AIRPORT BLUES
THE POTENTIAL DIFFICULTIES FROM DISRPUTED FOURTH OF JULY TRAVEL

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Our analysis of the TSA checkpoint and airline schedule data points to a difficult reality: U.S. airlines face an extraordinary challenge in handling the volume of domestic traffic that is expected over the Fourth of July weekend. If the share of flights cancelled reaches 5%, which has regularly occurred in recent weeks, airlines may be unable to reaccommodate passengers in ways that avoid imposing significant hardship on tens of thousands of customers. These conclusions are based on our analysis showing that:

-   Air travel has surged in the past week. More than 12.3 million people will likely pass through checkpoints from Thursday to Monday, far more than the 11.4 million over Memorial Day. We estimate traffic will be 93% of pre-pandemic levels.
-   Recent cancellation rates and warnings by industry executives—and apparent problems with FAA staffing—do not inspire optimism about the present level of preparedness. American and Delta have cancelled at least 7% of their flights on one or more of the past few days.
-   If the number of cancellations nationwide reaches 5%, a sharp imbalance between passenger traffic and seats will emerge, which could result in significant disruptions. With normal seat capacity down around 7% compared to 2019, airlines have little buffer to deal with crew shortages, bad weather or maintenance problems.

During past holidays, most passengers on cancelled domestic flights apparently could be reaccommodated on flights no later than the next day because extra seats were available. The sheer magnitude of traffic, however, points to the unusually difficult situation facing airlines during this holiday. In the following pages, we describe the factors that heighten the risks. Unlike many past reports that focus on the absolute number of flight cancellations, we consider proportional changes in both supply and demand to offer a deeper perspective
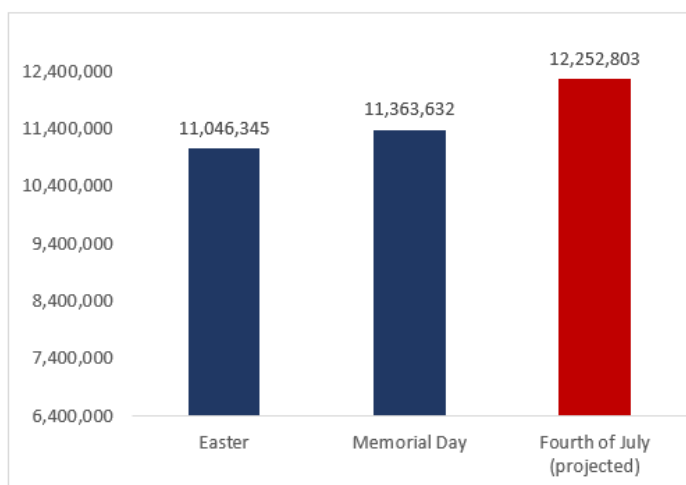
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PHOTO CAPTION (TOP): *New York LaGuardia International Airport, Sunday May 8, 2022*

We draw our conclusions from these data sources:

Figure 1: TSA Checkpoint Activity over Holiday Periods, Thursday – Monday, 2022

1. **TSA checkpoint activity reached post-pandemic highs for each respective day of the week from last Thursday to Sunday,** while last Sunday and Monday were close to post-pandemic highs for those days. Each day from Thursday, January 23 to Sunday, January 26, saw post-pandemic highs when compared to other dates falling on the same day of week. We estimate that holiday traffic will be 93% of pre-pandemic levels, as we discuss in point 2 below. We project that around 12.3 million will pass through checkpoints over the five-day holiday period, which is 8% more than over the five-day Memorial Day period and 11% more than Easter (Figure 1).
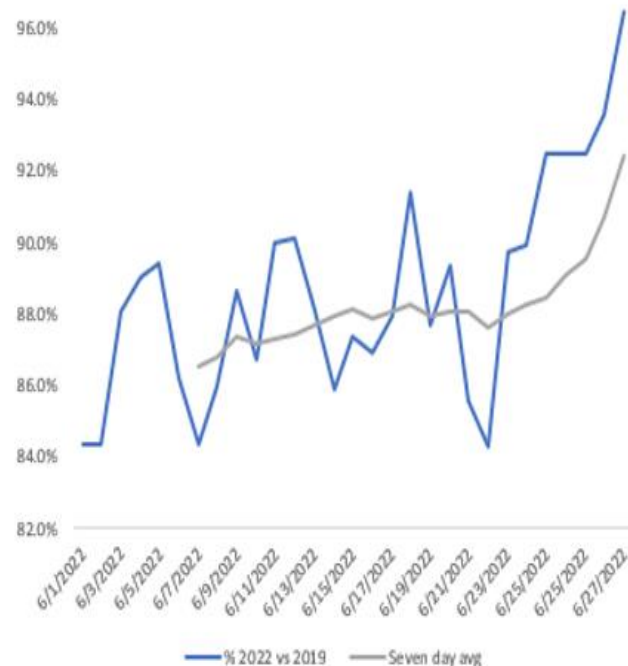
2. **On Monday, checkpoint volumes reached 96.4% of pre-pandemic levels and, on Sunday, they were 93.5%, suggesting that a robust holiday buildup is underway.** These rates are among the highest levels observed since the mast mandate was lifted on April 18. The recent jump, evident in Figure 2, indicates that the Fourth of July period will be unusually strong, even when factoring in the time of year.

3. **Fourth of July being on a Monday this year adds to the capacity pressure facing airlines, accentuating the natural surge that normally occurs from Thursday to Monday.** Comparatively few will book flights for Tuesday and Wednesday travel, which tend to be among the slowest traveled days. Our *Super Sunday report*, released in mid-June, describes the growing tendency for traffic to be heavily

Figure 2: TSA Checkpoint Activity vs. 2019
Airport Volumes 2022 vs 2019

concentrated on Thursday-Monday with the comparatively light loads on Monday and Tuesday.

4. The capacity of the air network is being greatly constrained. The largest nine airlines in June were supplying only around 93% of the seats they offered in 2019, based on data for June from Cirium.[i] The number of *flights* on these airlines has dropped 15%, but the airlines have successfully up-gauged (i.e., moved toward larger aircraft). Some have grounded regional jets and older, smaller variants of mainline jets in favor of larger models to offset labor shortages. Nevertheless, seat miles are down 10% compared to 2019 for these large airlines.

5. The share of flights cancelled by the four largest U.S. airlines has regularly been 5% or more in recent weeks, which is well above the 1.3% full-year average for 2019. Data from FlightAware indicates that United has cancelled at least 5% of its flights yesterday, while Delta cancelled 7% on both Sunday and Monday, while American cancelled 8% yesterday. On Sunday and Monday of this week, the percentage of flights cancelled by the four largest carriers averaged 4% (an unweighted average). Earlier in June, American and Delta cancelled 7% and 8% of their flights, respectively, on the same day. If just 5% of the seats are not provided over the Fourth of July holiday, however, airlines will likely not be able to reaccommodate passengers on flights the same or next day. *Such a cancellation rate would mean the industry would need to handle close to 93% as many passengers with only around 89% as many seats (and roughly 86% as many seat miles) as they had in 2019, when cancellation rates were closer to 1.5%.* Since cancellations are not spread evenly across the system, they will flood certain routes with passengers needing to be reaccommodated without the capacity to handle them. A large share of flights will already operate at full capacity, making it difficult to get affected passengers to their destination

Figure 3: Percent of Flights Cancelled

Carrier	Sunday, June 26	Monday, June 27	Tuesday, June 28
American	3%	4%	8%
Delta	7%	7%	1%
Southwest	2%	0%	0%
United	3%	5%	4%
Average	4%	4%	3%

Whereas the industry has dealt with a greater number of flight cancellations on many occasions over the past year, the difference with this holiday lies in the sheer magnitude of the travel volumes. If cancellation rates hit 6% industrywide, as they did on certain days in the recent past, the problem would likely reach crisis proportions, with tens of thousands of passengers being stranded for a day or more.

We believe airlines can effectively absorb cancellation rates of around 3%, which is only slightly above the historic average, but face great difficulties if flight cancellations rise to 5%, 6% or more. It behooves passengers to be prepared to make contingency plans if operations do not perform smoothly. ▪
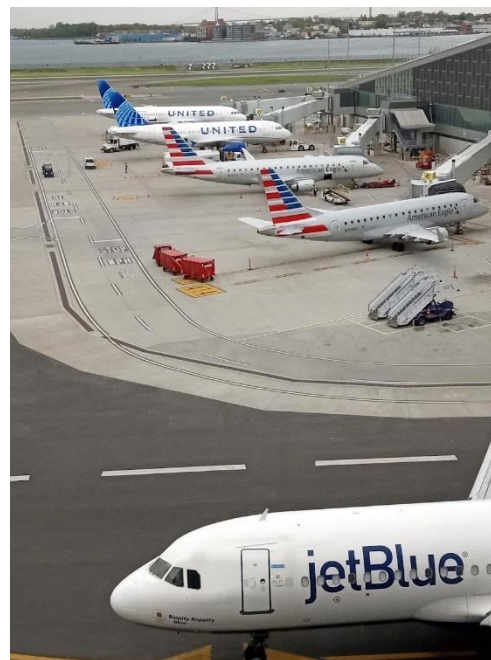
Appendix: Notes on using the TSA Checkpoint Numbers

The primary sources of data used in our traffic analysis are the "TSA checkpoint travel numbers (current year versus prior year(s)/same weekday". TSA matches travel numbers for each day in 2022 with travel on the same day and same week in previous years, back to 2019. TSA checkpoint numbers are widely used to measure the pace of recovery post-pandemic. A key advantage of this data is its immediate availability, being published only a day after the travel day in question. By comparison, Bureau of Transportation Statistics Form 41 aviation data is not available until several months after the travel day, and airlines generally do not report day-by-day travel numbers before then.

Among the *disadvantages* of the data set is that it does not provide an exact measure of fare-paying passengers. The data includes non-revenue passengers (e.g., those on free tickets) and non-travelers who pass through checkpoints. The data may also double-count certain passengers who pass through security checkpoints more than once due to flight delays, gate changes, or other factors. At the same time, any biases that exist due to these factors should be consistent from year to year, making year-on-year comparisons informative. Finally, the data includes a mix of domestic and international passengers, which precludes more focused analyses.

Despite these caveats, much can be learned from this expansive data set. We are unaware of previous studies that have used the data to evaluate the nuances of airline traffic flow.

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