

Prototype Scope of Work for Before-and-After Studies for New Starts Projects

Draft: March 20, 2009

1. Preserve the Forecasts used for Entry into Project Engineering (PE)

- 1.1 Archive the physical scope of the project
- 1.2 Archive the capital costs of the project
- 1.3 Archive the transit service levels
- 1.4 Archive the operating and maintenance (O&M) costs
- 1.5 Archive the ridership and user benefits
- 1.6 Archive other characteristics relevant to the purpose of the project
- 1.7 Document/explain differences from the forecasts developed during alternatives analysis

2. Preserve the Forecasts used for Entry into Final Design (FD)

- 2.1 Update the physical scope of the project
- 2.2 Update the capital costs of the project
- 2.3 Update the transit service levels
- 2.4 Update the O&M costs
- 2.5 Update the ridership and user benefits
- 2.6 Update other characteristics relevant to the purpose of the project
- 2.7 Document/explain differences from the forecasts used for entry into PD

3. Preserve the Forecasts from Pre-FFGA (Full Funding Grant Agreement) Final Design

- 3.1 Update the physical scope of the project
- 3.2 Update the capital costs of the project
- 3.3 Update the transit service levels
- 3.4 Update the O&M costs
- 3.5 Update the ridership and user benefits
- 3.6 Update other characteristics relevant to the purpose of the project
- 3.7 Document/explain differences from the forecasts used for entry into PD

4. Collect the “Before” Data

- 4.1 Assemble appropriate data on transit service levels
 - 4.1.1 Identify the transit routes that will be affected by the project (case-specific determination, in coordination with FTA, of which routes to cover).
 - 4.1.2 Summarize the types of service offered (modes), amount of service (number of trips) and service span (days and hours) for the affected routes.
 - 4.1.3 Identify transit run times, headways and capacity provided for different times of a weekday (typically AM Peak, Mid-Day and PM Peak periods), for the affected routes.
- 4.2 Assemble appropriate data on O&M costs
 - 4.2.1 Calculate revenue vehicles, vehicle miles and vehicle hours of service for different times of a weekday, for the affected routes.
- 4.3 Assemble appropriate data on transit ridership
 - 4.3.1 Obtain weekday, Saturday and Sunday observed passenger boardings for the affected routes.
 - 4.3.2 Conduct a weekday transit rider survey for the affected routes, using procedures approved by FTA.
 - 4.3.3 Obtain transit park-and-ride data for the affected routes.
 - 4.3.4 Obtain passenger revenue (fare) data for the affected routes.
- 4.4 Assemble appropriate data on other conditions needed to support the Before-and-After Study

5. Collect the “After” Data

- 5.1 Assemble appropriate data on the actual capital costs
- 5.2 Assemble appropriate data on the revised transit service levels
 - 5.2.1 Identify the transit routes affected by the project (case-specific determination, in coordination with FTA, of which routes to cover).
 - 5.2.2 Summarize the types of service offered (modes), amount of service (number of trips) and service span (days and hours) for the project and affected routes.
 - 5.2.3 Identify transit run times (including station-to-station for the project), headways and capacity provided for different times of a weekday (typically AM Peak, Mid-Day and PM Peak periods), for the project and affected routes.
- 5.3 Assemble appropriate data on the resulting O&M costs

- 5.3.1 Calculate revenue vehicles, vehicle miles and vehicle hours of service for different times of a weekday, for the project and affected routes.
- 5.4 Assemble appropriate data on the resulting transit ridership
 - 5.4.1 Obtain weekday, Saturday and Sunday observed passenger boardings for the project and affected routes, plus boardings and alightings by project station for different times of a weekday.
 - 5.4.2 Conduct a weekday transit rider survey for the project and affected routes, using procedures approved by FTA.
 - 5.4.3 Obtain transit park-and-ride data for the affected routes.
 - 5.4.4 Obtain passenger revenue (fare) data for the project and affected routes.
- 5.5 Assemble appropriate data on other conditions needed to support the Before-and-After Study

6. Document the Impacts of the Project at Two Years after Opening

- 6.1 Document the impacts on transit service levels
- 6.2 Document the impacts on O&M costs
- 6.3 Document the impacts on transit ridership
- 6.4 Document other impacts relevant to the purpose of the project

7. Document the Accuracy of the Forecasts for the Project

- 7.1 Document/explain differences in the physical scope of the project
- 7.2 Document/explain differences in the capital costs of the project
- 7.3 Document/explain differences in the impacts on transit service levels
- 7.4 Document/explain differences in the impacts on O&M costs
- 7.5 Document/explain differences in the impacts on transit ridership
 - 7.5.1 Obtain demographic information necessary to verify the demographic forecasts for the major markets served by the project.
 - 7.5.2 Pending the initial results of the predicted-versus-actual analysis, conduct new “opening year” forecasts with demographic and network inputs re-set to the observed.
- 7.6 Document/explain differences in other impacts relevant to the purpose of the project