

Culminating Assignment

Overview

This semester, we have an exciting opportunity to work on a real-world data project for United Way of Rutherford and Cannon Counties (UWRCC) of Tennessee. Before getting into the details, here is more about the organization:

United Way of Rutherford and Cannon Counties is fighting for a community where every person- no matter their background, their abilities, or their zip code- has an equal chance at a bright future. We are the hand raisers, the game changers. We are the problem solvers for those issues facing our community that are difficult to face and too hard to ignore. No matter the obstacle, we surround our community's most critical problems, and we fight. We fight for the health, education, and financial stability of every person in our community. Why? Because we know that change begins when we Live United, and that building a better tomorrow starts today.

One of the issues that UWRCC would like to address is childcare. Specifically, they would like to address the problem of childcare deserts. These are geographic areas where demand for space in licensed childcare programs outpaces local capacity. A rule of thumb is that an area is a childcare desert when the ratio of children under five to the cumulative childcare capacity is greater than three-to-one.

UWRCC asks for your help in creating a credible, compelling dashboard to provide evidence of the lack of available childcare in Rutherford and Cannon Counties. With this data in hand, they can make a stronger case to municipal governments, employers, and childcare proprietors about the lack of access to childcare.

Your final dashboard should consist of no less than four objects (i.e., graphs, charts, maps, and/or tables) that are interactive and adhere to design best practices. Titles and labels should be clear and descriptive. You should include concise instructions if specific abilities (e.g., filtering, highlighting, drill-down) are available through the object.

You will use your completed dashboard to provide a 10-minute virtual presentation to UWRCC leadership and your instructor. While you are not expected to become an expert in childcare deserts, your presentation should include recommendations for how the issues you identify might be addressed. Some supplemental materials are provided to help you better understand the issue, but feel free to seek out additional resources as you deem necessary.

You have a great deal of flexibility in where you go with this assignment. There are many variables to explore, and there is no one "right" solution. Give yourself time to understand and explore the data and work through any technical challenges you might encounter. This assignment is as much about the journey as the destination. Only after you have a sense of the story you want to tell should you begin to develop and/or fine-tune your final dashboard for submission.

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Assessment

Your grade on this assignment will be determined as follows:

- Meeting the assignment's minimum requirements (25 pts.)
- Appropriateness and design of the graphs, charts, and/or tables depicted in the dashboard (100)
- Formatting and labeling of the dashboard and objects (20 pts.)
- Effective and appropriate use of colors and shading (10 pts.)
- Coordination of objects in the dashboard using filters/dashboard objects as filters, and/or highlighting (20 pts.);
- Quality of analysis (25 pts.)
- Quality of recommendations made (25 pts.)
- Quality of presentation (25 pts.)

Getting Started/Minimum Requirements

- Download the **UnitedWay.xlsx** file from D2L, then open Tableau to connect to the file. Save your file as a packaged workbook named: **LastName_UnitedWay.twbx**
- Once connected to the data, add both worksheets (**Providers** and **Indicators**) to the canvas. If it doesn't automatically join the two tables on the Zip fields, then edit the noodle to connect using those shared fields
- Create a minimum of two calculated fields of your choosing to use in your analysis
- Set the appropriate default properties for the measures you use in your analysis. You are not required to set the default properties for every measure in the dataset, but you must set them for all measures you use in your analysis. **This is critical to your ability to interpret the data correctly.** Setting the appropriate properties refers to both applying number formatting and selecting the proper default aggregate statistic for a given measure.

Data Description

The dataset provided includes data from two sources:

1. **Providers** – a list of all the licensed childcare providers in Tennessee, broken down by county and zip code, from the Tennessee Department of Human Services
2. **Indicators** – Selected data from the United States Census Bureau's American Community Survey. It is an ongoing survey that provides vital information on a yearly basis about the United States and its people.

The primary focus is on Rutherford and Cannon counties; however, the dataset includes all of Tennessee. You are not required to use statewide data, but it is provided in case you wish to make comparisons.

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Work In Progress

If you have questions as you are working on the assignment, please reach out via e-mail (amy.harris@mtsu.edu) or schedule a virtual appointment (<https://calendly.com/amy-harris-phd>). If you want to ask questions of a subject matter expert at UWRCC, then I'll connect you to them.

Submit Your Dashboard, Schedule Your Presentation Time, and Prepare Your Final Presentation

- Upload your Tableau Packaged Workbook (.twbx) containing your dashboard and any supplementary visualizations to the D2L dropbox on or before the due date.
- Schedule your presentation time here: [Book.xlsx](#) *(If none of the available times work with your schedule, please reach out ASAP to find an alternative time)*
- All presentations will take place via Zoom at this link: <https://mtsu.zoom.us/j/9972050922>
- During the final presentation, it is expected that you will be on camera for the duration and that you are able to screen share your screen for most, if not all, of the presentation. Your Tableau workbook should be the centerpiece of the presentation. At a minimum, business casual attire is expected.

Supplementary Materials

[United Way of Rutherford and Cannon Counties](#)

[Mapping America's Child Care Deserts](#)

[Combating Childcare Deserts in Middle Tennessee](#)

[Childcare Deserts: Developing Solutions to Childcare Supply and Demand](#)

[Childcare Deserts Are a Secret Driver of the Labor Shortage – And Half of Americans Live in One](#)