Memorandum

MIAMI-DADE COUNTY

Agenda Item No. 2B1
November 1, 2016

Date: May 27, 2016

To: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Report on Miami International Airport's On-Time Performance – Directive 160374

During the February 11, 2016 Trade and Tourism Committee meeting, Commissioner Dennis C. Moss requested a report on the Miami International Airport's (MIA) decrease in on-time performance. The information below summarizes the attached report from the consultant, Leigh Fischer.

The Official Airline Guide (OAG) publishes an annual punctuality report regarding on-time performance (OTP) of airports worldwide. On-time is defined as departures and arrivals that take place less than 15 minutes after the scheduled time. Among airports serving more than 20 million passengers per year, MIA ranked 19th in calendar year 2015 with an OTP ratio of 80.1 percent, compared to being ranked 9th in calendar year 2014 with an OTP ratio of 83.2 percent.

Delay causes are classified by the Federal Aviation Administration (FAA) in five (5) categories:

1. **Air Carrier**: Delays due to circumstances within the airline's control (e.g. maintenance or crew problems, aircraft cleaning, baggage loading, fueling, etc.)
2. **Extreme Weather**: Significant weather conditions (actual or forecast) such as a tornado, blizzard or hurricane that, in the judgment of the carrier, delay or prevent the operation of a flight
3. **National Aviation System**: Delays and cancellations attributable to the national aviation system that refer to a broad set of conditions, such as non-extreme weather conditions, airport operations, heavy traffic volume, and air traffic control
4. **Late-arriving aircraft**: A previous flight with the same aircraft arrived late causing a delay
5. **Security**: Delays occurred due to security-related reasons

American Airlines, the predominant carrier at MIA, pointed out that the OAG's OTP data has limitations, including non-reporting carriers that can influence the results and rankings. However, the internal data of American Airlines also provides evidence of an increase in flight delays from 2014 to 2015. According to American Airlines, this is not unexpected given the following factors related to operations at MIA during this period:

1. **Change of Custom and Border Protection (CBP) protocols -** On October 8, 2014, the CBP changed its protocols in overseeing catering and customer boarding for international departures, creating a spike in delays averaging 11.5 delays per day through March 18, 2015. The highest disruption during that period saw a peak of 32 delays on December 1, 2014.

2. **Customer service and Transportation Security Administration (TSA)/CBP processing-** Delays caused by the operational handling of customers and their bags contributed to an increase of 1.3 percentage points in delays, and TSA and CBP process-related delays also increased by one (1) percentage point. American Airlines experiences high numbers of tight connections and

misconnected customers and as mishandled bags delayed by CBP processing of international arrivals and TSA screenings.

3. **Operations in Central Terminal Satellite E facility-** In December 2014, American Airlines began to use gates in the Satellite E facility, which involved a busing operation during the construction period. The OTP ratio in 2015 was 64.2 percent for Satellite E operations compared to 79.9 percent for the rest of American Airlines' operations. The planned resumption of the train service to the Satellite E facility in April 2016 and the opening of newly refurbished gates in June 2016 are expected to reduce delays.
4. **Re-banking-** On August 18, 2014 American Airlines changed its scheduling methodology, placing more flights during peak hours to provide more connection choices for their passengers. The change, called re-banking, compresses schedules and shortens connect times. This peaked schedule allows much less leeway to absorb any type of airline or weather disruption causing aircraft to wait for gates and deteriorate their dependability. This was a major contributor to the airport's 4.2 percent decrease in on-time performance.
5. **Other issues-** Staffing shortages in Havana airspace between December 14, 2015 and January 30, 2016 resulted in an average of 6.8 daily American Airlines departures being held at the gate and another 32.4 flights awaiting southbound Air Traffic Control clearance.

American Airlines further noted that it is focused on operational improvements and is working with representatives of MDAD and federal government agencies.

If additional information is required, please contact MDAD Director Emilio T. González at (305) 876-7077.

Pursuant to Ordinance 14-65, this memorandum will be placed on the next available Board meeting agenda.

c: Abigail Price-Williams, County Attorney
Jack Osterholt, Deputy Mayor, Office of the Mayor
Emilio González, Director, Miami-Dade Aviation Department
Charles Anderson, Commission Auditor
Eugene Love, Office of Agenda Coordination

Leigh|Fisher

Date DRAFT 3/28/2016 File Ref

To Ken Pyatt Enc

From LeighFisher, with DWU Consulting

Subject On-time Performance at Miami International Airport (MIA)

Background

Official Airline Guide (OAG) publishes an annual punctuality report regarding on-time performance (OTP) of airports worldwide. "On-time" is defined as "departures and arrivals that take place strictly less than 15 minutes after schedule for airports." Among airports with more than 20 million seats, MIA ranked No. 19 in calendar year 2015 (CY 2015) with an OTP ratio of 80.1%, compared to No.9 in CY 2014 with an OTP ratio of 83.2%.

Table 1
Top 20 Large Airports, Ranked by On-Time Performance

2014 Report				2015 Report			
Rank	Airport	Code	OTP	Rank	Airport	Code	OTP
1	Munich	MUC	89.0%	1	Tokyo Haneda	HND	91.3%
2	Tokyo Haneda	HND	87.9	2	Munich	MUC	87.7
3	Seattle	SEA	86.2	3	São Paulo Guarulhos	GRU	87.5
4	Singapore Changi	SIN	85.3	4	Minneapolis	MSP	85.3
5	Minneapolis	MSP	84.5	5	Sydney	SYD	85.2
6	Amsterdam	AMS	84.4	6	Melbourne	MEL	85.0
7	Frankfurt	FRA	84.4	7	Singapore Changi	SIN	84.8
8	Sydney	SYD	84.4	8	Atlanta	ATL	84.4
9	Miami	MIA	83.2	9	Frankfurt	FRA	84.1
10	Charlotte	CLT	83.1	10	Seattle	SEA	83.6
11	Melbourne	MEL	82.9	11	Phoenix	PHX	83.5
12	Atlanta	ATL	82.4	12	Madrid	MAD	82.6
13	Barcelona	BCN	82.4	13	Charlotte	CLT	81.4
14	Dubai	DXB	82.3	14	Las Vegas	LAS	81.4
15	Los Angeles	LAX	81.1	15	Amsterdam	AMS	81.2
16	Toronto	YYZ	79.6	16	Orlando	MCO	80.8
17	Rome Fiumicino	FCO	79.1	17	Boston	BOS	80.7
18	Kuala Lumpur	KUL	79.1	18	Houston	IAH	80.1
19	Seoul Incheon	ICN	78.8	19	Miami	MIA	80.1
20	Houston	IAH	78.8	20	Dallas/Fort Worth	DFW	79.9

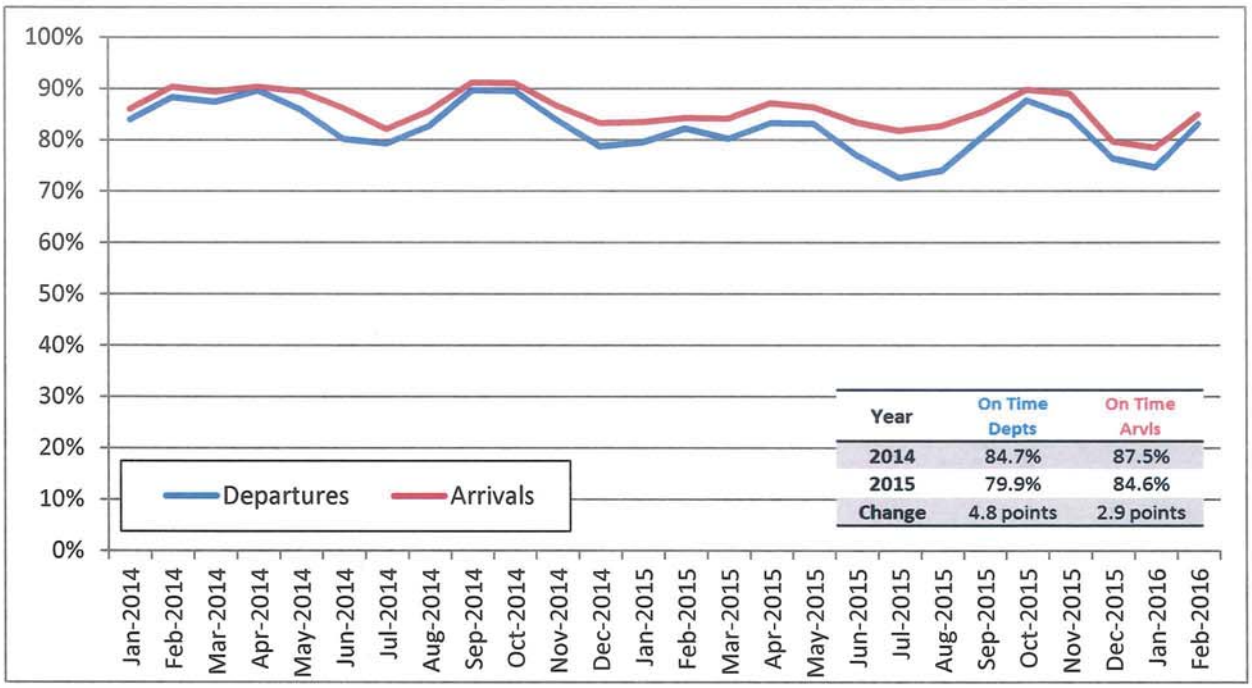
Source: OAG Punctuality League, 2014 and 2015.

As Table 1 shows, the decline of MIA in the OTP ranking is partly due to a reduced OTP result at MIA, and partly due to increased OTP results at many other airports. As discussed in this memo, delay results from a variety of causes, over which an airport has limited control. As the largest airline with a major hub operation at MIA, American Airlines commented on the change in the OTP ranking highlighted above at the request of the Aviation Department. The following sections of this memo present (1) input from American Airlines on reasons for the lower OTP ratio, and (2) other sources of data useful in evaluating OTP at airports.

American Airlines' Comments

In response to the Aviation Department's inquiry, American Airlines prepared Figure 1, showing the OTP ratios it calculated for both mainline operations and regional operations. The airline pointed out that many of the industry data sources (including OTP, above) have some activity missing due to non-reporting airlines. Figure 1 is a complete accounting from American's internal records.

Figure 1
American Airlines On-Time Performance
at Miami International Airport



Year	On Time Depts	On Time Arvls
2014	84.7%	87.5%
2015	79.9%	84.6%
Change	4.8 points	2.9 points

Source: Company data following OAG OTP dependability standards of departures and arrivals within 15 minutes of scheduled time.

The data provided by American Airlines confirmed that its OTP ratio at MIA declined in 2015. The departure delays increased by an average of 15 flights per day in 2015 over 2014; the arrival delays increased an average of 9 flights per day after some block adjustments.

According to American Airlines, the increase in flight delays from 2014 to 2015 is not unexpected, given the following factors related to operations at MIA during this period:

1. **Change of Custom and Border Protection (CBP) protocols.** On October 8, 2014, the CBP changed its protocols in overseeing catering and customer boarding for international departures, creating a spike in delays averaging 8.2 primary delays per day and another 3.3 rub-off delays through March 18, 2015. The highest disruption during that period saw a peak of 32 delays on December 1, 2014.
2. **Customer service and TSA/CBP processing.** Delays caused by customer service handling customers and bags contributed to an increase of 1.3 percentage points in delays, and TSA and

CBP process-related delays also increased 1.0 percentage point. Though MIA has one of the longest international minimum connection times of any U.S. gateway city, American Airlines still experiences high numbers of tight connection and misconnected customers and mishandled bags delayed by CBP processing of international arrivals and TSA screening.

3. **Operations in Central Terminal Satellite E facility.** Starting December 2014, American Airlines began to use the gates in the Satellite E facility, which involves a busing operation during the construction period. The OTP ratio in 2015 was 64.2% for Satellite E operations, compared to 79.9% for the rest of American Airlines' operations. The planned resumption of the train service to the Satellite E facility in April 2016 and opening of newly refurbished gates in June 2016 is expected to reduce delays.
4. **Re-banking.** American Airline launched a more peaked schedule on August 18, 2014, scheduling more flights within peak hours to shorten connection times, known as "re-banking." The peaked schedule allows less leeway for initial disruptions, so rub-off delays awaiting returning aircraft (2.1 point increase) and crews (2.0 point increase) contributed to the performance year over year.
5. **Other issues.** For example, staffing shortages in Havana airspace between December 14, 2015 and January 30, 2016 resulted in an average of 6.8 daily American Airlines departures held at the gate and another 32.4 flights daily incurred excessive taxi out times awaiting ATC clearance southbound.

Other Data on Aircraft Delay

For context, it is useful to review other available sources of data on aircraft delay. The Federal Aviation Administration (FAA) tracks historical aircraft operations and delay status through its Aviation System Performance Metrics system (ASPM). In addition, the FAA's Airline Service Quality Performance System (ASQP) provides delay causes reported by U.S. airlines that account for 1 percent of total domestic scheduled-service passenger revenues. Therefore, ASQP data is provided by U.S. airlines only; operations by foreign-flag airlines are excluded. Table 2 summarizes the number of departures and/or arrivals tracked by each system.

Table 2
Number of Operations
Miami International Airport

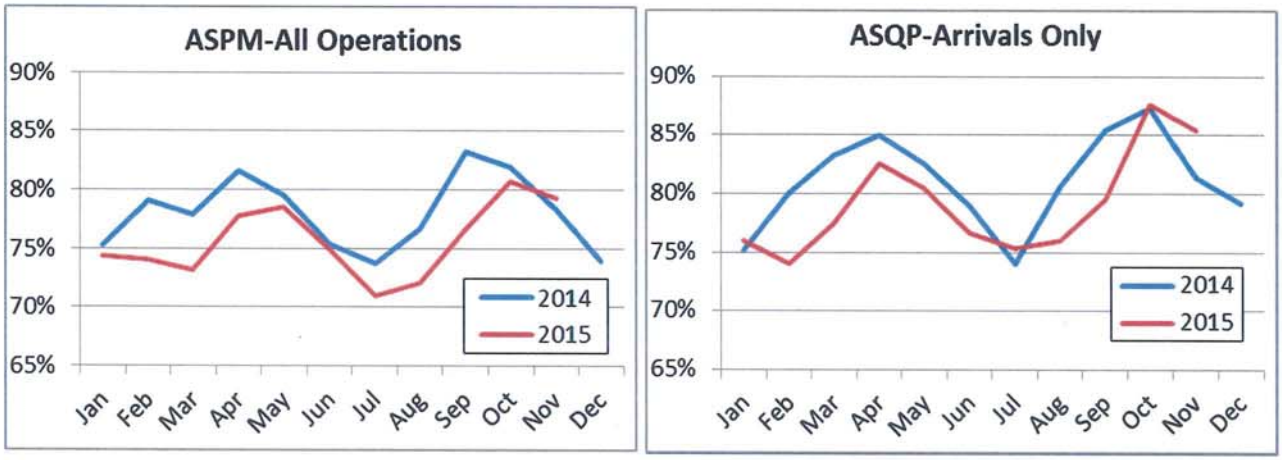
Data Source	Jan-Nov 2014	CY 2014	Jan-Nov 2015	Notes
MDAD Reports	180,662	199,393	185,666	Scheduled and nonscheduled passenger and cargo airline departures
OAG Schedule	142,173	156,274	146,344	Scheduled passenger airline departures
2015 Punctuality	n.a.	n.a.	n.a.	No details provided
FAA ASPM	153,396	168,974	157,778	Scheduled passenger and cargo airline departures
FAA ASQP (a)	75,339	82,227	68,650	Arrivals by airlines with >1% of total domestic scheduled passenger revenues

(a) Republic Airlines is not a reporting carrier, leading to the drop in 2015.

Sources: Miami-Dade Aviation Department; OAG Aviation Worldwide Ltd, OAG Analyser database, accessed February 2016; Federal Aviation Administration.

Figure 2 presents monthly OTP % reported by ASPM and ASQP respectively. Although the OTP ratios in the FAA systems do not match exactly the numbers reported by the OAG in Table 1, the ratios do show the same trend, with the 2015 OTP ratios generally lower than 2014.

Figure 2
On-time Performance
Miami International Airport



Sources: FAA ASPM, covering 100% of actual results, < https://aspm.faa.gov/apm/sys/main.asp>; FAA ASQP, covering less than 50% of actual results, <http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>.

The ASQP data allow further analysis of delays by identified cause, and comparisons among airlines and airports. While ASQP data are limited to a portion of domestic operations only, or less than 50% of total arrivals at MIA (due primarily to the large share of international traffic and non-reporting of Republic Airlines), comparative ratios and trends are still useful to review.

Delay causes are classified in the FAA ASQP in five categories:

1. **Air Carrier**: Due to circumstances within the airline's control (e.g. maintenance or crew problems, aircraft cleaning, baggage loading, fueling, etc.).
2. **Extreme Weather**: Significant weather conditions (actual or forecast) that, in the judgment of the carrier, delays or prevents the operation of a flight such as a tornado, blizzard, or hurricane.
3. **National Aviation System (NAS)**: Delays and cancellations attributable to the national aviation system that refer to a broad set of conditions, such as non-extreme weather conditions, airport operations, heavy traffic volume, and air traffic control.
4. **Late-arriving aircraft**: A previous flight with same aircraft arrived late.
5. **Security**: Due to security-related reasons.

Table 3 shows air carrier delay was the primary contributor to the year-over-year change at MIA.

Table 3
Arrival On-Time Performance
Miami International Airport

	Jan-Nov 2014		Jan-Nov 2015		Changes
	Operations	%	Operations	%	in points
Operations					
On Time	61,138	81.2%	54,303	79.1%	-2.0%
Delayed, Cancelled, or Diverted	14,201	18.8	14,347	20.9	2.0
Air Carrier Delay	*3,653*	*4.8*	*4,207*	*6.1*	*1.3*
Weather Delay	*538*	*0.7*	*453*	*0.7*	*-0.1*
National Aviation System Delay	*4,680*	*6.2*	*4,822*	*7.0*	*0.8*
Security Delay	*14*	*0.0*	*33*	*0.0*	*0.0*
Aircraft Arriving Late	*4,071*	*5.4*	*3,867*	*5.6*	*0.2*
Cancelled	*918*	*1.2*	*740*	*1.1*	*-0.1*
Diverted	*326*	*0.4*	*226*	*0.3*	*-0.1*
Total ASQP Operations	75,339	100.0%	68,650	100.0%	0.0%

Source: FAA ASQP, <http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>.

Table 4 shows air carrier delay by operating carrier at MIA. American Airlines saw an increase of 1.5% in arriving delays. Note that the change in the absolute number of delays is somewhat distorted by the transition of much of the American Eagle activity to a non-reporting airline (Republic Airlines).

Table 4
Delays Caused by Air Carrier
Miami International Airport

	Jan-Nov 2014			Jan-Nov 2015			Changes	
	Operations	Delayed	Delay %	Operations	Delayed	Delay %	Delays	Points
Operations								
American Airlines Inc.	43,708	1,892	4.3%	47,952	2,780	5.8%	888	1.5%
Delta Air Lines Inc.	7,848	501	6.4	8,379	443	5.3	(58)	-1.1
Envoy Air	10,832	400	3.7	5,273	310	5.9	(90)	2.2
United Air Lines Inc.	2,699	244	9.0	3,024	338	11.2	94	2.1
Frontier Airlines Inc.	-	-	0.0	2,028	152	7.5	152	7.5
US Airways Inc.	5,060	363	7.2	1,794	156	8.7	(207)	1.5
SkyWest Airlines Inc.	226	37	16.6	200	27	13.7	(10)	-2.9
American Eagle Airlines Inc.	4,876	211	4.3	-	-	0.0	(211)	-4.3
ExpressJet Airlines Inc.	90	5	6.1	-	-	0.0	(5)	-6.1
Total Air Carrier Delay Operations	75,339	3,653	4.8%	68,650	4,207	6.1%	554	1.3%
All Airlines Except American Airlines	31,631	1,762	5.6%	20,698	1,427	6.9%	(335)	1.3%

Source: FAA ASQP, <http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>.

Table 5 shows carrier delay caused by each reporting carrier nationwide. American Airline's mainline operations saw a decline of 0.4% in delay, implying the delay at MIA was more likely caused by its operation at MIA instead of its nationwide network.

Table 5
Delays Caused by Air Carrier
All ASQP Airports

	Jan-Nov 2014			Jan-Nov 2015			Changes in
	Operations	Delayed	Delay %	Operations	Delayed	Delay %	Points
Operations							
Southwest Airlines Co.	1,073,755	82,251	7.7%	1,154,379	66,602	5.8%	-1.9%
Delta Air Lines Inc.	733,853	37,008	5.0	805,242	35,055	4.4	-0.7
American Airlines Inc.	492,307	30,701	6.2	649,422	37,625	5.8	-0.4
SkyWest Airlines Inc.	563,633	26,734	4.7	540,763	24,695	4.6	-0.2
ExpressJet Airlines Inc.	633,865	41,769	6.6	527,837	28,718	5.4	-1.1
United Air Lines Inc.	453,089	32,531	7.2	472,280	35,071	7.4	0.2
Envoy Air	262,228	14,618	5.6	273,639	15,037	5.5	-0.1
JetBlue Airways	227,722	14,720	6.5	243,705	16,156	6.6	0.2
US Airways Inc.	380,490	21,737	5.7	198,715	11,483	5.8	0.1
Alaska Airlines Inc.	146,646	4,519	3.1	158,062	5,488	3.5	0.4
Spirit Air Lines			0.0	106,708	6,938	6.5	6.5
Frontier Airlines Inc.	77,673	3,504	4.5	82,716	4,666	5.6	1.1
Hawaiian Airlines Inc.	68,306	3,054	4.5	70,012	4,390	6.3	1.8
Virgin America	52,517	1,635	3.1	56,369	2,147	3.8	0.7
American Eagle Airlines Inc.	99,989	5,626	5.6			0.0	n.a.
AirTran Airways Corporation	76,555	3,640	4.8			0.0	n.a.
Total Air Carrier Delay Operations	5,342,628	324,047	6.1%	5,339,849	294,070	5.5%	-0.6%

Source: FAA ASQP, <http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>.

In the 2015 OAG punctuality report, 9 other U.S. airports have better OTP than MIA. Table 5 shows shifts in OTP by cause for each airport. The U.S. market, as a whole, experienced an improvement of 3.8 percentage points in OTP from 2014 to 2015. MIA, on the other hand, is experiencing more delay caused by aircraft arriving late.

Table 6
Change in Domestic Arrivals
All ASQP Airports

	MIA	MSP	ATL	SEA	PHX	CLT	LAS	MCO	BOS	IAH	U.S.
Primary Carrier	AA	DL	DL	AS	AA	AA	WN	WN	B6	UA	
	2014 Share of Total										
On Time	81.2%	81.2%	80.7%	82.2%	81.1%	81.1%	78.4%	76.4%	77.6%	76.9%	76.3%
Delayed, Cancelled, or Diverted	18.8	18.8	19.3	17.8	18.9	18.9	21.6	23.6	22.4	23.1	23.7
Air Carrier Delay	*4.8*	*4.9*	*4.2*	*5.2*	*5.7*	*5.0*	*6.0*	*7.1*	*5.6*	*4.8*	*6.1*
Weather Delay	*0.7*	*0.6*	*0.5*	*0.4*	*0.3*	*0.5*	*0.5*	*0.7*	*0.7*	*0.7*	*0.6*
National Aviation System Delay	*6.2*	*5.4*	*5.8*	*5.5*	*4.3*	*6.2*	*4.7*	*7.0*	*6.4*	*6.6*	*6.3*
Security Delay	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Aircraft Arriving Late	*5.4*	*6.3*	*6.7*	*6.1*	*7.4*	*4.9*	*9.5*	*7.2*	*7.3*	*8.0*	*8.2*
Cancelled	*1.2*	*1.4*	*1.9*	*0.5*	*1.0*	*2.0*	*0.7*	*1.2*	*2.2*	*2.6*	*2.3*
Diverted	*0.4*	*0.2*	*0.2*	*0.1*	*0.2*	*0.2*	*0.1*	*0.3*	*0.1*	*0.4*	*0.3*
Total ASQP Operations	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	2015 Share of Total										
On Time	79.1%	83.0%	84.7%	83.6%	83.0%	83.6%	81.7%	79.3%	76.9%	79.4%	80.1%
Delayed, Cancelled, or Diverted	20.9	17.0	15.3	16.4	17.0	16.4	18.3	20.7	23.1	20.6	19.9
Air Carrier Delay	*6.1*	*4.6*	*4.1*	*4.6*	*5.0*	*4.5*	*5.0*	*6.6*	*5.9*	*4.8*	*5.5*
Weather Delay	*0.7*	*0.6*	*0.4*	*0.5*	*0.4*	*0.5*	*0.6*	*0.6*	*0.7*	*0.6*	*0.6*
National Aviation System Delay	*7.0*	*5.6*	*4.5*	*5.2*	*4.4*	*5.6*	*4.7*	*5.7*	*6.7*	*6.9*	*5.4*
Security Delay	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Aircraft Arriving Late	*5.6*	*5.4*	*5.2*	*5.4*	*6.2*	*4.4*	*7.3*	*6.5*	*7.3*	*6.3*	*6.5*
Cancelled	*1.1*	*0.7*	*0.7*	*0.4*	*0.8*	*1.3*	*0.6*	*1.0*	*2.4*	*1.5*	*1.5*
Diverted	*0.3*	*0.1*	*0.3*	*0.2*	*0.2*	*0.1*	*0.2*	*0.3*	*0.1*	*0.5*	*0.3*
Total ASQP Operations	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Year-Year Change in Share (in percentage points)										
On Time	-2.0%	1.7%	4.1%	1.4%	1.9%	2.5%	3.3%	2.9%	-0.7%	2.5%	3.8%
Delayed, Cancelled, or Diverted	2.0	-1.7	-4.1	-1.4	-1.9	-2.5	-3.3	-2.9	0.7	-2.5	-3.8
Air Carrier Delay	*1.3*	*-0.3*	*-0.1*	*-0.6*	*-0.7*	*-0.6*	*-1.0*	*-0.5*	*0.3*	*-0.0*	*-0.6*
Weather Delay	*-0.1*	*-0.0*	*-0.0*	*0.1*	*0.1*	*-0.0*	*0.1*	*-0.1*	*-0.0*	*-0.0*	*-0.0*
National Aviation System Delay	*0.8*	*0.3*	*-1.3*	*-0.3*	*0.1*	*-0.6*	*-0.1*	*-1.2*	*0.3*	*0.2*	*-0.9*
Security Delay	*0.0*	*-0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*-0.0*	*-0.0*	*0.0*	*0.0*
Aircraft Arriving Late	*0.2*	*-0.9*	*-1.6*	*-0.7*	*-1.2*	*-0.5*	*-2.1*	*-0.8*	*-0.0*	*-1.7*	*-1.6*
Cancelled	*-0.1*	*-0.7*	*-1.2*	*-0.1*	*-0.2*	*-0.7*	*-0.1*	*-0.3*	*0.2*	*-1.1*	*-0.7*
Diverted	*-0.1*	*-0.1*	*0.1*	*0.1*	*-0.0*	*-0.1*	*0.1*	*0.0*	*0.0*	*0.1*	*0.0*
Total ASQP Operations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Scheduled Operations (per OAG Schedules)										
2014	142,173	174,043	390,891	148,021	172,496	235,435	151,579	122,469	155,404	221,572	8,239,500
2015	146,344	168,754	392,680	166,973	173,966	233,658	153,957	130,386	159,147	218,167	8,206,837
Year-Year % Change	*2.9%*	*-3.0%*	*0.5%*	*12.8%*	*0.9%*	*-0.8%*	*1.6%*	*6.5%*	*2.4%*	*-1.5%*	*-0.4%*

Source: FAA ASQP, <http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>.

Conclusion

OTP at any given airport is influenced by airline operations, weather, the national aviation system, and late arrivals, among other causes, over which an airport has limited control. American Airlines was very

helpful in identifying specific operational factors contributing to the change in OTP performance from 2014 to 2015. Review of other data sources helped to confirm that the general trends displayed in the OTP summary tables are consistent with, or corroborated by, data compiled and reported by FAA.