

Massachusetts Statewide Airport Economic Impact Study Update

MASSDOT AERONAUTICS DIVISION
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MASSACHUSETTS



Overview

- Massachusetts airports support approximately 199,200 jobs and \$24.7 billion in output
- Employment and output have grown 23 percent and 49 percent, respectively, since the 2014 study
- Aviation helps to facilitate intrastate, national, and international travel and commerce
- Aviation is a critical catalyst for local and regional economies
- By investing in Massachusetts' airports, the significant economic contributions identified in this study will continue to expand



Study Approach

- Quantified the economic contribution of 39 public-use airports
- 10-month study, began April 2018
- Used FAA-approved methodology
- Included extensive survey effort
- Conducted targeted analyses
 - Airport stories
 - Tax impacts
 - Case studies
 - Unmanned Aircraft Systems (UAS)
 - Airport-business synergies



Overall Importance of Aviation in Massachusetts

- Helps to sustain, lead, and diversify the Commonwealth's economy
- Contributes to the quality of life for Massachusetts' businesses, residents, and visitors
- Provides connectivity to worldwide markets and destinations
- Supports the Commonwealth's rapidly expanding business community and world-renowned tourist destinations



Massachusetts Study Airports



Total Massachusetts Economic Impacts



199,237 Jobs
EMPLOYMENT



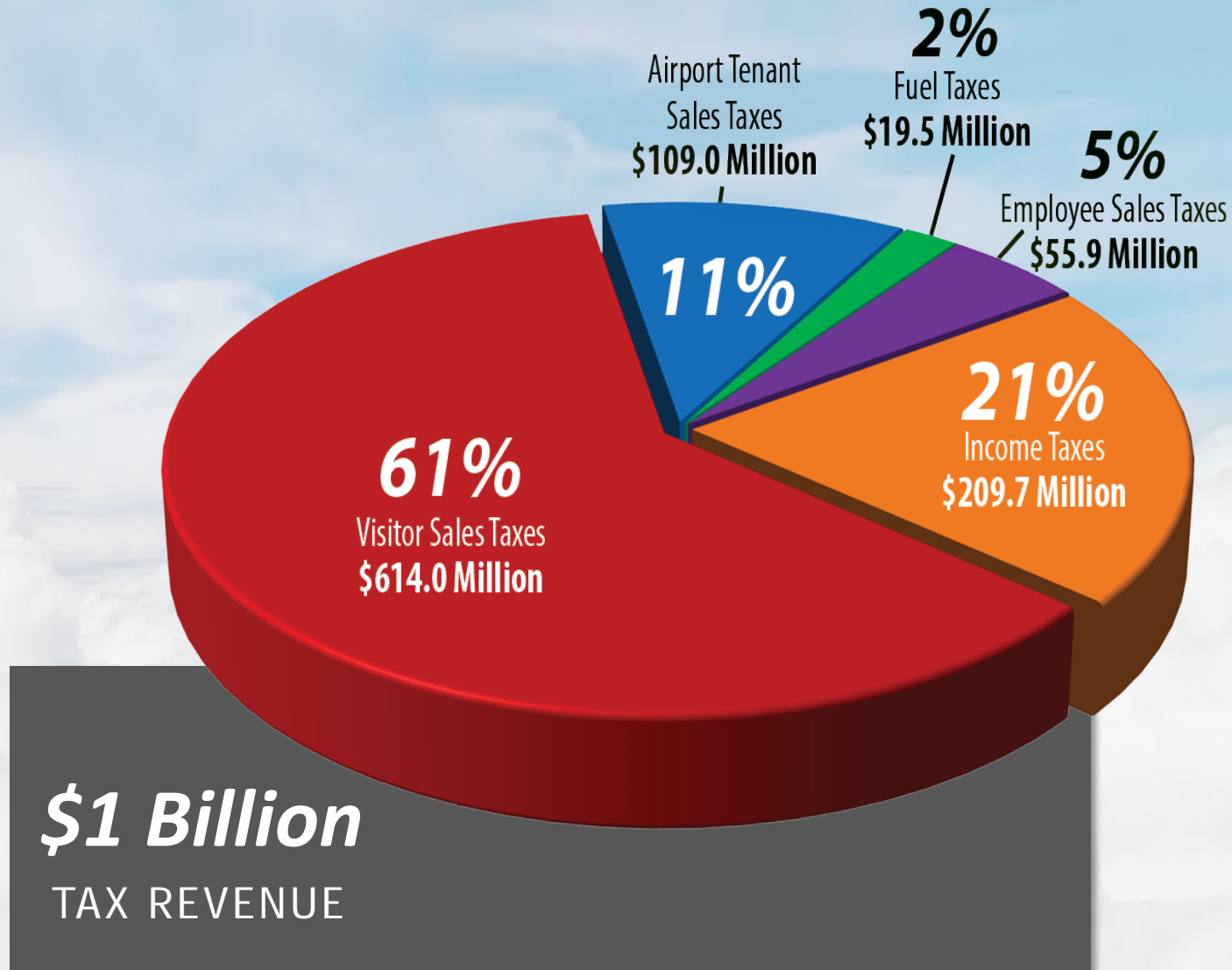
\$7.2 Billion
PAYROLL



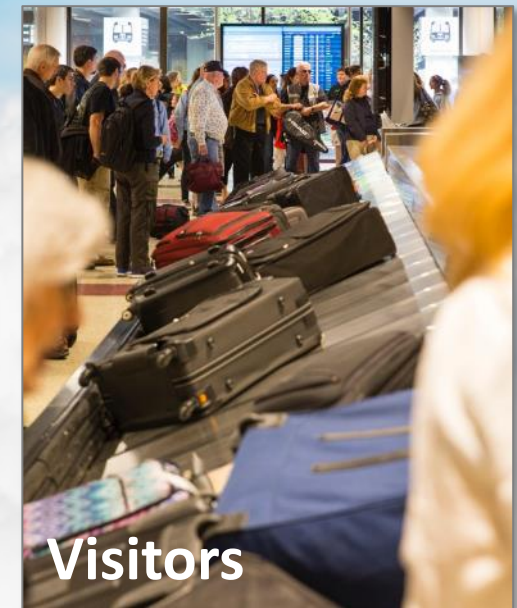
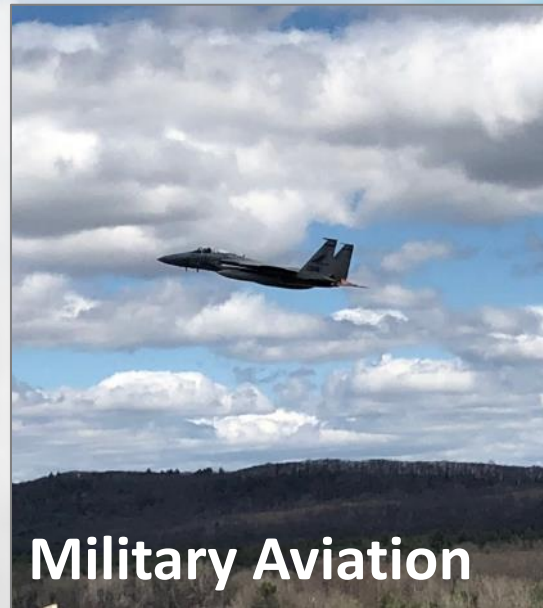
\$24.7 Billion
ECONOMIC OUTPUT



Tax Impact of Public-Use Airports in MA



Categories of Economic Impact



ECONOMIC IMPACT MODEL

● + ● = Total Impacts

Multiplier Impacts

Direct Impacts

Capital Improvements

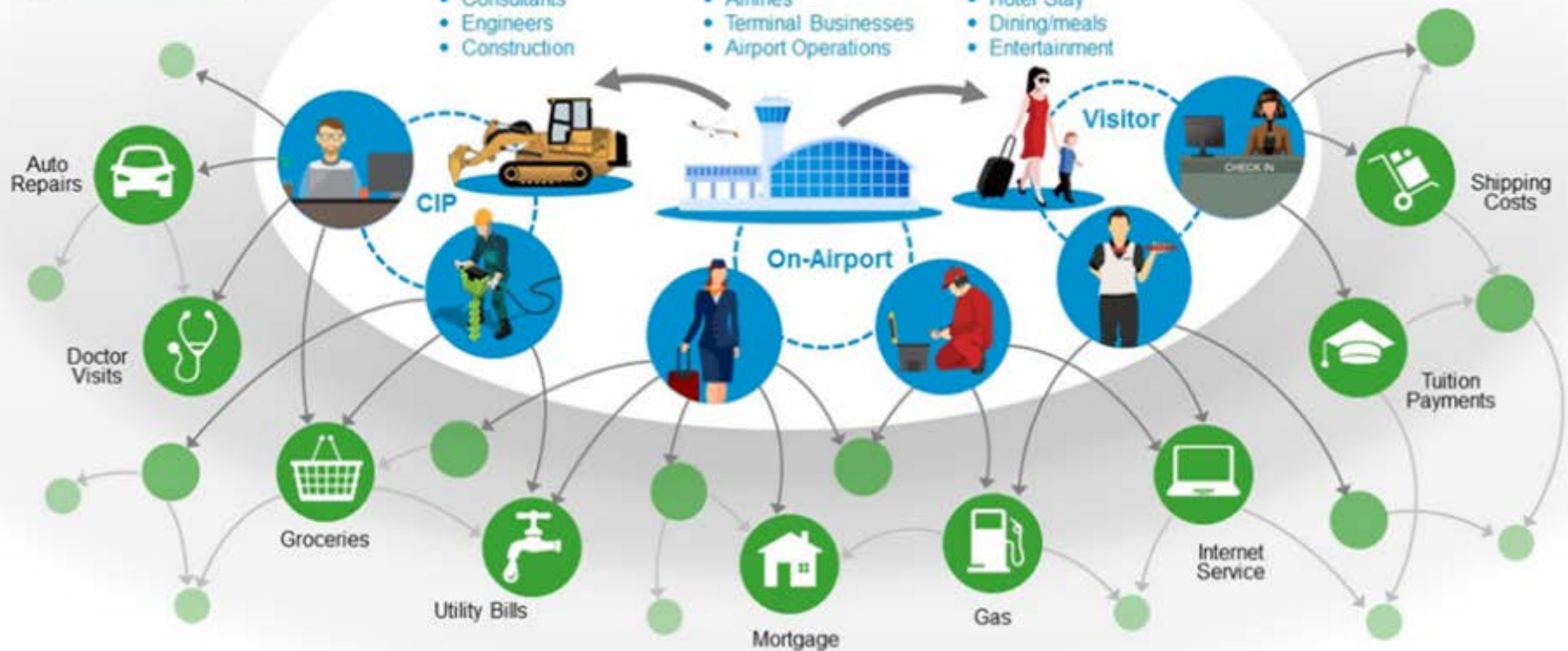
- Consultants
- Engineers
- Construction

On-Airport Impacts

- Airlines
- Terminal Businesses
- Airport Operations

Visitor Impacts

- Hotel Stay
- Dining/meals
- Entertainment



Commercial Service Visitor Impacts Example

Martha's Vineyard Airport (MVY)

70% of enplanements were visitors in 2017

49,767 enplanements X 70% visitors = 34,840 annual visitors

34,840 annual visitors X \$1,240/visitor/trip = \$43.2 million in annual expenditures

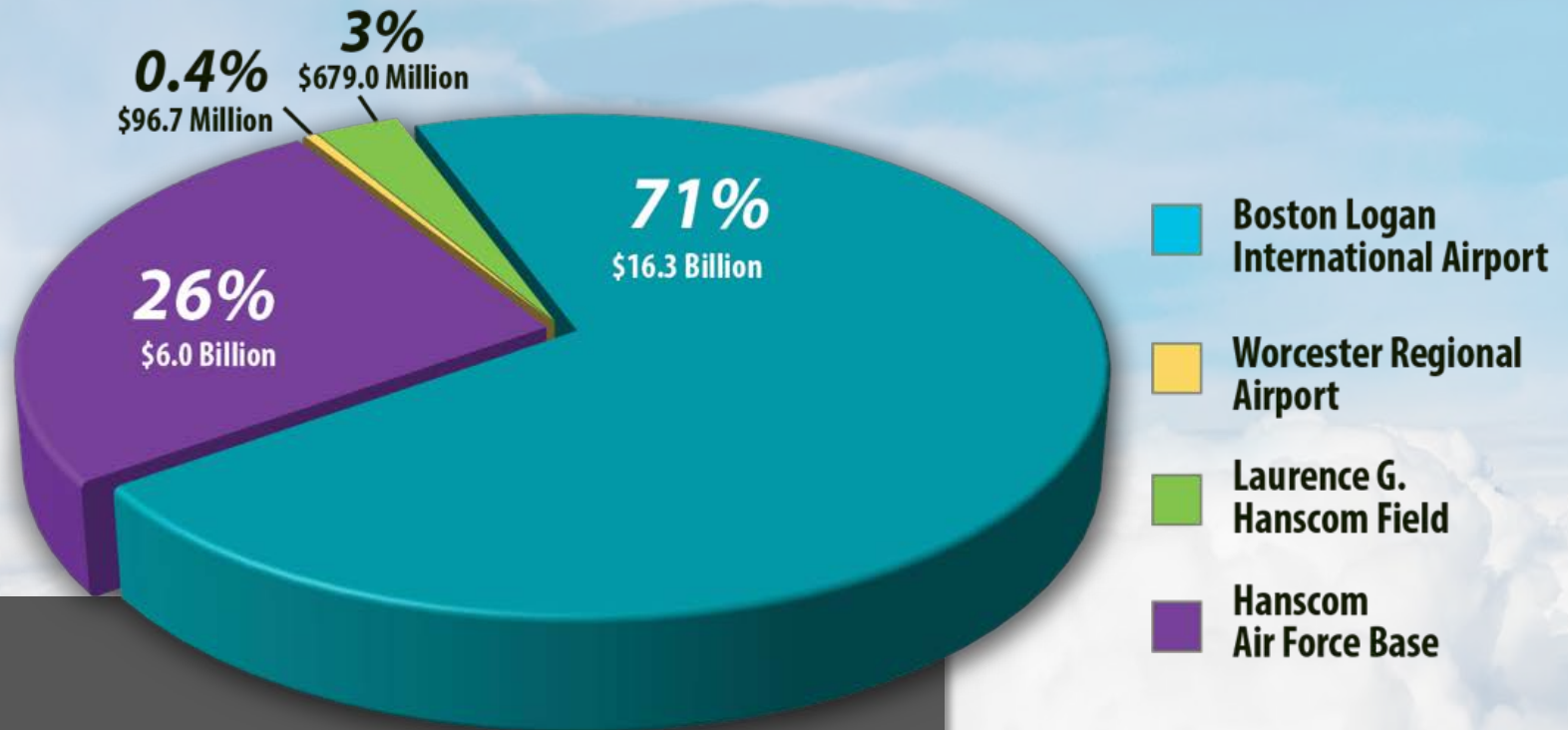
Boston Logan International Airport

Total Economic Impacts

	2013	2017	Percent Growth
Total Employment	131,991	162,266	23%
Total Payroll	\$4.3 Billion	\$6.0 Billion	39%
Total Output	\$13.4 Billion	\$16.3 Billion	22%



Economic Impact of Massport Airports



\$23.1 Billion

TOTAL ECONOMIC IMPACT

Total Statewide Economic Impacts

Airports	Total Employment	Total Payroll	Total Output
MassDOT-Supported Airports	16,797	\$711,142,000	\$1,561,351,000
Massport Airports	182,440	\$6,532,027,000	\$23,131,234,000
All Airports Total	199,237	\$7,243,169,000	\$24,692,585,000

Note: Total impacts include on-airport, military, visitor-related, capital improvement projects, and all associated multiplier impacts



Total Statewide Economic Impacts

Comparison of 2019 and 2014 Studies

2019 Study			
Airports	Total Employment	Total Payroll	Total Output
MassDOT-Supported Airports	16,797	\$711.1 Million	\$1.6 Billion
Massport Airports	182,440	\$6.5 Billion	\$23.1 Billion
All Airports Total	199,237	\$7.2 Billion	\$24.7 Billion
2014 Study			
Airports	Total Employment	Total Payroll	Total Output
MassDOT-Supported Airports	17,552	\$626.3 Million	\$1.5 Billion
Massport Airports	144,704	\$5.5 Billion	\$15.0 Billion
All Airports Total	162,256	\$6.1 Billion	\$16.5 Billion
All Airports Total - Percent Growth	23%	19%	49%

Airport Stories

- Westfield-Barnes – Public Private Partnerships Stimulate Workforce Development:
 - Recognizing workforce development challenges, the City of Westfield and Westfield Technical Academy (WTA) set out to establish an FAA-approved Aircraft Maintenance Technician (AMT) Program for high school students.
 - WTA achieved the rigorous FAA Part-147 AMT certification (which stands as one of only three high schools in the country) offering the curriculum) with the aid of Gulfstream and Bombardier.
 - AMT students who pass their FAA exams can begin their careers upon graduation as highly skilled aircraft mechanics or apply those skills to continuing education. The first AMT class is set to graduate in June 2019.



BOMBARDIER
the evolution of mobility

Case Study

Unmanned Aircraft Systems (UAS)

UAS Regulatory Environment

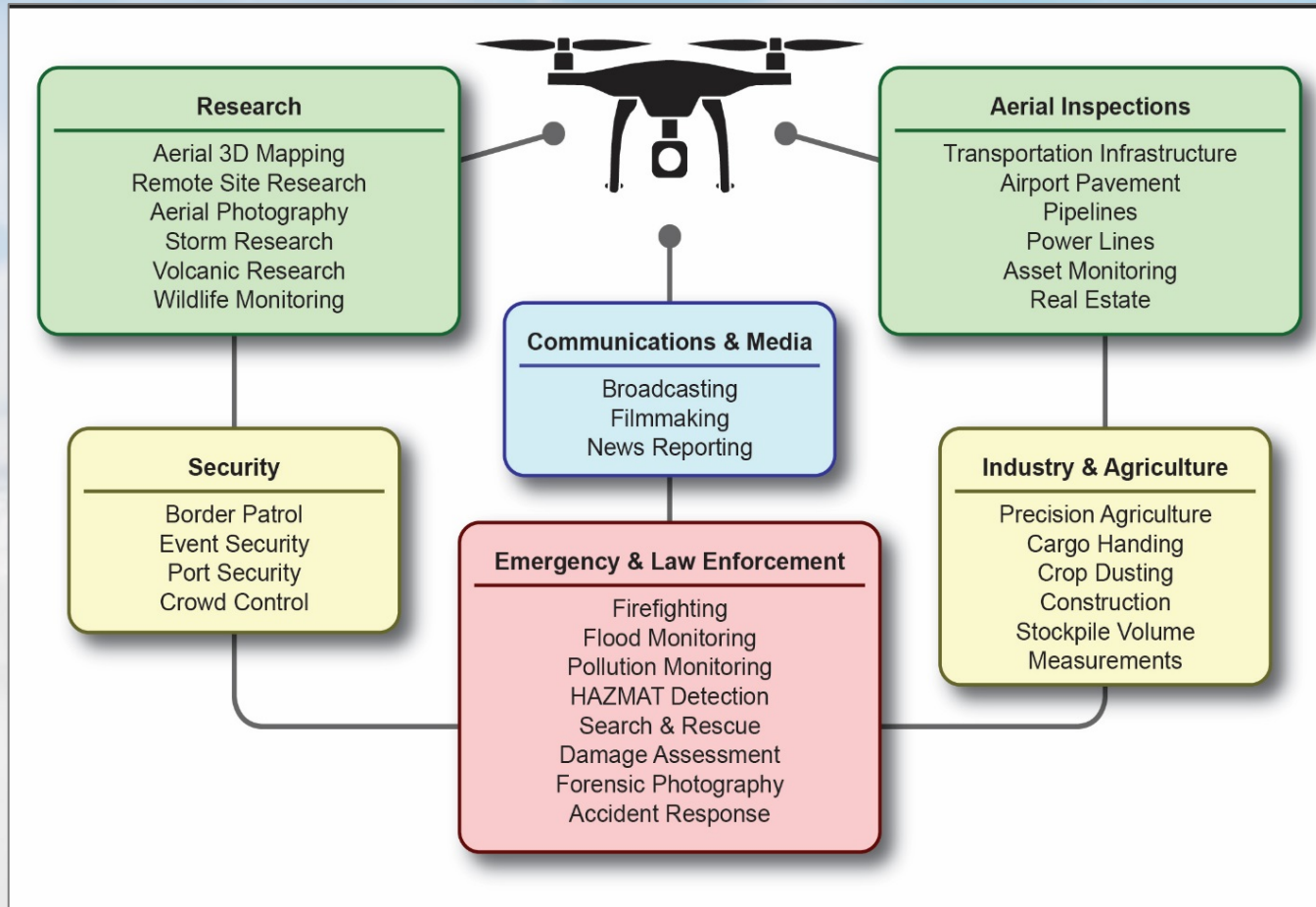
- 14 CFR Part 107 – Expanded FAA’s governing of NAS to include UAS activity for drones weighing between 0.55 pounds and 55 pounds
- Section 333 Certificate of Waiver or Authorization
- FAA Reauthorization Act of 2018 – Repealed the Special Rule for Model Aircraft
- Where and When to Fly
 - Know Before You Fly
 - No Drone Zone



Case Study

Unmanned Aircraft Systems (UAS), Cont.

Common Uses for UAS



Case Study

Unmanned Aircraft Systems (UAS), Cont.

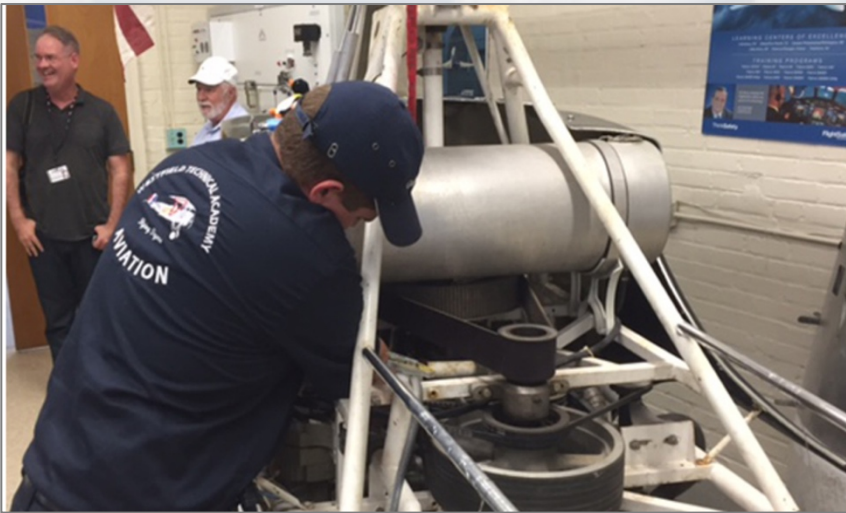
UAS in Massachusetts

- Massachusetts at the forefront of UAS innovation
- Drone Pilot Program – initiated by MassDOT
 - Test and improve UAS use for MassDOT operations (e.g., inspections, traffic studies, and emergency response)
 - Supported by research and coordination between 17 entities (e.g., MassDOT Aeronautics, Massport, FAA, and Umass Amherst)
 - Best management practices and lessons learned – share with other state agencies
- Commonwealth UAS Integration Program (CUIP)
 - Led by MassDOT Aeronautics
 - Focused on making Massachusetts a center of leadership and innovation in the future of UAS
 - Broader collection of organizations – government, industry companies, academia, community development organizations, and funders

Case Study

Business – Airport Synergies

- Minute Man Airfield – Community partner and asset
 - State investment for infrastructure prompted tenants and private sector to invest monies that have brought in more tenants and funded new and renovated hangar facilities.
 - Airport tenants include the National Aviation Academy – offering FAA approved AMT training to over 100 students and Nancy's Airfield Café which offers acclaimed “farm to table” dining.



Questions?

Thank You!



Backups



Measures of Economic Impact



Direct On-Airport Impacts

- On-airport businesses and government agencies
 - Aviation – FBOs, flight schools, airlines, charter operators, corporate flight departments, etc.
 - Concessions – Restaurants, retail, rental car, etc.
 - Government – Airport sponsors, FAA, TSA, etc.
- Capital improvement projects (CIP)
 - FAA, MassDOT, Massport, and local investment
 - CIP impacts averaged for 2015-2017
- Military air facilities
 - Hanscom AFB, Westover ARB, Barnes ANGB, Joint Base Cape Cod



Direct Visitor Impacts

- Impacts generated off-airport by commercial service and general aviation visitor spending
- Visitor spending = annual output
 - \$1 million in visitor spending supports 12-15 jobs
 - Jobs supported by visitor spending are primarily in the hospitality industry (e.g., restaurants, hotels, retail stores, etc.)



General Aviation Visitor Impacts Example

Lawrence Municipal Airport (LWM)

37,291 total aircraft operations at LWM in 2017

21,911 itinerant operations \div 2 = 10,956
itinerant arrivals

10,956 itinerant arrivals \times 33% = 3,615 true
transient arrivals

3,615 true transient arrivals \times 2.5 persons per
aircraft = 9,038 annual visitors

9,038 annual visitors \times \$330/person/trip = \$3.0
million annual visitor expenditures (output)

General Aviation Visitor-Supported Jobs Example

Lawrence Municipal Airport (LWM)

\$3.0 million in visitor expenditures

IMPLAN multipliers: \$1.0 million = 15.1 jobs

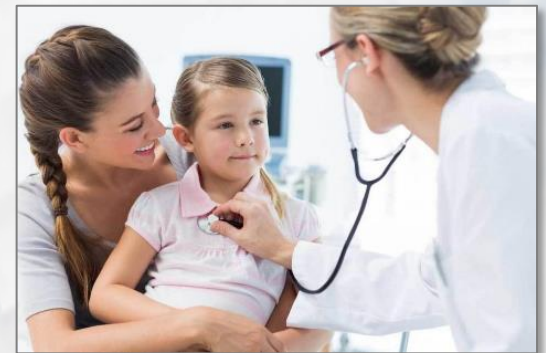
**$\$3.0 \text{ million} \times 15.1 \text{ jobs} / \$1.0 \text{ million} = 45$
visitor-supported jobs**

**Average Massachusetts hospitality industry
salary = \$27,500**

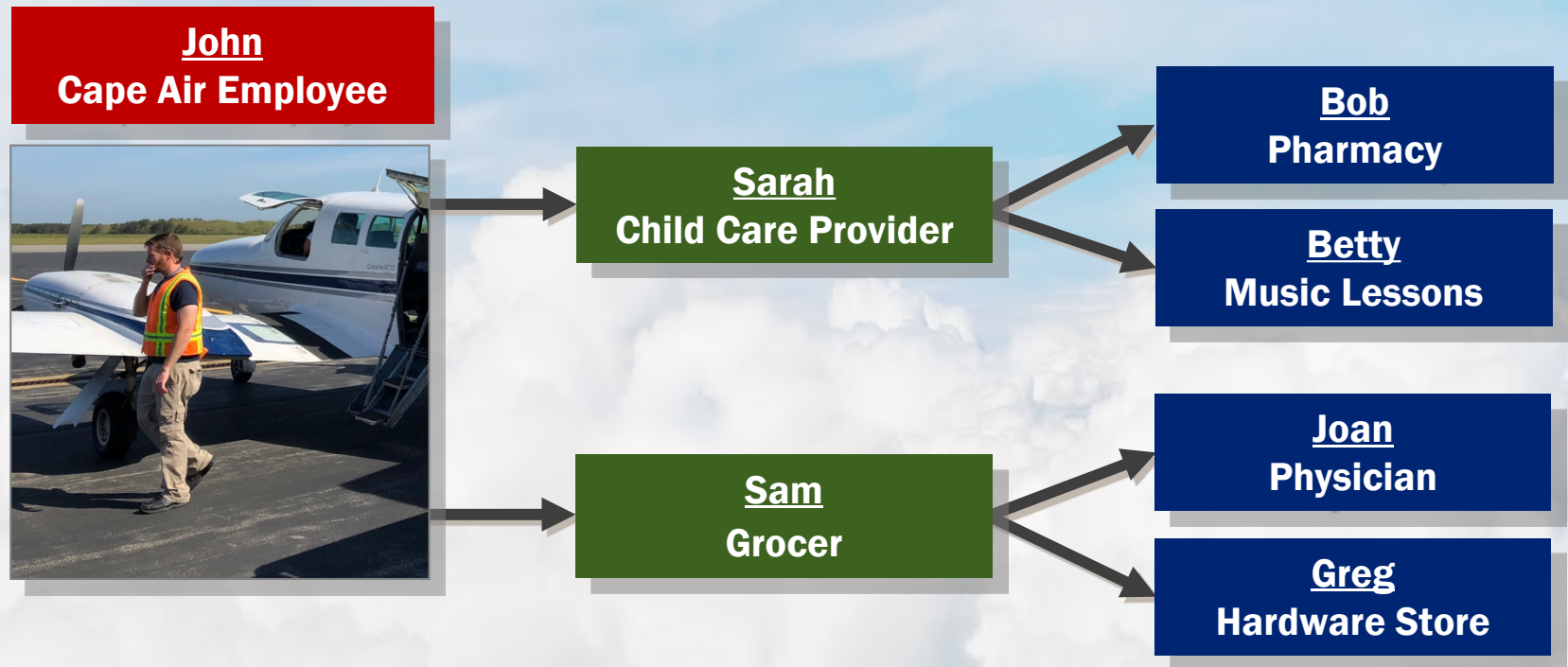
**$45 \text{ visitor-supported jobs} \times \$27,500 = \$1.2$
million visitor-supported payroll**

Multiplier Impacts

- Massachusetts-specific IMPLAN multipliers used to measure economic cycle that starts with airports/visitors
 - Induced: re-circulation of employee payroll
 - Indirect: re-circulation of local expenditures by on-airport business/government tenants
- Used same multipliers as 2014 study



Aviation Expenditures Ripple Through the Economy



Airport Stories, Cont.

- Provincetown Municipal Airport – Whale watching aircraft tracking migration patterns
- Laurence G. Hanscom Field – Professional and college sporting events aircraft charters
- Turners Falls Airport – Partnership with Franklin Technical Academy



Case Study

Business – Airport Synergies, Cont.

- Marshfield Municipal Airport-George Harlow Field – Partnership with public safety agencies on local, state, and federal levels
- Southbridge Municipal Airport – Hyde Tools, Inc. based on-airport and facilitates airport by purchasing airfield equipment and performing maintenance activities



Airport Economic Impact Videos

- Video I
 - General overview
 - Plymouth's 400th anniversary and importance of Plymouth Municipal Airport as a gateway for tourism
 - Westfield-Barnes Regional Airport/Gulfstream/City partnerships
 - UAS use and benefits
- Video II
 - Aviation and workforce development
- Video III
 - Aviation and State partnerships

