
**EXPOSING URBAN LEGENDS:
THE REAL PURCHASING POWER OF
CENTRAL CITY NEIGHBORHOODS**

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ABSTRACT

The gap between “urban legends”—such as, “no one works in inner-city neighborhoods”—and urban realities is wide, and often the private marketing data that people rely on to provide accurate neighborhood information actually exacerbate these myths. These marketing data have several problems. They are often based on infrequently updated Census information that undercounts central city residents; they make misleading generalizations (e.g. crime statistics are not based on the number of crimes committed in the neighborhood but estimated from the “type” of people living there); and they fail to review local data for trend analysis, thereby missing many positive developments in cities. The data have serious repercussions for cities, influencing the location and product decisions of businesses; government policies on welfare, housing and bus routes; and even prospective students’ choice of university. As an alternative to inadequate national data sources, this study provides a more precise description of neighborhood purchasing power in Milwaukee by zipcode, block level, and specific address using a variety of local- and state-level data sources. It thereby offers a template for retrieving similar data and preparing commercial-district economic profiles elsewhere.

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EXPOSING URBAN LEGENDS: THE REAL PURCHASING POWER OF CENTRAL CITY NEIGHBORHOODS

I. INTRODUCTION

“You cannot build a city on pity, and you certainly cannot build it on fear,” counseled Milwaukee Mayor John O. Norquist in a 1998 speech on the condition of urban America. Eschewing “pity-me” and deficit-based approaches to economic development, Norquist urged cities to emphasize their positive virtues: specialization of labor, concentration of capital, diverse neighborhoods, public gathering places, cultural attractions, and proximity and diversity of markets. “There is an urban advantage that needs to be unlocked,” Norquist stated. “I advocate that we build our solutions on that advantage, think positively about cities—not to be Pollyannish and ignore problems—but to realize the incredible potential that cities have for raising the value of the American economy and for raising the level of civilization that we have in this country.”¹

The U.S. Department of Housing and Urban Development, Michael Porter’s Initiative for a Competitive Inner City, Social Compact and others have laid out the untapped opportunities for retailers in central cities and identified an “information gap” that adversely impacts inner-city neighborhoods.² While acknowledging that national marketing data undervalue central city neighborhoods, most attempts to describe the strong purchasing power of inner cities have relied on the same marketing firms that present negative rankings of central city neighborhoods based on race and class. This paper details practices of marketing firms that ignore income density and rank central-city neighborhoods as losers and sparsely populated suburbs as winners based on average household income comparisons, and offers cities an alternative to negative commercial marketing reports through the use of timely, accurate data sources from local and state governments.

The paper is based on findings from a recent project in Milwaukee that collected and analyzed institutional data to describe economic changes in central-city neighborhoods. The data were first used to prepare indicators of family well-being in city zipcodes with the highest concentrations of AFDC recipients prior to welfare reform. The data were subsequently used to provide economic profiles of city commercial districts targeted for retail development. The Milwaukee approach calculates annual

¹ “Remarks by The Honorable John O. Norquist, Mayor of Milwaukee,” at the State of the Cities, The Urban Recovery: Real or Imagined, A Brookings National Issues Forum, June 8, 1998, reprinted at www.brookings.edu/urban/speeches/NIF98norquist.htm accessed April 27, 2000; John O. Norquist, **The Wealth of Cities: Revitalizing the Centers of American Life** (Reading, Mass.: Addison-Wesley, 1998).

² Andrew Cuomo, **New Markets: The Untapped Retail Buying Power in America’s Inner Cities** (U.S. Department of Housing and Urban Development, July 1999); Michael E. Porter, “The Competitive Advantage of the Inner City,” **Harvard Business Review** 73 (1995): 55-71; Robert Weissbourd and Christopher Berry, **The Market Potential of Inner-City Neighborhoods: Filling the Information Gap** (Brookings Institution, March 1999) at www.brookings.edu/es/urban/Weissbourd.pdf; Scott Bernstein, “Using the Hidden Assets of America’s Communities and Regions to Ensure Sustainable Communities” at www.cnt.org, accessed May 3, 2001.

income and purchasing power per square mile using state income tax filings by zipcode and block groupings to show retailers the relative income density and purchasing power of urban neighborhoods. This does not require sophisticated modeling techniques nor does it rely on population estimates derived from the decennial census, which historically undercounts inner cities. Cities can use the variety of data sources identified in this report to “fact check” reports on their neighborhoods prepared by commercial vendors.

II. EXPOSING THE URBAN LEGEND: THE MILWAUKEE INITIATIVE

Milwaukee researchers began developing purchasing power profiles of commercial districts at the request of the Helen Bader Foundation, a local foundation supporting economic development in central city Milwaukee. The work is an outgrowth of a Milwaukee Neighborhood Indicators Project, initiated in 1997 by the University of Wisconsin-Milwaukee Employment and Training Institute (ETI) with Bader Foundation and Milwaukee Foundation funding. The neighborhood indicators provided annual measures of economic well-being in central city Milwaukee neighborhoods during welfare reform using state and local administrative data files. The Bader Foundation asked ETI to use the income, housing, transportation and business activity indicators to provide background information for targeted economic development projects in the inner city.

Since most developers rely on detailed maps of population density, home ownership, household income, automobile ownership and crime statistics from commercial firms, ETI compared data from state and local files with information from major marketing firms to determine the feasibility of using commercially-prepared data reports. Three concerns surfaced quickly.

First was the issue of the accuracy of local statistics derived from the modeling techniques used by national marketing firms. One Milwaukee commercial district examined was at 8th and Mitchell streets in zipcode 53204. Local and state institutional data showed the zipcode to be a stable, ethnically diverse area with modest population growth. Yet a report purchased from Claritas, a major international marketing data firm, estimated 1999 demographic data and made projections for 2004 showing the zipcode area as one in decline. Using a self-described “complex methodology,” Claritas reported that the population of the area had dropped 10.1 percent from 40,530 in 1990 to 36,430 in 1999 and predicted a further decline to 34,643 by 2004.³ Another major data firm, CACI Marketing Systems, estimated a larger decrease of 10.9 percent over the nine-year period, with the 1999 population projected at 36,102.⁴ City birth records, public and private school enrollments, annual youth census counts, income tax returns and observations of residents, however, suggested that the neighborhood population was stable and that some population segments were growing.⁵ The 2000 U.S. Census confirmed the growth observed by local residents: according to the Census Bureau, the 2000 population totaled 42,747, a 5.5 percent increase over 1990.

³ When contacted, Claritas staff rechecked their sources and methodology and reported, “Every source of data that we have shows this ZIP code as declining.” Correspondence with the author, December 20, 1999.

⁴ “CACI Free Samples: Results of Zip Search” at www.demographics.caci.com/scripts/zipsearch.cfm accessed February 24, 2000. [Note: the website locations and descriptions are constantly changing as companies merge and new data are promoted.]

⁵ Milwaukee city health department records showed that births had remained stable, the school census showed a 4 percent increase in the school age population, and state income tax filings showed a 6 percent increase in working-age tax filers from 1993 to 1998 and a 22 percent increase in adjusted gross income.

Checks of other data estimates found further discrepancies. Claritas had obtained tract level data from the Milwaukee Department of City Development that showed a 3 percent decline in the number of housing units from 1990 to 1999, but adjusted that data to report a 9 percent decline in units. The firm reported that the area had 36 percent fewer owner-occupied housing units than the City of Milwaukee property file showed, 29 percent fewer vehicles than currently registered with the Wisconsin Department of Transportation, 32 percent fewer households with vehicles than shown in the state's motor vehicle file, and 16 percent fewer working families than the number of non-elderly single and married filers with dependents submitting 1998 income tax returns to the state Department of Revenue.

A second concern arose out of the stereotypes of Milwaukee residents that were presented by the marketing data firms. City officials were angered to read CACI reports describing four Milwaukee neighborhoods with high concentrations of working-age income tax filers as "distressed" communities where "Unemployment is high; those who do work have only part-time jobs." On its website CACI stated that Milwaukee residents in African American neighborhoods "splurge on fast food and spend leisure time going to bars and dancing" and that city Hispanics "splurge on videos, long-distance phone calls, cable TV, and theme park and casino visits." Meanwhile CACI described affluent residents of Milwaukee's "North Shore" suburbs (zipcode 53217) as interested in "civic activities, volunteer work, contributions, and travel." White residents in the middle class Milwaukee County suburb of Oak Creek were described as "a prosperous population who have opted for semirural locales and lifestyles ... [and] are interested in reading, needlework, and cooking."⁶ The Claritas company website classified Milwaukee's African American neighborhoods with labels like "87.23% Difficult Times" and described the population as "very low income families" who "buy video games, dine at fast food chicken restaurants, use non-prescription cough syrup, and use laundries and laundromats." A fourth of the residents in the ethnically and culturally diverse 53204 Milwaukee zipcode are said to be people who "smoke nine or more cigarette packs per week ... and don't know the amount of money needed to retire comfortably." Claritas reported that a third of the residents in suburban Oak Creek "eat at fast food pizza restaurants, shop at Builder's Square and own a bowling ball."⁷ A review of neighborhoods in other cities revealed that identical descriptions (and dozens like them) are used to characterize hundreds of city and suburban areas around the country based on ten- and 20-year-old census data and marketing stereotypes about minorities and urban residents.⁸

A third concern arising was the national marketing companies' use of these stereotypic "marketing segments" to rank the commercial viability of neighborhoods. The rankings, based mainly on average household income rather than income per square mile, are used to advise clients in their

⁶ "Free Zip Code Report" at www.infods.com/freedata accessed April 26, 2001; "CACI Free Samples: Results of ZIP Search" accessed February 24, 2000.

⁷ "MicroVision Segment" at www.delluke.claritas.com accessed May 3, 2001.

⁸ In 2001 CACI was using an identical "distressed neighborhood" description for zipcodes in Atlanta, Baltimore, Birmingham, Chicago, Cleveland, Miami, New Orleans, Oakland, St. Louis and Scottsdale, Arizona, among others. See www.infods.com/freedata accessed April 26, 2001.

business decisions. For example, Claritas analyzed data for the National Retail Hardware Association and recommended where hardware stores and home improvement centers should locate and seek out customers. The Claritas categories used to describe central city neighborhoods in Milwaukee (Difficult Times, City Ties, Close-Knit Families, Urban Singles) were all labeled “non-target” areas, where Claritas advised, “These shoppers account for a small proportion of customer households and are less likely to be customers.” At the same time Claritas identified most of the categories it had assigned to white suburban areas as profitable markets to target for either core business or expansion opportunities.⁹

State income tax data raise serious questions about these marketing classifications and business recommendations. The 1999 state income tax returns show that zipcode 53206 (an African American neighborhood CACI called “distressed”) has one of the highest concentrations of income tax filers in the Milwaukee area—3,737 single and married working-age tax filers per square mile. This is nine times higher than Oak Creek, which has only 405 tax filers per square mile. Though the average taxpayer in the 53206 zipcode has a lower income than his or her suburban counterpart, working-age residents in 53206 reported 1999 adjusted gross income totaling \$67.2 million per square mile—more than triple that of “prosperous” Oak Creek, which reported \$20 million adjusted gross income per square mile. Other nearby inner-city neighborhoods show similar concentrations of annual income.

When the income ranges of taxpayers from zipcode 53206 were translated into retail spending for food, apparel, entertainment, household furnishings and equipment, and personal care products and services based on the income levels of residents and Consumer Expenditure Survey spending patterns for Midwest urban areas, purchasing power appeared strong. Annual retail spending power per square mile for these categories was estimated at \$38.1 million per square mile in zipcode 53206, compared to \$5.4 million in Oak Creek and \$14.9 million in the “North Shore” (zipcode 53217). Retailers, including hardware centers, can expect a very strong market for their products in zipcode 53206, which is hardly the “distressed neighborhood” denigrated by the marketers. Other central city neighborhoods, including the Mitchell Street commercial district in zipcode 53204, show similar densities of taxpayers and strengths of purchasing power. (See Table 1)

⁹ Walter E. Johnson, “Who’s Shopping Your Store? Identifying the Behaviors and Lifestyles of Hardware Store Customers,” **Do-It-Yourself Retailing**, August 2000 at www.diyretailing.com/pdfs/aug.pdf accessed May 4, 2001.

Table 1: Comparisons of Milwaukee City and Suburban Zipcodes

Selected Zipcodes	1999 Working-age Tax Filers ¹⁰		Est. Annual Retail Spending Per Square Mile For Zipcode ¹¹	Claritas MicroVision Label (and rank)	CACI Label
	Adjusted Gross Income Per Square Mile	Tax Filers Per Square Mile			
Inner City¹²					
53233	\$25.4 million	1,489	\$13.3 million	Urban Singles (48)	College Campuses
53205	\$36.9 million	2,197	\$22.2 million	Difficult Times (46)	Distressed Neighborhoods
53212	\$55.0 million	2,563	\$25.3 million	Difficult Times (46)	Distressed Neighborhoods
53204	\$66.9 million	3,448	\$34.0 million	Close-Knit Families (41)	Low Income: Young & Old
53206	\$67.2 million	3,737	\$38.1 million	Difficult Times (46)	Distressed Neighborhoods
53208	\$75.1 million	2,840	\$29.4 million	Difficult Times (46)	Distressed Neighborhoods
53216	\$86.4 million	2,896	\$32.1 million	City Ties (24)	Urban Working Families
53210	\$116.9 million	4,376	\$45.6 million	Difficult Times (46)	Newly Formed Households
Suburban Zipcodes¹³					
Oak Creek 53154	\$20.0 million	405	\$5.4 million	Family Ties (11)	Semirural Lifestyle
Franklin 53132	\$20.3 million	311	\$4.5 million	Home Sweet Home (10)	Baby Boomers with Children
Hales Corners 53130	\$55.2 million	985	\$15.5 million	Great Beginnings (15)	Urban Professional Couples
Cudahy 53110	\$59.6 million	1,543	\$20.4 million	White Picket Fences (18)	Rustbelt Neighborhoods
South Milw. 53172	\$71.9 million	1,720	\$23.4 million	White Picket Fences (18)	Newly Formed Households
Greendale 53129	\$87.4 million	1,071	\$17.4 million	Home Sweet Home (10)	Upper Income Empty Nesters
"North Shore" 53217	\$117.4 million	856	\$14.9 million	Upper Crust (1)	Top One Percent

¹⁰ Source: University of Wisconsin-Milwaukee Employment and Training Institute analysis of 1999 Wisconsin Department of Revenue tax returns for working-age filers (i.e., filers not claimed as dependents on other returns and not claiming the elderly credit).

¹¹ Estimated consumer expenditures for food at home, food away from home, apparel and services, entertainment, household furnishings and equipment, and personal care products and services. Source: University of Wisconsin-Milwaukee Employment and Training Institute analysis of state income tax filing data at the zipcode level, earned income tax credits for families, HCFA estimates of Medicare eligible population, and five quarters of Consumer Expenditures Survey patterns for Midwest urban areas by income level.

¹² Zipcodes in the City of Milwaukee which had the highest number of AFDC recipients prior to welfare reform and which are targeted for Community Development Block Grant programs.

¹³ The following zipcodes (except for 53217) represent Milwaukee County suburbs whose zipcode boundaries are coterminous with municipal boundaries. The "North Shore" zipcode (53217) includes most of four suburbs and includes the most affluent households in the county.

For cities like Milwaukee, the negative marketing stereotypes associated with city neighborhoods are computer-generated “urban legends” that have to be overcome in order to attract new businesses. With the support of the Helen Bader Foundation, ETI is now working with the Milwaukee Department of City Development to prepare economic profiles for every commercial district and zipcode in the city, with seven-year trend lines and comparative data on city, suburban and exurban neighborhoods on areas of interest to retailers, businesses and homebuyers.¹⁴

¹⁴ Milwaukee purchasing power profiles are available on the City of Milwaukee website at www.mkedcd.org/PurchasingPower. See also, “Purchasing Power of Milwaukee Commercial Districts” at www.uwm.edu/Dept/ETI/purchasing/milw12.htm.

III. THE POWER OF CLUSTER MARKETING

The marketing methodology used to rank neighborhoods by average household income had its genesis, ironically, in research funded by the U.S. Office on Economic Opportunity (OEO), as part of the War on Poverty. In 1966, the OEO paid Jonathan Robbin, a developer of multivariate computer software for the IBM 360 and former sociology professor at New York University, to prepare descriptions of the demographic and economic characteristics of U.S. counties using 1960 census files and other federal statistical data. Robbin developed indices to compare areas of need across the country, including a "Poverty Index" and an "Index of Susceptibility to Civil Disorder" that was used by the U.S. Department of Housing and Urban Development to select cities for "Model Cities" anti-riot funds.¹⁵

Robbin saw the potential for analyses of decennial census data at the zipcode level to help identify desirable markets, or neighborhood "clusters," for mass mailings and advertising firms. The 36,000 U.S. Postal Service zipcodes, initiated in 1963, proved an ideal geographic area for Robbin's clusters. By linking his cluster groupings with consumer files and client mailing addresses, he was able to identify new zipcode markets for products and target consumers for direct mail and retailing efforts.

Robbin founded a marketing firm, Claritas, to sell his databases to business and government clients. Initially, Claritas created 40 PRIZM (Potential Ratings in ZIP Markets) clusters using 1970 U.S. Census data, an approach that has provided a model for numerous competitive systems. Once the clusters were created, each zipcode, census tract and census block group was assigned to one of these categories. The clusters were ranked from most to least prosperous, and given catchy titles to convey their market potential, or lack of it. The result was to divide the nation into clusters of winners and losers.

While Robbin spoke of reviewing over 600 variables and millions of market records, three variables appear to be critical to his model: place (big city, suburban community, small town, or rural), race (white, black, Hispanic, older white immigrant or young recent immigrant), and income.¹⁶ After Robbin had divided the nation's zipcodes into PRIZM clusters, he began amassing customer databases and client address lists to determine which clusters had households more apt to buy specific types of products and services. National advertisers were among the first users of this cluster market information, running ads in "zoned" editions of news and entertainment magazines to target zipcode areas home to those most likely to buy their products. Governments soon followed suit, and use of market clusters is now widespread.

Other marketing firms have copied the Claritas approach. Once database companies have segmented areas of the country into defined clusters, they use commercial marketing data to improve their understanding of the consumption patterns of various types of consumers. While the data can be

¹⁵ "Jonathan Robbin -- Curriculum Vitae" at ricercar.com/JRCV-D.html, accessed February 28, 2000.

¹⁶ See the quiz on how to locate your cluster in Michael J. Weiss, **The Clustering of America** (New York: Harper & Row, 1988), pp. 393-404.

very sophisticated, relying on analysis of loan applications, medical histories, warranty card returns and credit card receipts, data records are not often compiled separately for each zipcode in America but are usually assigned to each cluster based on predetermined descriptions of its residents. Thus, if one marketing cluster is shown to have a certain buying pattern, then residents in other zipcodes, census tracts, block groups or ZIP+4 areas with that same cluster designation may be assumed to make similar purchases.

The market segmentation approach has become so easily and widely duplicated that Global MOSAIC by Experian (the United Kingdom's largest crediting and marketing information firm) now purports to cluster much of the entire world—over 779 million consumers in 18 countries. Global MOSAIC divides the world population into 14 lifestyle types that it says “can be found in every modernized country ... based on a simple proposition that the world's cities share common patterns of residential segregation.” All 18 nations, according to Experian, “have their ghettos of ‘Inner City Melting Pot,’ suburbs of ‘Midscale Metro Office Workers’ and communities of ‘Educated Cosmopolitans.’”¹⁷

¹⁷ “Global by Experian – Demographic Data” at www.cmcus.com/catalog/globalmos.htm accessed February 28, 2000.

IV. LIMITATIONS OF NATIONAL MARKETING DATA FOR CENTRAL CITY NEIGHBORHOODS

While national marketing firms usually present estimates of local population, household income, crime rates, and purchasing choices with scientific exactitude, often mapped at the block or census tract level, the data have serious limitations, particularly for central city neighborhoods. Understanding these limitations can help cities determine how to use many of the same tools to provide more accurate and timely data on their neighborhoods. Most marketing services use a decennial census base and then apply simple or complex modeling techniques to estimate current and future population, income and related demographics over the next ten years. These population estimates are tied to expenditure patterns from the Consumer Expenditure Survey to calculate the purchasing power of central city markets. Address-specific data are added to these census-based files from data warehouses that purchase public records (e.g., U.S. Postal Service delivery route data, Internal Revenue Service files, Health Care Financing Administration records, state motor vehicle and drivers license files) and private databases (e.g., company sales records, bank records, and credit reports).

A. Census Undercounts As a Basis for Marketing Models

The census base for marketing data places central city neighborhoods at an immediate handicap, given the well-known undercounting of inner-city residents. The census undercount is one of the most convincing reasons for cities to move toward creating their own local, state and federal institutional databases to derive more accurate estimates of their current population and its characteristics. Since national marketing firms base their cluster analyses on the undercounted census data, erroneous data become progressively more inaccurate during the ten years following the census count. Most marketing companies provide “updated” trends on population, housing and demographic characteristics that extrapolate results from the decennial census into the future.¹⁸ This is a continuing problem that may worsen after the 2000 census, given the reluctance of Americans to complete the full long form census questionnaire—data that serve as the basis for the marketing firm segmentation models.

Compounding the problems of census undercount are inaccuracies that may revolve around the methodology used by the U.S. Census Bureau and various private firms to generate zipcode statistics. Where zipcode boundaries have been changed since 1990, some marketing firms have readjusted 1990 data to fit the new boundaries. Even in central city areas where zipcode boundaries have not changed, a variety of 1990 “U.S. Census” statistics have been reported for zipcodes depending on the marketing group’s interpretation of block/zipcode relationships.¹⁹ Marketing firms’ use of interpretations

¹⁸ To estimate 1998 household income in city census tracts for the U.S. Department of Housing and Urban Development, Claritas used census tract-level income data from the 1980 and 1990 censuses and applied these data to more recent county income tax data. HUD, **New Markets**, p. 19.

¹⁹ Various techniques have been used to allocate decennial census block data into zipcode areas where block areas are in two or more zipcodes (e.g., assigning whole blocks to whichever zipcode serves the center point of the block, apportioning block data to various zipcodes based the number of face blocks in each zipcode). The published 1990 U.S. Census zipcode statistics were developed by a vendor under contract and in some cases

of the 1990 population in zipcodes can cause considerable error when adjustments are made to data from institutional and proprietary sources (which have actual addresses and zipcodes) to make that data conform with prior interpretations of 1990 zipcode statistics. As trends are projected from 1980 to 1990 to 2000 census reports, further adjustments (and errors) may be made.

B. Other Potential Urban Undercount Problems

Several of the databases used by marketing firms to update census counts can be valuable, but have potential for undercounting inner-city populations if local conditions are not understood. Many firms use monthly statistics on active U.S. Postal Service delivery route addresses and postal boxes. Discussions with city and rural postal workers revealed that these counts may be highly suspect in densely populated urban areas with high residential mobility and multiple families or household members sharing an address or mail slot.²⁰

The Health Care Financing Administration's annual count of the Medicare population is another database heavily relied on as an input in projection models. The file is often described by marketing firms as the most accurate count of the population aged 65 and older. In city neighborhoods with rapidly growing immigrant populations not eligible for Medicare due to non-citizen status or insufficient quarters of covered employment, however, relying only on HCFA data may result in a poor estimate of the total elderly population and may erroneously suggest or exaggerate population declines.

Telephone/household counts are yet another critical input used by many marketing firms that may have an adverse impact on estimates of population in central cities. An examination of 1990 U.S. Census data showed a very low percentage of households with listed telephones in Milwaukee central city neighborhoods.²¹ Exacerbating this problem is the recent proliferation of cell phones as an alternative for individuals with prior residential phone disconnections or poor credit history.

Motor vehicle and driver's license files from the state department of transportation are also sometimes used by marketers to enhance their population estimates. In states where licenses are

represent geographical areas considerably different from actual U.S. Postal Service zipcode boundaries. Errors were identified in the initial assignment of census blocks to some zipcodes in 1990 and other firms attempted alternative approaches to allocating blocks to zipcodes. Only in a few cases do firms still use the published U.S. Census zipcode estimates.

²⁰ Some firms use carrier route statistics as a proxy for the number of households and housing units in each neighborhood. This postal file is intended to provide an estimate of the number of active versus total delivery sites so that advertisers can determine a reliable count of pieces of mail needed for mail drops to every occupant excluding vacant units. The file is not intended to be an estimate of the number of housing units, households or families, yet it is sometimes used for this purpose by commercial vendors.

²¹ An Employment and Training Institute review of one of the most widely used household/telephone databases identified only one-third of households with listed residential phones in zipcode 53204, while two-thirds of households had listed phones in a nearby more affluent zipcode (53207).

suspended or denied for non-driving reasons, central city residents may be much less likely to have a valid driver's license, and to the extent that these records are used as factors in population estimates, flawed or inaccurate downward projections may result.²²

C. Neighborhoods Ranked by Average Household Income, Not Income Density

The typical market research firm uses cluster and ranking systems of neighborhoods that emphasize the average household income of affluent suburban areas as assets and overlook the density attributes and concentration of income that make central city neighborhoods strong markets. The clustering models often use overt or covert code words and racial and class-based definitions that reinforce stereotypes of central cities and undermine economic development.²³ "Blue Blood Estates" is at the top of the PRIZM cluster rankings; among the bottom groups are "Hispanic Mix" ("urban Hispanic singles and families"), "Inner Cities" ("inner-city solo-parent families"), and "Southside City" ("African American service workers").²⁴ Another Claritas model fractures U.S. neighborhoods into 48 types, from "Upper Crust" ("very high income married couples") to "Urban Singles" ("have Medicare supplement insurance").²⁵ The CACI Marketing Systems identifies 42 unique neighborhood clusters—at the top are "Top One Percent," "Wealthy Seaboard Suburbs," "Upper Income Empty Nesters," "Successful Suburbanites" and "Prosperous Baby Boomers." At the bottom are central city areas—"Young Immigrant Families," "Social Security Dependents," "Distressed Neighborhoods," "Hard Times," and "Urban Working Families."²⁶

²² A review of Wisconsin Department of Transportation records found that over 122,000 Milwaukee County adults had suspended driver's licenses, with the majority of suspensions solely for non-payment of fines and civil forfeitures rather than for traffic-related violations or drug convictions. John Pawasarat and Frank Stetzer, **Removing Transportation Barriers to Employment: Assessing Driver's License and Vehicle Ownership Patterns of Low-Income Populations** (University of Wisconsin-Milwaukee Employment and Training Institute, July 1998), summary available at www.uwm.edu/Dept/ETI/dot.htm.

²³ For discussions of the importance of naming of clusters and examples of class and racial stereotypes, see Weiss, **The Clustering of America** and Michael J. Weiss, **The Clustered World: How We Live, What We Buy, and What It All Means About Who We Are** (Boston: Little, Brown and Company, 2000). At least two housing discrimination lawsuits have been brought against financial institutions using the marketing clusters. See "CBS News: Wells Fargo Accused of Discrimination" at www.cbsnews.com/now/story/0,1597,208526-412,00.shtml and "Nationwide Mutual Insurance Co., et al. v. Housing Opportunities Made Equal, Inc." at www.lawyersweekly.com/vasup/1990733.htm, both accessed April 30, 2001.

²⁴ Weiss, **The Clustered World**. The cluster stereotypes are also now applied to the 22 million ZIP+4 delivery areas.

²⁵ A visual review of photographs illustrating the MicroVision segments showed minorities pictured in eight of the ten worst clusters and in only one of the ten best clusters. "You Are Where You Live" at www.delluke.claritas.com:80/YAWYL/segmentlookup_mv.wjsp?segment=1 accessed May 3, 2001. Not included in the analysis are two clusters (Segment 49 – "Anomalies" and Segment 50 – "Unclassified") that are not used for marketing and do not have photographs displayed.

²⁶ "Acorn Lifestyle Segments" at www.premierinsights.com/acorn.html [a discontinued site], accessed February 28, 2000. A newer site describing the clusters renamed the "Urban Hispanics" as "Young Immigrant Families."

D. Local Data and Knowledge Often Ignored

In the interest of producing a “national currency” of marketing data that can be easily and inexpensively replicated for every possible neighborhood, local statistics are often disregarded even when they directly measure the trend under analysis. As noted previously, population shifts observed by local residents and reflected in local school, health department and housing files may be ignored. Instead, national statistical models are often used to generate local data reports. For instance, to develop current crime risk estimates at a neighborhood level, a firm would have to engage in the labor-intensive process of collecting precinct level or address-specific crime reports from local police departments, becoming familiar with the boundaries of each jurisdiction, locating business uses (e.g., commercial strips, taverns, malls, industrial corridors) where various types of crimes are more likely to occur, reviewing preventative measures taken by local institutions (e.g. university patrol and student ride programs, onsite parking availability) and identifying land-use barriers isolating various neighborhoods. By contrast, the most popular commercial crime indices use a demographic-based model that estimates crime risk based on historic correlations between types of crimes and the demographics of people residing in areas where crimes are committed. Once a crime “index” is developed for the country based on the decennial census, annual crimes reported nationally (or in some cases by metropolitan area) are then “allocated” to each neighborhood based on the characteristics of residents within one to three miles of the site. Given the methodology used, national database firms regularly report city shopping malls, college campuses, and even baseball stadiums as very dangerous because of their urban location.²⁷

Cities can review local and state data bases, including their own crime enforcement, property assessment, building and permit files, and income tax records to “fact check” information distributed by marketing firms. Other data sources often ignored by the marketing firms (since they require knowledge of the local community) include birth and death statistics over time, elementary school enrollments (using public and private school data or the local school census to show population growth/decline over time), traffic counts, and cable TV subscriptions (if regulated by the city).

www.demographics.caci.com/acorn_segments.pdf assessed April 27, 2001.

²⁷ Twenty-seven major league baseball stadiums in the United States are designated by CAP Index as in high crime risk areas for homicides, rapes and armed robberies. In the case of Milwaukee County Stadium (now Miller Park), the crime risk is based on poverty levels of census tracts within a 12 square mile area around the ballpark even though most Milwaukee Brewers fans park in the lot next to the stadium, accessed directly from the freeway. According to the CAP Index, only the Texas Rangers play in a relatively “safe” area – Arlington, Texas. “Baseball” at www.apbnews.com/resourcecenter accessed July 3, 2000. The University of Wisconsin-Milwaukee campus, located in a middle and upper income residential area along Lake Michigan, is also described as high risk based on demographic statistics on residents living up to five miles from the school.

V. WHAT CITIES CAN DO: GETTING STARTED

Many cities, colleges, and non-profit agencies attempting to overcome their community's negative image and attract development buy data from marketing research firms whose cluster rankings actually steer retailers away. For the amount of money cities and non-profits now spend on commercial marketing research data, they could team up to create their own data—resulting in a more accurate, timely, and assets-based portrait of their residents. As the Milwaukee experience has shown, there is a rich lode of public data that can be mined for this purpose. Cities can take advantage of the same federal data files used by marketing firms as well as valuable and overlooked local and state databases to create their own market analysis of city neighborhoods.

A. Measuring Income of Central City Residents

1. State Income Tax Records

Income tax records can be a powerful data source, showing the high concentrations of wage earners in central city zipcodes and their relatively high levels of purchasing power. These data have several advantages: (1) they are available annually; (2) they can be used to show trends (i.e., income growth); (3) they provide more comprehensive listings of income than may be typically volunteered by citizens completing the census long form or participating in survey research projects; and (4) they can be used to compare city, suburban and rural neighborhoods on a common measure. Their limitations include: (1) adjusted gross income understates total income, particularly for upper-income residents, persons with rental property, and self-employed tax filers; (2) they do not include the income of persons not filing taxes; and (3) “earnings” from the underground economy are not reported. In spite of these limitations, the experience in Milwaukee suggests that retailers and developers find reported income per square mile to be compelling evidence of the work ethic and purchasing power of residents of central city neighborhoods. Income tax data address the most damaging urban legends for the central city—that very few residents work and that most income is from welfare or the underground economy.

State income tax records have tremendous utility (except in the seven states that lack an income tax). For several years, ETI has requested special runs from the Wisconsin Department of Revenue for Milwaukee County income tax filers. Two tables are requested for each zipcode in the county: one for single tax filers and one for married filers. Each table details the number of filers by fifteen income ranges (less than/equal to \$0; \$1 - \$4,999; \$5,000 - 29,999 by \$2,500 increments; \$30,000 - 49,999 by \$10,000 increments; and \$50,000 and over). For each income range, the state provides information on the total number of filers, the number of filers with dependents (zero, one, two, or three or more), number of filers claiming the Earned Income Tax Credit (EITC), the aggregate adjusted gross income, and the aggregate dollars of state EITC claims. The tables are requested for “working-age” tax filers, excluding tax filers over age 64 who claim the senior tax credit and single filers who are listed as dependents on another tax return.

The tables are designed to maximize the level of detail on families while avoiding confidentiality problems. (Data are suppressed where the cell size is below five or data in the cell would reveal information about another cell with fewer than five tax filers.) For example, the data on income ranges and number of dependents for single and married filers provide enough detail to gauge potential EITC eligibility and participation rates and to estimate numbers of working families with incomes below the poverty level. The zipcode has proven a useful unit of analysis because it is available from the state tax database without requiring geocoding of addresses, is large enough to protect the confidentiality of individual tax filers, and is a meaningful geographical area for local discussion and policymaking. In Milwaukee, state income tax records have been tracked for the last seven years to describe the growth of the workforce and the increases in income earnings in central city neighborhoods during the economic prosperity of the last decade. (See Table 2 below)

Table 2: Sample Economic Profile Data for Zipcode 53206, Milwaukee, Wisconsin

Year	<u>Working-age Tax Filers</u>		EITC payments to families	Single family houses: % owner-occupied	Duplexes: % owner-occupied
	Number	Total AGI			
1993	9,651	\$154,753,640	\$5,177,705	83%	47%
1994	9,310	\$154,433,100	n/a	83%	47%
1995	9,503	\$153,508,792	\$8,478,099	82%	48%
1996	9,619	\$157,022,829	\$10,284,857	82%	47%
1997	9,696	\$166,522,178	\$12,092,074	83%	49%
1998	10,009	\$176,197,753	\$13,247,338	83%	50%
1999	10,166	\$182,936,007	\$13,069,519	n/a	n/a

The City of Milwaukee and ETI also work with the Wisconsin Department of Revenue to secure less detailed income tax data on a census tract, block group and block level. ETI assigned census tract, block group and block numbers to all Milwaukee ZIP+4 postal addresses (i.e., smaller geographic units that typically include several blocks, a group of streets, an apartment building or small geographic areas within each zipcode). This translation file enables the state Department of Revenue and other institutions to aggregate ZIP+4 information to a block and tract level while protecting the confidentiality of individual data records. The state DOR uses this translation file to prepare summary data on total adjusted gross income, numbers of single and married tax filers, and number of dependents at the census tract and block level for Milwaukee. The aggregate data allow density mapping of annual adjusted gross income and numbers of working families at the tract, block group and block level. The data are also used to estimate purchasing power on a variety of retail items by tying family income ranges to Consumer Expenditures Survey data, as discussed below.

2. Federal IRS Data

Cities without access to state income tax records can use U.S. Internal Revenue Service (IRS) data on income tax filers. These data offer potential for more detailed analysis in the future if the IRS publishes more detailed zipcode level data. Currently, zipcode level data are available online from the

IRS for 1991, 1997 and 1998. For the 1997 and 1998 tax years the IRS provided for each zipcode the number of returns filed, total exemptions and dependent exemptions, total adjusted gross income (AGI), aggregated salaries and wages, taxable interest, Earned Income Tax Credits, and number of filers with Schedule C (Business) income. These data are provided for filers by four ranges of income (below \$10,000; \$10,000-24,999; \$25,000-49,999; and \$50,000 and above).²⁸

Of primary importance are data on income by income ranges and the number of personal exemptions—information that, according to the IRS, can be used to approximate population. While 1991 data tables have very limited detail, they do include the total number of personal exemptions and total AGI. These numbers can be used to help gauge population growth/loss as well as AGI per square mile over time. Data for 1997 and 1998 permit analysis of employment earnings over time for those with salaries and wages and for self-employed filers.

3. *Earned Income Tax Credits*

Wisconsin is one of 15 states with an earned income tax credit, which is added to the federal earned income tax credit for qualifying families. ETI researchers ask the Wisconsin Department of Revenue to provide annual tabulations for each Milwaukee County zipcode by income range of filers for: (1) the numbers of tax filers with dependent children (one, two, three or more) who received state earned income tax credits; and (2) the aggregate amount of the credit. Federal EITC payments to these families are estimated based on state-federal credit payment ratios provided by state revenue officials. The state and federal EITCs are added to the adjusted gross income when calculating the purchasing power available in each city and suburban neighborhood.²⁹

4. *Census Data*

The population density of central city neighborhoods is their most important asset when translated into purchasing power per square mile. Even with the census undercount, the Census 2000 data can show the relative concentration of population in inner-city areas. Mapping density at the block level is an effective way to show the relative advantage of central city neighborhoods. The number of working-age income tax filers can also be mapped at the block level to show the availability and concentration of the labor pool in the central city.

²⁸ Data are available from the Statistical Information Services of the Internal Revenue Service at www.irs.ustreas.gov/prod/tax_stats/index.html.

²⁹ The Wisconsin credit is calculated as 4 percent of the federal credit for families with one qualifying child, 14 percent of the federal credit for filers with two qualifying children, and 43 percent of the federal credit for filers with three or more qualifying children. Because Wisconsin does not offer a state Earned Income Tax Credit for individuals without qualifying children, federal EITC payments to single persons are not captured by this approach.

Milwaukee researchers conduct annual reviews of a variety of local databases to gauge population changes. These include city records of births, the school census of children ages eighteen and under (in both public and private schools), and housing units in the city property tax file.

B. Estimating Central City Residents' Consumer Expenditures

While central city residents have much lower family incomes than suburban residents, they typically spend much of their income on consumer purchases, providing a strong base of retail purchasing. To measure this purchasing power, cities can start with current institutional data on tax filers and the elderly. The adjusted gross income (AGI) ranges from annual state or federal income tax filers serve as the basis for annual analysis. The number of working families and tax filers by ranges of aggregate income (AGI and earned income tax credits) in each Milwaukee neighborhood are tied to spending patterns shown in the Bureau of Labor Statistics Consumer Expenditure Survey (CEX) data to estimate retail expenditures. Retail household expenditures vary much less than AGI across all types of neighborhoods, therefore, the patterns of spending can be estimated by income range and aggregate expenditures detailed by category (i.e., food at home, dining out, clothing, electronics, etc.) using CEX patterns for comparable geographic areas (i.e., similar regions and size of metropolitan statistical area) and comparable household types (single parent, married parent, two-parent families, and single adults).

Consumer expenditures are first estimated for common categories of retail purchases using annual state income tax data by zipcode. University of Wisconsin-Milwaukee statistician Frank Stetzer developed a model for the Employment and Training Institute charting summary level CEX expenditure data by income level and type of household to estimate purchasing activity and then applied these spending patterns to local revenue data. For Milwaukee, five quarters of recent CEX data are used representing cities in the Midwest with over 100,000 population.

When CEX expenditures are examined by income ranges, a clear pattern emerges: families with lower levels of income spend much higher percentages of their income on common needs, particularly for retail expenditures, than those with higher income levels. Importantly, some expenditures, such as food purchasing for the home, increase only gradually as income rises while others (entertainment, for example) increase much more rapidly with income.

Table 3: Estimated Retail Expenditures in Milwaukee City and Suburban Zipcodes

Estimated 1999 Consumer Expenditures Per Square Mile	Milwaukee Zipcode 53206	City- Suburban Zipcode 53211	Oak Creek Zipcode 53154	“North Shore” Zipcode 53217
Food at home	\$14,937,900	\$15,638,800	\$1,810,800	\$4,661,700
Food away from home	4,623,400	7,675,200	786,800	2,323,800
Apparel and services	6,536,200	7,858,600	857,200	2,381,100
Entertainment	5,922,000	9,492,800	1,073,900	2,956,400
Household furnishings and equipment	4,495,400	6,841,600	715,400	2,152,900
Personal care products and services	1,620,100	1,547,700	174,900	473,100
Total Retail Expenditures	\$38,135,000	\$49,054,700	\$5,419,000	\$14,949,100

In order to show purchasing power within one- and three-mile radii of commercial districts, annual state revenue data on adjusted gross income, single and married filers and dependents at the block and census tract level (obtained through the ZIP+4 translation file) are used to distribute the estimated retail expenditures within zipcodes.

Table 4: Purchasing Power Within 3-Mile Radius of Selected Commercial Districts

Estimated 1999 Consumer Expenditures Within a 3-Mile Radius	35th & Villard	Chavez & National	27th & Wisconsin	83rd & Silver Spring
Food at home	\$256,935,700	\$251,192,200	\$294,688,800	\$209,565,100
Food away from home	94,641,000	90,222,100	104,065,800	78,859,000
Apparel and services	116,889,800	109,772,000	131,666,000	93,280,600
Entertainment	124,639,300	115,079,500	134,497,100	103,293,500
Household furnishings and equipment	88,821,200	83,629,900	98,174,700	72,102,100
Personal care products and services	26,581,600	25,223,700	30,015,500	21,380,300
Total Retail Expenditures	\$708,508,600	\$675,119,400	\$793,107,900	\$578,480,600

C. Measuring Home Ownership and Financial Leverage

When presenting economic data for developers and retailers, it is helpful to describe the financial leverage available to neighborhood residents through home mortgages and to detail the number of homeowners in each neighborhood. Accurate housing data are readily available on an annual basis and can address the common misperception that there are few homeowners in the central city.

1. City Property Files

Most cities have access to their own highly accurate housing data from municipal and county property tax files, which are computerized and sometimes made available as public use databases. Local property files are analyzed to determine the number of homes that are owner-occupied. Housing

values are also reported annually for single family homes with one, two, three, and four or more bedrooms and for duplexes -- the most common stand-alone housing stock in Milwaukee. These files have a number of strengths: (1) they are updated annually by assessors who review all housing sales and periodically inspect properties; (2) local assessed valuations are translated into equalized valuations as part of the county and state taxation process; and (3) ownership is continually updated for use in imposing local property taxes. Additionally, local researchers have an advantage when reviewing these files since they are familiar with neighborhoods and can identify reasons for changes in valuation (e.g., new condo developments, demolition projects, commercial expansions). In Milwaukee, trends in equalized assessment housing values, sales information (purchase price and date), and home ownership are tracked from 1993 to present.³⁰

2. Home Mortgage Records

It is now possible to track new mortgages, refinancing of mortgages and home repair mortgages at the neighborhood level using data available under the Home Mortgage Disclosure Act (HMDA).³¹ Data at the census tract level detail each application, subsequent action, purpose and amount of the loan, and demographics of the applicant. While created to monitor the practices of lending initiatives, the annual files can also be used to gauge the purchasing power generated through refinancing and home repair mortgages.

Milwaukee researchers assembled data for years 1993 through the present and examined loans by type (new, remodeling, refinancing). In addition to the private mortgages reported by HMDA, data are collected from the Wisconsin Housing and Economic Development Agency (WHEDA) that detail state loan activities for mortgages for 1993-1999 and include a range of variables similar to the HMDA file. These data are geocoded at the census tract and block level. Less useful data are the Private Mortgage Insurance (PMI) files that detail mortgages insured by private insurers annually at a census tract level and report the amount, type and demographics for each insurance applicant. Since this insurance is required of low income and/or low equity homeowners, the data send a mixed message on the economic well-being of PMI holders. Another data source, the Government Sponsored Enterprises (GSE) data file shows Fannie Mae and Freddie Mac mortgages at the census tract level; however, the very low level of activity in central city neighborhoods make these files more a measure of GSE effectiveness than of neighborhood well-being.

³⁰ The City of Milwaukee's interactive "Map Milwaukee" website at www.gis.ci.mil.wi.us provides city databases and mapping capability online for use by residents, community agencies and developers. The site links current housing data to mapping software so that anyone can examine the present housing stock by area, price and type of housing. When geocoded this longitudinal database can track individual properties over time at any geographic level to show changes in the assessed value and ownership of houses by property type over time as an index of the well-being of neighborhoods and to assess the impact of funded initiatives on target areas.

³¹ These files are available annually from the Federal Reserve Bank's Federal Financial Institutions Examinations Council and can be downloaded from its website at www.ffiec.gov/hmda.

D. Measuring Vehicle Ownership and Access to Employment Opportunities

Vehicle ownership and driver's license status are important measures of economic well-being for workers. In metropolitan areas where mass transit options are limited, access to better-paying jobs that are in high demand usually requires an automobile and driver's license. In many states, the department of transportation's licensed vehicle and driver's license files can be used to map vehicles and drivers by zipcode, block or other geographic unit. In addition, ETI uses state DOT databases on licensed vehicles and drivers to identify the total adult driving population, and to help estimate the density of the adult population by neighborhood. State transportation files are also used to develop data on age and type of cars, which can be useful for determining potential customers for automotive and auto repair businesses.

E. Measuring Area Business Activity

Milwaukee researchers track business activity by size and type of company, using commercially available data files based on enhanced business phone listings, the state employment service's ES-202 reporting on all establishments that are subject to unemployment compensation benefits, and the U.S. Census Bureau County Business Patterns. Because the ES-202 file (and consequently the County Business Patterns reports which are based on this file) substantially undercounts business activity, particularly in the service and retail sectors, this file is used with caution.³² The more complete telephone-based databases allow the mapping of business activity by neighborhood and type of business (e.g., supermarket outlets, video rental, fast food franchises) compared to density of population to identify market opportunities in targeted neighborhoods.

F. Additional Measures for Creating Neighborhood Profiles

Other databases can be obtained, often at very low cost, from the federal government. The U.S. Postal Service ZIP+4 address file, when joined to tract, block and geocoding identifiers, provides the most up-to-date block level database for the creation of current profiles of neighborhoods. This data file is key for all mass mailing firms and, because it affects mailing rates, it is presumed to be very accurate. It also matches well with other databases since most public institutions (including state departments of revenue and transportation) use ZIP+4 software coding to obtain maximum savings on mailing costs. The USPS file allows analysis of administrative records at the block level without violating confidentiality procedures.

The Postal Service also sells delivery route statistics by carrier route detailing the number of active residential and business units. These statistics are used to determine the number of advertising

³² In central city Milwaukee the business phone listings showed nearly 75 percent more companies than were reported in the state's ES-202 file. Lois M. Quinn and John Pawasarat, **Employment and Economic Well-Being of Families in Central City Milwaukee Neighborhoods** (University of Wisconsin-Milwaukee Employment and Training Institute, December 1999) at www.uwm.edu/Dept/ETI/cdbg99/sumcdbg.htm.

mailing pieces needed per route. Data reported by postal workers is also supposed to include a count of families using the same mail slot. As noted, these statistics may be subject to considerable error, particularly in densely populated urban areas.³³

The U.S. Health Care Financing Administration (HCFA) file available annually at the zipcode level is generally considered the most accurate source of annual estimates of the elderly and disabled populations (who may not be included in the IRS file if they are not paying taxes). The data should be used with caution in neighborhoods with immigrant populations and other elderly residents not eligible for Medicare.

³³ The U.S. Postal Service also sells geographic data tables that translate ZIP+4 areas to census tract and block. These files are known to be incomplete and riddled with errors, and U.S. Census staff advise that they should not be used.

VI. CONCLUSION

Currently, retailers ignore some of the strongest markets in metropolitan areas because of misconceptions about central city income status, persistent “urban legends” about the absence of workers in inner-city neighborhoods, racial and class-based stereotypes, and the emphasis on average household income promoted by commercial marketing firms. As cities take the lead in developing their own local marketing data to map neighborhood assets, the negative influences of marketing firms can be diminished and the strengths of central city areas recognized. Computer technologies and mapping capabilities will continue to create new opportunities for cities to measure the demographic data and trendlines that make their communities attractive places for business and to “fact check” commercial profiles describing their neighborhoods.

The Milwaukee model calculates purchasing power for each urban zipcode using annual income tax data, current estimates of the elderly population, and spending patterns from the Bureau of Labor Statistics Consumer Expenditure Surveys. The income tax data can be updated annually for each neighborhood, capture changes in the local economy and do not rely on outdated decennial census reports. In spite of their limitations, income tax filings offer compelling evidence of the work ethic in city neighborhoods and the economic assets of city commercial districts. The findings in Milwaukee demonstrate major factors contributing to the strong purchasing power of central city neighborhoods: their population density, concentration of workers, and the fact that lower-income households spend a larger portion of their income on retail expenditures than upper-income households. Recognizing the strength of its neighborhoods, the City of Milwaukee is making purchasing power profiles for all city commercial districts and zipcodes as well as databases on property values, homeownership levels, and crime rates. Other cities may be well-served by similar initiatives.

Not all cities will be able to negotiate the data sharing agreements with their state and local institutions necessary to replicate the Milwaukee Initiative. Federal IRS and CEX data can also provide the basis for purchasing power and density analysis by zipcodes for the United States. The IRS could expand the type of zipcode analysis (conducted for the 1997 and 1998 tax years) at a level of detail by income range and type of filer which would allow cities, retailers and other interested parties direct access to annual, timely non-sampling information about purchasing power. When linked to federal CEX expenditure patterns, these marketing data could be put directly into the hands of users, ensuring accurate and consistent profiles on income and purchasing throughout the U.S.