

Enplaned Passengers

(March 7, 2015 by Dafang Wu; [PDF version](#))

U.S. airports report traffic statistics on a regular basis and typically include statistics on passengers, operations, cargo and mail. Number of enplaned passengers is the most important air traffic metric because the majority of airport revenues are generated directly or indirectly from enplaned passengers. U.S. airports generated only 10.2% of total operating revenues from non-passenger aeronautical activities, although this ratio is much higher at airports with significant cargo operations, such as MEM and SDF.

Summary

Classifications of passengers and reporting sources are as follows:

- Total passengers (reported by each airport, see table below)
 - Enplaned passengers (reported by each airport)
 - Classification 1: revenue vs. nonrevenue
 - Revenue enplaned passengers ([FAA passenger boarding and all-cargo data](#))
 - On large carriers ([DOT Form 41](#), or [this link](#))
 - On air taxi/commercial operators (FAA survey)
 - Nonrevenue enplaned passengers (reported by each airport)
 - Classification 2: O&D vs. connecting
 - O&D - 10% Sample ([Airline Origin and Destination Survey](#), or [this link](#))
 - Visitors
 - Residents
 - Connecting: either from survey above, or calculated as the difference
 - Classification 3: international vs. domestic (reported by each airport)
 - Other classifications: scheduled vs. nonscheduled, etc.
 - Deplaned passengers (reported by each airport)

Definition

The term “enplaned passenger” is widely used in the aviation industry, and is loosely defined as a passenger boarding a plane at a particular airport. [14 CFR Part 217](#) and [14 CFR Part 241](#) require all U.S. large certificated carriers and foreign carriers operating in the U.S. to report traffic statistics and to provide the most comprehensive definition of passengers, including definitions of revenue passengers and nonrevenue passengers. “Revenue passenger” is defined as a passenger for whose transportation an air carrier receives commercial remuneration. Detailed definitions from [14 CFR Part 217](#) and [Part 241](#) are attached to the end of this article.

Other federal rules and regulations provide much abbreviated definitions of enplaned passengers. [49 CFR Part 1510](#), which governs the collection of the September 11 Security Fee, defines “passenger enplanement” as “a person boarding in the United States in scheduled or nonscheduled service on aircraft in intrastate, interstate, or foreign air transportation,” which is similar to the definition in [14 CFR Part 217](#) and [Part 241](#). [14 CFR Part 158](#) has a similar definition of passenger enplanement, but limits it to refer to revenue enplaned passengers only.

Based on further details in [14 CFR 241](#), enplaned passengers can also be grouped as origin and destination (O&D) passengers vs. connecting passengers. O&D passengers are those boarding at the first or last points of a one-way itinerary, while connecting passengers board at intermediate points in a one-way itinerary.

Reporting Enplaned Passengers

[Form 41 Traffic Data](#) (also known as T-100) is a database for revenue enplaned passengers of U.S. large certificated carriers and foreign carriers, reported pursuant to 14 CFR Part 217 and Part 241. T-100 does not include revenue enplaned passengers of Air Taxi/Commercial Operators, which accounted for approximately 0.2% of total revenue enplaned passengers in CY 2012 and CY 2013.

- [T-100 Market](#) reports revenue enplaned passengers within the U.S. as well as passengers enplaned outside the U.S. but deplaned within the U.S.
- [T-100 Segment](#) further includes transit passengers who pass through an airport without deplaning. Transit passengers are not enplaned passengers.

[Airline Origin and Destination Survey](#) (also known as DB1B) is another database reported pursuant to 14 CFR Part 217 and Part 241, and includes traffic and airfare data of a 10% sample of all domestic to domestic itineraries. It further includes DB1B Ticket for the ticket-level information, DB1B Market for one-way trips, and DB1B Coupon for segment-specific information. The split of enplaned passengers between O&D and connecting can be estimated using DB1B, since there is no alternative source covering 100% of tickets.

The Federal Aviation Administration (FAA) prepares a separate database called the [Air Carrier Activity Information System \(ACAIS\)](#), and publishes revenue enplaned passengers and cargo data for all airlines. Because Form 41 Traffic Data does not include traffic statistics of Air Taxi/Commercial Operators, the FAA sends out [annual survey form 1800-31](#) to collect such data. The consolidated data are referred to as [FAA passenger boarding and all-cargo data](#), and are used for determining hub status and allocating federal grants under the Airport Improvement Program, among other purposes.

Airlines are not required to report nonrevenue enplaned passengers pursuant to 14 CFR, and report only that data to each airport. Many airports, especially large-hub airports, publish either total passengers or total enplaned passengers online on a monthly basis, ACI-NA, an industry association, prepares [an annual summary](#) based on survey responses from a majority of U.S. airports.

Calendar Year 2013 Review

The following table includes a comparison of revenue enplaned passengers and total enplaned passengers reported by the DOT, the FAA and each airport, as well as links to each airport's monthly reporting data. In the calendar year 2013, nonrevenue enplaned passengers accounted for 3.4% of total enplaned passengers on average. PDX began to be classified as a large-hub airport based on calendar year 2013 data, and has the lowest ratio of 0.7%. SAN seems to be consistently under-reporting enplaned passengers.

Enplaned Passengers - Large-hub Airports

T100 and FAA Data vs. Airport Data

(for calendar year 2013; in thousands; by Dafang Wu)

<u>Airport</u>	<u>Revenue Enpl. Pass.</u>		<u>Enplaned</u>		<u>Nonrev as</u>	<u>Report Link</u>
	<u>T100</u>	<u>FAA</u>	<u>Passengers</u>		<u>% of Ttl.</u>	
ATL	45,303	45,309	47,118		3.8%	Monthly Report
LAX	32,431	32,427	33,334	*	2.7%	Monthly Report
ORD	32,275	32,279	33,544	*	3.8%	Monthly Report
DFW	29,016	29,019	30,218	*	4.0%	Monthly Report
DEN	25,496	25,497	26,278	*	3.0%	Monthly Report
JFK	25,036	25,037	25,964	*	3.6%	Monthly Report
SFO	21,701	21,707	22,418		3.2%	Monthly Report
CLT	21,341	21,347	21,707		1.7%	Monthly Report
LAS	19,887	19,924	20,957		4.9%	Monthly Report
PHX	19,524	19,526	20,167		3.2%	Monthly Report
MIA	19,453	19,422	20,281	*	4.2%	Monthly Report
IAH	18,951	18,954	19,900	*	4.8%	Monthly Report
EWR	17,513	17,514	18,137	*	3.4%	Monthly Report
MCO	16,921	16,885	17,682		4.5%	Monthly Report
SEA	16,655	16,690	17,388	*	4.0%	Monthly Report
MSP	16,277	16,282	16,935		3.9%	Monthly Report
DTW	15,684	15,684	16,148		2.9%	Monthly Report
BOS	14,717	14,722	15,079		2.4%	Monthly Report
PHL	14,701	14,705	15,304		3.9%	Monthly Report
LGA	13,351	13,353	13,838	*	3.5%	Monthly Report
FLL	11,507	11,509	11,780	*	2.3%	Monthly Report
BWI	11,053	11,134	11,340	*	1.8%	Monthly Report
IAD	10,565	10,575	10,936		3.3%	Monthly Report
MDW	9,907	9,920	10,237	*	3.1%	Monthly Report
DCA	9,811	9,812	10,209		3.9%	Monthly Report
SLC	9,666	9,669	10,103		4.3%	Monthly Report
HNL	9,458	9,467	n.a.		n.a.	n.a.
SAN	8,874	8,877	8,860		-0.2%	Monthly Report
TPA	8,267	8,268	8,478		2.5%	Monthly Report
PDX	7,452	7,453	7,507		0.7%	Monthly Report
w/o HNL	523,335	523,500	541,848		3.4%	

* Calculated using total passengers divided by two.

Sources: T100 - USDOT T100 Market (All Carriers).

FAA - Passenger Boarding Data.

Enplaned Passengers - reported by each airport.

FAA data includes enplaned passengers on air taxis.

Detailed Definitions in 14 CFR Part 241

Passenger, revenue. A passenger for whose transportation an air carrier receives commercial remuneration.

(This definition is for 14 CFR Part 241 traffic reporting purposes and may differ from the definitions used in other

parts by the Federal Aviation Administration and the Transportation Security Administration for the collection of Passenger Facility Charges and Security Fees.) This includes, but is not limited to, the following examples:

1. Passengers traveling under publicly available tickets including promotional offers (for example two-for-one) or loyalty programs (for example, redemption of frequent flyer points);
2. Passengers traveling on vouchers or tickets issued as compensation for denied boarding or in response to consumer complaints or claims;
3. Passengers traveling at corporate discounts;
4. Passengers traveling on preferential fares (Government, seamen, military, youth, student, etc.);
5. Passengers traveling on barter tickets; and
6. Infants traveling on confirmed-space tickets.

Passenger, nonrevenue. A person traveling free or under token charges, except those expressly named in the definition of revenue passenger; a person traveling at a fare or discount available only to employees or authorized persons of air carriers or their agents or only for travel on the business of the carriers; and an infant who does not occupy a seat. (This definition is for 14 CFR Part 241 traffic reporting purposes and may differ from the definitions used in other parts by the Federal Aviation Administration and the Transportation Security Administration for the collection of Passenger Facility Charges and Security Fees.) The definition includes, but is not limited to, the following examples of passengers when traveling free or pursuant to token charges:

1. Directors, officers, employees, and others authorized by the air carrier operating the aircraft;
2. Directors, officers, employees, and others authorized by the air carrier or another carrier traveling pursuant to a pass interchange agreement;
3. Travel agents being transported for the purpose of familiarizing themselves with the carrier's services;
4. Witnesses and attorneys attending any legal investigation in which such carrier is involved;
5. Persons injured in aircraft accidents, and physicians, nurses, and others attending such persons;
6. Any persons transported with the object of providing relief in cases of general epidemic, natural disaster, or other catastrophe;
7. Any law enforcement official, including any person who has the duty of guarding government officials who are traveling on official business or traveling to or from such duty;
8. Guests of an air carrier on an inaugural flight or delivery flights of newly-acquired or renovated aircraft;
9. Security guards who have been assigned the duty to guard such aircraft against unlawful seizure, sabotage, or other unlawful interference;
10. Safety inspectors of the National Transportation Safety Board or the FAA in their official duties or traveling to or from such duty;
11. Postal employees on duty in charge of the mails or traveling to or from such duty;
12. Technical representatives of companies that have been engaged in the manufacture, development or testing of a particular type of aircraft or aircraft equipment, when the transportation is provided for the purpose of in-flight observation and subject to applicable FAA regulations;
13. Persons engaged in promoting air transportation;
14. Air marshals and other Transportation Security officials acting in their official capacities and while traveling to and from their official duties; and
15. Other authorized persons, when such transportation is undertaken for promotional purpose.

Origin. The first point in the itinerary and the point where the passenger first boards a carrier at the beginning of the itinerary.

Destination. The last point in the itinerary and the last point at which the passenger is to deplane at the completion of the journey. (In round-trip itineraries, the destination and the origin are the same.)

Connecting point. An intermediate point in an itinerary at which the passenger deplanes from one flight and boards another flight, either on the same carrier or from the flight of one carrier to a flight of another carrier, for continuation of the journey.

Itinerary. All points in the passenger journey, beginning with the origin, followed by the routing, and ending with the destination, in the sequence shown on the ticket.

Canada Enplaned Passenger Reporting

Similar to its U.S. counterpart, Statistics Canada requires carriers only to report revenue enplaned passengers, pursuant to the National Transportation Act, 1987. It mentions on [its site](#): "It should be noted that, prior to the changes in the statistical reporting requirements, this publication provided data on both revenue and non-revenue passengers. However, carriers are now required to report only revenue passengers, and, as such, all references to passengers in this publication refer to revenue passengers."

Therefore, Canadian airports report a higher number of enplaned passengers, including nonrevenue enplaned passengers, similar to U.S. airports.