BROWARD COUNTY Transit
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APPENDIX C

# Peer Selection Process

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# SECTION 1: PEER SELECTION

The peer review provides an opportunity for BCT to compare its system-wide effectiveness and efficiency indicators with other peer transit systems to determine how well BCT is performing compared to similar transit agencies. The results of the peer review serve as a starting point for BCT to adjust its operations and/or policies to achieve better system cost efficiency and operating performance.

The 2013–2024 TDP took into account previous peers and also conducted two analyses—a TCRP framework and a methodology developed by Tindale-Oliver & Associates (TOA)—to determine peers. In addition to a discussion of the 2009–2018 TDP peer selection, these two methodologies are detailed in this section.

## PREVIOUS TDP PEER SELECTION

BCT's previous TDP major update, the 2009–2018 TDP, contained a detailed process for selecting a fixed-route peer group to compare BCT's performance with other similar transit systems in the United States. BCT's potential peer systems were chosen by evaluating the following data sets: vehicles operated in maximum service, service area population, service area population density, and overall operating expense, county population, county population density, median age, and per capita income. Demographic information was used to select peers with similar population growth in their respective service areas. Table 1 provides a list of the peers used in the previous TDP.

**Table 1**
**Previous BCT Peers**

| Agency | Location |
|---|---|
| Jacksonville Transit Authority | Jacksonville, FL |
| LYNX – Central Florida Regional Transportation Authority | Orlando, FL |
| Sacramento Regional Transit District | Sacramento, CA |
| VIA Metropolitan Transit | San Antonio, TX |
| Central Ohio Transit Authority | Columbus, OH |
| Utah Transit Authority | Salt Lake City, UT |
| Ride-On Montgomery County Transit | Rockville, MD |
| Capital Metropolitan Transportation Authority | Austin, TX |
| Charlotte Area Transit System | Charlotte, NC |

Source: Broward County Transit Division 2009–2018 Transit Development Plan

A final regional adjustment was incorporated into the ranking process to favor systems in geographically similar regions. Florida systems were assigned a 100 percent adjustment, systems in southeastern states were assigned a 75 percent adjustment, and central and mid-western states were assigned a 25 percent adjustment. No score adjustments were made to systems in other regions. The adjustments were assigned to enable agencies that have geographical similarities to be selected over those that do

not. Based on all of the considerations above, the top eight systems were selected, and LYNX in Orlando was added to include at least two Florida systems.

## TCRP PEER REVIEW METHODOLOGY

TCRP Report 141 identifies a framework for transit agencies to compare their performance to their peer group. A peer group, comprising 8 to 10 transit agencies, is ideal for obtaining meaningful comparisons. The TCRP methodology provides likeness scores for factors that are determined from the percentage difference between a potential peer's value for the factor and the target agency's value. A score of 0 indicates that the peer and target agency values are exactly alike, and a score of 1 indicates that one agency's value is twice the amount of the other. Scoring factors include the following:

- In general, a total likeness score under 0.50 indicates a good match.
- A score between 0.50 and 0.74 represents a satisfactory match.
- A score between 0.75 and 0.99 represents potential peers that may be usable, but care should be taken to investigate potential differences that may make them unsuitable.
- Peers with scores greater than or equal to 1.00 are undesirable due to a large number of differences with the target agency, but may occasionally be the only candidates available to fill out a peer group.

Depending on the type of analysis (rail-specific, non-rail-specific, or agency-wide) and the target agency's urban area size, three screening factors and up to 14 peer-grouping factors are used in the peer selection process. The three screening factors are used to ensure that potential peers operate a similar mix of modes as the target agency:

- *Rail:* Is the transit agency is a rail operator?
- *Rail Only:* Is the transit agency is a rail-only operator?
- *Heavy Rail:* Is the transit agency is heavy rail operator?

The peer-grouping factors are used to determine which potential peer agencies are most similar to the target agency. They include five service characteristics and nine urban area characteristics. The five service characteristics are derived from the NTD, and their definitions are as follows:

- *Total Vehicle Miles Operated:* The total distance traveled annually by revenue service vehicles of a transit system, including both revenue miles and deadhead miles.

- *Total Operating Budget:* The reported total spending on operation of a transit system, including administration, maintenance, and operation of service vehicles.

- *Percent Demand Response:* The percentage of demand response service for an agency, measured based on the number of vehicles operated in maximum service.

- *Percent Service Purchased:* The percentage of transit service purchased from outside service provider(s), measured based on the number of vehicles operated in maximum service. Not used when the target system is a rail mode.

- *Service Area Type:* An identifier, defined as follows, for determining the service extent/coverage of an agency:

    - Service provided only to non-urbanized areas (not presently used).
    - Service provided to multiple urban areas (may also include non-urban areas) and is the primary service provider within at least one urban area central city.
    - Only agency operating within an urban area; no non-urban service provided.
    - Agency serves the urban area's central city, where other agencies also provide service to portions of the urban area. Urban areas with multiple central cities (e.g., Tampa-St. Petersburg) are also classified in this category.
    - Service provided into an urban area's central city, but its primary service area does not include a central city.
    - Service provided within an urban area, but not to a central city.
    - Only agency operating within an urban area; provides non-urban service.
    - Other (special transportation service only, ferry, monorail, Puerto Rico, agency provides funds to another NTD reporter that operates the service).

The nine urban area characteristics and their definitions are as follows:

- *Urban Area Population:* Total population in the urbanized area (i.e., an urban area with population over 50,000) in which the transit agency is located.

- *Population Growth Rate:* Percent change in population between the baseline year of 2000 and the user-selected data year.

- *Population Density:* Total population per square mile in the urbanized area the transit agency resides.

- *State Capital:* Is the agency located in a state capital?

- *Percent Population with College Degree:* Percentage of population age 24 years or older with a minimum of a bachelor's degree in the urbanized area the transit agency resides.

- *Percent Poverty:* Percent of population with income below the poverty level.

- *Annual Delay (Hours) Per Traveler:* Total annual delay hours per traveler as reported in the *Urban Mobility Report* published by the Texas Transportation Institute; used only for large urban areas.

- *Freeway Lane-Miles Per Capita:* Average freeway lane-miles per resident as reported in the *Urban Mobility Report*; used only for large urban areas.

- *Distance:* Distance in miles between the target and peer systems, measured between the centroid locations of their urbanized areas. Used for agency-wide comparison only.

Likeness scores are first determined for each individual screening and peer-grouping factor. A total likeness score is then calculated from the individual scores. In several situations, collecting the ideal number of peers may not be possible. Larger transit agencies typically have a smaller number of peers from which to choose. Largest-in-class transit agencies—for example, an agency that is the largest bus-only operator—may also have difficulty, as nearly all potential peers will be smaller or operate different modes. Finally, transit agencies operating uncommon modes or with uncommon service types, such as commuter rail or an agency serving multiple urban areas, have a smaller pool of potential peers. The final group of peers proposed for BCT as determined by the TCRP analysis is shown in Table 2.

**Table 2**

**Peer Systems, TCRP Peer Review Analysis**

| Agency | Location | Total Likeness Score |
|---|---|---|
| Board of County Commissioners, Palm Beach County, Palm Tran, Inc. | West Palm Beach, FL | 0.23 |
| Pinellas Suncoast Transit Authority | St. Petersburg, FL | 0.53 |
| Milwaukee County Transit System | Milwaukee, WI | 0.68 |
| City of Detroit Department of Transportation | Detroit, MI | 0.68 |
| Transportation District Commission of Hampton Roads, dba Hampton Roads Transit | Norfolk, VA | 0.69 |
| Fort Worth Transportation Authority | Fort Worth, TX | 0.69 |
| City of Phoenix Public Transit Department dba Valley Metro | Phoenix, AZ | 0.72 |
| Central Florida Regional Transportation Authority | Orlando, FL | 0.73 |
| Southwest Ohio Regional Transit Authority | Cincinnati, OH | 0.85 |
| Ride-On Montgomery County Transit | Rockville, MD | 0.87 |
| Pace – Suburban Bus Division | Arlington Heights, IL | 0.88 |
| VIA Metropolitan Transit | San Antonio, TX | 0.89 |
| Long Beach Transit | Long Beach, CA | 0.89 |
| Suburban Mobility Authority for Regional Transportation | Detroit, MI | 0.94 |
| Alameda-Contra Costa Transit District | Oakland, CA | 0.94 |
| Delaware Transit Corporation | Dover, DE | 0.99 |

Source: INTDAS component from FTIS, TCRP Peer Selection component

## TOA PEER REVIEW METHODOLOGY

A peer review analysis is generally conducted to compare a transit system's performance at a given point in time with other transit systems having similar operating characteristics. A list of potential peers was developed using validated 2011 NTD reports for BCT and a methodology developed by TOA. In TOA's experience, peer groups typically comprise six to nine peers. Selected performance indicators, effectiveness measures, and efficiency measures are then used to illustrate the performance of BCT's fixed-route system relative to the peer group. The peer group selection was based primarily on geographic location within the southern U.S.; the states included are Texas, Louisiana, Arkansas, Mississippi, Alabama, Tennessee, Kentucky, Virginia, North Carolina, South Carolina, Georgia, Arizona, New Mexico, California, and Florida. All transit systems in these states were analyzed based on seven indicators—four operating characteristics (passenger trips, revenue miles, vehicles operated in maximum service, and total operating expense) and three exogenous variables (service area size, service area population, and service area population density).

To select the systems most comparable with BCT, each indicator's value for BCT was used as a base number. Based on this, 80, 90, 110, and 120 percent of BCT indicator values were calculated, respectively. Potential peers were assigned a score for each of the indicators based on the following criteria:

- Peers falling between 90 and 110 percent of the BCT value were awarded 1.5 points.
- Peers falling between 80 and 90 percent of the BCT value or between 110 and 120 percent were awarded 0.5 points.
- Peers falling below 80 percent or above 120 percent of the BCT value were awarded 0.0 points.

The total score for each of the indicators by corresponding peers were then summed based on the above criteria. Potential peers that shared at least two comparable variables with BCT were then ranked in descending order, leaving nine transit systems as final peers. The final group of peers as determined by the TOA analysis is shown in Table 3.

**Table 3**

**Peer Systems, TOA Peer Review Analysis**

| Agency | Location | Comparable Variables | Total Score |
|---|---|---|---|
| Santa Clara Valley Transportation Authority | San Jose, CA | 3 | 3.5 |
| Central Florida Regional Transportation Authority | Orlando, FL | 4 | 3 |
| Charlotte Area Transit System | Charlotte, NC | 2 | 3 |
| Transportation District Commission of Hampton Roads, dba Hampton Roads Transit | Norfolk, VA | 2 | 3 |
| Alameda-Contra Costa Transit District | Oakland, CA | 3 | 2.5 |
| Dallas Area Rapid Transit | Dallas, TX | 2 | 2 |
| VIA Metropolitan Transit | San Antonio, TX | 2 | 1 |
| San Diego Metropolitan Transit System | San Diego, CA | 2 | 1 |
| Omnitrans | San Bernardino, CA | 2 | 1 |

Source: NTD and TOA

## FIXED-ROUTE PEER REVIEW

Taking into account the methodologies described previously, BCT staff selected a total of eight peers for the TDP peer review. The peer review analysis was conducted using 2011 NTD data, the most recently validated dataset available for all transit agencies. Selected performance indicators, effectiveness measures, and efficiency measures are summarized in the remainder of this section. The final peers are shown in Table 4.

**Table 4**

**BCT TDP Final Peers**

| Transit Agency | Agency Abbreviation | Location |
|---|---|---|
| Alameda-Contra Costa Transit District | AC Transit | Oakland, CA |
| Board of County Commissioners, Palm Beach County, Palm Tran, Inc. | Palm Tran | West Palm Beach, FL |
| Central Florida Regional Transportation Authority | LYNX | Orlando, FL |
| Charlotte Area Transit System | CATS | Charlotte, NC |
| Miami-Dade Transit | MDT | Miami, FL |
| Santa Clara Valley Transportation Authority | VTA | San Jose, CA |
| Transportation District Commission of Hampton Roads, dba Hampton Roads Transit | HRT | Norfolk, VA |
| VIA Metropolitan Transit | VIA | San Antonio, TX |