Albany Airport Delays and Cancellations

When should you book your flight for? Should you expect a flight delay? And if your flight gets delayed, how long should you expect the delay to really be? I gathered stats on the Albany International Airport from 2024, using data from the Bureau of Transportation Statistics, which can answer these questions. I looked at flight delays, cancellations, delay length, and more for departures and arrivals. I also looked at stats for the 3 most popular airlines at the airport. Note: The flight delays only look at delays on flights that took off, not delays on flights that were cancelled.

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<u>Departures</u>

Albany International Airport had 15,608 flights depart in 2024. The median was 0 minutes departed after the scheduled time. On average, flights departed 17 minutes delayed. (The median should be a better estimate of the typical delay time because 19% of the delay lengths were outliers and when that is above 5%, the median is likely better than the mean for typical delay length. This is because a couple large delay times can make the mean large and bigger than the typical delay length).

Flights Cancelled/Delayed
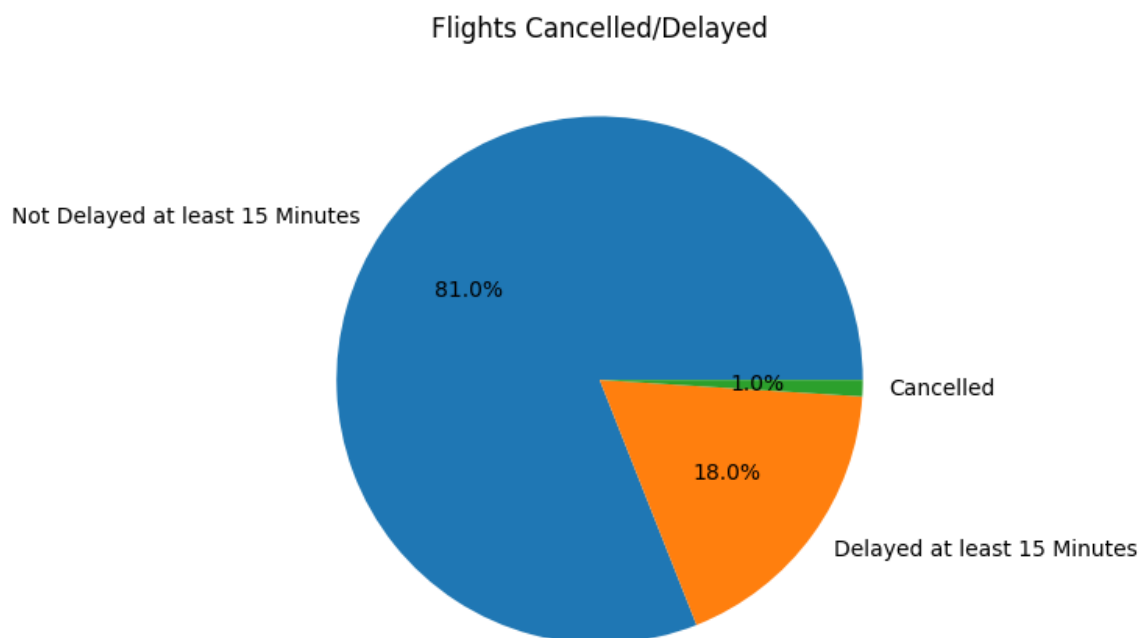

```
            Flights Delayed at Least 15 Minutes:

                                        Flights      %
DepDel15
Not Delayed at least 15 Minutes          12809    81.0
Delayed at least 15 Minutes               2799    18.0
Cancelled                                  173     1.0
```
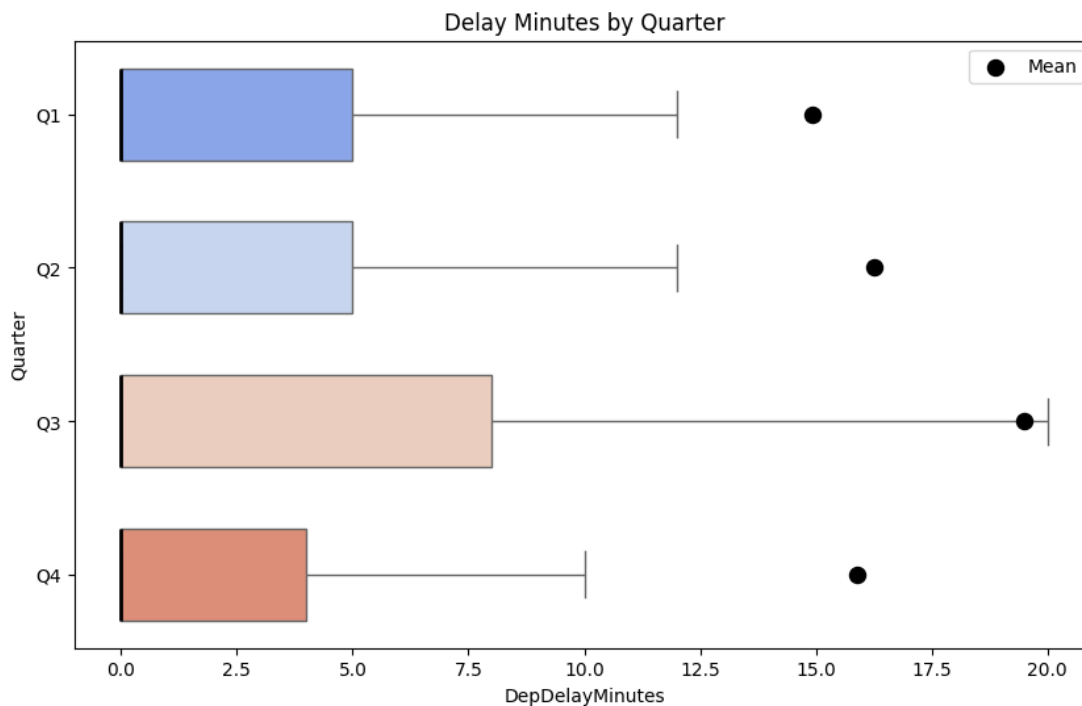
The above pie chart is for all flights scheduled to depart Albany International Airport. The vast majority departed and were not delayed at least 15 minutes. 81% of flights not delayed at least

15 minutes is higher than the percent of flights not delayed at least 15 minutes from all airports tracked in 2024 (78%).

Departures by Quarter:

Delay Minutes by Quarter

```
Departed Flights By Quarter:

          Departures  Mean_Minutes_Delayed  Median_Minutes_Delayed
Quarter
Q1              3479                    15                       0
Q2              3885                    16                       0
Q4              4065                    16                       0
Q3              4179                    20                       0
```

    The above box plots plot departed flights in each quarter (except outliers – very high delay times). The worst quarter to depart Albany International Airport was quarter 3 with an average of about 20 minutes delayed, while quarter 4 was the best with 75% of departed flights in quarter 4 delayed about 4 minutes or less (The boxes represent 75% of the departures. In a box plot 50% of the data is in the box and 25% is to the left of it. Since there is no data to the left of the boxes, 75% of the data is in the boxes. Here is a guide for more information on reading box plots - Box Plot Explained: Interpretation, Examples, & Comparison)

% of Departed Flights Delayed 15 Minutes
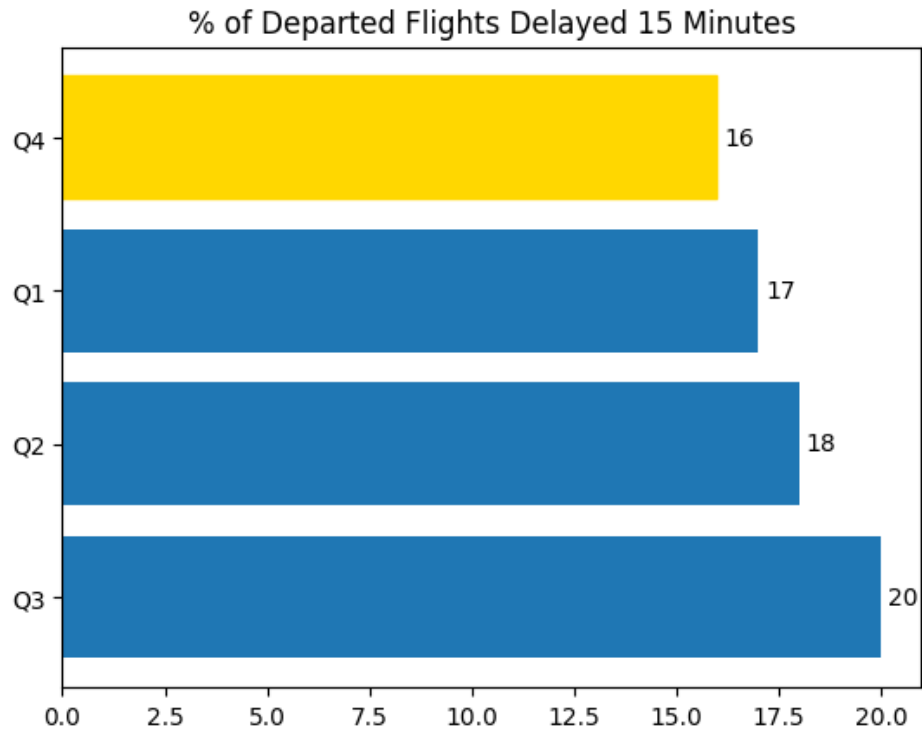
	Flights	% Delayed 15 Minutes	% Cancelled
Quarter			
Q4	4084	16.0	0.0
Q1	3534	17.0	2.0
Q2	3908	18.0	1.0
Q3	4255	20.0	2.0

      Another way to evaluate delays by quarter is to look at the percent of departed flights that were delayed at least 15 minutes. The worst quarter to depart was quarter 3 with 20% of scheduled departures and departed flights delayed at least 15 minutes, while quarter 4 was the best with 16% of scheduled departures and departed flights delayed at least 15 minutes. Quarter 4 was also the best quarter for avoiding cancellations.

Departures by Month
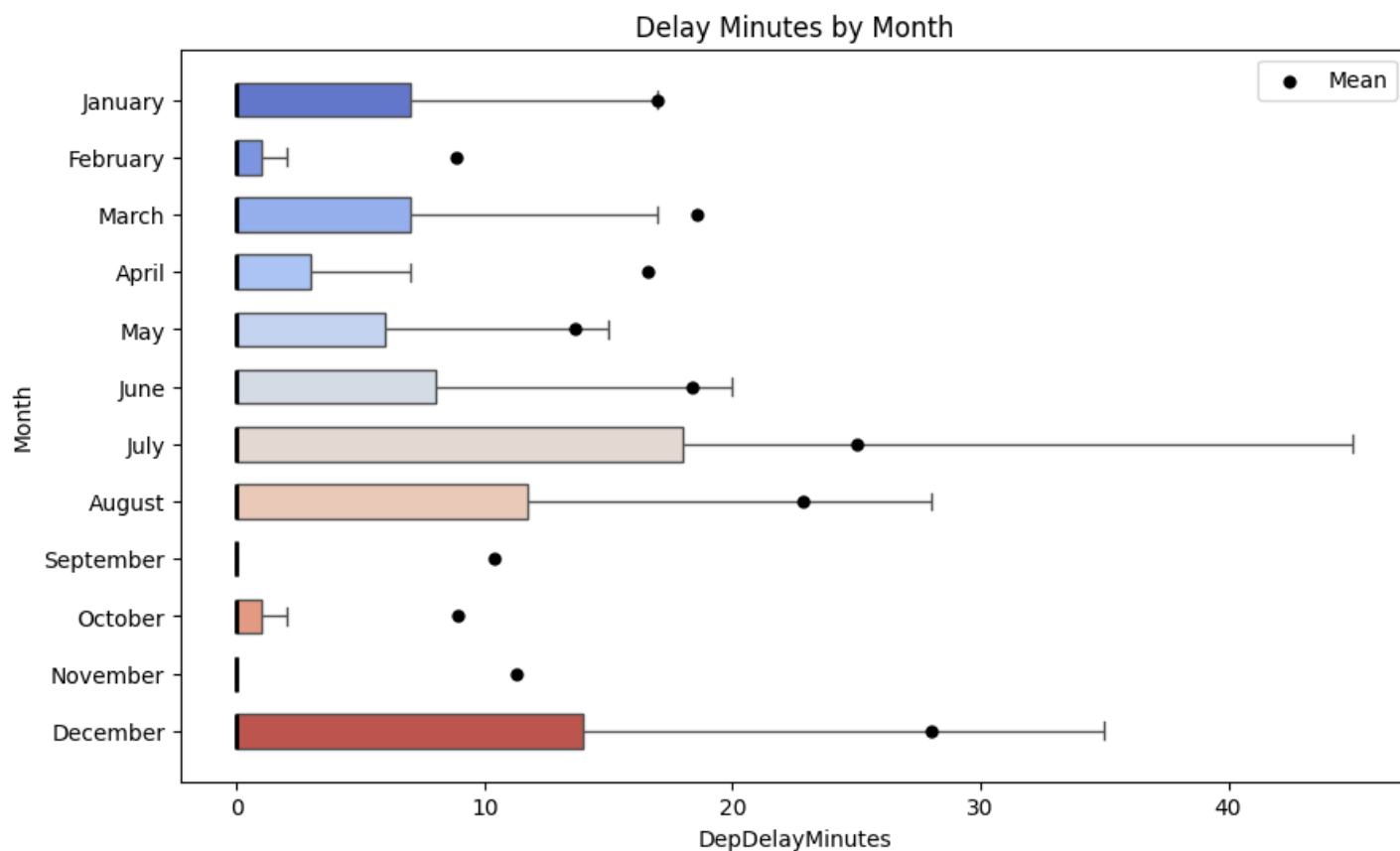
Delay Minutes by Month

Departed Flights By Month:

	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
Month			
February	1127	9	0
October	1463	9	0
September	1367	10	0
November	1281	11	0
May	1280	14	0
April	1251	17	0
January	1123	17	0
June	1354	18	0
March	1229	19	0
August	1426	23	0
July	1386	25	0
December	1321	28	0

   The worst month to depart Albany International Airport based on mean was December with an average of about 28 minutes delayed, while September was the best with 75% of departed flights in September delayed about 0 minutes.

% of Departed Flights Delayed 15 Minutes

Month		
November	11	(yellow bar)
September	12	
February	12	
October	13	
April	15	
June	19	
March	19	
May	19	
January	20	
August	23	
December	25	
July	27	
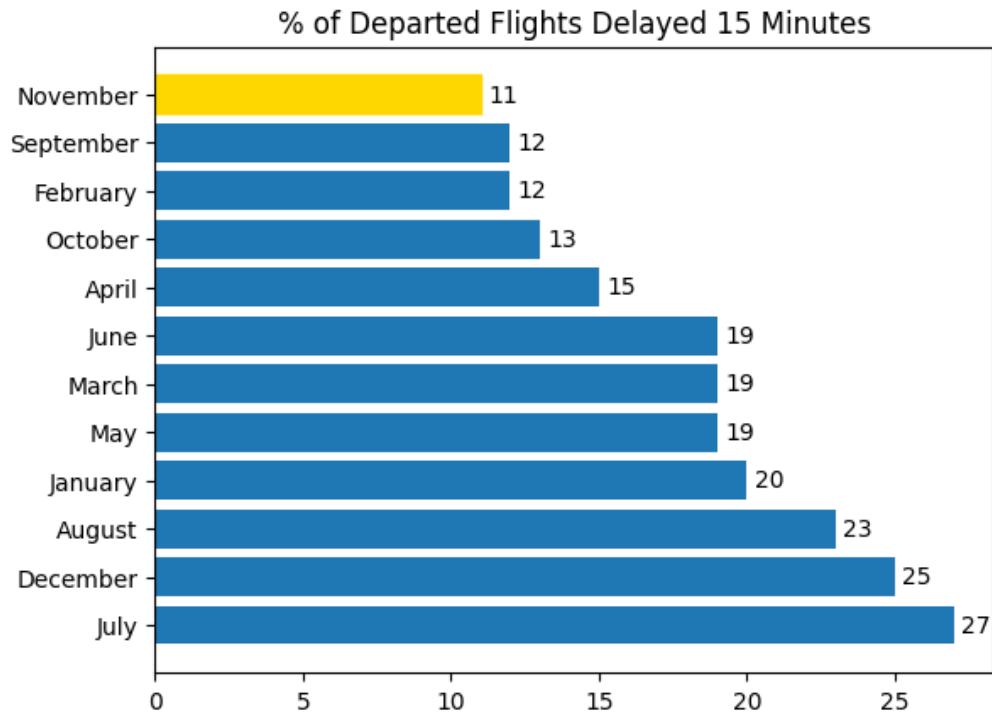
Month	Flights	% Delayed 15 Minutes	% Cancelled
November	1283	11.0	0.0
February	1132	12.0	0.0
September	1371	12.0	0.0
October	1477	13.0	1.0
April	1252	15.0	0.0
May	1288	18.0	1.0
June	1368	19.0	1.0
March	1248	19.0	2.0
January	1154	20.0	3.0
August	1452	22.0	2.0
December	1324	25.0	0.0
July	1432	26.0	3.0

Another way to evaluate delays by month is to look at the percent of departed flights that were delayed at least 15 minutes. The worst month to depart was July with 27% of departed flights delayed at least 15 minutes and 3% of scheduled departures cancelled. The best month was November with 11% of departed and scheduled flights delayed at least 15 minutes and 0% of flights cancelled. (The percents are different from the table and graph for August, May, and July because the table is the percent of all scheduled departures delayed 15 minutes, while the graph is the percent of scheduled departures that were not cancelled delayed 15 minutes).

Departures by Part of Day

Delay Minutes by Part_Of_Day


```
Departed Flights By Part_Of_Day:

             Departures  Mean_Minutes_Delayed  Median_Minutes_Delayed
Part_Of_Day
Morning            7571                    13                       0
Afternoon          4720                    18                       0
Evening            3317                    25                       0
```
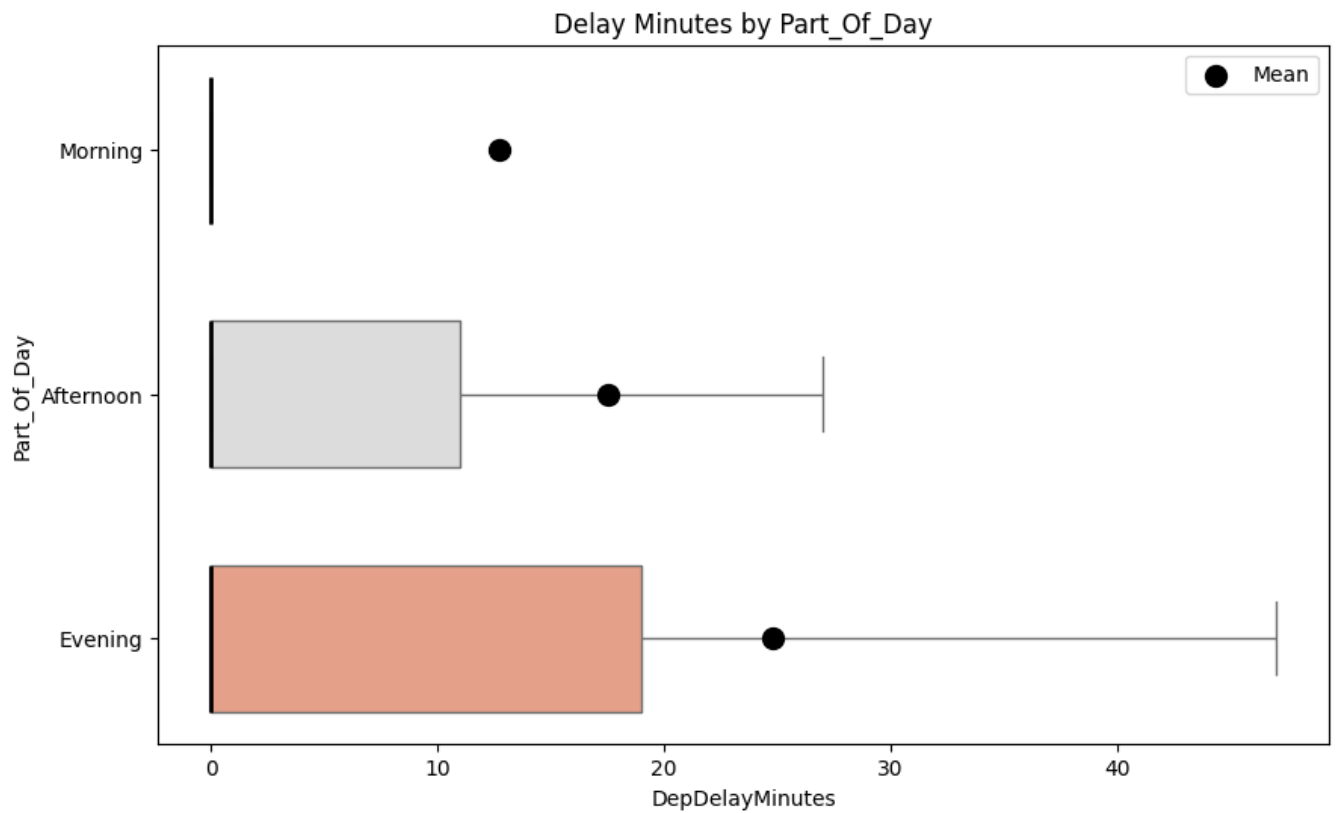
The worst part of the day to depart Albany International Airport was the evening with an average of 25 minutes delayed, while the morning was the best with an average of 13 minutes delayed and 75% of departed flights in the morning delayed about 0 minutes.

% of Departed Flights Delayed 15 Minutes
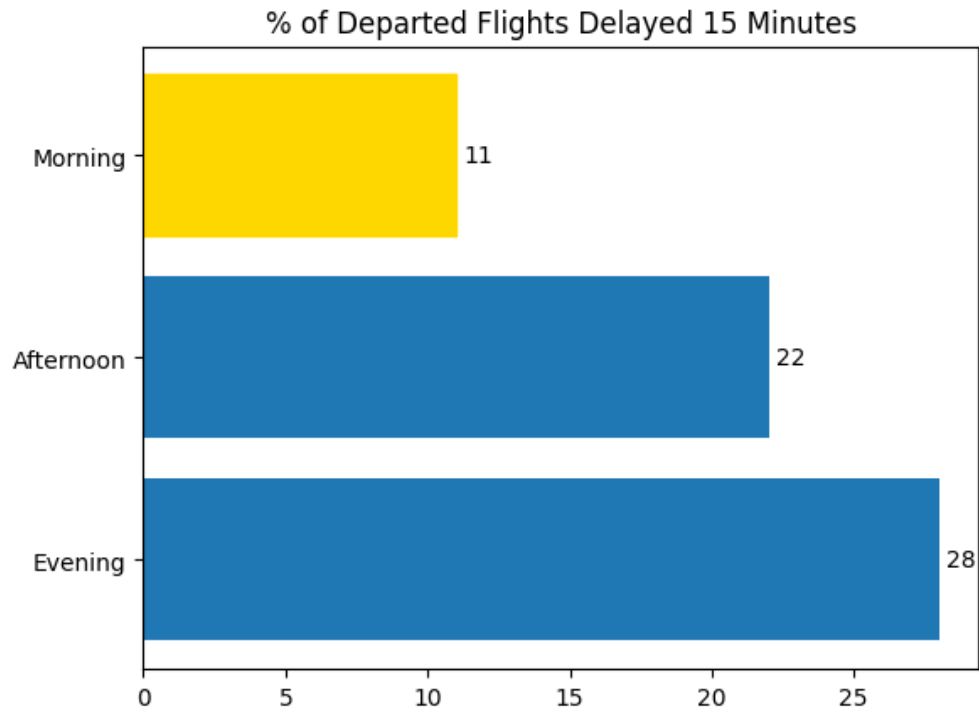

```
                Flights  % Delayed 15 Minutes  % Cancelled
Part_Of_Day
Morning            7650                  11.0          1.0
Afternoon          4759                  21.0          1.0
Evening            3372                  28.0          2.0
```

Another way to evaluate delays by part of the day is to look at the percent of departed flights that were delayed at least 15 minutes. The worst part of the day to depart was still the evening with 28% of departed and scheduled flights delayed at least 15 minutes and 2% of scheduled departures cancelled. The best part of the day to depart was still the morning with 11% of departed and scheduled flights delayed at least 15 minutes.

Departures by Hour
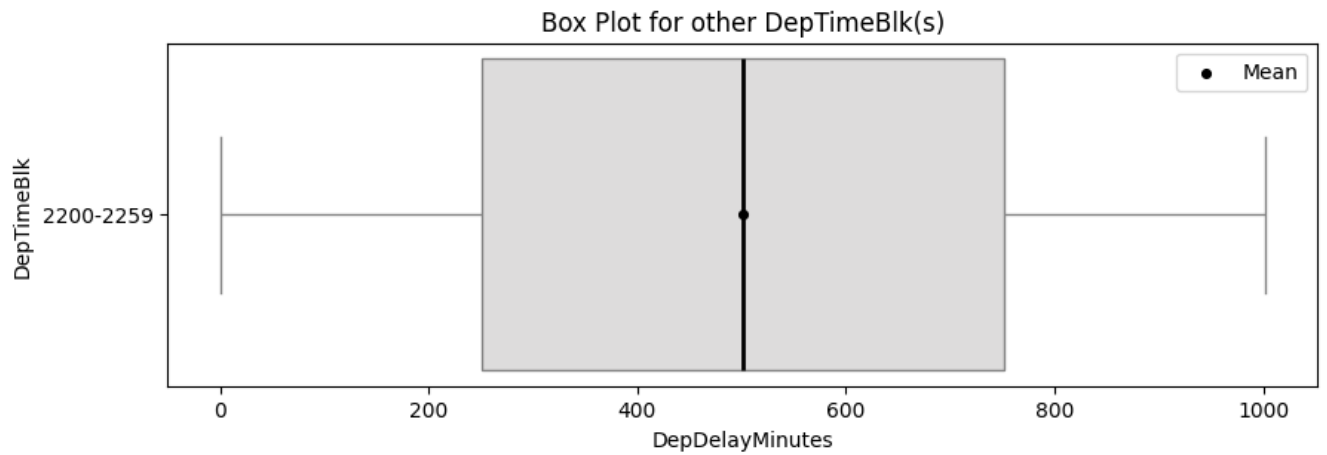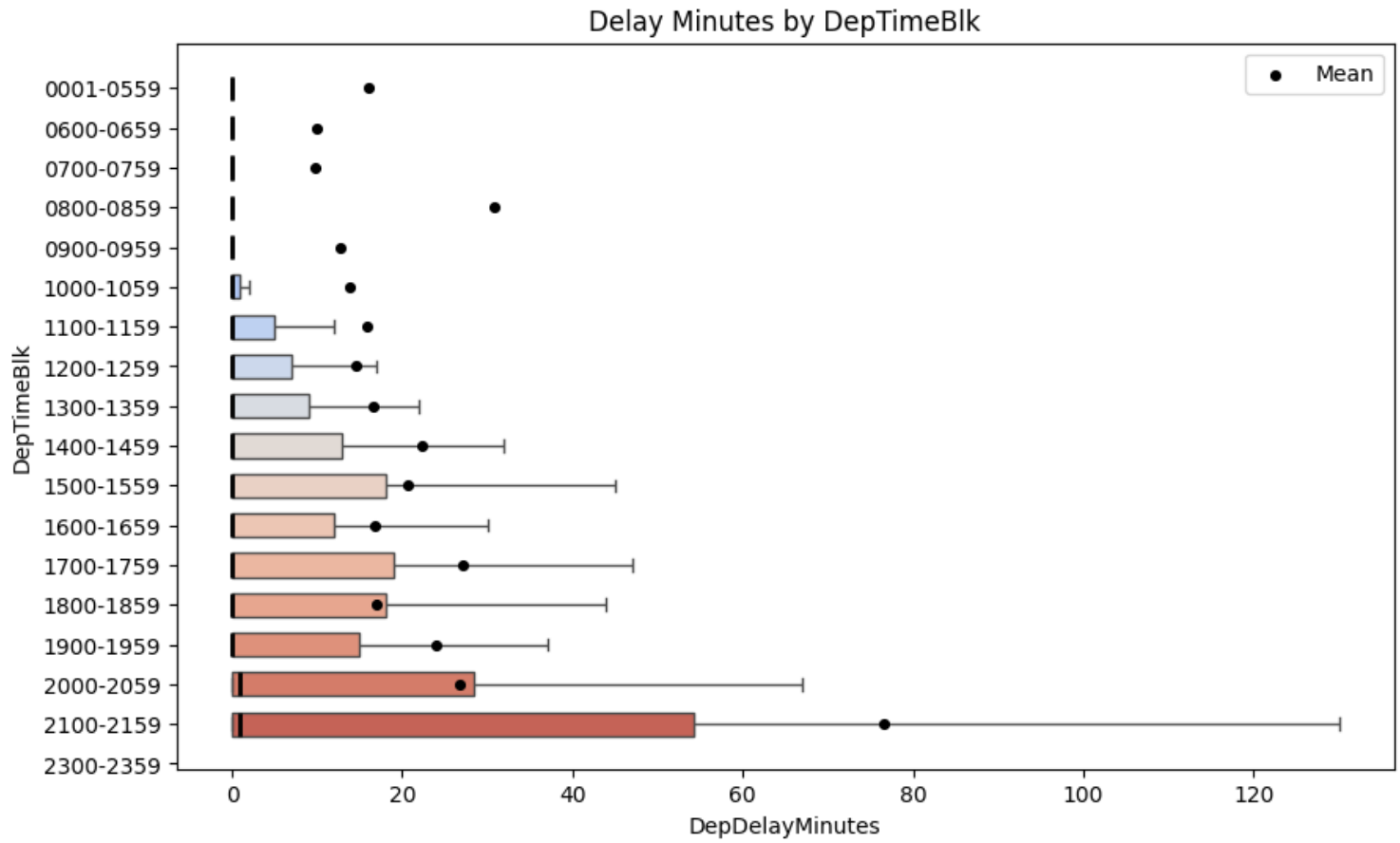
Delay Minutes by DepTimeBlk

Box Plot for other DepTimeBlk(s)

```
            Departed Flights By DepTimeBlk:

                  Departures  Mean_Minutes_Delayed  Median_Minutes_Delayed
    DepTimeBlk
    0600-0659         3060                    10                        0
    0700-0759          953                    10                        0
    0900-0959          623                    13                        0
    1000-1059          351                    14                        0
    1200-1259         1525                    15                        0
    0001-0559         1228                    16                        0
    1100-1159         1193                    16                        0
    1300-1359          907                    17                        0
    1800-1859          884                    17                        0
    1600-1659          863                    17                        0
    1500-1559          462                    21                        0
    1400-1459          963                    22                        0
    1900-1959          653                    24                        0
    1700-1759         1503                    27                        0
    2000-2059          231                    27                        1
    0800-0859          163                    31                        0
    2100-2159           44                    77                        1
    2200-2259            2                   501                      501
```

Based on mean minutes delayed, the worst hour to depart Albany International Airport was the 2200 hour (10-10:59 pm) with an average and median of 501 minutes delayed for departed flights! Although, there were only 2 flights at that hour for the year. The best hour to depart was the 7am hour with an average delay of about 10 minutes for departed flights. (If you look closely at the box plots, the mean for the 7am hour is slightly lower than the mean for the 6am hour.)

% of Departed Flights Delayed 15 Minutes
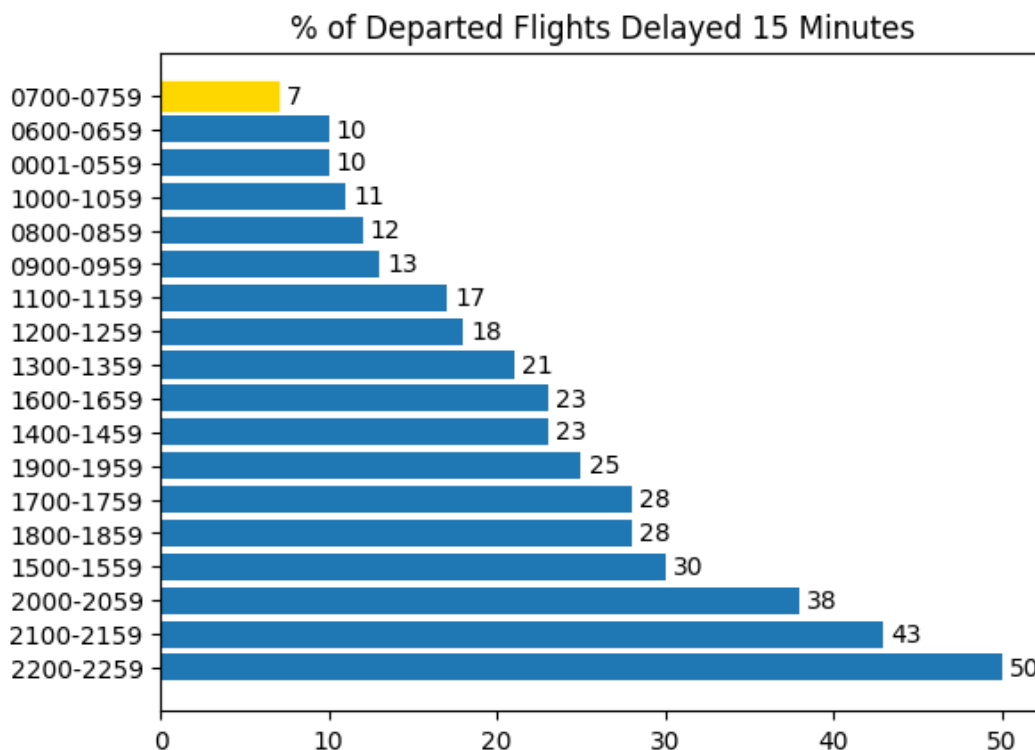
DepTimeBlk	Flights	% Delayed 15 Minutes	% Cancelled
0700-0759	963	7.0	1.0
0001-0559	1245	10.0	1.0
0600-0659	3097	10.0	1.0
1000-1059	352	11.0	0.0
0800-0859	165	12.0	1.0
0900-0959	626	13.0	0.0
1100-1159	1202	17.0	1.0
1200-1259	1536	18.0	1.0
1300-1359	919	20.0	1.0
1400-1459	970	23.0	1.0
1600-1659	867	23.0	0.0
1900-1959	673	25.0	3.0
1800-1859	894	28.0	1.0
1700-1759	1524	28.0	1.0
1500-1559	467	29.0	1.0
2000-2059	235	37.0	2.0
2100-2159	44	43.0	0.0
2200-2259	2	50.0	0.0

Another way to evaluate delays by hour is to look at the percent of departed flights that were delayed at least 15 minutes. The worst hour to depart was still the 2200 hour (10-10:59pm) with 50% of departed flights delayed at least 15 minutes. But that hour had 0% of scheduled departures cancelled, while 1900 hour (7-7:59 pm) had 3% of them cancelled. The best hour was 7am with 7% of departed and scheduled flights delayed at least 15 minutes. The best hour based on the hour with no cancellations and smallest percent of scheduled flights delayed 15-minutes was 10am with

0% of scheduled departures cancelled and 11% of departed and scheduled flights delayed at least 15 minutes.

<u>Departures by 10 Most Popular Destinations</u>
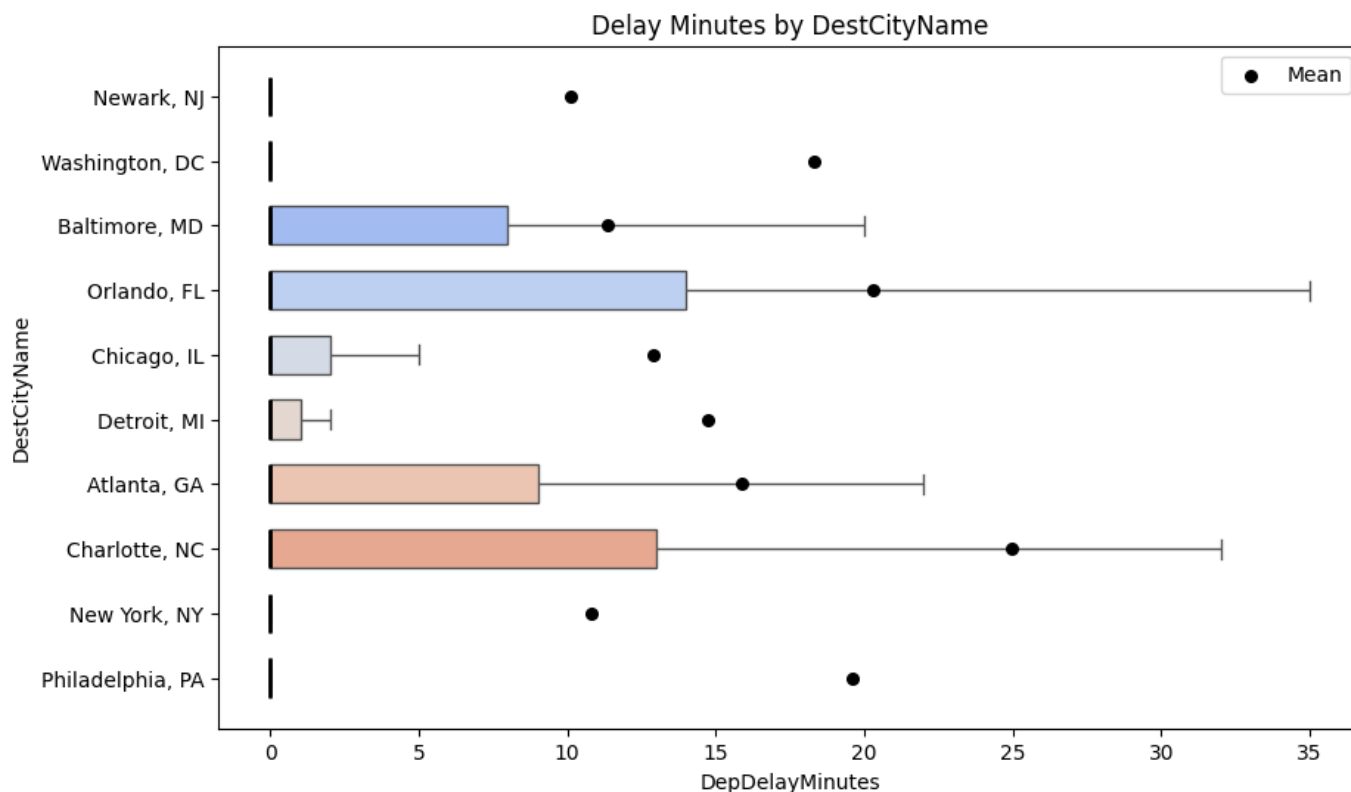
Delay Minutes by DestCityName

Departed Flights By DestCityName:

DestCityName	Departures	Mean_Mins_Delayed	Median_Mins_Delayed
Newark, NJ	785	10	0
Baltimore, MD	1639	11	0
New York, NY	636	11	0
Chicago, IL	2607	13	0
Detroit, MI	1295	15	0
Atlanta, GA	998	16	0
Washington, DC	2457	18	0
Philadelphia, PA	1138	20	0
Orlando, FL	1070	20	0
Charlotte, NC	1192	25	0

Out of the ten most popular cities to fly to from Albany International Airport, departed flights to Newark, NJ had the smallest mean minutes delayed, being delayed 10 minutes on average, and 75% of departed flights to Newark, NJ were delayed about 0 minutes. Flights to Charlotte, NC had the highest mean minutes delayed, being delayed 25 minutes on average.
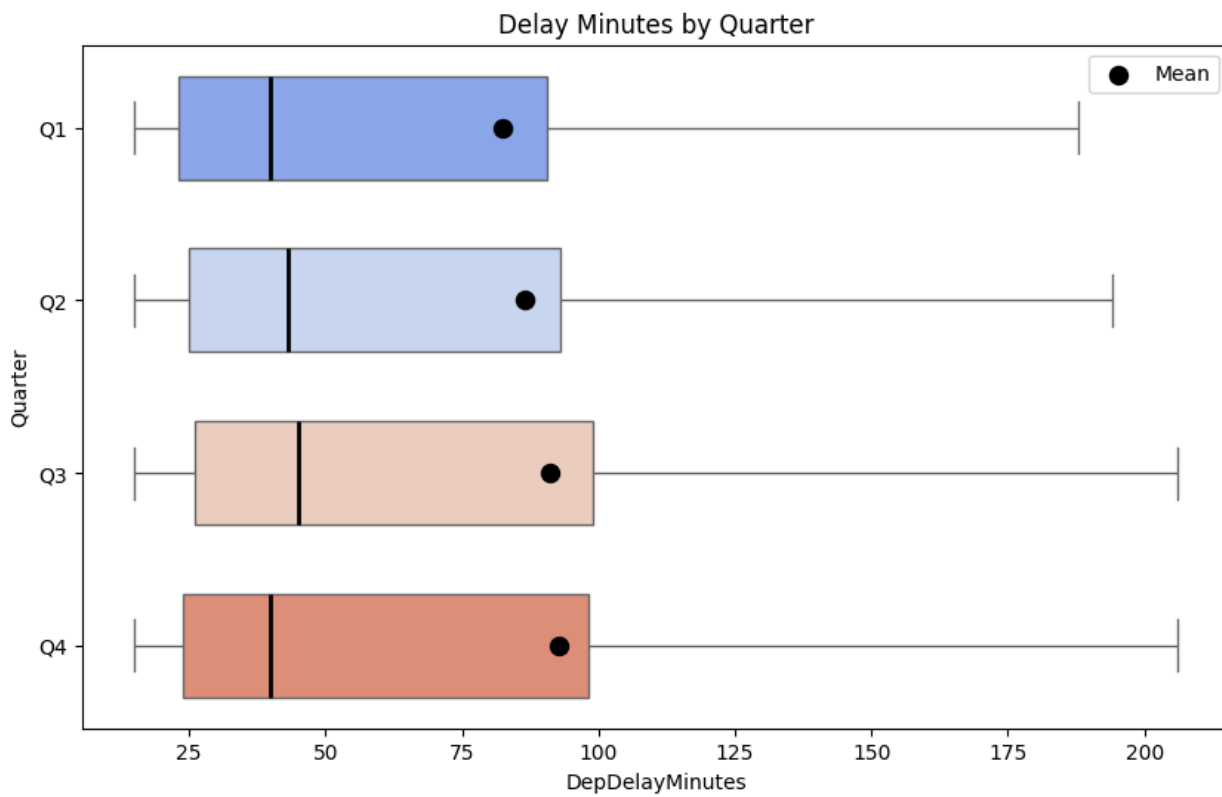
% of Departed Flights Delayed 15 Minutes
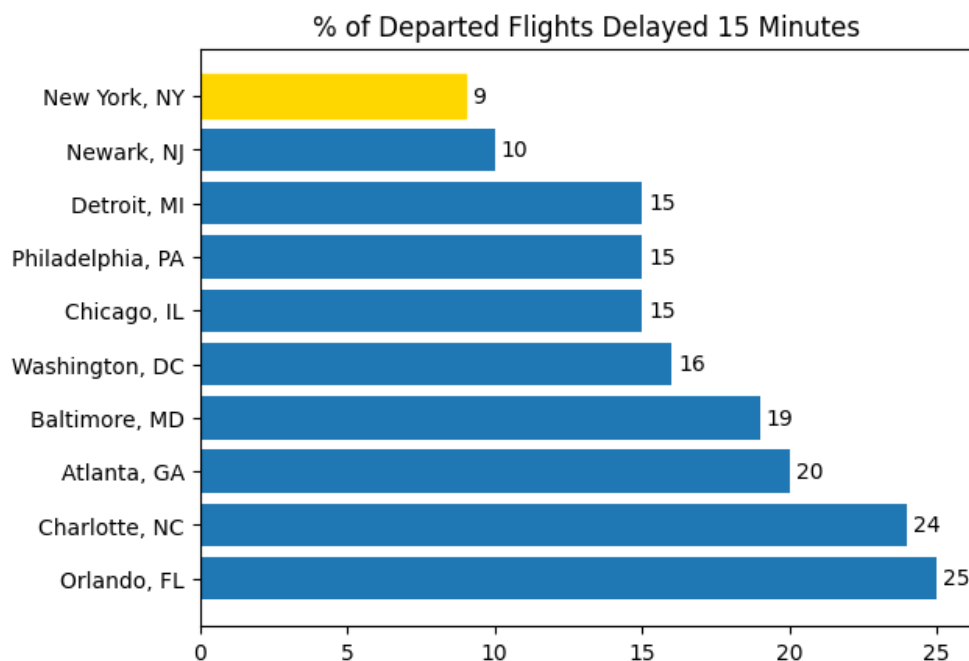
DestCityName	Flights	% Delayed 15 Minutes	% Cancelled
New York, NY	654	9.0	3.0
Newark, NJ	794	10.0	1.0
Chicago, IL	2629	15.0	1.0
Detroit, MI	1304	14.0	1.0
Philadelphia, PA	1144	15.0	1.0
Washington, DC	2496	16.0	2.0
Baltimore, MD	1645	19.0	0.0
Atlanta, GA	1011	19.0	1.0
Charlotte, NC	1206	24.0	1.0
Orlando, FL	1084	25.0	1.0

Another way to evaluate delays to the ten most popular destinations is to look at the percent of departed flights that were delayed at least 15 minutes. Departed flights to NYC had the smallest percentage of flights delayed at least 15 minutes, 9% of flights were delayed at least 15 minutes. But it had 3% of scheduled departures cancelled, while 0% of flights to Baltimore, MD were cancelled. Flights to Orlando, FL had the highest percent of 15-minute delays, 25% of flights were delayed at least 15 minutes.

Departures Delayed 15 Minutes

Albany International Airport had 2,799 flights depart that were delayed at least 15 minutes in 2024. The median was 43 minutes departed after the scheduled time for these flights. On average, flights departed 88 minutes delayed. (The median should be a better estimate of the typical delay time because 9% of the delay minutes variable's values were outliers and when that is above 5%, the median is likely better than the mean. This is because a couple large delay times can make the mean large and bigger than the typical delay length.)
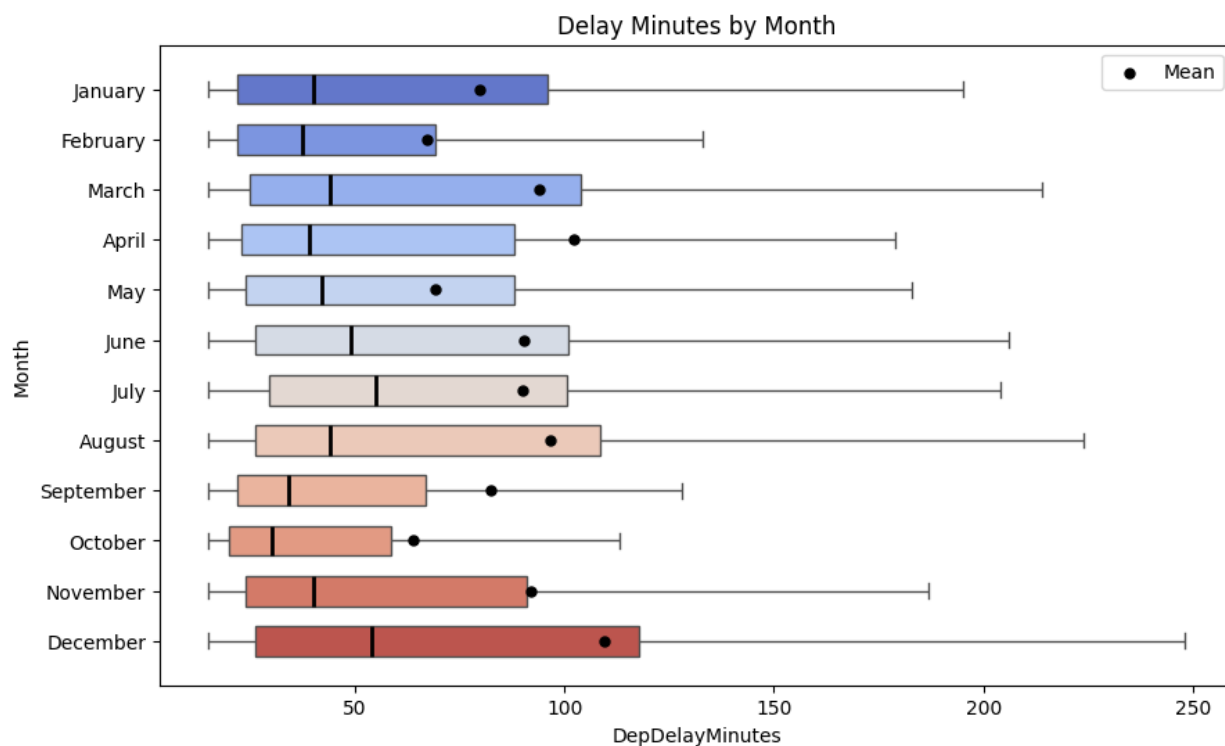
Departures Delayed 15 Minutes by Quarter

Delay Minutes by Quarter

Departed Flights By Quarter:

	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
Quarter			
Q1	592	82	40
Q2	691	86	43
Q3	856	91	45
Q4	660	93	40

Departures Delayed 15 Minutes by Month

Delay Minutes by Month

Departed Flights By Month:

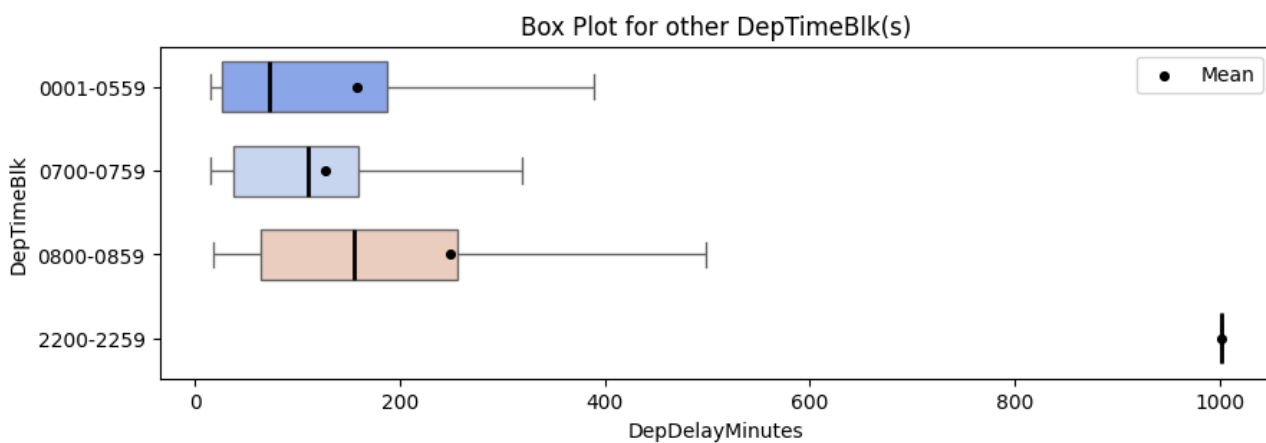| Month	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
October	187	64	30
February	134	67	38
May	237	69	42
January	227	80	40
September	162	82	34
July	371	90	55
June	261	90	49
November	147	92	40
March	231	94	44
August	323	97	44
April	193	102	39
December	326	109	54

Departures Delayed 15 Minutes by Part of Day
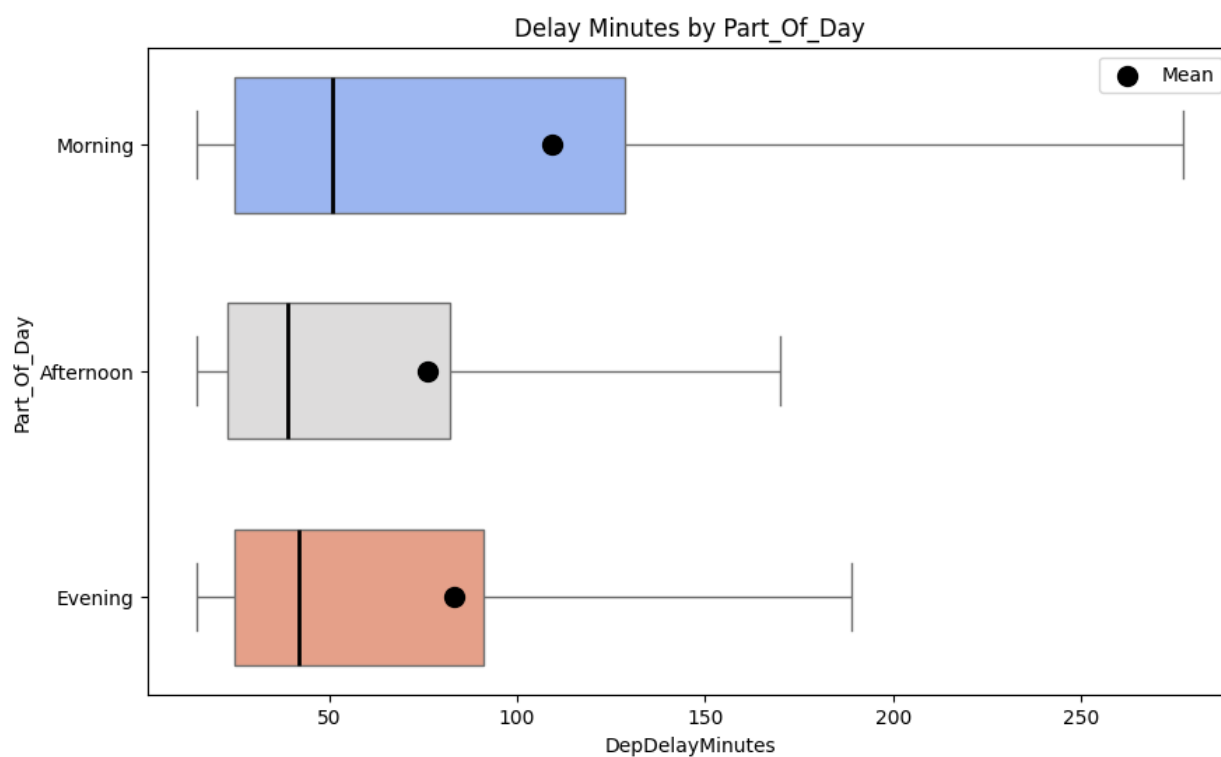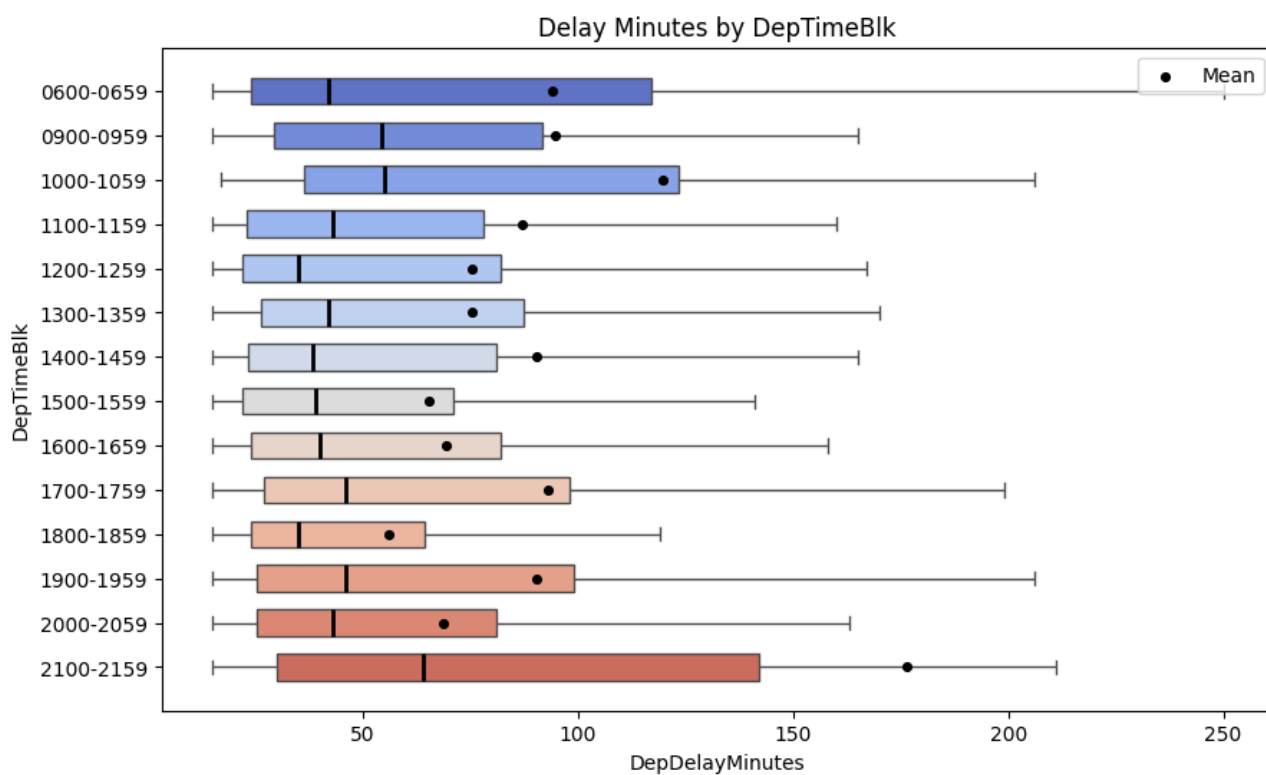

Delay Minutes by Part_Of_Day

Departed Flights By Part_Of_Day:

	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
Part_Of_Day			
Afternoon	1019	76	39
Evening	945	83	42
Morning	835	109	51

Departures Delayed 15 Minutes by Hour

Delay Minutes by DepTimeBlk

Box Plot for other DepTimeBlk(s)

```
Departed Flights By DepTimeBlk:

             Departures  Mean_Minutes_Delayed  Median_Minutes_Delayed
DepTimeBlk
1800-1859         251                      56                      35
1500-1559         137                      65                      39
1600-1659         197                      69                      40
2000-2059          87                      69                      43
1200-1259         273                      75                      35
1300-1359         186                      75                      42
1100-1159         205                      87                      43
1400-1459         226                      90                      38
1900-1959         166                      91                      46
1700-1759         421                      93                      46
0600-0659         300                      94                      42
0900-0959          80                      95                      54
1000-1059          38                     120                      55
0700-0759          71                     127                     111
0001-0559         121                     158                      73
2100-2159          19                     176                      64
0800-0859          20                     250                     155
2200-2259           1                    1002                    1002
```
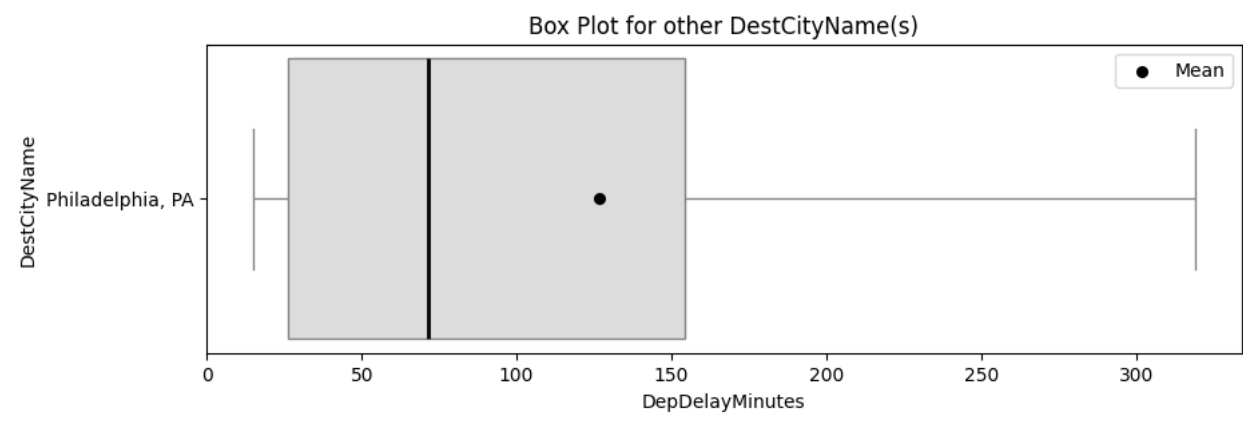
Departures Delayed 15 Minutes by 10 Most Popular Destinations
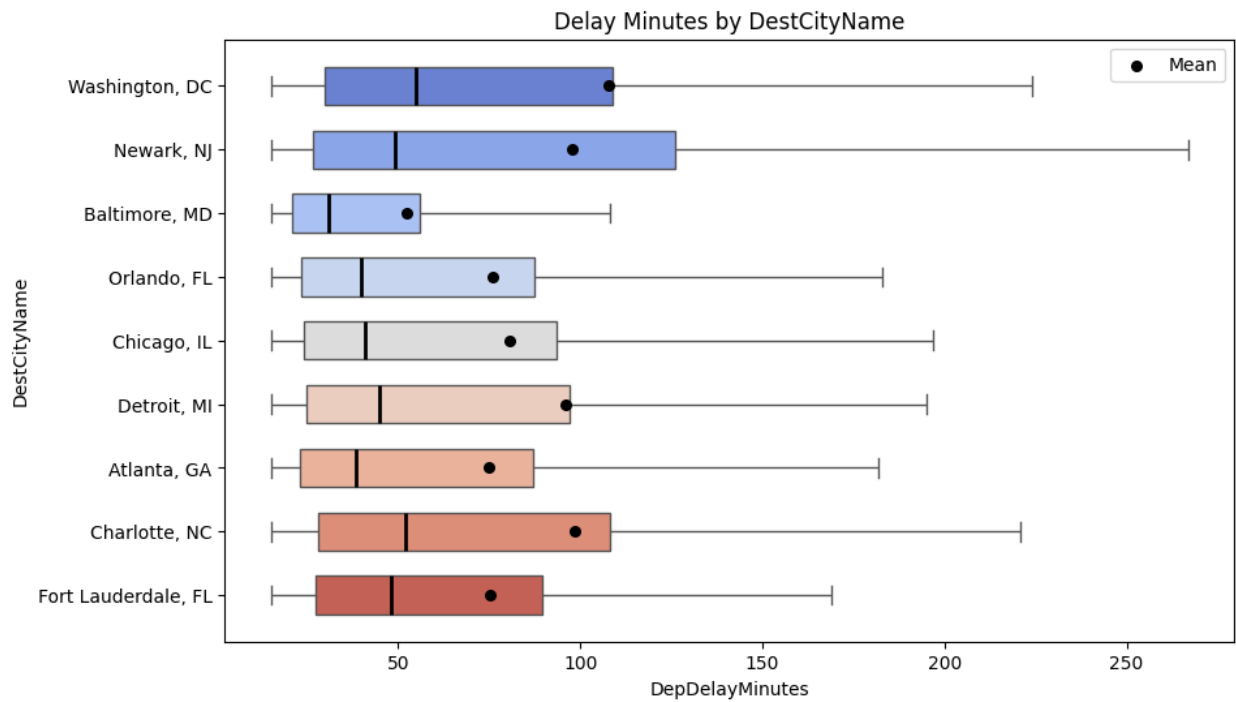
Delay Minutes by DestCityName

Box Plot for other DestCityName(s)

Departed Flights By DestCityName:

| DestCityName	Departures	Mean_Mins_Delayed	Median_Mins_Delayed
Baltimore, MD	317	52	31
Atlanta, GA	196	75	38
Fort Lauderdale, FL	95	75	48
Orlando, FL	267	76	40
Chicago, IL	392	81	41
Detroit, MI	189	96	45
Newark, NJ	78	98	49
Charlotte, NC	289	99	52
Washington, DC	405	108	55
Philadelphia, PA	172	127	72

Departures by Airline

% of Scheduled Flights
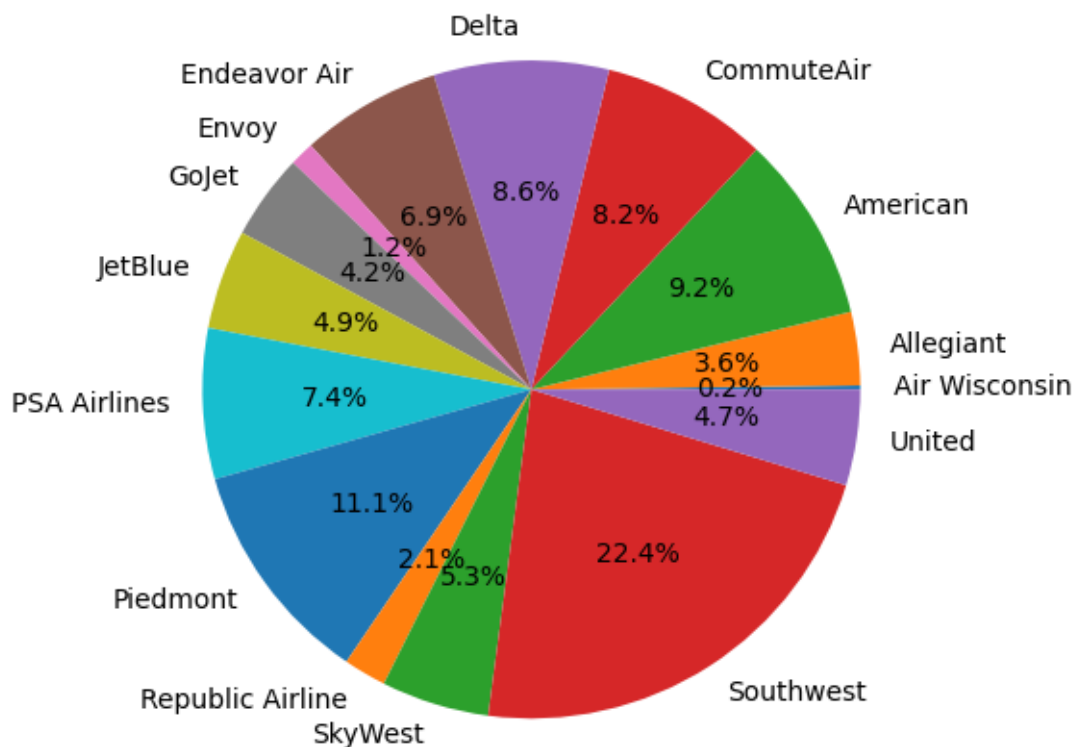
Southwest, Piedmont Airlines, and American Airlines were the most popular airlines for scheduled departures from Albany International Airport. Southwest more than doubled the percent of scheduled departures that Piedmont had. (Percent of Scheduled Flights is number of scheduled flights for the airline divided by total number of scheduled flights from Albany International Airport)
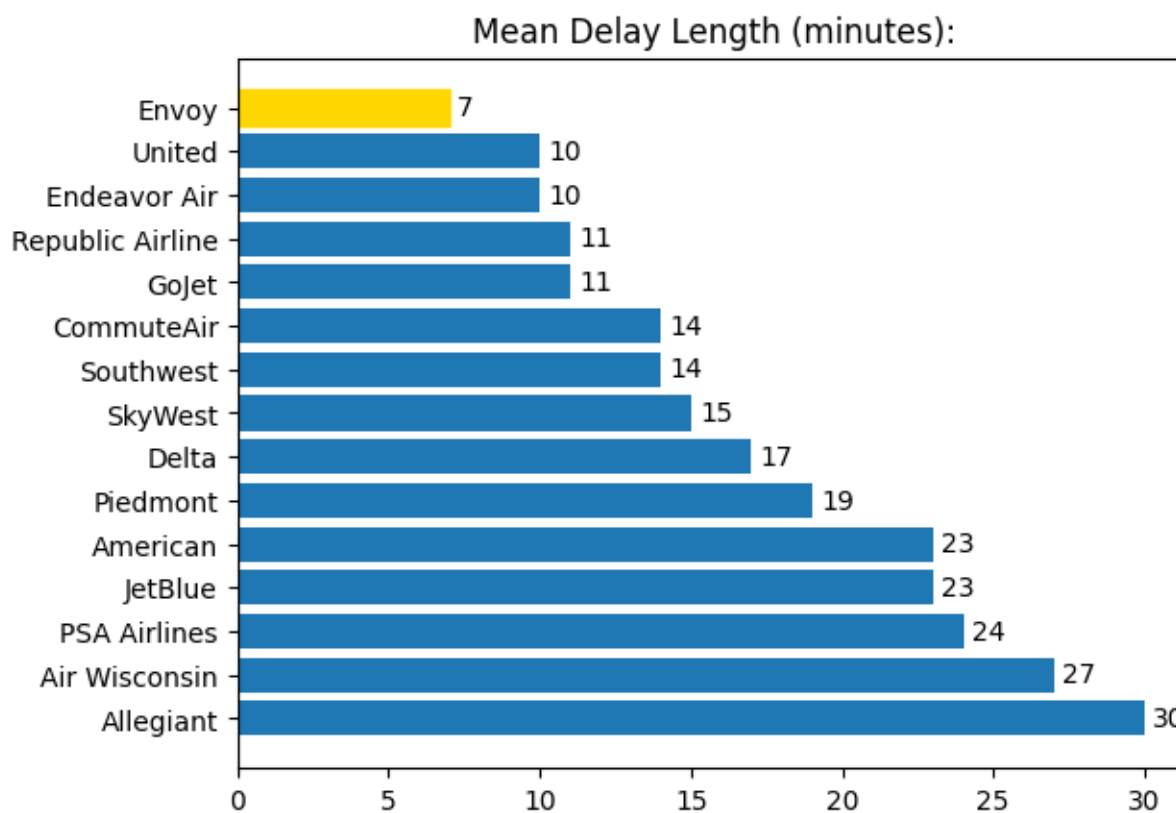
Departures Cancelled by Airline

% of Scheduled Flights Cancelled
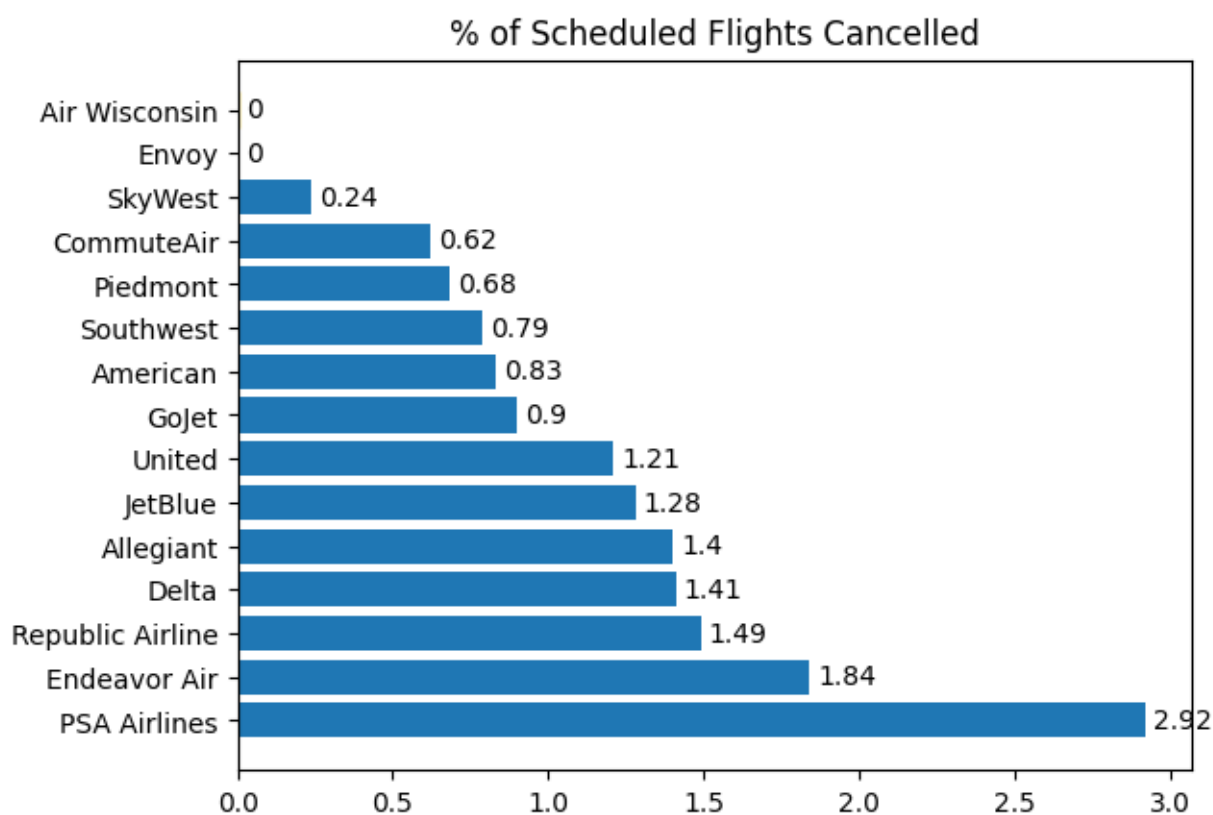
% of Scheduled Flights Cancelled:

Operating_Airline	Flights	Cancelled %
Air Wisconsin	25	0.00
Envoy	186	0.00
SkyWest	834	0.24
CommuteAir	1287	0.62
Piedmont	1758	0.68
Southwest	3532	0.79
American	1453	0.83
GoJet	667	0.90
United	745	1.21
JetBlue	779	1.28
Allegiant	573	1.40
Delta	1352	1.41
Republic Airline	335	1.49
Endeavor Air	1089	1.84
PSA Airlines	1166	2.92

Departure Delay Length by Airline

Mean Delay Length (minutes):

Delay Length:

	Departures	Mean_Mins_Delayed	Median_Mins_Delayed
Operating_Airline			
Envoy	186	7	0
Endeavor Air	1069	10	0
United	736	10	0
GoJet	661	11	0
Republic Airline	330	11	0
Southwest	3504	14	0
CommuteAir	1279	14	0
SkyWest	832	15	0
Delta	1333	17	0
Piedmont	1746	19	0
American	1441	23	0
JetBlue	769	23	0
PSA Airlines	1132	24	0
Air Wisconsin	25	27	0
Allegiant	565	30	0

Departures Delayed 15 Minutes by Airline

% of Departed Flights Delayed at least 15 Minutes
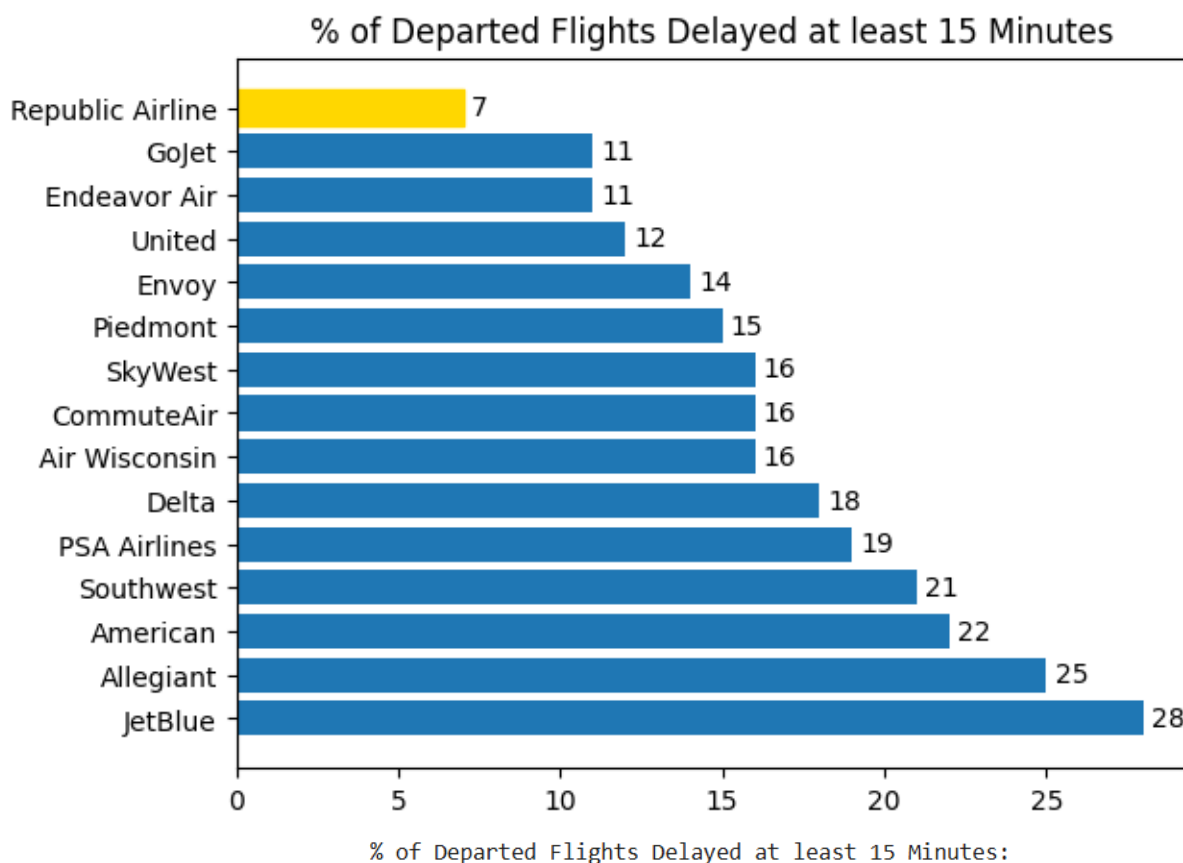
Operating_Airline	Departures	Delayed 15 Mins %
Republic Airline	330	7.0
GoJet	661	11.0
Endeavor Air	1069	11.0
United	736	12.0
Envoy	186	14.0
Piedmont	1746	15.0
CommuteAir	1279	16.0
Air Wisconsin	25	16.0
SkyWest	832	16.0
Delta	1333	18.0
PSA Airlines	1132	19.0
Southwest	3504	21.0
American	1441	22.0
Allegiant	565	25.0
JetBlue	769	28.0

Southwest Departures

On average, Southwest flights in 2024 departing Albany International Airport were 14 minutes delayed, with a median of 0 minutes delayed. (The median should be a better estimate of the typical delay time because 14% of the delay minutes variable's values were outliers and when

that is above 5%, the median is likely better than the mean. This is because a couple large delay times can make the mean large and bigger than the typical delay length.)
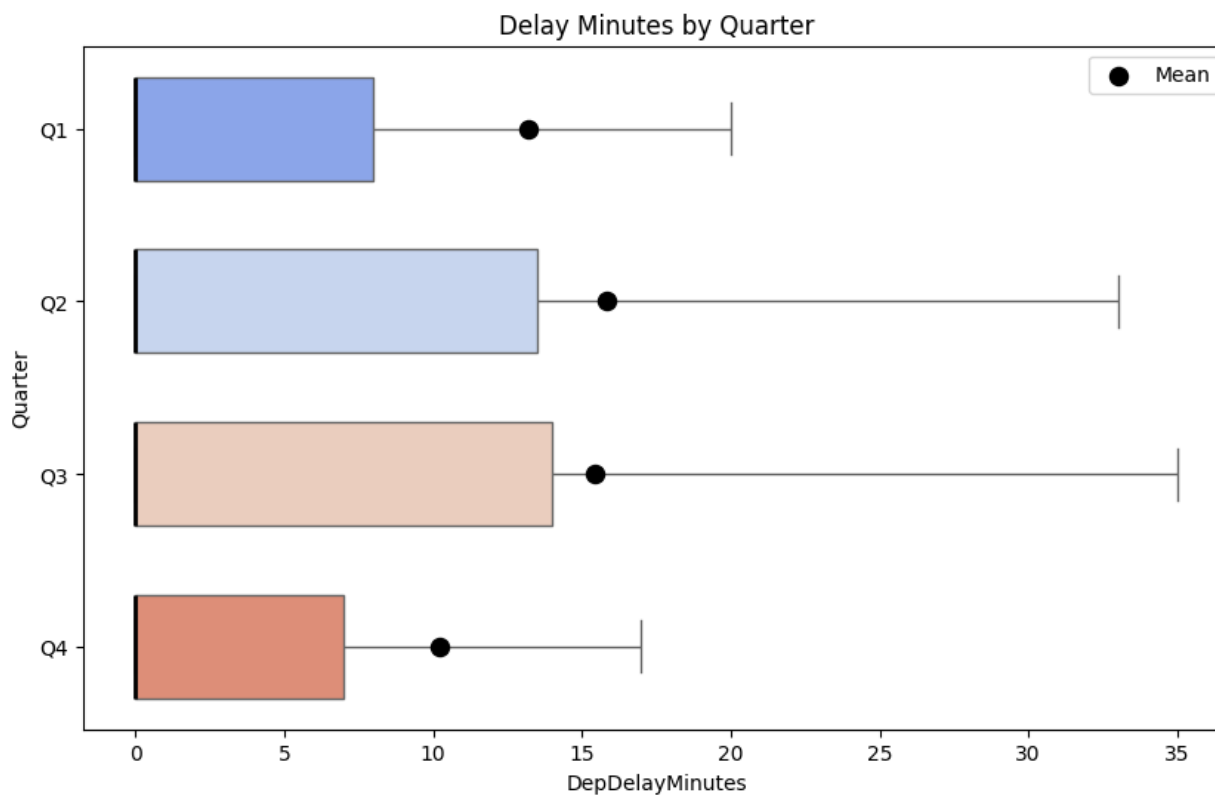
Flights Cancelled/Delayed
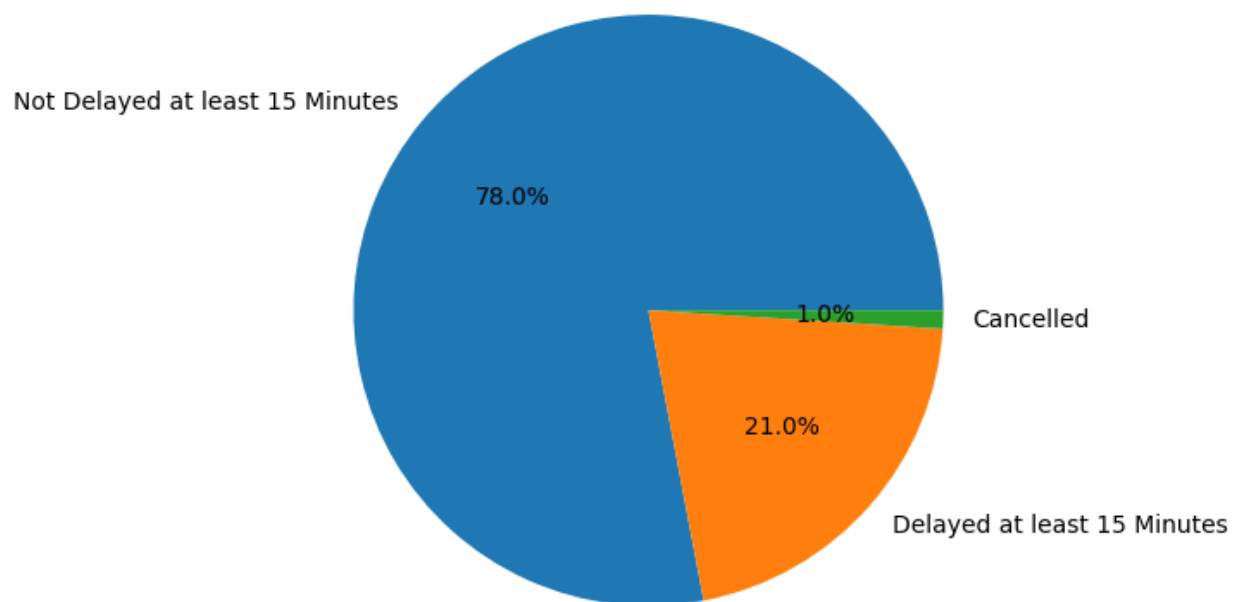

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Flights Delayed at Least 15 Minutes:

                               Flights     %
DepDel15
Not Delayed at least 15 Minutes   2762  78.0
Delayed at least 15 Minutes        742  21.0
Cancelled                           28   1.0
```
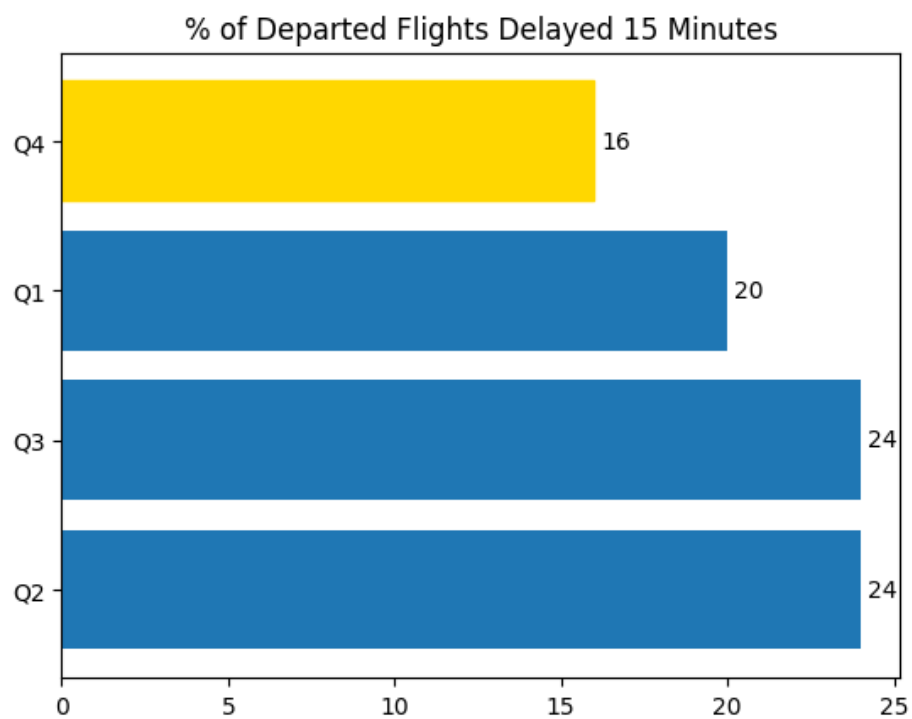
Southwest Departures by Quarter

Delay Minutes by Quarter

Departed Flights By Quarter:

Quarter	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
Q4	886	10	0
Q1	835	13	0
Q3	948	15	0
Q2	835	16	0

% of Departed Flights Delayed 15 Minutes

	Flights	% Delayed 15 Minutes	% Cancelled
Quarter			
Q4	894	16.0	1.0
Q1	849	20.0	2.0
Q2	838	24.0	0.0
Q3	951	24.0	0.0

Southwest Departures by Month

Delay Minutes by Month
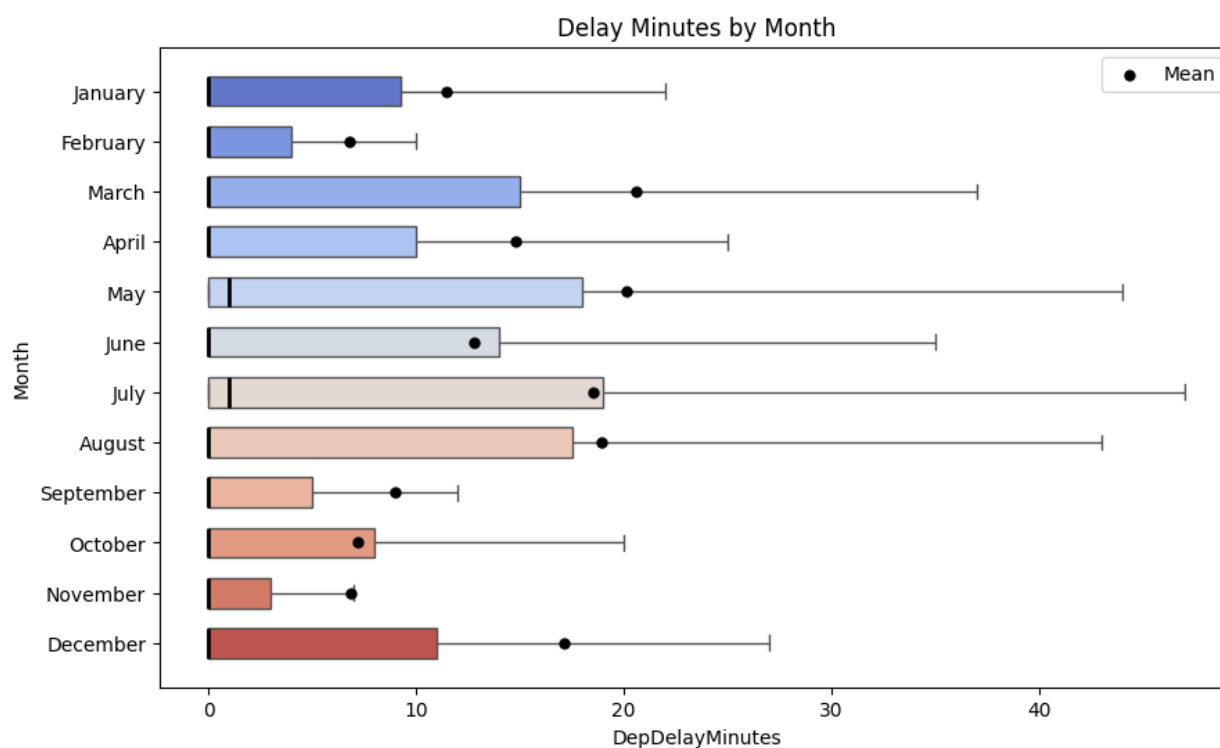
Departed Flights By Month:

Month	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
February	265	7	0
November	284	7	0
October	322	7	0
September	323	9	0
January	272	11	0
June	287	13	0
April	275	15	0
December	280	17	0
August	327	19	0
July	298	19	1
May	273	20	1
March	298	21	0

% of Departed Flights Delayed 15 Minutes
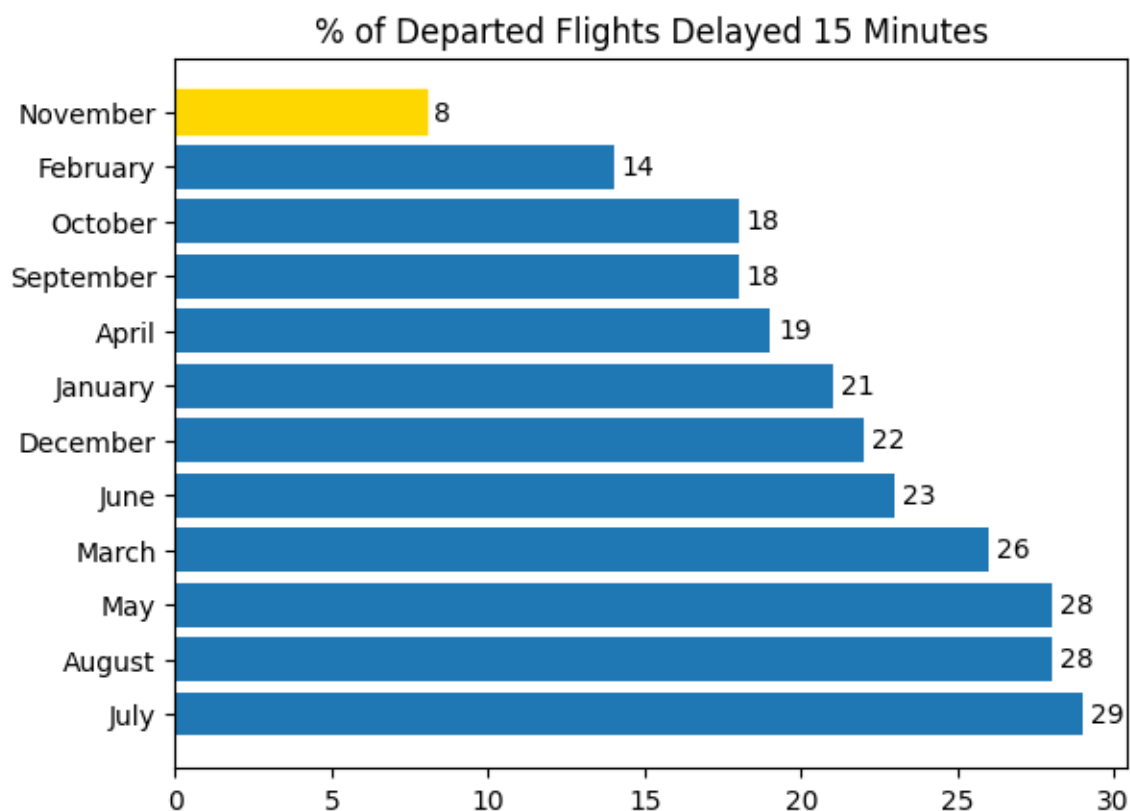
Month	Flights	% Delayed 15 Minutes	% Cancelled
November	285	8.0	0.0
February	266	14.0	0.0
October	329	17.0	2.0
September	323	18.0	0.0
April	275	19.0	0.0
January	278	20.0	2.0
December	280	22.0	0.0
June	288	23.0	0.0
March	305	25.0	2.0
August	329	27.0	1.0
May	275	28.0	1.0
July	299	28.0	0.0

Southwest Departures by Part of Day
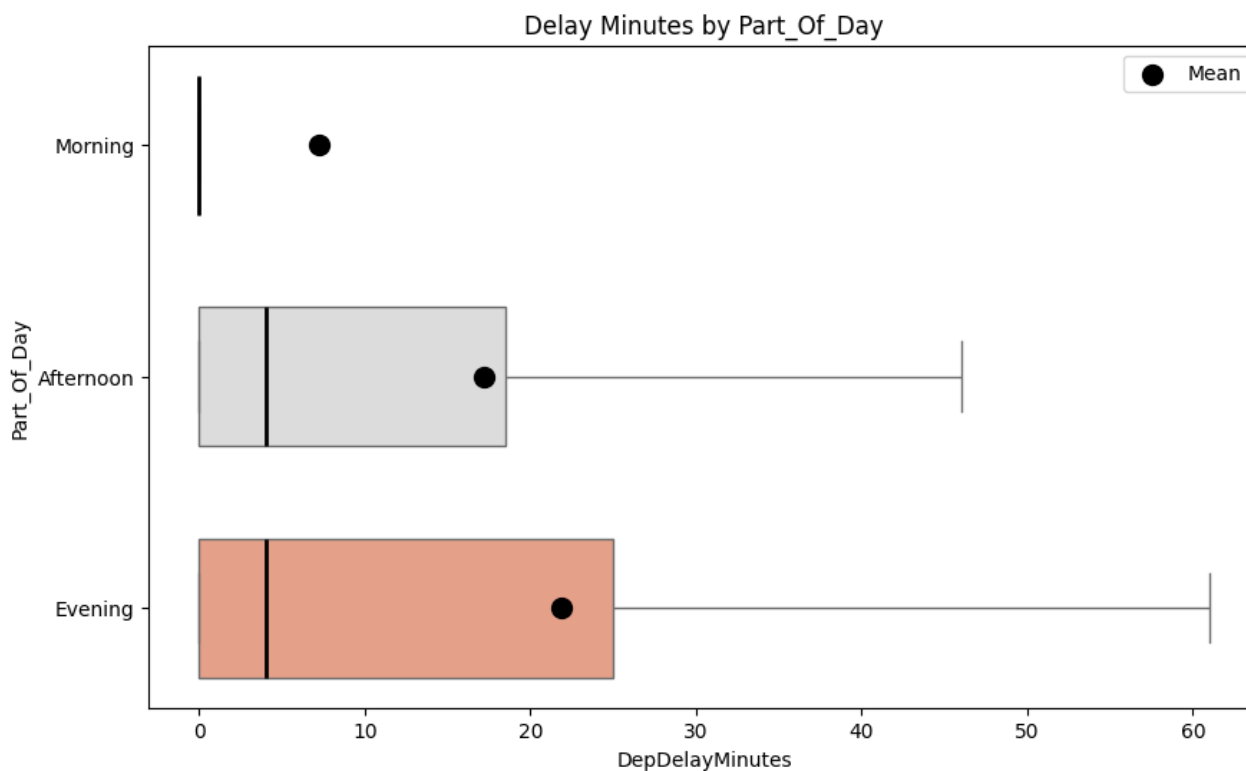
Delay Minutes by Part_Of_Day

Departed Flights By Part_Of_Day:

Part_Of_Day	Departures	Mean_Minutes_Delayed	Median_Minutes_Delayed
Morning	1603	7	0
Afternoon	1091	17	4
Evening	810	22	4

% of Departed Flights Delayed 15 Minutes
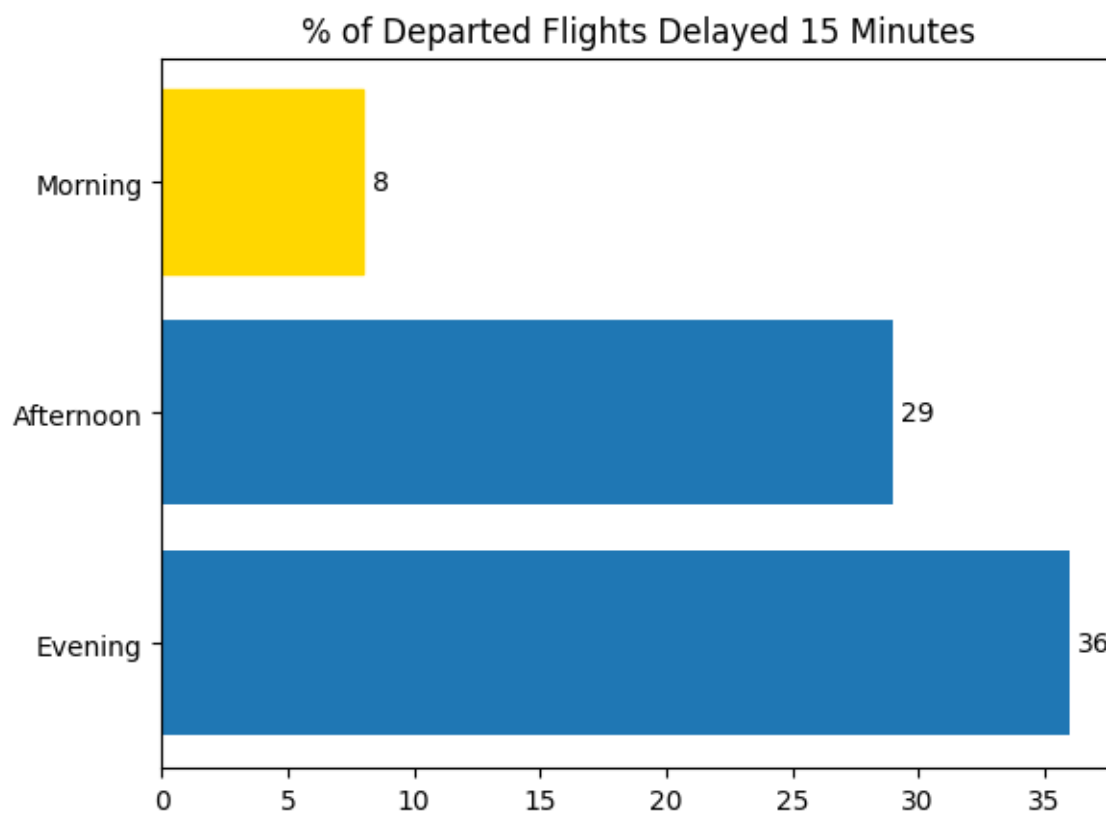
Part_Of_Day	Flights	% Delayed 15 Minutes	% Cancelled
Morning	1613	8.0	1.0
Afternoon	1100	29.0	1.0
Evening	819	35.0	1.0

Southwest Departures by Hour
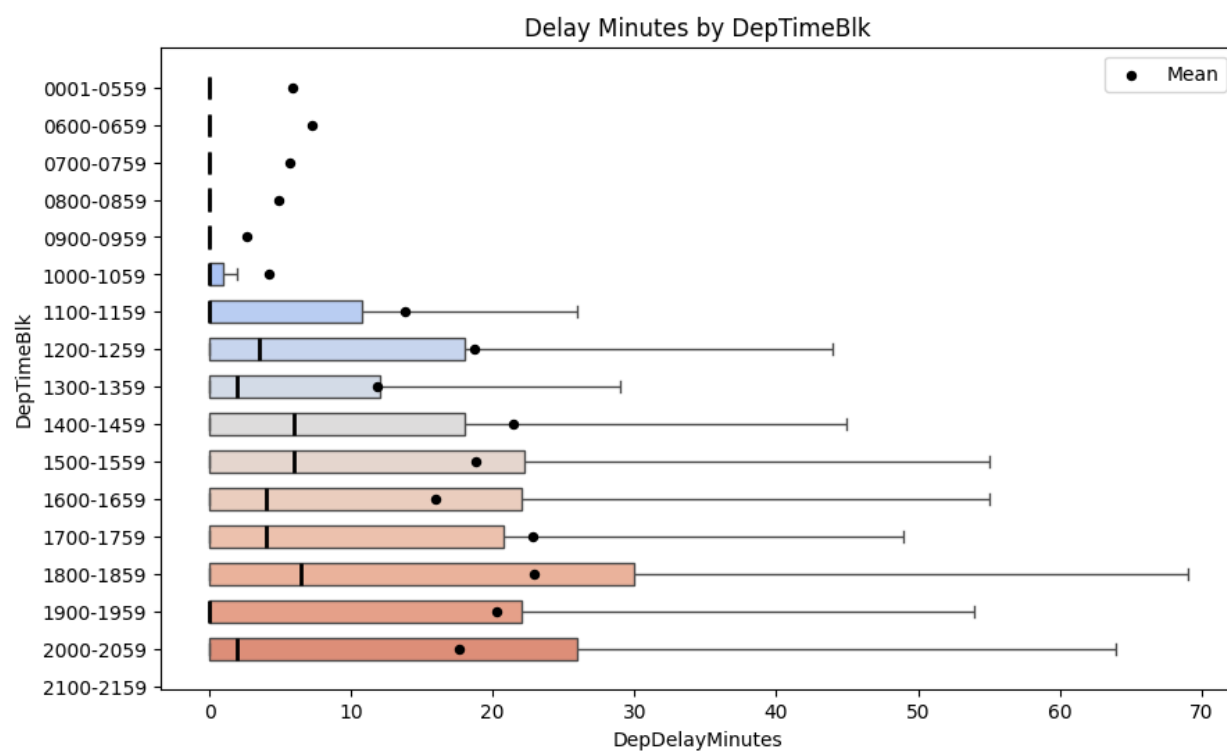
Delay Minutes by DepTimeBlk

```
Departed Flights By DepTimeBlk:

                Departures   Mean_Minutes_Delayed   Median_Minutes_Delayed
DepTimeBlk
0900-0959           57               3                        0
1000-1059          166               4                        0
0800-0859           95               5                        0
0001-0559          196               6                        0
0700-0759          346               6                        0
0600-0659          477               7                        0
1300-1359          237              12                        2
1100-1159          266              14                        0
1600-1659          231              16                        4
2000-2059          107              18                        2
1200-1259          226              19                        4
1500-1559          208              19                        6
1900-1959          109              20                        0
1400-1459          189              21                        6
1800-1859          272              23                        6
1700-1759          322              23                        4
```
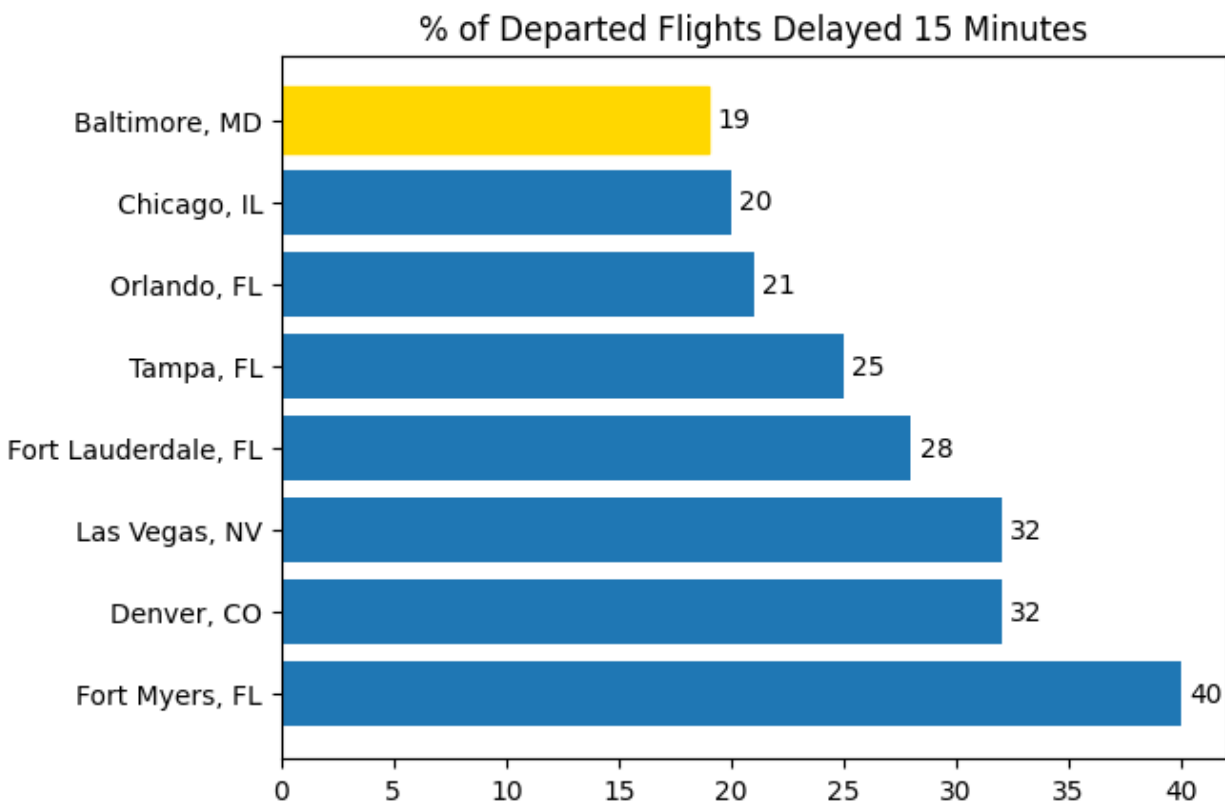
% of Departed Flights Delayed 15 Minutes
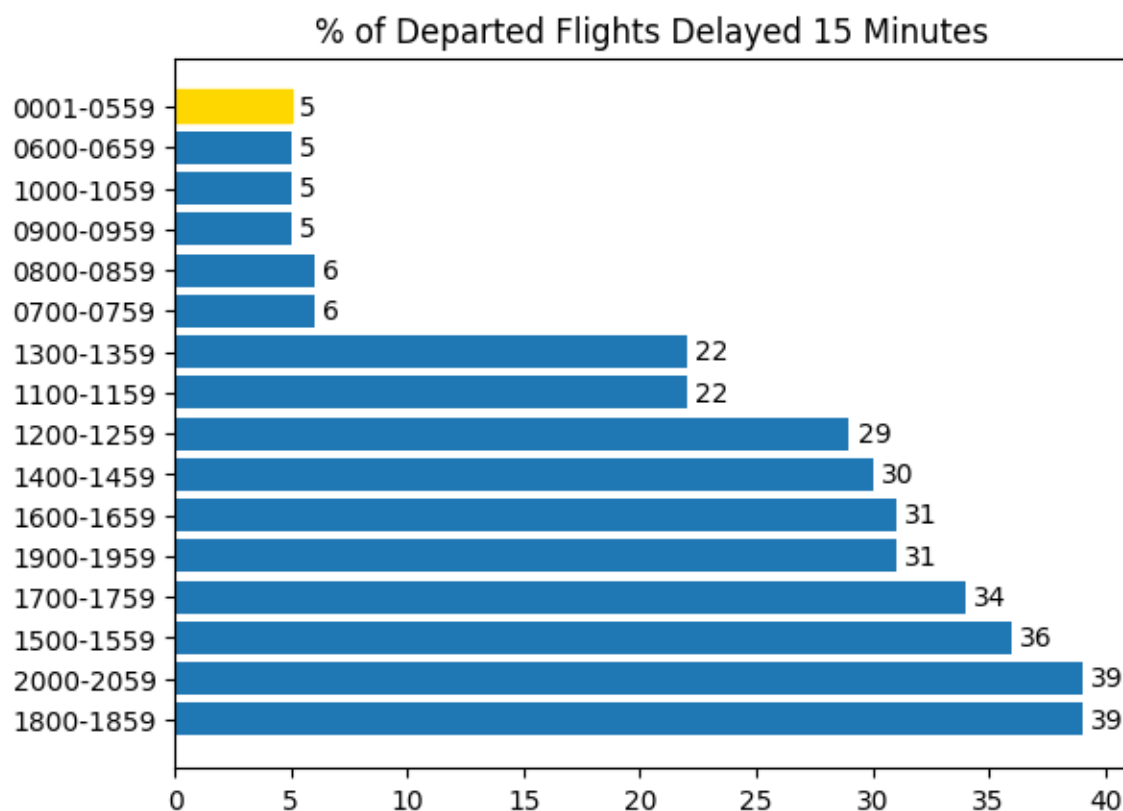
	Flights	% Delayed 15 Minutes	% Cancelled
DepTimeBlk			
0001-0559	196	5.0	0.0
0600-0659	481	5.0	1.0
1000-1059	166	5.0	0.0
0900-0959	57	5.0	0.0
0800-0859	96	6.0	1.0
0700-0759	350	6.0	1.0
1100-1159	267	22.0	0.0
1300-1359	239	22.0	1.0
1200-1259	227	29.0	0.0
1400-1459	190	30.0	1.0
1600-1659	233	31.0	1.0
1900-1959	109	31.0	0.0
1700-1759	323	33.0	0.0
1500-1559	211	35.0	1.0
1800-1859	277	38.0	2.0
2000-2059	110	38.0	3.0

Southwest Departures by Destination City
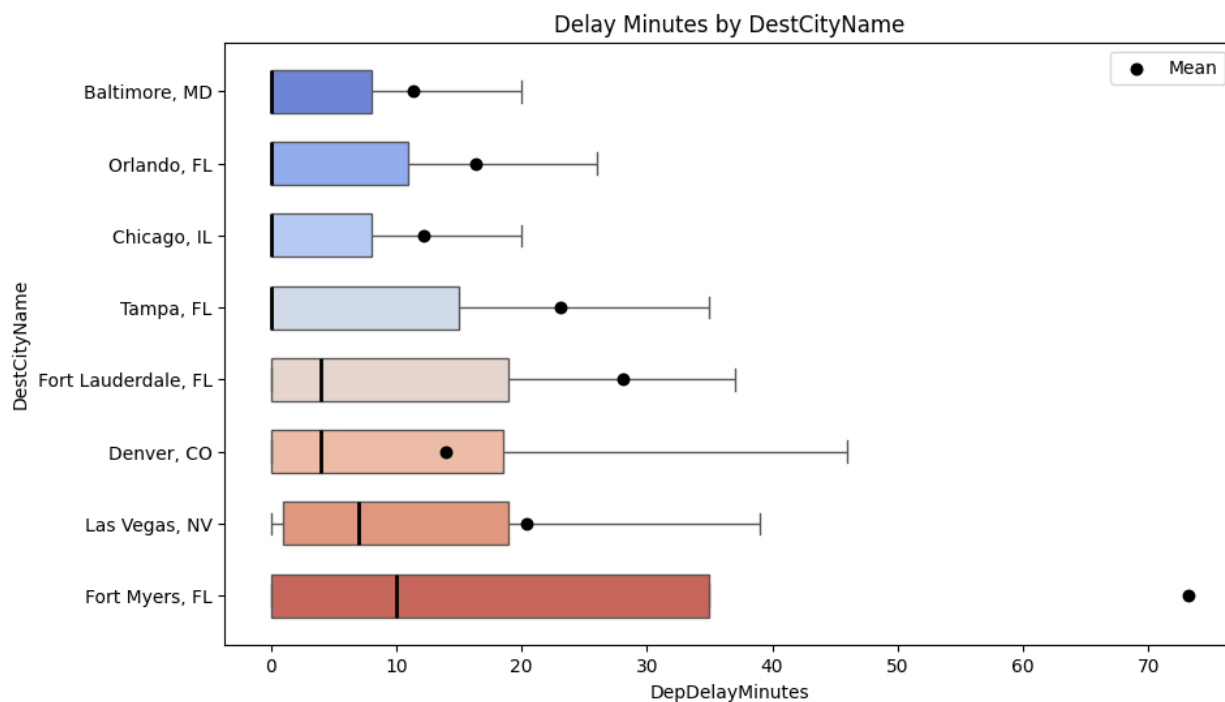
Delay Minutes by DestCityName

Departed Flights By DestCityName:

DestCityName	Departures	Mean_Mins_Delayed	Median_Mins_Delayed
Baltimore, MD	1639	11	0
Chicago, IL	706	12	0
Denver, CO	187	14	4
Orlando, FL	666	16	0
Las Vegas, NV	77	20	7
Tampa, FL	199	23	0
Fort Lauderdale, FL	25	28	4
Fort Myers, FL	5	73	10

% of Departed Flights Delayed 15 Minutes

DestCityName	Flights	% Delayed 15 Minutes	% Cancelled
Baltimore, MD	1645	19.0	0.0
Chicago, IL	712	20.0	1.0
Orlando, FL	675	20.0	1.0
Tampa, FL	203	25.0	2.0
Fort Lauderdale, FL	26	27.0	4.0
Denver, CO	189	31.0	1.0
Las Vegas, NV	77	32.0	0.0
Fort Myers, FL	5	40.0	0.0

Conclusion

Based on the data I gathered, the best time to depart Albany International Airport in 2024 was February in the morning at 6-6:59 am. February, the morning, and the 6am hour had the lowest means for their respective groups. If you are flying in 2025, it could be wise to choose this time.

If you were flying Southwest, the best time to depart Albany International Airport in 2024 was November in the morning at 9-9:59am. November, the morning, and the 9am hour had the lowest means for their respective groups. If you are flying in 2025, it could be wise to choose this time.