



WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY

Discussion of Future Approaches

Kenneth Joh, Ph.D., AICP
Principal Statistical Survey Analyst

Aviation Technical Subcommittee
September 24, 2026



National Capital Region
Transportation Planning Board

Agenda Item # 3

Purpose of Today's Discussion

Brief the Subcommittee on COG staff discussion with MWAA and MAA staff regarding potential approaches to future Regional Air Passenger Surveys.

- Review the purpose and core requirements of the Regional APS
- Summarize the approaches discussed with MWAA and MAA
- Highlight key methodological and operational considerations
- Obtain the Subcommittee's perspectives on future data collection and possible next steps



Why Consider Alternative Approaches?

The traditional APS relies on field staff to recruit passengers from sampled flights and administer the survey at each airport.

Potential alternative approaches could:

- Use airport communication channels, such as gate displays, QR codes, or airport Wi-Fi
- Reduce the staffing and logistical demands of in-person data collection
- Give passengers greater flexibility in when and how they complete the survey

Any future approach must continue to support statistically reliable and regionally comparable results.

The Two Surveys Serve Different Purposes

Airport Customer Surveys

- Focuses on the passenger experience at the airport
- Tracks customer needs, expectations, and satisfaction
- Collects feedback on an ongoing basis

Regional Air Passenger Survey (APS)

- Focuses on who passengers are and how they travel to the airport
- Supports regional transportation planning and forecasting
- Conducted periodically across the region's three major airports

The surveys **complement** each other but are designed to answer different questions.



Sampling and Recruitment are Fundamentally Different

Airport Customer Surveys: Open Participation

- Open to passengers who choose to participate from Wi-Fi landing page
- Not tied to a predetermined sample of flights
- Designed to collect ongoing customer feedback

APS: Probability-Based Flight Sampling

- COG randomly selects specific flights to include
- Flights are selected to represent different airlines, destinations, and types of service
- Recruitment and responses must be linked to the selected flights

Airport communication channels may support APS recruitment, but the process must remain tied to the flights selected by COG.



The Surveys Also Have Different Data Requirements

Characteristic	Airport Customer Surveys	Regional APS
Results	Reports survey responses from participating passengers	Produces weighted estimates of the passenger population
Flight information	Helpful, but not required	Required to link passengers to sampled flights
Passenger location	Home ZIP code/country, but not required	Trip origin and transportation mode to the airport

For the Regional APS, flight and trip-origin information **must be preserved** because they are essential for regional planning and analysis.



Core Requirements of the Regional APS

How the survey is administered could change. But these **CORE ELEMENTS SHOULD REMAIN THE SAME.**

1. Select Flights

COG randomly selects the flights to be surveyed

2. Recruit Passengers

Recruit passengers from those selected flights

3. Conduct the APS

Use the APS questionnaire and collect required information

4. Analyze Results

COG weights, analyzes, and reports the results



How Could Passengers Be Invited to Participate?

Potential Gate QR Code

HOW IT COULD WORK

Display an APS QR code at selected gates during the survey period.

KEY QUESTION

Can we ensure it reaches passengers on the selected flights?

Existing Airport Wi-Fi

HOW IT COULD WORK

Display an APS invitation through the airport Wi-Fi landing page.

KEY QUESTION

Can we identify or screen for passengers on the selected flights?

Either channel could work – the key is **keeping recruitment tied to the flights selected for the APS.**



Potential Approach: Airport-Administered APS

The airport(s) would recruit passengers and administer the APS, while COG and the airport(s) determine an appropriate approach for sharing and processing survey data.

COG

Select sampled flights; provide APS specifications

Airport(s)

Recruit passengers + host/administer APS

Airport(s) / COG

Store and process APS response data under agreed procedures

COG

Receive data and weight data for analysis/reporting

KEY CONSIDERATIONS

Potential Benefits

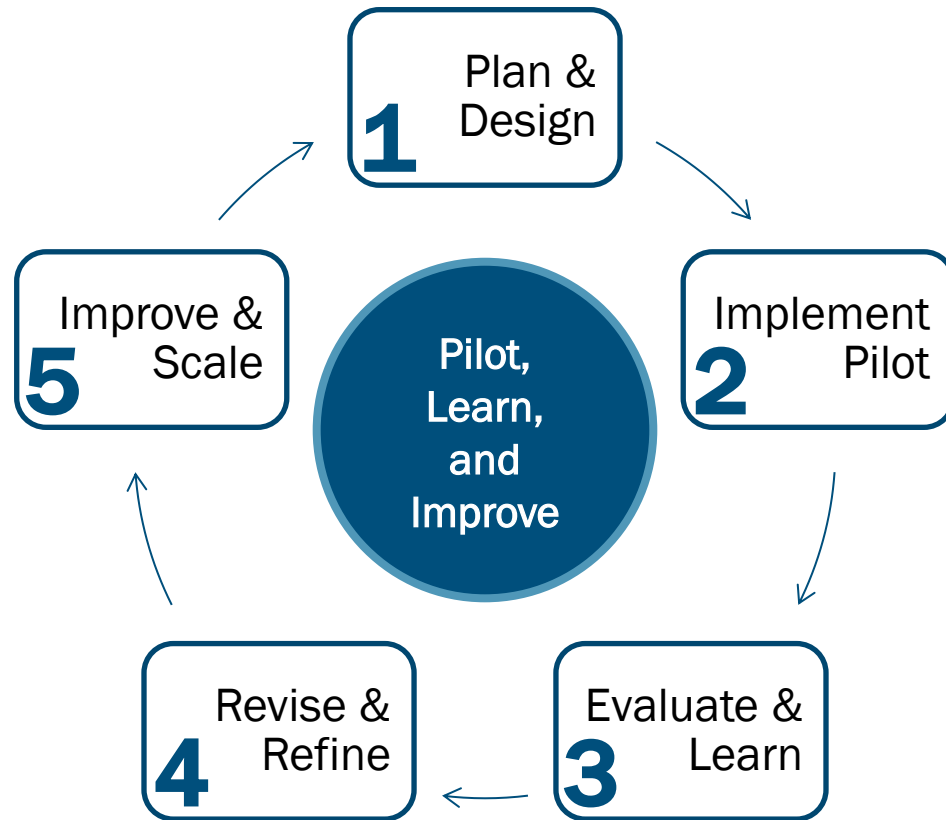
- Leverages existing airport survey and communication infrastructure
- May reduce fieldwork and staffing requirements
- Provides flexibility in how sensitive location data are handled.

Questions to Resolve

- What recruitment methods can each airport support?
- How will the recruitment approach affect response rates and sample quality?
- How should respondent-level and geographic data (e.g., geocoding and assignment to AAZs) be handled and shared?



A Pilot Can Help Determine What Approach Works



- Recruitment feasibility
- Response rates and sample coverage
- Data quality and flight linkage
- Privacy and data sharing
- Operational requirements

A focused pilot should **precede** full implementation.



Key Considerations for a New APS Approach

Response and Participation

- **Moving away from field staff could reduce survey participation**
- Passive recruitment through QR codes or Wi-Fi may produce different response patterns than in-person recruitment
- **Low response on some flights could affect sample representativeness**

Coordination with Existing Airport Surveys

- **Conducting multiple surveys at the same time could create confusion for passengers**
- Multiple survey invitations could reduce participation
- Survey timing and recruitment would need to be coordinated

Regional Consistency

- The Regional APS covers BWI, DCA, and IAD
- **Sampling, recruitment, and survey administration need to remain sufficiently consistent across airports to support regional analysis**
- Any new approach should be coordinated across MWAA and MAA airports



A new approach should improve operational efficiency without compromising participation, data quality, or regional comparability.

Discussion and Next Steps

Fundamental Questions

- How have the airports and regional partners used APS data?
- What planning or operational needs does the APS continue to support?
- Is a Regional APS still needed, and if so, which data and capabilities are essential?

Implementation Questions

- What concerns should COG consider when evaluating an airport-administered approach?
- How can COG, MWAA, and MAA maintain consistency across the three airports?

DECISION REQUESTED

Should COG and the airport authorities proceed with planning for a 2027 Regional Air Passenger Survey?



Kenneth Joh, Ph.D., AICP

Principal Statistical Survey Analyst
Department of Transportation Planning
(202) 962-3276
kjoh@mwkog.org

mwkog.org/tpb

Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002



National Capital Region
Transportation Planning Board