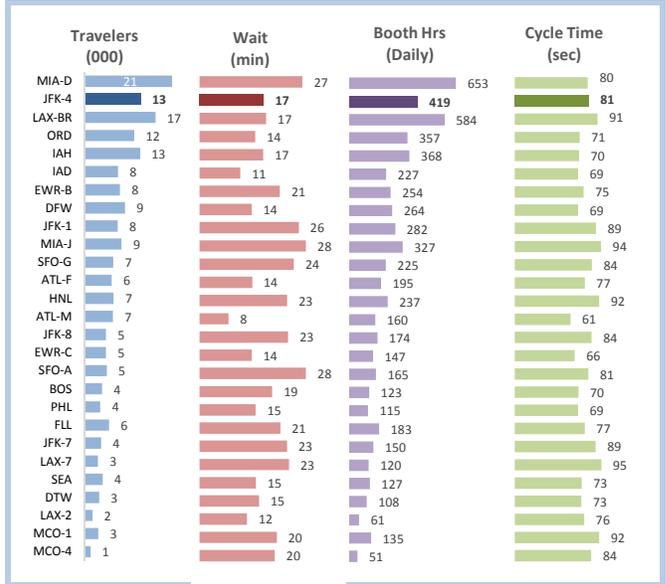


### Key Metrics

	YTD 2015	YTD 2014	Change %	Change
<b>Volume</b>				
Average Daily Travelers	13,132	15,165	-2,033	-13%
Global Entry & APC	38%	37%	1%	3%
Non-Automated	62%	63%	-1%	-2%
United States Citizens	47%	51.1%	-4.2%	-8%
Non-immigrants	43%	36.1%	+6.7%	18%
Legal Permanent Residents	10.3%	12.8%	-2.5%	-20%
Average Daily Flights (#)	69	88	-18	-21%
<b>Wait Time</b>				
Average Primary Wait (m)	16.6	17.4	-0.8	-5%
% Travelers < 60 minutes	97%	96%	0%	0%
% Travelers > 120 mins	0.30%	0.43%	-0.13%	-30%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	419	594	-174	-29%
<b>Efficiency</b>				
Average Cycle Time (s)	80.8	85.3	-4.5	-5%
Max Hourly Throughput / booth	44.5	42.2	2.3	6%
Average Utilization	70%	61%	10%	16%

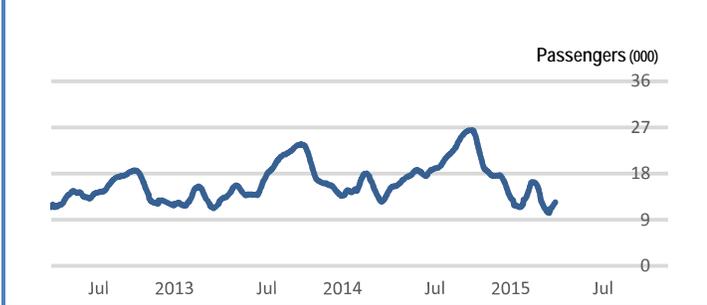
Compared to other major airports ...



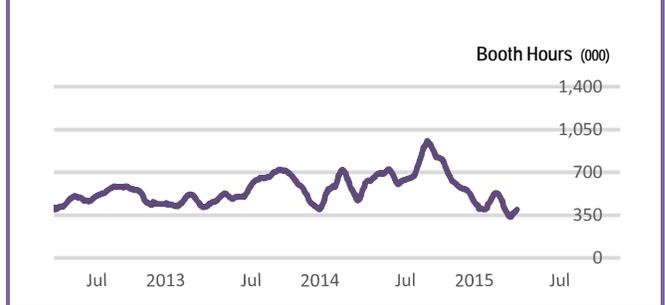
#### Decreased average daily flights, increased automation efficiency reduces wait time

- Travel is down at JFK-4.** Traveler volume (year to date) has decreased 13% compared to last year. Today, 38% of JFK-4's passengers are pre-processed with Global Entry or APC. This is compared to 37% last year.
- 29% fewer booths.** Booth hours at JFK-4 have decreased compared to a year ago. Decreased volume and faster processing have prevented longer waits.
- Wait times down since last year.** Year to date, average wait is down (from 17.4 minutes last year to 16.6 minutes this year). Further, there has been a 1% increase in passengers being processed in under 60 minutes: 97% this year compared to 96% last year.
- Cycle time is 4.5 seconds faster, year to date.** APC and Global Entry growth have likely combined to reduce the average cycle time by 4.5 seconds. The faster cycle time allows for an additional 2.3 passengers to be processed per hour at each booth.

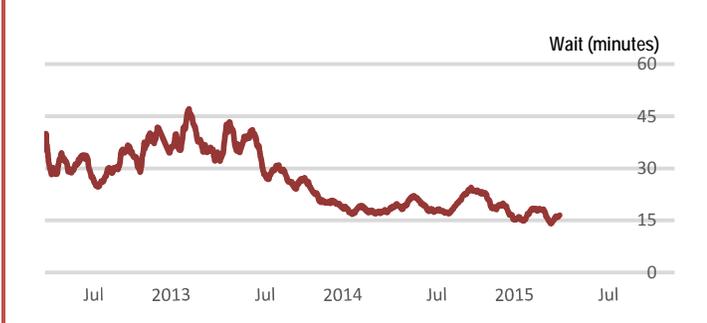
#### Traveler Volume ... recent decline



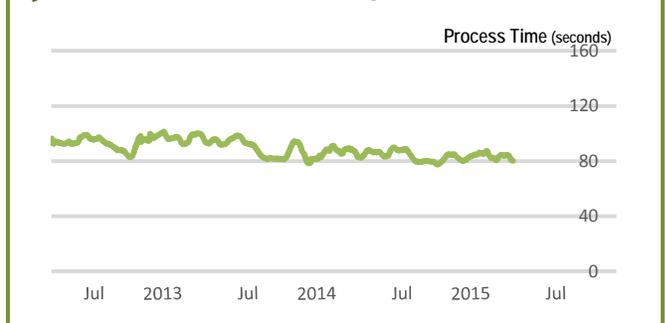
#### Booth Hours ... 29% fewer booths hours than last year



#### Wait Time ... continued decrease in wait times

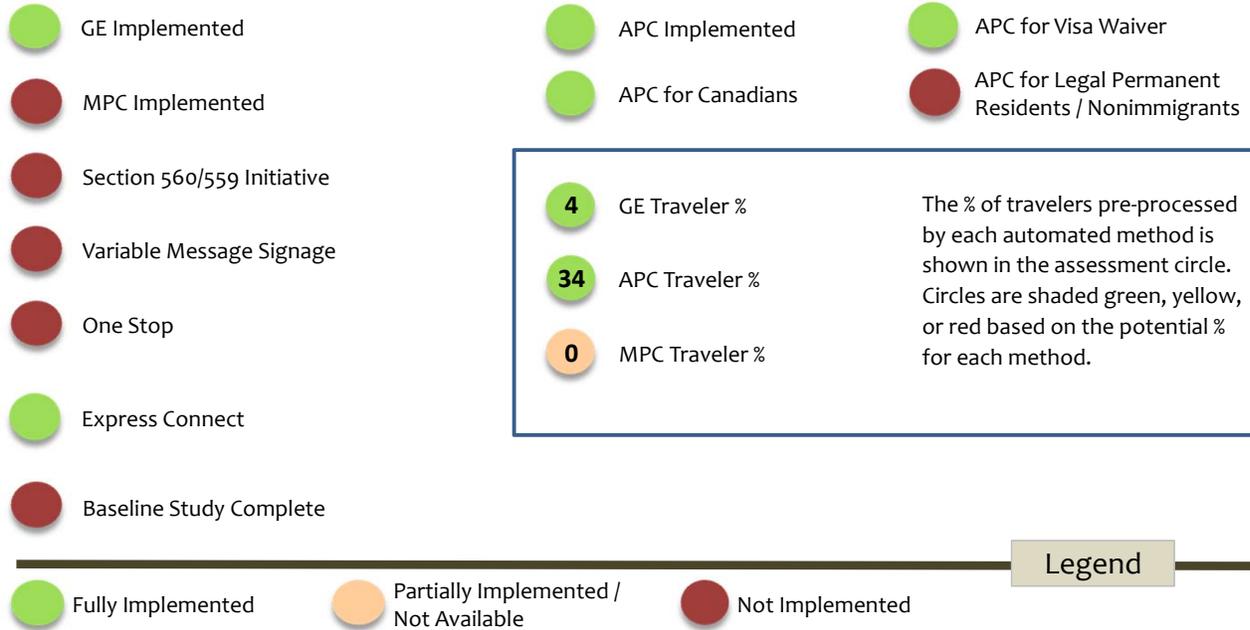


#### Cycle Time ... steadily decreasing cycle times



## Best Practice Inventory

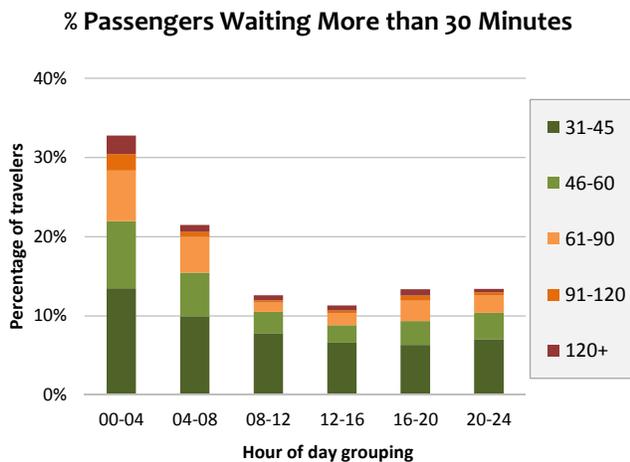
JFK-4 has implemented many of the available best practices such as Global Entry (GE), Automated Passport Control (APC), and Express Connect. Today, 38% of passengers are processed by GE and APC kiosks. APC is available at JFK-4 not only to US Citizens, but also Canadians and Visa Waiver country travelers. JFK should further consider offering APC to non-immigrant travelers.



Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion and wait times at airports. If all of the best practices are implemented, an airport could reduce its wait times as much as 50 percent compared to not implementing any of the best practices. A green "assessment circle" indicates the best practice has been properly and fully implemented. Red means the best practice is not in place. Orange indicates implementation is not available, or has occurred but on a limited basis and achieves less than optimal results.

### 16% of passengers wait more than 30 minutes

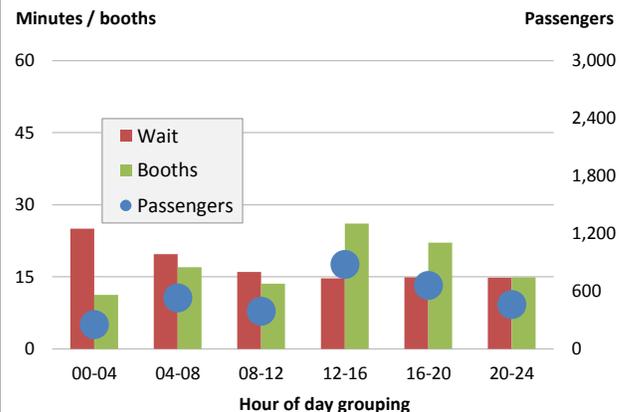
While few JFK Terminal 4 passengers wait more than 1 hour (about 4%), approximately 16% wait more than 30 minutes. Between the hours of 12 am and 4 am, around 33% of passengers wait more than 30 minutes.



### Staffing could improve during off-peak

More than 880 passengers (on average) arrive every hour between 12 pm and 4 pm. However, average waits are highest from 12am-4pm (fewer than 255 passengers per hour). Slightly more staffing could greatly reduce waits during this time period.

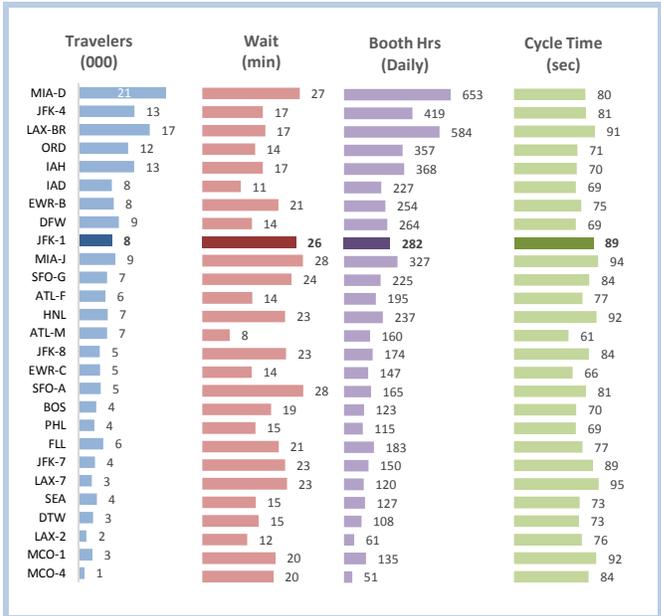
#### Intraday Volume, Wait Times, and Booth Hours



### Key Metrics

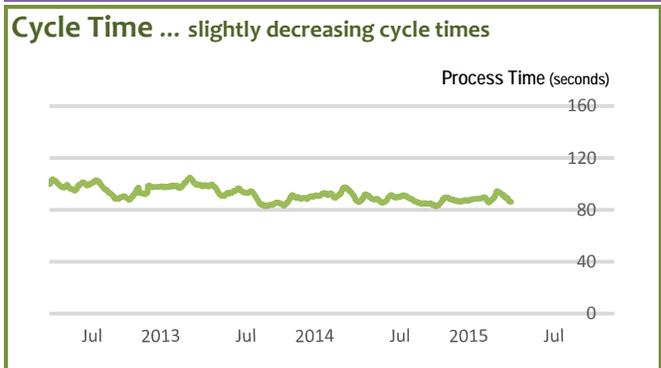
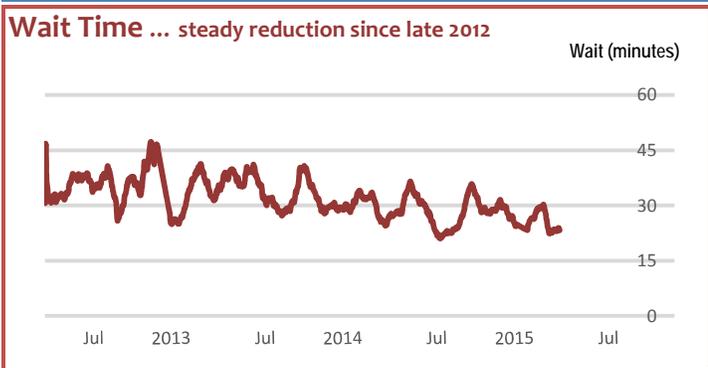
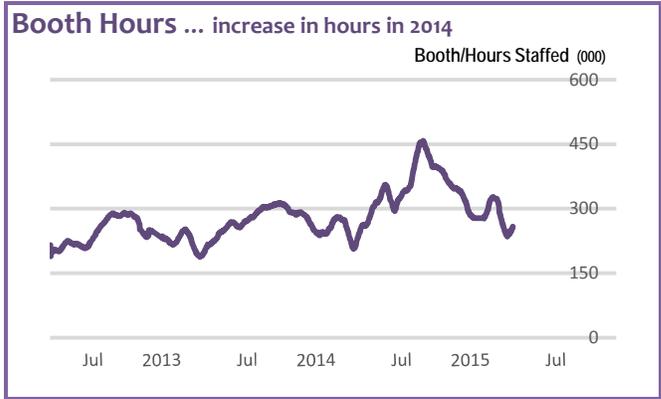
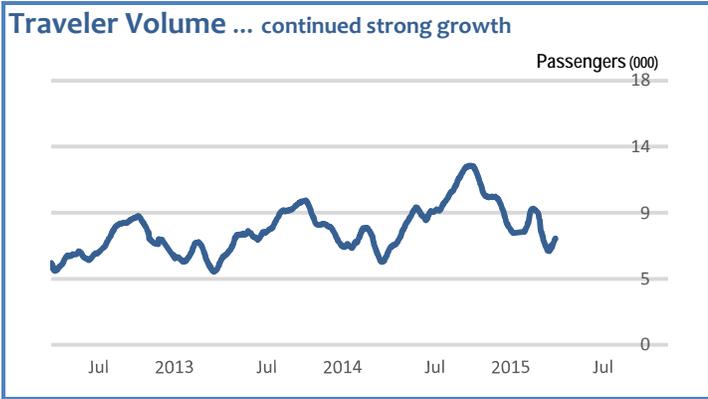
	YTD 2015	YTD 2014	Change	% Change
<b>Volume</b>				
Average Daily Travelers	7,789	6,803	986	14%
Global Entry & APC	25%	13%	12%	97%
Non-Automated	75%	87%	-12%	-14%
United States Citizens	33%	34.6%	-1.8%	-5%
Non-immigrants	58%	54.8%	+3.4%	6%
Legal Permanent Residents	8.9%	10.6%	-1.7%	-16%
Average Daily Flights (#)	35	32	3	10%
<b>Wait Time</b>				
Average Primary Wait (m)	25.8	29.2	-3.5	-12%
% Travelers < 60 minutes	92%	90%	2%	3%
% Travelers > 120 mins	0.63%	0.53%	+0.10%	20%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	282	251	31	12%
<b>Efficiency</b>				
Average Cycle Time (s)	88.8	91.1	-2.3	-3%
Max Hourly Throughput / booth	40.5	39.5	1.0	3%
Average Utilization	68%	68%	0%	-1%

### Compared to other major airports ...



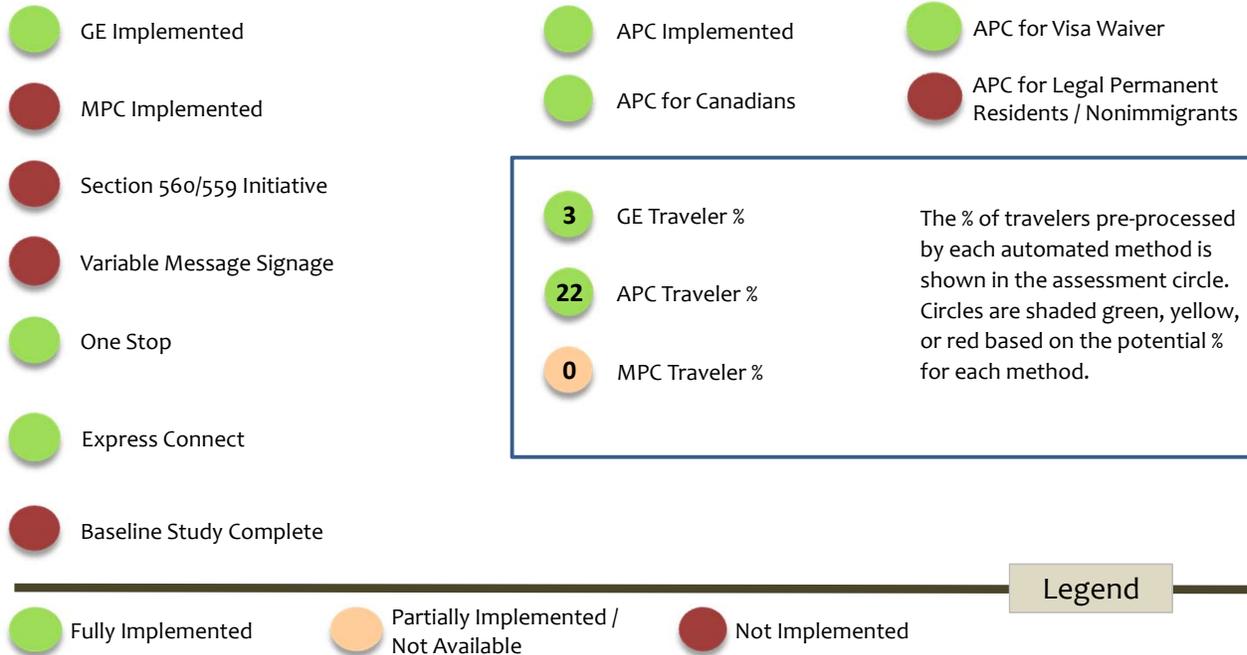
### Increased booth staffing and automated processing shorten wait times

- Travel is up 14% at JFK (Terminal 1).** Traveler volume increased 14% compared to last year. Given the 13% decrease at Terminal 4, the Terminal 1 increase is likely the result of JFK flight management.
- More booths open to meet demand.** Booth hours increased 12% compared to a year ago. However, additional booths are required during off peak hours.
- Wait times still high, but have been decreasing in 2014.** Year to date, average wait is down 3.5 minutes to 25.8 minutes. However, Terminal 1 still has one of the highest wait times in the country, especially during peak hours. This is likely due to the high proportion of non-immigrant travelers (58%).
- Cycle time is 2 seconds faster.** APC and Global Entry growth (12%) have likely combined to reduce average cycle time. Average cycle time is 2.3 seconds faster than last year, allowing for 1 additional passenger to be processed per hour per booth.



## Best Practice Inventory

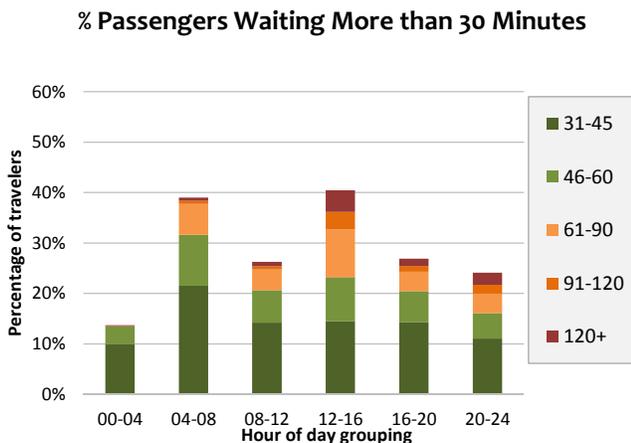
**JFK Terminal 1 Best Practice Assessment:** JFK Terminal 1 has implemented many of the available best practices. Most notably, 1 in 4 of JFK-1's passengers are now processed by Global Entry and APC, up from just 13% last year. APC is available at JFK Terminal 1 not only to US Citizens, but also Canadians and Visa Waiver country travelers. JFK would benefit from the new MPC technology.



Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion and wait times at airports. If all of the best practices are implemented, an airport could reduce its wait times as much as 50 percent compared to not implementing any of the best practices. A green "assessment circle" indicates the best practice has been properly and fully implemented. Red means the best practice is not in place. Orange indicates implementation is not available, or has occurred but on a limited basis and achieves less than optimal results.

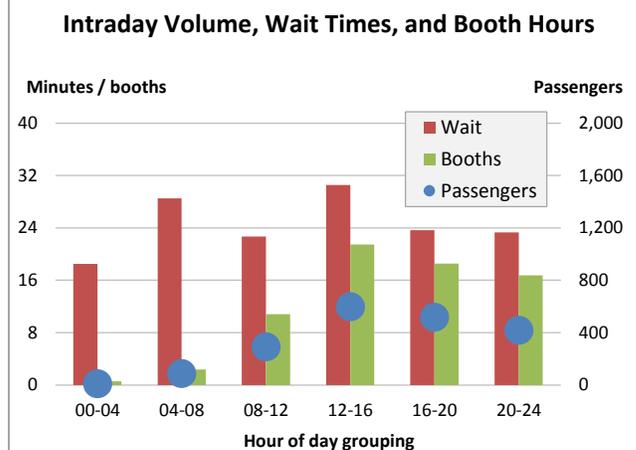
### 31% of passengers wait more than 30 minutes

Terminal 1 has one of the highest wait times in the country, with 31% of passengers waiting over 30 minutes. Further, there is a 31 minute wait between 12pm-4pm. This wait time is highest among all major terminals.



### Additional staff required to reduce wait time during off-peak hours

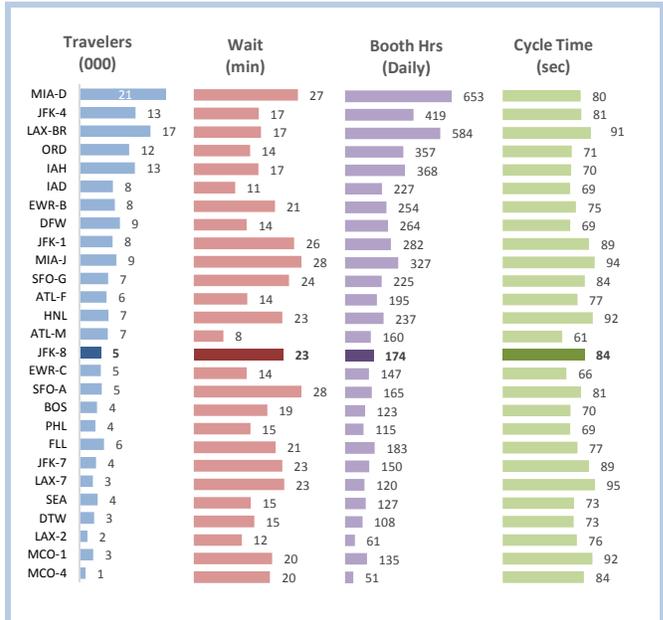
Few passengers arrive between midnight and noon (from 25 to 500 per hour). However, wait times during this period (from 18 to 29 minutes) rival wait time at peak (32 minutes). A few extra booths in the morning would greatly reduce waits at JFK.



### Key Metrics

	YTD 2015	YTD 2014	Change %	Change
<b>Volume</b>				
Average Daily Travelers	5,028	5,276	-248	-5%
Global Entry & APC	4%	3%	1%	24%
Non-Automated	96%	97%	-1%	-1%
United States Citizens	40%	35.8%	+3.9%	11%
Non-immigrants	54%	56.9%	-3.3%	-6%
Legal Permanent Residents	6.8%	7.4%	-0.6%	-8%
Average Daily Flights (#)	26	30	-4	-13%
<b>Wait Time</b>				
Average Primary Wait (m)	23.0	24.2	-1.2	-5%
% Travelers < 60 minutes	94%	95%	-1%	-1%
% Travelers > 120 mins	0.17%	0.32%	-0.15%	-47%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	174	188	-14	-7%
<b>Efficiency</b>				
Average Cycle Time (s)	84.0	89.3	-5.3	-6%
Max Hourly Throughput / booth	42.9	40.3	2.5	6%
Average Utilization	67%	70%	-2%	-3%

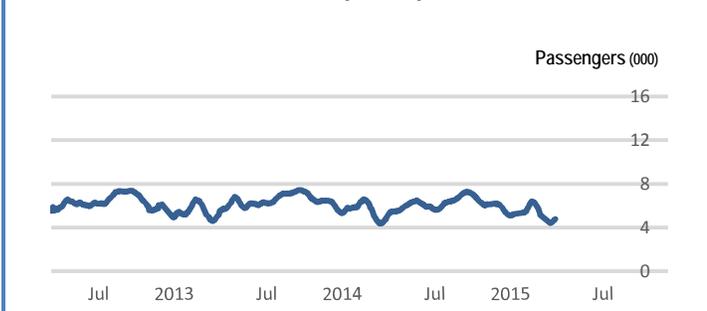
### Compared to other major airports ...



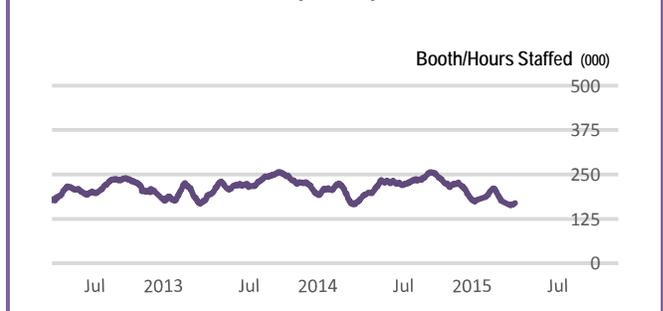
### Decreased volume leads to shorter waits

- Travel is down slightly at JFK Terminal 8.** Traveler volume (year to date) has decreased 5% compared to last year. Today, only 4% of JFK-8's passengers are pre-processed with automated solutions like Global Entry.
- Fewer international travelers.** 54% of travelers processed were non-immigrants (year to date). This is down from 57% for the same period.
- Cycle time and booth hours decrease.** A 7% decrease in booth staffing has been offset by a 6% (5.3 second) cycle time improvement.
- Wait times decreased by 5%.** Slightly less traffic and faster processing have offset fewer booths to reduce waits at JFK8 by 5% (1.2 minutes), from 24.2 minutes last year to 23 minutes this year. This might be due to the overall decrease in traffic and perhaps a better allocation of resources during busy periods.

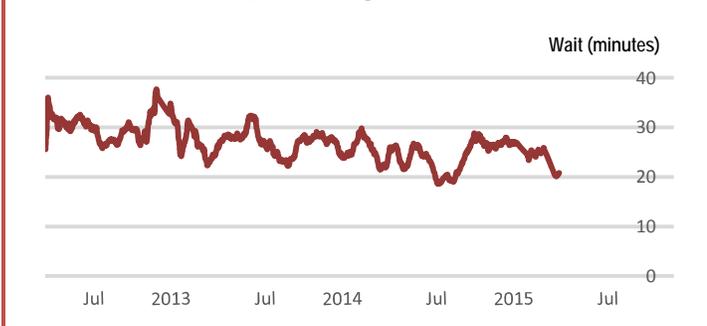
### Traveler Volume ... relatively steady



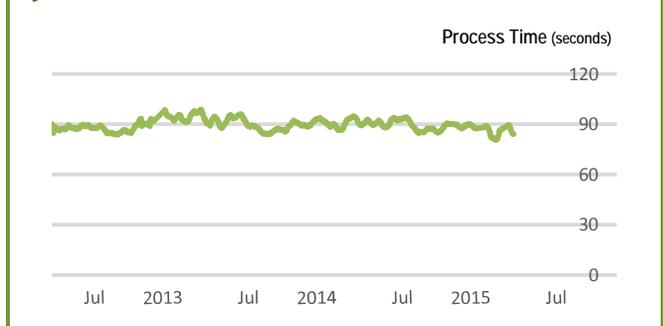
### Booth hours ... relatively steady, recent decline



### Wait Time ... steadily decreasing wait times

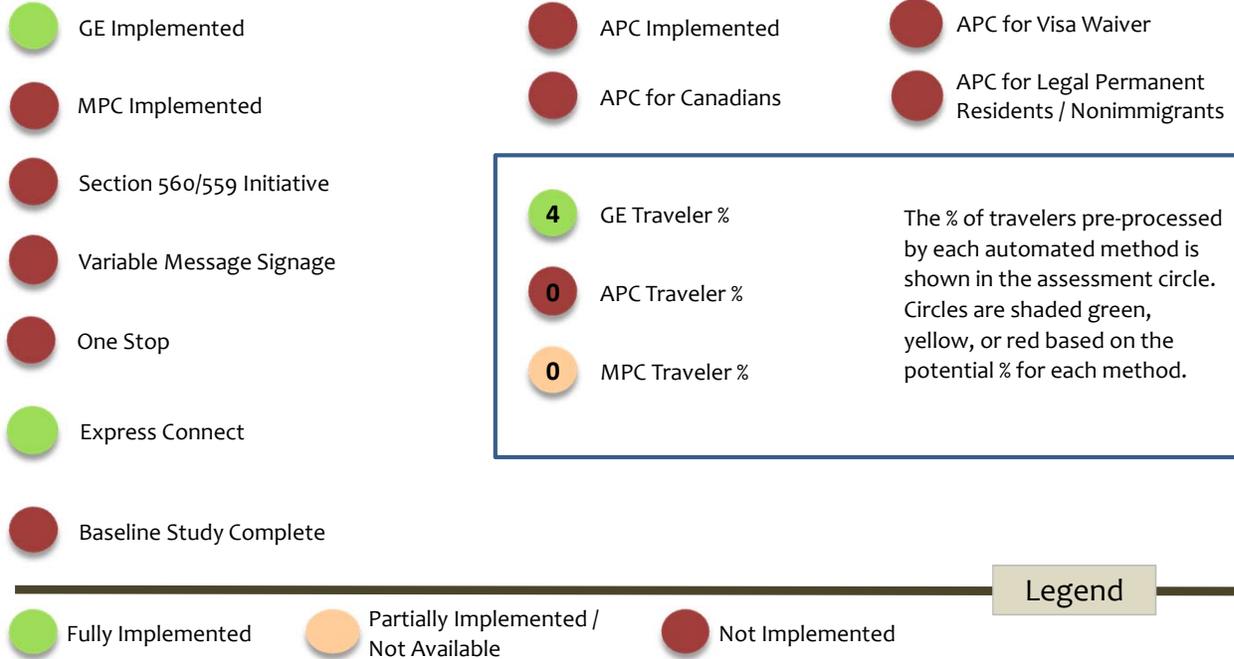


### Cycle Time ... relatively steady year to date



## Best Practice Inventory

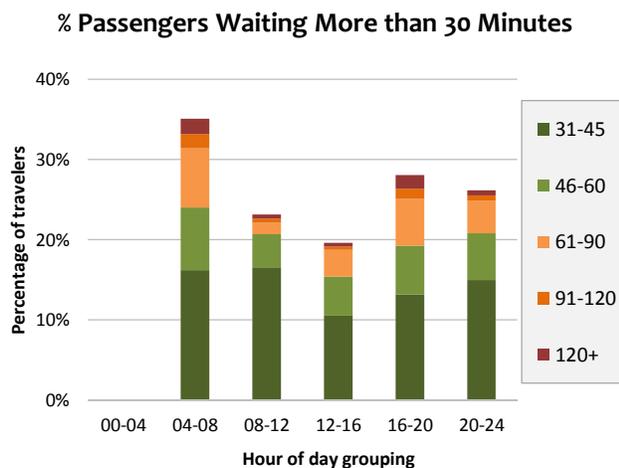
**JFK Best Practice Assessment:** JFK-8 has implemented GE but is yet to introduce APC. Most notably, Terminal 8 has only increased use of GE by 1% (4% total compared to 3% last year). JFK-8 could improve cycle times with the introduction of further practices, such as APC and MPC.



Many innovative practices, technologies, and programs are available to make international air passenger processing more efficient and reduce congestion and wait times at airports. If all of the best practices are implemented, an airport could reduce its wait times as much as 50 percent compared to not implementing any of the best practices. A green "assessment circle" indicates the best practice has been properly and fully implemented. Red means the best practice is not in place. Orange indicates implementation is not available, or has occurred but on a limited basis and achieves less than optimal results.

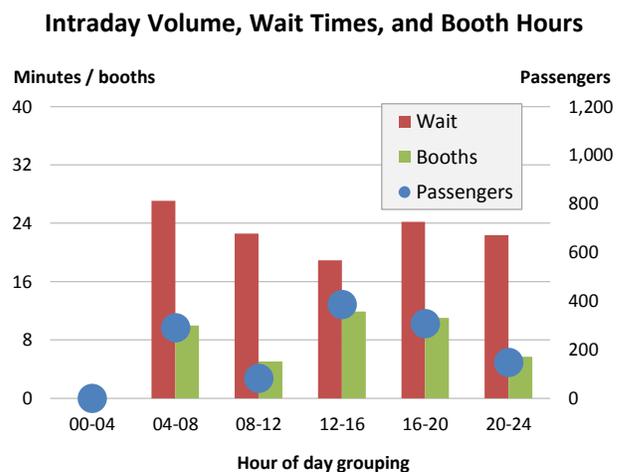
### 26% of passengers wait more than 30 minutes

While 26% of passengers at JFK-8 wait more than 30 minutes, only 7% wait longer than 60 minutes. At JFK-8's busiest time (12pm-4pm) 20% of passengers wait more than 30 minutes.



### More booths needed from 8am - noon and 8 to midnight.

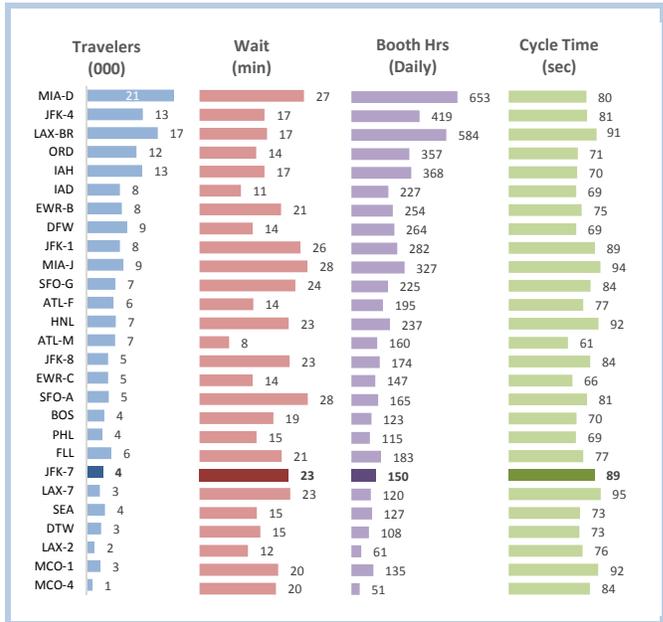
JFK-8 staffs well to peak traffic (noon - 4 pm) when average waits are 19 minutes. However, during off-peak hours (8am - noon and 8pm to midnight) average waits are 23 minutes.



### Key Metrics

	YTD 2015	YTD 2014	Change %	Change
<b>Volume</b>				
Average Daily Travelers	3,898	3,372	526	16%
Global Entry & APC	4%	4%	0%	3%
Non-Automated	96%	96%	-0%	0%
United States Citizens	30%	32.0%	-2.3%	-7%
Non-immigrants	64%	60.4%	+3.4%	6%
Legal Permanent Residents	6.5%	7.6%	-1.1%	-14%
Average Daily Flights (#)	18	18	0	1%
<b>Wait Time</b>				
Average Primary Wait (m)	22.7	19.8	2.9	15%
% Travelers < 60 minutes	95%	98%	-3%	-3%
% Travelers > 120 mins	0.10%	0.04%	+0.1%	138%
<b>Primary Booth Hours</b>				
Average Daily Booth Hours	150	133	17	13%
<b>Efficiency</b>				
Average Cycle Time (s)	88.6	88.4	0.1	0%
Max Hourly Throughput / booth	40.6	40.7	-0.1	0%
Average Utilization	64%	62%	2%	3%

### Compared to other major airports ...



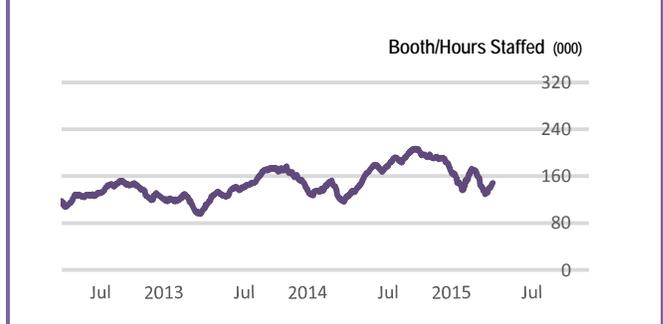
### More booths have not been able to offset increased traveler volume

- Travel is up 16% at JFK-7.** Traveler volume at JFK-7 (year to date) has increased 16% compared to last year. Today, only 4% of JFK-7's passengers are pre-processed with Global Entry, the same as last year.
- More booths open to meet demand.** Booth hours have increased to meet traveler volume demand, up 13% (133 hours last year to 150 hours this year).
- Staff efficiency steady.** Average cycle time and max throughput remained steady, whereas these operational metrics have improved at other JFK terminals with the implementation of APC Kiosks and other available practices.
- Wait times increased by 15%.** Increased average daily travelers has led to an increase in wait time. The average wait time increased by 15%, from 19.8 minutes last year to 22.7 minutes this year.

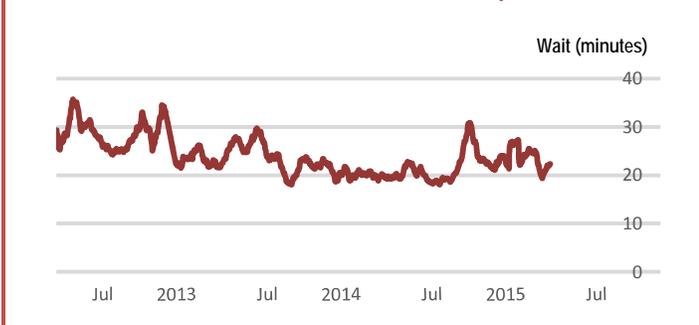
### Traveler Volume ... steady upward trend



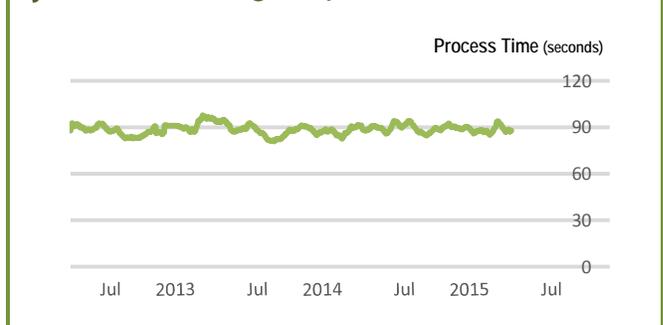
### Booth Hours ... trending higher



### Wait Time ... downward trend, with recent upturn

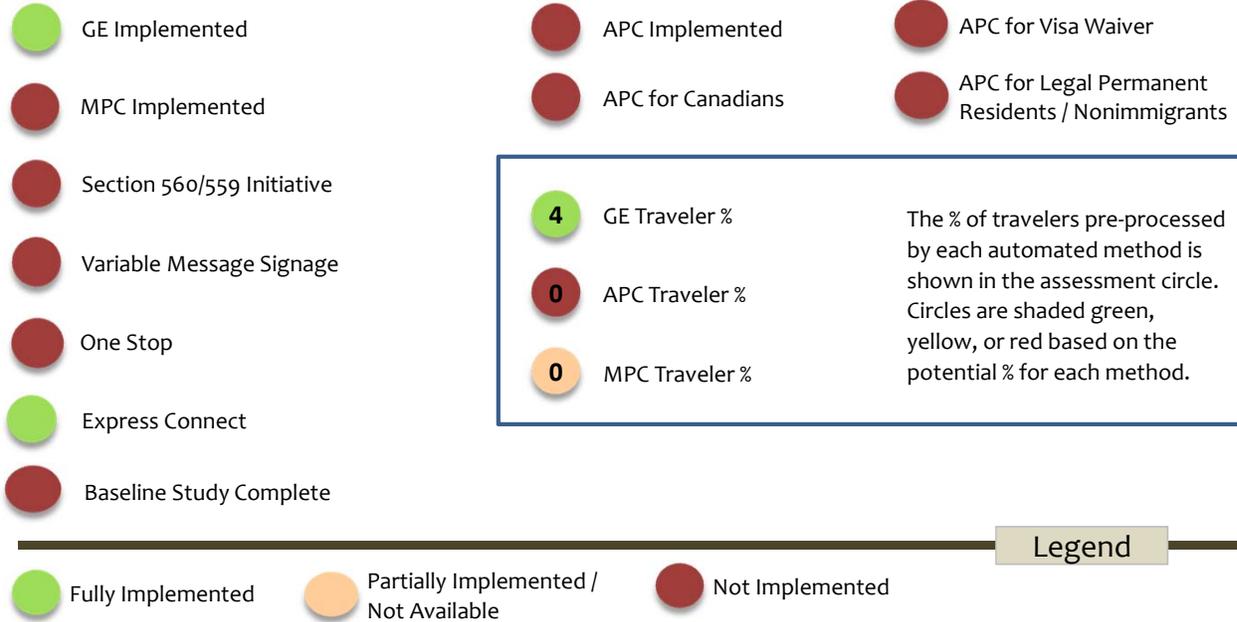


### Cycle Time ... holding steady



## Best Practice Inventory

**JFK Best Practice Assessment:** JFK has yet to implement many of the available best practices, and a baseline study is recommended. 4% of travelers use GE, and APC has not yet been implemented. These practices need to be applied to reduce cycle times, as seen at other terminals across the country.

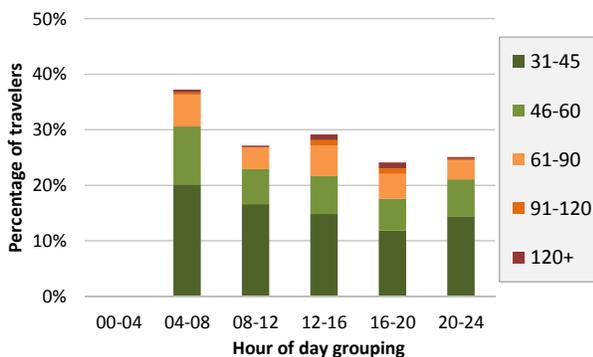


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### 27% of passengers wait more than 30 minutes

While 27% of passengers at JFK-7 wait more than 30 minutes, only 6% wait longer than 60 minutes. During JFK-7's heaviest traffic period from 4 - 8am, nearly 20% of travelers wait more than 30 minutes.

**% Passengers Waiting More than 30 Minutes**



### Peak staffing at JFK-7 is sufficient

Passenger volume is highest between 12pm and 4pm (295 passengers/hour), but with 12 booths open during this time, wait times are held at or below the overall average wait time for the day. More booths may be needed from 4 am to noon (off-peak hours).

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

