Ben Kenigsberg

Reassessing LaGuardia’s Perimeter Rule

Read Me file

December 15, 2016

**Overview**

To assess the impact of a change to the longstanding “perimeter rule” at LaGuardia Airport, data was acquired from the Bureau of Transportation Statistics, which maintains records of all U.S. domestic flights at transtats.bts.gov/DL\_SelectFields.asp?Table\_ID=236&DB\_Short\_Name=On-Time.

Data can be customized and downloaded as .csv files by month. This study assembled data from the last 20 years, beginning with October 1996 and ending with September 2016, the most recent data available at the time of research. It then subsetting those files to focus on the three main New York airports—LaGuardia, John F. Kennedy International, and Newark Liberty International—and bound those files into a master data set called *nycflights*. The graphs that resulted showed the most common destinations from each airport and the airlines that most utilized each airport over a 20-year period.

The data was analyzed using R Studio, Version 0.99.903.

**Data**

All downloaded files came from transtats.bts.gov/DL\_SelectFields.asp?Table\_ID=236&DB\_Short\_Name=On-Time and were customized to include the following information (notations are BTS’s):

Year

Quarter

Month

DayOfMonth

DayOfWeek

FlightDate

UniqueCarrier [indicates the actual operating airline, as opposed to a codeshare]

AirlineID

TailNum [tail number helps identify unique planes rather than flights; one plane can land multiple times]

FlightNum

OriginAirportID

OriginAirportSeqID

OriginCityMarketID

Origin

OriginCityName

OriginState

OriginStateFips [a numeric code for each state]

OriginStateName

OriginWac [Fips codes + numeric codes for U.S. territories]

DestAirportID

DestAirportSeqID [destination airport, coded]

DestCityMarketID [destination airport, coded differently]

Dest [airport name]

DestCityName

DestState

DestStateFips [state numeric code]

DestStateName

DestWac [state and territory numeric codes]

The 240 .csv files, each representing one month’s flight data between 1996 and 2016, were renamed as, e.g., *oct96.csv* to represent October 1996 flights and read into R with the following conventions:

oct96 <- read\_csv("oct96.csv")

nov96 <- read\_csv("nov96.csv")

dec96 <- read\_csv("dec96.csv")

jan97 <- read\_csv("jan97.csv")

feb97 <- read\_csv("feb97.csv")

mar97 <- read\_csv("mar97.csv")

apr97 <- read\_csv("apr97.csv")

may97 <- read\_csv("may97.csv")

jun97 <- read\_csv("jun97.csv")

jul97 <- read\_csv("jul97.csv")

aug97 <- read\_csv("aug97.csv")

sep97 <- read\_csv("sep97.csv")

…

sep16 <- read\_csv("sep16.csv")

I’ve uploaded one representative sample file, from April 2001, as "sampleflightdata.csv."

**Code**

1. lga.rmd: Aggregates and cleans flight data from BTS and reduces it to New York City–specific data.

**Presentation**

1. nycairports2016.pptx: Presents graphs showing the most common destinations at the three airports in Sept. 2016.

**More information**

For more background on the perimeter rule:

“Why You Can’t Get There From La Guardia?” *The New York Times*. Editorial. August 13, 2015.

Contact information:

Ben Kenigsberg

Master’s of Public Policy Candidate, May 2017

University of California, Berkeley

benkenigsberg@berkeley.edu