

## **2017 TAF: Originating Shares and Originations for Large and Medium Hub Airports**

### **Presentation of Originating Shares and Originations**

The tables present historic (2005 – 2016) and forecast (2017 – 2045) local domestic originating shares and local domestic originations by airport. The airports include the 30 large hub airports and the 30 medium hub airports in the 2017 TAF. Large hub airports are those with 1.0% or more of total US enplanements and medium hub airports are those with 0.25% to 1.0% of total US enplanements.

Each table shows domestic air carrier enplanements, commuter enplanements, local domestic originating share, and local domestic originations on a fiscal year basis. Enplanements include both originating and connecting passengers boarding aircraft. The local domestic originating share is defined as domestic originating passengers divided by total domestic passenger enplanements. (The domestic connecting share can be derived by subtracting the local domestic originating share from 100%.) Hub and spoke airports with significant connecting percentages have a low originating share. In contrast origination and destination (O&D) airports have a high share of originating passengers.

The historic local domestic originations are estimated by multiplying the historic local domestic originating share times the sum of the historic domestic air carrier and commuter enplanements shown in the table. (The historic domestic connecting passengers may be estimated by multiplying the historic domestic connecting share times the sum of the historic domestic air carrier and commuter enplanements.)

The forecast local domestic originations are forecast by multiplying the forecast local domestic originating share times the sum of the forecast air carrier and commuter enplanements. (The forecast domestic connecting passengers may be forecast by multiplying the forecast domestic connecting share times the sum of the forecast domestic air carrier and commuter enplanements.)

### **Limitations of Estimates**

The tables provide useful information for planning purposes. However there are some technical limitations of the data that should be noted. These limitations include:

- . The historic local domestic originating shares and originations are estimates because the domestic originating passengers (the numerator in the shares) are based on a 10% ticket sample using the O&D Survey.
- . The historic estimated local domestic originating shares may exceed 100% because of scaling assumptions applied to the O&D Survey. The forecast shares are capped to not exceed 100%.

- . The total domestic passenger enplanements (the denominator in the shares) are not adjusted for the domestic portion of international journey (DPIJ). The DPIJ represents passengers traveling on a domestic segment of an international journey. Adjusting for the DPIJ by subtracting it out of the reported domestic enplanements lowers the denominator and increases the originating share. The adjustment for the DPIJ may make a large difference in the shares at international gateway airports.
- . The timing of the most recent O&D Survey and the most recent DOT T-100 enplanement numbers does not line up exactly.
- . The commuter enplanement figures in the tables include both domestic and international enplanements whereas the local domestic originating shares are based on the TAF model and include only domestic enplanements. For the majority of airports there are few or no international commuter enplanements.

### **The Forecast Methodology**

The enplanements are based on the 2017 TAF. The local domestic originating shares are based on the Modernized TAF (TAF-M) model. In the model, the domestic enplanements are forecast by generating O&D market demand forecasts using the DB1B (quarterly 10% sample) data to model passenger flow on a quarterly basis. The O&D passenger demand forecasts are based on regression analysis using fares, regional demographics, and regional economic factors as the independent variables.

The O&D forecasts are combined with the DOT T-100 segment data to generate passenger forecasts by airport pair and segment pair. The quarterly segment pair forecasts are aggregated to produce annual airport forecasts. In the 2017 TAF a fixed network is assumed in the forecast period to distribute the passenger forecasts. The short run (2 year) forecasts of passenger enplanements are produced using models at the airport level. These models incorporate the use of future airline schedules.