

## SECTION FOUR: CUSTOMER ANALYTICS

The Fort Worth Library (FWL) hired Buxton Company to provide market segmentation analysis as FWL’s Customer Analytics Consultant. Buxton Company uses the Mosaic® market segmentation system to help their clients better understand their existing customers, as well as how to reach new ones. The Mosaic® system categorizes every U.S. household into one of 60 unique market segments. Each segment has been assigned an alphanumeric code, a descriptive name, and a brief profile. More information about these segments can be found in the Buxton Company report and Appendix Four of this report.

### CUSTOMER ANALYTICS & MARKET SEGMENTATION

Buxton used the Mosaic® system, developed by its data partner Experian, combining it with FWL customer data and Buxton’s GIS mapping software. Buxton identified how long library customers typically drive to get to their branch library, and from where their trip(s) originate. The boundary defined by the average drive time determined each library’s “trade area.” Buxton then analyzed which market segments were represented in the trade area, which segments tended to use – and which did not use – the library, and which broad categories of materials, such as adult non-fiction or children’s picture books, these segments tend to enjoy.

Buxton subdivided these groups of FWL customers into those most likely to use each product or service - primary customers, secondary customers – somewhat likely, and customers who use the library product or service less frequently – tertiary.

Also, Buxton identified the best locations in Fort Worth for libraries. Buxton scored existing library sites, as well as possible new sites. Scores were based on:

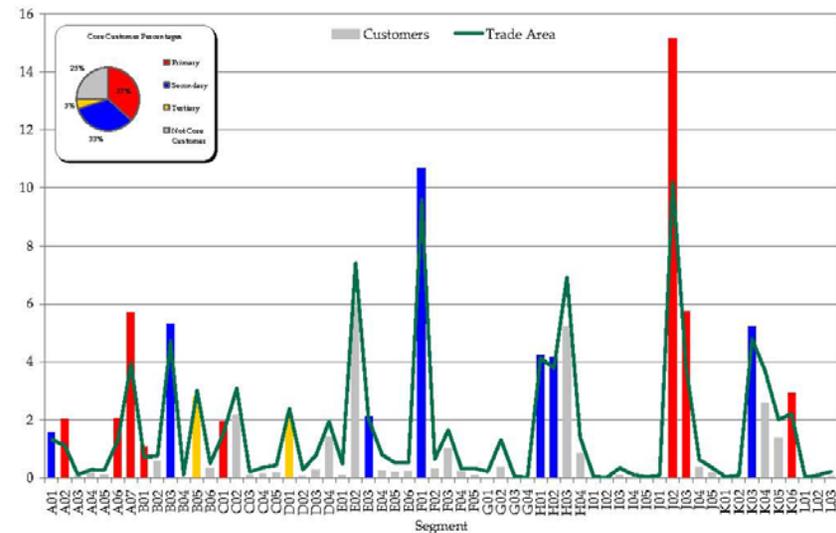
- The number of households, the projected growth in the area;
- The percentage of households in the area that are in segments that tend to be library users;

- The percentage of households in the area in market segments that do not typically use libraries; and
- A site’s proximity to other libraries.

With an average score set at 100, scores over or under 100 indicate a site is more or less likely than average to reach customers who use, or are likely to use, library services.

### Fort Worth Library’s Major Market Segments

Within the Fort Worth city limits, 22 segments make up approximately 85% of Fort Worth’s households. More specifically, 17 segments make up more than 85% of FWL’s borrowing households. These 17 segments define the “core customers” of the Fort Worth Library and include:



Graph of Core Customers of FWL, by market segment:  
red = primary customers, blue = secondary, yellow = tertiary

**A01 America's Wealthiest:** The nation's most wealthy households are financially secure with expensive tastes, living the most luxurious of lifestyles in the most affluent and exclusive communities.

**A02 Dream Weavers:** Well-off families with school age children, living an affluent, suburban version of the American Dream.

**A06 Small Town Success:** White-collar, college educated, middle-aged working couples living in newly developed subdivisions outside the nation's beltways.

**A07 New Suburbia Families:** Young, affluent working couples with pre-school children concentrated in fast-growing, metro fringe communities. People in this segment are frequent users of Summerglenn Library.

**B01 Status-Conscious Consumers:** Middle-aged Baby Boomer households living in suburban neighborhoods within a manageable commute to well-paying city jobs.

**B03 Urban Commuter Families:** Upscale, college educated Baby Boomer families and couples living in comfortable, single detached homes in city neighborhoods on the metropolitan fringe. People in this segment are frequent users of Ridglea, Southwest Regional, and Wedgwood Libraries.

**B05: Second Generation Success:** Upper-middle-class and large multi-ethnic households working in white and blue-collar jobs within metro fringe communities. People in this segment are frequent users of Summerglenn Library.

**C01 Second City Homebodies:** Financially conservative, dual working, middle-aged couples and families living in small, satellite cities along the East and West coasts.

**D01 Nuevo Hispanic Families:** Young and lower income Latino family households living, in working-class neighborhoods of large cities. People in this segment are frequent users of Northside Riverside Library.

**E03 Professional Urbanites:** An upper-middle-class retirement oasis in the metropolitan sprawl containing very active empty nesting couples and older singles.

**F01 Steadfast Conservatives:** Home to high-school educated mature singles and couples living in middle-class urban blue collar neighborhoods. People in this segment are frequent users of Central, East Regional, Meadowbrook, Ridglea, Riverside, Southwest Regional, and Wedgwood Libraries.

**H01 Young Cosmopolitans:** Residents are young, single, college educated and earning upper-middle-class incomes as white collar professionals, managers and executives living in luxury apartments and condos in fast growing cities.

**H02 Minority Metro Communities:** Concentrated in inner-ring suburbs, these married couples and single-parent minorities earn above-average incomes from a mix of service industry and white-collar jobs in transportation, health care, education and public administration. People in this segment are frequent users of East Regional Library.

**J02 Latino Nuevo:** Primarily young, un-educated, but large-family Hispanic households concentrated in the barrios of border States like Texas and California, earning very low incomes as laborers and service workers. People in this segment are frequent users of Central, Diamond Hill/Jarvis, Northside, and Seminary South Libraries.

**J03 Struggling City Centers:** Young, single and single-parent minority renters living in very low-income city neighborhoods throughout the South. People in this segment are frequent users of East Berry and Shamblee Libraries.

**K03 African American Neighborhoods:** Young, working-class minority city dwellers and single-parent families with low educational levels living in older homes and low-rise apartments.

**K06 Getting By:** Very low income minority single and single-parent households located in dense neighborhoods of small cities. People in this segment are frequent users of BOLD and COOL Libraries.

### Library Location Selection Analysis

Buxton Company completed a market analysis of potential library locations within the Fort Worth city limits for FWL, dated December 17, 2009. During the analysis, Buxton tested and scored nearly 7,000 unique points across the city to determine if they could be viable locations for additional libraries. The final site score takes into account the following criteria within the site's drive-time trade area:

- The active borrower profile index;
- The active borrower concentration, depending on the chosen strategy;
- The total number of households, and
- Projected population growth rates.

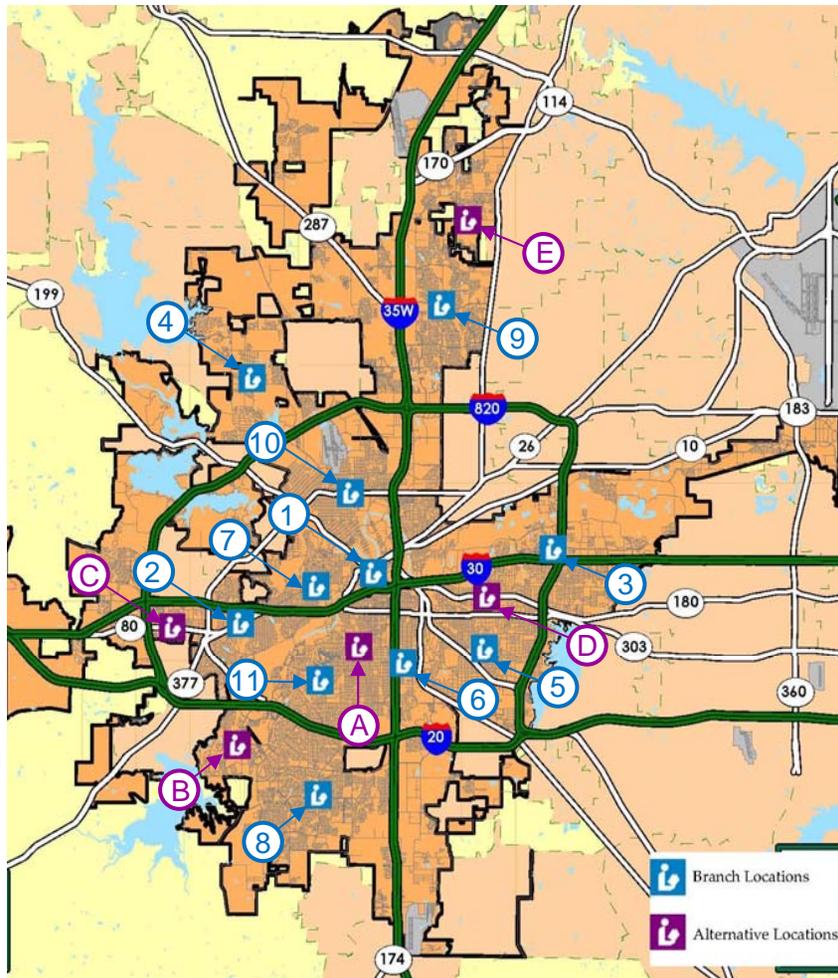
Available strategies include targeting areas with high concentrations of existing active borrowers, targeting areas with low current active borrower penetration, or to ignore the presence of active borrowers.

The Fort Worth market was analyzed using the following two methodologies:

- **White Paper Analysis**, which starts with a “clean white piece of paper” and projects the best locations, as if there were no libraries in Fort Worth currently; and
- **Traditional Fill-In Study**, which takes into account existing library locations, and “fills-in” un-served or under-served areas with new prospective locations.

This analysis was looking to find potential locations for both full-service libraries and alternative service outlets throughout the City of Fort Worth. Most of the current branch libraries are considered full-service libraries, as they offer a full array of traditional library services, as well as innovative new services. Two alternative service outlets currently exist in the FWL system, in the BOLD and COOL Libraries, offering a more limited level of service in facilities smaller than their full-service counterparts. Descriptions of a variety of alternative library service outlets employed across the United States can be found in Section Two and Appendix Two of this report. Definitions of full-service branch library types proposed for Fort Worth can be found in Section Three and Appendix Three of this report.

**White Paper Analysis.** Buxton also conducted a white paper analysis in order to optimize the placement of the Fort Worth Library network. This analysis did not factor in the existing network. The overall goal was to obtain the maximum amount of household coverage by placing fewer potential sites in the most optimal locations. This analysis resulted in the placement of 16 library locations across Fort Worth, 11 full-service library locations and five alternative service outlets, as illustrated on the following page. Of note is that five of the “ideal” full-service locations are virtually the same as existing library locations, as noted below.



Map of the White Paper Scenario provided by Buxton Company

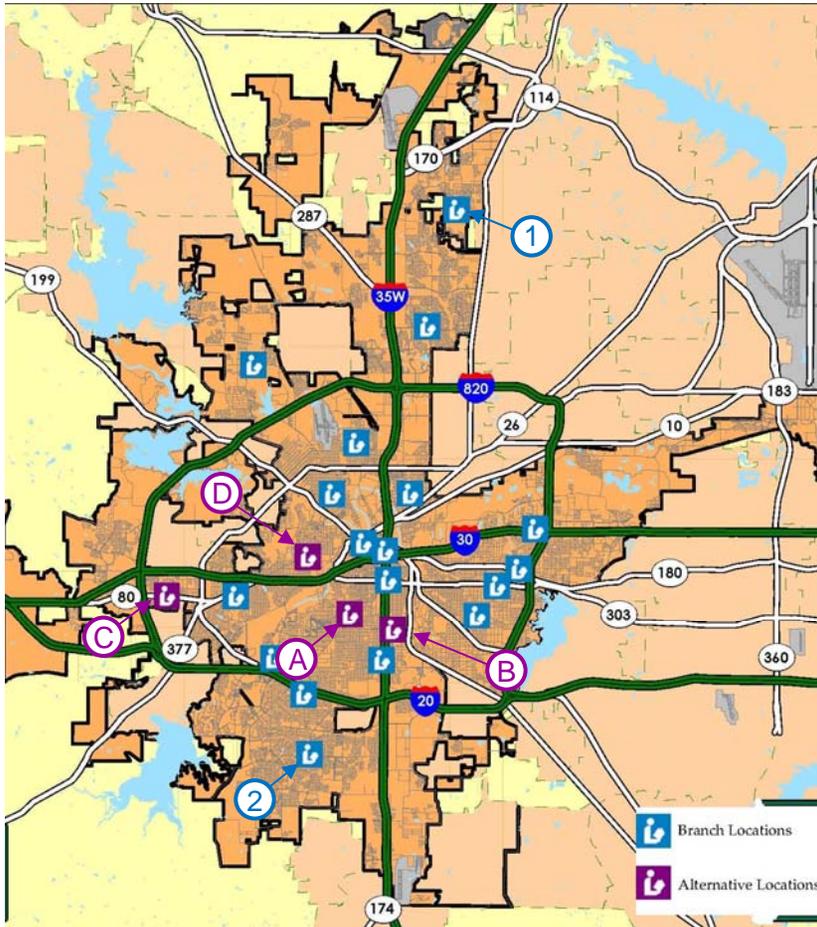
### Full-Service Branch Libraries, 11 Locations

1. Third Street & Lamar Street Fort Worth 76102 – current location of the Central Library.
2. Bernie Anderson Avenue & Camp Bowie Boulevard, Fort Worth 76116 – current location of the Ridglea Library.
3. Bridgewood Drive & Bridge Street, Fort Worth 76112 – current location of the East Regional Library.
4. Cromwell Marine Creek Road & Bob Hanger Street, Fort Worth 76179 – approximate location of the Northwest Library.
5. Miller Avenue & E Berry Street, Fort Worth 76119 – approximate location of the East Berry Library.
6. E Berry Street & New York Avenue, Fort Worth 76110.
7. Camp Bowie Boulevard & Montgomery Street, Fort Worth 76107.
8. McCart Avenue & Sycamore School Road, Fort Worth 76133.
9. N Tarrant Pkwy & Beach Street, Fort Worth 76248.
10. NE 28th Street & N Main Street, Fort Worth 76164.
11. S Hills Avenue & Kell Street, Fort Worth 76109.

### Alternative Service Delivery Outlets, 5 Locations

- A. 8th Avenue & W Robert Street, Fort Worth 76110.
- B. Bryant Irvin Road & Oakmont Boulevard, Fort Worth 76132.
- C. Camp Bowie W & Las Vegas Trail, Fort Worth 76116.
- D. E Lancaster Avenue & Oakland Boulevard, Fort Worth 76103.
- E. Keller Hicks Road & Park Vista Boulevard, Fort Worth 76248.

An important note of this scenario is that these 16 locations cover 87% of Fort Worth households within an 8-minute trade area. This is a significant increase compared to the 75% of Fort Worth households covered by the current library system.



Map of the Fill-In Scenario provided by Buxton Company

**Fill-In Scenario.** Buxton conducted a fill-in study, taking into account the current library network and identifying gaps in the market where a new location could be placed. The fill-in analysis concluded that there is potential for six new locations throughout the City of Fort Worth, illustrated at left, and as follows:

#### **Full-Service Branch Libraries, 2 New Locations**

1. McCart Avenue & Sycamore School Road, Fort Worth 76133
2. Keller Hicks Road & Park Vista Boulevard, Fort Worth 76248

#### **Alternative Service Delivery Outlets, 4 New Locations**

- A. 8th Avenue & W Robert Street, Fort Worth 76110
- B. E Berry Street & New York Avenue, Fort Worth 76110
- C. Camp Bowie W & Las Vegas Trail, Fort Worth 76116
- D. Camp Bowie Boulevard & Montgomery Street, Fort Worth 76107

If an 8-minute trade area is placed around each existing location, approximately 75% of households in the Fort Worth city limits would be in the trade area of at least one Fort Worth Library. The Fort Worth Library household coverage increases to 87.2% after the inclusion of these six new potential trade areas identified in the Fill-In Scenario.

## LIBRARY SITE EVALUATION CRITERIA

Once the general location of each library is determined, any new parcel of land identified as a potential library site should be selected based on a list of criteria that reinforces the goals of FWL. It is critical to approach the site selection process for a new public library with care. The ultimate success of any new library facility will be largely determined by where it is located. Acquiring anything less than a good site will prove a false economy in terms of the life-cycle costs of the facility. The wrong site will hinder public use of this important community resource.

### Criteria for Site Evaluation

The criteria listed below should be taken into account as each candidate site is evaluated.

- **Site Capacity, Now & Future.** The site should be large enough to provide a sufficient square or rectangular library footprint, the required parking for users, staff, and volunteers, future expansion, the necessary allowances for zoning-required setbacks, and suitable landscaping;
- **Parking Potential, On-Site & Off-Site.** Any restrictions to having an adequate number of parking spaces could prove to be detrimental;
- **Accessibility.** The site should be easily accessible by automobile and public transit, and within walking distance of some potential users;
- **Visibility by Passersby.** A highly visible site, along a major street (but *not* a major highway), with easy accessibility, is ideal;
- **Development Cost.** Issues to consider include:
  - The dollar value of the site, including revenue loss if tax or income producing property is replaced;
  - Demolition costs;
  - Relocation costs of any existing site occupants;
  - The cost of providing or extending utility service;

- Any unusual site development or extra construction costs such as:
  - Poor soil conditions,
  - Limitations of the site, underground versus above grade parking, and
  - Site configuration resulting in a more expensive building solution.
- Excessive drainage and/or earthwork; and
- Construction of drives and roads needed to fully access the site.
- **Building “Fit” into the Fabric of the Community.** How will the library fit into the community and its neighborhoods, now and in the future?
- **Views, Distant & Close.** What does one see from the library site looking outward, across the street, and several blocks away?
- **Legal Matters.** The existence of easements or other restrictions can serve to minimize the amount of land on which a building can be located, i.e. the “buildable” area of the site. A site owned by several persons and/or entities could be difficult to acquire and/or take an exceptionally long time.
- **Physiography.** The suitability of the soil, the topography of the site, and solar orientation are important considerations in construction and operational costs. Orientation considerations include the avoidance of west sun on books, or an entrance exposed to prevailing winter winds.

### Ranking the Sites

Once the site selection criteria have been agreed upon, the next step in the process is to assign a point value to each of the above nine criteria. The sum total should be 100. A sample site scoring matrix is included in Appendix Four of this report.

Each factor and sub-factor should be given a point value. The site that receives the most points is determined to be the best site. If two or more sites were within six to eight points of each other, then cost effectiveness needs to be taken into consideration.

### Tie-Breaking Factors

The purchase price of the site should be dealt with last, and should be in addition to the 100 points of the other criteria. The cost should not be the first consideration inasmuch as the cost of the site will most likely be the least of the project costs for a new or replacement library.

### Conclusion

We cannot over-emphasize the importance of an objective site evaluation process. There is nothing, aside from the informational content within a library facility, which will have a greater impact upon the overall success than where it is located. Since success of a library is, or should be, measured by usage, the more a building is used, the more cost effective it is. A good site will go a long way toward ensuring the operational success of a library facility for Fort Worth residents.

### POPULATION PROJECTIONS, 2000 to 2020

The *Library Facilities Plan* makes recommendations regarding library facilities, through the year 2020. Therefore, a sound population projection for that date is extremely important.

The consultants requested data from the City of Fort Worth regarding the project population for the next several years. The City responded by providing us with three different scenarios, all based on the “Official North Central Texas Council of Governments (NCTCOG) Estimates” for 2001 through 2009. NCTCOG projected Fort Worth population for the years 2010

through 2015 in three different scenarios, by means of residential building permits:

- Optimistic (836,169);
- Pessimistic (814,597); and
- Average (825,383).

A fourth, straight-line projection (861,498) of the recent growth rate (3.2%) from 1990 to 2009, was used as a comparison, not a potential growth scenario. The “Official NCTCOG Estimates” for 2010 states the population of Fort Worth will be 720,250.

### Fort Worth Population Projections for 2020

Following receipt of the data from the City of Fort Worth the consultants developed a draft of a 2020 projection according to the following logic:

1. A 3.2% average annual growth rate becomes less and less realistic as the City grows.
2. A more realistic projection would result from using the Average projection for 2015 of 825,383.
3. This Average projection is an 89,420 increase from the 2010 projection of 735,963.
4. An 89,420 increase from the 2010 to 2015 equates to a 2.43% average annual growth rate.
5. Extending the 2.43% growth rate yields a total population projection of 926,080 persons for 2020.

Table 4.1 summarizes the City of Fort Worth population projections used for this report.

**Table 4.1**

City of Fort Worth Population Projections, 2010 to 2020

<i>year:</i>	<i>2010</i>	<i>2015</i>	<i>2020</i>
Population	720,250	825,383	926,080