GIS Usage in the Site Selection Process of

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No Wrong Door

• By Act No. 726 of the 2003 Regular Legislative Session, the Louisiana Legislature directed the Department of Social Services to develop an integrated service delivery system in order to better meet the needs of their clients.
Youth Planning Board Creation

• By Act No. 555 of the 2004 Regular Legislative Session, the Louisiana Legislature mandated that a Children and Youth Services Planning Board be created and established in each state judicial district with the general purpose of assisting in the assessment, alignment, coordination, prioritization and measurement of all available services and programs that address the needs of children and youth.
Kentucky Site Visit

• In November, 2007 Leaders from the Louisiana Department of Social Services, along with community leaders, judges, and legislators visited Louisville to better understand several of Kentucky’s service delivery models related to child welfare.
Neighborhood Place Formula

ACT 726 (No Wrong Door)
+ ACT 555 (Youth Planning Board Creation)
+ Kentucky Site Visit

ACT 775 (Neighborhood Place)
Act 775

• On July 15, 2008, Governor Bobby Jindal signed Act 775, the Neighborhood Place Legislation, into law.
The law mandates the Departments of Social Services, Education, Health and Hospitals, the Workforce Development Commission and Office of Juvenile Justice work together with communities to serve families from single locations that will be established across the state.
Site Selection

• What data would be used?
  – Each agency provided its own data in the form of Zip Code and Variable (City was added later):
    • LDHH – Medicaid Data
    • LDSS – Food Stamp Data
    • LDOE – Dropout Data
    • OJJ – Juveniles in State Custody
  – Preexisting Data
    • Schools
    • Public Health Units
    • Census Data / Population Projections (What about Katrina / Rita Population Shift?)
State Agency Data Problems

1) Zip Codes are not regions, merely address ranges; therefore they must be transferred into to ZCTA (Zip Code Tabulation Areas)
   - Easily done except we have 542 ZCTAs, some databases provided had well over 700 zip codes

2) ZCTAs cross parish boundaries, these are supposed to be parish specific maps
Data Solution 1

- Over 700 zip codes vs. 542 ZCTAs
  - Assign “problem” zip codes to the ZCTA that contains the point location of the corresponding city
<table>
<thead>
<tr>
<th>City</th>
<th>Zip</th>
<th>Medicaid</th>
<th>NAME</th>
<th>ZCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW ORLEANS</td>
<td>70174</td>
<td>656</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70175</td>
<td>445</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70176</td>
<td>4</td>
<td>New Orleans</td>
<td>70112</td>
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<td>70177</td>
<td>495</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70178</td>
<td>66</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
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<td>New Orleans</td>
<td>70112</td>
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<td>NEW ORLEANS</td>
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<td>48</td>
<td>New Orleans</td>
<td>70112</td>
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<td>NEW ORLEANS</td>
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<td>181</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70183</td>
<td>33</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70184</td>
<td>9</td>
<td>New Orleans</td>
<td>70112</td>
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<td>NEW ORLEANS</td>
<td>70185</td>
<td>296</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
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<td>NEW ORLEANS</td>
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<td>70112</td>
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<td>New Orleans</td>
<td>70112</td>
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<tr>
<td>NEW ORLEANS</td>
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<td>70190</td>
<td>1</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>NEW ORLEANS</td>
<td>70195</td>
<td>138</td>
<td>New Orleans</td>
<td>70112</td>
</tr>
<tr>
<td>THIBODAUX</td>
<td>70302</td>
<td>668</td>
<td>Thibodaux</td>
<td>70301</td>
</tr>
<tr>
<td>THIBODAUX</td>
<td>70310</td>
<td>143</td>
<td>Thibodaux</td>
<td>70301</td>
</tr>
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<td>AMELIA</td>
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<td>476</td>
<td>Amelia</td>
<td>70380</td>
</tr>
<tr>
<td>DONNER</td>
<td>70352</td>
<td>18</td>
<td>Donner</td>
<td>70356</td>
</tr>
<tr>
<td>HOUMA</td>
<td>70361</td>
<td>928</td>
<td>Houma</td>
<td>70360</td>
</tr>
<tr>
<td>KRAEMER</td>
<td>70371</td>
<td>60110</td>
<td>Kraemer</td>
<td>70301</td>
</tr>
<tr>
<td>MORGAN CITY</td>
<td>70381</td>
<td>500</td>
<td>Morgan City</td>
<td>70380</td>
</tr>
<tr>
<td>HAMMOND</td>
<td>70402</td>
<td>47</td>
<td>Hammond</td>
<td>70401</td>
</tr>
<tr>
<td>HAMMOND</td>
<td>70404</td>
<td>1130</td>
<td>Hammond</td>
<td>70401</td>
</tr>
<tr>
<td>AKERS</td>
<td>70421</td>
<td>15</td>
<td>Akers</td>
<td>70454</td>
</tr>
</tbody>
</table>
Data Solution 2

- Zip Codes cross parish boundaries, these are supposed to be parish specific maps
  - Use population density (by census block) to assign ZCTA to a parish
5 Pilot Parishes

- Lafayette
- Livingston
- Orleans
- Sabine
- West Feliciana
Maps

• Each Pilot Parish had 7 Maps Created
  – State Supplied Data (Database Created for the Entire State)
    • LDHH – Medicaid Data
    • LDSS – Food Stamp Data
    • LDOE – Dropout Data
    • OJJ – Juveniles in State Custody
  – Pre-existing Data (Census or ESRI Free Data)
    • 2007 Population Estimate
    • 2000 – 2007 Population Shift
    • 2000 Population Living Below Poverty
Neighborhood Place Planning Map:
Percentage of Total Dropout Cases in the Selected Area for Lafayette Parish (School Year 2006)*

<table>
<thead>
<tr>
<th>ZCTA</th>
<th>Dropout for School Year 2006: Grades 7 - 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number Provided</td>
</tr>
<tr>
<td>70501</td>
<td>179</td>
</tr>
<tr>
<td>70503</td>
<td>13</td>
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<tr>
<td>70506</td>
<td>287</td>
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<td>70507</td>
<td>103</td>
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<tr>
<td>70508</td>
<td>117</td>
</tr>
<tr>
<td>70518</td>
<td>23</td>
</tr>
<tr>
<td>70520</td>
<td>4</td>
</tr>
<tr>
<td>70529</td>
<td>9</td>
</tr>
<tr>
<td>70538</td>
<td>No Data Provided</td>
</tr>
<tr>
<td>70553</td>
<td>12</td>
</tr>
<tr>
<td>70554</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>805</td>
</tr>
</tbody>
</table>

* Map includes January 2009 by the Louisiana Department of Health and Hospitals Office of Public Health Section of Environmental Epidemiology and Technology (OEPHT) coordinates supplied by the Louisiana Department of Education
** The frequency of the location has been corrected by the Dehn. Data prior to 2009 will not represent a consistent sample of the data.
*** Number of students in the data set is not reflective of the student population in the area; the only reason a student was calculated in the same to which it has been assigned.
This data may not equal 100%, due to rounding.
** Map includes January 2009 by the Louisiana Department of Health and Hospitals Office of Public Health Section of Environmental Epidemiology and Technology (OEPHT) coordinates supplied by the Louisiana Department of Education
*** Number of students in the data set is not reflective of the student population in the area; the only reason a student was calculated in the same to which it has been assigned.
This data may not equal 100%, due to rounding.
** Map includes January 2009 by the Louisiana Department of Health and Hospitals Office of Public Health Section of Environmental Epidemiology and Technology (OEPHT) coordinates supplied by the Louisiana Department of Education
*** Number of students in the data set is not reflective of the student population in the area; the only reason a student was calculated in the same to which it has been assigned.
This data may not equal 100%, due to rounding.

Enrollment is based on the number and percentage of students in the selected area.
Neighborhood Place Planning Map: Percentage of Children in State Custody in the Selected Area for West Feliciana Parish on August 14, 2008

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Administrative Boundaries</th>
<th>Custodial Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parish Health Unit</td>
<td>Incorporated Area</td>
<td>0% - 10%</td>
</tr>
<tr>
<td>School</td>
<td>ZCTA Used in Calculations</td>
<td>10.01% - 20%</td>
</tr>
<tr>
<td>Roads</td>
<td>ZCTA Not Used in Calculations</td>
<td>20.01% - 30%</td>
</tr>
<tr>
<td>Interstate</td>
<td>Parish</td>
<td>30.01% - 40%</td>
</tr>
<tr>
<td>Major Highway</td>
<td>Adjusted ZCTA***</td>
<td>40.01% - 50%</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>50.01% - 100%</td>
</tr>
<tr>
<td></td>
<td>Water</td>
<td>No Data</td>
</tr>
</tbody>
</table>

### Youths in the Custody of the Office of: Juvenile Justice: August 14, 2008

<table>
<thead>
<tr>
<th>ZCTA</th>
<th>Number Provided</th>
<th>Adjusted Number*** (Percent of Selected Area)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70712</td>
<td>No Data Provided</td>
<td>Not Used in Calculations</td>
</tr>
<tr>
<td>70715</td>
<td>4</td>
<td>6 (85.7%)</td>
</tr>
<tr>
<td>70717</td>
<td>No Data Provided</td>
<td>Not Used in Calculations</td>
</tr>
<tr>
<td>70719</td>
<td>1</td>
<td>1 (14.3%)</td>
</tr>
<tr>
<td>Total:</td>
<td>5</td>
<td>7 (100%) **</td>
</tr>
</tbody>
</table>

*The frequency of the indicators has been overlaid by Zip Code Tabulation Area (ZCTA) and do not represent a statistical analysis of the data.

*ZCTAs that are contained in multiple parishes are assigned to the parish where the majority of the population is located and will be only used in parish wide calculations for the parish to which it has been assigned.

**Percentage may not equal 100% due to rounding.

*** ZCTA's ending in "HH" generally indicate water areas. ZCTA's ending in "XX" are applied to a large land area (generally larger than 25 square miles) where the US Census had insufficient information to determine the five-digit code.

**Disclaimer:** The Louisiana Department of Health and Hospitals / Office of Public Health / Section of Environmental Epidemiology and Toxicology (SEEET) cannot guarantee the accuracy of the information contained on these maps and expressly disclaims liability for errors or omissions in their contents.
Neighborhood Place Planning Map: 2007 Population Estimates by Zip Code for Orleans Parish*

Legend

Facilities
- Parish Health Unit
- School

2007 Population Estimates
Number of people in each Zip Code*
- 1 - 10,000
- 10,001 - 20,000
- 20,001 - 30,000
- 30,001 - 40,000
- 40,001 - 50,000
- 50,001 - 60,000
- No Data

- 1 Dot = 50 people

Administrative Boundaries
- Orleans Parish
- Incorporated Area/City
- Zip Code Boundary Inside Parish
- Zip Code Boundary Outside Parish

Roads
- Interstate
- Major Highway
- Water

Zip Codes with the highest population (2007):

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>70115</td>
<td>34,503</td>
</tr>
<tr>
<td>70118</td>
<td>32,904</td>
</tr>
<tr>
<td>70131</td>
<td>30,753</td>
</tr>
<tr>
<td>70114</td>
<td>28,591</td>
</tr>
<tr>
<td>70119</td>
<td>23,969</td>
</tr>
</tbody>
</table>

Map Produced March 2006, by the Louisiana Department of Health and Hospitals [DHHS], Section of Environmental Epidemiology and Toecology (SEET).

*2007 Population estimates reference the ESRI 2007 data update, which is based on disaster agency reports, news reports, field work, revised models and other sources following the 2005 hurricanes [ESRI Gulf Coast update methodology, 2006/2007 ESRI White Paper, August 2006]. 2007 population estimates have been mapped by Zip Code and do not represent a statistical analysis of the data. 2007 total parish and city population estimates from City Data.com.

A role on Zip Codes, Zip Code Areas, when mapped, are not created or maintained by the U.S. Postal Service, but have been developed by mapping software or other data compilation companies to assist in the geographic display of data. Zip Code Areas (or “Zip(s)”) are based on street addresses and will therefore show some differences when compared with other datasets, such as Zip Code Tabulation Areas (ZCTAs) which are used by the U.S. Census Bureau. A Zip Code that is contained in multiple patches is assigned to the patch where the majority of the population is located, and will be only used in parish-wide calculations for the parish to which it has been assigned.

Disclaimer: DHHS Office of Public Health / Center for Environmental Health Services/SEET cannot guarantee the accuracy of the information contained on these maps and expressly disclaims liability for errors and omissions in their contents.

Orleans Parish, Louisiana
Total Estimated Population, 2007*: 239,124
All Zip Code and City Population estimates, 2007* are provided in the attached tables.

25th Annual Louisiana Remote Sensing and GIS Workshop
April 18-20, 2010
The LSU Lacoste Animal Center
Louisiana State University, Baton Rouge, Louisiana
Neighborhood Place Planning Map: Population Shift from 2000 to 2007 by Census Tract for Orleans Parish*

Legend

Facilities
- Parish Health Unit
- School

Number of people lost or gained by Census Tract, from 2000 - 2007:
- 3001 or more
- 3000 to 2000
- 2000 to 1000
- 1000 to 250
- 250 to +250
- +251 to 1000
- +1001 to 2000
- +2001 to 3000
- +3001+

Administrative Boundaries
- Orleans Parish
- Incorporated Area/City
- Zip Code Boundary Inside Parish
- Zip Code Boundary Outside Parish

Roads
- Interstate
- Major Highway
- Water

Parish areas with greatest change:

<table>
<thead>
<tr>
<th>CENSUS TRACT</th>
<th>ASSOCIATED ZCTA(s)</th>
<th>POPULATION CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>001728</td>
<td>70126, 70127</td>
<td>-8,827</td>
</tr>
<tr>
<td>001725</td>
<td>70126, 70127</td>
<td>-6,160</td>
</tr>
<tr>
<td>001728</td>
<td>70128</td>
<td>-5,974</td>
</tr>
<tr>
<td>001722</td>
<td>70126</td>
<td>-5,390</td>
</tr>
<tr>
<td>7100</td>
<td>70001</td>
<td>-4,855</td>
</tr>
</tbody>
</table>

Map Produced March 2009 by the Louisiana Department of Health and Hospitals (LDHH), Section of Environmental Epidemiology and Sociology (SEES)

*Data Sources: 2000 population data from the U.S. Census Bureau, SFR 80-700100. 2007 Population estimates from the ESRU 2007 data set, based on disaster agency reports, news reports, field work, revised models and other sources following the 2005 hurricanes (ESRU Gulf Coast Updates Methodology 20050111, ESRU White Paper, August 2005). Population change by Census Tract from 2000 to 2007 was not available by Zip Code Tabulation Area (ZCTA), and thus not represented in the statistical analysis of the data.

ZCTAs and Zip Codes: U.S. Census Bureau ZCTAs are similar, but not directly comparable to, Zip Code Areas. ZCTAs group block level census data within the same zip code. ZCTAs, when mapped, are not created or maintained by the U.S. Postal Service, but have been developed by mapping software or other data compilation companies to assist in the geographic display of data. Zip Code Areas are based on street addresses and will therefore show some differences when compared with the Census ZCTA. ZCTAs ending in “00” generally include water areas. ZCTAs ending in “01” are applied to a large land area (usually larger than 25 square miles) where the U.S. Census had insufficient information to determine the five-digit codes. A ZCTA that is contained in multiple parishes is assigned to the parish where the majority of the population is located and will be only used to create areal calculations for the parish to which it has been assigned.

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25th Annual Louisiana
Remote Sensing and GIS Workshop
April 14-16, 2010
The Lula Creek Annual Center
Louisiana State University, farmhouse, Louisiana
Lafayette Parish, Louisiana
Percentage of People Living in Poverty, 2005:
Lafayette Parish: 17.1%
Louisiana: 19.8%
U.S.: 13.3%

Neighborhood Place Planning Map:
Percent of Population Below Poverty, by ZCTA, 2000 for Lafayette Parish*

Legend
Percentage of Population Below Poverty from the 2000 Census Data:
by Zip Code Tabulation Area (ZCTA)

- 0% - 10%
- 10% - 20%
- 20% - 30%
- 30% - 40%
- 40% - 50%
- 50% - 70%
- 70% - 90%
- 90% - 100%

http://www2.census.gov/geo/maps-data/data/tiger/tiger2000/CT2000SST01_2000.zip

http://www2.census.gov/geo/maps-data/data/tiger/tiger2000/CT2000SST02_2000.zip

http://www2.census.gov/geo/maps-data/data/tiger/tiger2000/CT2000SST03_2000.zip

25th Annual Louisiana
Remote Sensing and GIS Workshop
April 16-18, 2000
The LSU Cook Alumni Center
Louisiana State University Baton Rouge Louisiana
Discussion

- Agency maps indicate consistency of high need regardless of agency variable
Katrina Population Shift

- Katrina Population shift mainly from Greater New Orleans to the I-12 Corridor
- No economic indicators to state that “people from one economic background migrated to an area of similar economic level”
Conclusion

• Louisiana Neighborhood Place Locations
  • In many cases, locations were already chosen based on space availability as well as community response
  • Maps did validate the fact that there was a need in the locations that were chosen
Promise Neighborhoods

- President Obama will establish 20 Promise Neighborhoods across the country
  - Areas where there is high crime and low levels of student achievement
- Orleans Parish is using these maps as a starting point in their application for this funding source.