Demographics, Resources and Stressors in the Service Area for Family and Children’s Services of Greater Lynn

A Capstone Report for Data Science Professional Certification

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# Introduction

Family and Children’s Services of Greater Lynn (FCS) is a social service agency assisting immigrants settling in Lynn Massachusetts for over one hundred years. Today, FCS has many programs serving families and aiding them as they begin a new life in America. Most FCS clients are poor, many are refugees with virtually no possessions and some suffer from trauma.

The ethnic and cultural mixture of immigrant populations evolve with time. Similarly, depending on their originating cultures and the conditions of immigration, their needs change. FCS sources of information about population issues are personal professional observations, MA Dept. of Children and Families referrals, discussions with city and state officials and client word of mouth. FCS has not had the resources to periodically, concretely and comprehensively monitor the demographics of the population in their service area.

## Business Problem

FCS needs an efficient, low cost, method to collect and organize data about their service area population. The method needs to include reportage that effectively supports social service and administrative professional’s decision making about resource allocation for the client population. Further, the reportage should help the Board of Directors fulfill their responsibilities of assuring compliance with state and federal regulations for nonprofit organizations.

The purpose of this study is to begin a data stream that can be updated and referenced by FCS for program planning purposes and for data used in grant proposals. Extensions of this process can be combined with other initiatives being undertaken by FCS to create a reliable flow of actionable and monitorable data.

## I.II Data

The US Census Bureau American Community Survey data will be the source of the basic demographic data: language at home, employment, earnings/household, ages, family membership and other demographic factors. The data will be distributed according to census tract, of which the City of Lynn has 22.

Crime data, including the crime rate history, will be drawn from the FBI Uniform Crime Reporting program. This data is not broken down into census tracts, but is for the city as a whole.

The Foursquare database will be used to identify resources such as laundries and grocery stores. A clustering analysis will be performed on this data. Foursquare will also be used to identify cultural clustering using venues like restaurants and specialty stores as indicators.

Examples of the types of data presentation are included on the following pages.