Format Saturn System - Market Information



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# Saturn System - 1.3

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## Market Information

Center ZipCode: 63088  
Fips Code: 29189 ST. LOUIS

County Level Data

Population information which assists in qualifying the market size and possible future growth potential.

1980 Population	993529
1990 Population	993529
1997 Population	1004456
2000 Population	994475
2002 Population Projection	1012016

## Saturn System - Spending Potential Index Report

The Saturn System provides a series of reports on the Spending Potential Indices (SPI) for twenty different variables. The indexes are based upon the average for the entire United States being 100, and for each geographical region (ZipCode) the reported index value. For most of the indices, values ranging from 95 to 105 should be viewed as average.. However values below 90 are a likely indicator that this geographical region exhibits below average spending potential index. The same reasoning should be applied if the index value is greater than 110, then this geographical region exhibits above average potential for that spending potential index.

Another issue to keep in mind, is that indices when used in radius style reports are not summed. A weighted average for that index is calculated with the 2000 population being used as the weighting factor.



## Saturn System - 1.3

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### Spending Potential Index Report

Center ZipCode: 63088

Radius 1: 3 Miles

Radius 2: 5 Miles

Radius 3: 15 Miles

	Radius 1	Radius 2	Radius 3
Auto Loan	102.8	104.5	99.8
Home Loan	109.2	112.7	103.9
Investents	91	104	100.5
Retirement Plans	101.9	111.7	101.9
Home Repair	98.4	104.8	103.5

### Saturn System - PPI Reports

The Saturn System provides a series of reports on the purchase potential index's (PPI) for pets, garden and lawn, home improvement, and tools. The indexes are based upon the average for the entire United States being 100, and for each geographical region (ZipCode) the reported index value. For most of the indices, values ranging from 95 to 105 should be viewed as average.. However values below 90 are a likely indicator that this geographical region exhibits below average potential for that purchasing index. The same reasoning should be applied if the index value is greater than 110, then this geographical region exhibits above average potential for that purchasing index.

Another issue to keep in mind, is that indices when used in radius style reports are not summed, but instead a weighted average for that index is calculated with the 2000 population being used as the weighting factor. Shown below is a same from the Pets PPI report where, in radius 1 the reported index value for "owning any dog or cat" is 120.4 which is definitely above the national average. However in the same report, radius 3 reports an index value of 97.9 which is below the average, but basically is average when all things are considered.

### Saturn System - PPI Pets report

	Radius 1	Radius 2	Radius 3
Own any Dog or Cat	120.4	113.8	97.9
Own any Dog	121.9	112.6	101
Own Toy or Small Dog	124.6	112.8	99.9
Own Medium Sized Dog	110.3	108.1	96.5

### Saturn System - Census of Agriculture


The Saturn System is the only system to provide a comprehensive set of radii reports for agriculture. Using agriculture census data the Saturn System calculates for each of the specified radii the total agricultural situation within that radius. For example, shown below within radii 1, there are 10 farms (regardless of size), while radius 2 reports 140 farms and radius 3 reports 909 farms. The census of agriculture reports generated by the Saturn System contains over 180 demographic variables collected at the ZipCode level.

### Saturn System - Census of Agriculture

	Radius 1	Radius 2	Radius 3
Farms by size all farms	18	143	969
Farms by size 1 to 49 acres	5	26	243
Farms by size 50 to 999 acres	13	114	704
Farms by size 1000 acres or more		3	22
Market value of agricultural products sold total farms	18	143	969
Market value of agricultural products sold less than \$10000	15	108	658
Market value of agricultural products sold \$10000 or more	3	35	311

The Saturn System also reports agriculture census data at the county level. However for the sake of brevity, only select animal production demographic variables are reported. A sample portion of a county level report is shown below.

### Saturn System - Census of Agriculture report



Strategic Mapping & Data Services

## Saturn System - 1.3

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### Census of Agriculture

Center ZipCode: 63088  
Fips Code: 29189 ST. LOUIS

County Level Data

Number of Farms	295
Cattle Inventory (farms)	67
Cattle Inventory (number)	2112
Beef Cows Inventory (farms)	54
Beef Cows Inventory (number)	
Milk Cows Inventory (farms)	1

### Saturn System - Pet Population Estimates


Large portions of those engaged in agricultural retail style sales, often inquire as to the population of pets within a specified geographic region. However to date no complete source of actual pet population counts have been conducted. In light of this an estimate of the pet population is provided by the Saturn System using a series of formulas derived in the 2007 “U.S. Pet Ownership & Demographic Source Book” published by the American Veterinary medical Association.

Using the published formulas an estimate of both households owning pets, as well as the pet population itself are provided. It should be remembered in reviewing the estimated population that the national averages for pets is as follows:

	<u>Dogs</u>	<u>Cats</u>	<u>Birds</u>	<u>Horses</u>
% of households owning	31.6	27.3%	4.6%	1.5%
	%			
Average number per household	1.7	2.2	2.7	2.7

A sample portion of the pet population estimate report is shown below.

**Saturn System - Pet Population Estimate  
report**



**Saturn System - 1.3**

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**Pet Population Estimates**

Center ZipCode: 63088

Radius 1: 3 Miles  
Radius 2: 5 Miles  
Radius 3: 15 Miles

	Radius 1	Radius 2	Radius 3
Pet Household Estimates			
All Pet Households	12193	38788	273264
Dog Households	6542	20809	146606

