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Single Parent Housing by Parcel in Seattle/White Center with Median Income and High Density of Children in Close Proximity to Social Services

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Purpose:
The theoretical foundation of my project is based on the long term issues associated with single parents and housing. The purpose is based on three elements for positive child development: satisfied intrinsic needs such as shelter and food, and effective parenting. (Beniger, Heinze, Naidich, & Meyers, 2008)
The shape of current housing issues is the social and physical force behind using GIS to spatially capture solutions. I targeted single parents as a group that are in need and will respond positively to the benefit of stable housing. The context is established by the growing numbers of children raised in material deficiency through housing and health needs with long term consequences. (Spencer, 2005)

Analyzing Data
One interesting way to analyzing data is that areas with higher density of children also involve areas with higher densities of single parent households. That could be data for the city of Seattle, if the areas with higher percentage of single parent households also yield a higher percentage of children per household.

The Benefit of Healthy Housing
With almost 1/3 of King County’s children raised in a lower standard of living, the outcome for children is inadequate education, unhealthy living standards, and higher percentage of criminal activity. The children of single parents, time and income can not provide the child with the physical, emotional and structural need. By providing subsidized housing specifically for single parents, time and income can better serve the child. With social services in close proximity to subsidized housing, these services may be accessed for more effective parenting. This decreases the child risk for health issues, poor education, and higher criminal activity, and increases a more positive outcome for both child and parent. (Matthews & Burton, 2006)

Why Social Services?
In supplying housing for single parents near to social services, you ease the need for services for single parents, increasing effective parenting, ease unemployment housing issues and provide necessary services such as daycare, schools, community centers, and bus stops in a centered space for busy and stressed single parents.

Process
• ran network analysis on ‘ideal walk’ times of 2, 4, and 6 minutes. ‘Ideal walk time’ best represented needs of a single parent with little time.
• Creating rasters from the network analysis polygons, I then calculated the services by weight to find best locations of parcels in proximity to services.
• I then changed the calculated raster back to a polygon and clipped Seattle parcels to the calculated parcels to isolate those parcels for analysis.
• These parcels will then be researched to find vacant homes, unfinished development or homes in foreclosure to pursue purchase and development to create subsidized housing for single parents.

Fig. 1. King County transportation network. After running network analysis from service points, I extended my area to go beyond Seattle to incorporate White Center.

Fig. 2. Social Services provided for all King County Residences. These services are most beneficial to low income and single parents in providing health, food, transportation, children’s activities, and education.

Fig. 3. Shows the correlation between single parent households and high density of children.

Fig. 4. This shows the final output from the raster calculator analysis. The lighter areas show the best possible locations for housing by weighting the different service areas after the were ran with ideal walking times of 2, 4, 6 minutes.

Fig. 5. The final output after running network analysis, raster data calculations, and demographic data. This shows the clipped parcels to the raster calculations. There were over 3000 parcel sites for possibly housing single parents.

Fig. 6 King County Parcels that show best suited housing locations for single parents in terms of distance to social services and child density.

Conclusion
Steven Matthews, James Detwiler, and Linda Burton asked a pertinent question in their analysis of ethnographic methods in Urban Research. “How do we measure neighborhood or context.” (Matthews, Detwiler, & Burton) My response to that question is, ‘through the demand of services and supplying housing in proximity to those services for almost 1/3 of the households in King County’. Mixing methods of quantitative infrastructure and services with qualitative purposes, so that a more ‘fluid human world can be represented and better understood.” This is preventative planning for our future generations with the use of GIS. (Pavlovskaya, 2006)

Websites:
- Census Website: http://www.census.gov/
- King County Website: http://www.kingcounty.gov
- Department of Health: http://www.doh.wa.gov
- WAGDA Website: http://www.gdf.washington.edu

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Literature Sited: