



LAX SPECIFIC PLAN AVIATION ACTIVITY ANALYSIS REPORT CY 2020

Prepared June 2021

**Los Angeles International Airport (LAX)
Specific Plan Compliance Review
Aviation Activity Analysis
January - December 2020**

A. Purpose of this Report

Per Appendix A, Subsection 1(b) of the Los Angeles International Airport Specific Plan,^[1] Los Angeles World Airports (LAWA) is required to prepare and submit an annual Aviation Activity Analysis Report to the Board of Airport Commissioners, the Department of City Planning, the Los Angeles Department of Transportation, and the Los Angeles City Council. The purpose of this report is: 1) to provide an analysis that identifies the current number of passengers, volume of air cargo and aircraft operations served at LAX; and 2) to compile aviation activity statistics for other airports in the Los Angeles region for monitoring and reporting purposes. This Aviation Activity Analysis Report has been updated for the calendar year 2020.

B. Summary and Conclusions

The COVID-19 pandemic severely impacted the aviation and travel industry during 2020. Below is an overview of this report's analysis of LAX and regional air traffic for January through December of that calendar year:

- Preliminary data reported by individual airports indicates that LAX is the fifteenth busiest airport in the world by passenger volume and the fifth busiest in the United States.
- Passenger volume at LAX totaled approximately 28.78 million annual passengers (MAP) in 2020, a 67.32% decrease compared to the previous year.
- Load factor for *departures* from LAX was 60.83% for domestic flights and 62.03% for international flights. This represents a decrease in load factor of 26.87% for domestic flights and a decrease of 22.10% for international flights when compared to 2019.
- Load factor for *arrivals* at LAX was 60.62% for domestic flights and 61.82% for international flights. This represents an increase in load factor of 26.73% for domestic flights and an increase in 22.01% for international flights when compared to 2019.
- Cargo volume at LAX totaled approximately 2.46 million tons in 2020, a 6.53% increase over 2019.
- Commercial aircraft operations (landings and takeoffs) at LAX decreased by 45.12% in 2020 to 379,364. This is down from 691,257 operations in 2019.
- LAX handled approximately 73.04% of passenger traffic among the six major commercial Southern California Association of Governments (SCAG) region airports in 2020, a 2.23% decrease from 2019.

^[1] City of Los Angeles, Department of City Planning, LAX Specific Plan, adopted January 20, 2005, last amended September 8, 2017.

C. LAX Global and National Ranking

Table 1. Top 20 World Airports Ranked by Passenger Volume
(preliminary rankings as reported by individual airports, May 2021)

U.S. Rank	Global Rank	Airport	Location	Total Passengers
	1	Guangzhou Bai Yun International	Guangzhou, China	43,767,558
1	2	Hartsfield–Jackson Atlanta International	Atlanta, Georgia, U.S.A.	42,918,685
	3	Chengdu Shuangliu International	Chengdu, China	40,741,509
2	4	Dallas/Fort Worth International	Dallas-Fort Worth, Texas, U.S.A.	39,364,990
	5	Shenzhen Bao'an International	Shenzhen, China	37,916,054
	6	Chongqing Jiangbei International	Chongqing, China	34,937,789
	7	Beijing Capital International	Beijing, China	34,513,827
3	8	Denver International	Denver, Colorado, U.S.A.	33,741,129
	9	Kunming Changshui International	Kunming, China	32,990,805
	10	Shanghai Hongqiao International	Shanghai, China	31,165,641
	11	Xi'an Xianyang International	Xi'an, China	31,073,924
	12	Tokyo Haneda International	Tokyo, Japan	30,965,000
4	13	O'Hare International	Chicago, Illinois, U.S.A.	30,860,251
	14	Shanghai Pudong International	Shanghai, China	30,476,531
5	15	Los Angeles International	Los Angeles, California, U.S.A	28,779,527
	16	Indira Gandhi International	New Delhi, India	28,501,000
	17	Hangzhou Xiaoshan International	Hangzhou, China	28,224,342
6	18	Charlotte Douglas International	Charlotte, North Carolina, U.S.A	27,205,082
	19	Dubai International	Dubai, United Arab Emirates	25,900,000
	20	Istanbul	Arnavutköy, Turkey	23,409,000

Data Sources: Airports Council International (ACI) – World; ACI – North America; CAAC



Image Credit: Los Angeles World Airports (LAWA).

D. LAX Air Traffic Activity

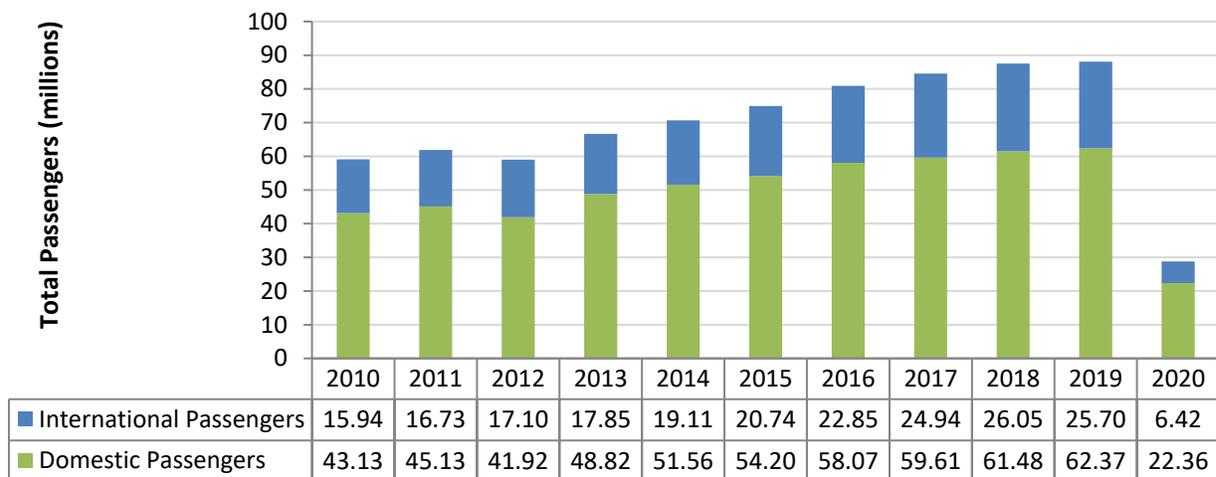
LAWA reports air traffic activity on a monthly basis, and keeps an archive of this activity online at <https://www.lawa.org/en/lawa-investor-relations/statistics-for-lax>. The subpages entitled “Air Traffic Ten Year Summary” and “Volume of Air Traffic” provides air passenger, air cargo and aircraft operations activity statistics for LAX for the calendar year 2020.

E. LAX Passenger Volume

As shown below in Figure 1, LAX passenger volume totaled approximately 28.78 million annual passengers (MAP) in 2020, a 67.32% decrease compared to 2019. This large decrease in passengers is attributed to the COVID-19 pandemic’s impact on the aviation and travel industry.

International passenger volume was approximately 6.42 MAP in 2020, a 75.01% decrease over the previous high of 25.70 MAP in 2019. Domestic passenger volume is down 64.15% compared to 2019, from approximately 62.37 MAP in 2019 to 22.36 MAP in 2020.

Figure 1. LAX Annual Passengers 2010-2020



Data Source: LAWA, Financial Management Systems, Revenue Agreement Management System (aka PROPworks™).

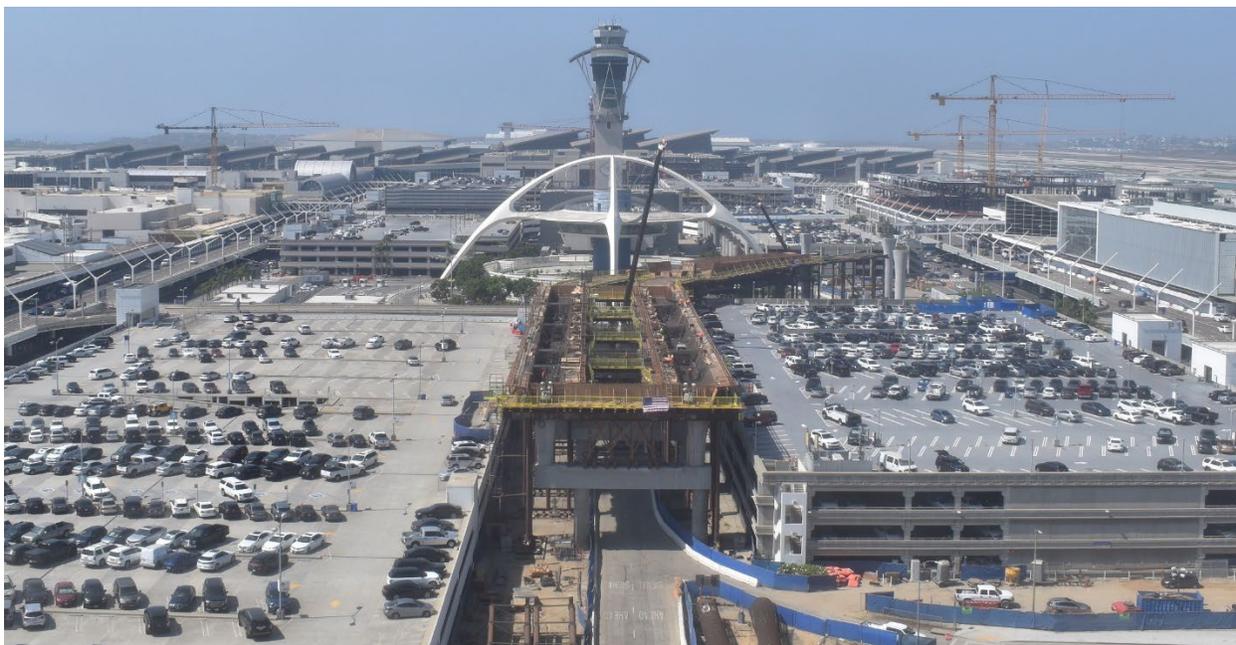
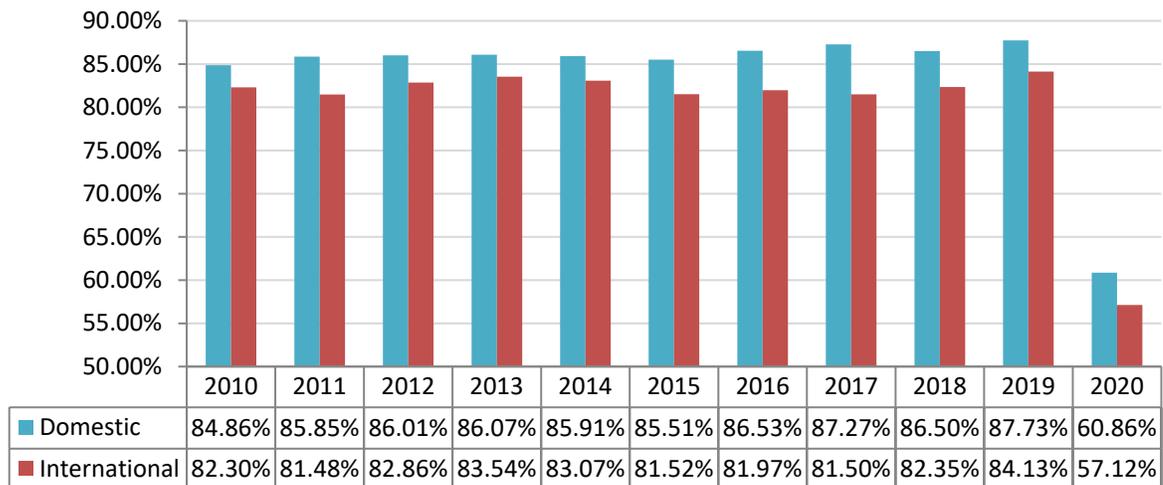


Image Credit: Los Angeles World Airports (LAWA).

F. Load Factor

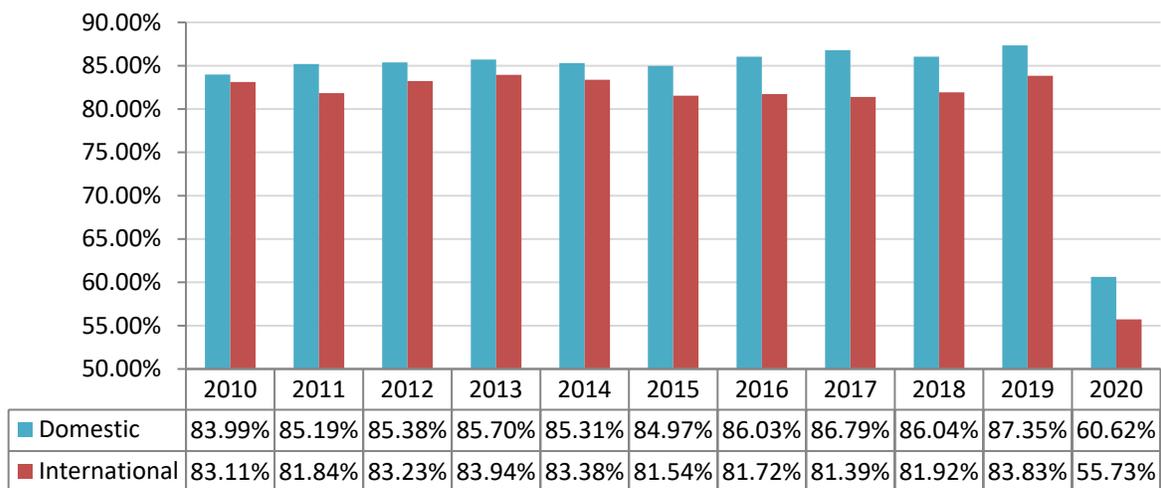
Load factor is the proportion of available seats filled per aircraft that measures how much passenger carrying capacity is used. Load factor is calculated by dividing Revenue Passenger Miles^[2] by the Available Seat Miles.^[3] Figure 2a below shows the change in load factor for aircraft departing LAX for the past decade, while Figure 2b shows the change in load factor for aircraft arriving at LAX for the same timeframe. In 2020, load factor for departures from LAX decreased by 27.01% for international flights and decreased by 26.87% for domestic flights due to the impacts of the COVID-19 pandemic. For arrivals at LAX, load factor decreased by 28.10% for international flights and decreased by 26.73% for domestic flights when compared to 2019.

Figure 2a. Load Factor for *Departures* from LAX 2010-2020



Data Source: Bureau of Transportation Statistics T-100 Segment Data

Figure 2b. Load Factor for *Arrivals* to LAX 2010-2020



Data Source: Bureau of Transportation Statistics T-100 Segment Data

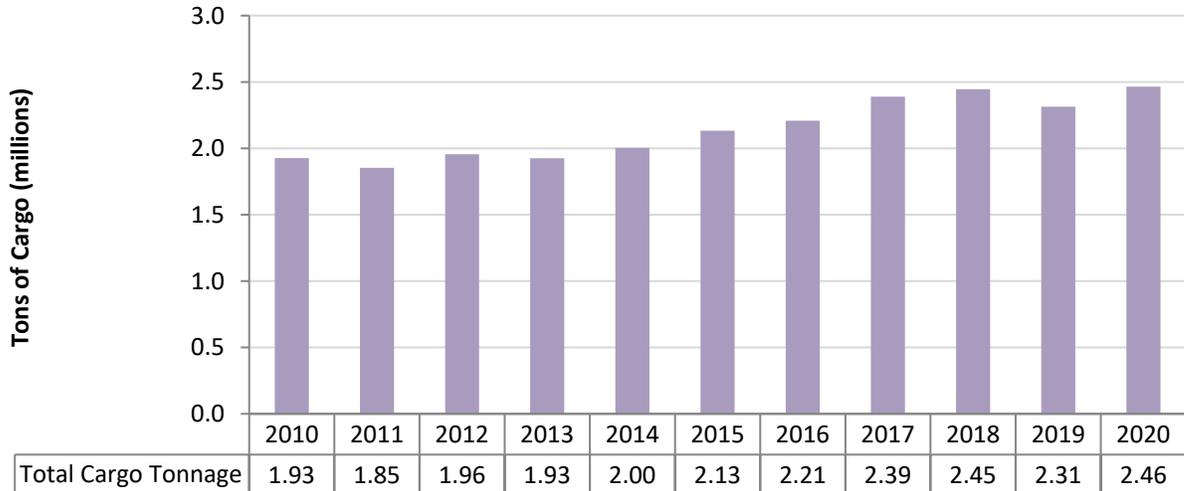
^[2] Revenue Passenger Miles show the number of miles traveled by paying passengers. It is calculated as the number of paying passengers multiplied on a flight by the total distance traveled.

^[3] Available Seat Miles is the total passenger capacity of an airline in miles and is captured by multiplying the total number of seats available on a flight and the total number of miles in which those seats were flown during scheduled flights.

G. LAX Cargo Volume

Cargo volume in 2020 totaled approximately 2.46 million tons, a 6.53% increase compared to 2019. Figure 3 below shows historical cargo volumes for LAX over the past ten years.

Figure 3. LAX Annual Cargo Tonnage 2010-2020

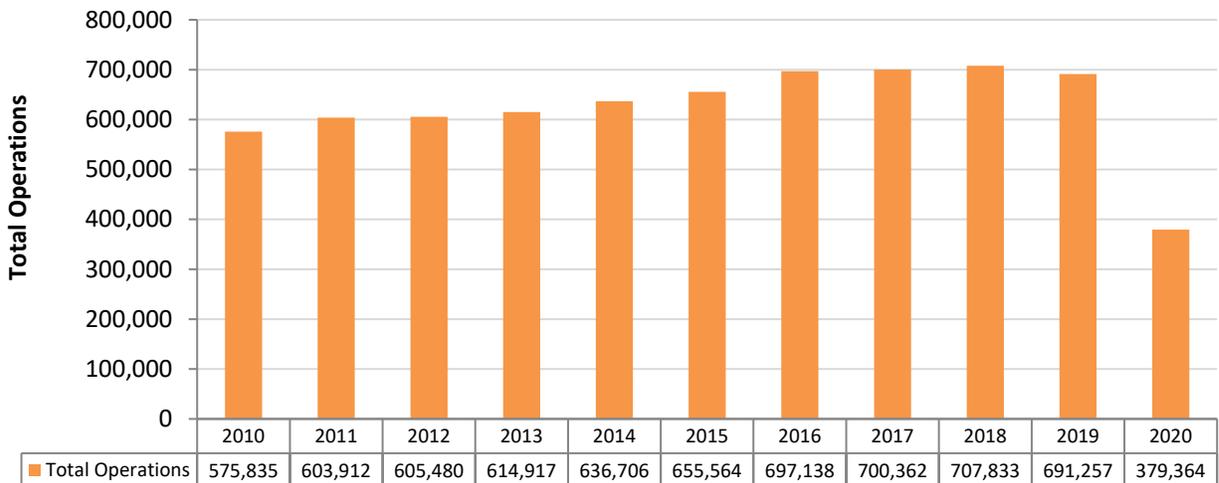


Data Source: LAWA, Financial Management Systems, *Revenue Agreement Management System* (aka PROPworks™).

H. LAX Aircraft Operations

Figure 4 below shows the change in aircraft operations activity at LAX for the past decade. The number of aircraft operations (landings and takeoffs) totaled 379,364 in 2020, down 45.12% from 691,257 commercial operations in 2019. This large decrease in operations at LAX is attributed to the COVID-19 pandemic's impact on the aviation and travel industry.

Figure 4. LAX Annual Operations 2010-2020



Data Source: LAWA, Financial Management Systems, *Revenue Agreement Management System* (aka PROPworks™).

I. Aviation Activity in the SCAG Metropolitan Planning Region

There are six major commercial airports in the Southern California Association of Governments (SCAG) metropolitan planning region:^[4]

- | | |
|--|---|
| 1) Hollywood Burbank Airport (BUR) | 4) Ontario International Airport (ONT) |
| 2) Los Angeles International Airport (LAX) | 5) Palm Springs International Airport (PSP) |
| 3) Long Beach Airport (LGB) | 6) John Wayne Airport (SNA) |

These airports served approximately 39.4 million annual passengers in 2020 (down 66.16% from 116.44 million annual passengers in 2019) and approximately 3.48 million tons of cargo/mail in 2020. The six major SCAG region airports had about 1.13 million aircraft operations in 2020. LAX handled approximately 73.04% of regional passenger volume among the six airports in 2020.

The tables below summarize 2019 and 2020 air passengers, cargo/mail tonnage, and aircraft operations totals by airport in absolute numbers (Table 2) and the percentage of total (Table 3). An aircraft operation is defined as an arrival or departure of one aircraft at an airport.

Table 2. 2019 and 2020 Aviation Activity at the Six Major SCAG Region Airports

Airport	2020			2019		
	Passengers	Cargo/Mail (Tons)	Total Operations	Passengers	Cargo/Mail (Tons)	Total Operations
BUR	1,995,348	56,566	105,357	5,983,737	53,024	146,095
LAX	28,779,527	2,464,845	379,364	88,068,013	2,313,247	691,257
LGB	1,043,773	17,319	273,986	3,584,203	23,281	304,357
ONT	2,538,482	924,160	92,138	5,583,732	781,993	101,135
PSP	1,252,094	155	43,368	2,563,955	217	58,579
SNA	3,794,850	18,467	238,340	10,656,986	17,703	301,098
Total	39,404,074	3,481,513	1,132,553	116,440,626	3,189,464	1,602,521

Data Source: Individual airport's statistical reports, Federal Aviation Administration (FAA) Air Traffic Activity Data System (ATADS), and SCAG.

Table 3. 2019 and 2020 Aviation Activity at the Six Major SCAG Region Airports (by percentage of total)

Airport	2020			2019		
	Passengers	Cargo/Mail (Tons)	Total Operations	Passengers	Cargo/Mail (Tons)	Total Operations
BUR	5.06%	1.62%	9.30%	5.14%	1.66%	8.40%
LAX	73.04%	70.80%	33.50%	75.63%	74.22%	45.06%
LGB	2.65%	0.50%	24.19%	3.08%	0.72%	16.31%
ONT	6.44%	26.54%	8.14%	4.80%	22.80%	6.39%
PSP	3.18%	<0.01%	3.83%	2.20%	0.01%	3.67%
SNA	9.63%	0.53%	21.04%	9.15%	0.59%	20.16%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Data Source: Individual airport's statistical reports, FAA ATADS, and SCAG.

^[4] The SCAG region encompasses Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial Counties.

Table 4 below shows each airport's share of regional air passenger traffic from 2000 to 2020.

Table 4. Share of Passenger Activity at the Six Major SCAG Region Airports from 2000-2020 (by percentage of total)^[5]							
Year	LAX	ONT	LGB	SNA	BUR	PSP	Regional Total
2000	76.1%	7.6%	0.7%	8.8%	5.3%	1.4%	100.0%
2001	75.2%	8.2%	0.7%	8.9%	5.5%	1.4%	100.0%
2002	72.2%	8.4%	1.9%	10.2%	5.9%	1.4%	100.0%
2003	69.7%	8.3%	3.6%	10.8%	6.0%	1.6%	100.0%
2004	70.5%	8.1%	3.4%	10.8%	5.7%	1.6%	100.0%
2005	69.6%	8.2%	3.4%	10.9%	6.2%	1.6%	100.0%
2006	69.6%	8.0%	3.1%	11.0%	6.5%	1.7%	100.0%
2007	69.3%	8.0%	3.2%	11.1%	6.6%	1.8%	100.0%
2008	70.5%	7.3%	3.4%	10.6%	6.3%	1.8%	100.0%
2009	71.5%	6.2%	3.7%	11.0%	5.8%	1.9%	100.0%
2010	72.5%	5.9%	3.7%	10.6%	5.5%	1.8%	100.0%
2011	73.7%	5.4%	3.7%	10.3%	5.1%	1.8%	100.0%
2012	74.2%	5.0%	3.7%	10.3%	4.7%	2.0%	100.0%
2013	75.4%	4.5%	3.3%	10.4%	4.3%	2.0%	100.0%
2014	76.2%	4.4%	3.0%	10.1%	4.2%	2.1%	100.0%
2015	76.7%	4.3%	2.6%	10.4%	4.0%	1.9%	100.0%
2016	77.3%	4.1%	2.7%	10.0%	4.0%	1.9%	100.0%
2017	76.8%	4.1%	3.4%	9.5%	4.3%	1.9%	100.0%
2018	76.3%	4.5%	3.4%	9.3%	4.6%	2.0%	100.0%
2019	75.6%	4.8%	3.1%	9.2%	5.1%	2.2%	100.0%
2020	73.0%	6.4%	2.7%	9.6%	5.0%	3.2%	100.0%

Data Source: Individual airport's statistical reports and correspondence, FAA ATADS, and SCAG.



Image Credit: Los Angeles World Airports (LAWA).

^[5] Percentages are rounded to the nearest tenth and may not add to 100% due to rounding.