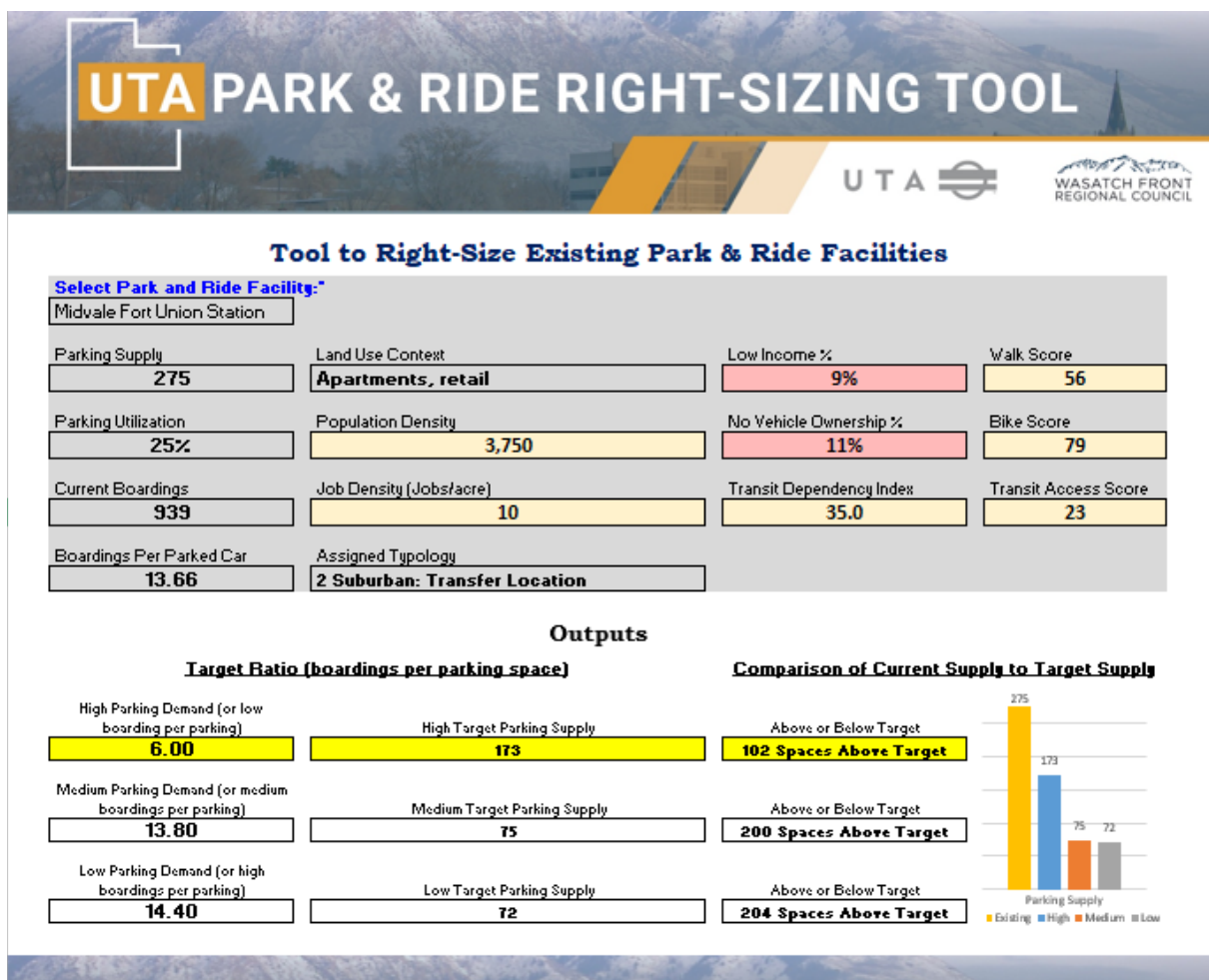


Right-Sizing Parking Tool

Using the typology criteria matrix and the data mapping and analysis described in the previous sections, a Microsoft Excel-based tool was developed. This tool allows users to review all contextual data associated with a park & ride facility, including its BPPC ratio. Based on this contextual information, the tool recommends right-sizing parking to either the 50th, 70th, or 85th percentile of supply ratios. A lower target ratio suggests that station ridership relies less on parking access, with more people using alternative means to reach the station. The tool also includes a provision for planning a new park & ride if similar contextual data, including projected boardings at the station, is available.



Provided below is detailed description of the tool, followed by a step-by-step user guide to use the tool.



Existing Park & Ride Right-Sizing

The primary input for the existing Park & Ride tool is selecting the station you want to analyze from a dropdown list. This selection auto-populates with station details such as parking supply, utilization, and demographic information like population density and walk access score. The "Existing P & R Tool" worksheet calculates the necessary parking capacity for a park & ride location based on its BPPC ratio, correlated with other contextual factors such as population density, employment, demographic characteristics, and accessibility scores. The tool evaluates specific locations based on how favorable they are for adjusting parking supply. The "high target ratio" represents the 50th percentile of all facilities, the "medium target ratio" the 70th percentile, and the "low target ratio" the 85th percentile. Each target ratio includes a 10% buffer or "cushion" in parking supply to account for inefficiencies, seasonal variations, and other factors.

The tool has been developed to allow easy updates as UTA and partner agencies update parking supply, utilization, and boardings data, and as new census data becomes available. This ensures the tool can provide recommendations using the most recent information available.

User Guide

Step 1

Select the park & ride facility from dropdown.

UTA PARK & RIDE RIGHT-SIZING TOOL

Tool to Right-Size Existing Park & Ride Facilities

Select Park and Ride Facility:*

- Midvale Fort Union Station
- Draper Town Center Station
- Farmington Station
- Fashion Place West Station
- Historic Gardner Station
- Historic Sandy Station
- Jordan Valley Station
- Kimballs Lane Station
- Layton Station
- Lehi Station
- Meadowbrook Station
- Midvale Center Station
- Midvale Fort Union Station

Outputs

Target Ratio (boardings per parking space)	High Target Parking Supply	Comparison of Current Supply to Target Supply
High Parking Demand (or low boardings per parking) 6.00	173	Above or Below Target 102 Spaces Above Target
Medium Parking Demand (or medium boardings per parking) 13.80	Medium Target Parking Supply 75	Above or Below Target 200 Spaces Above Target
Low Parking Demand (or high boardings per parking) 14.40	Low Target Parking Supply 72	Above or Below Target 204 Spaces Above Target

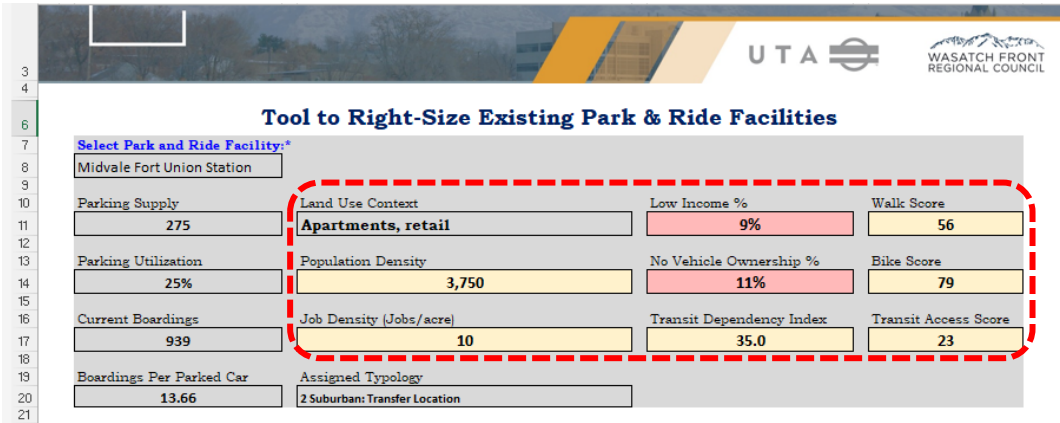
Bar Chart: Parking Supply (Existing: 275, High: 173, Medium: 75, Low: 72)

Navigation: Info | Documentation | Existing P&R Tool | P&R Planning Tool | GIS Exports | Existing Only | Planning Data | Reference data



Step 2

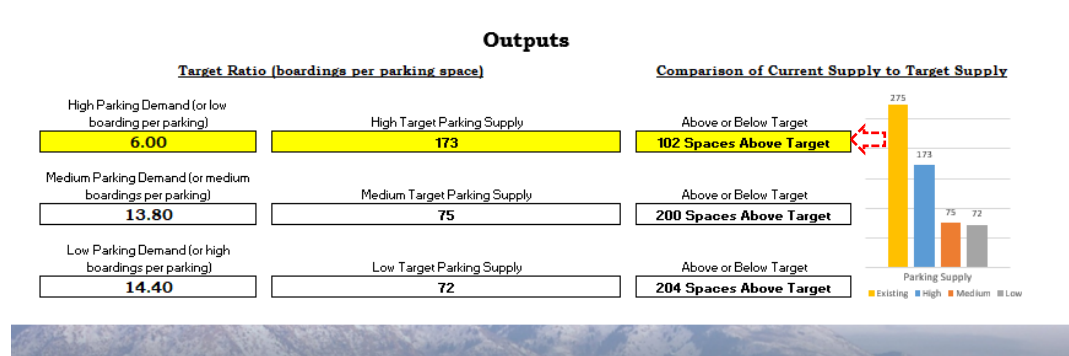
As soon as the facility is selected, the tool will populate the all information and data associated with the location and highlight the recommended target supply using the percentile criteria described above.



Land-use, demographic and accessibility factors are color coded in the tool where in factor with low favorability to reduce parking demand are shown in red, medium favorability with yellow, and high favorability with green. For this example, Midvale Fort Union Station, majority of the parking-demand influencing factors for the selected park & ride facility at had quantities or levels which were low to medium (shown in yellow and red) levels.

Step 3

As shown in the output, the tool recommended a high target parking supply ratio of 173 parking spaces. If the location were to improve its accessibility scores to green in future with investments in active transportation and transit connections to the station, the facility could improve its target parking supply from 173 spaces to as low as 72 spaces.



Planning Tool

“Planning tool” allows users input data for each of the contextual factors and projected boardings at a station to determine parking supply for a new park & ride facility. Similar to the existing Park & Ride



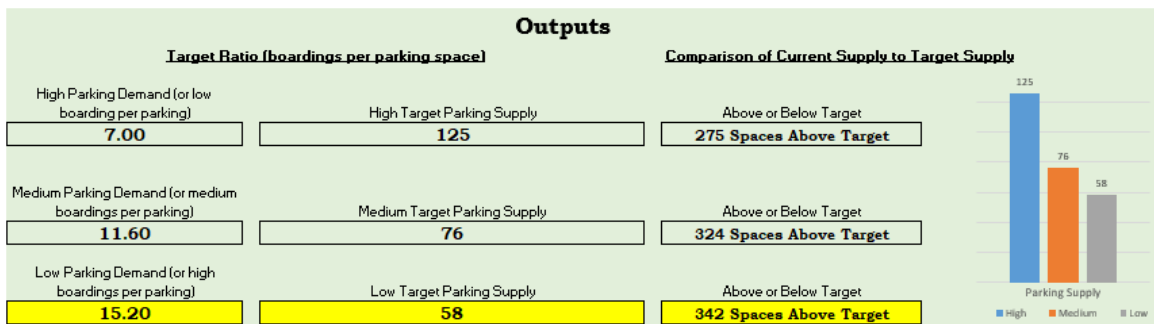
option, the Low, Medium, and High target ratios reflect the parking needed based on contextual factors affecting demand. Provided below is a step-by-step guide to using this tool.



Park and Ride Planner Tool for New Facilities

Note: Please input information in cell marked with Asterisk () from 1 through 12.*

1. Proposed Park and Ride* ABC location	3. Assigned Typology* 4 Emerging Urban		
1.1. Parking Supply* 400	4. Land Use Context (Add brief description) Majority single/MF units with some retail	7. Low Income %* Medium	10. Walk Score* High - Above 80
2. Projected Boardings* 800	5. Population Density* Low - Under 2500/sq mi	8. No Vehicle Ownership* Low - 0 - 10%	11. Bike Score* High - Above 80
	6. Job Density (Jobs/sq mi)* Medium - 50 - 250 / sq mile	9. Transit Dependency Index* Low - Below 10%	12. Transit Access Score* High - Above 40



Steps 1 - 12

In the "Planning Tool" worksheet, add the following inputs. A user can click on the subtitles to see a brief definition or guidance for each of the inputs (1 – 12) discussed below.

Note: Please input information in cell marked with Asterisk () from 1 through 12.*

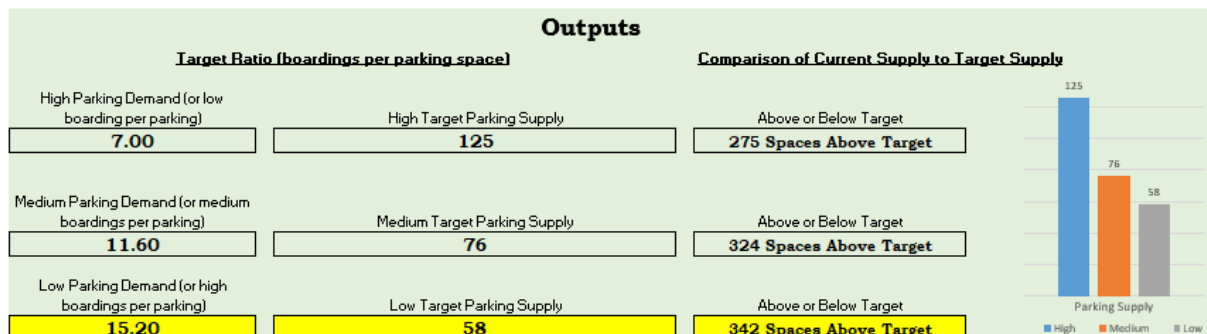
1. Proposed Park and Ride* ABC location	3. Assigned Typology* 4 Emerging Urban		
1.1. Parking Supply* 400	4. Land Use Context (Add brief description) Majority single/MF units with some retail	7. Low Income %* Medium	10. Walk Score* High - Above 80
2. Projected Boardings* 800	5. Population Density* Low - Under 2500/sq mi	8. No Vehicle Ownership* Low - 0 - 10%	11. Bike Score* High - Above 80
	6. Job Density (Jobs/sq mi)* Medium - 50 - 250 / sq mile	9. Transit Dependency Index* Low - Below 10%	12. Transit Access Score* High - Above 40

1. Add name of the location



2. Add projected boardings
3. Assign typology of the location out of the 6 typologies discussed earlier
4. Add a small description of adjacent land-uses
5. Choose from drop down menu of population density within ½ mile radius of the planned facility. Three options are low, medium and high.
6. Choose from low, medium or high job density within ½ mile radius of the planned facility
7. Choose from low, medium or high concentration of low-income households within the ½ mile radius
8. Choose from low, medium, or high concentration of zero-car households within ½ mile radius
9. Choose from low, medium, or high transit dependency index.
10. through 12. Choose applicable walk, bike and transit access score. These are also defined in low, medium or high.

Once the above inputs have been made to the tool, the tool will now be able to recommend target parking supply based on the project boarding, and contextual factors influencing parking demand within the typology.



As shown above, this location is recommended with a low target parking supply ratio of 58 spaces.

The tool includes definitions, method of calculation, existing and reference data included in separate worksheets within the tool.

