



IMPACT REPORT 2021

The National Academies of
SCIENCES • ENGINEERING • MEDICINE



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◆ WHY ASSESS ACRP'S IMPACT?

ACRP gathers data to ensure the program continues to provide value to the industry.

◆ WHAT DOES ACRP PRODUCE?

These are the products ACRP produces that ultimately impact the industry, and how they are consumed.

◆ WHO DOES ACRP IMPACT?

These are the practitioners that use ACRP products; their demographics, program awareness, personal benefit gains.

◆ HOW DOES ACRP IMPACT THE INDUSTRY?

Airport practitioners share how they have benefited from ACRP.



What is ACRP?

Airports need unbiased and reliable research to solve common problems, learn about new technologies, and assess innovations in service and operations. In 2005, the Airport Cooperate Research Program (ACRP) was established by the Federal Aviation Administration (FAA) to meet this need.

Each year, ACRP receives funding from the FAA, ACRP's program sponsor. With this budget, ACRP funds research projects and activities to help airports surmount real-world challenges and problems.

Every ACRP research project culminates in a research product, which may take one of the forms on the right. ACRP also produces guidelines, tools, databases, and models that are available for free to address the industry's needs.

ACRP RESEARCH PRODUCTS

-  Research Reports
-  Synthesis Reports
-  Legal Research Digests
-  Research Results Digests
-  Web-Only Documents
-  WebResources



**WHY ASSESS ACRP'S
IMPACT?**



Why assess ACRP's impact?

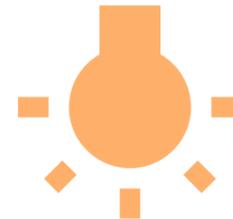


Why assess the program's impact on the industry? ACRP has been active for 16 years, and the purpose of impact assessment is to ensure the program is evolving with the needs of airport practitioners and remains relevant. The following questions were important when designing the impact measurement strategy.



VALUE

Does the program continue to provide value to the airport industry?



ACCESSIBILITY

Does the program provide information in the most digestible and useful manner?



RELEVANCY

Does the program provide research on topics that are relevant and current?



ACRP's strategy for measuring impact in 2021

ACRP continues to measure its impact on the airport industry to ensure its products are benefitting practitioners. Traditionally, ACRP has focused on the number of downloads or views a product receives as a key indicator of program effectiveness, similar to a for-profit company's bottom line. Download numbers are important and prove that our products are consumed across the airport industry. In 2021, ACRP decided to enhance its understanding of how the program was benefiting end users by gathering information from different sources. The program began a new survey strategy, reaching out to airports themselves to see how they have benefitted from ACRP. Additionally, to collect information on implementation benefits, ACRP surveyed project participants and provided an opportunity on the website for individuals to share how they benefited from the program. .

Overall, respondents found the program provides value by producing research that is useful and relevant, addressing challenges airports may not have the resources to solve on their own. ACRP will continue to measure impact regularly to maintain program relevance, remain connected with the airport community, and track industry trends.



**WHAT DOES ACRP
PRODUCE?**



RESEARCH REPORTS

Research Reports, often written as guidebooks or manuals, are the main product of ACRP. They are often accompanied by tools, models, and databases.

251

Total Research Reports published to date

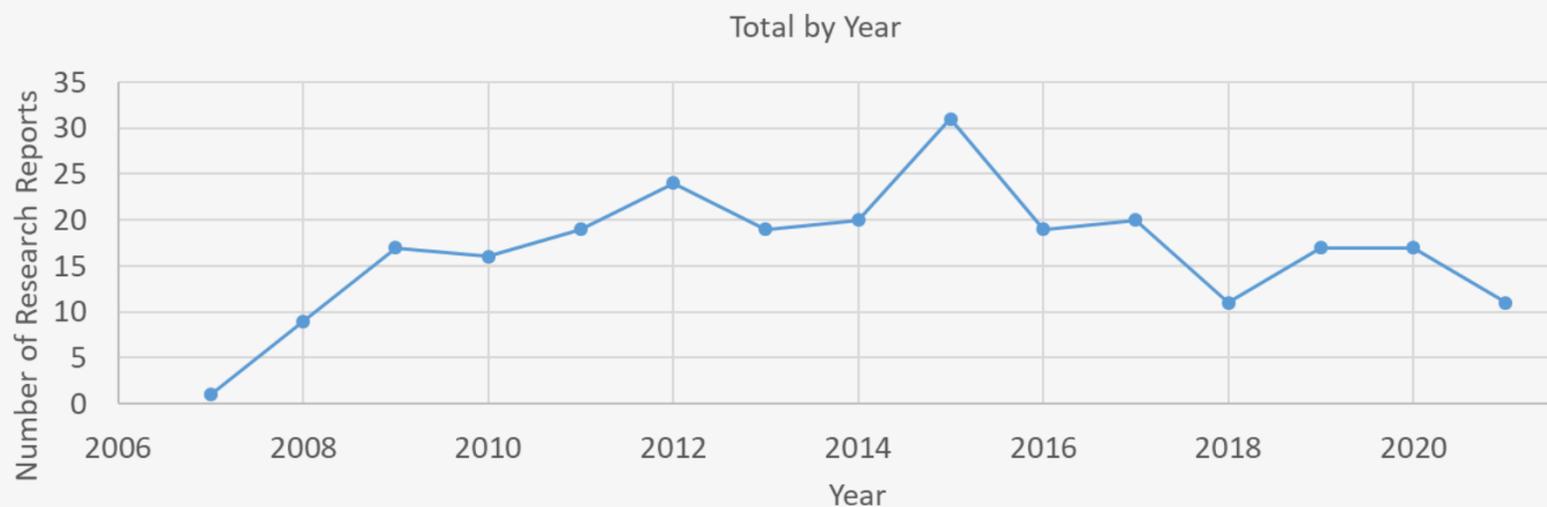
17

Average Number of Research Reports published annually

11

Research Reports published in 2021

A HIGH VOLUME OF RESEARCH REPORTS ARE PUBLISHED EVERY YEAR



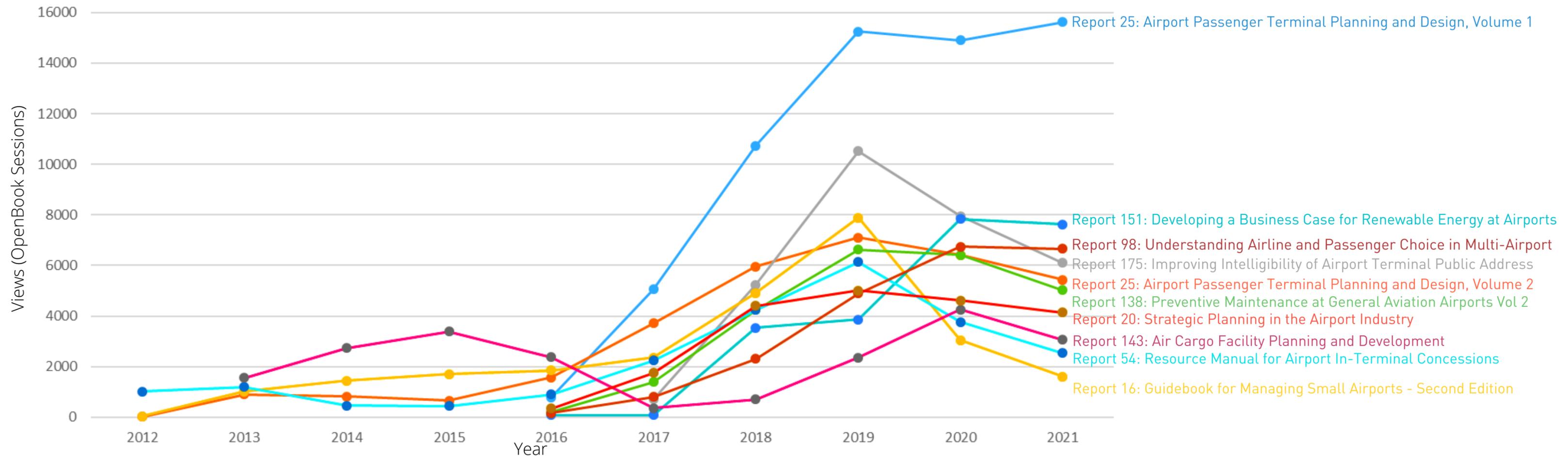
TOP TEN VIEWED REPORTS- ALL TIME

Research Report	Online Views
Report 25: Airport Passenger Terminal Planning and Design, Volume 1: Guidebook	62,289
Report 25: Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User's Guide	32,189
Report 175: Improving Intelligibility of Airport Terminal Public Address Systems	30,503
Report 16: Guidebook for Managing Small Airports - Second Edition	25,855
Report 151: Developing a Business Case for Renewable Energy at Airports	24,608
Report 138: Preventive Maintenance at General Aviation Airports Volume 2: Guidebook	23,901
Report 54: Resource Manual for Airport In-Terminal Concessions	22,941
Report 98: Understanding Airline and Passenger Choice in Multi-Airport Regions	21,548
Report 20: Strategic Planning in the Airport Industry	20,813
Report 143: Air Cargo Facility Planning and Development- Final Report	20,250

Report 25, a consistent favorite



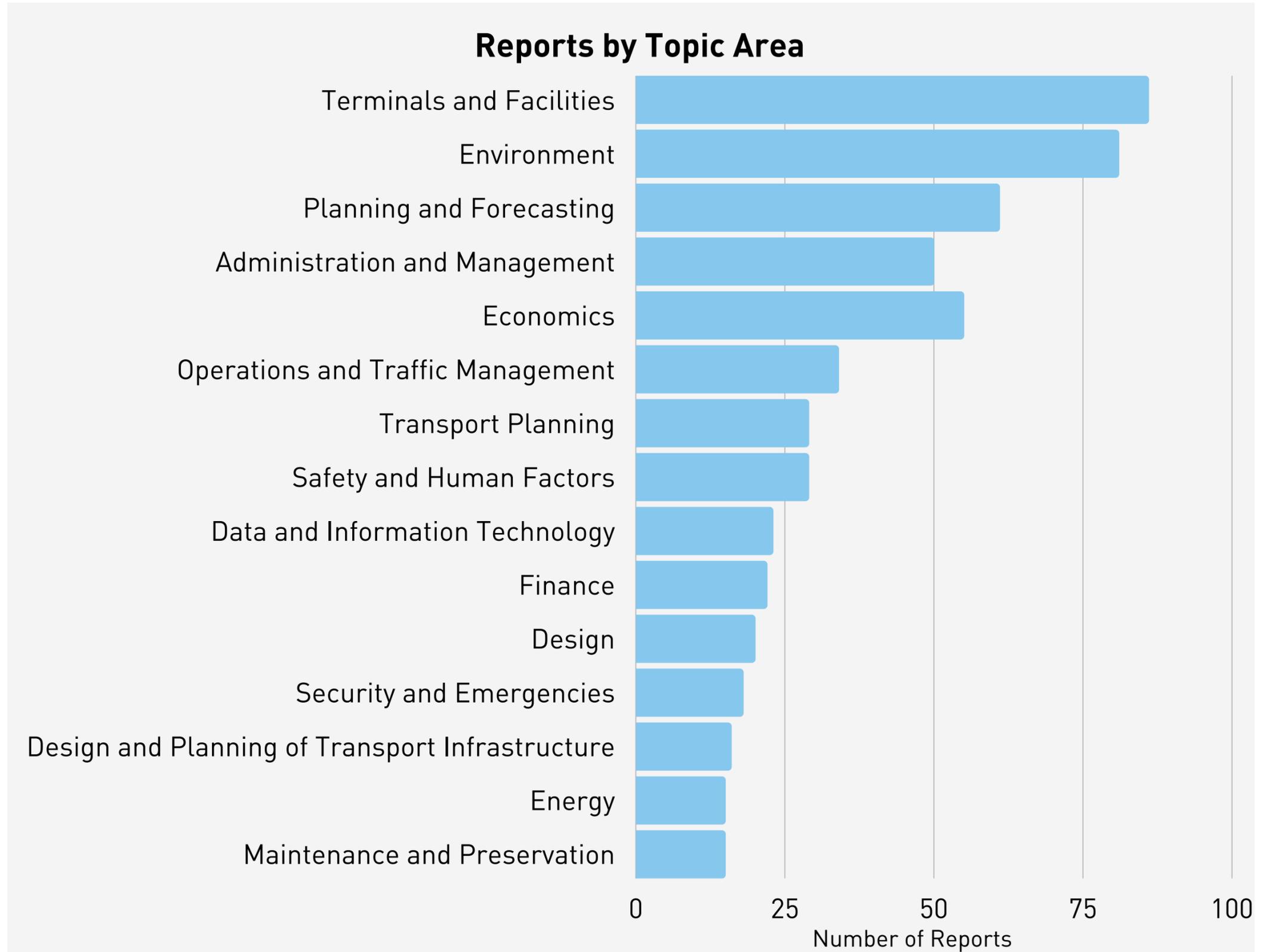
Since publication, Report 25: Airport Passenger Terminal Planning and Design, Volume 1 has consistently been the most viewed ACRP Report. This graph shows the evolution of the top ten most viewed Reports*.



*Data from National Academies Press. Some reports do not show downloads from publication date as data is incomplete.

ACRP reports sorted by topic

The most common topic included in reports was "Terminals and Facilities."



SYNTHESES OF AIRPORT PRACTICE

Syntheses report on the state of the practice based on literature reviews and surveys of recent activities in critical areas. Syntheses also inform airport managers about innovations being used by others to solve problems.

114

TOTAL SYNTHESIS REPORTS PUBLISHED TO DATE

8

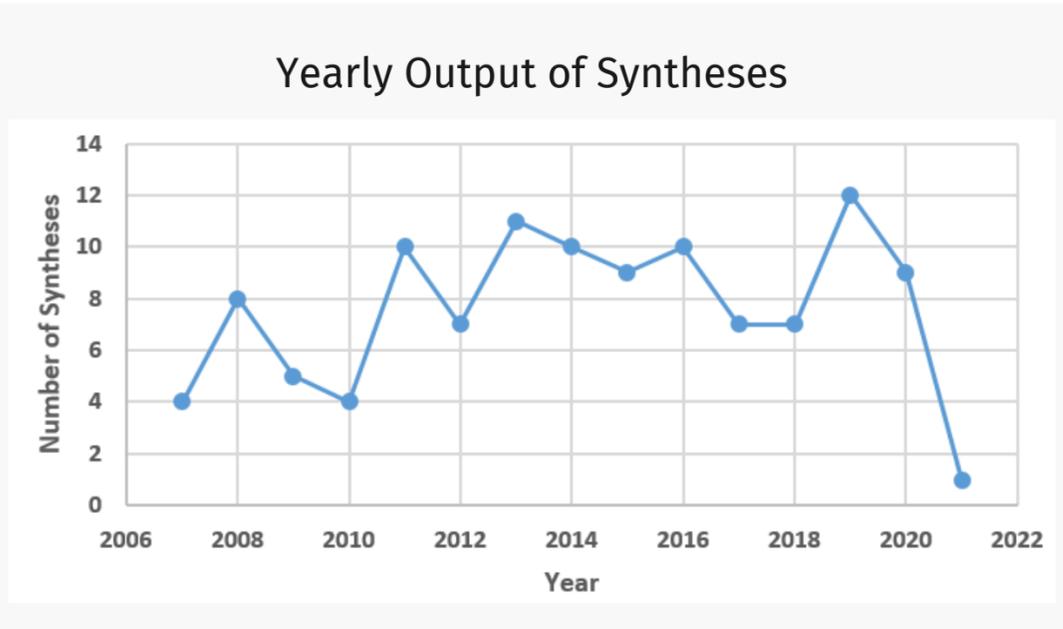
AVERAGE NUMBER OF SYNTHESSES PUBLISHED ANNUALLY

10

SYNTHESES PUBLISHED IN 2020 + 2021

Top 5 Viewed Syntheses - All Time

Synthesis Title	Online Views
Synthesis 81: Food and Beverage and Retail Operators: The Costs of Doing Business at Airports	19,760
Synthesis 8: Common Use Facilities and Equipment at Airports	12,861
Synthesis 1: Innovative Finance and Alternative Sources of Revenue for Airports	8,294
Synthesis 97: How Airports Plan for Changing Aircraft Capacity: The Effects of Upgauging	8,148
Synthesis 2: Airport Aviation Activity Forecasting	6,506



The Synthesis program was put on hold for much of 2021, but began again at the end of the year.

LEGAL RESEARCH DIGESTS

LRDs report on timely legal issues, compile case law, or recommend solutions to specific problems.

45

TOTAL LRDS PUBLISHED TO DATE

RESEARCH RESULTS DIGESTS

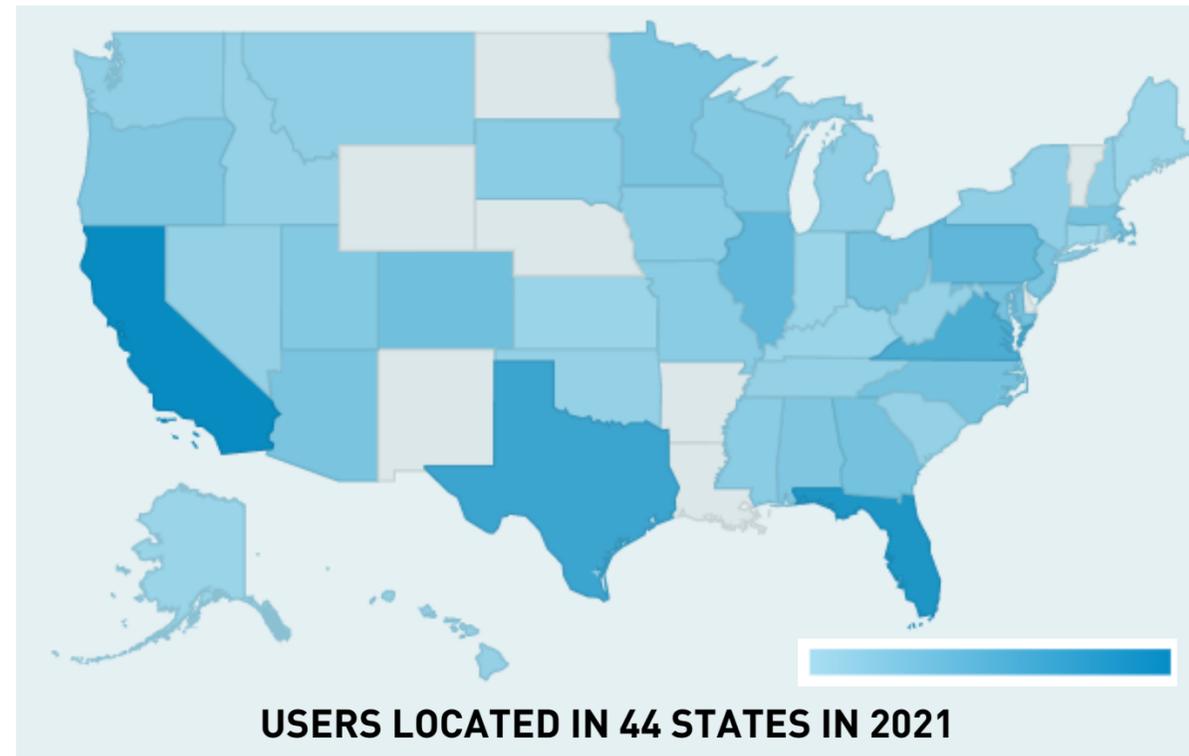
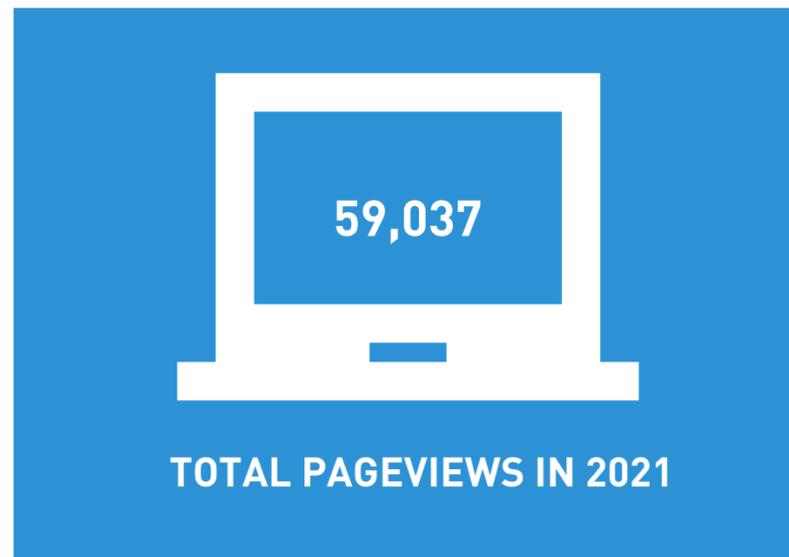
RRDs are used to promote early awareness of project results in order to encourage implementation. RRDs also summarize specific findings that emphasize how the research may be used.

30

TOTAL RRDS PUBLISHED TO DATE

WebResources

WebResources are an online product line that include electronic resources, topical libraries, training videos, and alternative format research reports.



TOP WEBRESOURCE PAGES BY PAGEVIEWS

"The Players in the Air Cargo Industry": WR 1- Aligning Community Expectations with Airport Roles

"Types of Aircraft Utilized for Air Cargo": WR 1- Aligning Community Expectations with Airport Roles

"Identifying Your Airport's Strengths and Weaknesses": WR 1- Aligning Community Expectations with Airport Roles

"Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters": LRD 21

"Develop Strategies for New Airport-Generated Revenue": WR 1- Aligning Community Expectations with Airport Roles



WHO DOES ACRP IMPACT?



ACRP User Profiles

The typical users of ACRP products are 35 to 44 years old; male; work at an airport, a consultancy, or in academia; and are in executive management.

Data collected from ACRP website through Google Analytics, and ACRP survey results.



AGE

35-44 years old



GENDER

71% Male, 29% Female



INDUSTRY

Airport, Consultancy,
Academia



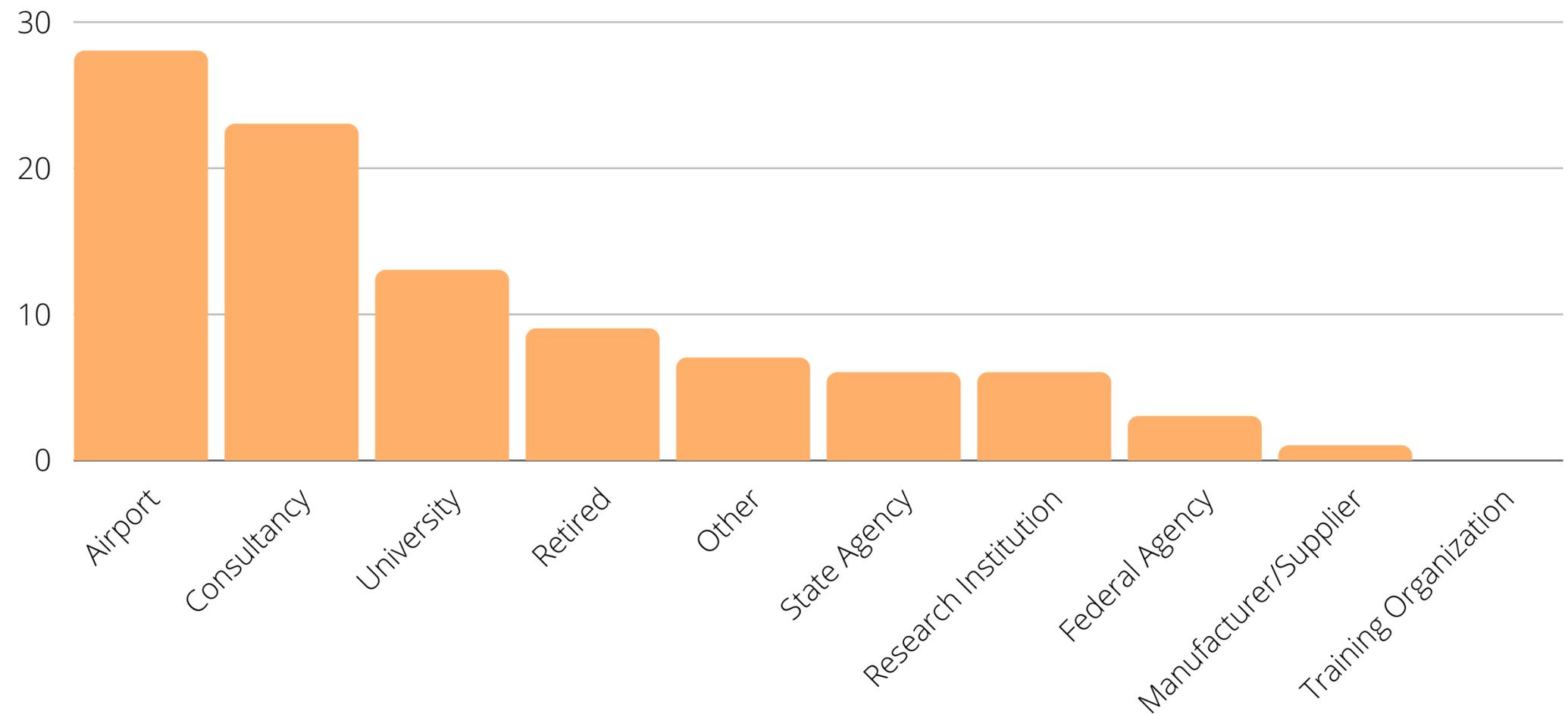
POSITION

Executive Management

ACRP practitioners by industry...

Most practitioners downloading ACRP products were airport practitioners, consultants, and academicians.

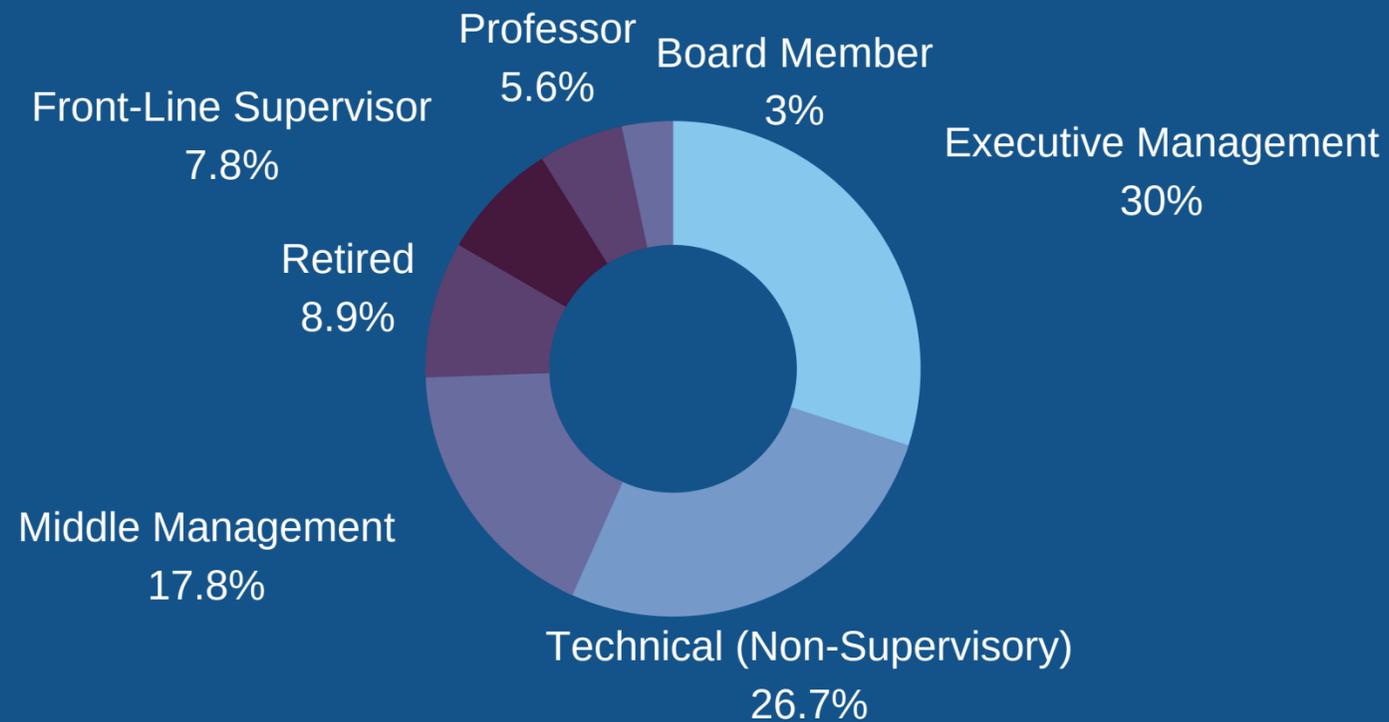
Data from a survey sent to all who downloaded an ACRP publication in 2018.



...and by organizational level

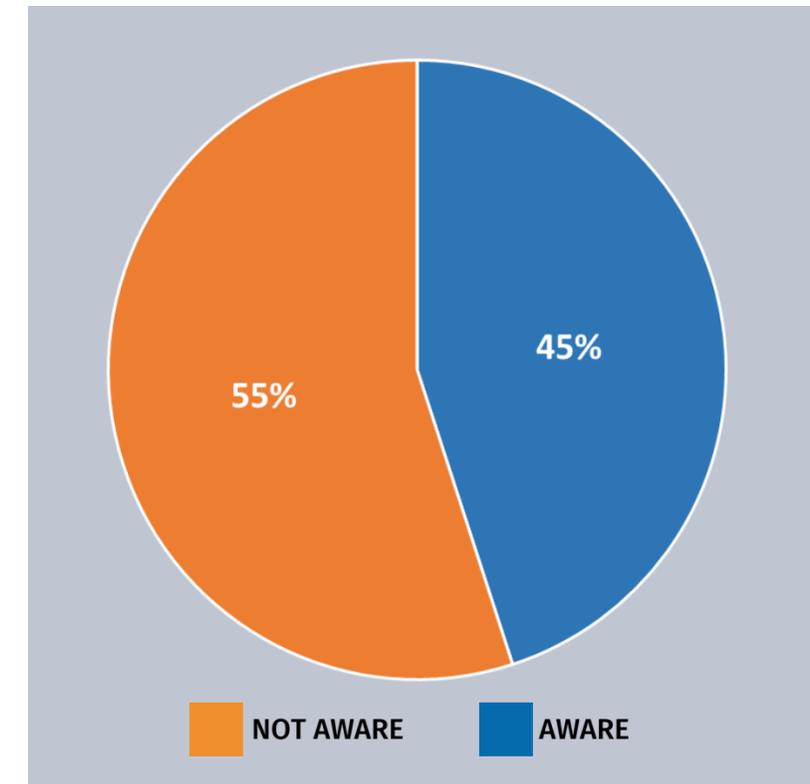
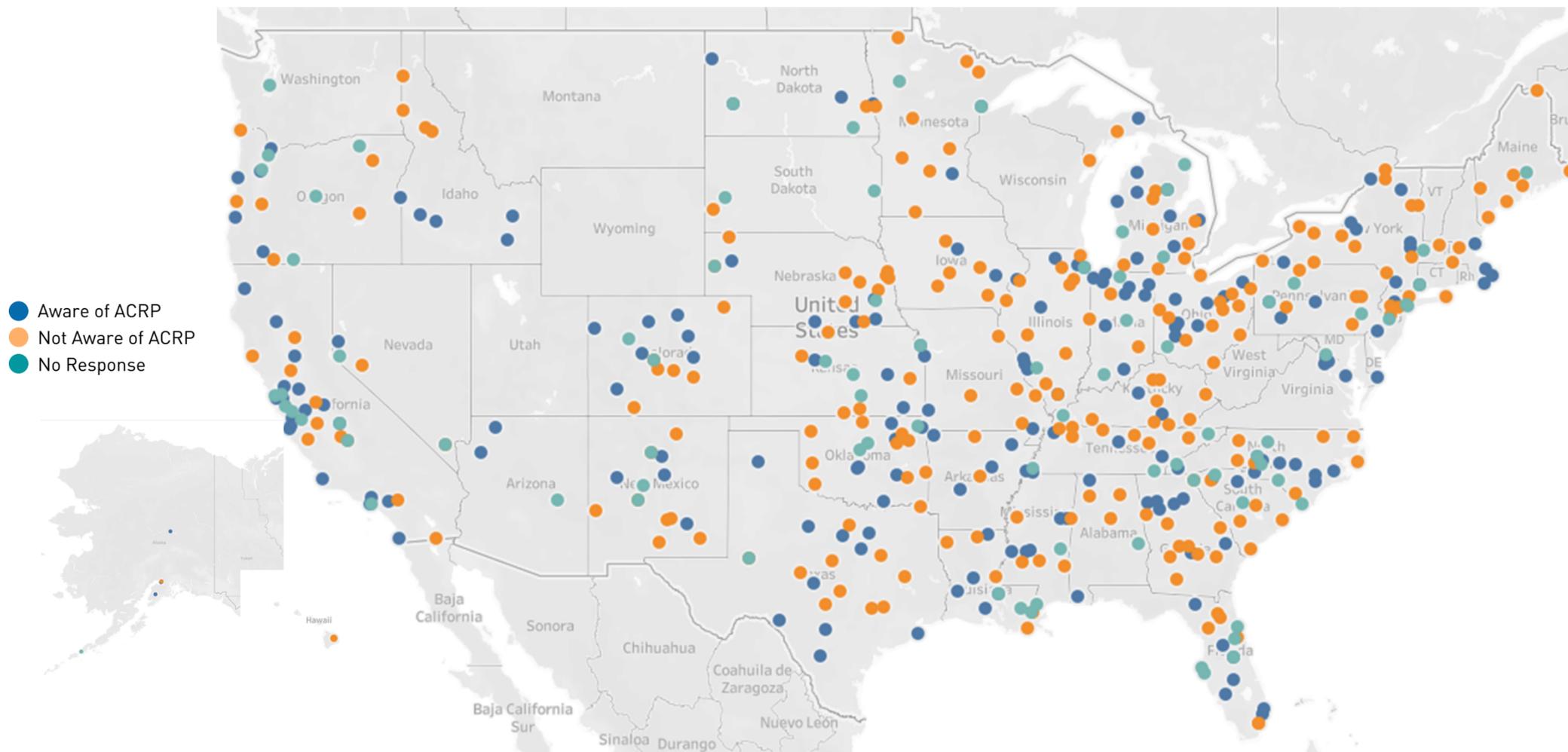
Those who worked in executive management and technical roles downloaded ACRP products most.

Data from a survey sent to all who downloaded an ACRP publication in 2018.



Which airports are familiar with ACRP?

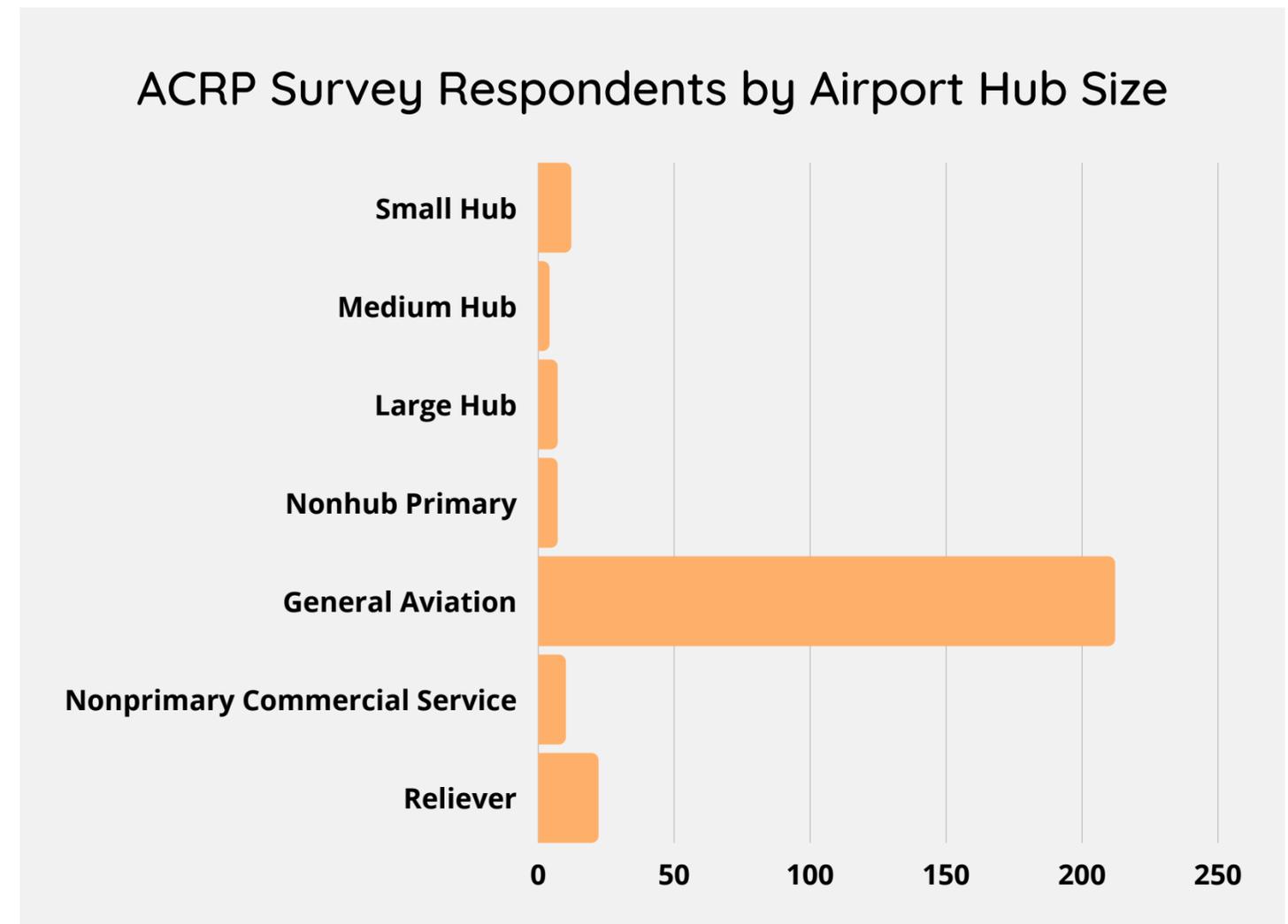
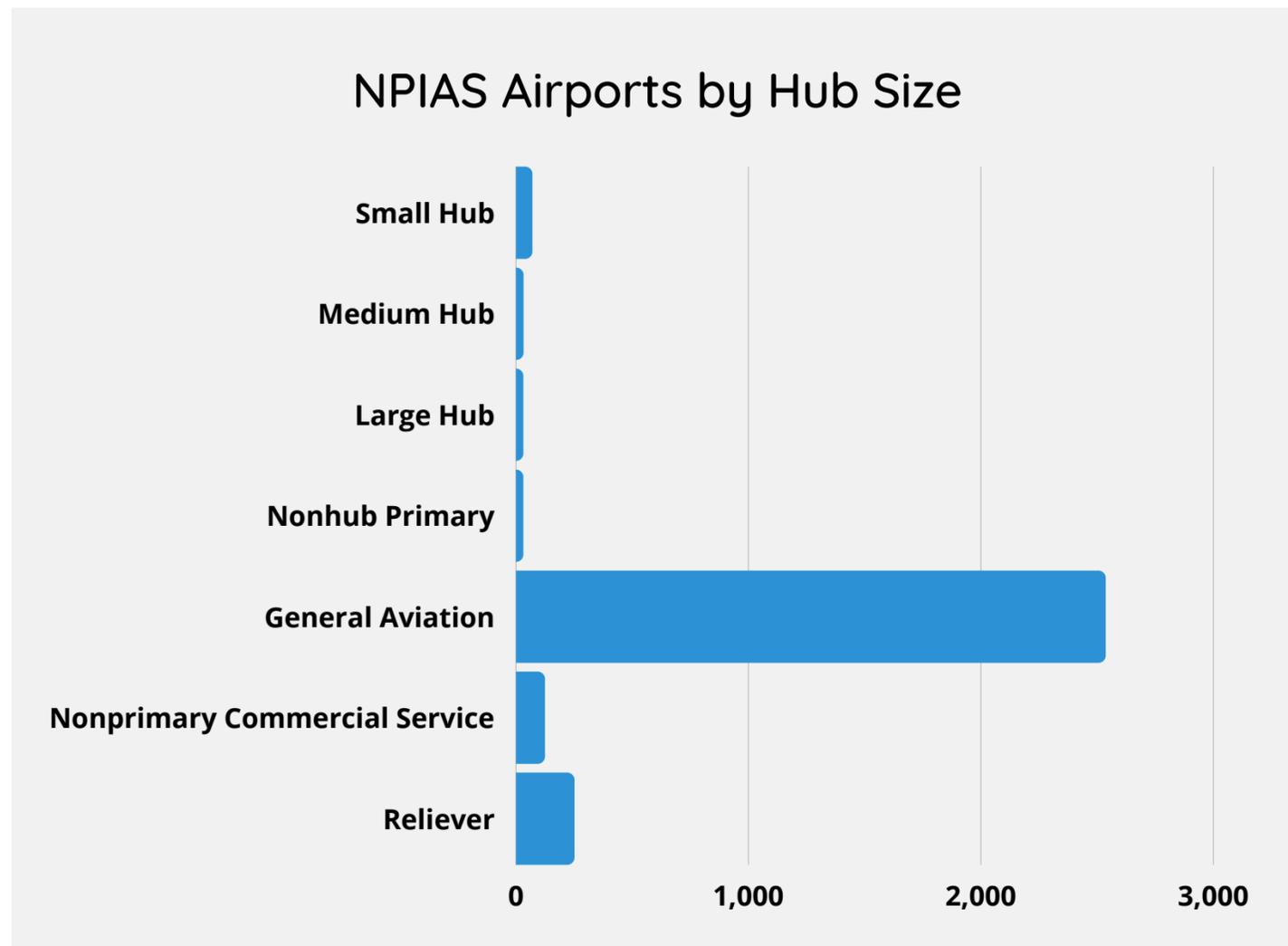
ACRP went straight to the source and surveyed NPIAS (National Plan of Integrated Airport Systems) airports*, asking how they have been impacted by our program. The below map shows all airports that responded to the survey and whether they were aware of ACRP prior to receiving it. 55 percent of those that responded were not aware of the program, many of whom expressed interest in becoming engaged.



The map above represents airport managers that indicated awareness of ACRP. Blue marks signify airports that were already aware of ACRP, orange marks signify those that were not aware, and teal marks were airports that responded to the survey, but not to this question. The pie chart shows the percentage of airports that responded to the survey indicating they were aware, 45%, and unaware, 55%. *Not all NPIAS airports were surveyed due to lack of contact information.

Survey respondents by airport hub size.

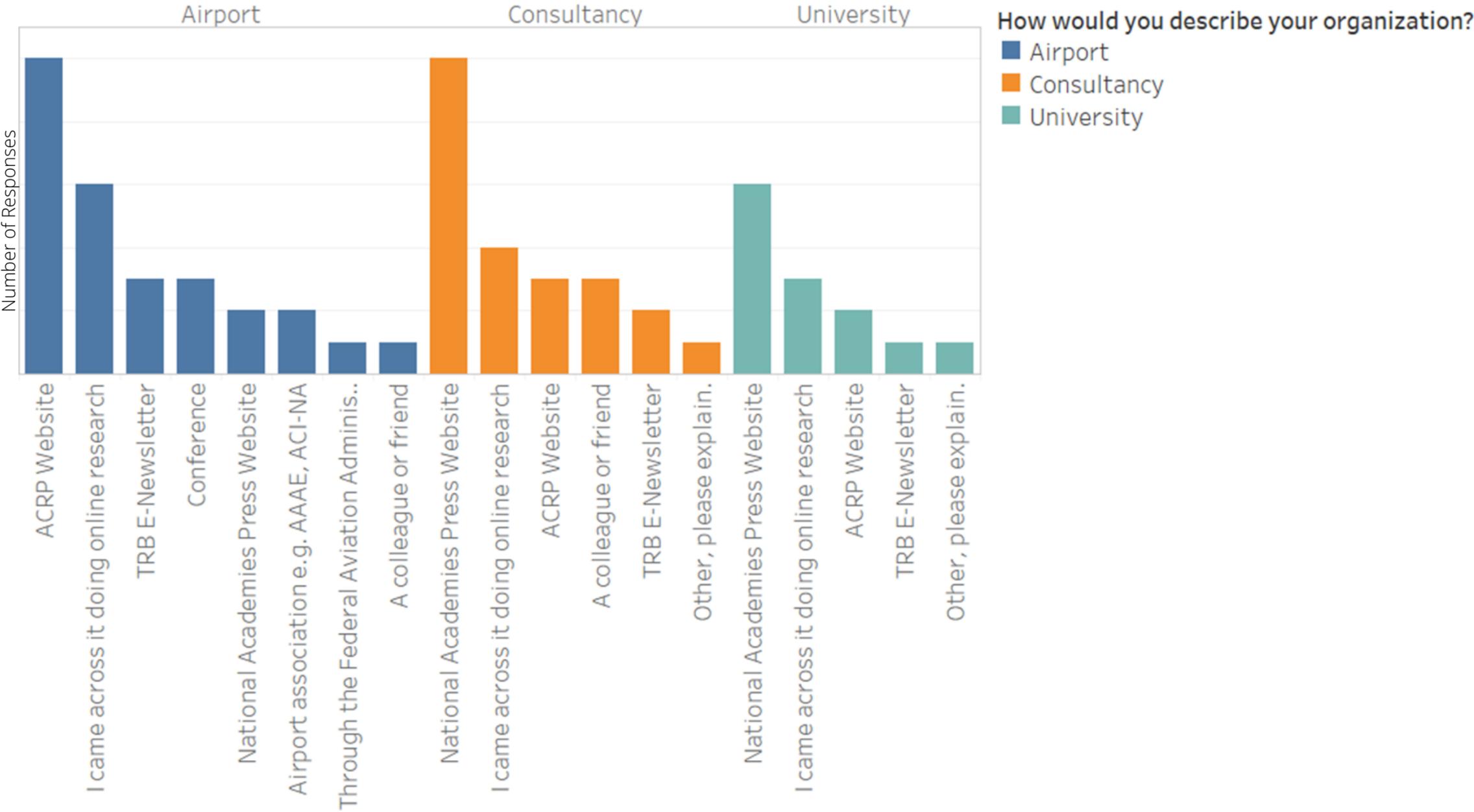
Eight out of every ten NPIAS airports in the country are General Aviation airports. As shown below, the survey response rate was consistent with the NPIAS population among airport sizes and types.



How do practitioners find ACRP products?

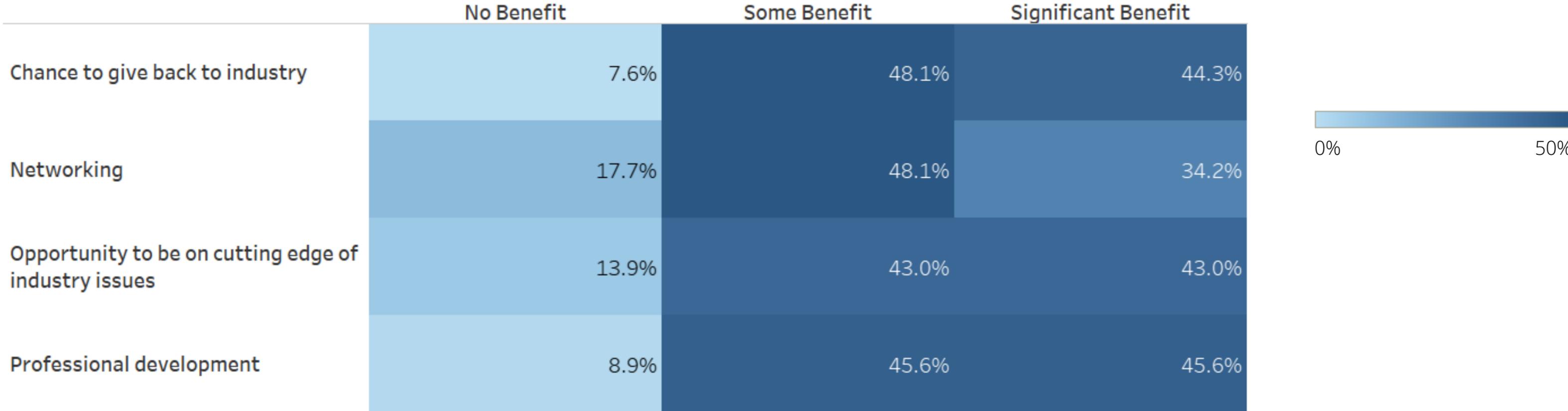


The method to locate ACRP products tended to vary among industries. Airports indicated finding products through ACRP's website, while those from consultancies and universities used National Academies Press. All organization types cited that they 'came across it doing online research' as the second highest response.



ACRP practitioners found benefit in volunteering with the program.

ACRP offers many opportunities to engage with the program. About 80 to 90 percent of respondents said volunteering gave them a chance to give back to the industry, network with peers, be on the cutting edge of issues, and further their professional development.



Percentages measured across rows equal to 100%. Totals may differ due to rounding. Data comes from the survey of those that downloaded ACRP products in a one year timespan.

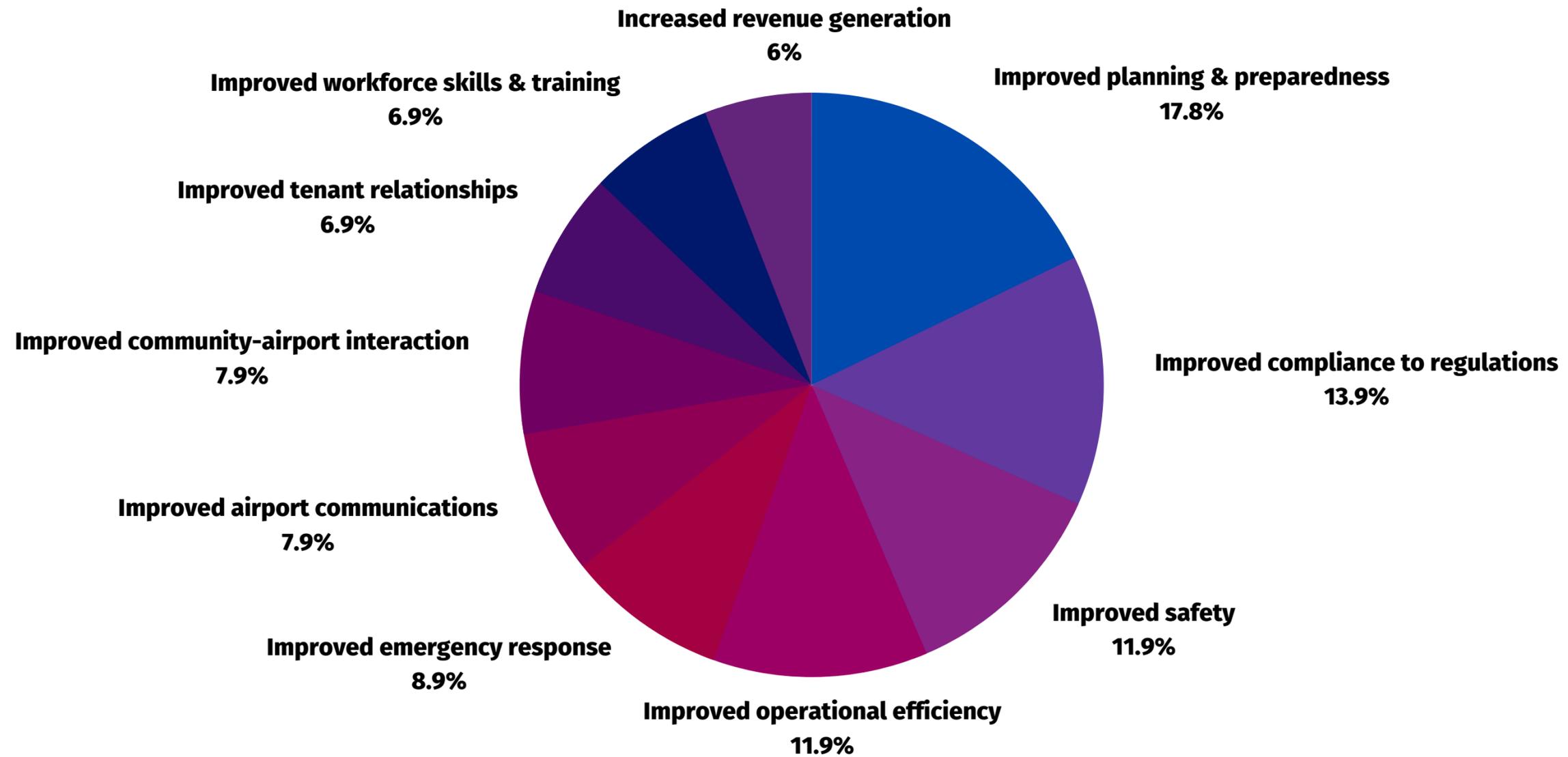


**HOW DOES ACRP IMPACT
THE INDUSTRY?**



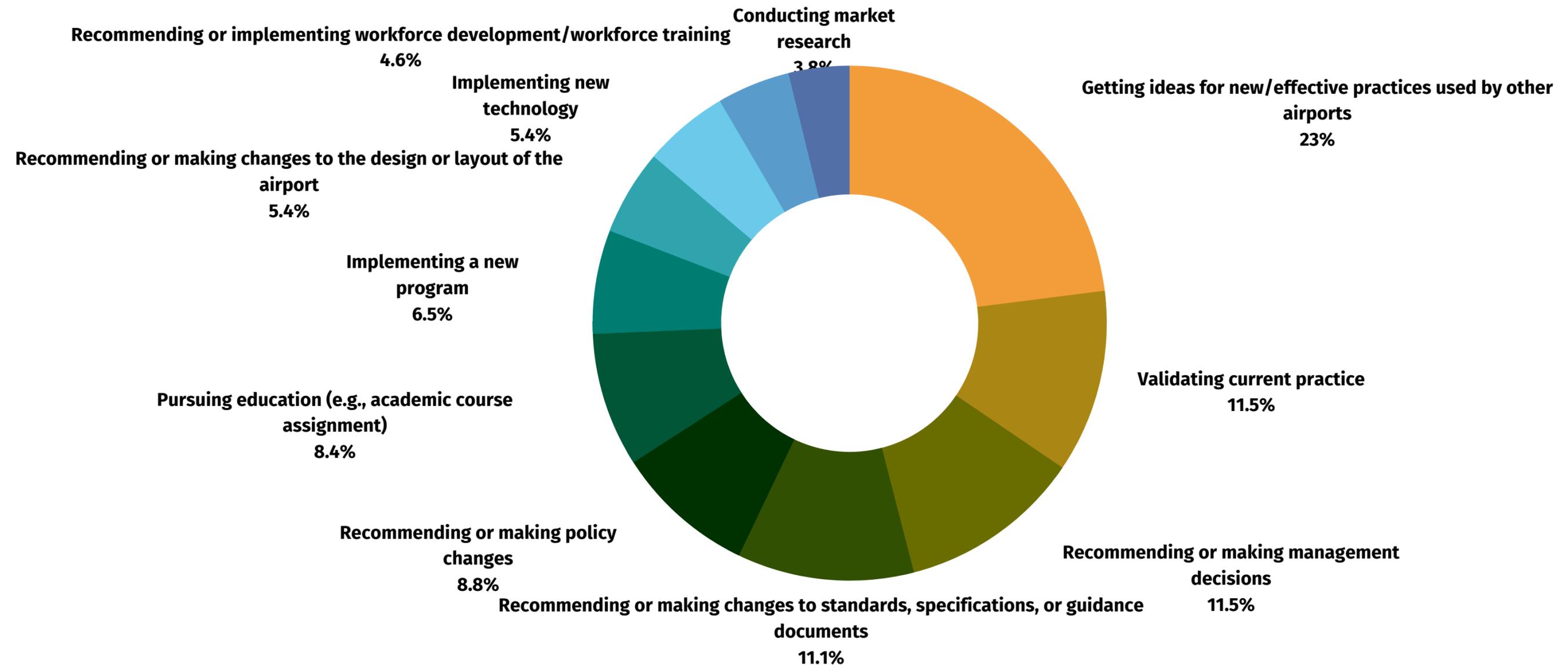
How has ACRP benefited airports?

Airport practitioners indicated "improved planning and preparedness" as the greatest benefit gained from ACRP. These are the top ten responses given.



Why were ACRP products downloaded?

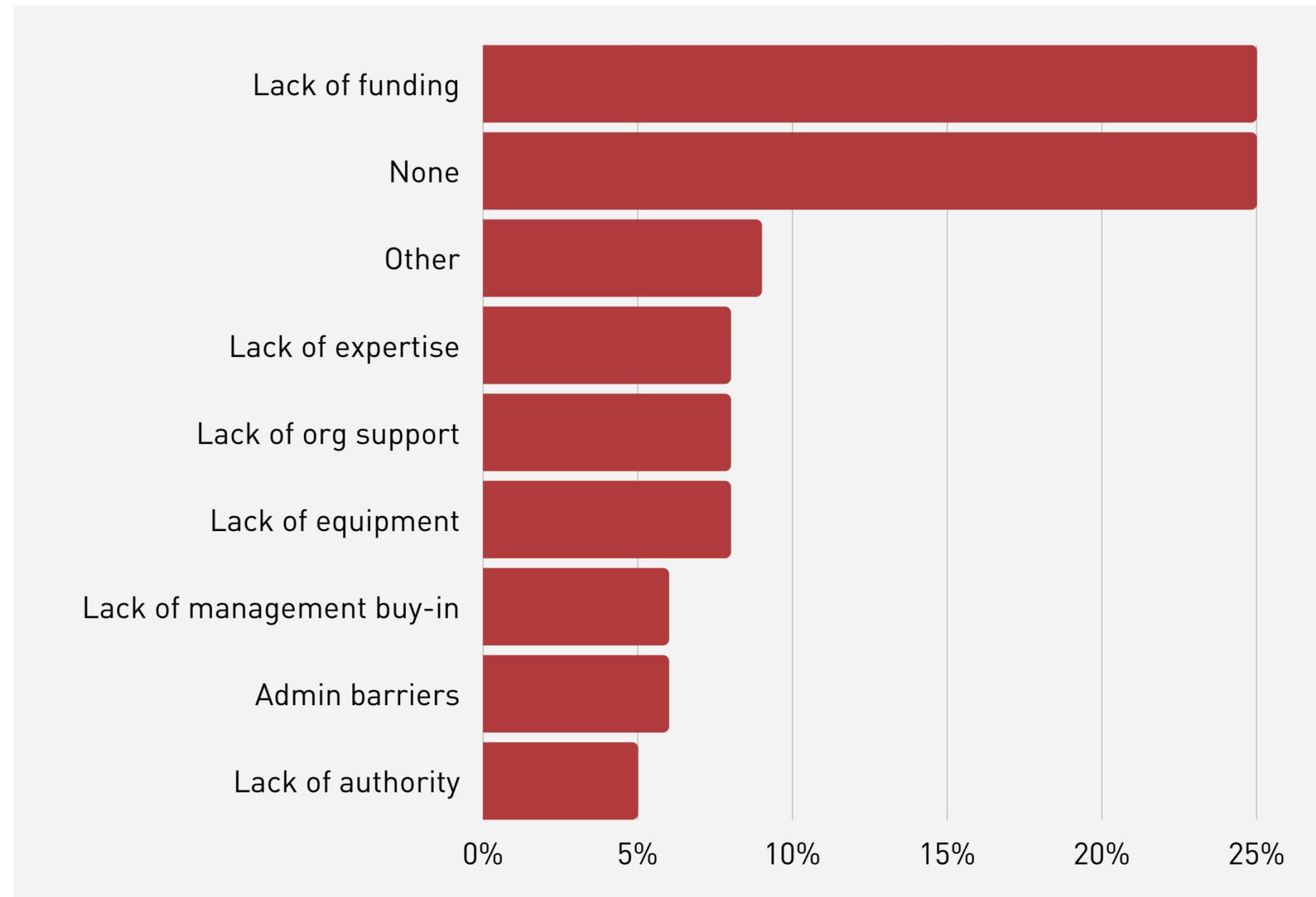
Survey respondents answered why they downloaded an ACRP product. "Getting ideas for new and effective practices used by other airports" was the highest response.



What barriers exist to implementing ACRP research results?

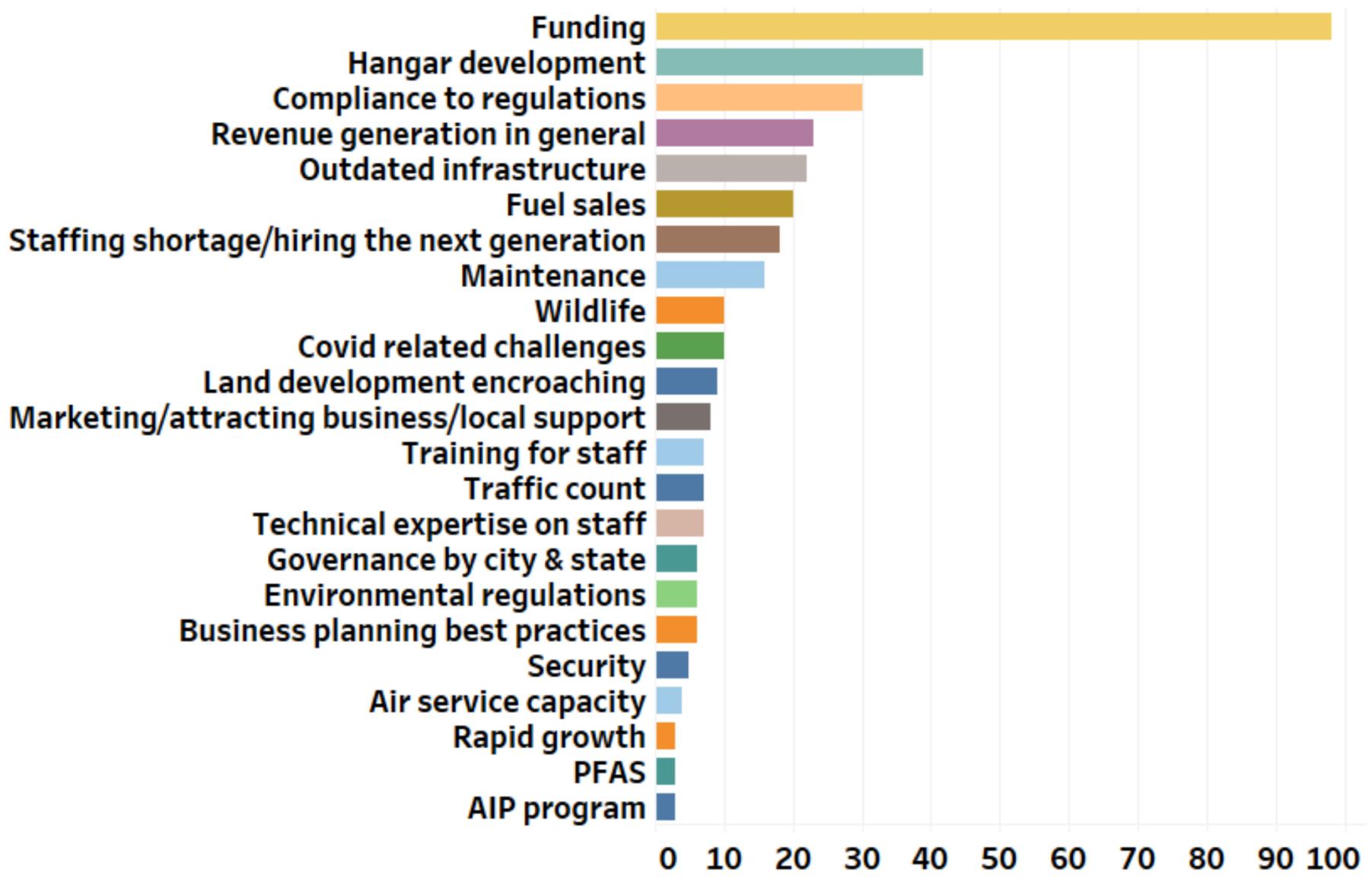
Practitioners provided responses.

ACRP strives to produce research results that are easily implemented, and 25 percent of survey respondents said they experienced no barriers in doing so. Of those indicating a barrier, the most common was lack of funding (25 percent), followed by other varying issues. This information is important for ACRP as it continues to make products accessible to airports of all sizes and locations, and seeks to facilitate implementation.



Challenges faced by airports today.

Survey respondents were given an open ended question asking what key challenges airports face today. The most common response was lack of funding, often for expansion of GA airports, followed by hangar development, and compliance to regulations.



ACRP is valuable to the industry.

ACRP asked airport practitioners whether the program is easily accessible, relevant and timely with research results, and aiding in airport decision-making. The greatest number of responses agree that ACRP provides value to the industry on all measures.

	No Opinion	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
ACRP is valuable to the industry	2.1%	3.4%	0.0%	5.5%	11.0%	78.1%
ACRP conducts research that our organization does not have the resources to conduct ourselves	0.7%	3.4%	1.4%	7.5%	14.4%	72.6%
ACRP conducts research in areas that are useful and relevant to our organization	0.7%	2.7%	2.1%	2.7%	25.3%	66.4%
ACRP conducts research in areas that are useful to immediate and future technology developments in the airport industry	2.7%	2.1%	1.4%	5.5%	29.5%	58.9%
ACRP provides easily accessible information and data that our organization can use to aid in decision-making	1.4%	2.7%	6.2%	7.5%	25.3%	56.8%



INTERESTED IN ENGAGING WITH ACRP?

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