Appendix J

Interactive Tool
USER MANUAL

This user manual provides guidance on the use of the interactive tool developed for *Louisiana's Alcohol-Impaired Driving Problem: An Analysis of Crash and Cultural Factors*. This tool offers features of visualizing the data on parish or U.S. census block group level, and the survey results.

Tool Link

The tool is deployed on https://ladotd.shinyapps.io/LA_Alcohol_Tool.

Interface

Figure 1 shows the interface of the introduction page of the interactive tool. This page includes a brief introduction of this project, the components of the tool, and basic steps of using the tool.
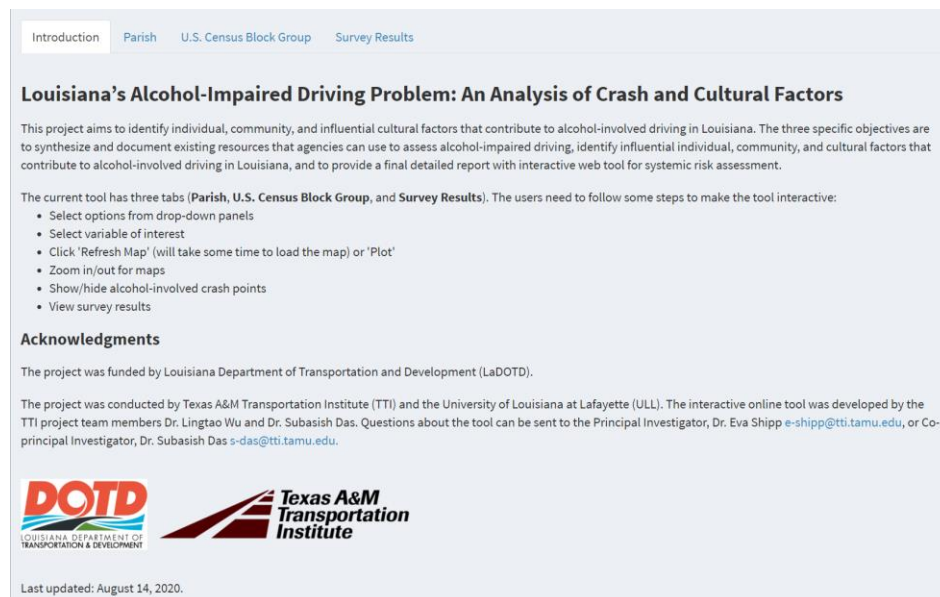

Figure 1. Interface of the interactive tool opening page

The tool interface has four different tabs:
- Introduction (the interface shown in Figure 1)
- Parish
- U.S. Census Block Group
- Survey Results

Visualization

This section describes the basic steps needed to visualize the map from parish or U.S. census block group level, and survey results.

Parish

Figure 2 shows the interface of the Parish tab. This page contains two components: the parish-level map (on the left side), and drop-down selection panel (on the right side).

The parish-level map tool has the following features:
- **Variable Selection:** from drop-down panel
- **Plot:** "Refresh Map" button under the drop-down panel
- **Overlaying Alcohol-Involved Crash Points**: check box "Show Alcohol-Involved Crashes" under button "Refresh Map"
- **Zoom in/out:** plus/minus button on the map
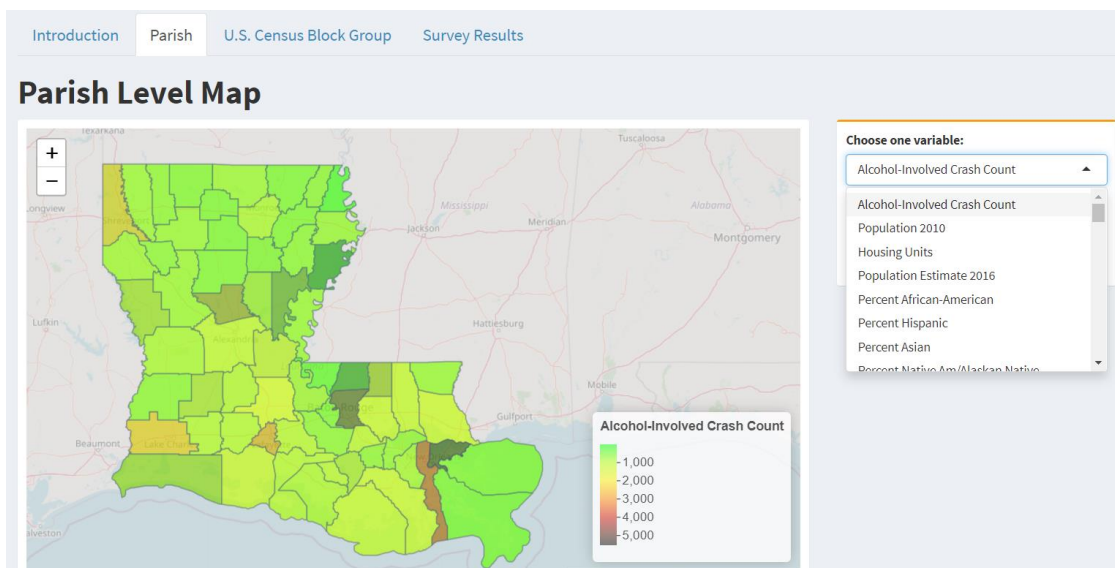- **Popup Information:** hovering on a parish

Figure 2. Parish level map tool

Steps to plot parish-level map:
- Select a variable (e.g., Alcohol-Involved Crash Count, Population 2020) from the drop-down panel
- Click "Refresh Map"
- Zoom in/out on map using the plus/minus button
- Check or uncheck "Show Alcohol-Involved Crashes" to show or hide alcohol-involved crash scatter points
- When the cursor is hovering on a parish, the related information of the parish will pop up on the map. An example is shown in Figure 3.
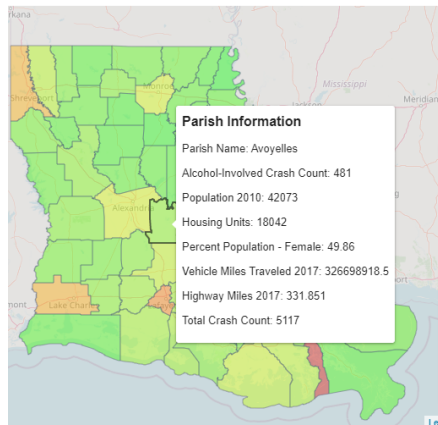

Figure 3. Example of popup information on parish-level map

U.S. Census Block Group

Figure 4 shows the interface of the U.S. Census Block Group tab. This page is quite similar to that of Parish. It contains two components: the block group-level map (on the left side), and drop-down selection panel (on the right side).

The block group-level map tool also has the following features:
- **Variable Selection:** from drop-down panel
- **Plot:** "Refresh Map" button under the drop-down panel
- **Overlaying Alcohol-Involved Crash Points**: check box "Show Alcohol-Involved Crashes" under button "Refresh Map"
- **Zoom in/out:** plus/minus button on the map
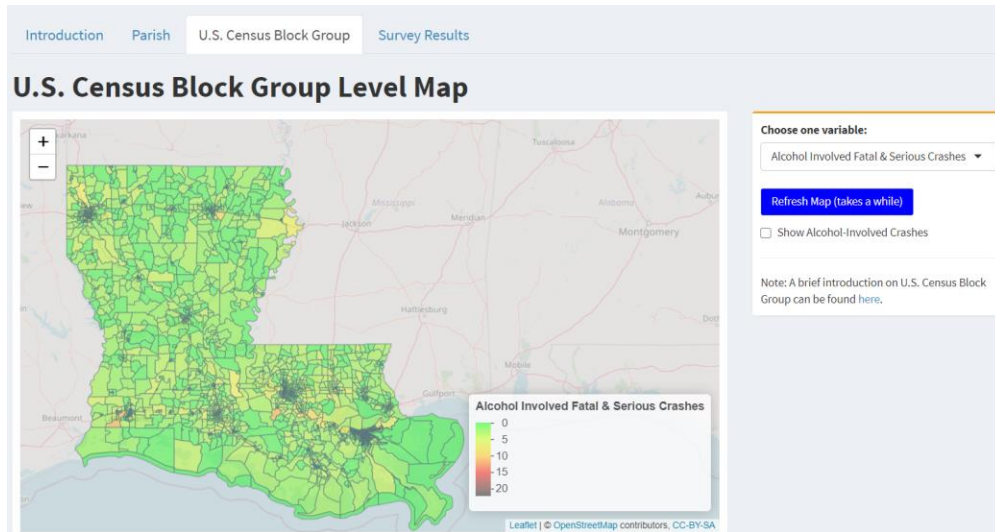- **Popup Information:** hovering on a block group

Figure 4. U.S. census block group level map tool

Steps to plot block group-level map:
- Select a variable (e.g., Alcohol-Involved Fatal and Serious Crashes, Risk Score) from the drop-down panel
- Click "Refresh Map"
- Zoom in/out on map using the plus/minus button
- Check or uncheck "Show Alcohol-Involved Crashes" to show or hide alcohol-involved crash scatter points
- When the cursor is hovering on a block group, the related information of the block group will pop up on the map.

Survey Results

Figure 4 shows the interface of the Survey Results tab. This page contains three components: the survey result plot (on the top left), drop-down selection panel (on the top right), and survey result in table format (on the bottom).

The survey results tool has the following features:
- **Variable Selection:** from drop-down panel
- **Cross Plot by Gender:** check the box "Cross Plot by Gender" above button "Plot"
- **Plot:** "Plot" button under the drop-down panel
- **Download Plot:** "Download Plot" button under the drop-down panel (right side of "Plot")
- **Download Table:** "Download Table" button under the drop-down panel (right side of "Download Plot")
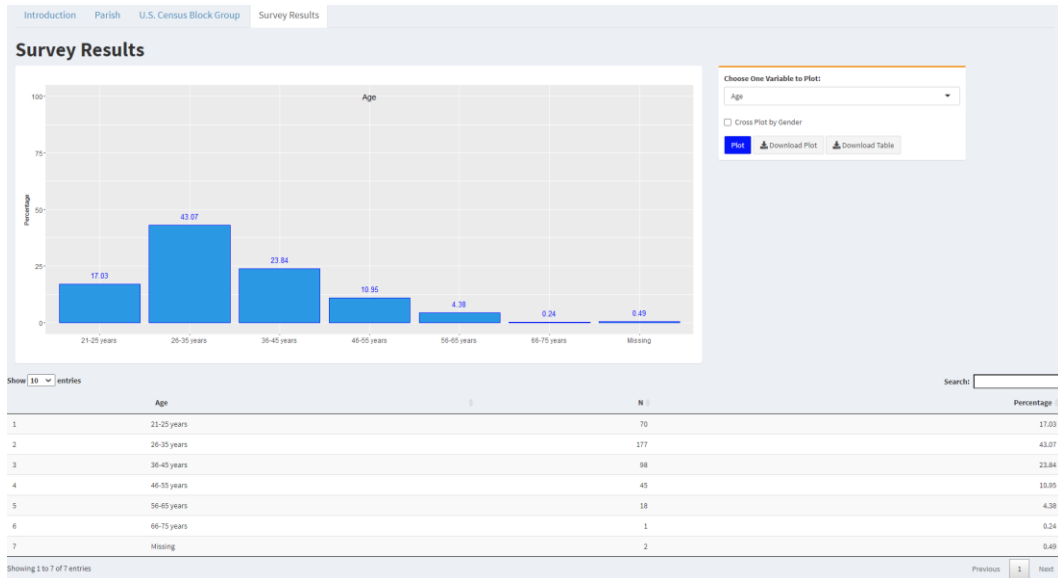
Figure 5. Survey results

Steps to plot survey results:

- Select a variable (e.g., Age, Gender, Age by Gender) from the drop-down panel
- Click "Plot"
- To cross plot the selected variable by gender, check the box "Cross Plot by Gender," then click "Plot" (Note that Cross Plot Gender by Gender is not available.)
- The table below the plot also shows the survey results for the selected variable
- To download the plot as a PNG file, click "Download Plot"
- To download the table as a csv file, click "Download Table"