

Concentrations of WIC Services: Tacoma, WA

INTRODUCTION

WIC offers services for women, infants, and children while usually catering to those families whom are low income. The services provided by WIC include nutritious foods, supplement diets, information on healthy eating, and healthcare referrals. They do this through vouchers that can be used at authorized food stores.

METHODS

- **Location Analysis:** To determine the precise location of WIC sites based on single family housing parcels
- **Network Analysis:** Determined walking distance of a WIC site in increments of 1, 5, and 10 minutes.
- **Statistical Analysis:** To find the correlation between WIC sites and home values

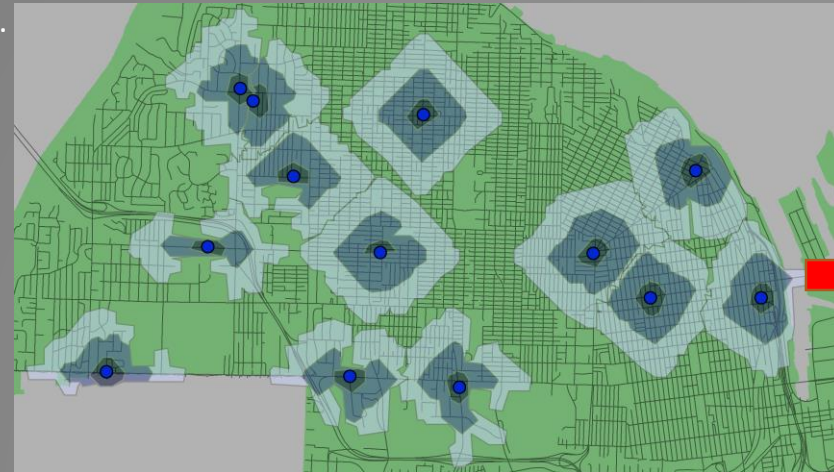


FIGURE 2. Concentration of WIC services in North Tacoma

RESULTS

The further you get from WIC sites, the higher the value of the single family home is. Shown in Table 1 is the income data from the local WIC organizations based on household size. The closer you get to the WIC site, the value of the single family residence, on average, drops. The further away from the WIC sites, the value of the single family residence on average increases. Walking distance is symbolized by a blue color scale.

Table 1

Household or Family Size*	Income Per Year	Income Per Month**
1	\$20,147	\$1,679
2	\$27,214	\$2,268
3	\$34,281	\$2,857
4	\$41,348	\$3,446
5	\$48,415	\$4,035
6	\$55,482	\$4,624
7	\$62,549	\$5,213

* A household is defined as a group of related or non-related individuals, who usually, although not necessarily, are living together and share income. A woman who is pregnant is counted as a family of two. If she is having twins, she is counted as a family of three.

**Gross income is income before taxes and deductions.

The income guidelines for WIC effective April 1, 2011– March 31, 2012.

Table obtained from http://cityoffife.org/downloads/parks/FIFE_English_color.jpg

CONCLUSION

The data shows that the WIC locations are concentrated around lower income single family homes. However, this is not exclusive but is likely. The closer a single family dwelling is to a WIC service site, the lower the average value of the home. While this phenomena occurs both within and outside the 15 minute walking radius, a dramatic increase in average home values does not incur unless the house is outside the aforementioned walking distance.

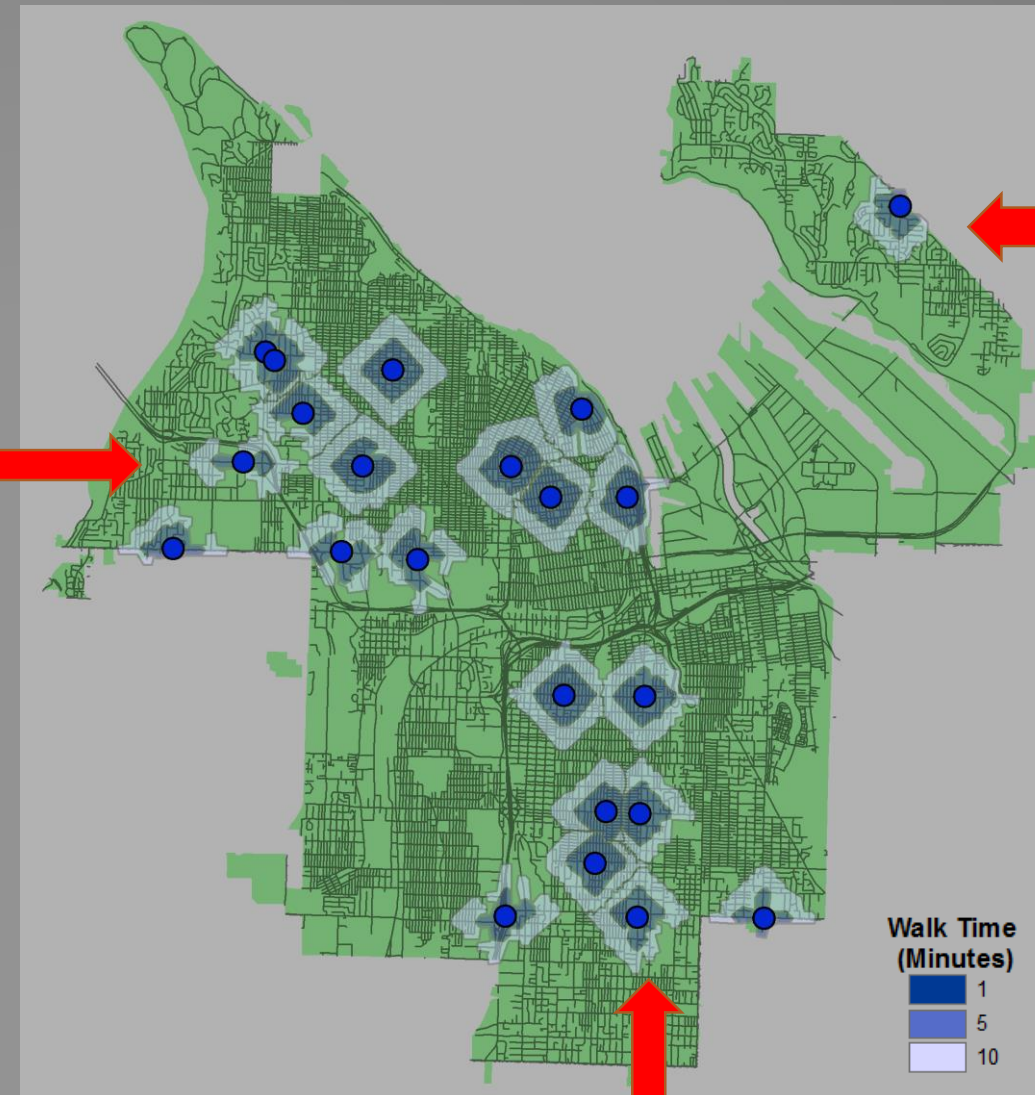


FIGURE 1. Concentrations of WIC services within 15 minute walking distances.

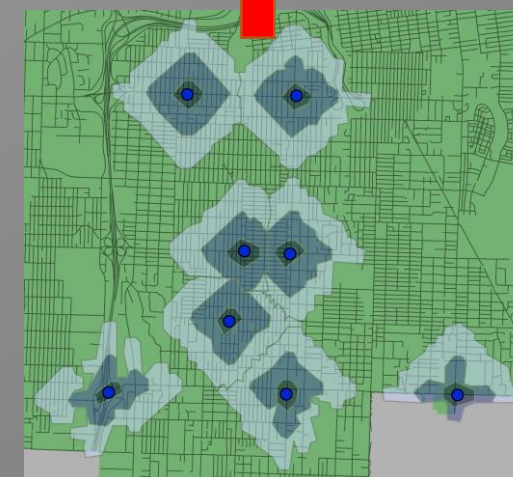
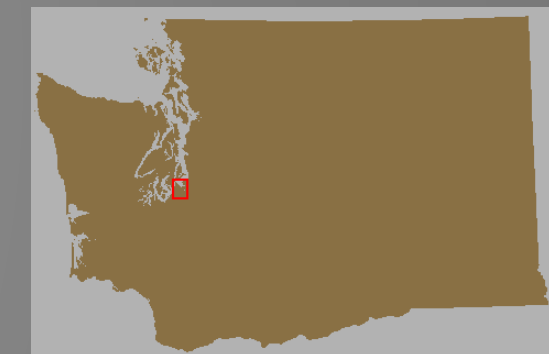


FIGURE 3. Concentration of WIC services in South Tacoma



FIGURE 4. The only WIC location in North East Tacoma



Locator Map of Tacoma, WA

REFERENCES

- Authors:** Lindsey Baldwin, Jacob Cohen, Greg Mireles
- ArcMap 10.4.1
- Created as part of the University of Washington GIS 312 Intermediate GIS Course of Winter 2017
- Data Source:** Greg Lund, Washington Department of Health
- Created:** March 6th, 2017
- Geographic Coordinate System:** NAD_1983_HARN_StatePlane_Washington_South_FIPS_4602_Feet
- WIC logo retrieved from WIC Washington
- University of Washington logo retrieved from the University of Washington