US Demographic Data & Business Summary Data

2010 Update

PRODUCT GUIDE

Pitney Bowes
Business Insight

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Pitney Bowes Business Insight - **http://www.pbinsight.com** - is the global umbrella for all Pitney Bowes Software outlets.

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Product Description and Data Specifications

This chapter includes a description of the U.S. Demographic database, outlines what's new in the 2010 product, and provides the database specification, which applies to all modules, and includes coverage area, number of variables, number of records by geographic level, reference date, and update frequency.

Product Description

The Pitney Bowes Business Insight Demographic database for the United States and Puerto Rico (Ground View ™) represents a comprehensive set of over 4,000 variables in 15 modules, provided for eleven layers of geography. All fields in this database are updated annually to the current year, and most are projected out five years. Estimates of total population and total households are developed according to both traditional and innovative methodologies as described in this document. Other variables describe the characteristics of the population (for example, age structure) as well as the characteristics of households (for example, income and expenditures). In general, the modules included in the demographic data are primarily available through Pitney Bowes Business Insight software such as AnySite or Target Pro which provide users with an automated reporting and analytical environment, including online web services. The databases are also available as stand-alone data sets for use in other software, including MapInfo Professional.

The primary modules within the U.S. Demographic Data are:

- Update module
- Age by Sex
- Race and Hispanic Detail
- Cultural Background
- Age by Sex by Race
- Occupation and Employment
- Householder Age by Income
- Detailed Income
- Wealth and Financial Assets
- Home Value
- Socioeconomic Score
- Housing Unit Characteristics
- Consumer Potential Detail
- Retail Sales Potential
- Best of the 1990 Census
- Puerto Rico

The **Methodology Statements on page 14** is included so that you have a basic understanding of how the information was developed by Pitney Bowes Business Insight demographers, geographers, and statisticians. A list of general caveats is provided so that as you develop your own analyses of the data and implied trends, the interpretation is guided within the proper context of demographic estimation and projection procedures.

What's New

Pitney Bowes Business Insight's annual demographic update introduced the Groundview™ product, which incorporates MicroBuild®, a household-based geodemographic data product developed by the **Gadberry Group** starting with the 2008 annual update. The 2010 update represents the third consecutive annual use of the MicroBuild® household estimates. MicroBuild® is now the primary input to the Pitney Bowes Business Insight current-year household estimation model. The MicroBuild® process begins with a multi-sourced national file of approximately 118 million consumer household records.

Every 90 days, the entire file is street and/or parcel geocoded and summarized to the census block level. Addresses that are not precisely geocoded are associated with a census block using Gadberry's proprietary methodology. A final aggregation to census block groups yields the quarterly MicroBuild® block group household count.

The quarterly MicroBuild® household count (Q1-2010 for this update) is the primary input into the Pitney Bowes Business Insight household model where it is "annualized" to July 1, 2010. Final adjustments are made based on independently derived county, state, and national household control totals. The control totals are developed by Pitney Bowes Business Insight from Census Bureau county population estimates, housing unit estimates, and national cohort component models.

The current-year household estimate becomes the baseline for the five-year projection. However, since the MicroBuild® household counts are provided on a quarterly basis, short-term (multi-quarter) as well as long-term (multi-year) trending factors contribute to the five-year projection. The projection is further informed by the spatial context of housing types and household density constraints.

While the 2010 annual demographic update will reflect more accurate trending of household growth and decline since 2000, the modeling of population and household characteristics is consistent with prior annual updates.

Another significant additional input to the 2010 update is block group level median household income from the MicroBuild HD® file. This variable is built from household-level income information as reflected in a multi-sourced, national consumer list file. This variable is input into PBBI's age-specific household income distribution model along with higher-level results from the Census Bureau's American Community Survey. End-users should note that this change in source data for household income is reflected in a number of the data modules, including age by income, income detail, consumer potential detail, retail sales potential, and wealth/financial assets. Extra caution should therefore be exercised when making year-over-year comparisons. As usual, the proper comparisons involve trending from 2000 to current year, not single-year change which may reflect some real change but also includes changes to inputs such as income and methodological enhancements.

Two other enhancements for 2010 refer to the Business Summary Data. First, as noted in the Table of Contents, the Business Summary Data documentation is now included in this document along with the U.S. Demographic Data. Second and more significantly, the source data for the PBBI Business Summary Data is now GeoResults, Inc. business database. This change affects counts of establishments by NAICS and SIC as well as counts of employees by business type and size.

Daytime Population estimates are also affected as the DayWork population is derived directly from the estimate of total employees by block group. This is a significant change in a substantial database. Trending with data from prior years is not recommended.

Product Specification

Coverage Area

The U.S. Demographic database covers the 50 states and the District of Columbia. In addition, the Puerto Rico module covers the Commonwealth of Puerto Rico. The following detailed specification refers primarily to the U.S. Demographic database. The variables and geographic layers for Puerto Rico are listed separately.

Reference Date

All data fields represent mid-year values in the sense of annual averages or the trend point for the year, not necessarily the specific values for July 1 of the given year.

Updates

The U.S. Demographic database is updated annually.

Number of Variables by Database

The following table illustrates the number of variables available in each module:

Data Module	Number of Variables	Year
Update Module	306	Census, CY, 5Y
Age by Sex	285	Census, CY, 5Y
Race and Hispanic Detail	216	Census, CY, 5Y
Cultural Background	200	Census, CY, 5Y
Age by Sex by Race	450	CY, 5Y
Occupation and Employment	93	Census, CY
Householder Age by Income	416	Census, CY, 5Y
Detailed Income	120	Census, CY, 5Y
Financial Assets and Wealth	52	CY, 5Y
Home Value	76	Census, CY

Data Module	Number of Variables	Year
Socioeconomic Score	1	CY
Housing Unit Characteristics	58	Census, CY
Consumer Potential Detail	724	CY, 5Y
Retail Sales Potential	74	CY, 5Y
Puerto Rico	536	Census, CY, 5Y

Census = Census 2000 Data

CY = Current Year Data

5Y = Five Year Projection

Number of Records

The following table illustrates the number of records within each geographic layer for which the variables are provided:

Geographic Layer	Source/Vintage	Number of Records
National	TA, January 2010, v.11	1
State (includes DC)	TA, January 2010, v.11	51
Designated Market Area (DMAs)	Nielsen, 2009-2010; PBS v10.1	211
Metropolitan Statistical Area	Census Bureau, 1999	331
Core Based Statistical Area	TA, January 2010, MultiNet	940
County (or equivalent)	TA, January 2010, v.11	3141
ZIP Code (polygons only)	TA, January 2010, v.17	30, 228
ZIP Code (polygons and RPO points)	TA, January 2010, v.17	41,208
Place	TA, January 2010, v.11	25,149
Minor Civil Division (or equivalent)	TA, January 2010, v.11	35,318
Census Tract	TA, January 2010, v.11	65,456
Block Groups	TA, January 2010, v.11	208,809

Puerto Rico Geographic Record Definitions and Counts:

Code	Name	Description	Records
ST	Puerto Rico	Commonwealth of Puerto Rico	1
MSA	Metropolitan Statistical Area	Census Bureau's MSAs (1999)	6
CBSA	Core Based Statistical Area	Census Bureau's New CBSAs (2006)	13
CO	Municipio	PR county equivalent units	78
ZPLY	ZIP Code Polygons	USPS ZIP Codes (polygons only)	119
ZIP	ZIP Code	USPS ZIP Codes (polygons and RPOs)	176
PL	Zona Urbana or Comunidad	Census Place and equivalents	225
CT	Census Tract	Census Tracts	861
MCD	Barrio/Barrio Pueblo	PR primary sub-county units	900
BG	Block Group	Census Block Groups	2477

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Description of Modules

This section describes each of the modules included in the U.S. Demographic database. These modules are:

Product Descriptions

Each module included in the U.S. Demographic database is described in brief below. Further information of a more technical nature is provided in the methodology statement.

Go to the **docs\ folder** on your product media, and refer to **USDemographicData&BusinessSummary2010_variables.xls** for a list of variables. These files are Microsoft Excel spreadsheets. If you do not have Microsoft Excel, you can download the Excel Viewer from **http://office.microsoft.com**.

Update Module

The Update module contains a core set of demographic variables from Census 2000 as well as from the current-year update and five-year projection. The variables are conceptually matched to facilitate trending. For example, a variable showing both the Asian (alone) and the Hawaiian and other Pacific Islander population (alone), combining the two Census 2000 single-race variables, is provided for 2000 in a manner comparable to the estimated and projected population variables for that group. As a core data set, the Update module contains the essential demographics required as a starting point for business analysis.

Age by Sex

This module contains the male, female, and total population by five-year age groups, as well by special-age breaks generally consistent with school-age groups relevant to marketing purposes. Median age is provided for males, females, and total population, as well as for adults of 18 and older for males, females, and total population.

Race and Hispanic Detail

This module contains total population broken down by specific race groups for current year and projected year in a manner consistent with the Census 2000 race variables. White Hispanic population estimates and projections, as well as estimates for All Other Hispanic Races, are provided. The rationale for these groupings is that, while Hispanics may be of any race, White Hispanics are the largest, self-identified group. The second largest self-identified race group among Hispanics is Some Other Race. In order to increase the accuracy of these small area estimates, a variable for all races other than White were created for this module. The Hispanic and Non-Hispanic populations are broken down by age and sex. Median ages are provided for total and adult populations for both Hispanics and Non-Hispanics.

For more information on Race and Hispanic Detail, refer to **Population Detail in Chapter 3 on page 20**.

Cultural Background

This module takes the Census 2000 census tract-only data for ancestry, Asian by Origin, and Hispanic by Origin, to the census Block Group level via a methodology. New variables at the Block Group (BG) level were created for the year 2000 and the current estimate year. Households by Race/Hispanic for 2000 are available from Census 2000 at the BG level (SF1) and were updated for this module to the current year. The ancestry variables represent the predominant ancestries for those who claim a single ancestry and the first ancestry among those who claim multiple ancestries. Asian by Origin provides detailed country background for the Asian population at the BG level in 2000 and current year. Hispanic by Origin provides detailed country background for the Hispanic population at the BG level in 2000 and current year. Origin represents the primary cultural heritage of a person, regardless of where they were born.

For more information on Cultural Background, refer to **Cultural Background Variables in Chapter 3 on page 22**.

Age by Sex by Race

This module provides a detailed cross-tabulation of Race, Hispanic Origin, Sex, and Age. The Age by Sex groupings are consistent with the corresponding totals in the Update Module and the Race and Hispanic Detail module. Age groups correspond to the school-aged grouping. The Some Other Race variable includes persons of two or more races.

Occupation and Employment

This module is based on the Census 2000 ratios of labor force population components to the population aged 16+ at the Block Group level. Similarly, the labor force population is distributed by primary occupational categories and applied to the updated current-year labor force base population. Several other variables relevant to the working population are provided, including travel time to work and method of transportation.

Householder Age by Income

This module is a standard set of income distributions by age of householder. The dollar breaks for the income groups are provided in current-year dollars. The five-year projection is also provided in current-year dollars.

Detailed Income

This module is unique to the industry. Income distributions are provided in both current-year and constant 1999 dollars. The latter facilitates comparisons with Census 2000 income distributions in the context of real income growth (a constant dollar comparison is an inflation-controlled comparison). Extended distributions are provided to $500,000 or more household income. Average income, median income, and per capita income are also provided. There are two flavors of per capita income:

- The total population as the denominator for aggregate income.
- Only the household population as the denominator.

The latter calculation factors out the effects of group quarters on per capita income that can have a large impact for small area estimates.

Wealth and Financial Assets

This module provides household distributions by wealth (net worth) and financial assets. The models utilize the latest Survey of Consumer Finance from the Federal Reserve Board.

For more information on Wealth and Financial Assets, see **Household Wealth (Net Worth) and Financial Assets in Chapter 3 on page 34**.

Home Value

This module provides distributions that advance the home value distributions tabulated in Census 2000 forward to the current year. These advances are based on changes in our mortgage-based model of data from government reports of mortgage applications as reported by lenders. The government database contains a cumulative total of 14 million+ mortgages assigned at the census tract level.

For more information on Home Value, see **Home Value in Chapter 3 on page 36**.

Socioeconomic Score

This module ranks block groups with a comparative index value ranging from 1 to 100 which indicates the overall social/economic status of an area.

For more information on Socioeconomic Score, refer to **Socioeconomic Score (SES) in Chapter 3 on page 37**.

Housing Unit Characteristics

This module groups housing tenure (owners and renters) by the number of units in housing structures. Also included are indexes showing relative vacancies due to seasonal and other factors.

Consumer Potential Detail

This module estimates consumer demand for hundreds of categories based on the Bureau of Labor Statistics' Consumer Expenditure Survey. This is the only national survey that tracks actual dollars spent by consumer households on an ongoing basis.

For more information on Consumer Potential Detail, see **Consumer Potential Detail in Chapter 3 on page 25**.

Retail Sales Potential

This module groups the consumer expenditure categories by store type. This data is demand side data that represents the potential for consumer spending by store type. The store types are based on standard product categories grouped by their likely retail outlet type. Categories that are double counted are items that are likely to be purchased in more than one type of store, for example, refrigerators from appliance stores and department stores.

For more information, refer to **Retail Sales Potential in Chapter 3 on page 27**.

Best of the 1990 Census

This module is a collection of core variables from the 1990 Census rolled up to the latest Zip Codes and Census 2000 geography layers. Such rollups are required for proper comparison studies over time.

Puerto Rico

This module, initiated by Pitney Bowes Business Insight, is an annually updated series of estimates and projections for Puerto Rico consistent with the work the Census Bureau has done at the municipio level. Additional variables will be added as new data sets become available as inputs.

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Methodology Statements

This chapter contains the Methodology Statements for the following databases, and for the sub-headings shown:

U.S. Demographic Database

This methodology statement describes the procedures used by Pitney Bowes Business Insight to create the 2010–2015 update to the U.S. Demographic database. The Pitney Bowes Business Insight estimates and projections for the U.S. are updated annually. The reference date for the data is always July 1, which is considered the midpoint for the reference year. The reference date should be considered an annual midpoint and not, strictly speaking, the population number for a location on July 1.

The database for the U.S. and Puerto Rico contains over 4,000 variables for eleven layers of geography, including a national layer. The layers include: Block Group, Census Tract, Zip Code, Minor Civil Division, County, Metropolitan Statistical Area, Core-Based Statistical Area, Designated Market Area, State, and Place.

A "Place", which can be as small as a village or as large as a city, is a Census Bureau term that includes Census Designated Places, Consolidated Cities, and Incorporated Places. This methodology statement describes procedures used to produce the basic variable streams, for example, population detail and household income as well as the processes used to validate the data and assure data quality. The data are created at the smallest geographic level, Block Group, then rolled up to all higher geographic levels via a set of correspondence tables.

Pitney Bowes Business Insight personnel responsible for producing this data update combine over 25 years of experience in producing demographic estimates and projections for the U.S., Canada, the U.K., and Australia. The methodologies used to develop and update the U.S. estimates and projections build on this expertise using a combination of traditional demographic techniques as well as innovative processes, which take advantage of proprietary resources.

Overview of Demographic Methods

The basic methodology uses a combined top-down bottom-up approach. The top-down phase develops national, state, and county estimates and projections that become "control totals" for the sub-county estimates and projections. Resources used in the top-down phase include the Census Bureau's national population projections by age, sex, race, and Hispanic origin, Census Bureau state population projections, and the Census Bureau county estimates program. Selected state and local estimates from the Census Bureau's State Data Center network are reviewed for differences with the Census Bureau's county estimates. We build and annually update a complete cohort component model at the national level for each race and Hispanic origin group by age and sex. We use the Census Bureau cohort model results at the state and county levels. The models contain our assumptions for fertility, mortality, internal migration, and international migration based on race-specific fertility schedules and life tables from the National Center for Health Statistics together with migration estimates from the U.S. Bureau of the Census.

The bottom-up phase of the estimation and projection methodology begins with the most recent decennial census, in this case, the Census 2000 block and block group level data. As with the 2009 annual update, MicroBuild® is the primary input to the Pitney Bowes Business Insight current-year household estimation model. The MicroBuild® process begins with a multi-sourced national file of approximately 118 million consumer household records. Every 90 days the entire file is street and/or parcel geocoded and summarized to the census block level. Addresses that are not precisely geocoded are associated with a census block using Gadberry’s proprietary methodology. A final aggregation to census block groups yields the quarterly MicroBuild® block group household count.

The quarterly MicroBuild® household count (Q1-2010 for this update) is the primary input into the Pitney Bowes Business Insight household model, where it is “annualized” to July 1, 2010. Final adjustments are made based on independently derived county, state, and national household control totals. The control totals are developed by Pitney Bowes Business Insight from Census Bureau county population estimates, housing unit estimates, and national cohort component models. The objective of the bottom-up phase is to estimate households for the current year and project five years out assessing the impacts of differential sub-county demographic change across the primary units of sub-county geography—Block Groups, Census Tracts, Zip Codes, as well as county subdivisions (for example, minor civil divisions) as delineated by the Census Bureau.

The estimates and projections methodology statements are organized into the following modules:

- Population and Households
- Population Detail
- Race and Hispanic Detail
- Cultural Background
- Household Characteristics
- Household Income
- Census Update Variables
- Consumer Potential Detail
- Retail Sales Potential
- Wealth and Financial Assets
- Housing Unit Characteristics

The methodologies used to develop each module are described below. In addition, we provide notes on some of the special processes we have implemented to ensure internal consistency and external validity of the each module.

Census 2000 Results and Post-Census Geographic Changes

We incorporated the Census 2000 population enumeration on the new geographies beginning with the 2002 estimates and 2007 projections. Subsequently, this process involved advancing in time the population control totals from April 1, 2000 (Census Day) to July 1, 2010 and subsequently to July 1, 2015—the reference days for these estimates and projections. At the national and state levels we evaluated the Census Bureau's population projections in light of the new census data. Our procedures included matching our county level cohort model to new controls by race, Hispanic origin, sex, and age at the national and state levels. In essence, we integrated our cohort component models at the county, state, and national levels, taking into account differential growth patterns as suggested by the Census 2000 results. Following the 2002 update, the Pitney Bowes Business Insight methodology provides Census 2000-consistent annual updates.

Most users understand that no census is perfect and a degree of under-enumeration is expected. Therefore, our population estimates will differ from the census results in part because we have implemented national control totals that overcome to a degree the problem of under-enumeration. Thus, while the Census Bureau decided not to produce a set of census results adjusted for net under-count, the Pitney Bowes Business Insight series takes the under-count into account in setting top-down control totals. We have also made limited "corrections" to some of the known census errors in group quarters locations.

The creation of Broomfield County in Colorado occurred after the 2000 Census. The Pitney Bowes Business Insight Estimates and Projections include this new county, along with consequent changes to geographic codes down to block group. Also, code changes in Virginia, associated with the merging of Clifton Forge (formerly a county-equivalent independent city) into Allegheny County are incorporated into this update.

The Top-Down Phase: Population and Households

Our standard estimation procedure begins with an analysis of the latest demographic estimates and projections of the U.S. Bureau of the Census. For example, the bureau produces county-level population estimates by age, sex, race, and Hispanic origin. These estimates form an annual time-series for each post-census year, from 2000 to the most current year. The bureau also produces a parallel time-series of the components of population change for all counties. The components include: births, deaths, net domestic migration, net international migration, net federal movements which track military populations and other federal employees, and changes to the group quarters population. These time-series estimates form the starting point for the county-level cohort-component estimation and projection model.

The cohort component model makes use of the Census 2000 county-level age distributions of the population by race, sex, and Hispanic origin. This starting point, in essence, recalibrates the model to be consistent with the new census. Additional resources for the cohort-component procedure include life tables (showing morality schedules and life expectancy by age, race and sex) from the

National Center for Health Statistics (NCHS), part of the Centers for Disease Control and Prevention. Our fertility assumptions by race and Hispanic origin are developed from resources of the National Vital Statistics System as well as those of the Census Bureau.

The Census Bureau has relationships with producers of independent demographic estimates at the county and sub-county level. The State-Federal Cooperative Program for Population Estimates includes academic experts as well as State Demographers who head the Census Bureau's State Data Centers in each state. Our procedures involve comparing locally produced estimates and projections to determine which series most closely track our own growth assumptions and the results of our cohort component projection.

Through a modified cohort-component method we advance the Census Bureau's county population estimates to the current year and to the projection year five years out. The cohort-component model is age-sex-specific for each race and Hispanic origin group. A cohort-component model essentially takes a population by age and sex and "ages" it through time based on the addition of births, the subtraction of deaths, and the addition of a positive or negative net migration amount. We allocate births to race/Hispanic/sex-specific groups based on county-level fertility trends consistent with the Census Bureau's middle-series national fertility rates. Similarly we allocate deaths to race/Hispanic/sex and age groups based on group-specific mortality rates from NCHS life tables.

Net migration estimates and projections are developed from an analysis of historical trends reflected in the Census Bureau's county estimates. We also take into account county growth trends in the econometric model projections of Woods & Poole Economics, Inc., a Washington, DC-based forecasting firm. The Woods & Poole model projects total population based on an analysis of local employment and economic trends modified by the county-to-county commuting patterns from the decennial census. Thus we use a combination of explicit and implicit migration estimates to inform our assumptions about net migration for counties. Age/sex-specific migration rates from the Census Bureau's Current Population Survey are analyzed to estimate the age/sex-specific impacts of a county's net migration trend.

At the state and national level we make use of Census Bureau's latest middle-series national population projections. However, our assumption with respect to international migration falls between the Census Bureau's middle and high series. In general, the Census Bureau official projections have tended to understate the impacts of international immigration. While we have made extensive use of Census Bureau estimates, projections, and survey data, we have supplemented those with our own judgments as to their impacts on small area population change.

For example, the predominant component of population change for most areas is migration. The Census Bureau's county estimates incorporate special tabulations of Internal Revenue Service data (maintaining strict confidentiality) showing county-to-county migration patterns. Knowing where individual tax forms are filed from year to year provides a powerful basis for estimating the net effects of migration. The Census Bureau can also estimate the effect of international migration, including undocumented immigration, using files from the Immigration and Naturalization Service and other sources. Despite these rich sources of information available to Census Bureau researchers, we compare results from our county-level estimates to independent State Data Center projections for selected states. State Data Centers often use alternative indicators of migration, such as driver's license registrations. Special attention is given to those states and counties for which the Census Bureau results diverge significantly from our state and local sources.

The result of this "top-down" process (national level down to county level) provides current-year and five-year control totals for the nation, the 50 states (plus the District of Columbia) and 3,141 counties for total population by age, sex, race, and Hispanic origin. The control totals are used in the next steps of the process to guarantee that all estimates and projections from sub-county levels of geography add up to county and higher levels of geography.

The Bottom-Up Phase

The next phase of our procedure involves a bottom-up household level approach. In a nutshell, the key to this phase is to determine the current number of households at the smallest levels of geography—Block Group, Census Tract, and ZIP Code. Then, the Block Group estimate is rolled-up to the county level and made consistent (through iterative proportional fitting techniques) with the results of the top-down phase.

This update uses the quarterly block group level MicroBuild® household counts from Q4-2008 through Q1-2010 as the primary input to the household model. Two adjustments are made to the MicroBuild® raw number: (1) the estimate is "annualized" (aged according to known rates of growth and/or decline), and (2) interative proportional fitting is implemented such that the estimates sum to county, state, and national control totals. A complete description of the MicroBuild® process can be found on the **Gadberry Group website**.

It should be noted that the Census 2000 published data contain some significant location errors with respect to Group Quarters populations. As a response, we properly located some of the larger Group Quarters facilities and primarily correctional institutions, in order to correct errors in the published census data. However, this process remains incomplete and will continue as more census errata are released. For the post-censal years we have in place procedures to update major group quarters facilities such as military barracks (primarily affected by base closings) and prisons (primarily affected by new prison construction).

Once a total households estimate is established for an area, we use estimates of updated average household size, group quarters, and total population controls to create a consistent set of basic block group level variables upon which to build the next set of current-year estimates and five-year projections.

By combining the top-down and bottom-up phases, we create a geographically and demographically consistent database of core variables: Total population, households, group quarters population, household population, and average household size. These variables form the base upon which we build estimates and projections of population and household characteristics.

Areas Affected by Hurricanes Katrina and Rita

For the current 2010 demographic update, we have continued our efforts to track changes since 2006 in areas affected by Hurricanes Katrina and Rita. Building on the adjustments reflected in the 2006 Pitney Bowes Business Insight data, our researchers have taken advantage of a series of efforts by local analysts to measure demographic changes—primarily the flow of residents back into the affected areas—for the 2010 Pitney Bowes Business Insight data. We have also taken into account building permit data, including electrical connection and renovations permits, to assess at the Block Group level the efforts of New Orleans residents to rebuild areas hardest hit by the hurricanes. We have also updated population estimates in all Gulf Coast counties in affected areas, including those in Mississippi, Louisiana, and Texas. The 2010 update represents the accuracy of the MicroBuild® data as well as Pitney Bowes Business Insight's best estimate of the net demographic effects of these hurricanes as of the reference date of July 1, 2010 with the understanding that the impact on annually-trended data will be ongoing and will require continuing observation and analysis.

Pitney Bowes Business Insight analysts studied extensive reports, aerial photography, and impact estimates from local officials as well as from FEMA in the wake of 2005 hurricane damage to areas of Alabama, Mississippi, Louisiana, and Texas. The objective was to establish estimates in line with annual trends on the assumption of a reasonably full recovery by 2011. With the understanding that many population shifts after a disaster of this magnitude are ultimately temporary (they represent moves lasting less than one year) Pitney Bowes Business Insight analysts focused on long-term recovery and resettlement instead of short-term, temporary moves. The results of this analysis are estimates of population and households for July 1, 2010 that represent annual trend points for each geography. These results are incorporated into and reflected in the Pitney Bowes Business Insight 2010 E&P update described in this methodology statement. You should understand that errors are likely higher in the smallest units (for example, Block Groups) and smaller in the larger areas (for example, parishes).

Population Detail

Population Detail is a variable set that includes five-year age groups for total population, female population, and male population. It also includes school ages (pre-school, elementary, middle school, high school) or marketing age groups for total population, population by sex, and population by race and Hispanic origin. Estimates for all geographies are provided for the current-year and the five-year projection.

Race and Hispanic Origin

The Pitney Bowes Business Insight estimates and projections by race and Hispanic origin variables conform to the new Census 2000 conceptualization of race and Hispanic origin (the race variables include a category for Some Other Race and the individual race categories are single race alone). Individuals of two or more races are combined in the Pitney Bowes Business Insight data with the Some Other Race variable. In the past, we deferred to the Office of Management and Budget (OMB) race categories, which were reflected in the Census Bureau's estimates and projections programs. The OMB standard does not include a Some Other Race category, therefore, comparisons with census results are more difficult. The main points to understand are:

1. The old OMB mandate (implemented in Pitney Bowes Business Insight data from 1998 through 2001) was four race groups cross-tabulated by Hispanic origin. The four race groups are: White, Black, American Indian or Alaska Native, and Asian or Pacific Islander. The Census Bureau, subsequent to the primary census tabulation, merged the Some Other Race responses (historically permitted in the census) with the four main race groups to conform to the OMB directives. The merged data were published after the census and were called the MARS data for Modified Age Race Sex data. This permitted government agencies and others to use baseline statistics from the Census Bureau that conformed to OMB directives, primarily to administer the many anti-discrimination and affirmative action programs of the federal government.

2. The new Census 2000 convention permitted multiple-race responses. As in prior censuses an Other Race response (now, single race Other Race) is also captured. The Pitney Bowes Business Insight estimates and projections conform to the Census 2000 tabulations and include an Other Race categories. However, in order to maintain cell size and the integrity of the race projections, Pitney Bowes Business Insight combines Hawaiian/Other Pacific Islander with Asian and persons of two or more races with the Other Race category. The race question has always been a matter of self-identification but this is the first time multiple responses were permitted. In order to use the new information on race, we modified our process of calibrating national, state, and county control totals to conform to the new race categories. We maintain an Other Race category in order to maintain consistency with Census 2000 in the future. The resulting categories, therefore, allow for qualified comparisons to Census 2000 race categories:
   - White alone
   - Black or African American alone
   - American Indian / Alaska Native alone
   - Asian, Hawaiian, Other Pacific Islander alone
   - Some Other Race (includes persons of two or more races)

3. The Pitney Bowes Business Insight Estimates and Projections of the Hispanic population are consistent with the estimates and projections by race except that the race categories are combined in order to maintain reasonable cell size and integrity of the projection for small areas. Hispanic origin is not a matter of race but a matter of ethnic origin more broadly speaking. The Hispanic Detail variables in the Pitney Bowes Business Insight Estimates and Projections are as follows:

   Hispanic
   - White Hispanic
   - All Other Races Hispanic

   Non-Hispanic
   - White, non-Hispanic
   - All Other Races, non-Hispanic

In order to generate the Population Detail variables, each race/sex group is advanced (moved forward in time demographically) to current and projected years, while maintaining the county-level control totals. Our estimation process takes into account a detailed structure of the population by age, sex, race, and Hispanic origin. We use an iterative proportional fitting technique to guarantee that the small area estimates sum to control totals at all higher geographic levels. The final step involves systematically **sprinkling** the integer results, where differences due to rounding are eliminated in the data.

Cultural Background Variables

The original Census 2000 data for ancestry, Hispanic by cultural origin, and Asian cultural origin, were published at the Census Tract (CT) level only. Block Group (BG) data has been unavailable. The methodology for taking CT data to BG for these variables is straightforward making use of several important assumptions. For ancestry, only the most predominant ancestries were used. Ancestries represented by smaller numbers of persons were grouped into a variable called Some Other First Ancestry Reported. The ancestry data essentially makes use of information on single ancestry and the first ancestry of those persons who claim multiple ancestries. The method takes the distribution of the population by ancestry at the CT level in 2000 and multiplies that times the BG total population. The assumption is that the BG ancestry distribution is identical to the CT ancestry distribution. Once the 2000 data are established at the BG level, the BG distribution in 2000 multiplied by the updated total population in the current year. The operative assumption in this instance is similar to that used in the **Census Update Variables**. The BG distribution is assumed to be constant, while the distribution at higher geographic levels is a function of differential growth across the underlying Block Groups.

In similar fashion, the Hispanic by Origin variables utilize the CT distribution at the BG level multiplied by the total Hispanic population. Origin, means cultural background in that the base is not the foreign-born population but the total Hispanic population. According to the Census Bureau, origin can be viewed as the heritage, nationality group, lineage, or country of birth of the individual or their parents or ancestors prior to their arrival in the United States.

The Asian population is similarly grouped by origin in the cultural background variables. Both the Hispanic by Origin tabulation and the Asian by Origin tabulation are derived from 100 percent SF1 data. The ancestry tabulation is the sample or SF3 data from Census 2000. The householder by Race/Hispanic data are also from the 100 percent SF1 census data.

Household Characteristics

Pitney Bowes Business Insight produces a national set of household projections by age of householder, race and Hispanic origin of householder, and household type (family, non-family) to form the basis for our household detail variables. We project households at the national level from a detailed set of household headship rates applied against projections of the civilian, non-institutional household population by age. The assumptions take into account trends in age-specific household headship rates as well as trends in the distribution of the civilian non-institutional household population by age, race and Hispanic origin. Our U.S. national household projections become the control totals for estimates and projections of households by age at the state and county level.

Our projections of households by age at the county level are based on our population projections by age. These projections are conditioned by our estimates of the group quarters population and trends in average household size. Our county estimates of households by age are consistent with local trends as well as with state and national household trends.

For the smallest levels of geography (block groups, census tracts, and Zip Codes) our estimates of total households are distributed by age in a manner similar to the estimation procedure for population. The household procedure uses a headship rate method applied to the underlying population shifts by age. The 2000 Census distribution of households by age is advanced to the current year, and projected out five years, so the county control totals are maintained. As with the

population procedure, households by age are subjected to an iterative proportional fitting routine, also known as a demographic rake. This assures that the household totals by age for all small areas of geography conform to corresponding totals at all higher geographic levels.

Household Income

The first step in the Pitney Bowes Business Insight method for estimating and projecting household income is to adjust 2000 Census income distributions to current dollars. We use the Consumer Price Index to inflate 1999 dollars from the 2000 Census to current dollars. The process involves moving a distribution of households by income group for each householder age group to a new distribution of households by income group given in current-year dollars. These detailed distributions at the block group, census tract, and county levels of geography form the starting point for estimation and projection.

In the next step, we use trends in aggregate income provided by Washington, DC-based Woods & Poole Economics, Inc. to establish county and metropolitan-level control totals for average household income. The Woods & Poole regional econometric models take into account employment and earnings trends in 13 major industry groups. The Woods & Poole model uses the concept of aggregate personal income, which includes:

- wages and salaries
- other labor income (primarily employer contributions to private pensions)
- proprietors' income (income of the self-employed)
- dividend income
- rental income
- personal interest income
- government transfer payments (including Social Security, Medicaid, and veterans' benefits)
- employees contributions to social insurance

We have made adjustments to these components in order to provide household income estimates more in line with the Census Bureau's concept of money income. These county-level adjustments provide a basis for using Census Bureau money income estimates by householder age at the national level (Current Population Survey) to constrain income by demographic as well as geographic variables. The primary benefit of incorporating the Woods & Poole household income projection is that regional and local trends in income generation are taken into account. These trends provide a geographic specificity to income estimates and projections while the Census Bureau data provide the demographic benchmarks.

Starting with the Pitney Bowes Business Insight 2003 update, income distributions are provided in real and current dollars. While the income by age of household distributions are provided only in current dollars, the full income distributions are also given in real 1999 dollars in order to permit trending of the income data in real terms, factoring out the effects of inflation. On the other hand, the current dollar series provide a basis for comparing markets with respect to income growth as the combined effect of both real income change and inflationary effects.

Note that new for the 2010 update is the use of block group level median income from the MicroBuild HD® file. This variable has been used to calibrate the age-specific targets for shifting household income distributions. Also, more weight has been given to results from the Census Bureau's American Community Survey as more multi-year results become available. Income distributions for all households and by age of householder are derived from a model that advances in time each

distribution in accordance with trends in mean and aggregate household income at the census tract and county level. Household income levels and trends for projection purposes in real and current dollars are benchmarked to Woods & Poole Economic model results.

We extend the upper ends of the income distribution for all households beyond published Census Bureau figures using mathematical techniques constrained by our estimates and projections of aggregate income above $200,000. While the extension of the income distributions is theoretically possible and consistent with higher-level controls, data users should necessarily apply an extra degree of caution in interpreting such information. In general, there is a higher degree of certainty associated with the distributions below $200,000 and with the summary measures of income—mean and median household income.

Measures of per capita income are provided in two variables:

- Per Capita Income – based on aggregate household income divided by the total population.
- Income Per Household Member – based on aggregate income divided by the household population.

Census Update Variables

A set of variables, referred to as census update variables, is derived from the 2000 Census and applied to the current-year estimates of the population by selected age groups. These variables include: Population Aged 25+ by Educational Attainment, Population Aged 15+ by Marital Status, and Population Aged 16+ by Occupational Group. The census update variables are controlled to trends derived from the American Community Survey data at the state level. Also available in this variable set are estimates of owner and renter occupied housing units by the number of units in the structure. The base data for this variable set is the 2000 Census and current-year update demographics.

The percent distribution of the population at the Block Group level in 2000, is applied to the current-year base population. While this is a straight-line projection method, users should realize that the distributions will shift, as they are rolled up to all higher geographies. The distributions shift, for example, at the county level according to the differential population growth of the sub-county geographies. If higher educational attainment areas grew faster than lower educational attainment areas, then the county may show a higher pattern of educational attainment. Similarly, Zip Code summary data may shift if differential growth patterns are exhibited across Block Groups that make up the Zip Code.

The occupation variables are grouped into white collar and blue collar in the following manner:

White Collar

- Management, Professional, and Related Occupations
  - Management, Business, and Financial Operations Occupations
  - Professional and Related Occupations
- Sales and Office Occupations
  - Sales and Related Occupations
  - Office and Administrative Support Occupations

Blue Collar

- Service Occupations
  - Healthcare Support Occupation
  - Food Preparation and Serving Related Occupations
  - Building and Grounds, Cleaning, and Maintenance Occupations
  - Personal Care and Service Occupations
- Farming, Fishing, and Forestry Occupations
- Construction, Extraction, and Maintenance Occupations
  - Construction and Extraction Occupations
  - Installation, Maintenance, and Repair Occupations
- Production, Transportation, and Material Moving Occupations
  - Production Occupations
  - Transportation and Material Moving Occupations

The Pitney Bowes Business Insight census update variables also include:

- Owner-occupied housing units by number of units in structure
- Renter-occupied housing units by number of units in structure
- Index of Relative Potential for Vacancy
- Index of Relative Potential for Rental Vacancy
- Index of Relative Potential for Seasonal Vacancy

Housing tenure by number of units in structure is based on the corresponding Census 2000 variables and updated household estimates. The relative potential indexes are based on the vacancy variables in the 2000 Census. The vacancy index can be interpreted in terms of the percent increase in Total Households that would be needed to fully occupy the existing stock of housing units. The Index of Relative Potential for Seasonal Vacancy is similarly interpreted and is, in that sense, an indicator of the influence of seasonality on the number of households in an area. Note, there are small changes in these variables from year to year due to the influence of trend data on household vacancy rates.

Consumer Potential Detail

The traditional approach to market potential estimation involves assigning dollar estimates of household demand for consumer goods and services. Our approach to this type of market potential estimate makes use of the most recent Consumer Expenditure (CE) Survey data (2007) from the U.S. Bureau of Labor Statistics.

The Pitney Bowes Business Insight estimates and projections of CE Potential begin with an analysis of the Interview and Diary portions of the Consumer Expenditure Survey. The interview schedule covers the larger expenditures households make on an infrequent basis (for example, refrigerators) as well as those made on a regular monthly basis (for example, insurance payments). The diary portion covers expenditures made frequently, such as grocery items and drug store purchases. We use four years' worth of CE data to achieve a sample size of 80,000+ households in an integrated data set for diary and interview-based expenditures. The survey analysis establishes the relationship between detailed CEs and key demographic variables such as age, income, consumer unit size, family type, owner-renter status, and metropolitan residence.

The principal challenge of this type of exercise is to translate statistical relationships established at the national level to dollar estimates and projections for small areas of geography. There is the risk of committing an ecological fallacy if results from a national survey are applied directly to smaller geographic areas. Our response to this risk, is to use results from our block group and neighborhood classification system PSYTE US Advantage.

Our method is a two-step process:

1. First, we develop a typical annual household budget for each PSYTE US Advantage cluster at the national level based on the patterns of expenditures found among CE Survey respondents. The survey respondents are matched to each PSYTE US Advantage cluster based on the key demographic variables that drive both cluster membership and household expenditures: age of householder, income, household size, family type, race and Hispanic origin, metropolitan area status, and home ownership.
2. Second, we apply the typical household budget (expressed as a percent of total annual expenditures) to our estimates of the dollars available for household expenditures at the block group level. Each cluster-specific household budget is applied to all corresponding block groups classified by PSYTE US Advantage cluster. Spending levels are adjusted for each block group within each cluster according to its fit with the national cluster profile. Finally, the estimates are controlled by our estimate of dollars available for consumer spending in the block group.

The result of this process is a set of estimates and projections of consumer market potential for over 350 goods and services for all levels of geography. These variables can be considered traditional demand-side market potential estimates. For example, custom trade areas can be drawn to represent geographic markets, which in turn represent a dollar potential of annual spending in a given category. Users may calculate the average market potential per household (mean) or create an index of market potential to compare several trade areas.

The five-year projections make the assumption that spending patterns remain constant while underlying demographic shifts, including population growth/decline and real income growth, drive changes in levels of category spending. Similar to income variables, consumer expenditure dollars are held constant in the projection so differences can be attributed to changes in income levels as well as underlying demographic change.

The variable total consumer Expenditure (CP10000) should be interpreted as primarily retail expenditures by households as some major expenditures like housing costs are excluded.

Retail Sales Potential

Retail Sales Potential provides estimates and projections of consumer potential organized by store type. The Retail Sales Potential estimates are also demand side estimates. They are explicitly not derived from actual retail sales estimates. The variables in the Retail Sales Potential series are based on the variables in the latest Consumer Expenditure(CE) Potential series and are, therefore, consistent with the larger CE Potential data series from category to category and across various geographies.

For supply side estimates of Retail Sales, see Pitney Bowes Business Insight Business Summary Data.

The store-type classification was developed from the new North American Industry Classification System (NAICS), which will replace the familiar SIC coding system. This system will provide consistency among the United States, Canada, and Mexico with respect to business activity statistics. The Pitney Bowes Business Insight Retail Sales Potential store categories reflect the new retail sector categories in the NAICS together with the CE categories of the Bureau of Labor Statistics' CE Survey. Note that there is a natural overlap, or double counting, in data generated using store types. This is caused by many consumer categories being purchases in multiple store types. For example, a refrigerator may be purchased in an appliance store or a department store. For a complete listing of the CE variables included each store type, please refer the following table. This table contains a listing of the items typically sold by each store type. The items are correlated with there corresponding CE Potential codes and descriptions.

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
AU4411	Automobile dealers	
	AU11000	Cars and trucks, new (net outlay)
	AU14000	Cars and trucks, used (net outlay)
	AA12000	Automobile maintenance and repairs, total
AU4412	Other motor vehicle dealers	
	AU17000	New motorcycles, motor scooters, mopeds (net outlay)
	AU18000	Used motorcycles, motor scooters, mopeds (net outlay)
	AU19000	Motorized camper (net outlay)
AU44131	Automotive parts, accessories, and repair stores	
	AA12101	Coolant, additives, brakes/transmission fluid
	AA12103	Parts, equipment, accessories
	AA12104	Audio equipment excluding labor

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	AA12105	Body work, painting, upholstering
	AA12106	Clutch & transmission repair
	AA12107	Drive shaft & rear-end repair
	AA12108	Brake work, excluding brake adjustment
	AA12109	Steering or front end repair
	AA12110	Cooling system repair
	AA12111	Motor tune-up
	AA12112	Lubrication & oil changes
	AA12113	Front end alignment, wheel balance & rotation
	AA12114	Shock absorber replacement
	AA12115	Brake adjustment
	AA12117	Vehicle air conditioner repair
	AA12118	Exhaust system repair
	AA12119	Electrical system repair
	AA12120	Motor repair & replacement
	AA12121	Vehicle accessories including labor
	AA12122	Vehicle audio equipment including labor
AU44132	Tire dealers	
	AA12102	Tires, purchased, replaced, installed
	AA12116	Tire & other repair work
BU44411	Home centers	
	HO11100	Floor coverings, total
	HO12201	Paint/wallpaper and supplies – own home
	HO12202	Painting/papering equip. – own home
	HO12203	Panel/siding, etc. supplies – own home
	HO12204	Roofing/gutters mat. /equip. – own home

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	HO12205	Patio, masonry, etc. mat. – own home
	HO12206	Plumbing supplies/equip. – own home
	HO12207	Electrical, heating, cooling supplies – own home
	HO12208	Insulation, other improvements, repair, maintenance – own home
	HO12209	Landscaping materials – own home
	HO19004	Power tools
	HO19005	Non-power tools
	HO19006	Grills and other Outdoor equipment
	HO19007	Fresh flowers or potted plants
	HO19008	Smoke alarms & detectors, purchases & rentals of – own home
	HO23105	Lawn-mowing equipment and other yard machinery
BU44412	Paint & wallpaper stores	
	HO12201	Paint/wallpaper and supplies – own home
	HO12202	Painting/papering equipment – own home
BU44413	Hardware stores	
	HO19004	Power tools
	HO19005	Non-power tools
	HO12206	Plumbing supplies/equipment – own home
	HO12207	Electrical, heating, cooling supplies – own home
BU44421	Outdoor power equipment stores	
	HO23105	Lawn-mowing equipment & other yard machinery
BU44422	Nursery & garden centers	
	HO19007	Fresh flowers or potted plants
	HO23110	Gardening/lawn care services
CA44811	Men's clothing stores	
	AP11000	Men's apparel, 16 and over, total

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
CA44812	Women's clothing stores	
	AP13300	Women's apparel, 16 and over, total
CA44813	Children's & infants' clothing stores	
	AP12200	Boys apparel, 2 to 15, total
	AP14000	Girls apparel, 2 to 15, total
CA4482	Shoe stores	
	FO11000	Footwear, total
CA44831	Jewelry stores	
	JE10000	Jewelry items, total
EA44311	Appliance, television, & other electronics stores	
	AL11001	Major appliances, total
	AL21405	Small electrical kitchen appliances
	AL21200	Portable heating & cooling equipment
	AL21305	Telephones & accessories
	AL21310	Telephone answering devices
	AL31100	Color TV console & combos of TV; large screen color TV projection equipt.
	AL31200	Color TV (portable & table models)
	AL31300	VCR, video disc player, video camera, & camcorder
	AL31400	Video cassettes, tapes, & discs
	AL31500	TV video game hardware/software and computer game software
	AL31600	Radios
	AL31700	Tape recorders & players
	AL31800	Sound components, component systems, & compact disc sound systems
EA44312	Computer & software stores	
	AL21403	Computers, computer systems, & related hardware – home use

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	AL21406	Computer software & accessories – home use
	AL21409	Computer repair services
	AL31500	TV video game hardware/software and computer game software
EA44313	Camera & photographic supplies stores	
	PH10000	Photographic, total
FB44511	Supermarkets & other grocery stores (except convenience)	
	GR11000	Food items at grocery stores, total
	HL12001	Health and Beauty Aid, total
	HL12100	Personal care products, total
FB44512	Convenience and specialty food stores	
	FS12000	Food at convenience/specialty stores
FB4453	Beer, wine, & liquor stores	
	LI10000	Alcoholic beverages, total
FU4421	Furniture stores	
	FU10001	Furniture, total
FU4422	Home furnishings stores	
	HF10000	Home Furnishings, Cookware, and Houseware Items, total
GA44711	Gasoline stations with convenience stores	
	AA11000	Gasoline and oil, total
	FS12000	Food at convenience/specialty stores
GA44719	Other gasoline stations	
	AA11000	Gasoline and oil, total
GR452	General merchandise stores	
	AL20411	Computing Equipment, Telephones, and Small Appliances, total
	AL31300	VCR, video disc player, video camera, & camcorder
	AL31400	Video cassettes, tapes, & discs

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	AL31500	TV video game hardware/software and computer game software
	AL31600	Radios
	AL31700	Tape recorders & players
	AL31800	Sound components, component systems, & compact disc sound systems
	AL32000	Compact discs, tapes, needles, or records not from a club
	AP11000	Men's apparel, 16 and over, total
	AP12200	Boys apparel, 2 to 15, total
	AP13300	Women's apparel, 16 and over, total
	AP14000	Girls apparel, 2 to 15, total
	EN13500	Toys, games, hobbies, tricycles
	FO10000	Footwear, total
	HF10000	Home Furnishings, Cookware, and Houseware Items, total
	HL12001	Health and Beauty Aid, total
	HL12100	Personal care products, total
	JE10000	Jewelry items, total
GR4521	Department stores (excluding leased depts.)	
	AL11001	Major appliances, total
	AL20411	Computing Equipment, Telephones, and Small Appliances, total
	AL21200	Portable heating & cooling equipment
	AL21305	Telephones & accessories
	AL21310	Telephone answering devices
	AL21405	Small electrical kitchen appliances
	AL31100	Color TV console & combos of TV; large screen color TV projection equipt.
	AL31200	Color TV (portable & table models)
	AL31300	VCR, video disc player, video camera, & camcorder

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	AL31400	Video cassettes, tapes, & discs
	AL31500	TV video game hardware/software and computer game software
	AL31600	Radios
	AL31700	Tape recorders & players
	AL31800	Sound components, component systems, & CD sound systems
	AL32000	Compact discs, tapes, needles, or records not from a club
	AP11000	Men's apparel, 16 and over, total
	AP12200	Boys apparel, 2 to 15, total
	AP13300	Women's apparel, 16 and over, total
	AP14000	Girls apparel, 2 to 15, total
	EN13500	Toys, games, hobbies, tricycles
	FO10000	Footwear, total
	HF10000	Home Furnishings, Cookware, and Houseware Items, total
	HL12001	Health and Beauty Aid, total
	HL12100	Personal care products, total
	JE10000	Jewelry items, total
	FU10001	Furniture, total
HP44611	Pharmacies & drug stores	
	HL13000	Prescription and OTC drugs and medical supplies, total
	HL12001	Health and Beauty Aid, total
	HL12100	Personal care products, total
HP44619	Other health & personal care stores	
	HL12200	Personal care services for females, including haircuts
	HL12300	Personal care services for males, including haircuts
MR45391	Pet & pet supplies stores	
	EN12100	Pets, pet supplies and medicines for pets

RSP Variable	CEP Code	Retail Sales Potential Variable List by Store Type
	EN12200	Pet food
RE	Restaurant Expenditures	
	FS11000	Full service restaurants (excludes alcoholic beverages)
SP45111	Sporting goods stores	
	SP10000	Sporting goods, total
SP45112	Hobby, toy, & game stores	
	EN13500	Toys, games, hobbies, tricycles
SP45113	Sewing, needlework, & piece goods stores	
	AP16000	Sewing materials for making clothes
	AP17000	Sewing notions, patterns
SP45114	Musical instrument & supplies stores	
	MU10000	Music items, total
SP4512	Book, periodical, & music stores	
	EN14600	Books not through book clubs
	EN14200	Newspapers, non-subscriptions
	EN14400	Magazines, non-subscription
	AL32000	Compact discs, tapes, needles, or records not from a club
SP45122	Video Tape Stores, Retail	
	VD10000	Rental of video cassettes, tapes, & discs
GAF	GAF stores (General Merchandise, Apparel, and Furniture)	
	GR452	General merchandise stores RSP
	FU4421	Furniture stores RSP

Household Wealth (Net Worth) and Financial Assets

As with the 2009 update, this 2010 update makes use of Pitney Bowes Business Insight's Demand Insight Financial (DIF) dataset, which contains block group estimates of key components of household wealth. The household wealth and financial assets distributions in the Pitney Bowes Business Insight Estimates and Projections database now reflect the magnitudes of the small area

estimates in the DIF data. This method injects a higher level of granularity in the input data and provides greater consistency across these key Pitney Bowes Business Insight databases used primarily in the financial services industry.

We apply the model to smaller geographies, conditioned by mean household income, in a manner similar to our estimates of **Consumer Potential Detail**. By repeating the national survey analysis for each the PSYTE US Advantage geo-demographic clusters, we generate a wealth, or net worth, profile and a financial asset profile for each cluster. Each cluster's demographic composition provides the link to small geographic entities such as block groups. However, as income and home value at the block group level can condition estimates of wealth and financial assets within each cluster, we adjust wealth averages and distributions according to income and home value at the block group level. We use block group level income estimates alone to condition the distributions of Financial Assets. Wealth results are presented as mean and median estimates, and distributions of wealth. Similarly, results of financial assets are presented as mean and median estimates, and distributions of financial assets. The following are definitions of these concepts and their component parts:

- **Wealth** – Household net worth, or the difference between assets and liabilities at the household level. Assets include vehicles, primary residence, investment real estate, business assets, and a residual category of non-financial assets and financial assets.
- **Financial Assets** – Include transaction accounts (for example, checking accounts), certificates of deposit, savings bonds, bonds, stocks, mutual funds, retirement accounts, cash value of life insurance, and a residual category of other managed assets and other financial assets. The concept of financial assets is a subset of the components of household wealth.

The following are the components of Financial Assets (FA):

- Transaction Accounts
- CDs
- Savings Bonds
- Bonds
- Mutual Funds (excluding money market accounts)
- Retirement accounts
- Cash Value of life insurance
- Other Managed assets
- All other financial assets

The following are components of Non-Financial Assets:

- Vehicles
- Primary Residence
- Investment Real estate
- Business Assets
- Other Non-financial assets

The calculation for Total Assets = Financial Assets + Non-Financial Assets.

The following are components of Liabilities:

- Home Mortgage
- Home Equity
- Lines of Credit (secured by Home)

- Installment Loans
- Other Lines of Credit
- Credit Card Balance
- All other Debt

ⓘ The calculation for Net Worth = Total Assets - Liabilities.

Home Value

The Pitney Bowes Business Insight approach to estimating a current-year home value distribution involves the complete U.S. government records of all mortgages consummated over the most recent three-year period (the latest mortgage data used for the 2010 update is from 2008). This represents more than 14 million records of recent home sales. This database includes all mortgages approved and accepted for single-family housing. Through a proprietary process we have assigned census tract codes to these records and created summary distributions at the tract level. Our process involves three steps:

1. Adjust the 2000 distribution of home values for specified owner-occupied housing to current dollars. Specified owner-occupied properties are a subset of all owner-occupied properties. These are owner-occupied housing units with no more than 10 acres of land, no commercial space in the building, and no mobile homes. Condominiums are also not included in these estimates.
2. Calculate current means and medians, as well as distributions, of home value for all U.S. census tracts from the mortgage database adjusted to estimate home value. Our model is applied against estimates of specified owner-occupied housing derived as a subset of our household estimates.
3. Distribute the census tract results to block groups based on the dollar-adjusted 2000 distributions. The block group distributions are shifted in accordance with changes in the average home value for each block group relative to its parent census tract.

The basic assumption of this approach is that current home values are best reflected in the most recent sale prices, values, and mortgages extended in small areas such as census tracts. Results of our home value methodology are given for the current year only and are not available as a five-year projection.

Daytime Population

The estimates include a set of variables called Daytime Population. Daytime Population has two components: At-Home Population and At-Work Population (total employees). The At-Home Population is the current estimate of the number of persons aged 16+ that are not in the labor force, therefore presumed to be at home during the day. The At-Work Population is based on the Pitney Bowes Business Insight Business Summary Data, which contains estimates of the number of persons who work in the given Block Group. The addition of the At-Home Population and the At-Work Population gives the estimate of the number of persons in the Block Group during the day.

A detailed description of the Business Summary Data methodology, including the development of estimates of employees by SIC and NAICS by Block Group, is provided with the Business Summary Data package.

Socioeconomic Score (SES)

The socioeconomic score (SES) of a region is a comparative index value ranging from 1 to 100 which indicates the overall social/economic status of an area. Four key contributors to SES were included in the analysis to produce the results in this dataset. These four characteristics are: Median Household Income, Median Home Value, Occupational Level (percent white collar), Educational Attainment (percent of population aged 25+ with education beyond high school).

Each block group was given a score for each of these categories based on how it ranked against all other block groups nationwide. Once these scores were determined, an overall score for each block group was calculated by combining the individual scores using an un-weighted average. Finally, the overall scores were ranked on the 100-point scale. Block groups without population were ranked among those with a value of one.

To move to higher levels of geography, a population-weighted average of the intersecting block groups was used. As a result, a stable score was produced which can be used to compare geographies of varying size and location. This data set is suitable for radii analysis.

Notes on the Data

Data Sprinkling

Any set of data that involves summations within and across geographic units, as well as within and across demographic categories, involves necessary numerical rounding. This rounding is due to ratio adjustments, for example, those used in iterative proportional fitting. Pitney Bowes Business Insight has developed procedures to eliminate differences in summations due to rounding by systematically sprinkling the differences across subcategories within a data series. This is performed in a manner that preserves the data distribution, while simultaneously providing exact demographic and geographic summations.

ZIP Code Demographics

Beginning with the 2005 Pitney Bowes Business Insight demographic update, an alternative roll-up of the all variables to polygon-only Zip Codes is included. Zip Codes come in two flavors: polygon Zip Codes and point Zip Codes. Polygon Zip Codes generally represent areas served by the U.S. Postal Service and are defined for the purpose of efficient mail delivery. Point Zip Codes may

represent a business location or a Post Office with PO Boxes used by residential or business customers. A special subset of point Zip Codes is defined as a residential post office(RPO) where residents pick up their mail at the Post Office because it is efficient or mail delivery to the home may not be possible. For the purpose of providing demographic data for as many Zip Codes as possible, Pitney Bowes Business Insight has traditionally assigned households to RPOs based on USPS delivery counts to those RPOs. In some cases these are rural areas representing a significant proportion of households. The physical location of RPO households is assumed to be the enclosing Zip Code. The enclosing Zip Code is the polygon Zip Code which contains the RPO Post Office. The population and household characteristics of RPO households are assumed to mirror those of the population and households of the enclosing Zip Code.

However, for certain applications it is desirable to present 100 percent of the population and households in polygon-only Zip Codes. For example, a mapping application that requires a complete representation of demographic change and population characteristics for geographic trade areas may require the use of polygon-only Zip Code data. For this reason, Pitney Bowes Business Insight Zip Code data now has two flavors: a polygon-only Zip Code layer and a polygon-RPO point layer. In consultation with Pitney Bowes Business Insight data specialists, you must decide which Zip Code data better suits your needs.

Puerto Rico Demographic Estimates and Projections

Beginning with the 2005 demographic update, an updated demographic estimates and projections for Puerto Rico is included. The methodology for Puerto Rico is similar to that used for the 50 States and the District of Columbia, with certain process differences. The Census Bureau now provides current estimates of municipio populations, used as inputs to Pitney Bowes Business Insight's Puerto Rico. In addition, some input data are not available for Puerto Rico. As a result, the update methodology must compensate by using alternative inputs. In general, more trending data for Puerto Rico is derived from census data as opposed to outside sources. An important source for the Puerto Rico was local housing start data supplied by the Junta de Planificacion of the Government of Puerto Rico.

Conclusion for Demographic Data

Demographic estimates and projections developed by Pitney Bowes Business Insight provide a sound basis for market analysis and business planning. You should keep in mind that a degree of uncertainty exists in any comprehensive set of demographic estimates and projections. Variation can be greater across smaller geographic units and in areas undergoing rapid demographic change. Nevertheless, our methodology as described in this document provides a consistent framework and a set of demographic estimates and projections that can be used confidently for making reasonable comparisons across the entire U.S.

We are interested in any comments concerning this methodology statement. Please address any inquiries to:

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U.S. Business Summary: Database Description

Pitney Bowes Business Insight's Business Summary database contains aggregations of business establishments, employment, occupation, payroll, and retail sales for all standard census geography levels, as well as for ZIP Codes and Designated Market Areas.

In this chapter:

Product Specification

Coverage Area

The U.S. Business Summary database covers the 50 States and the District of Columbia.

Sources of Information

- GeoResults
- U.S. Business Points Database

Reference Date

July 1, 2010

Updates

Annual

Numbers of Records

The following table illustrates the number of records within each geographic layer for which the variables are provided:

Geographic Layer	Source/Vintage	Number of Records
National	TA, January 2010, v.11	1
State (includes DC)	TA, January 2010, v.11	51
Designated Market Area (DMAs)	Nielsen, 2009-2010; PBS v10.1	211
Metropolitan Statistical Area	Census Bureau, 1999	331
Core Based Statistical Area	TA, January 2010, MultiNet	940
County (or equivalent)	TA, January 2010, v.11	3141
ZIP Code (polygons only)	TA, January 2010, v.17	30, 228
ZIP Code (polygons and RPO points)	TA, January 2010, v.17	41,208
Place	TA, January 2010, v.11	25,149
Minor Civil Division (or equivalent)	TA, January 2010, v.11	35,318
Census Tract	TA, January 2010, v.11	65,456
Block Groups	TA, January 2010, v.11	208,809

Number of Variables

The following table lists the number of variables available for NAICS (North American Industry Classification) and SIC (Standard Industrial Classification)-based data.

Variable Category	NAICS	SIC
Summary Measures	4	4
Establishments by Type of Business (Industry)	21	75
Establishments by Size of Business	10	10
Establishments by Major Industry	11	11
Establishments by Type of Retail Business	29	64
Establishments by Major Type of Retail Business	0	7
Establishments by Type of Service Business	9	16
Employees by Type of Business (Industry)	21	75
Employees by Major Industry	11	11
Employees by Type of Retail Business	29	64
Employees by Major Type of Retail Business	0	7
Employees by Type of Service Business	9	16
Employees by Occupation by Type of Business	22	22
Employees by Occupation within Agricultural, Forestry, and Fishing Businesses	22	22
Employees by Occupation within Construction Businesses	22	22
Employees by Occupation within Finance, Insurance, and Real Estate Businesses	22	22
Employees by Occupation within Manufacturing Businesses	22	22
Employees by Occupation within Mining Businesses	22	22
Employees by Occupation within Public Administration	22	22
Employees by Occupation within Retail Trade Businesses	22	22
Employees by Occupation within Services Businesses	22	22
Employees by Occupation within Transportation and Communications Businesses	22	22
Employees by Occupation within Non-Classified Establishments	22	22
Employees by Occupation within Wholesale Trade Businesses	22	22

Variable Category	NAICS	SIC
Payroll by Major Industry	11	11
Retail Sales by Type of Retail Business	29	64

Methodology

Pitney Bowes Business Insight's Business Summary database contains aggregations of business establishments, employment, occupation, payroll, and retail sales, for all standard census geography levels, as well as for ZIP Codes and Designated Market Areas (DMAs).

The immediate source data for the Business Summary data is Pitney Bowes Insight's U.S. Business Points file of approximately 13 million businesses in the U.S. The primary source data for the PBBI Business Points file is the GeoResults, Inc. business database. That database is geocoded by GeoResults and PBBI using the most up-to-date business geocoding resources. The database is derived from multiple sources, including telephone listings, city directories, annual reports, and 10K filings. It covers practically every business throughout the United States.

Other sources used to benchmark and control the Business Summary data are the Census Bureau's 2002 Economic Census, County Business Patterns, ZIP Code Business Patterns, Bureau of Labor Statistics employment and occupations reports, and U.S. Census Bureau's Monthly and Annual Retail Trade Surveys.

The key steps in the methodology include:

1. Address geocode each business in the file to its census block group.
2. Evaluate and estimate exact employee counts for each firm or establishment.
3. Aggregate the number of establishments by their corresponding NAICS and SIC industrial codes.
4. Compare the NAICS rollup against published government sources such as the 2002 Economic Census and the most recent County Business Patterns, on a NAICS basis.
5. Generate an occupational distribution for each firm based on its employee count and industrial category. This step uses the latest BLS (Bureau of Labor Statistics) Occupation by Industry file which indicates the likely distribution of employment counts by occupation within each NAICS industry.
6. Estimate total payroll based on the occupational distribution, the industrial classification, and the County labor market.
7. Develop a retail sales estimate for retail establishments only, based on a model of average sales per employee by industrial category and County retail sales trends.

These steps are described in detail below:

1. Geocoding – Pitney Bowes Software Inc. geocodes the 15 million-plus business addresses using Pitney Bowes Business Insight's MapMarker geocoding software. In addition, Pitney Bowes Software Inc. uses an existing list of pre-geocoded businesses in a process called "firm geocoding." For example, "firm geocoding" assigns a known street address and its corresponding block group to firms that use P.O. Boxes as their mailing address. There is an extensive process of checking for duplicate records, alternate business names, and multiple businesses at the same address follows geocoding. Special attention is given to large firms in

order to ensure that the total employee count represents the number of workers at the specific business site as opposed to the entire firm. A small number of firms could not be geocoded to an acceptable level of accuracy. Those firms were dropped from the file in order to maintain consistency in the summary data.

2. Employee Counts – The estimate of total employees by block group is assessed by an analysis of the size of establishments in various NAICS and SIC industrial categories. This number is especially important given its use in estimates of daytime population. Where necessary, the number of employees is modified to within expected ranges given the type of business and its location.
3. Number of Establishments – The aggregation of establishments by NAICS is compared to the Census Bureau's 2002 Economic Census results and County Business Patterns. Users should note that Pitney Bowes Business Insight's Business Summary data includes sole proprietors and other business with no formal employees. Such firms are called "non-employers" in Census Bureau parlance. Certain industrial categories such as doctors, lawyers, and carpenters are more likely to be non-employer establishments. It is important to note that in this data, sole proprietors and other single-worker establishments nevertheless becomes part of the "total employee" estimate.
4. Comparisons of the rolled up point file data against published sources take into account the fact that the point file contains "non-employer" data, whilst the published sources generally do not show non-employers. The Census Bureau's non-employer survey data, which generally tabulates small family-run or single-person businesses, is taken into account, however. This process highlights anomalies and inconsistencies that inevitably arise given the nature of the source data. Where possible, code adjustments and other quality assurance measures are performed.
5. Occupational Distributions – These distributions are estimated at the firm level from a matrix of Occupations by Industry provided by the Bureau of Labor Statistics. The OES (Occupational Employment Survey) is updated to reflect trends by type of business according to the NAICS industrial classification.
6. Payroll – The payroll model is based on occupation-specific wage and salary estimates for States and Metropolitan Areas from the Bureau of Labor Statistics, supplemented by payroll estimates from the Economic Census and County Business Patterns. Essentially, payroll estimates were derived from average payroll per employee by occupation and industry, established at the lowest possible geographic level. Results are scaled in part by the relative income levels in each county.
7. Retail Sales – The retail sales model produces annual estimates at the establishment level for all retail firms. The four-digit retail classification for both NAICS and SIC is used. The original file provides a category designation of retail sales, such as sales between $500,000 and $999,999. However the modeling process establishes an exact amount that is then used in the aggregation. The retail sales estimates should be interpreted as "supply-side" estimates, that is, the stores within a given geographic entity (for example, County or ZIP Code) generate sales from a trade area that may or may not coincide with that geographic entity. (Users needing "demand-side" estimates are referred to Pitney Bowes Business Insight's Retail Sales Potential database, which provides household level expenditure potential for goods grouped by store type.)

Pitney Bowes Business Insight's Business Summary data is generally consistent with its U.S. Business Points database. As such, the results of an analysis using the Business Summary data can be used to specify a list of firms in the U.S. Business Points File. However, differences between

"raw" summary aggregations from the point file and the Business Summary data reflect the above enhancements and modeling processes which generates summary estimates within reasonable ranges of published government business statistics.

The Business Summary data is provided in both SIC and NAICS industrial classifications.

Notes and Caveats

Although the immediate source data for the Business Summary data is Pitney Bowes Insight's U.S. Business Points file, which is a comprehensive file of U.S. businesses, the universe of U.S. Business is dynamic and changes considerably from year to year. This means that users should exercise caution when making year-to-year comparisons. This is especially true given the new original source data from GeoResults, Inc. business database.

There may also be apparent differences that are the result of under-representation of recently formed or relocated businesses.

The summary measures in this database are primarily recommended for analysis of the type, size and structure of U.S. businesses.

Variable Listings

See **USDemographicData&BusinessSummary2010_variables.xls** in the docs\ folder on the product media for a complete list of the variables used in this data product.This file is a Microsoft Excel spreadsheet. If you do not have Microsoft Excel, then you can download the Excel Viewer from **http://office.microsoft.com.**

Conclusion for Business Summary Data

Business Summary Data are estimates developed by Pitney Bowes Business Insight. They provide a sound basis for market analysis and business planning. You should keep in mind that a degree of uncertainty exists in any comprehensive set of estimates of business data whether it relates to establishments or employees. Variation can be greater across smaller geographic units and in areas undergoing rapid change. Nevertheless, our methodology as described in this document provides a consistent framework and a reasonable set of business estimates that can be used confidently for making market comparisons across the entire U.S. We are interested in any comments concerning this methodology statement.

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