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ACI NORTH AMERICA
AIRPORTS COUNCIL INTERNATIONAL

# O&D SURVEY AND T-100

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# YOUR HOSTS HAVE FIRST HAND EXPERIENCE IN BOTH THE AIRLINE AND THE AIRPORT SIDE

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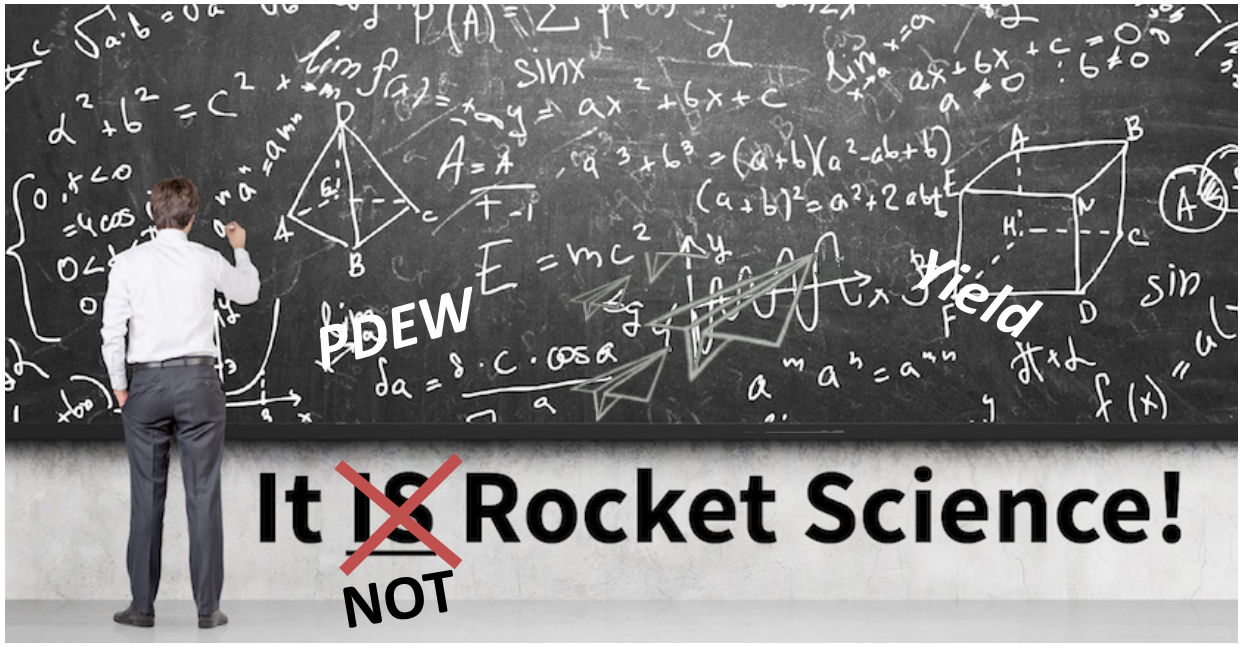
spirit
LESS MONEY, MORE GO.

# INTRODUCTION TO O&D AND T-100

- O&D Survey
- T-100
- Q & A



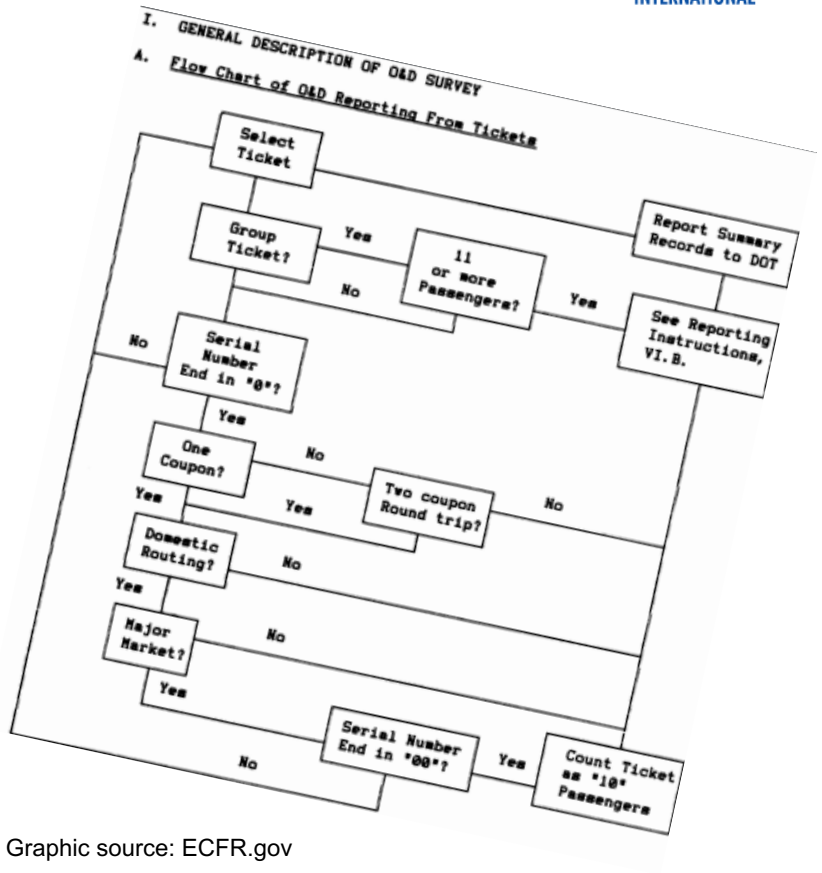
# | O&D SURVEY

# DB1B – HISTORY AND BACKGROUND

- DB1A/B is a DOT database that stems back to the 1940s
- Domestic carriers are required to submit itinerary information from all tickets ending in “0” – a 10% non-biased sample
- Covers a wide variety of data including passengers by carrier, origin/destination, fare/yield, routings, and miles flown
- Great for airports to know this level of detail – no other country requires this type of reporting

# DB1B – STRENGTHS

- Covers most U.S. airlines
- Non-biased sample covering all ticket sales
- Flown data




Graphic source: ECFR.gov

# DB1B – WEAKNESSES

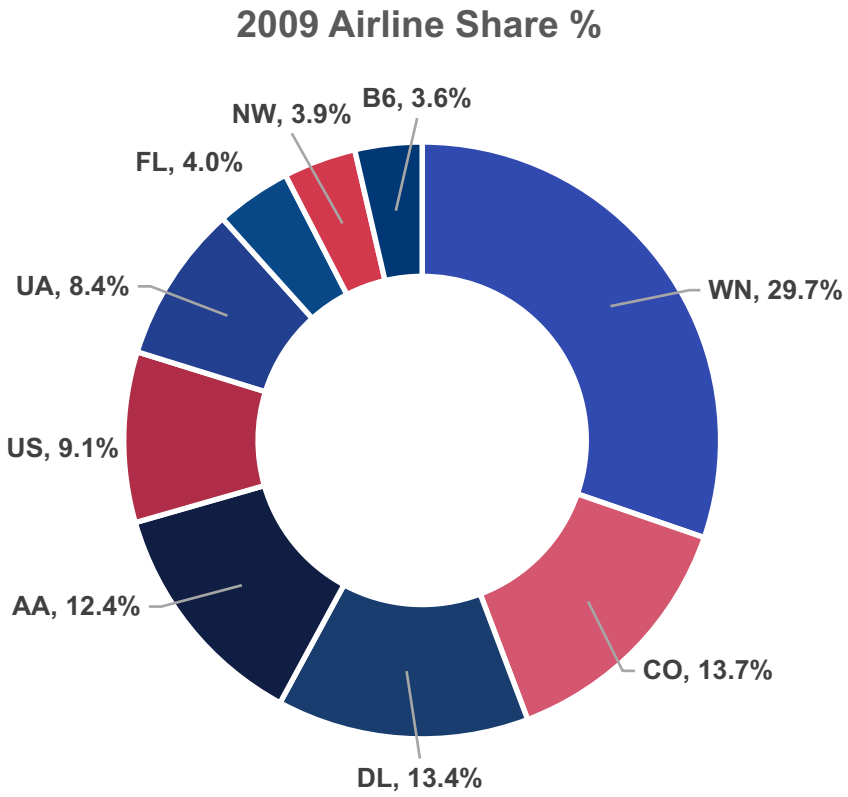
- Granularity is quarterly
- 12 week time lag until DOT public release
- Errors in data are rare – but 2Q19 was missing an entire carrier and had to be re-released
- Distorted data can occur in small markets
- Does not include foreign carriers

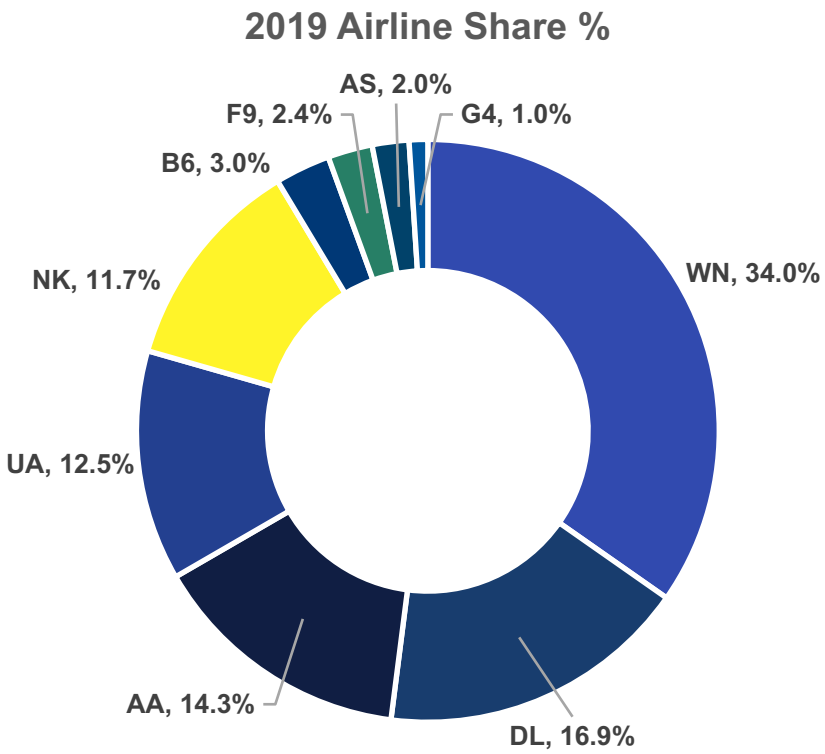
# DB1B ANALYSIS OF TOP AIRPORT MARKETS

| Rank | Dest | PDEW | Fare | Revenue | Yield |
|---|---|---|---|---|---|
| 1 | LAX | 875.7 | 159 | 139,330 | 0.095 |
| 2 | ATL | 623.6 | 118 | 73,702 | 0.278 |
| 3 | MCO | 583.2 | 91 | 53,161 | 0.166 |
| 4 | DEN | 552.9 | 121 | 67,092 | 0.114 |
| 5 | EWR | 508.6 | 162 | 82,545 | 0.139 |
| 6 | ORD | 492.7 | 127 | 62,357 | 0.151 |
| 7 | BWI | 489.3 | 116 | 56,579 | 0.116 |
| 8 | HOU | 476.1 | 132 | 62,674 | 0.434 |
| 9 | JFK | 468.1 | 177 | 82,989 | 0.150 |
| 10 | FLL | 468.0 | 84 | 39,227 | 0.125 |
| 11 | DCA | 443.4 | 170 | 75,205 | 0.175 |
| 12 | DAL | 436.6 | 121 | 52,844 | 0.277 |
| 13 | BOS | 400.4 | 140 | 56,137 | 0.103 |
| 14 | PHL | 388.1 | 155 | 60,101 | 0.142 |
| 15 | LGA | 376.7 | 174 | 65,717 | 0.147 |
| 16 | LAS | 348.9 | 138 | 48,120 | 0.092 |
| 17 | IAH | 342.0 | 136 | 46,366 | 0.444 |
| 18 | DFW | 332.1 | 139 | 46,238 | 0.311 |
| 19 | DTW | 327.0 | 124 | 40,451 | 0.134 |
| 20 | TPA | 322.4 | 105 | 33,853 | 0.216 |

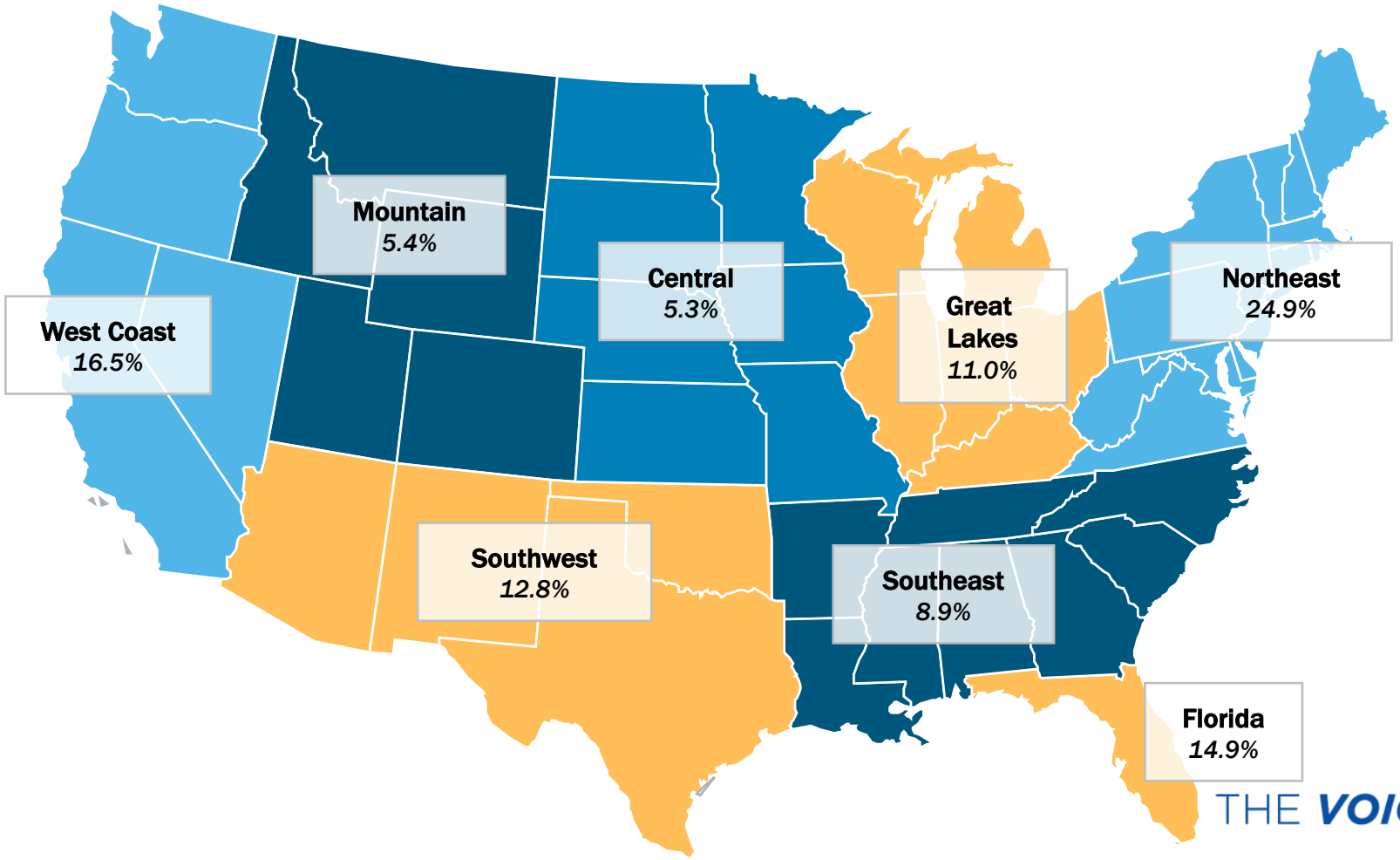
| Rank | Dest | PDEW | Fare | Revenue | Yield |
|---|---|---|---|---|---|
| 21 | AUS | 313.7 | 102 | 31,847 | 0.228 |
| 22 | SFO | 312.2 | 217 | 67,825 | 0.114 |
| 23 | MDW | 293.4 | 141 | 41,406 | 0.171 |
| 24 | SEA | 279.3 | 187 | 52,236 | 0.090 |
| 25 | MSP | 246.0 | 141 | 34,702 | 0.136 |
| 26 | BNA | 234.9 | 143 | 33,574 | 0.304 |
| 27 | MIA | 225.7 | 142 | 32,081 | 0.211 |
| 28 | RDU | 211.6 | 107 | 22,624 | 0.137 |
| 29 | SAN | 194.9 | 186 | 36,256 | 0.116 |
| 30 | PHX | 192.9 | 202 | 39,007 | 0.155 |
| 31 | SAT | 188.4 | 109 | 20,514 | 0.220 |
| 32 | CLT | 172.1 | 189 | 32,614 | 0.291 |
| 33 | OAK | 168.1 | 177 | 29,698 | 0.093 |
| 34 | STL | 163.1 | 169 | 27,610 | 0.280 |
| 35 | MCI | 148.5 | 153 | 22,651 | 0.221 |
| 36 | CLE | 139.2 | 106 | 14,711 | 0.115 |
| 37 | PIT | 131.5 | 137 | 18,087 | 0.150 |
| 38 | IAD | 121.8 | 187 | 22,763 | 0.196 |
| 39 | SLC | 114.5 | 199 | 22,833 | 0.140 |
| 40 | PDX | 112.0 | 197 | 22,086 | 0.096 |

# DB1B ANALYSIS EXAMPLES

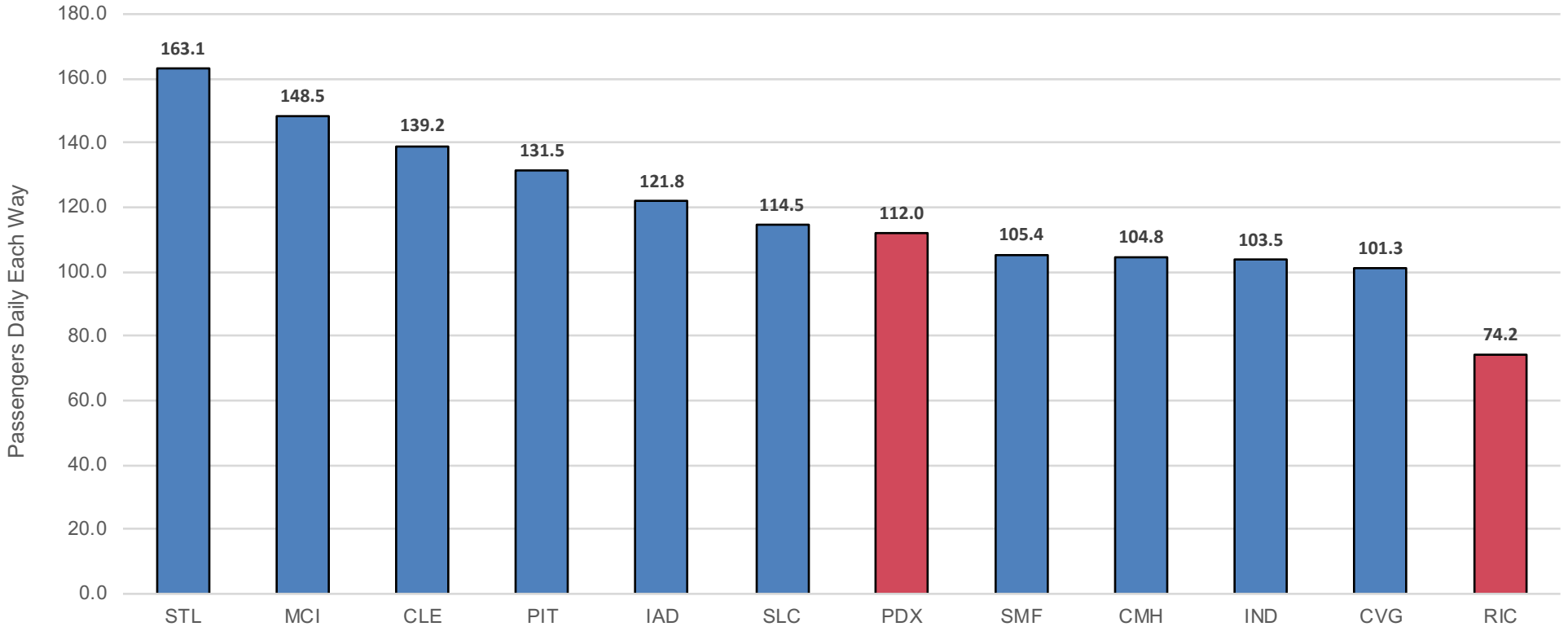


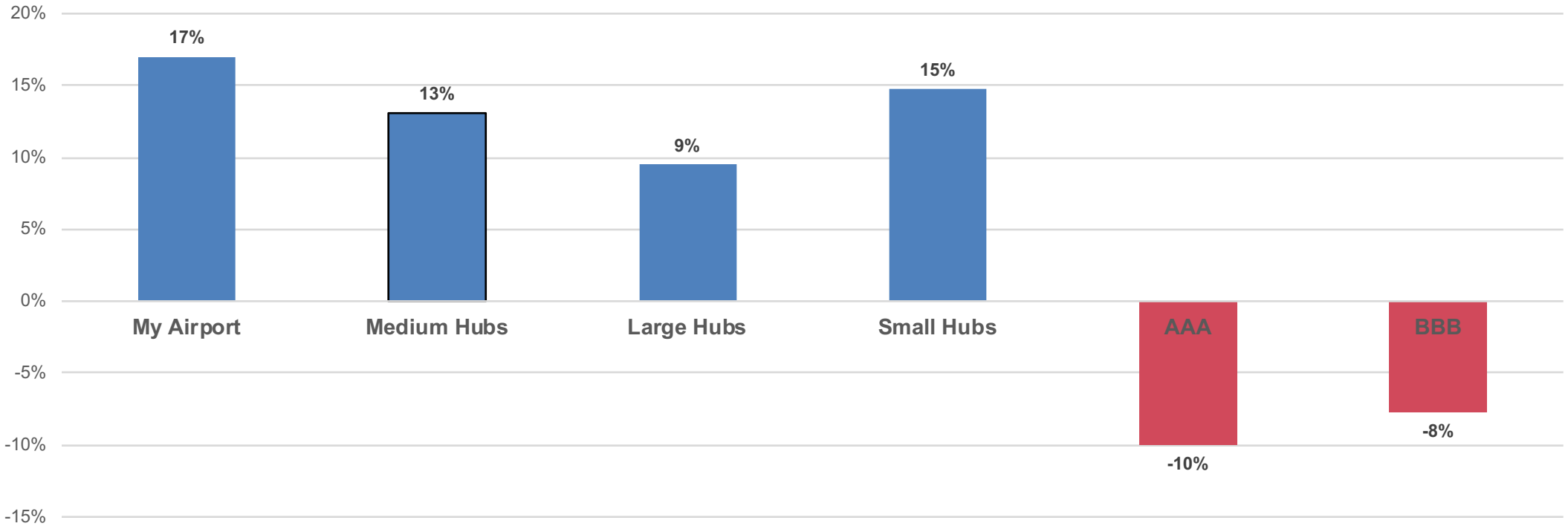
# O&D MAP VISUALIZATION TO HELP EXPLAIN YOUR MARKET



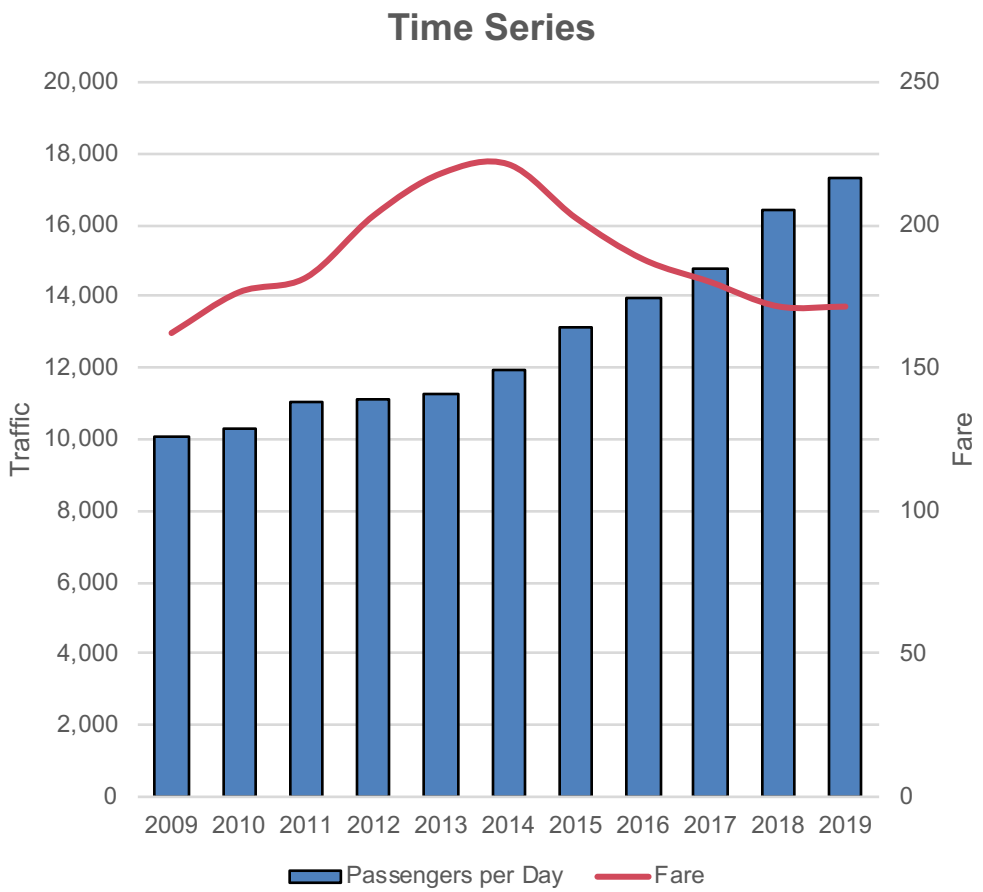
# DB1B ANALYSIS OF LARGEST UNSERVED MARKETS

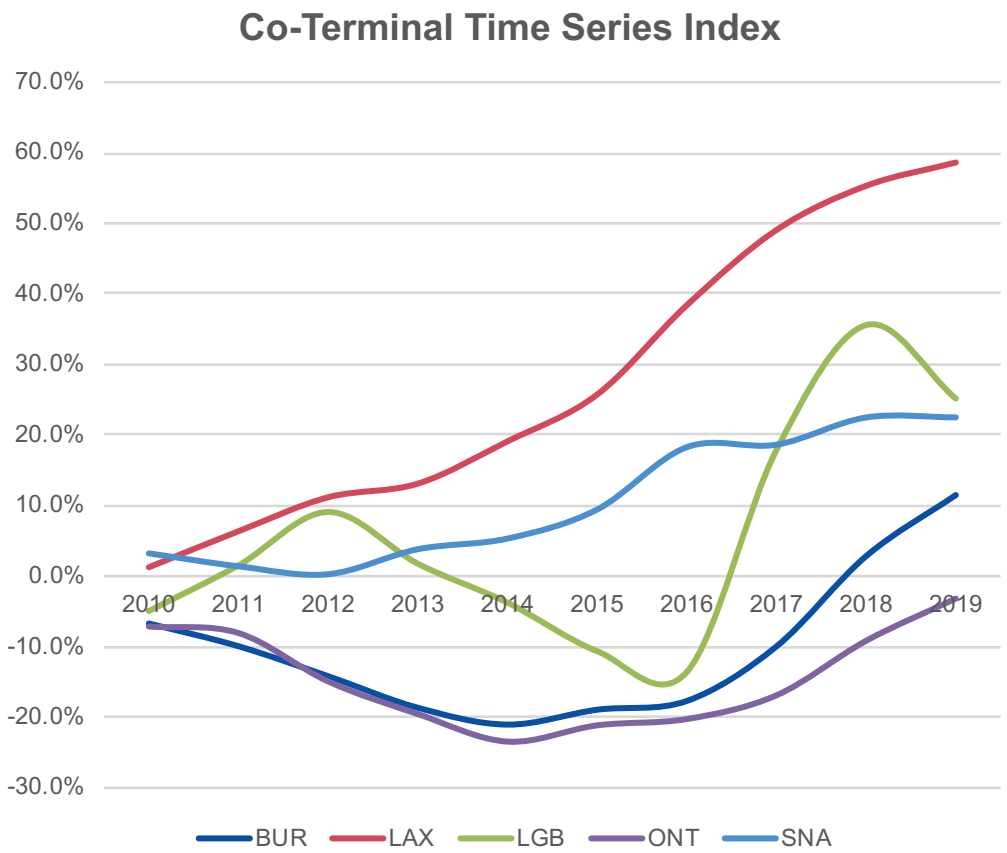


# GROWTH VERSUS PEER AIRPORTS



# DB1B ANALYSIS EXAMPLES

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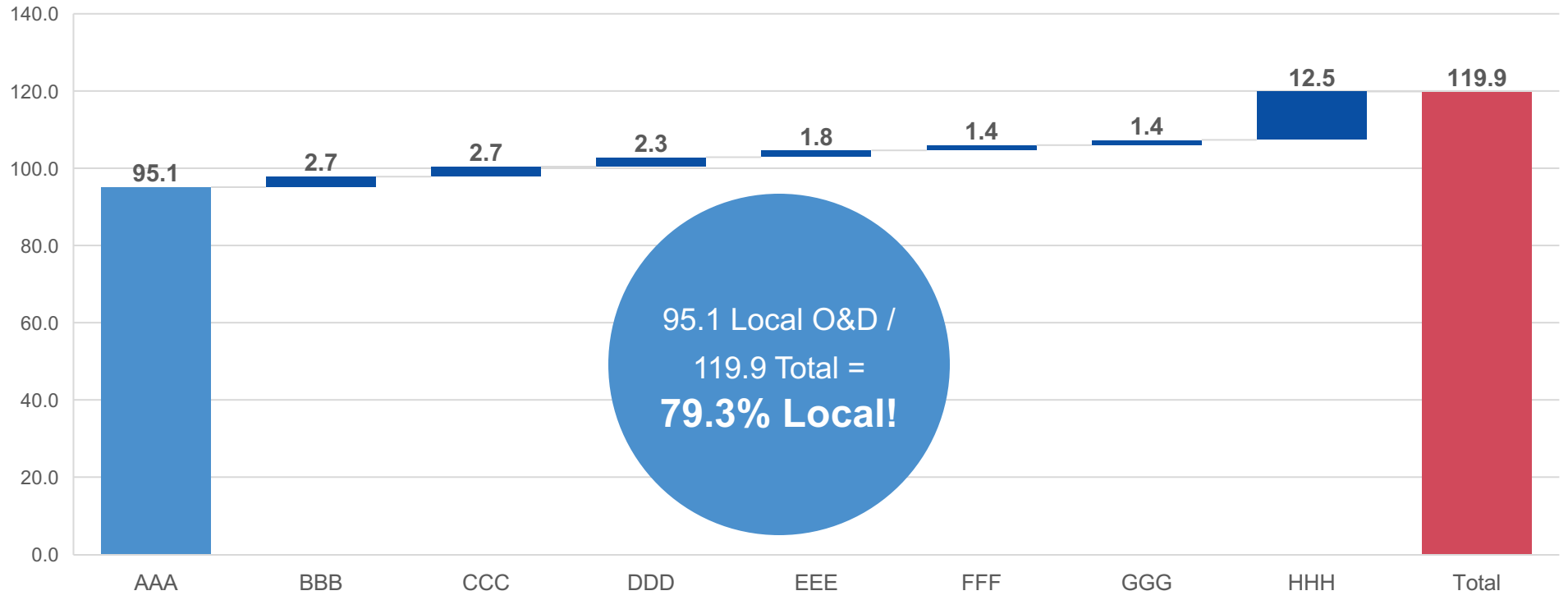
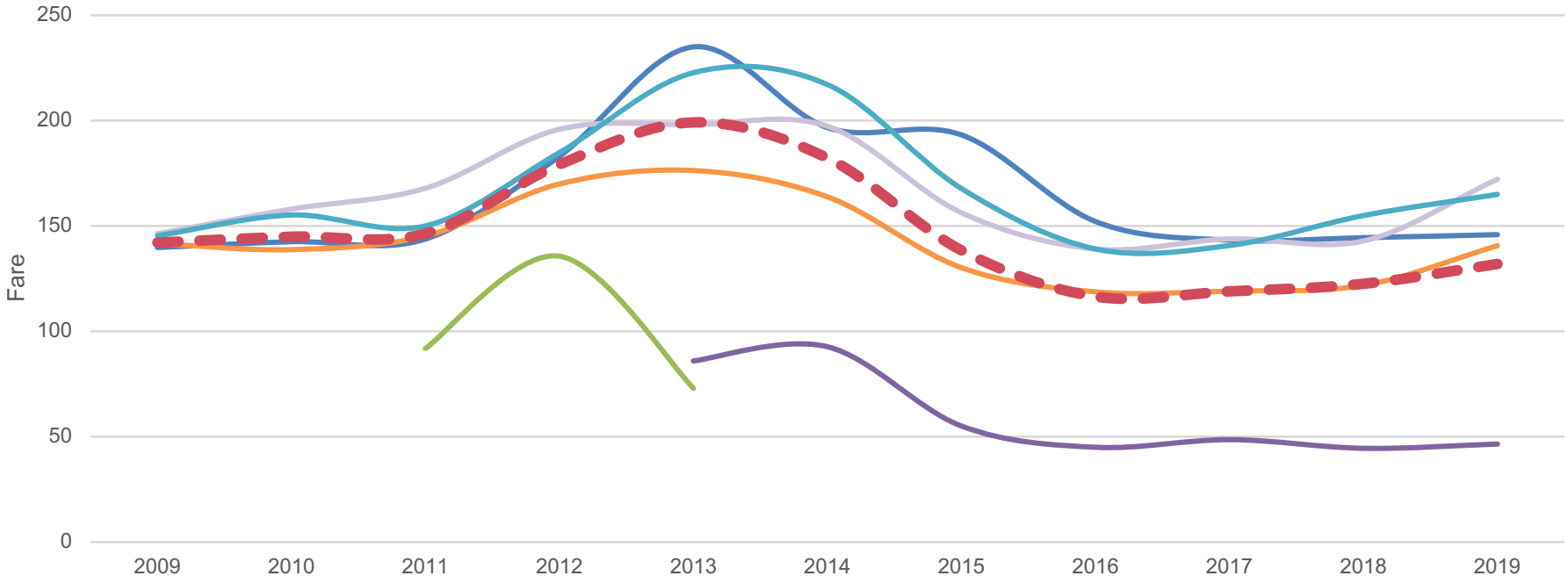
# O&D SEGMENT BREAKDOWN

- This data from the O&D segment report indicates the market is mostly local and not as dependent on flow traffic



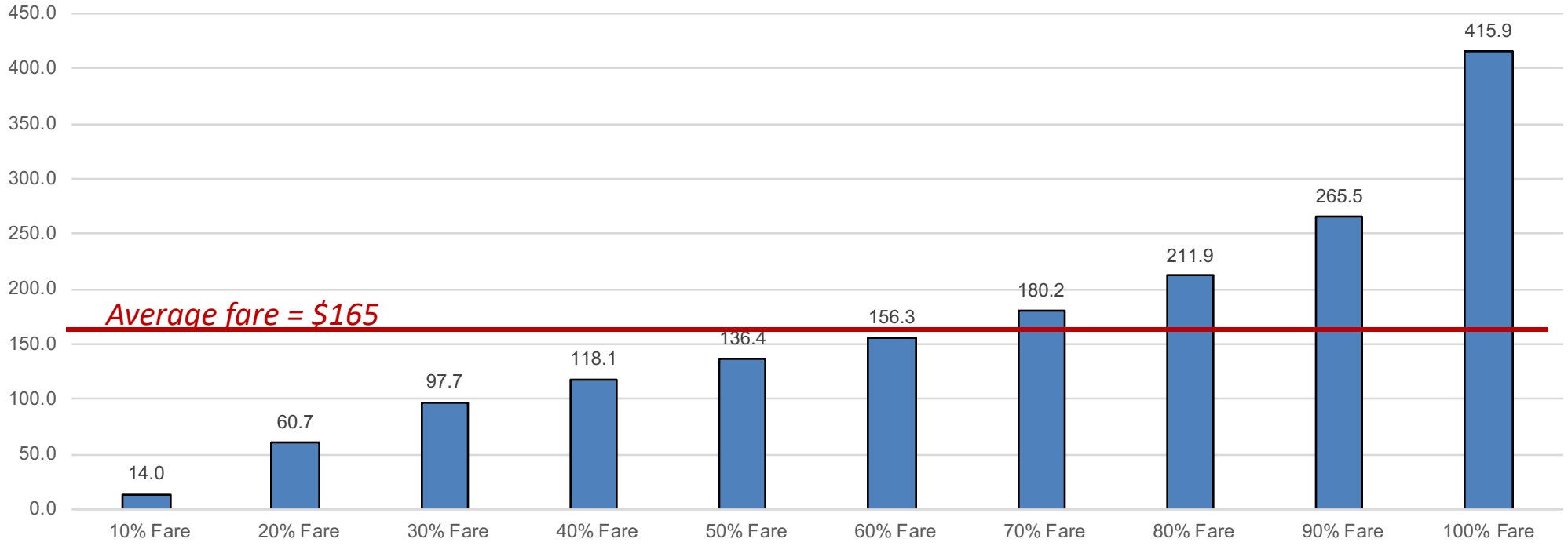
# DETAILED FARE TIME SERIES

- In this market five carriers operate flights – is it a “fair” fare comparison?



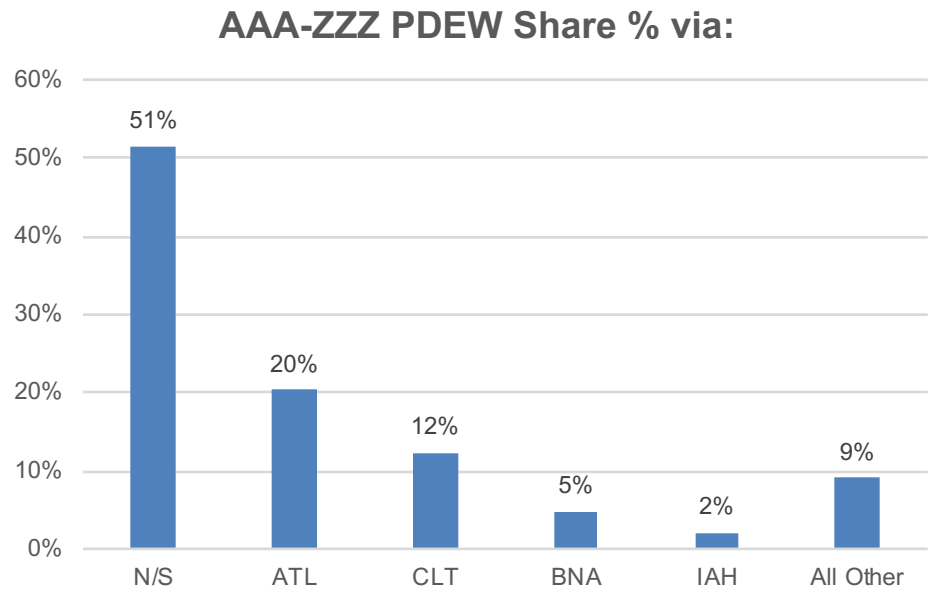
# FARE BANDS PROVIDES INSIGHT ON THE "WALK UP" FARE

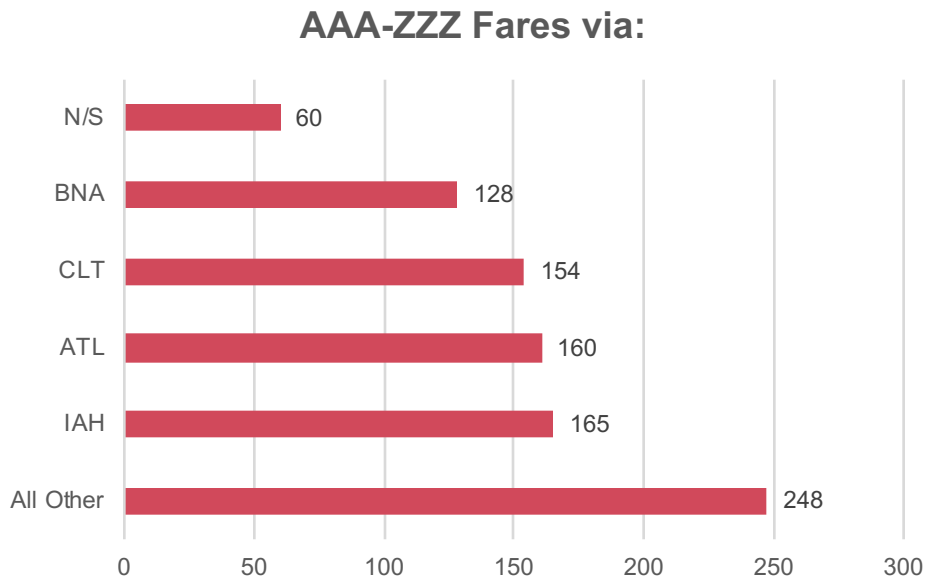
- In this example, Diio Mi lines up fares lowest to highest



# O&D MARKET ANALYSIS

- Non-stop versus connecting – is connecting carrier getting a lot of share? Why Schedule? Price?



# AIRLINE TALKING POINTS FROM O&D DATA

- Market Sizes
- Fares/Yield
- Trip Distance
- Stimulation Potential
- History of the service – was it served before?

# BEST PRACTICES & USES TO AIRLINES

- DB1B domestic data can be shared freely with all airlines
  - However, do not share international DB1B data with foreign citizens/airlines
    - Instead, share trends using masked data and percentages
- Combine DB1B with other data sources
  - Example: Census to depict passengers per capita and benchmark against other airports
- Promote positive changes in passenger and fares to targeted airlines
- Combine with schedule data to see top unserved and underserved destinations

# BEST PRACTICES & USES TO COMMUNITY

- DB1B is often time used to procure community support for a flight
  - Example: CVB requests market size for Paris in joint effort to begin building a business case for a non-stop flight
- Additionally, scheduling data is provided with DB1B access which allows capacity insights by market
  - Example: If community (CVB or similar) marketing funds are available this can help shape where to spend

# | T-100

# T-100 DATA AND UNIQUE FEATURES

- Collection of data that every airline (domestic, **and international** when operating into the US) must report to the DOT
- Receipt of information occurs **monthly,** but for foreign carriers there could be an **up to a 6 month delay**
- **Cargo and Charter** airlines are also included
- The information airlines supply **relates to the operating carrier** and not the marketing carriers
  - *American Airlines flight # 3345 from DFW to OMA is operated by Envoy Airlines and, in T-100, it will show up as Envoy information not American's*

# WHO REPORTS T-100 DATA?

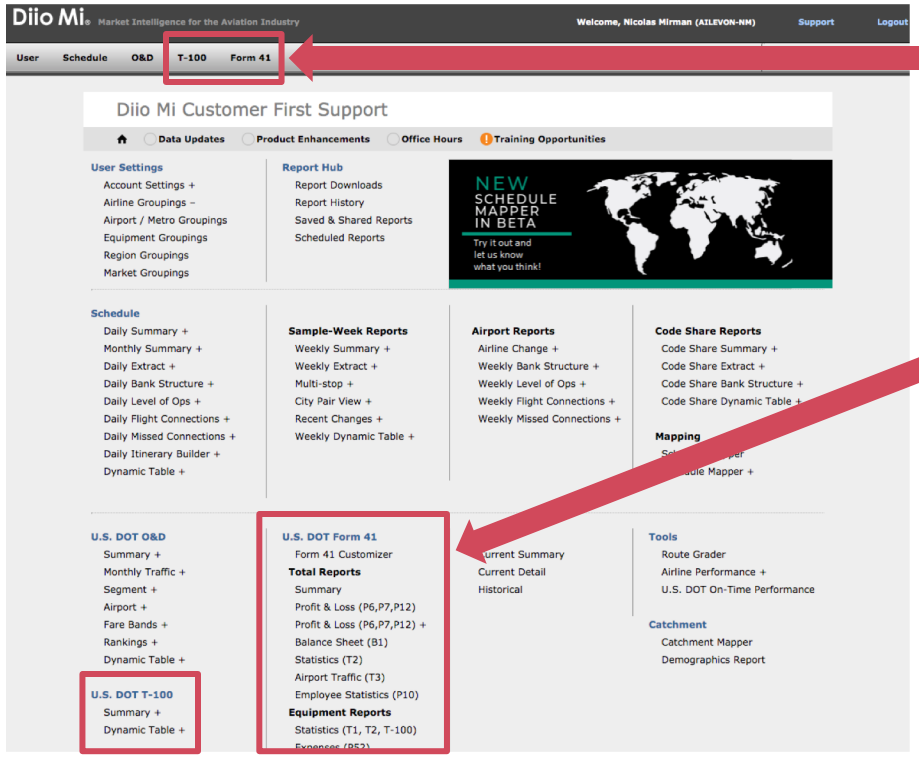
| Major airlines | Regional airlines | Foreign airlines | Cargo airlines | Charter airlines |
|---|---|---|---|---|
| American Airlines | SkyWest Airlines | Air China | Atlas Air | Star Marianas Air |
| Delta Air Lines | Silver Airways | Lufthansa | FedEx | Miami Air International |
| United Airlines | Mesa Airlines | LATAM | ABX Air | Bering Air |
| Southwest Airlines | Cape Air – We're Your Wings | JAL | UPS | |

# T-100 DATA IS COLLECTED IN FOUR TABLES

- **Table 1: Domestic information by segment**
  *Capacity and onboard information for every single flight – domestic only*
- **Table 2: traffic per leg (local) on single flights**
  *Local traffic information – domestic only*
- **Table 3: International information by segment**
  *Capacity and onboard information for every single flight – international only*
- **Table 4: International information by flight**
  *Local traffic information – domestic only*

# WHERE DO I FIND THE T-100 INFORMATION?

- T-100 information is public information and can be found at the DOT website free of charge but with little aggregation making it very difficult to use
- Industry tools like DIIO MI, OAG, Aviation Data Miner or SABRE, collect the data and organize it in a way that becomes easy to use for the Air Service Professional




Out of DIIO MI main menu there are two ways to access the information T-100

T-100 is also known as “Form 41 Schedule T-100”

Sources: Diio Mi

# WHAT KIND OF INFORMATION DOES T-100 OFFER?

*(1 OF 2)*

1 Operational metrics (distance, block minutes, actual & scheduled departures, etc.)

3 Supply and demand of cargo

| | TOTAL | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Origin Code | Total Miles | Average Miles | Flight Mins | Block Mins | Scheduled Deps | Deps | Onboards | Seats | RPMs | ASMs | Load Factor | Freight | Mail | Total Cargo | Payload | Cargo RTMs | ATMs |
| ABQ | 1,710,569 | 675 | 237,899 | 293,371 | 2,554 | 2,536 | 240,810 | 297,680 | 177,549,437 | 215,861,497 | 82.25 | 134,950 | 8 | 134,958 | 74,109,558 | 46,466 | 26,787,806 |
| TOTAL | 1,710,569 | 675 | 237,899 | 293,371 | 2,554 | 2,536 | 240,810 | 297,680 | 177,549,437 | 215,861,497 | 82.25 | 134,950 | 8 | 134,958 | 74,109,558 | 46,466 | 26,787,806 |

2 Supply and demand of passenger seats -> Load Factor

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Sources: Diio Mi

# WHAT KIND OF INFORMATION DOES T-100 OFFER?

*(2 OF 2)*

1 **Data for every scheduled passenger flight**

| TOTAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Onboards | Seats | RPMs | ASMs | Load Factor | Freight | Mail | Total Cargo | Payload | Cargo RTMs | ATMs |
| 173,630 | 231,596 | 103,227,997 | 135,853,611 | 75.98 | 111,470 | 10,595 | 122,065 | 62,950,837 | 35,182 | 18,884,398 |
| 173,630 | 231,596 | 103,227,997 | 135,853,611 | 75.98 | 111,470 | 10,595 | 122,065 | 62,950,837 | 35,182 | 18,884,398 |

2 **Data for every cargo flight**

| TOTAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Onboards | Seats | RPMs | ASMs | Load Factor | Freight | Mail | Total Cargo | Payload | Cargo RTMs | ATMs |
| 0 | 0 | 0 | 0 | 0.00 | 235,445,132 | 10,328,611 | 245,773,743 | 435,583,289 | 150,468,372 | 247,962,106 |
| 0 | 0 | 0 | 0 | 0.00 | 235,445,132 | 10,328,611 | 245,773,743 | 435,583,289 | 150,468,372 | 247,962,106 |

3 **Data for every charter non scheduled flight (incl. charters)**

| TOTAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Onboards | Seats | RPMs | ASMs | Load Factor | Freight | Mail | Total Cargo | Payload | Cargo RTMs | ATMs |
| 0 | 0 | 0 | 0 | 0.00 | 994,171 | 0 | 994,171 | 2,401,450 | 159,048 | 418,108 |
| 0 | 0 | 0 | 0 | 0.00 | 994,171 | 0 | 994,171 | 2,401,450 | 159,048 | 418,108 |



Sources: Diio Mi

# DATA PROVIDED IN T-100 PRODUCES STATISTICS THAT HELP UNDERSTAND MARKET AND FLIGHT PERFORMANCE FROM TRAFFIC PERSPECTIVE

- Completion factor

  *How many flights were scheduled vs how many operated?*

- Produce timely load factors estimates

  *(T-100 is reported and published approximately 1 month after flown)*

  *What was the initial load factor of a new route?*

- Relationship passenger vs. cargo production

  *Does a route rely solely on passenger traffic or does cargo also drive success?*

# SOME IMPORTANT T-100 LIMITATIONS TO KEEP IN MIND

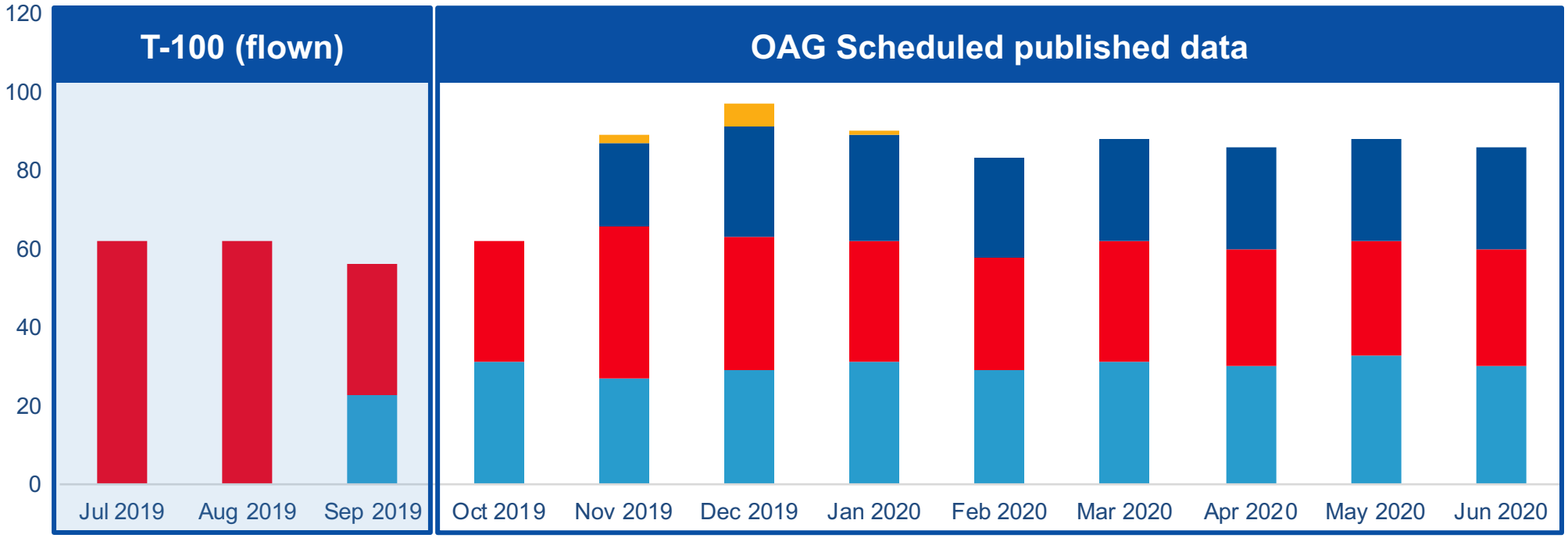
- All data is reported **by operating carrier or by marketing carrier**
- Information is related to **single-plane flights only**
- T-100 **does not include any revenue data**
- There is no T-100 breakdown information breakdown by day of week or by week (aggregated only on monthly basis)
- Domestic T-100 is reported on a three-month lag while international is reported on a six-month lag

Sources: Diio Mi

# T-100 SUPPLEMENTED WITH OAG SCHEDULES PRODUCES A MORE COMPREHENSIVE CAPACITY EVALUATION

## CAPACITY LAX-OMA (departures per month) by operating carrier

12 months ending June 2020




Compass Airlines

SkyWest Airlines

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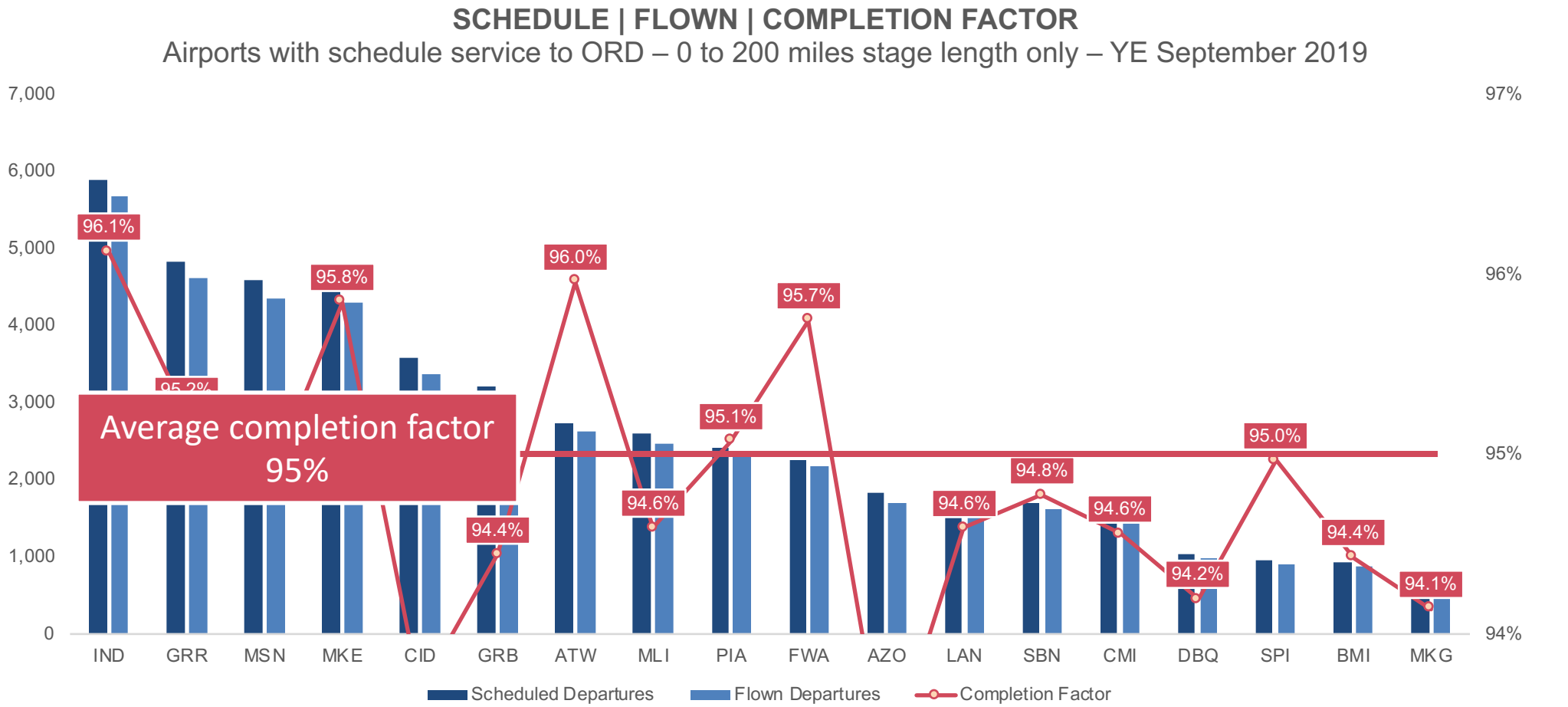
Sources: Diio Mi

# T-100 COMBINED WITH O&D DATA HELPS SOLVE FOR INTERNATIONAL VS. DOMESTIC ONBOARD COMPOSITION

| DL ROC-JFK<br>YE 2Q 2019 | | |
|---|---|---|
| Source | Variable Estimation | |
| T-100 | Flown capacity | 75,662<br>(207 seats per day) |
| T-100 | Load Factor (%) | 81.97% |
| T-100 | Estimated Onboard | 170 PDEWs |
| O&D | Domestic traffic | 161 PDEWs |
| **Solve for International onboard composition** | | **9 PDEWs** |

Sources: Diio Mi

# T-100 PRODUCES COMPLETION FACTOR INFORMATION

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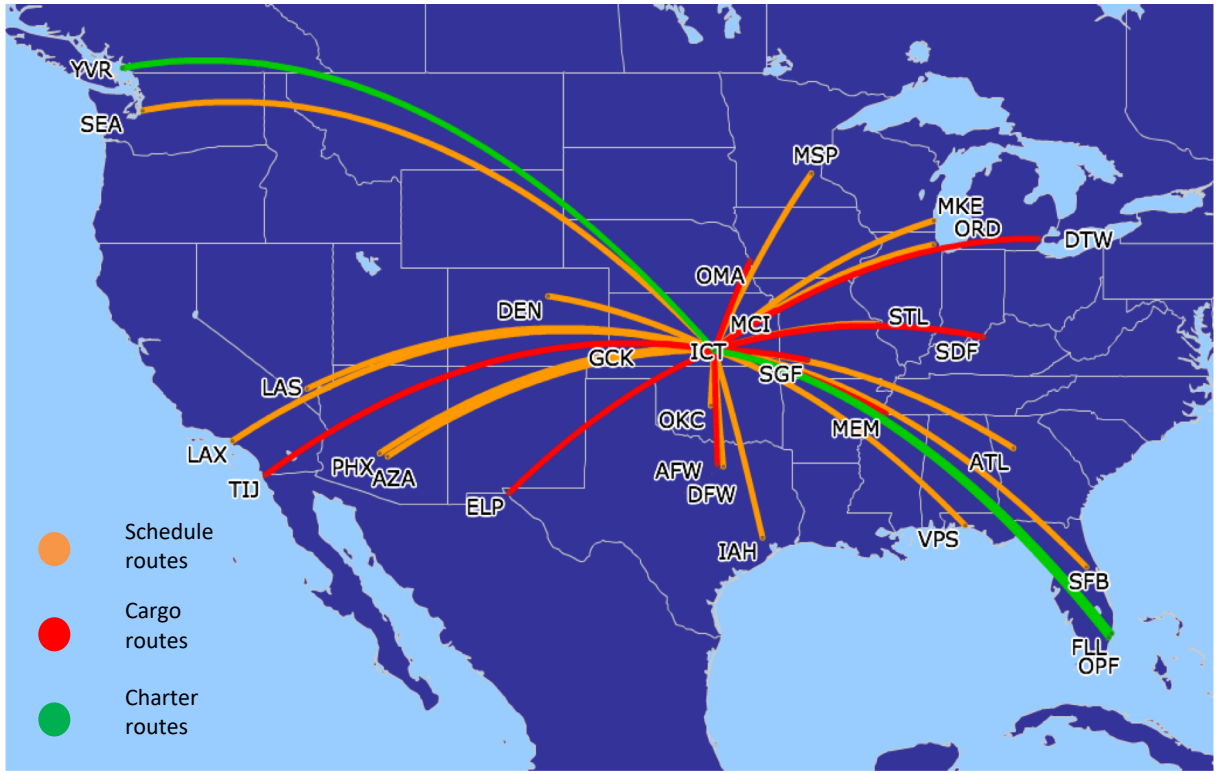
Sources: Diio Mi

# T-100 HELPS UNDERSTAND ROUTE PORTFOLIO BY AIRLINE TYPE

## ICT route portfolio by service type – YE September 2019

Schedule routes | Cargo routes | Charter routes




## ICT destinations roaster
## Schedule – Cargo – Charter

Flown Only – YE September 2019

| Destination | Schedule Service | Cargo Service | Charter Service |
|---|---|---|---|
| AFW | | Yes | |
| ATL | Yes | | |
| AZA | Yes | | |
| DEN | Yes | | |
| DFW | Yes | | |
| DTW | | Yes | |
| ELP | | Yes | |
| FLL | | | Yes |
| GCK | | Yes | |
| IAH | Yes | | |
| LAS | Yes | | |
| LAX | Yes | | |
| MCI | | Yes | |
| MEM | | Yes | |
| MKE | Yes | | |
| MSP | Yes | | |
| OKC | Yes | | |
| OMA | | Yes | |
| OPF | | | Yes |
| ORD | Yes | | |
| PHX | Yes | | |
| SDF | | Yes | |
| SEA | Yes | | |
| SFB | Yes | | |
| SGF | | Yes | |
| STL | Yes | Yes | |
| TIJ | | Yes | |
| VPS | Yes | | |
| YVR | | | Yes |
| **Total** | **16** | **11** | **3** |

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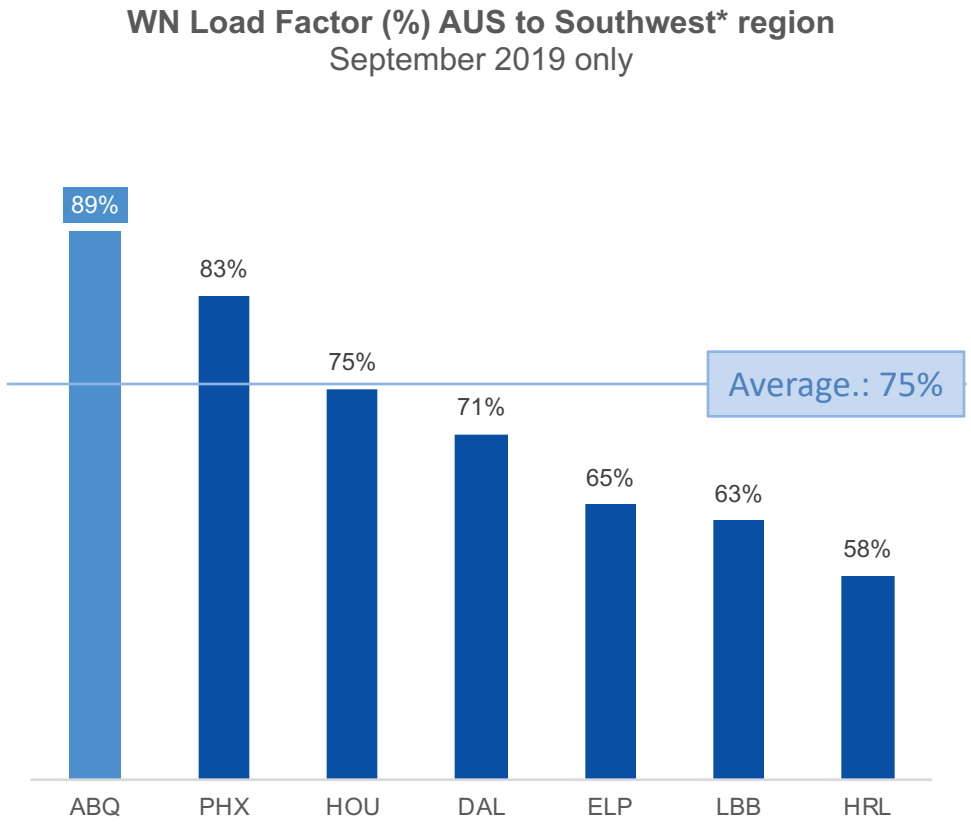
Sources: Diio Mi

# T-100 PRODUCES EARLY TRAFFIC PERFORMANCE INDICATORS (LOAD FACTOR)




- During its first month of daily WN operations, ABQ-AUS reached an **89% Load Factor**
- The route's Load Factor was highest among its regional peers from Austin

**There is no O&D fare/traffic available for September 2019. T-100 is used as an early indicator**

Sources: Diio Mi. Southwest region includes TX, NM and AZ

# Q & A