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Investigation of the Potential for an Aircraft Dispatcher Shortage in the United States

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This research effort determines current and projected demand for aircraft dispatchers and compares that to the education and training or the “production” of new aircraft dispatchers by Federal Aviation Regulations (FAR) Part 65 certificated schools in order to determine the extent of a potential shortage and define what may constitute sufficient numbers that are necessary to support a growing industry. A shortage of aircraft dispatchers will exert an adverse operational impact on the work of both pilots and aircraft maintenance technicians (AMTs). Unlike the shortage of pilots and AMTs, which have received attention from policymakers and practitioners, there has been limited, if any, serious attention to the possibility of a comparable shortage of aircraft dispatchers. This research effort represents an initial and modest contribution towards addressing the need to investigate the potential for an aircraft dispatcher shortage in the United States. In the main, it involves a review of the census data of certificated aircraft dispatchers from 2011-2017, which was secured from the Federal Aviation Administration and a survey of 54 of the 57 FAR Part 65 certificated schools listed with the Federal Aviation Administration. The authors plan to secure funding to conduct a survey to determine the aircraft dispatcher needs of the 168 FAR Part 121 certificate holders that offer domestic scheduled service as well as domestic and foreign scheduled operations.

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There has been extensive discussion about the shortage of airline pilots (Armstrong 2015) and aircraft maintenance technicians (Mark, 2018a, 2018b). This shortage has even received attention in Congress, as evidenced by a Congressional hearing on the subject in April 2014 (Jansen, 2015) and the subsequent launch of a program to address the shortage. Against the background of airline pilot and aircraft maintenance technician shortages are projections of historic growth in airline service and aircraft purchases by both Boeing and Airbus.

Using aircraft age, relative airplane economics, maintenance requirements and overall market environment, as well as firm aircraft orders and options, Boeing (2015) has forecasted the need for 38,050 airplanes valued at \$5.6 trillion over the next 20 years through 2034. Not to be outdone, Airbus (2015) projects 32,585 total new aircraft deliveries between 2014 and 2034. Of that number, 31,800 are passenger aircraft and 800 aircraft are freighters.

Problem & Purpose

Unfortunately, concern about the shortage of airline pilots and maintenance technicians appears to ignore the supply of aircraft dispatchers who are operationally indispensable. Practically all airlines, ranging from the major airlines to the regional airlines, rely on aircraft dispatchers to operate effectively.

This research effort reviews the current demand for aircraft dispatchers and compares that to the *production* of new aircraft dispatchers by FAR Part 65 schools in order to determine any potential shortage. With funding, this research will define the numbers of aircraft dispatchers that will be necessary to support industry growth.

Methodology

The first step in the research process involved obtaining census data of certificated aircraft dispatchers from 2011-2017 from the Federal Aviation Administration's (FAA) Indianapolis Flight Standards District Office.

After obtaining the census data of certificated aircraft dispatchers, a listing of FAR Part 65 certificated schools was secured from the FAA. The FAR Part 65 certificated schools are schools that the FAA has authorized to train candidates for aircraft dispatcher certification.

The third step in the research process comprised the administration of a four-question survey instrument to 54 of the 57 listed FAR Part 65 schools. The survey was conducted from September 7– 23, 2018. Six responses were received. The four survey questions were:

- How many aircraft dispatchers have you graduated successfully this year?
- How many have you graduated each year during the past 10 years?
- How many students graduate from your school successfully each year out of the total number of entrants at your school?

- Can you provide any data on how many of your graduates are hired within one month? Graduates hired within two months? Graduates hired within three months?

Findings

Analysis and review of the 2011-2017 census data of certificated aircraft dispatchers indicated there were 5,153 employed by operators who hold eight different types of certificates.¹ At 2,745, the largest group of aircraft dispatchers were employed by air carriers that operate under FAR Part 121, followed by 2,103 aircraft dispatchers employed by FAR Part 129 certificate holders. The number of aircraft dispatchers employed, drops drastically from 2,000 to the 230 employed by FAR Part 135 operators, as depicted in Figures 1 and 3 below.

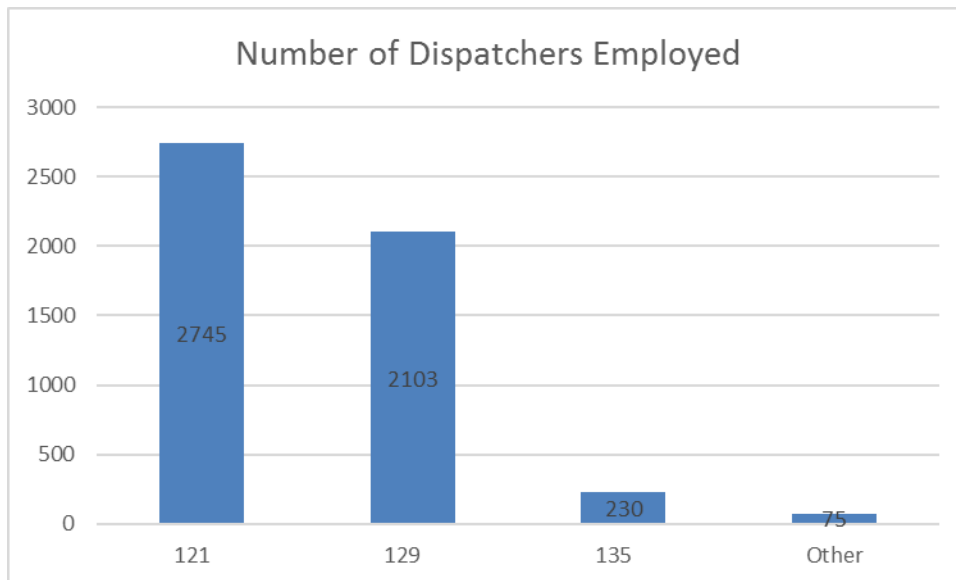


Figure 1. Number of aircraft dispatchers employed by the leading three employers.

The remainder of the certificated aircraft dispatchers employed are depicted in Figures 2 and 3 below. For purposes of specificity, these sums are wholly disaggregated as follows; FAR Part 137 (8 dispatchers), FAR Part 135 (230 dispatchers), FAR Parts 135 and 121 (32 dispatchers), FAR Part 133 (6 dispatchers), FAR Part 129 (2,103 dispatchers), FAR Part 125 (12

¹The eight certificates comprise a joint Part 121/135 certificate and the following certificates:
Part 91 (General Aviation Operations) – GENERAL OPERATING AND FLIGHT RULES
Part 121 (Air Carrier Operations) – OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS
Part 125 (Air Carrier Operations) – AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE; AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT
Part 129 (Foreign Air Carrier Operations) – FOREIGN AIR CARRIERS AND FOREIGN OPERATORS OF U.S.-REGISTERED AIRCRAFT ENGAGED IN COMMON CARRIAGE
Part 133 (Rotorcraft Load Operations) – Part 133 - ROTORCRAFT EXTERNAL-LOAD OPERATIONS
Part 135 (Air Taxi and Commuter Operations) – COMMUTER AND ON DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT
Part 137 (Agricultural Operations) – AGRICULTURAL AIRCRAFT OPERATIONS

dispatchers), FAR Part 121 (2,745 dispatchers), and FAR Part 91 (17 dispatchers), as well as 75 dispatchers employed by “Other,” for a total of 5,228 dispatchers.

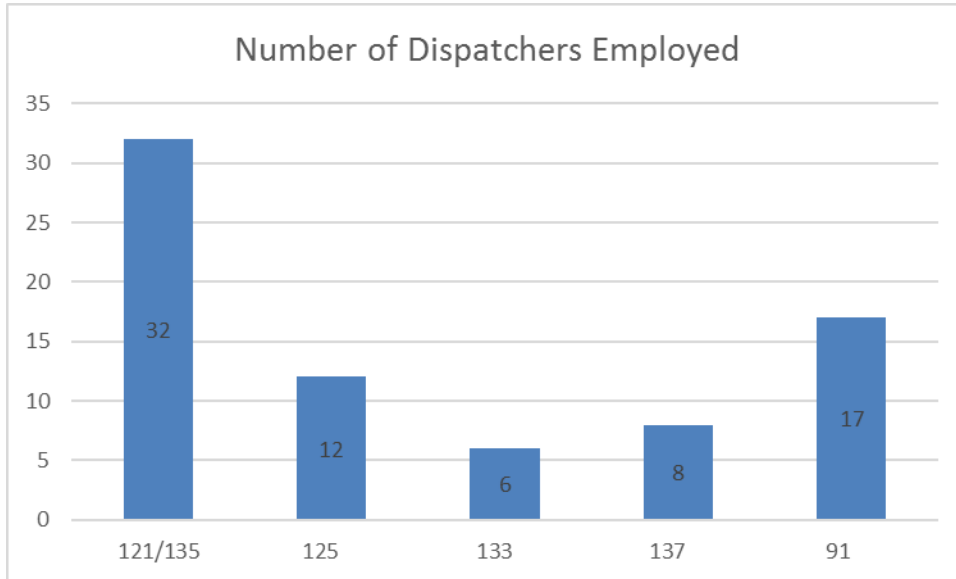


Figure 2. Number of dispatchers employed by the trailing five employers.

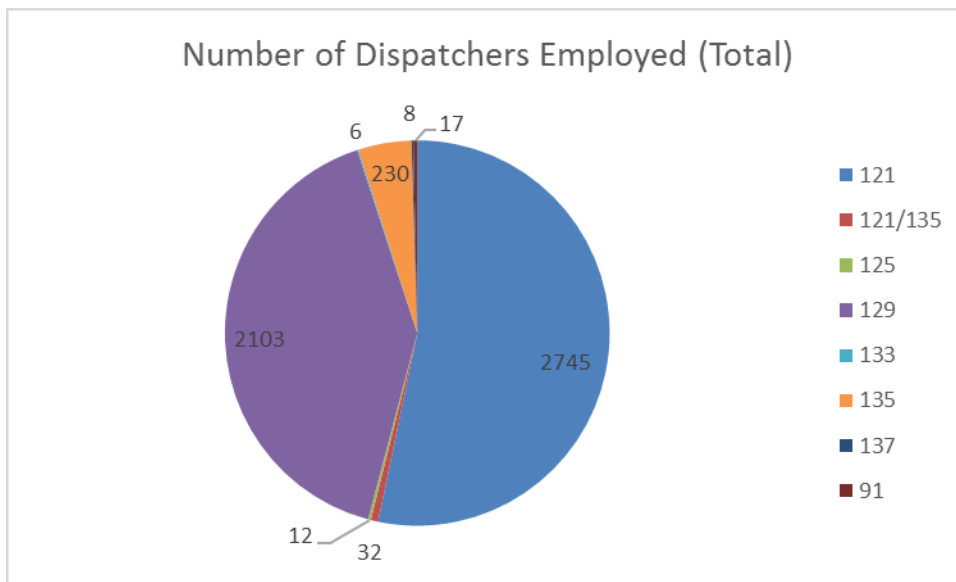


Figure 3. Number of total dispatchers employed.

Against the background of the preceding listings of certificated aircraft dispatchers employed between 2011 and 2017, is the informative set of statistics about the numbers of aircraft dispatcher certificates processed by the FAA during the same period. The annual number of aircraft dispatcher certificates processed between 2011 and 2017 are depicted in Figure 4, culminating in a total of 10,667 certificates.

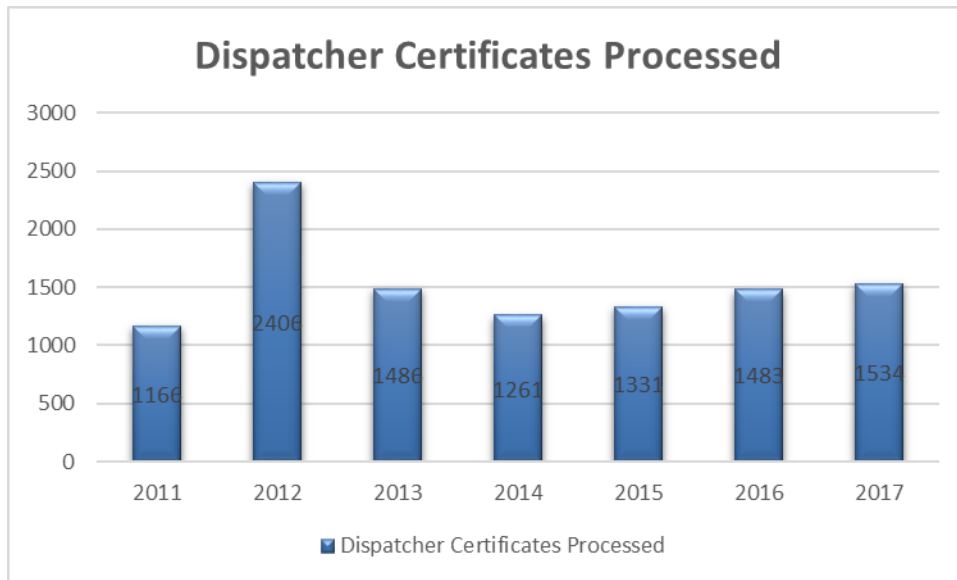


Figure 4. Dispatcher certificates processed by the FAA in 2011-2017.

Next Steps

A census of certificated aircraft dispatchers from 2011-2017 revealed 5,153 dispatchers were employed in the eight different certificate categories; interestingly, more than double that sum of aircraft dispatcher certificates ($n = 10,667$) were processed by the FAA during the same timeframe of 2011-2017. This suggests a finding that the field currently has an adequate supply of certificated aircraft dispatchers.

The past seven years cannot necessarily be expected to represent future demand for certificated aircraft dispatchers. It will be necessary to survey the leading employers of certificated aircraft dispatchers--namely, FAR Parts 121 and 129 operators--to determine their expected needs over the next five to seven years, and compare that with the projected supply over the same timeframe.

The next steps of this research effort shall therefore comprise conducting a needs assessment of the demand for aircraft dispatchers by FAR Parts 121 and 129 operators over the next five to seven years using a survey instrument. The list of FAR Part 121 operators, which has already been secured from the FAA, shows 168 certificate holders. It will be necessary to secure extramural funding to support survey dissemination and synthesis of the findings.

The successful acquisition of extramural research funding will also support an intensive effort to improve the response rate of the earlier survey of FAR Part 65 schools--beyond six out of the 54 schools surveyed. In the absence of further research, it may suffice to conclude that a review of the number of aircraft dispatchers employed and the number produced during the 2011-2017 timeframe, indicated there was no shortage of dispatchers in 2011-2017.

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