

## Targeting the Workforce of Tomorrow Today

Chanda S. Sanders

*Federal Aviation Administration*, [chanda.s.sanders@faa.gov](mailto:chanda.s.sanders@faa.gov)

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# Targeting the Workforce of Tomorrow, Today

## Using STEM Outreach to Train and Recruit

Presented to: National Training Aircraft Symposium

By: Chanda Sanders

Date: October 26, 2022



**Federal Aviation  
Administration**



# Forecasted Workforce Shortages

>1,500,000 aviation-related jobs over next 20 years

## Goals:

1. Create pipelines and pathways to aerospace careers
2. Provide STEM education for every student
3. Develop strategic partnerships to maximize the benefits
4. Enhance cross-agency collaboration to optimize the program



# Forecasted Workforce Shortages

## Research Questions

1. How do we develop a STEM outreach program for Aviation Human Factors Research that fulfills the goals of the FAA STEM AVSED National Policy?
2. How do we establish strategic partnerships across the aviation industry, and leverage them to best support the training and education of a future workforce?
3. What resources do we need to build a strong and lasting program that not only educates about careers in aviation, but also attracts potential recruits?





# Future-Oriented Students

51% think about future daily

50% concerned about graduating with high debt

68% list cost of tuition as important factor

75% aware of worker shortage

74% exploring careers in high school

>33% education/career in an impacted industry



# Calculating Path

81% learning skills for success

82% interesting career

68% cost of tuition

66% how much money I can make

63% amount of student loans

91% government should pay for education

86% businesses should provide formal  
education/pay off student loans



# Research Approach

- Literature review
  - What, Why, Who, When, Where
- Mission, Values, Goals
  - Why have we done outreach
  - What have we done
  - When have we done it
  - What have we learned about our efforts? Did they result in something?
- Who is setting up outreach?
- Gap analysis approach
  - Survey



# Survey Items

24 Survey questions sent out to all employees in The Office of Aerospace Medicine

- Purpose of STEM outreach
- Repeatability of outreach activities
- Types of data collected
- Initiator of outreach events

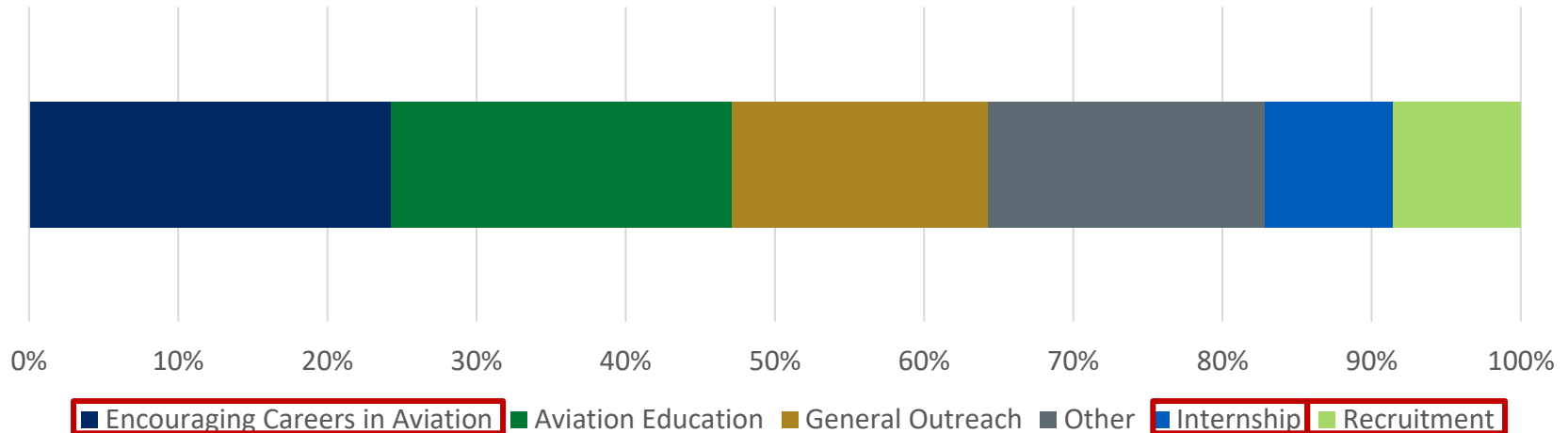




# Results: Purpose of STEM Outreach

Sample Size = 35

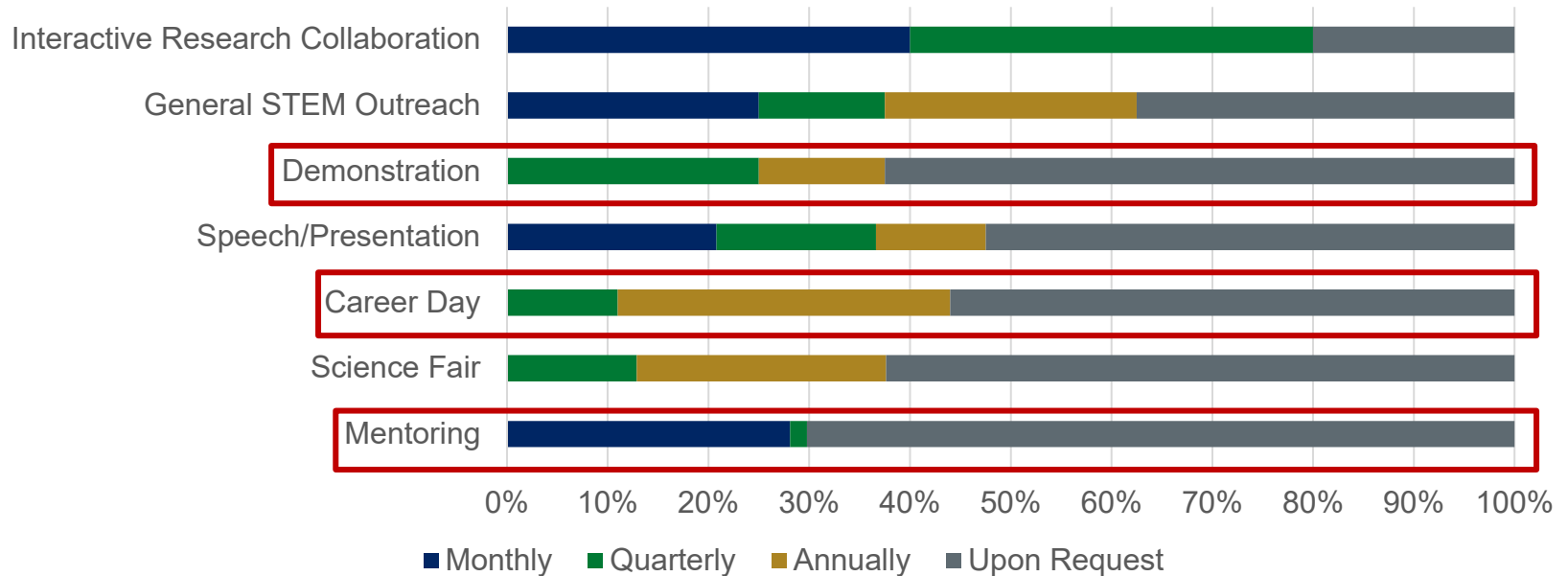
Workforce may not fully realize the need for outreach.



# Results: Repeatability

Sample Size = 35

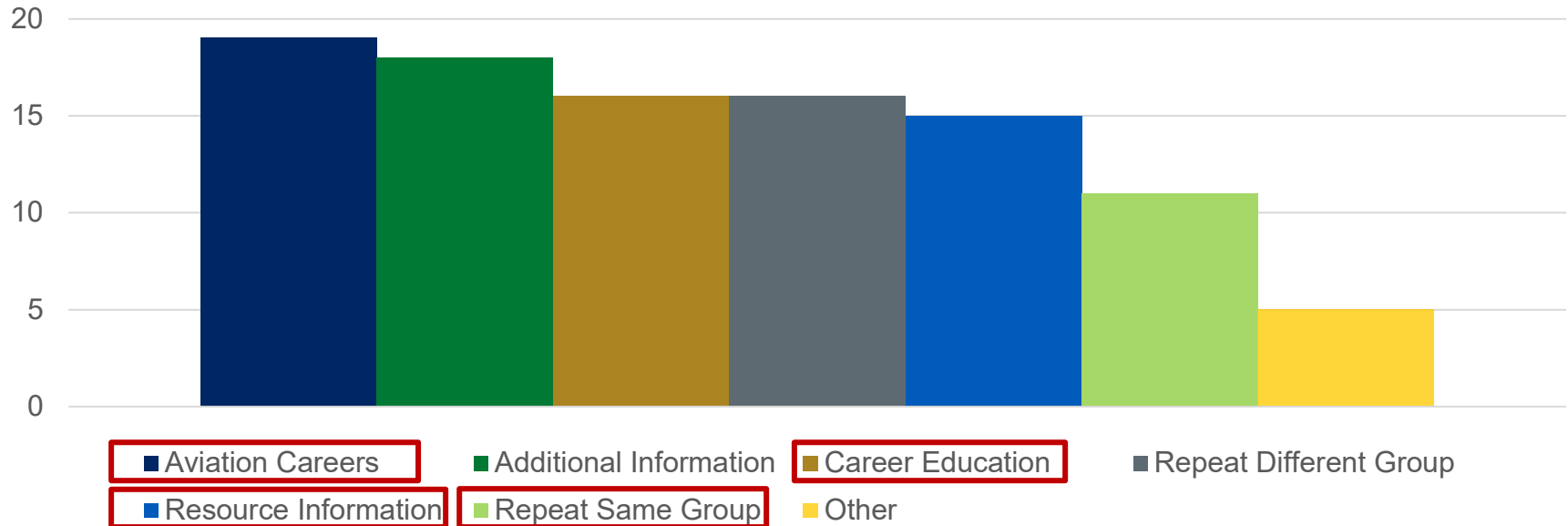
What, how, when, or why outreach should be conducted or repeated.



# Results: Types of Data Collected

Sample Size = 35

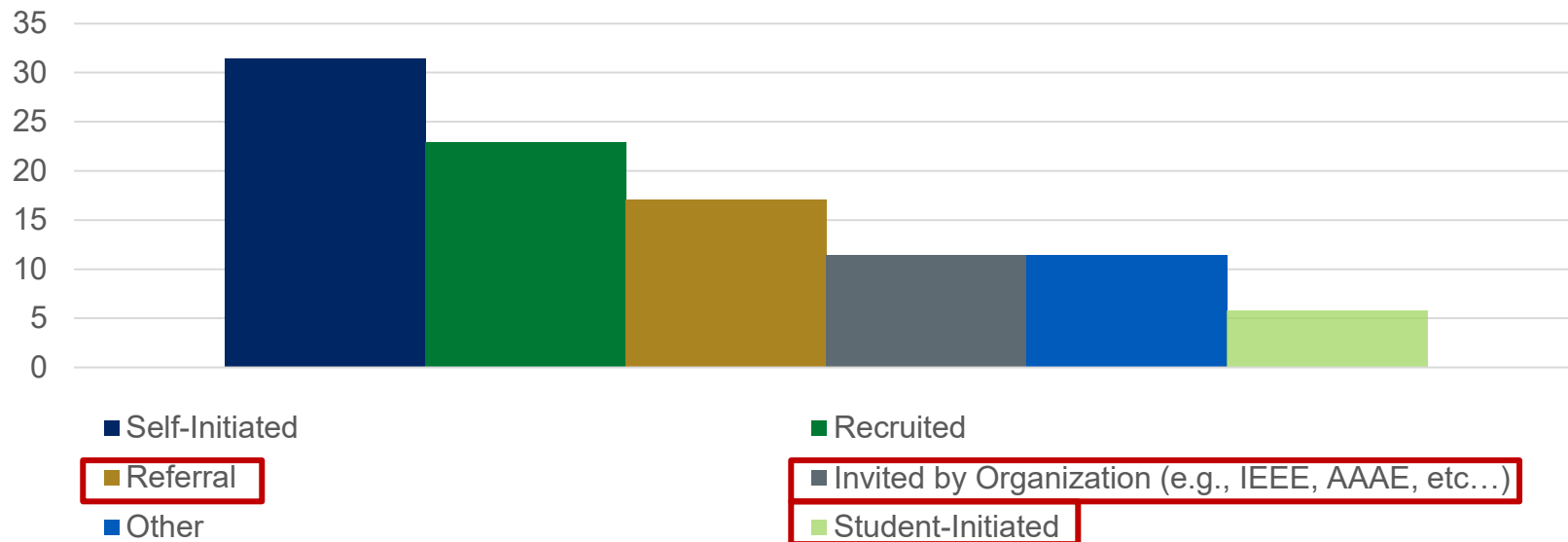
We may need to reconsider the types of data being collected.



# Results: Initiator of Outreach Events

Sample Size = 35

Possible ambiguity about who initiates outreach.





# Lessons Learned

## DO

1. Start with a purpose
2. See the big picture
3. Learn from others
4. Start somewhere
5. Be logical and strategic
6. Think repeatability
7. Measure success

## DO NOT

1. Jump in without a plan
2. Say yes to everything
3. Reinvent the wheel
4. Bend to pressure
5. Be afraid to be the broker
6. Think one and done
7. Forget to take baseline data





# Recommendations and Strategies

## Recommendations

1. Appoint dedicated STEM person.
2. Know your organizational needs.
3. Focus on details that matter.
4. Use knowledge and resources.
5. Start now.
6. Tailor outreach.
7. Focus on quality not quantity.
8. Plant what you want to grow.

## Strategies

1. Talk with decision-makers.
2. Gather relevant information.
3. Inventory, network, and collaborate.
4. Work with what you have.
5. Develop outreach to each group and train your people.
6. Start small.
7. Keep your eye on the prize and think long-term.



# Thank You!

Questions

[chanda.s.sanders@faa.gov](mailto:chanda.s.sanders@faa.gov)

