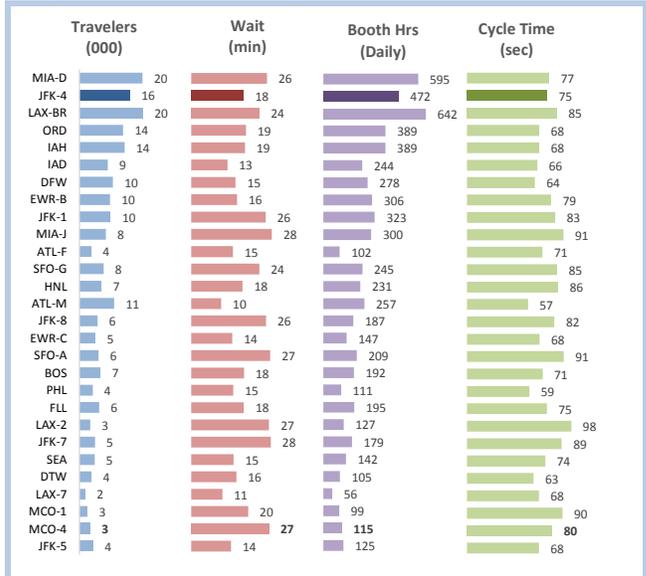


### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	15,726	15,169	556	4%
Global Entry, APC, & MPC	53%	42%	11%	26%
Non-Automated	47%	58%	-11%	-19%
United States Citizens	45.0%	44.4%	+0.7%	1%
Non-immigrants	47.3%	47.5%	-0.1%	0%
Legal Permanent Residents	7.7%	8.2%	-0.5%	-6%
Average Daily Flights (#)	77	75	3	4%
<b>Wait Time</b>				
Average Primary Wait (m)	18.2	18.8	-0.6	-3%
% Travelers < 60 minutes	96%	95%	2%	2%
% Travelers > 120 mins	0.31%	0.41%	-0.10%	-24%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	472	484	-12	-3%
<b>Efficiency</b>				
Average Cycle Time (s)	75.4	80.7	-5.3	-7%
Max Hourly Throughput / booth	47.7	44.6	3.1	7%
Average Utilization	70%	70%	0%	-1%

### Compared to other major airports ...



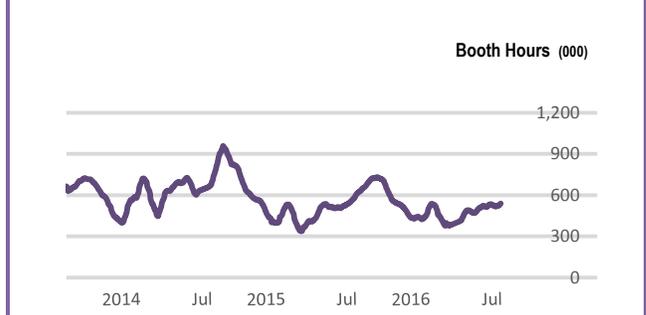
### Automated technologies help reduce wait times, despite increased volume

- Travel is up at JFK (Terminal 4).** Traveler volume increased 4% compared to last year. 53% of passengers use automated solutions like Global Entry and APC, up from 42% last year.
- Booth hours slightly decreased.** Booth hours have decreased compared to a year ago, from 484 hours to 472 hours.
- Wait time slightly decreased.** Year to date, average wait is down by 3% compared to a year ago, from 18.8 minutes to 18.2 minutes. 96% of passengers are being processed in under 60 minutes.
- Cycle time is 5.3 seconds faster.** Global Entry, APC, and MPC have combined to reduce the average cycle time. The faster cycle time allows for 3.1 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.

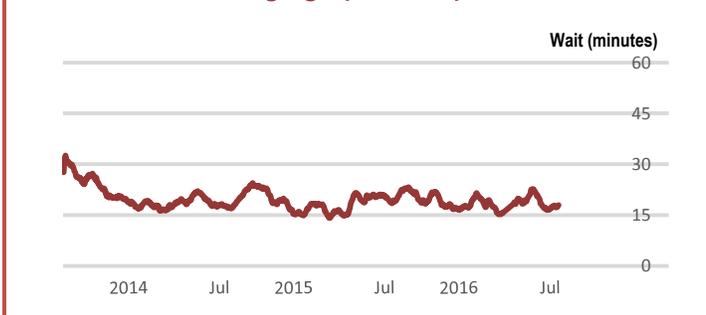
### Traveler Volume ... modest growth compared to last year



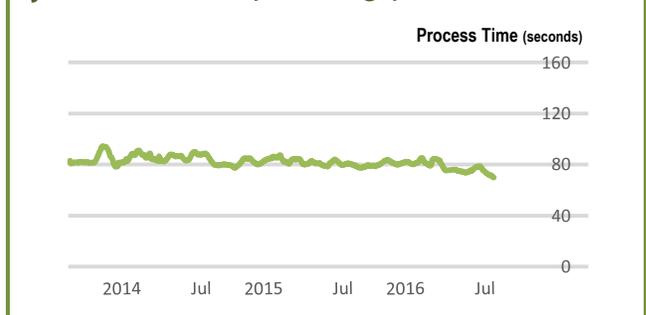
### Booth Hours ... 3% fewer booth hours than last year



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

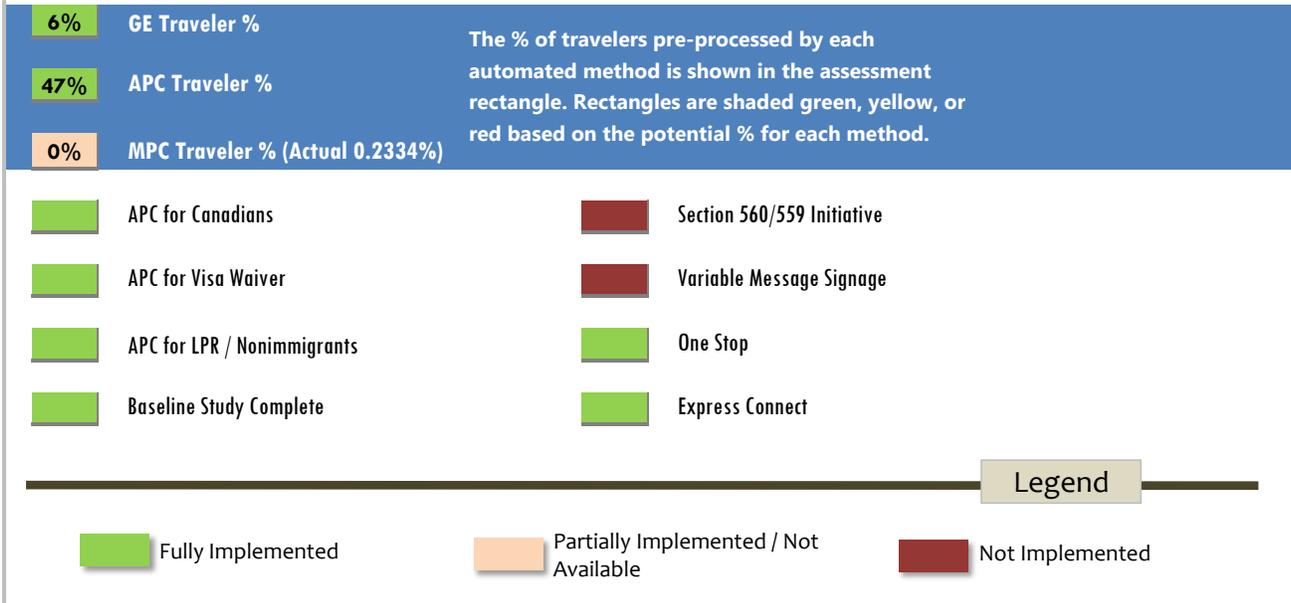


### Cycle Time ... steadily decreasing cycle times



## Best Practice Inventory

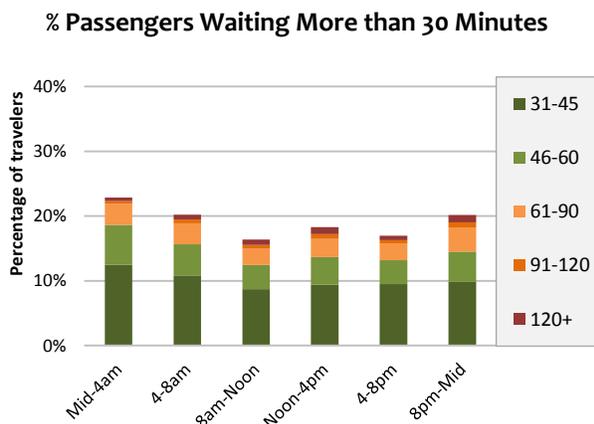
**JFK-4 Best Practice Assessment:** JFK-4 has implemented many of the available best practices such as Global Entry, Automated Passport Control, One Stop, and Express Connect. MPC has recently been implemented. Today, 53% of passengers are processed by GE and APC kiosks. APC is available at JFK-4 not 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.

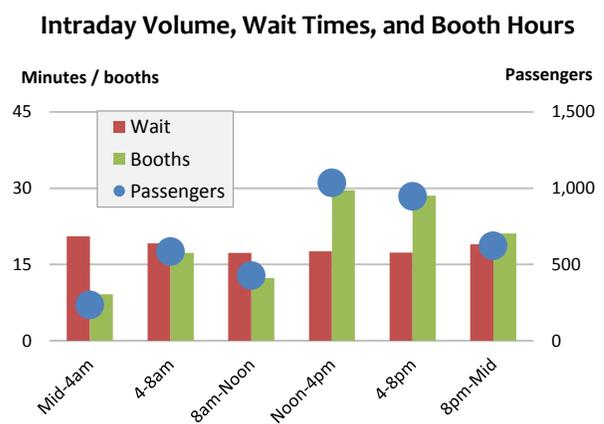
### 18% of passengers wait more than 30 minutes

Year to date, approximately 4% of JFK Terminal 4 passengers wait more than 1 hour, approximately 18% of passengers wait more than 30 minutes. Between the hours of Midnight to 4am, 23% of passengers wait more than 30 minutes.



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

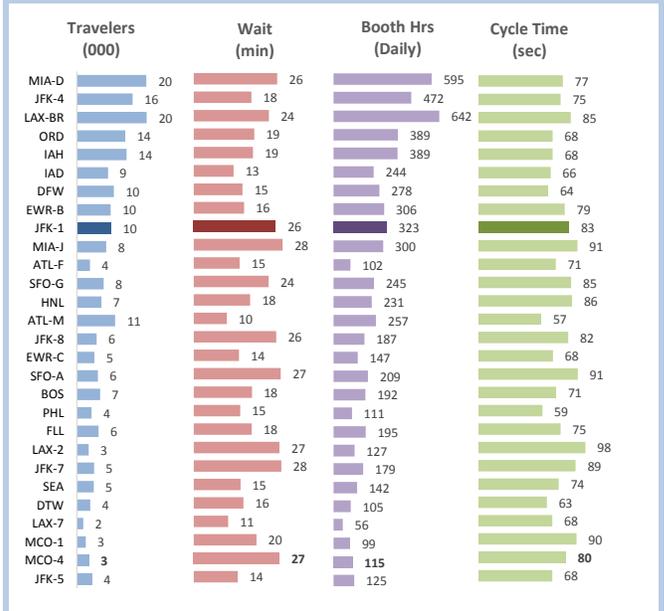
Average wait is fairly consistent throughout the day. Waits are higher from Midnight to 4am during the lower volume period. A couple extra booths could greatly reduce waits during this time period and also reduce the average wait.



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	9,678	9,230	448	5%
Global Entry, APC, & MPC	39%	28%	11%	39%
Non-Automated	61%	72%	-11%	-15%
United States Citizens	32.4%	31.2%	+1.2%	4%
Non-immigrants	59.9%	61.3%	-1.4%	-2%
Legal Permanent Residents	7.7%	7.5%	+0.2%	3%
Average Daily Flights (#)	43	40	3	7%
<b>Wait Time</b>				
Average Primary Wait (m)	25.8	27.9	-2.0	-7%
% Travelers < 60 minutes	92%	90%	2%	2%
% Travelers > 120 mins	1.06%	1.48%	-0.42%	-28%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	323	323	-1	0%
<b>Efficiency</b>				
Average Cycle Time (s)	83.0	86.9	-4.0	-5%
Max Hourly Throughput / booth	43.4	41.4	2.0	5%
Average Utilization	69%	69%	0%	0%

### Compared to other major airports ...



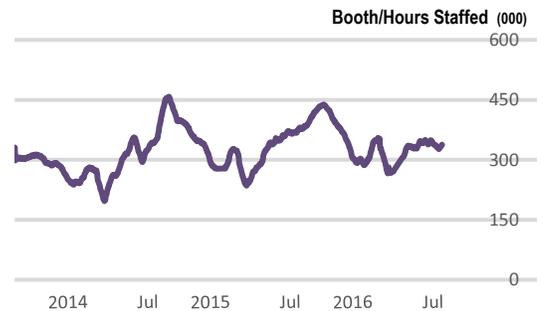
### Automation helps to reduce wait time

- Travel is up at JFK (Terminal 1).** Traveler volume increased 5% compared to last year. 39% of passengers use automated solutions like Global Entry and APC, up from 28% last year.
- Unchanged booth hours.** Booth hours are virtually unchanged compared to a year ago. Additional booth hours may be required during non-peak hours.
- Wait times decreased.** Year to date, average wait is down by 7%, from 27.9 minutes last year to 25.8 minutes this year. The percentage of travelers waiting less than 60 minutes increased to 92% from 90%.
- Efficient processing.** The average cycle time is 4 seconds faster than last year, allowing for an additional 2 passengers to be processed per hour, per booth. JFK-1 has one of the longest cycle times in the nation and could be improved by applying APC to non-immigrants.

### Traveler Volume ... continued strong growth



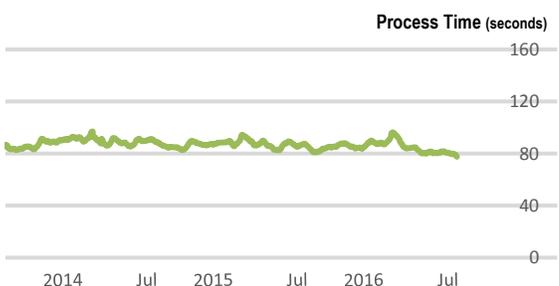
### Booth Hours ... trending higher



### Wait Time ... slight downward trend

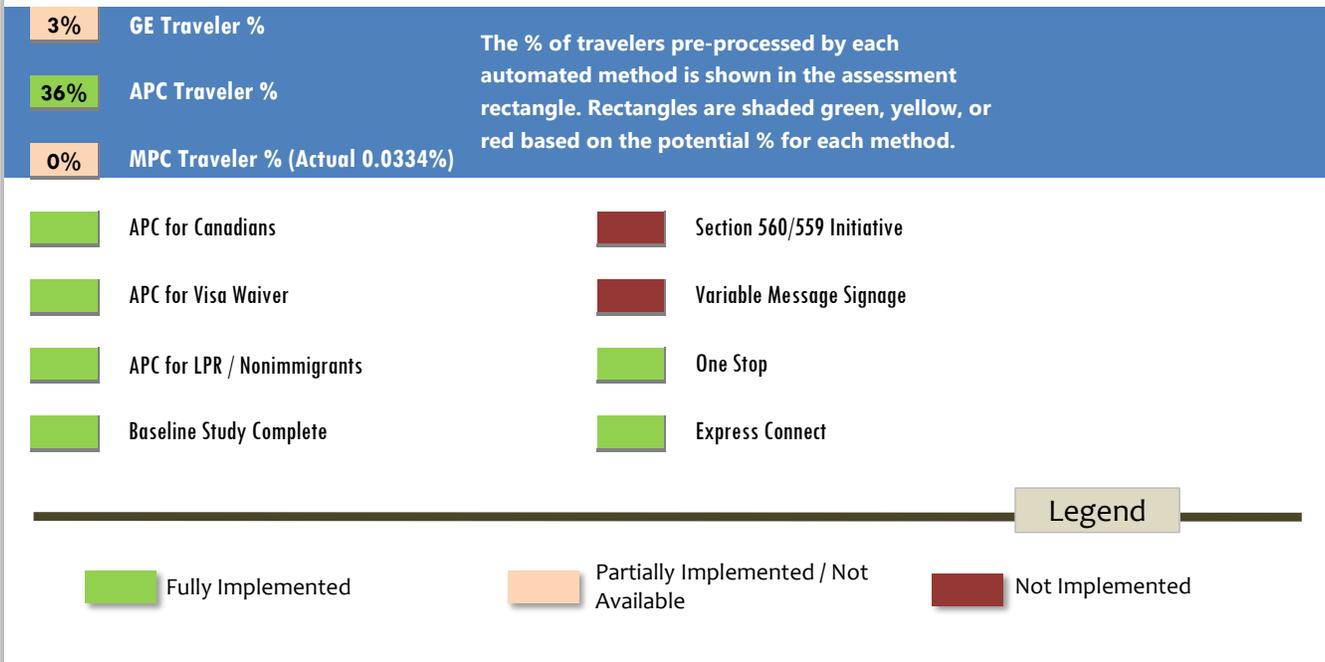


### Cycle Time ... slight downward trend



## Best Practice Inventory

**JFK Terminal 1 Best Practice Assessment:** JFK Terminal 1 has implemented many of the available best practices. Most notably, 39% 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.

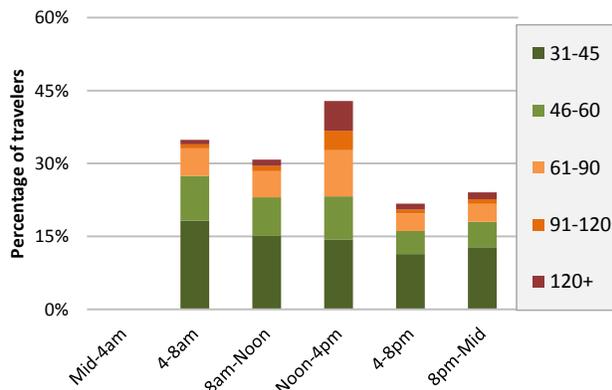


Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. 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.

### 31% of passengers wait more than 30 minutes

Year to date, approximately 10% of JFK Terminal 1 passengers wait more than 1 hour, approximately 31% of passengers wait more than 30 minutes. Between the hours of Noon to 4pm, 43% of passengers wait more than 30 minutes.

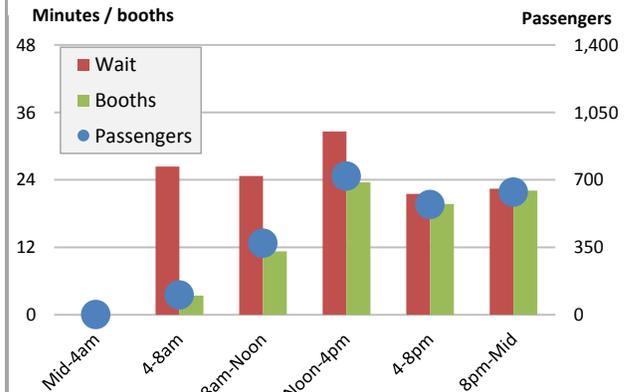
**% Passengers Waiting More than 30 Minutes**



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

Over 710 passengers (on average) arrive every hour between Noon and 4pm. By opening 24 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.

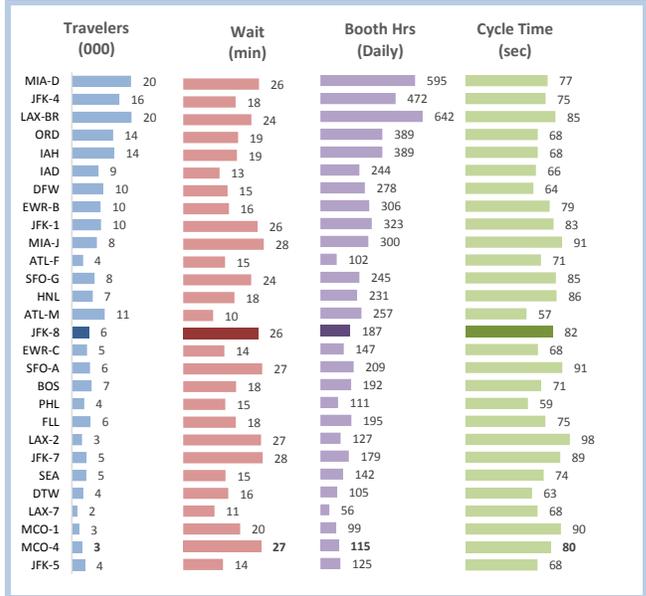
**Intraday Volume, Wait Times, and Booth Hours**



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	5,625	5,643	-18	0%
Global Entry, APC, & MPC	40%	8%	32%	400%
Non-Automated	60%	92%	-32%	-35%
United States Citizens	37.5%	36.3%	+1.2%	3%
Non-immigrants	56.8%	58.1%	-1.3%	-2%
Legal Permanent Residents	5.6%	5.6%	+0.1%	1%
Average Daily Flights (#)	29	28	1	2%
<b>Wait Time</b>				
Average Primary Wait (m)	25.9	26.1	-0.2	-1%
% Travelers < 60 minutes	93%	91%	2%	2%
% Travelers > 120 mins	0.54%	0.42%	+0.12%	28%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	187	195	-8	-4%
<b>Efficiency</b>				
Average Cycle Time (s)	82.2	85.3	-3.0	-4%
Max Hourly Throughput / booth	43.8	42.2	1.6	4%
Average Utilization	69%	69%	0%	0%

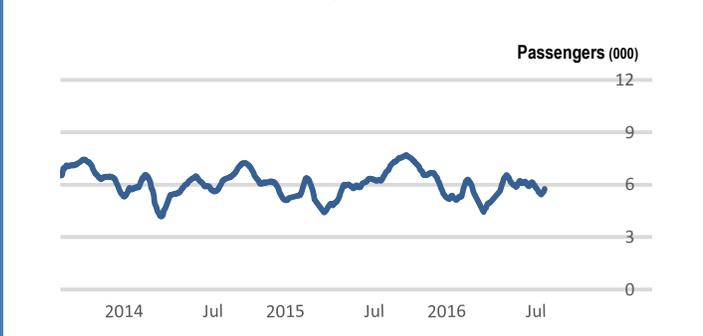
### Compared to other major airports ...



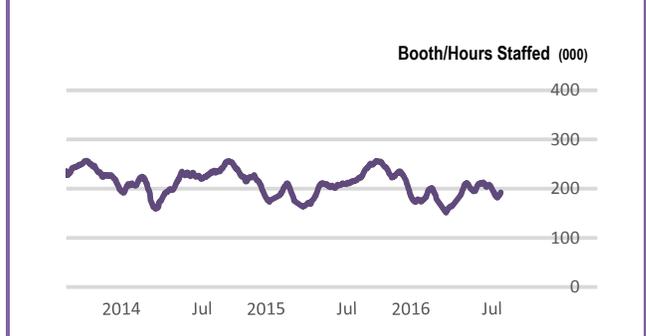
### Increased efficiency offset reduce booth hours

- Travel is unchanged at JFK Terminal 8.** Traveler volume (year to date) is virtually unchanged compared to last year. Today, 40% of JFK-8's passengers are confirmed with automated solutions like Global Entry and APC, compared to just 8% last year.
- Booth hours decreased by 4%.** JFK-8 booth hours have decreased 4% from 195 last year to 187 this year. Improvement in cycle time has contributed to a decrease in wait time, despite a decrease in booth hours.
- Cycle time 3 seconds faster.** Cycle time is 4% (3 seconds) faster than last year, allowing for an additional 1.6 passengers to be processed per hour, per booth.
- Wait times decreased slightly.** Wait time at JFK-8 is 0.2 minutes shorter 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.

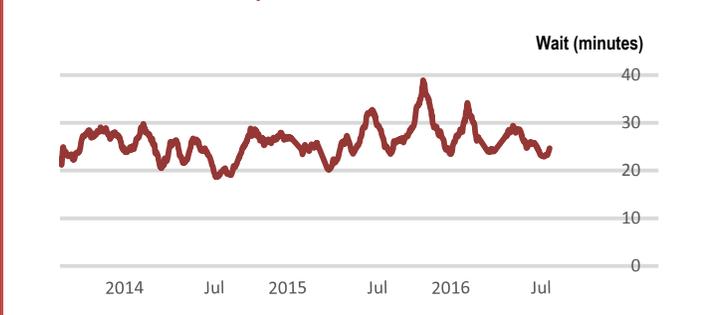
### Traveler Volume ... recent up trend



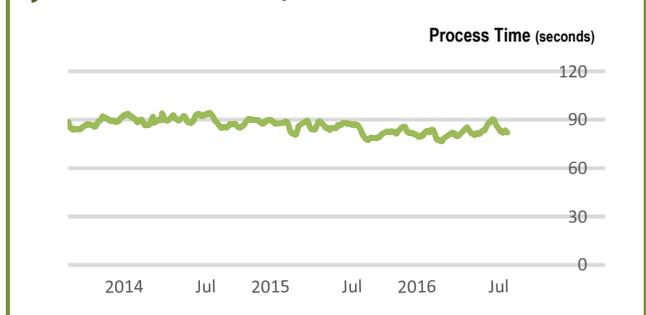
### Booth hours ... 4% fewer booths than last year



### Wait Time ... recent upward trend

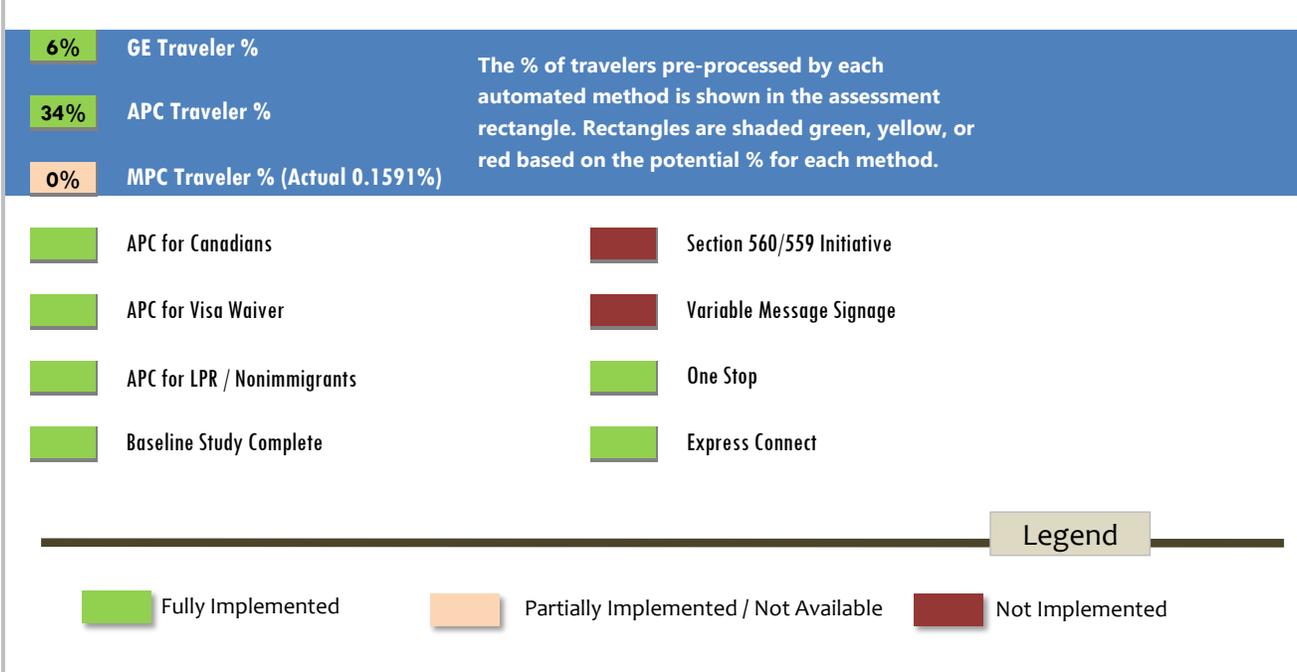


### Cycle Time ... recent improvement

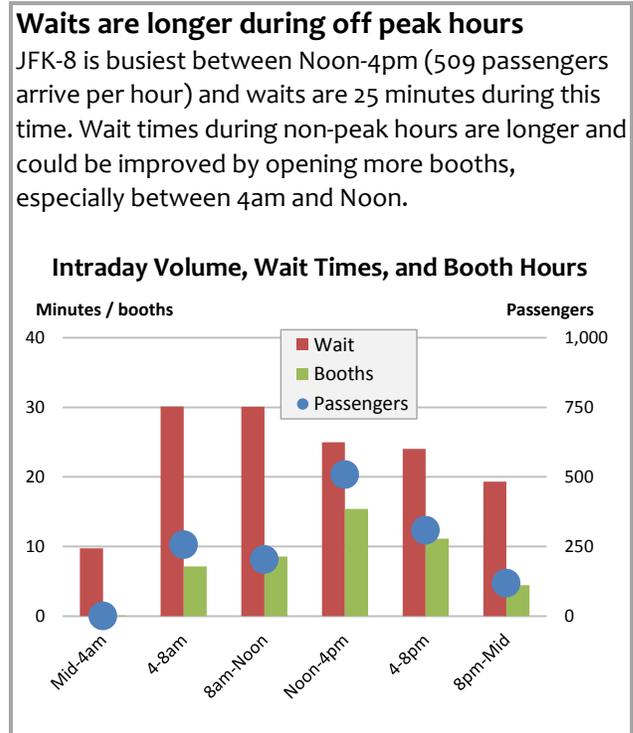
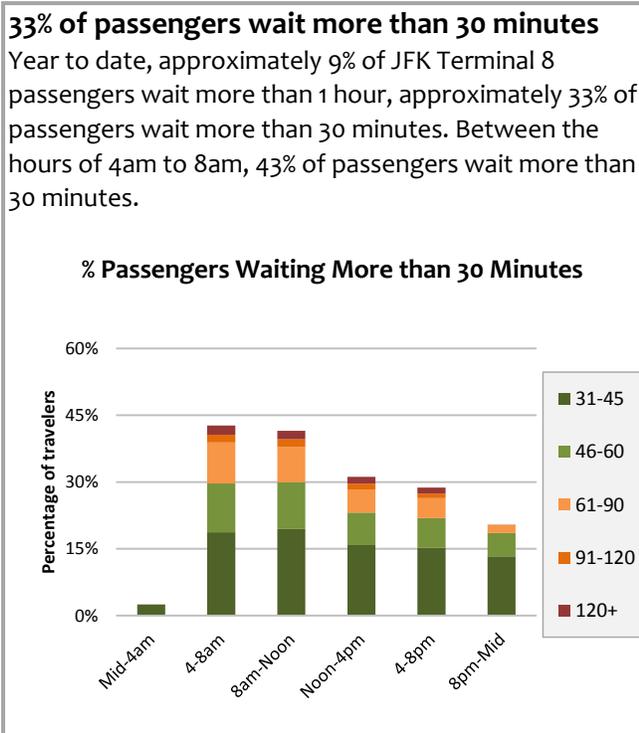


## Best Practice Inventory

**JFK Best Practice Assessment:** JFK-8 has implemented many of the available best practices. 40% 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.



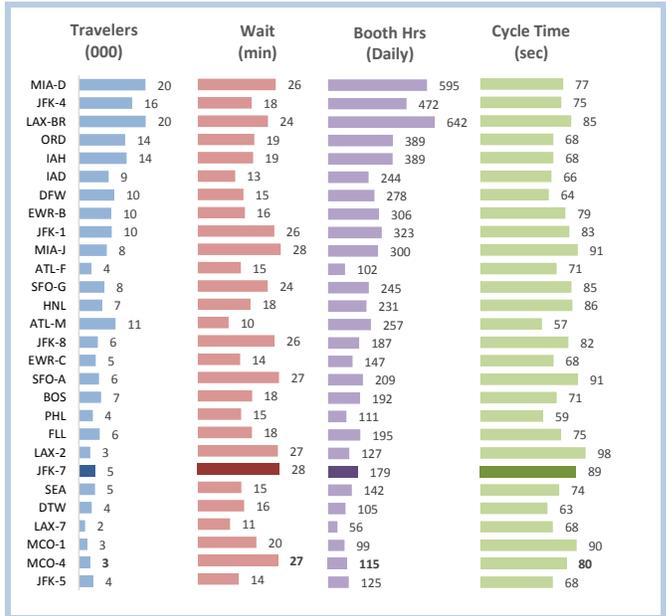
Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. 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.



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	4,837	4,465	372	8%
Global Entry, APC, & MPC	5%	4%	1%	25%
Non-Automated	95%	96%	-1%	-1%
United States Citizens	27.3%	27.2%	+0.1%	1%
Non-immigrants	67.1%	66.9%	+0.2%	0%
Legal Permanent Residents	5.5%	5.9%	-0.4%	-6%
Average Daily Flights (#)	22	20	2	9%
<b>Wait Time</b>				
Average Primary Wait (m)	27.6	25.2	2.4	10%
% Travelers < 60 minutes	90%	93%	-2%	-3%
% Travelers > 120 mins	0.54%	0.26%	+0.3%	108%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	179	164	14	9%
<b>Efficiency</b>				
Average Cycle Time (s)	89.1	88.3	0.8	1%
Max Hourly Throughput / booth	40.4	40.8	-0.4	-1%
Average Utilization	67%	67%	0%	1%

### Compared to other major airports ...



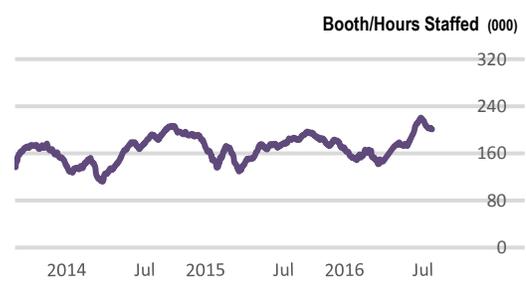
### Automated technologies are needed to increase processing efficiency and keep pace with volume

- **Travel is up at JFK-7.** Traveler volume at JFK-7 (year to date) has increased 8% 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 have increased to 179 per day compared to last year (164 booth hours). This 9% increase has not been able to keep up with traveler volume (up 8%), as shown by 10% longer waits.
- **Slower processing.** Unlike the other JFK terminals, cycle time at JFK-7 increased. Average cycle time has increased by 0.8 seconds. The increase in nonimmigrant share (67.1% this year) may prevent improvements in cycle time until APC is introduced.
- **Wait times increased by 10%.** Slower processing and more traffic have led to an increase in wait time. The average wait time increased by 10%, from 25.2 minutes last year to 27.6 minutes this year. The percentage of travelers waiting less than 60 minutes decreased to 90% from 93%.

### Traveler Volume ... steady upward trend



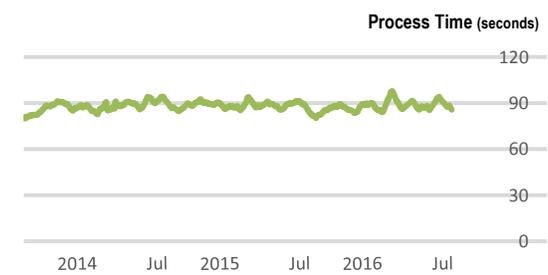
### Booth Hours ... 9% more booth hours than last year



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

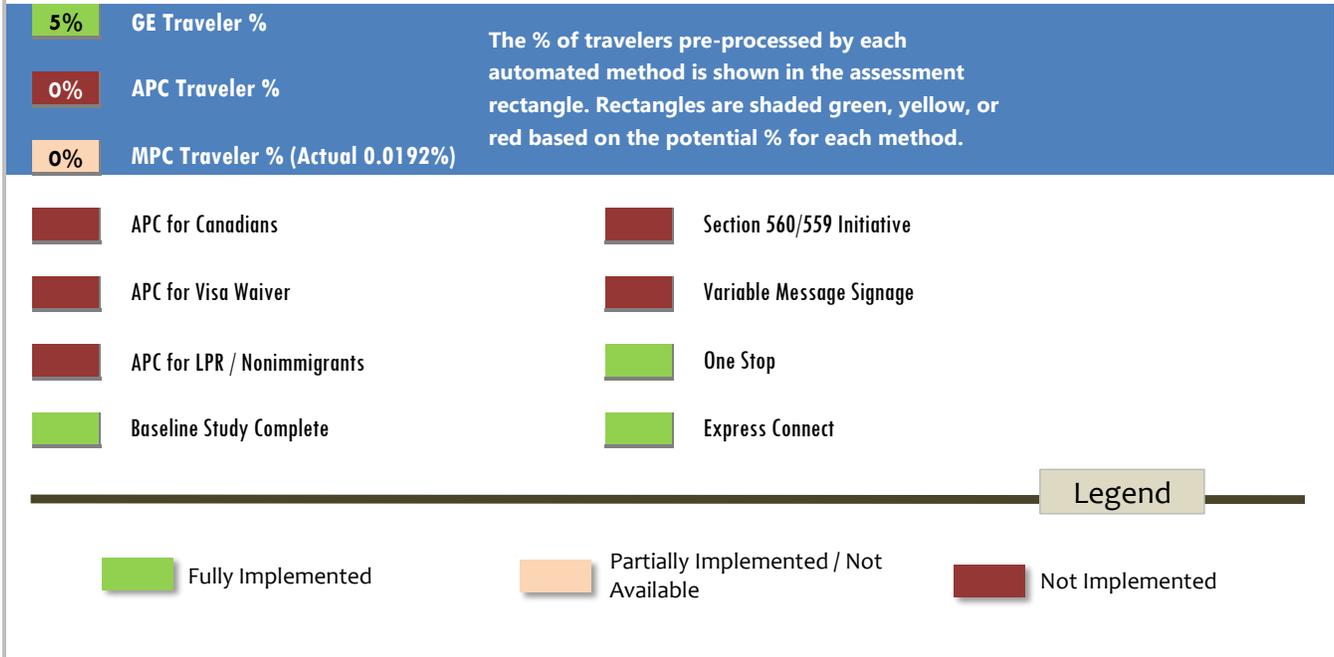


### Cycle Time ... up compared to last year



## 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.

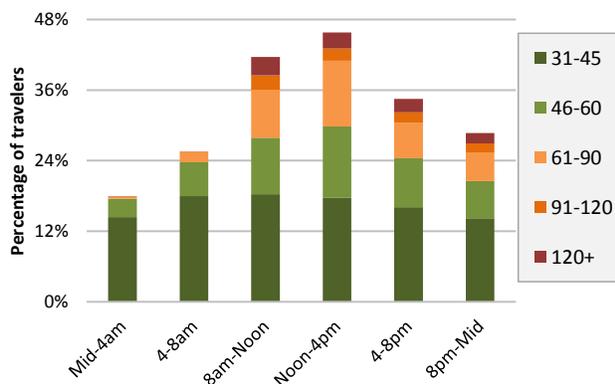


Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. 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.

### 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, 46% of passengers wait more than 30 minutes.

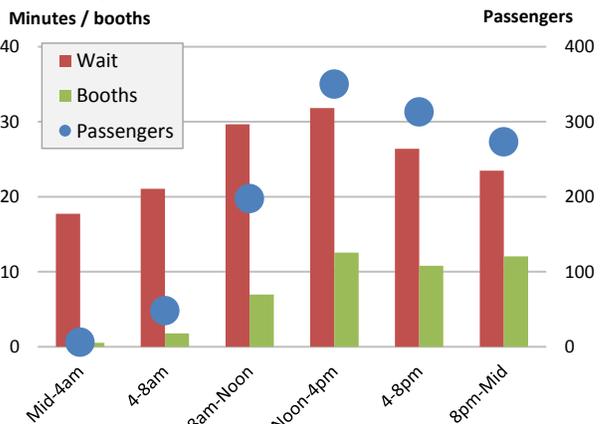
**% Passengers Waiting More than 30 Minutes**



### JFK-7 staffs well to traffic

Passenger volume is highest between Noon and 4pm (350 passengers/hour). By opening 13 booths, wait times are 32 minutes. Wait times are shorter during other periods when less traffic arrives.

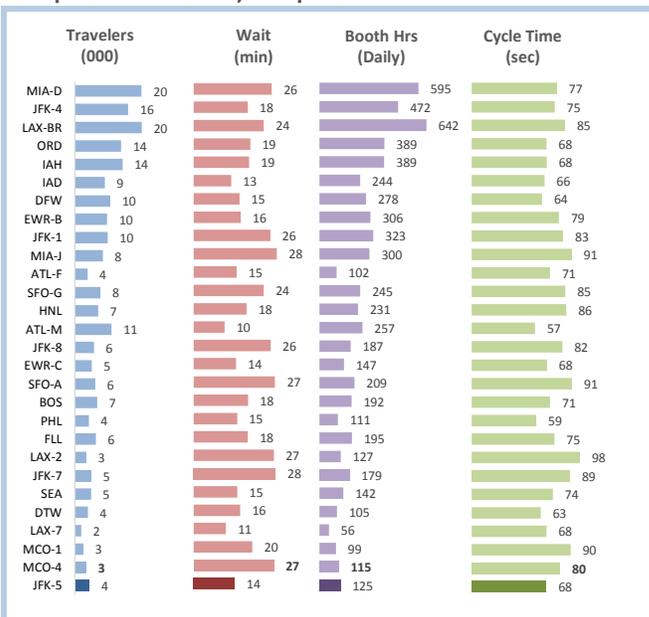
**Intraday Volume, Wait Times, and Booth Hours**



### Key Metrics

	YTD 2016	YTD 2015	Change	% Change
<b>Volume</b>				
Average Daily Travelers	4,301	3,569	732	21%
Global Entry, APC, & MPC	56%	42%	14%	33%
Non-Automated	44%	58%	-14%	-24%
United States Citizens	69.3%	71.1%	-1.8%	-3%
Non-immigrants	17.4%	15.9%	1.6%	10%
Legal Permanent Residents	13.3%	13.0%	0.2%	2%
Average Daily Flights (#)	28	25	3	12%
<b>Wait Time</b>				
Average Primary Wait (m)	13.8	11	3.1	29%
% Travelers < 60 minutes	98%	99%	-1%	-1%
% Travelers > 120 mins	0.13%	0.01%	0.1%	1267%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	125	109	16	15%
<b>Efficiency</b>				
Average Cycle Time (s)	67.7	70.3	-2.6	-4%
Max Hourly Throughput / booth	53.2	51.2	2.0	4%
Average Utilization	65%	64%	1%	1%

### Compared to other major airports ...



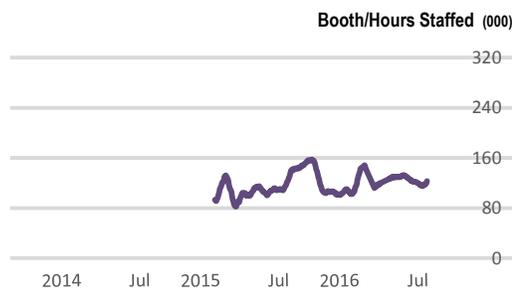
### More booth hours and efficiencies have not kept pace with volume

- Travel is up significantly at JFK-5.** Traveler volume at JFK-5 has increased 21% compared to last year. Today, 56% of JFK-5's passengers are confirmed with Global Entry and APC, up from 42% last year. MPC has been recently implemented.
- Booth hours increased.** Booth hours increased by 15% compared to a year ago from 109 booth hours to 125 booth hours, but have not kept pace with traveler volume (up 21%), especially in off peak hours when waits are highest. However, JFK-5 still has the shortest waits at any JFK terminal.
- Efficient processing.** The average JFK-5 cycle time is 2.6 seconds faster (53.2 passengers per hour, per booth, with an average utilization per booth of 65%). 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 29% compared to a year ago, from 11 minutes to 13.8 minutes because of the traffic growth. However, their waits are low compared to most major air terminals.

### Traveler Volume ... continued growth



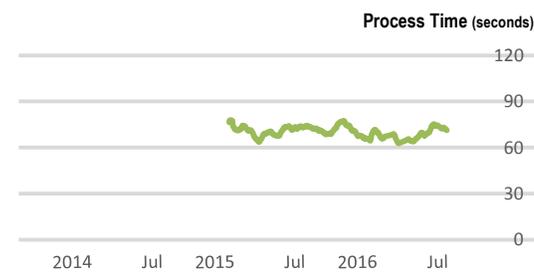
### Booth Hours ... continued increase



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

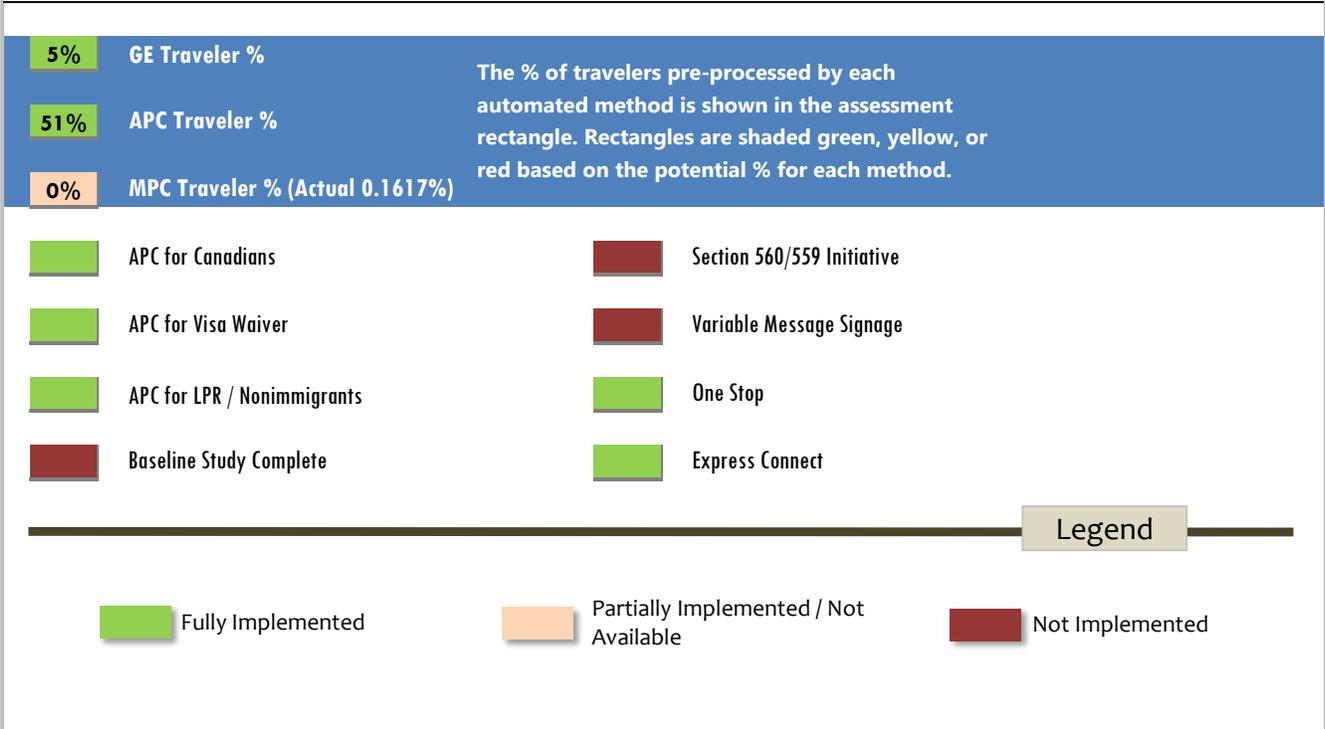


### Cycle Time ... fast processing



## Best Practice Inventory

**JFK Best Practice Assessment:** JFK-5 has implemented many of the available best practices. Most notably, 56% 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.

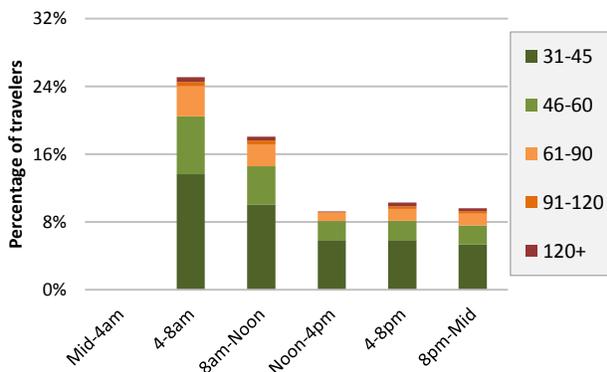


Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion at airports. If all practices are implemented, an airport may reduce wait times as much as 50 percent compared to not implementing any best practices. 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.

### 12% of passengers wait more than 30 minutes

While very few JFK Terminal 5 passengers wait more than 1 hour (about 2%), approximately 12% of passengers wait more than 30 minutes. Between the hours of 4am to 8am, 25% of passengers wait more than 30 minutes.

**% Passengers Waiting More than 30 Minutes**



### Short waits during busiest times

Passenger volume is highest between 4pm and 8pm (463 passengers/hour), yet with 11 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**

