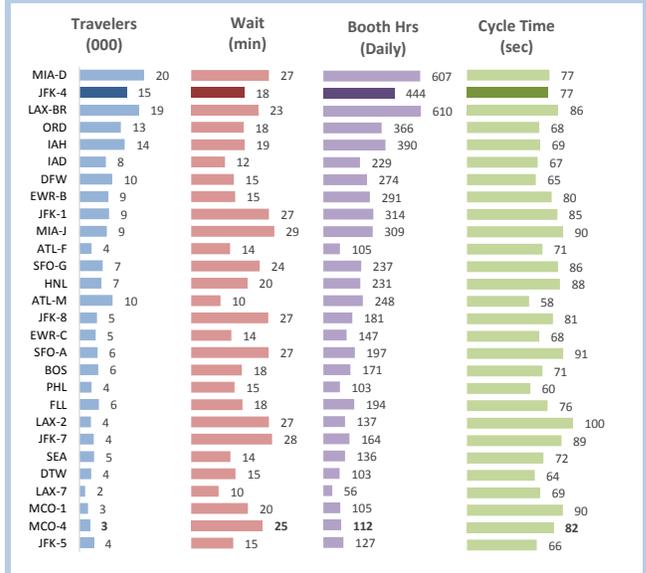


### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	14,580	14,113	467	3%
Global Entry, APC, & MPC	51%	43%	8%	19%
Non-Automated	49%	57%	-8%	-14%
United States Citizens	45.1%	45.1%	-0.0%	0%
Non-immigrants	46.5%	45.7%	+0.8%	2%
Legal Permanent Residents	8.4%	9.3%	-0.8%	-9%
Average Daily Flights (#)	72	71	1	2%
<b>Wait Time</b>				
Average Primary Wait (m)	18.5	18.0	0.5	3%
% Travelers < 60 minutes	96%	95%	0%	0%
% Travelers > 120 mins	0.40%	0.44%	-0.03%	-8%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	444	452	-8	-2%
<b>Efficiency</b>				
Average Cycle Time (s)	76.7	80.5	-3.9	-5%
Max Hourly Throughput / booth	47.0	44.7	2.3	5%
Average Utilization	70%	70%	0%	0%

### Compared to other major airports ...



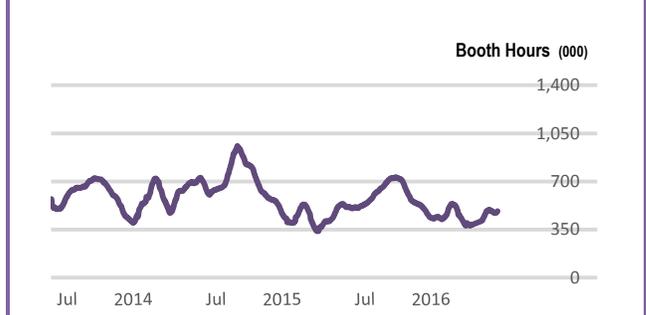
### More booth hours needed to improve wait times

- Travel is up at JFK (Terminal 4).** Traveler volume increased 3% compared to last year. 51% of passengers use automated solutions like Global Entry and APC up from 43% last year.
- Booth hours slightly decreased.** Booth hours are decreased compared to a year ago, from 452 hours to 444 hours.
- Wait time slightly increased.** Year to date, average wait is up by 3% compared to a year ago, from 18 minutes to 18.5 minutes. 96% of passengers are being processed in under 60 minutes.
- Cycle time is 3.9 seconds faster.** Global Entry and APC have combined to reduce the average cycle time. The faster cycle time allows for 2.3 additional passengers to be processed per booth, per hour. APC technology applied to non-immigrants could be a solution to further reduce average cycle time. MPC recently has been introduced.

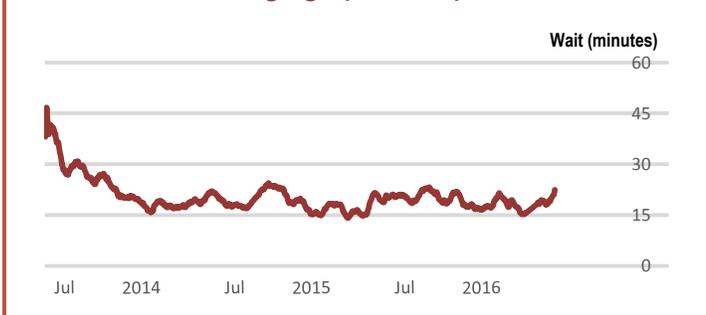
### Traveler Volume ... modest growth compared to last year



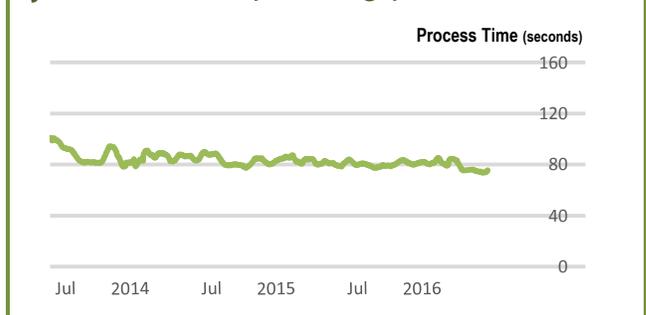
### Booth Hours ... 2% fewer booth hours than last year



### Wait Time ... increasing slightly since early 2015

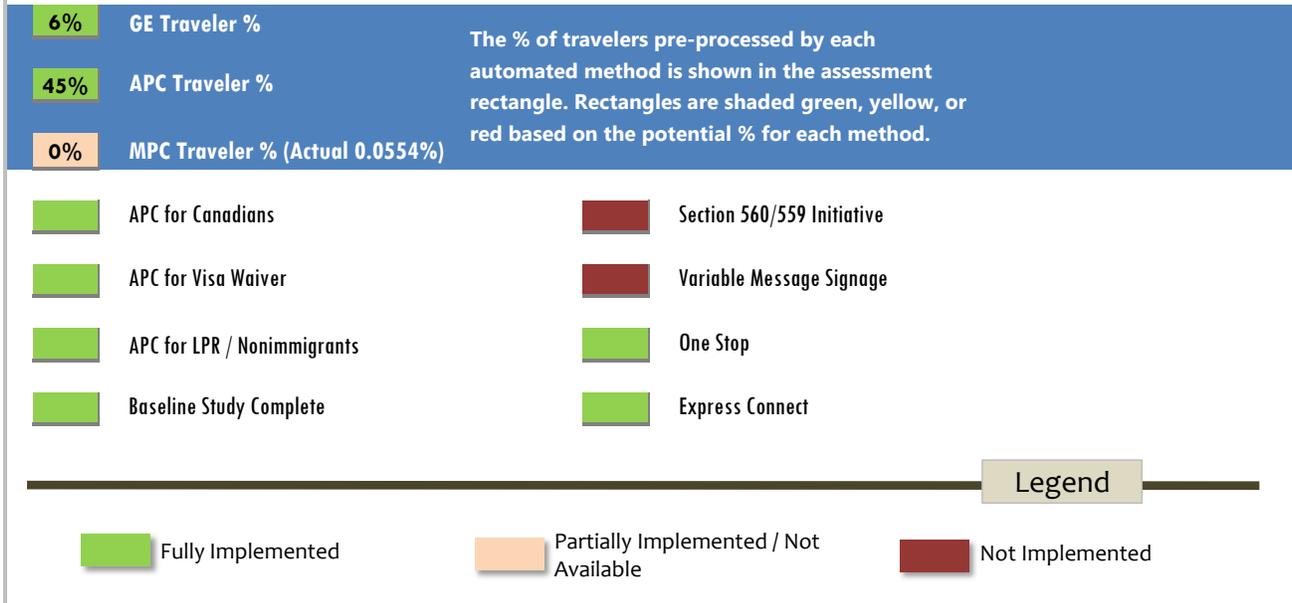


### Cycle Time ... steadily decreasing cycle times



## Best Practice Inventory

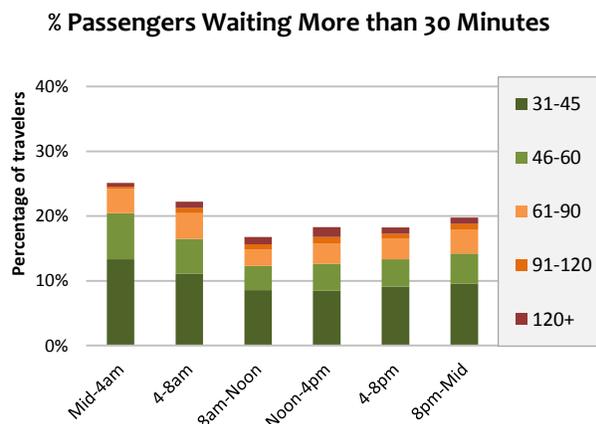
**JFK-4 Best Practice Assessment:** JFK-4 has implemented many of the available best practices such as Global Entry, Automated Passport Control, One Stop, and Express Connect. MPC has recently been implemented. Today, 51% of passengers are processed by GE and APC kiosks. APC is available at JFK-4 not only to US Citizens, but also Canadians, Visa Waiver country travelers, and LPRs.



Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. A Green "assessment rectangle" indicates the practice is properly and fully implemented; Red means the practice is not in place; and Orange indicates implementation is limited and achieves less than intended results.

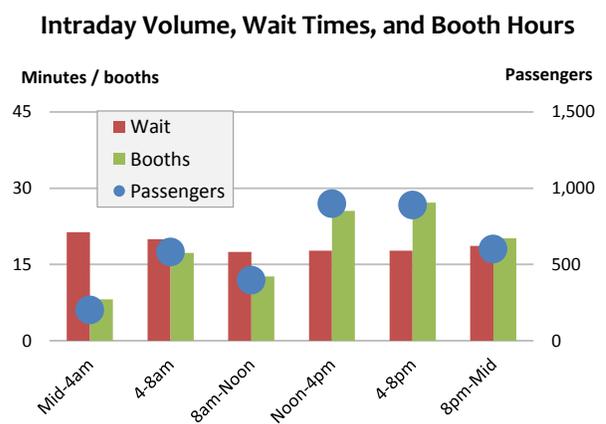
### 19% of passengers wait more than 30 minutes

Year to date, approximately 5% of JFK Terminal 4 passengers wait more than 1 hour, approximately 19% of passengers wait more than 30 minutes. Between the hours of Midnight to 4am, 25% of passengers wait more than 30 minutes.



### JFK-4 matches booth hours well to traffic

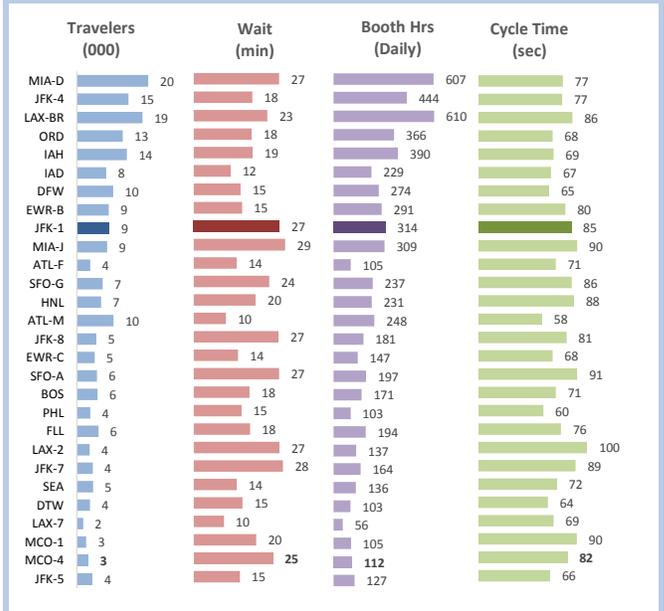
Average wait is fairly consistent throughout the day. Waits are higher from Midnight to 4am during the lower volume period. A couple extra booths could greatly reduce waits during this time period and also reduce the average wait.



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	9,264	8,520	744	9%
Global Entry, APC, & MPC	37%	28%	9%	32%
Non-Automated	63%	72%	-9%	-13%
United States Citizens	33.1%	31.8%	+1.3%	4%
Non-immigrants	58.6%	60.0%	-1.4%	-2%
Legal Permanent Residents	8.3%	8.2%	+0.1%	1%
Average Daily Flights (#)	41	37	4	11%
<b>Wait Time</b>				
Average Primary Wait (m)	27.0	27.1	-0.1	0%
% Travelers < 60 minutes	90%	91%	0%	0%
% Travelers > 120 mins	1.29%	1.20%	+0.09%	7%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	314	300	13	4%
<b>Efficiency</b>				
Average Cycle Time (s)	85.0	86.9	-1.9	-2%
Max Hourly Throughput / booth	42.4	41.4	0.9	2%
Average Utilization	70%	68%	1%	2%

### Compared to other major airports ...



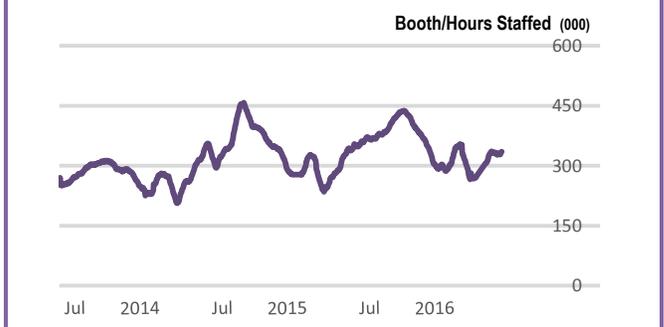
### Traveler volume increased more than booth hours

- Travel is up significantly at JFK (Terminal 1).** Traveler volume increased 9% compared to last year. 37% of passengers use automated solutions like Global Entry and APC, up from 28% last year.
- More booths open to meet demand.** Booth hours increased 4% compared to a year ago, but have not kept pace with traveler volume (up 9%). Additional booths may be required during peak and non-peak hours.
- Wait times virtually unchanged.** Year to date, average wait is unchanged. Reduced waits may be possible by staffing additional booths during non-peak hours (4am to Noon).
- Efficient processing.** The average cycle time is 1.9 seconds faster than last year, allowing for an additional 0.9 passengers to be processed per hour, per booth. JFK-1 has one of the highest cycle times in the nation and could be improved by applying APC to non-immigrants.

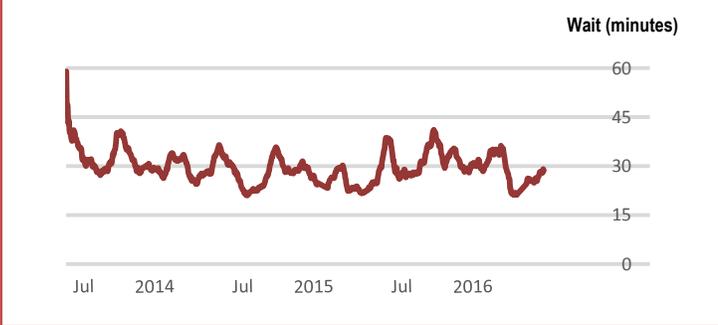
### Traveler Volume ... continued strong growth



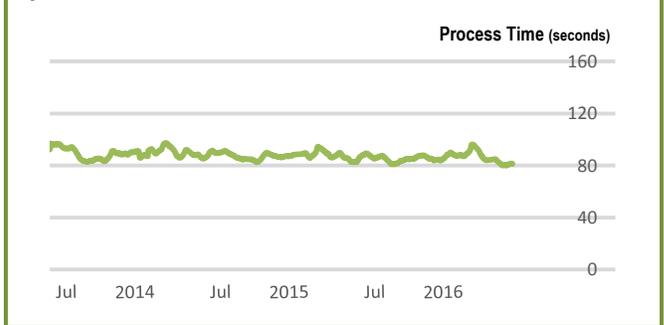
### Booth Hours ... trending higher



### Wait Time ... recent upward trend



### Cycle Time ... slight downward trend



## Best Practice Inventory

**JFK Terminal 1 Best Practice Assessment:** JFK Terminal 1 has implemented many of the available best practices. Most notably, 37% of JFK-1's passengers are now processed by Global Entry and APC, up from 28% last year. MPC has recently been implemented. APC is available at JFK Terminal 1 not only to US Citizens, but also Canadians, Visa Waiver country travelers, and LPRs.

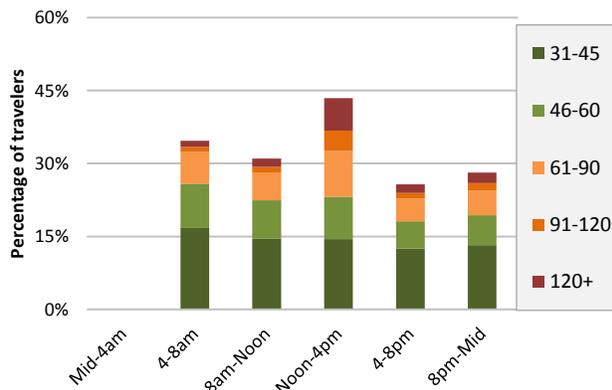


Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. A Green "assessment rectangle" indicates the practice is properly and fully implemented; Red means the practice is not in place; and Orange indicates implementation is limited and achieves less than intended results.

### 33% of passengers wait more than 30 minutes

Year to date, approximately 12% of JFK Terminal 1 passengers wait more than 1 hour, approximately 33% of passengers wait more than 30 minutes. Between the hours of Noon to 4pm, 43% of passengers wait more than 30 minutes.

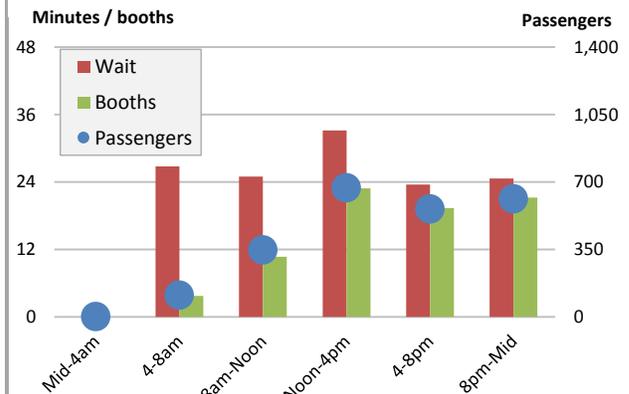
**% Passengers Waiting More than 30 Minutes**



### Waits may be reduced in off-peak hours

Nearly 670 passengers (on average) arrive every hour between Noon and 4pm. By opening 23 booths during this time period, the average wait is 33 minutes. Opening additional booths may be required from 4am to Noon to reduce average waits leading into peak hours.

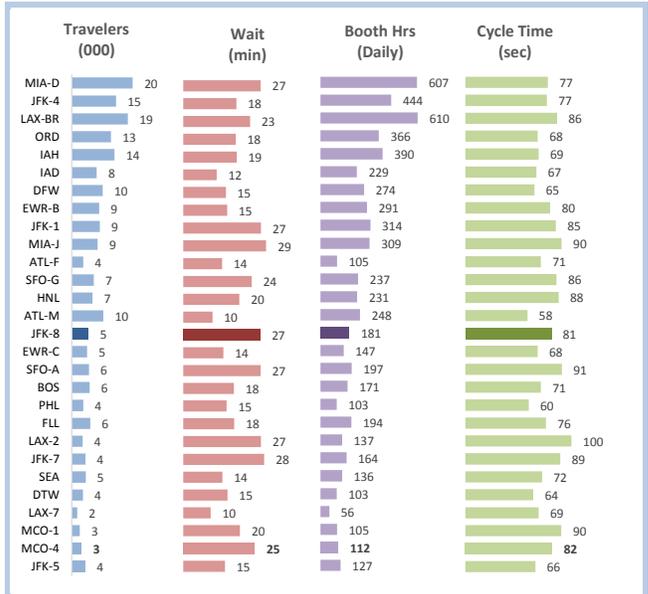
**Intraday Volume, Wait Times, and Booth Hours**



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	5,494	5,312	183	3%
Global Entry, APC, & MPC	39%	5%	34%	680%
Non-Automated	61%	95%	-34%	-36%
United States Citizens	37.9%	37.8%	+0.1%	0%
Non-immigrants	56.0%	56.1%	-0.1%	0%
Legal Permanent Residents	6.1%	6.2%	-0.1%	-1%
Average Daily Flights (#)	28	27	1	3%
<b>Wait Time</b>				
Average Primary Wait (m)	26.7	24.3	2.4	10%
% Travelers < 60 minutes	91%	93%	-2%	-2%
% Travelers > 120 mins	0.63%	0.31%	+0.32%	103%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	181	186	-5	-3%
<b>Efficiency</b>				
Average Cycle Time (s)	80.8	84.9	-4.2	-5%
Max Hourly Throughput / booth	44.6	42.4	2.2	5%
Average Utilization	68%	67%	1%	1%

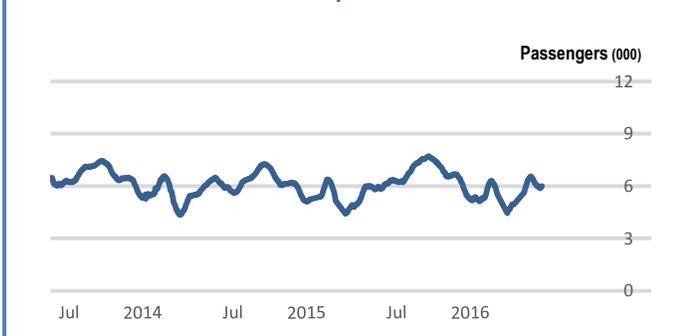
### Compared to other major airports ...



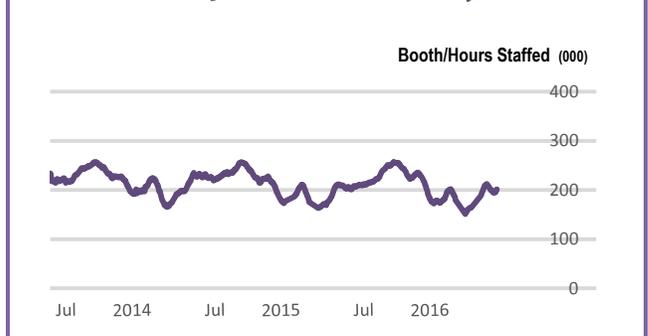
### Long off-peak waits result in increased wait times

- Travel is up slightly at JFK Terminal 8.** Traveler volume (year to date) has increased 3% compared to last year. Today, 39% of JFK-8's passengers are confirmed with automated solutions like Global Entry and APC, compared to just 5% last year.
- Booth hours decreased by 3%.** JFK-8 booth hours have decreased 3% from 186 last year to 181 this year. The decrease in booth hours has contributed to an increase in wait time, despite improvement in cycle time. The timing of booth openings can be improved to better match arrivals.
- Cycle time 4.2 seconds faster.** Cycle time is 5% (4.2 seconds) faster than last year, allowing for an additional 2.2 passengers to be processed per hour, per booth. The decrease in cycle time may partially be a result of reducing booth hours (which over utilizes open booths and can cause longer waits).
- Wait times increased 10%.** Wait time at JFK-8 is 2.4 minutes longer compared to last year. Waits are longest from 4am to Noon when there are fewer travelers at JFK-8. A few extra booths open during this time period could greatly reduce waits.

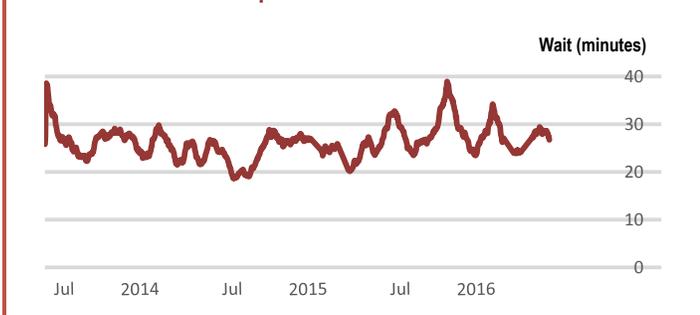
#### Traveler Volume ... recent up trend



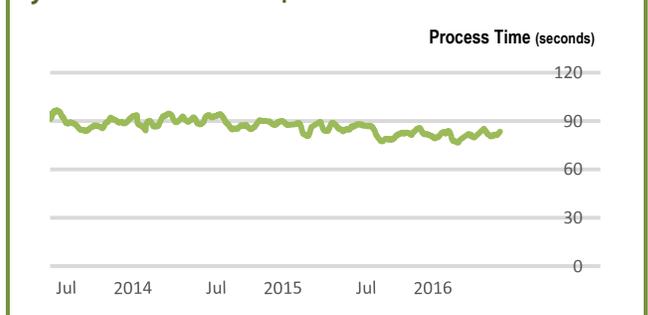
#### Booth hours ... 3% fewer booths than last year



#### Wait Time ... recent upward trend



#### Cycle Time ... recent improvement



## Best Practice Inventory

**JFK Best Practice Assessment:** JFK-8 has implemented many of the available best practices. 39% of travelers use GE and APC. MPC has recently been implemented. APC is available at JFK Terminal 8 not only to US Citizens, but also Canadians, Visa Waiver country travelers, and Lawful Permanent Residents.

<b>6%</b>	<b>GE Traveler %</b>	The % of travelers pre-processed by each automated method is shown in the assessment rectangle. Rectangles are shaded green, yellow, or red based on the potential % for each method.
<b>33%</b>	<b>APC Traveler %</b>	
<b>0%</b>	<b>MPC Traveler % (Actual 0.0124%)</b>	

	APC for Canadians		Section 560/559 Initiative
	APC for Visa Waiver		Variable Message Signage
	APC for LPR / Nonimmigrants		One Stop
	Baseline Study Complete		Express Connect

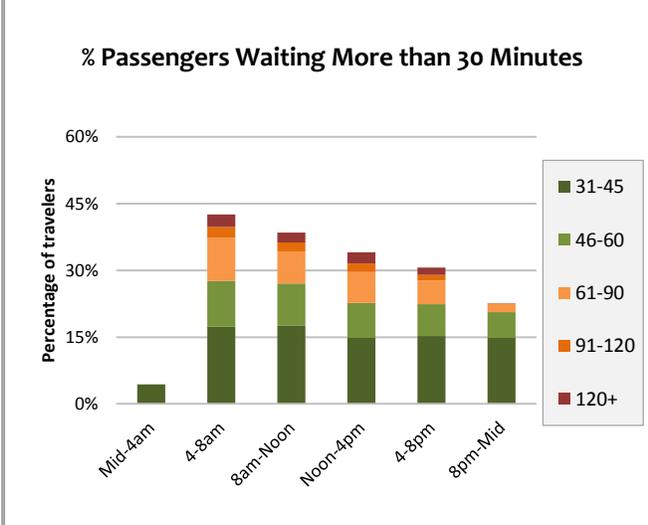
  

Legend

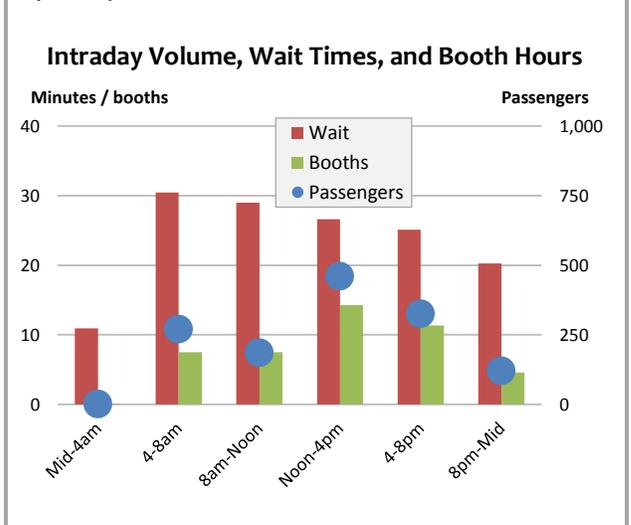
	Fully Implemented		Partially Implemented / Not Available		Not Implemented
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Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. A Green "assessment rectangle" indicates the practice is properly and fully implemented; Red means the practice is not in place; and Orange indicates implementation is limited and achieves less than intended results.

**35% of passengers wait more than 30 minutes**  
 Year to date, approximately 10% of JFK Terminal 8 passengers wait more than 1 hour, approximately 35% of passengers wait more than 30 minutes. Between the hours of 4am to 8am, 43% of passengers wait more than 30 minutes.



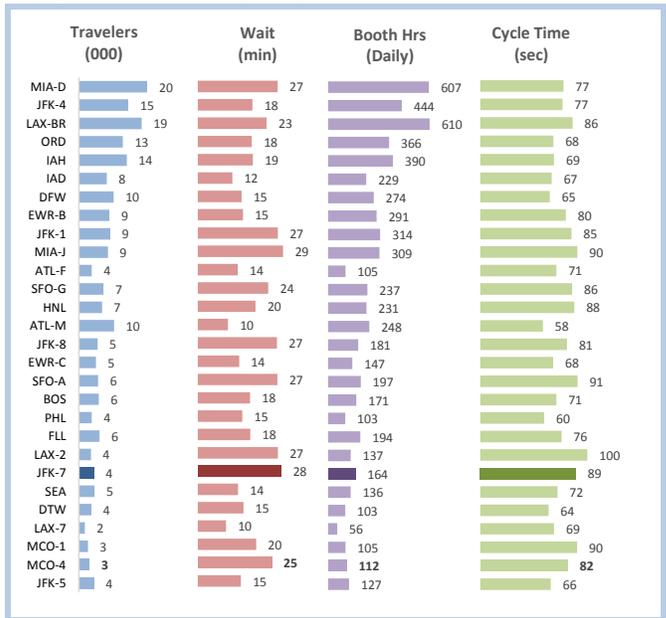
**Waits are longer during off peak hours**  
 JFK-8 is busiest between Noon-4pm (460 passengers arrive per hour) and waits are 27 minutes during this time. Wait times during non-peak hours are longer and could be improved by opening more booths, especially between 4am and Noon.



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	4,469	4,203	266	6%
Global Entry, APC, & MPC	5%	4%	1%	25%
Non-Automated	95%	96%	-1%	-1%
United States Citizens	27.1%	27.6%	-0.5%	-2%
Non-immigrants	67.0%	66.1%	+0.9%	1%
Legal Permanent Residents	5.9%	6.3%	-0.4%	-7%
Average Daily Flights (#)	20	19	1	7%
<b>Wait Time</b>				
Average Primary Wait (m)	28.1	24.1	4.1	17%
% Travelers < 60 minutes	90%	94%	-4%	-4%
% Travelers > 120 mins	0.69%	0.24%	+0.4%	183%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	164	158	6	4%
<b>Efficiency</b>				
Average Cycle Time (s)	89.1	88.5	0.6	1%
Max Hourly Throughput / booth	40.4	40.7	-0.3	-1%
Average Utilization	67%	66%	2%	3%

### Compared to other major airports ...



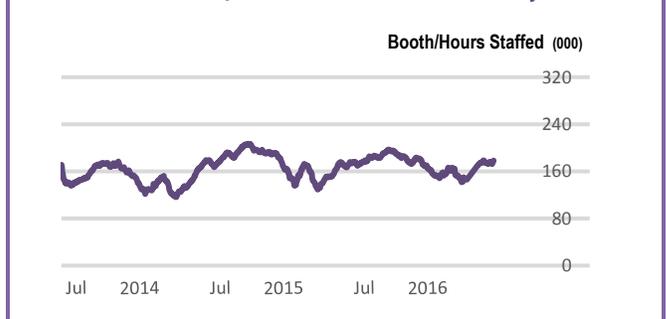
### Automated technologies are needed to increase processing efficiency and keep pace with volume

- Travel is up at JFK-7.** Traveler volume at JFK-7 (year to date) has increased 6% compared to last year. Today, only 5% of JFK-7's passengers are confirmed with Global Entry, up from 4% last year. JFK-7 has yet to introduce APC.
- Booth hours increased.** Booth hours are increased to 164 booth hours compared to last year (158 booth hours). More booths or faster processing are needed to keep up with traveler volume (up 6%), as shown by 17% longer waits.
- Slower processing.** Unlike the other JFK terminals cycle time at JFK-7 increased. Average cycle time has increased by 0.6 seconds. The increase in nonimmigrant share (67% this year) may prevent improvements in cycle time until APC is introduced.
- Wait times increased by 17%.** Slower processing and suboptimal staffing to traffic have led to an increase in wait time. The average wait time increased by 17%, from 24.1 minutes last year to 28.1 minutes this year. The percentage of travelers waiting less than 60 minutes decreased to 90% from 94%.

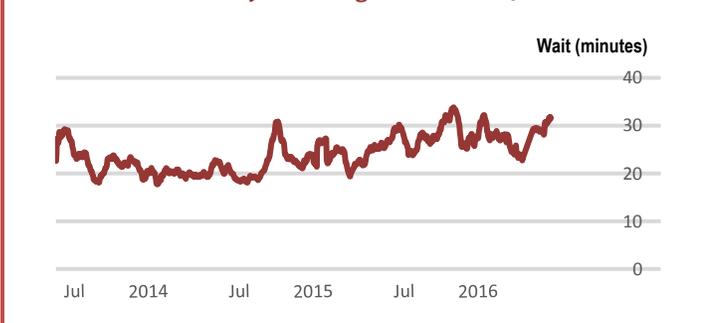
### Traveler Volume ... steady upward trend



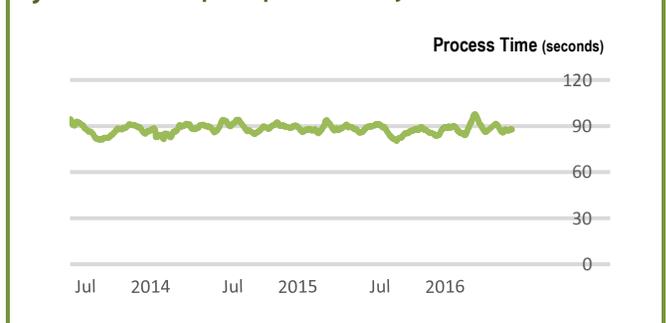
### Booth Hours ... 4% more booth hours than last year



### Wait Time ... steadily increasing since late 2014

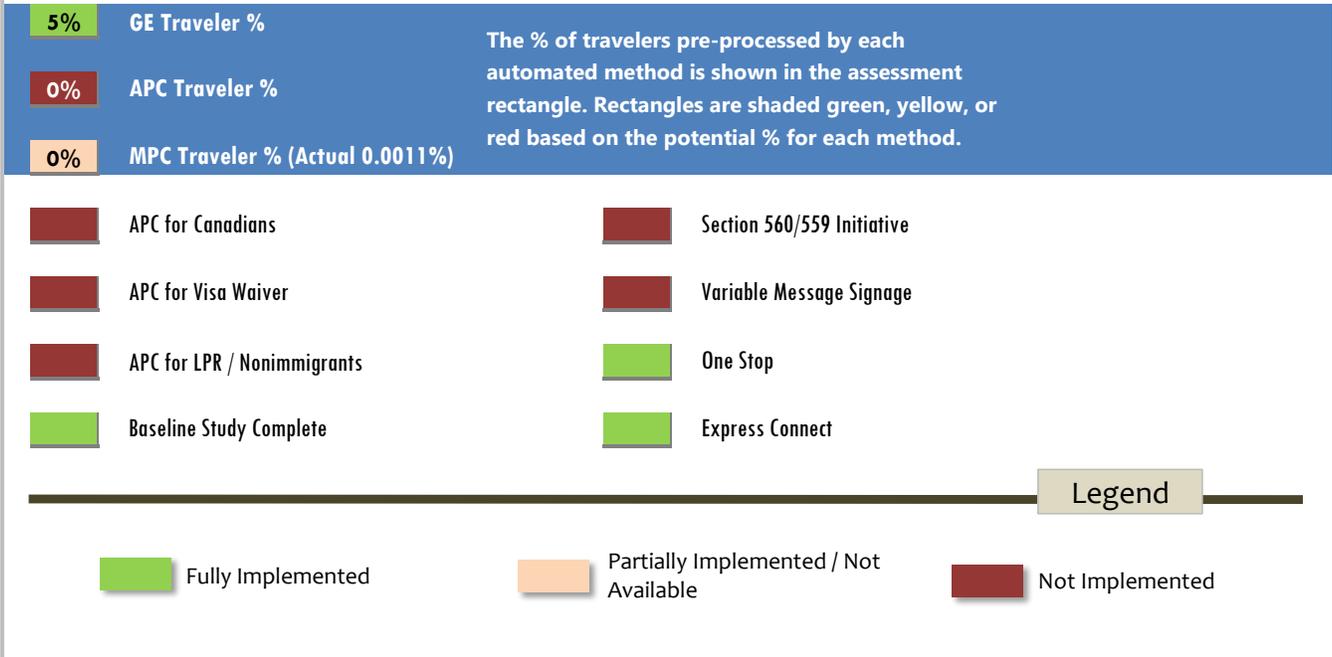


### Cycle Time ... up compared to last year



## Best Practice Inventory

**JFK Best Practice Assessment:** JFK-7 has yet to implement some of the available best practices. 5% of travelers use GE, and MPC has recently been implemented. APC has not yet been introduced. These practices need to be applied to reduce cycle times, as seen at other terminals across the country.

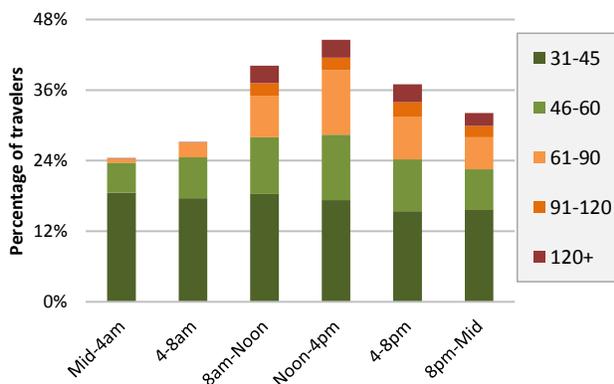


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### 38% of passengers wait more than 30 minutes

Year to date, approximately 12% JFK of Terminal 7 passengers wait more than 1 hour. Between the hours of Noon to 4pm, 45% of passengers wait more than 30 minutes.

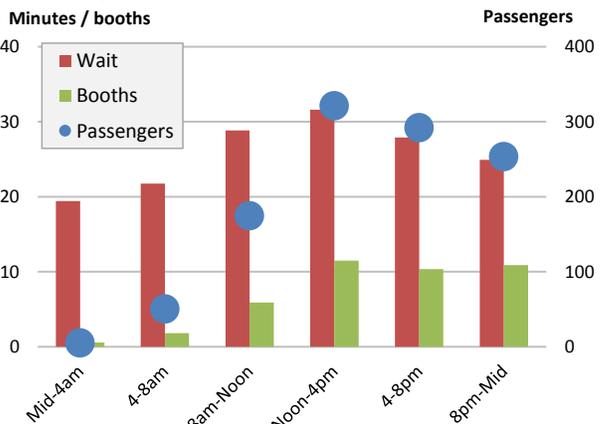
**% Passengers Waiting More than 30 Minutes**



### JFK-7 could improve waits in off-peak hours

Passenger volume is highest between Noon and 4pm (over 320 passengers/hour). By opening 11 booths, wait times are 32 minutes. Opening additional booths may be required from 4am to Noon to reduce average waits leading into peak hours.

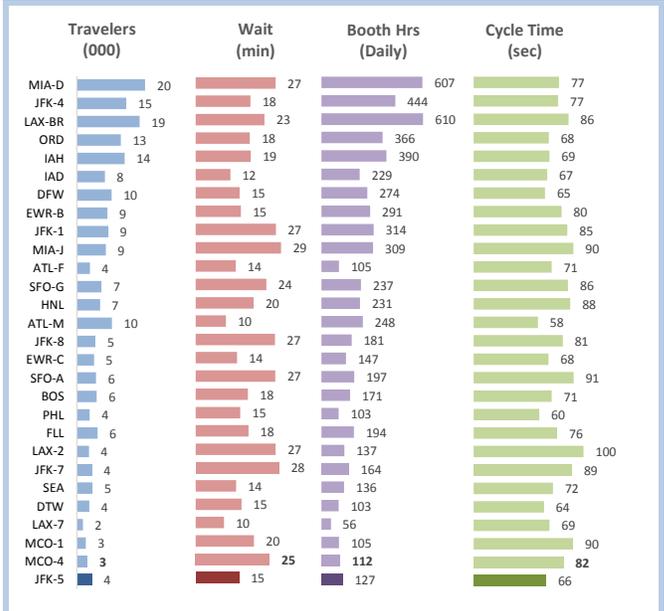
**Intraday Volume, Wait Times, and Booth Hours**



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	4,465	3,508	958	27%
Global Entry, APC, & MPC	57%	41%	16%	39%
Non-Automated	43%	59%	-16%	-27%
United States Citizens	70.6%	73.4%	-2.9%	-4%
Non-immigrants	15.4%	13.2%	2.2%	16%
Legal Permanent Residents	14.0%	13.3%	0.7%	5%
Average Daily Flights (#)	28	25	4	15%
<b>Wait Time</b>				
Average Primary Wait (m)	14.5	9	5.2	56%
% Travelers < 60 minutes	97%	99%	-2%	-2%
% Travelers > 120 mins	0.15%	0.01%	0.1%	1654%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	127	106	21	20%
<b>Efficiency</b>				
Average Cycle Time (s)	65.7	68.9	-3.1	-5%
Max Hourly Throughput / booth	54.8	52.3	2.5	5%
Average Utilization	64%	63%	1%	2%

### Compared to other major airports ...



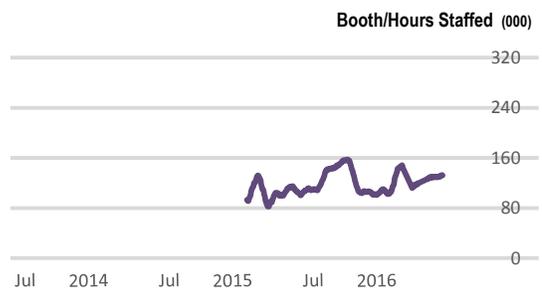
### Booth hour increases have not kept pace with volume

- Travel is up significantly at JFK-5.** Traveler volume at JFK-5 has increased 27% compared to last year. Today, 57% of JFK-5's passengers are confirmed with Global Entry and APC, up from 41% last year.
- Booth hours increased.** Booth hours increased by 20% compared to a year ago from 106 booth hours to 127 booth hours, but have not kept pace with traveler volume (up 27%), especially in off peak hours when waits are highest. Additional booths may be required during non-peak hours at JFK-5.
- Efficient processing.** The average JFK-5 cycle time is 3.1 seconds faster (54.8 passengers per hour, per booth, with an average utilization per booth of 64%). This makes JFK-5 the most efficient of JFK's terminals.
- Wait times have increased compared to last year.** Year to date, average wait is up by 56% compared to a year ago, from 9 minutes to 14.5 minutes because of the traffic growth.

### Traveler Volume ... continued growth



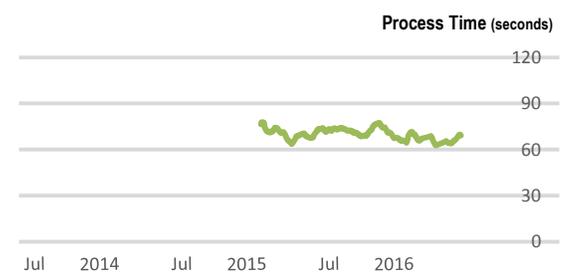
### Booth Hours ... continued increase



### Wait Time ... short waits, but increasing



### Cycle Time ... fast processing



## Best Practice Inventory

**JFK Best Practice Assessment:** JFK-5 has implemented many of the available best practices. Most notably, 57% of travelers use GE, and APC. MPC has recently been implemented. APC is available at JFK Terminal 5 not only to US Citizens, but also Canadians, Visa Waiver country travelers, and Lawful Permanent Residents.

<b>6%</b>	<b>GE Traveler %</b>	The % of travelers pre-processed by each automated method is shown in the assessment rectangle. Rectangles are shaded green, yellow, or red based on the potential % for each method.
<b>51%</b>	<b>APC Traveler %</b>	
<b>0%</b>	<b>MPC Traveler % (Actual 0.0045%)</b>	

 APC for Canadians	 Section 560/559 Initiative
 APC for Visa Waiver	 Variable Message Signage
 APC for LPR / Nonimmigrants	 One Stop
 Baseline Study Complete	 Express Connect

Legend

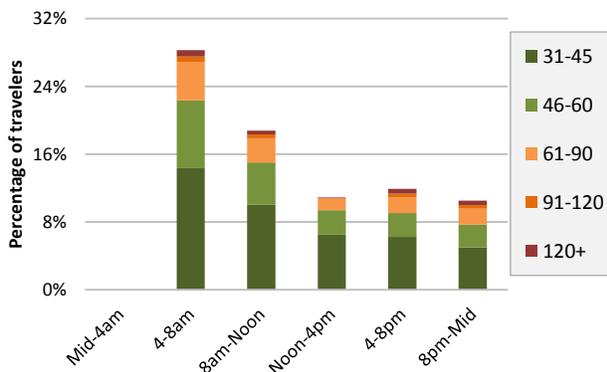
 Fully Implemented	 Partially Implemented / Not Available	 Not Implemented
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### 14% of passengers wait more than 30 minutes

While very few JFK Terminal 5 passengers wait more than 1 hour (about 3%), approximately 14% of passengers wait more than 30 minutes. Between the hours of 4am to 8am, 28% of passengers wait more than 30 minutes.

**% Passengers Waiting More than 30 Minutes**



### Waits exceed the average during off-peak

Passenger volume is highest between 4pm and 8pm (491 passengers/hour), yet with 12 booths open during this time, wait times are lower than the average. More booths may be needed from 4am to Noon (off-peak hours) when waits are higher.

**Intraday Volume, Wait Times, and Booth Hours**

