



# RISE ABOVE



ENGINEERING | TECHNOLOGY | MANAGEMENT | AVIATION

**VaughnCollege**  
of aeronautics and technology

# Today's Discussion Topics

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- Overview – Vaughn College of Aeronautics and Technology
- Programs
- Aviation Industry Projections
- Student and Alumni Experience
- Faculty and Industry Advisors' Perspectives
- Career Services



# Return on Investment (ROI)



TOP  
COLLEGE FOR  
SOCIAL MOBILITY



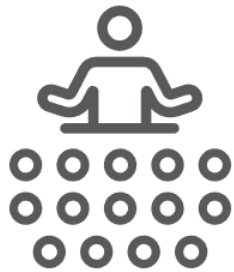
TOP  
REGIONAL COLLEGE  
IN THE NORTH



1 OF ONLY 4  
ABET-APPROVED  
MECHATRONIC  
ENGINEERING  
PROGRAMS IN THE US



95% OF VAUGHN GRADS  
78% in their field—are employed or  
continue their education within  
one year\*



STUDENT/FACULTY RATIO:  
14 STUDENTS  
1 FACULTY



OF STUDENTS RECEIVE  
FINANCIAL AID



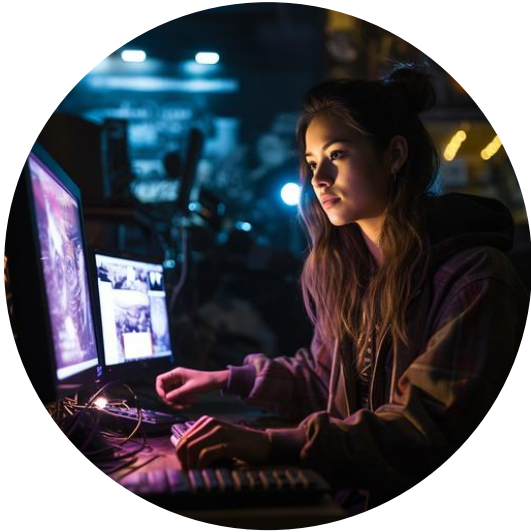
RANKED #1  
IN UPWARD  
MOBILITY  
NATIONWIDE†



Not employed within one year? Vaughn  
will Reimburse a year's worth of federal  
Direct student loan payments. ††



# AREAS OF STUDY



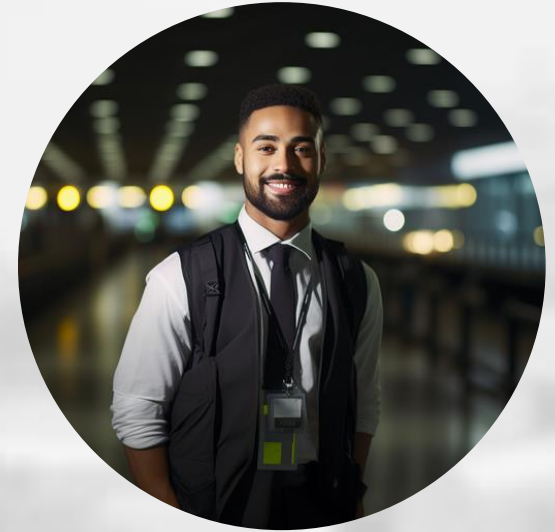
**Engineering  
and Technology**



**Aviation  
Training  
Institute**



**Aviation**



**Management**

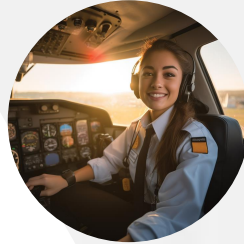


# AREAS OF STUDY



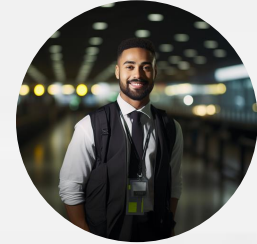
## Engineering and Technology

Computer Engineering  
Mechanical Engineering  
Electrical Engineering  
Mechatronic Engineering  
Computer Science  
Mechanical Engineering Technology  
(Aeronautical/CAD options)  
Electronic Engineering Technology  
(Avionics/General Electronics options)  
Animation and Digital Technologies  
Additive and Subtractive Manufacturing  
\*Uncrewed Aerial Systems



## Aviation

Aircraft Operations (flight)  
Aeronautical Sciences  
Airframe and Powerplant Technology  
Aviation Maintenance  
Aviation Maintenance Management  
Air Traffic Control



## Management

Graduate MS Airport Management Graduate  
MBA Aviation Management  
General Management  
Airport Management  
Airline Management  
Safety Management Systems  
Supply Chain Management  
\*Uncrewed Aerial Systems  
Airport Management  
Airline Management



<https://www.youtube.com/watch?v=auuTfmw7YHw>





### Leadership Session



**Jason Becker**  
Mechatronics Engineer  
Brookhaven National Lab

Production of Superconducting Magnets by Robotic Machinery



**Peter Kalaitzidis**  
Robotics Program Manager  
New York Power Authority

Robotics in an Engineering Environment



**Misael Marquez**  
Mechatronics Engineer  
ArcBest Technologies

Accounting for Flexibility in Automation Design



**Spencer Loveless**  
CEO/Owner of Dustless Technologies

Large Scale Mass Production Additive Manufacturing



## Vaughn College

### Engineering & Technology Department 10<sup>th</sup> Annual Manufacturing Day Conference

**October 25, 2024**  
**10:00 am-2:00 pm**

**10:00 am—2:00 pm**  
**Technology & Manufacturing Leadership Session**

**10 am—2 pm**  
**STEM workshop Session on**  
**1) Robotics design, Autonomous programming, 2) Build a drone, 3) Rover design and Manufacturing**



## Vaughn College Journal of Engineering and Technology May 2023



**SUCCESS**



**"One Important key to success is self-confidence.  
An Important key to self-confidence is preparation" – Arthur Ashe**

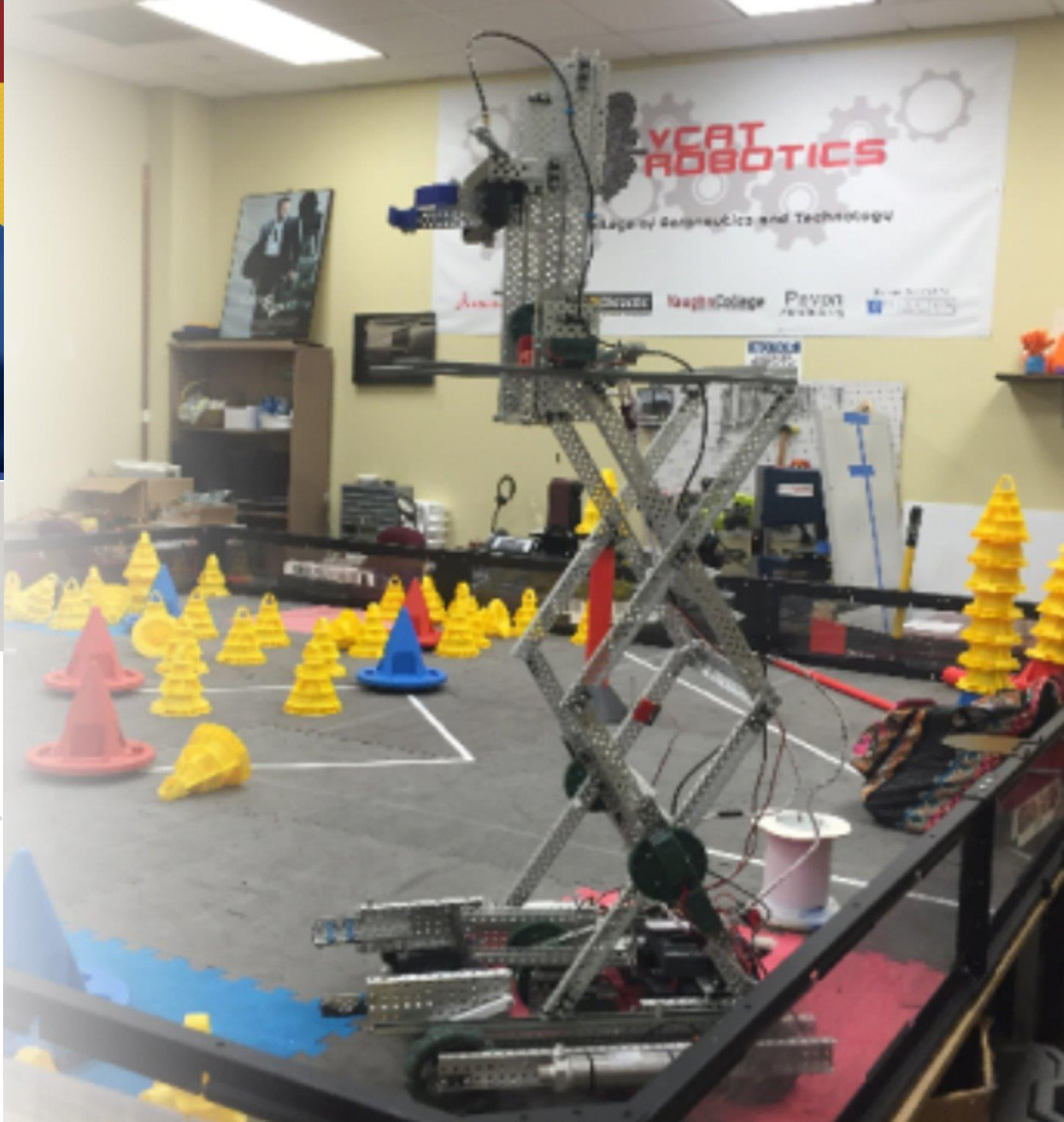




6<sup>th</sup> Annual Micro Air Vehicle  
Student Challenge

FORUM<sup>74</sup>

*PACKAGE DELIVERY IN THE WILD WEST*  
MAY 14, 2018 4-6PM @ THE PHOENIX CONVENTION CENTER





# Flight

## Air Traffic-Collegiate Training Initiative (AT-CTI)

### Maintenance Management

Professional pilot training available in three degrees

Courses include Flight and ATC simulator labs

AT-CTI program is available within eleven degrees at Vaughn College, including Management, Aviation, Avionics

FAA gives hiring preferences to AT-CTI graduates and exemptions from some FAA training

Airframe and Powerplant (A&P) Certificate included in three degrees





# Business, Airport and Airline Management

## Airline Management

Prepares students for employment in administrative and managerial positions with **passenger and cargo** airlines

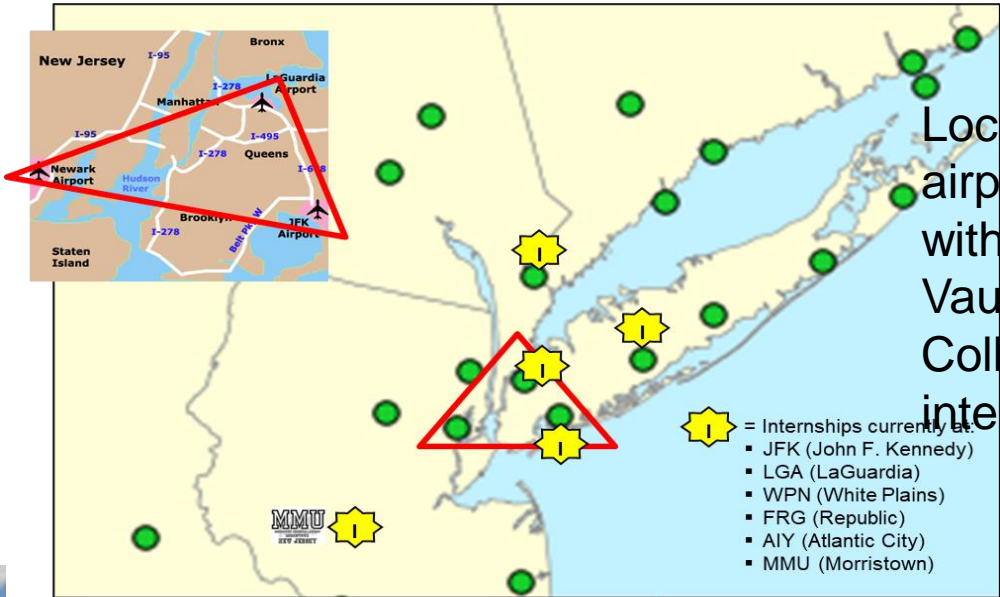


Applications to a Broad Spectrum of Management Careers!



## Airport Management

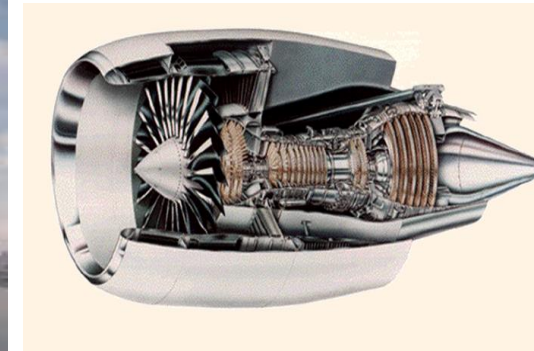
Entry to mid-level careers





# Aviation & Related Industries

- Fast-growing Industry Sectors
- Government and Regulatory Organizations  
e.g., TSA; FDA; US Customs; Fish & Wildlife
- NGO's, industry professional organizations
- Research and Academia



## ICAO SMS MODEL



## THE MANAGEMENT DEPARTMENT PRESENTS: INDUSTRY INSIGHTS SPEAKER SERIES

AT VAUGHN COLLEGE  
SPONSORED BY:



THE NEW  
TERMINAL  
ONE | JFK

MARISA VON  
WIELDING  
Director  
New Terminal One

LYSA SCULLY  
Chief Executive Officer  
LL Aviation Advisers, LLC



PALMINA WHELAN  
Founder  
Strategic Solutions



KIM HARDY  
McKissack  
JFK Terminal 1



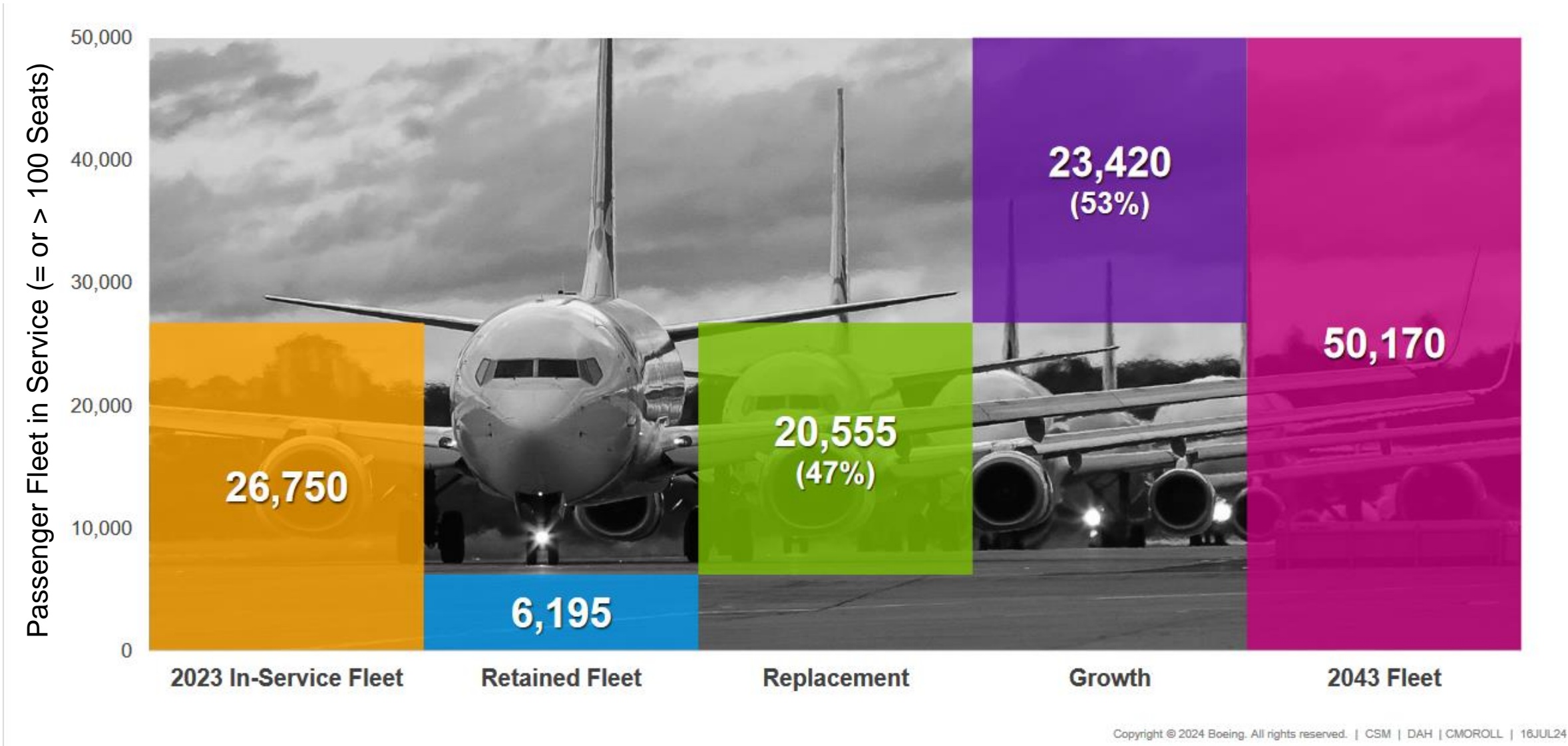
DOUG LOMBARD  
Manager  
American Airlines



LYSA SCULLY  
Chief Executive Officer  
LL Aviation Advisers, LLC



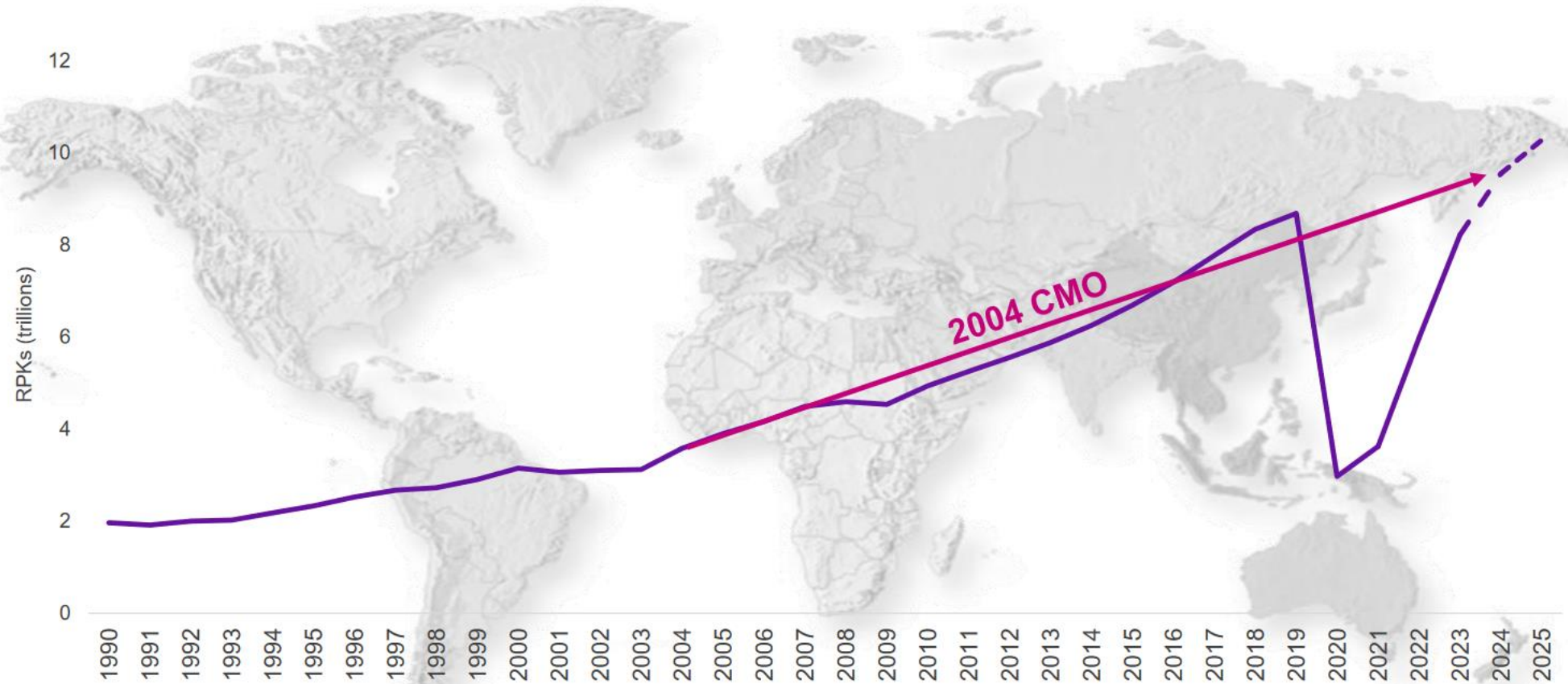
# Aviation Industry Projections: Demand for more than **44,000** new passenger aircraft over the next 20 years (i.e., **almost double!**).





# Aviation Industry Projections: *More planes are required because more people are flying and ...*

Believe it or not, traffic is where it was projected



RPKs = Revenue Passenger Kilometers  
SOURCES: S&P Global Market Intelligence, Boeing Analysis



# Aviation Industry Projections: ... *those who have been flying will be doing more of it!*



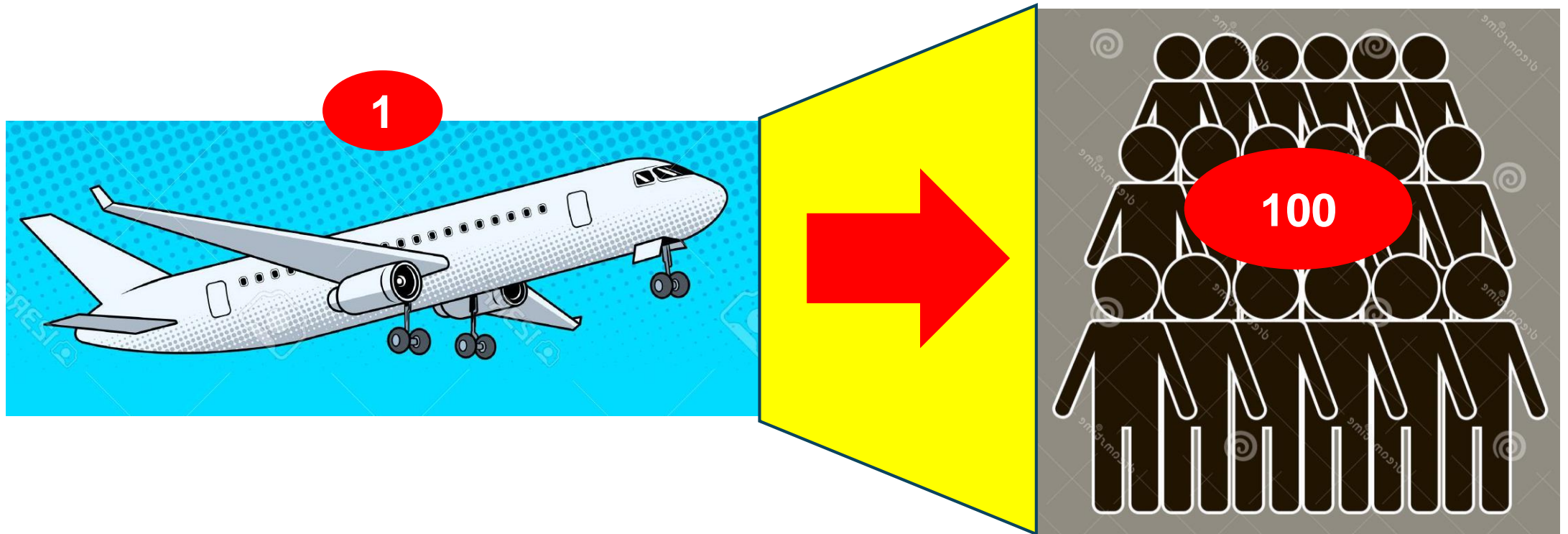
84% will  
**prioritize**  
travel in their budget

66% will travel  
**more**  
than pre-pandemic

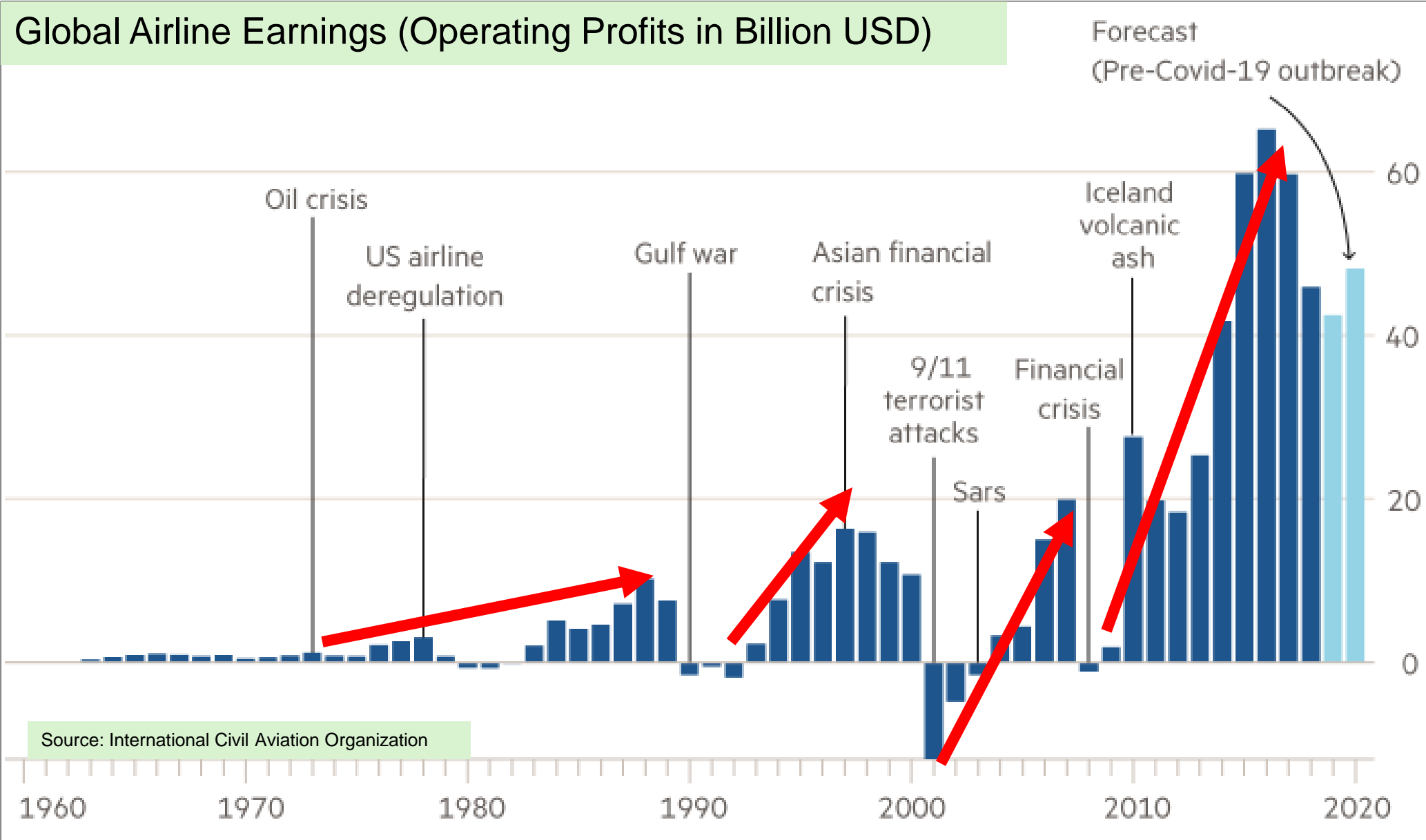
Trip lengths will be 1 day  
**longer**  
than before 2020

# Each New Active Commercial Aircraft Generates 100 New Jobs!!

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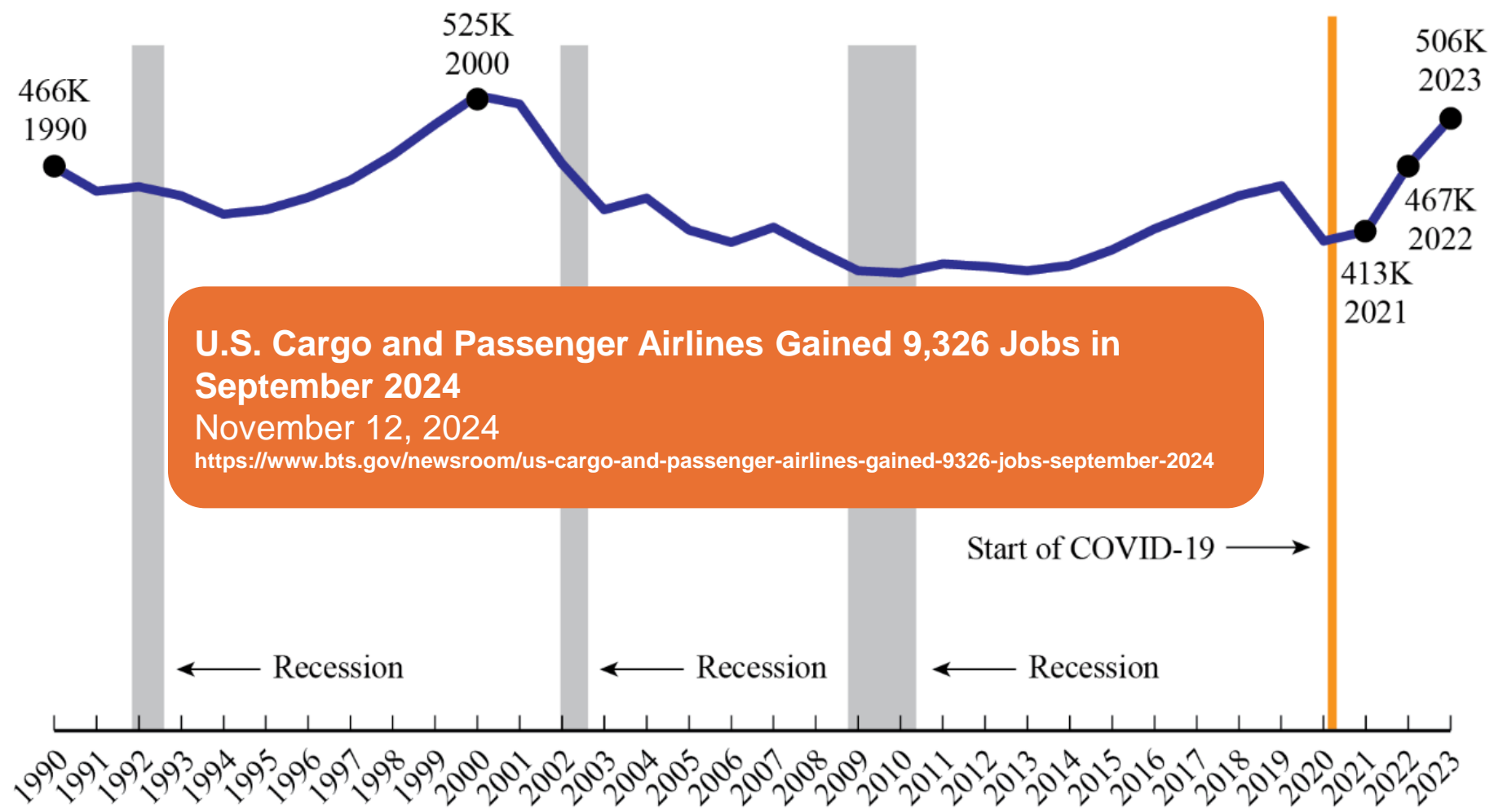
# Optimistic Expectations!!: Rapid Historical Recoveries after Major Economic Shocks





# Optimistic Expectations!!: Supported by Current Trends

Employees at U.S. Scheduled Passenger Airlines  
in Month of September, 1990 – 2023 (Full-Time Equivalents)



# Student Experience at Vaughn

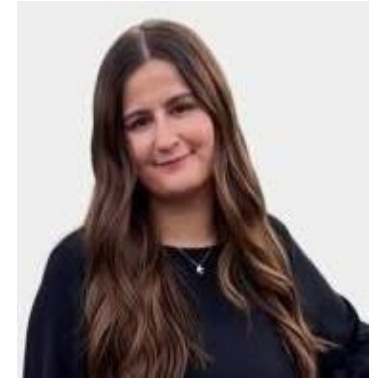
## Elvira Peresyvalov

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AMERICAN ASSOCIATION  
OF AIRPORT EXECUTIVES

AAAE Student Chapter



The American Association of Airport Executives (AAAE) is the largest professional organization for individuals working in airport management and operations.

AAAE is centered around community and industry connections to last a lifetime

### CLUB ADVISORS:

DR. WILLIAM FARRELL  
OTHA WARD

DEPT. CHAIR:  
MAXINE LUBNER

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# Clubs and Activities

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- American Association of Airport Executives, Inc. (AAAE)
- Alpha Phi Delta University
- Caribbean Student Association
- Circle K
- Engineers without Borders
- Society of Hispanic Professional Engineers
- Institute of Electrical and Electronics Engineers (IEEE)
- Music Club
- Maintenance Club
- Robotics Club
- Rover (NASA) Club



- Society of Women Engineers
- Student Government Association
- Unmanned Aerial Vehicle (UAV) Club
- Women in Aviation International (WIA)
- Vaughn Air Traffic Control Organization
- Vaughn Flight Crew
- Vaughn Veterans Organization





# AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

Belong to a strong, collaborative network of airport professionals who understand the challenges you are facing.

## What do you gain as a member?

- ✓ Exposure: Airport tours
- ✓ Connections with people in the industry
- ✓ Access to exclusive scholarships
- ✓ Eligibility for professional development opportunities such as training and certifications.
- ✓ Access to the AAAE Career Center browse and post job opportunities.

JOIN NOW



 [www.aaae.org](http://www.aaae.org)

**VaughnCollege**



AMERICAN ASSOCIATION  
OF AIRPORT EXECUTIVES



Meet leaders,  
Become leaders







WELCOME TO THE CLUB  
EVENT

With Guest Speaker  
**Brandon Hiers, PE, ENV SP**  
Garver Aviation Design Center Leader

Come to learn more about what it is like to work for Garver Aviation.  
For more than six decades Garver has been designing runways and hangar  
facilities, rehabilitating taxiways, updating lighting systems with the most advanced  
technologies, and bringing to life the most welcoming terminal facilities.

11am Tuesday November 7th, 2023  
Room E203

## Guest Speaker







## JFK Rotary Club Volunteering







# Lufthansa

## EMPLOYER ENGAGEMENT DAY

### FEB 29, 2024

11AM | VAUGHN COLLEGE MAIN  
CAMPUS



Join representatives from Lufthansa, current Vaughn students and trainees as they share their experience as well as employment opportunities with this international airline.

MEET THE CURRENT  
LUFTHANSA TRAINEES  
TO LEARN MORE!

CAREER.SERVICES@VAUGHN.EDU

## Employer Engagement Day





## **Focuses:**

- Recruitment
- Educating on the value of AAAE involvement
- Coordinating with industry leaders
- Collaborating with other AAAE Student Chapters













**LaGuardia Tour**





# Baggage Handling System (BHS) Tour



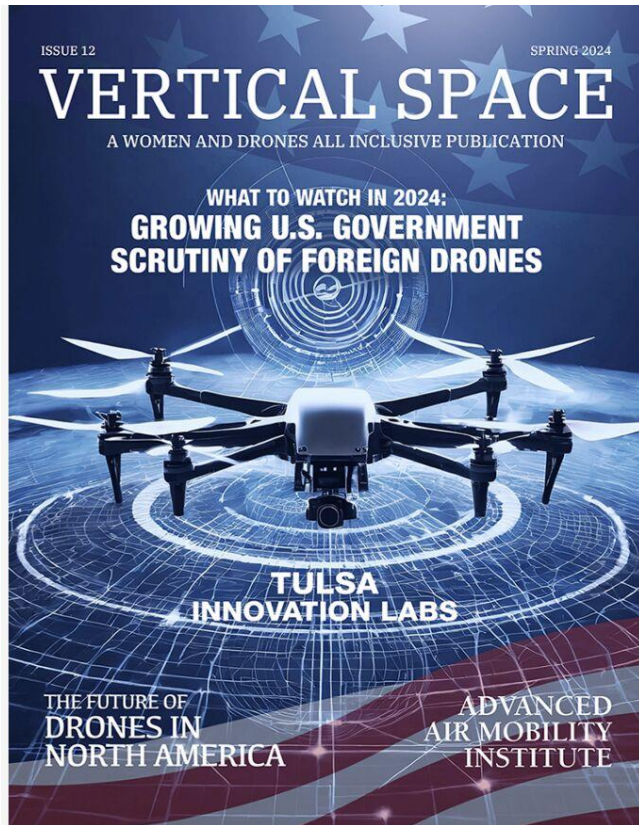


# AAAE 96TH ANNUAL CONFERENCE

**2.5k Aviation professionals**  
in attendance



**250+ Airports**  
in attendance



Loretta Alkalay, Esq.

Aviation Attorney  
Regulatory Consultant  
Vaughn Adjunct Faculty Member  
Vaughn Industry Advisory Council  
Member





# Otha Ward

Born & Raised:

- New York, New York USA

Interests:

- Swimming, Bike Riding, Basketball

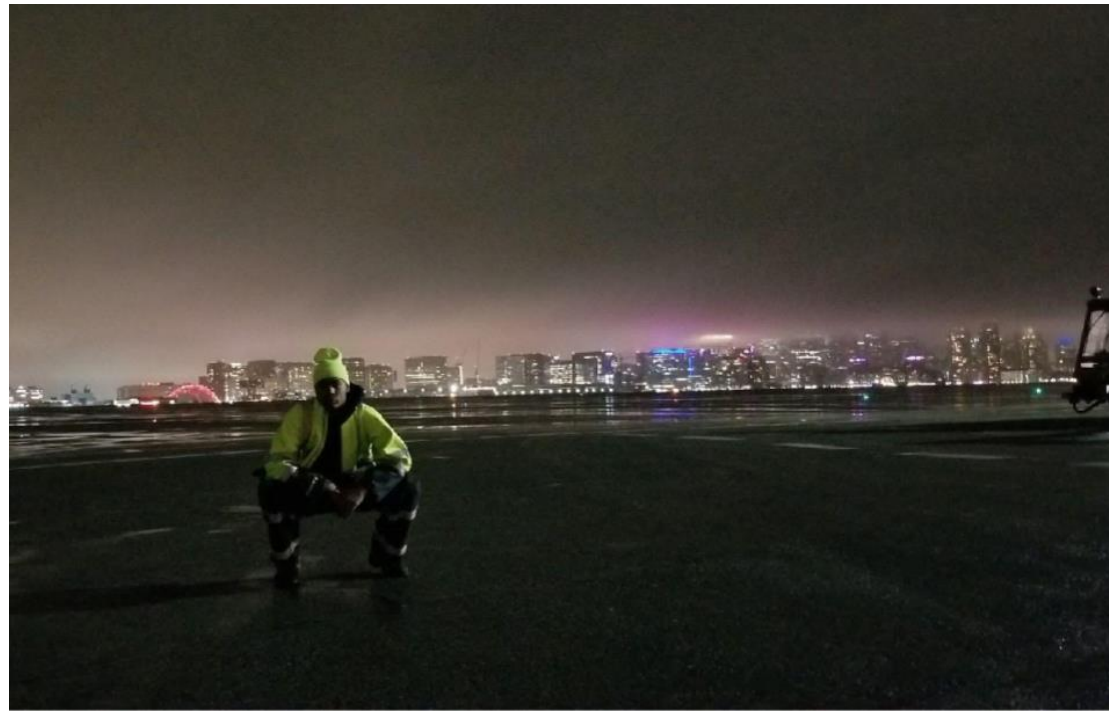
Fun Fact:

- I'm a very curious person, I love to ask WHY... I LOVE TO LEARN NEW THINGS

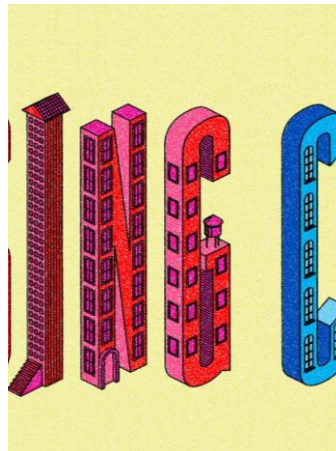
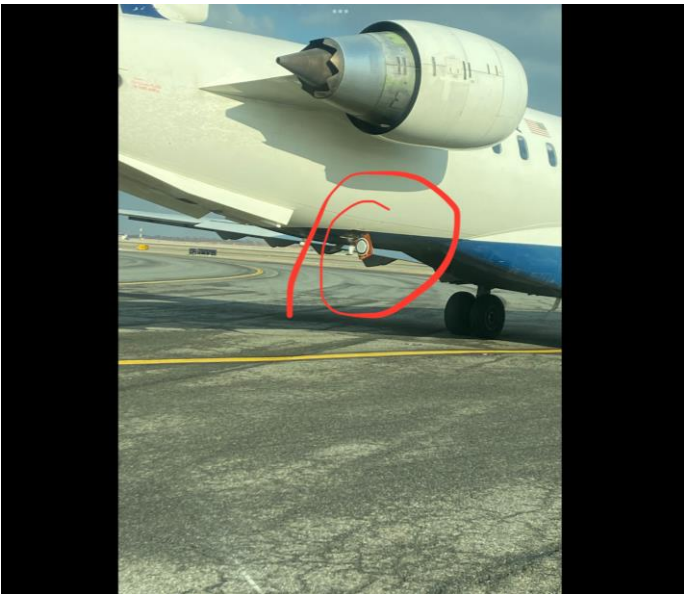


# College Years

- AAAE
- ALASKA Airlines
- IDS DE-ICING
- JFK Airside Internship
  - 2 Million Dollar Clothing Contract, Earned the Port Authority over 200,000 in Parking Lot Fee's Revenue
- Women & Aviation
- Youth Basketball Coach



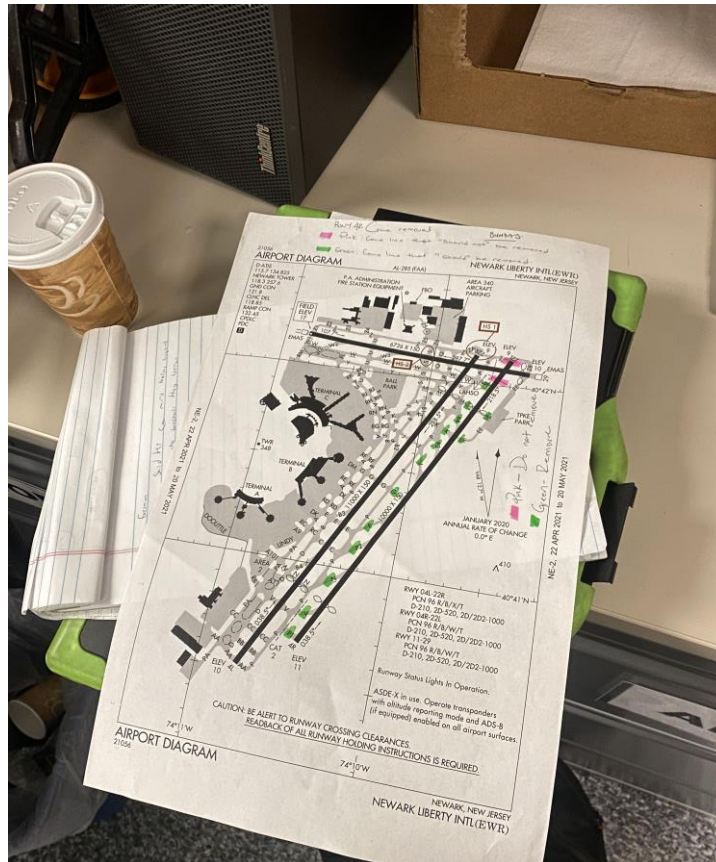




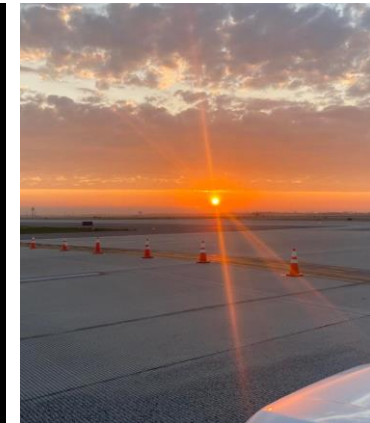
## Early Career

- Masters in Public Administration at Fairleigh Dickinson University With a focus in Global Transportation
  - Thesis: Housing Affordability Crisis in America but Specifically in New York
- Vaughn College President's Advisory Board
- Airport Operations Agent
  - Wildlife, Construction, Plane movements, SNOW OPS

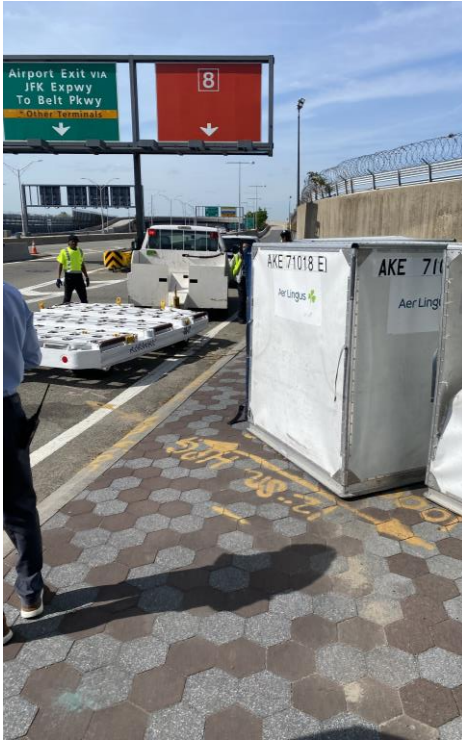
# Supervisor



- Wildlife Supervisor (Where my love for Sunrises Started)(2020-2022)
- Airport Operations Center Supervisor (2020-2022)
- Construction Supervisor at Newark (EWR) (March 2021-October 2021) for Runway 4R/22L Rehabilitation
- Adjunct Professor, Vaughn College (Fall 2023 to present)







# LANDSIDE Supervisor

Transportation Supervisor (ABM Contract) (74)

Building supervisor (76)

2<sup>nd</sup> Building Supervisor (ABM Contract)(76A)

Security Supervisor (Inter-Con Contract)(78)



## Contract Management

- Contract Administrator for ABM Taxi Dispatch at JFK
- Contract Administrator for Towing contract at JFK
- Contract Administrator for Land side operations Fueling Service
- Contract Administrator for ITS FIDS System





## ✈️ JFK 101

John F. Kennedy International Airport **opened in 1948** as New York International Airport but was commonly known as Idlewild Airport.

- » The number of passengers by years:
  - 1961 – 10 million**
  - 2018 – 60 million**
  - 2024 – 63 million**
  - 2030 – 75 million projected**
- » Directly employs **37,000 workers**
- » Generates more than **\$16 billion in wages** and nearly 300,000 jobs across the region
- » **4 runways**
- » **4,930 acres**

## TRANSFORMING JFK INTO A MODERN 21<sup>ST</sup> CENTURY AIRPORT

John F. Kennedy International Airport (JFK) is one of the busiest airports in the nation and is an indispensable part of global travel and the region's economy. The airport handles nearly 62 million passengers a year, supports 280,000 jobs, and generates more than \$51 billion in sales and \$17.1 billion in wages. It is an essential component of the world's air transportation system and a regional economic driver.

### THE NEW JFK

- » Unified **terminal layout**
- » World-class **amenities**
- » Redesigned on-airport **traffic pattern**
- » Centralized **ground transportation** options
- » Expanded **taxiways and gate capacity**
- » State-of-the-art **security**
- » First new airport facilities **opened in 2022**

JFK Redevelopment  
\$19 billion dollar public/private redevelopment program

### JFK REDEVELOPMENT PROGRAM



**9,600**  
Direct Jobs and  
**15,000+**  
Total Jobs



**\$19BIL**  
INVESTMENT  
With \$3.9 Billion in  
PA Capital Plan  
and \$15+ Billion in  
Private Funding



**30%**  
M/WBE GOALS  
Across All Program  
Elements



ENGAGEMENT OF  
LOCAL BUSINESSES  
JOB TRAINING AND  
CERTIFICATION  
For Local Residents



INVESTING  
IN EDUCATION



REDEVELOPMENT  
IN AN  
ENVIRONMENTALLY  
RESPONSIBLE  
MANNER

[Learn more about Job and Contract Opportunities](#)

# What's Next?

- Professor Ward
- Learning from Others around me  
(All great leaders I work with I realized know how to manage the energy of their team and are emotionally intelligent)(Studying the greats)
- Always Having a ROOM FOR IMPROVEMENT MINDSET
- Continuing to grow and do things I love





# Cool Planes!





**95% OF VAUGHN GRADS**

78% in their field—are employed or  
continue their education within one year\*



## CAREER SERVICES

- Career Development 101 course📖
- Internship Preparation and Support
- Professional Development Workshops
- Site Visits🚌🏢
- Employer Engagement Days
- Networking Opportunities🗨️
- Career Fairs🗨️👤
- Dress for Success Fashion Show👗
- Support both students and alumni



# EMPLOYER PARTNERS



ENGINEERING

TECHNOLOGY

MANAGEMENT

AVIATION



IT'S YOUR FUTURE.  
**LET'S MAKE IT WORK.**

ENGINEERING | TECHNOLOGY | MANAGEMENT | AVIATION

**VaughnCollege**  
of aeronautics and technology