La Causa New facility GIS project 2018

Created By: Brian Kent & Drew McLaughlin
Mission: Provide children, youth and families with quality, comprehensive services to nurture healthy family life and enhance community stability.

Their “Early Education & Care Center” assisted 107 families and cared for 168 children in 2016 alone. Aside from education, this facility also provided screenings to assist newborns with disabilities by providing various therapies and services to those in need.

Facilities:

➔ Community Enrichment Center
➔ Social Services Building
➔ Charter School
➔ Crisis Nursery & Respite Center
➔ Early Education & Care Center

www.lacausa.org
Goal of Project

Locate, within Milwaukee County, a suitable spot for a new “Early Education & Care Center” based on known socio-economic variables within the region.
Research Question

Where in Milwaukee County would be a suitable location to purchase and develop a new Early Education & Care facility for La Causa?

- Based on relevant variables pertaining to the selected demographics and locations of pre-existing child care facilities.
Data & Sources

Location: Milwaukee County, WI

Unit of Analysis: Block Groups

Variables:
- Number of Young Children
- Median Household Income
- Individual Employment Status
- Child Care Facility Locations

Sources:
- U.S. Census Bureau
- American FactFinder
- Milwaukee County Land Information Office
- Reference USA
- LoopNet.com
Methods

1. Download Data
2. Clean Data
   a. Geocoding: remove duplicate or null addresses
   b. Remove data outside of target demographic (age, etc.)
   c. Calculate variables (percentages, etc.)
3. Conjoin Data with ArcMap
4. Create Maps
   a. Kernel Density Map
   b. Standard Deviation Graduated Color Maps
5. Import Data into SPSS and Perform Statistical Analysis
## Analysis

### Descriptive Statistics

#### Median Household Income

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8577</td>
<td>224750</td>
<td>48413.48</td>
<td>44704</td>
<td>25886.9</td>
</tr>
</tbody>
</table>

#### Full-Time Employment (16-44)

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2769</td>
<td>397</td>
<td>348</td>
<td>269.14</td>
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</tbody>
</table>

#### All Children (0-4)

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>351</td>
<td>68.72</td>
<td>59</td>
<td>53.02</td>
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</table>

#### Facilities per 1,000 People

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10.417</td>
<td>0.642</td>
<td>0</td>
<td>1.318</td>
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</tbody>
</table>

#### Single-Parent Children (0-4)

<table>
<thead>
<tr>
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<th>Maximum</th>
<th>Mean</th>
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<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>276</td>
<td>31.71</td>
<td>18</td>
<td>41.12</td>
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</tbody>
</table>
### Analysis

#### Correlations

<table>
<thead>
<tr>
<th></th>
<th>MHI</th>
<th>FW 16-44</th>
<th>All Child</th>
<th>SP Child</th>
<th>CCFp1000</th>
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</thead>
<tbody>
<tr>
<td>Median household income</td>
<td>1</td>
<td>.221</td>
<td>.013</td>
<td>-.379</td>
<td>-.163</td>
</tr>
<tr>
<td>Full-time workers ages 16-44</td>
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<td>1</td>
<td>.305</td>
<td>-.015</td>
<td>.158</td>
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**FINDINGS**

Demographic Analysis

- **Income**
- **Employment**
- **Children**
**Findings**

Demographic Analysis

- Income
- Employment
- Children
**FINDINGS**

Child Care Facilities
FINDINGS

Business/office:
- Südpack Packaging
- Aldi Distribution
- Insurance Companies
- Transportation Services

Retail:
- Woodman’s, Meier, Pick ‘n Save
- Target, Kohl’s
- Shopping
- Restaurants
**FINDINGS**

**Business/office:**
- “Technology Innovation Center”
- Research Park
- Banks, Insurance Companies
- Medical College and Research Center
- Healthcare
- Government Offices

**Retail:**
- Mayfair Mall
- Mayfair Collection
- Restaurants
Discussion

- Significant spatial patterns in median household income and child care facilities
- No significant correlation among demographic variables
- Recommendations for La Causa:
  - Oak Creek
  - Wauwatosa
  - Not limited to two possibilities
Limitations & Future Recommendations

- Wide Scope
  - Search Area
  - Demographic Reference
- Existing Child Care Facilities
- Real Estate Data
  - Database Need
  - Pricing of Lots/Buildings
- Other Potential Locations
Questions?

La Causa
Where Children and Families Come First

University of Wisconsin
UWMilwaukee