

TRANSPORTATION RESEARCH BOARD

# People Movers and Shakers - Quality of Life in Airport Communities

February 8, 2021

**@NASEMTRB**  
**#TRBWebinar**

# Learning Objectives

- Describe and measure QOL
- Discuss the benefits for an airport of measuring QOL



# American Association of Airport Executives (AAAE)

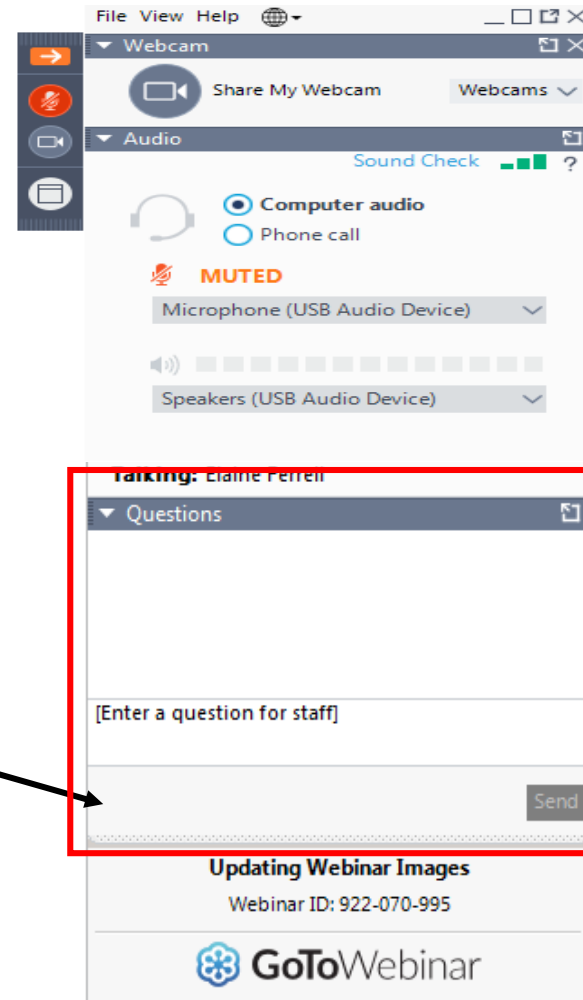
1.0 Continuing Education Units (CEUs) are available to Accredited Airport Executives (A.A.E.)

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# Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



# Today's Panelists

#TRBWebinar



Moderator:  
Jim Crites,  
*James Crites,  
LLC*



Katherine Preston,  
*HMMH*

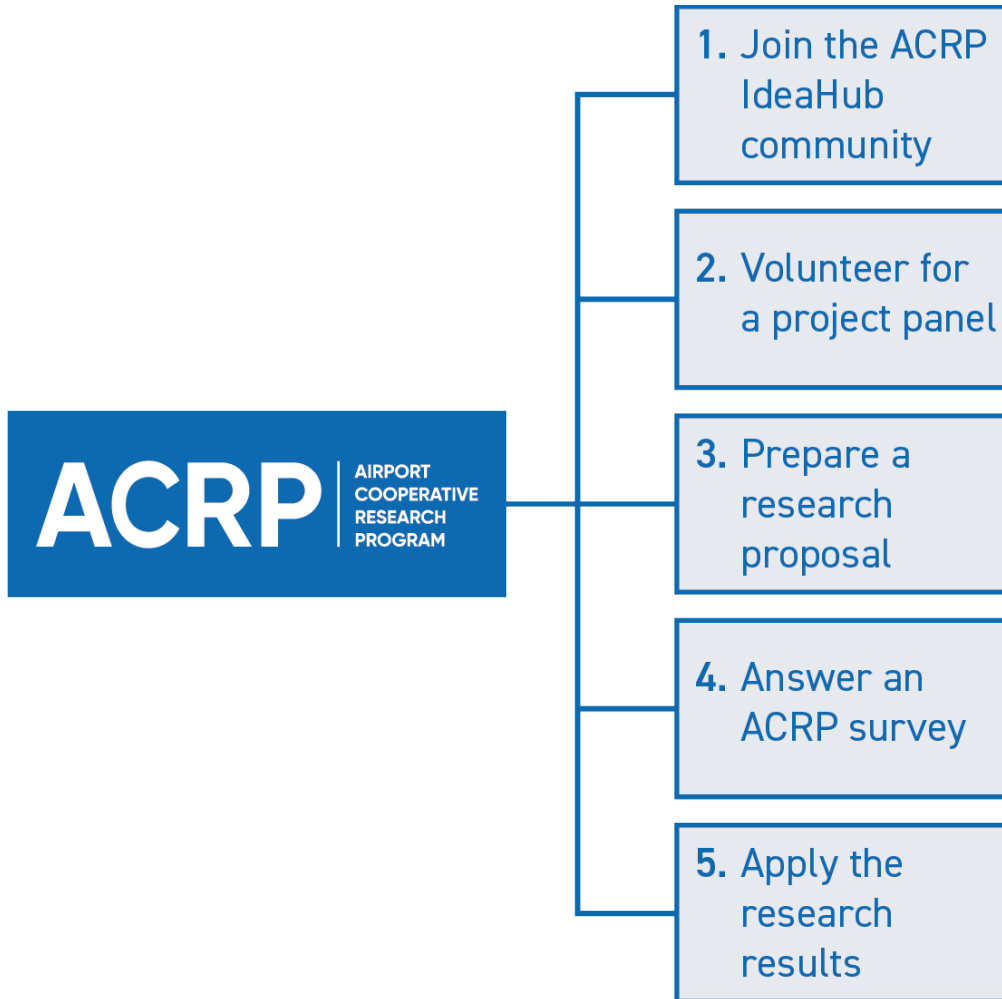


Julie Blue, *Eastern  
Research Group*



Akiya Simms,  
*Hartsfield-Jackson  
Atlanta International  
Airport*

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# James Crites

## James M. Crites LLC

- Proven Aviation expert and leader with more than 34 years of Airport and Airline experience
- Awarded “Champion of Change in Transportation” by President Barack Obama in 2013
- Transportation Research Board, Emeritus Member and Former Chairman of the TRB Executive Committee



## Measuring Quality of Life in Communities Surrounding Airports

**Moderator:** Jim Crites

**Speakers:** Katherine Preston, HMMH

Julie Blue, ERG

Akiya Simms, ATL



# Katherine Preston, ENV SP Principal Investigator

- ➔ Director, Aviation Environmental Services, HMMH
- ➔ Former Senior Director, Environmental Affairs for ACI-NA
- ➔ Aviation environmental management, sustainability, community and stakeholder engagement expertise
- ➔ Over 15 years of experience in the aviation industry
- ➔ M.S. in Environmental Sciences and Policy from the Johns Hopkins University



# Julie Blue, PhD

## Co-Principal Investigator

- Principal Climate Scientist, ERG
- Over two decades of experience in environmental research for federal agencies related to groundwater, surface water, stormwater, drinking water, wastewater, hazardous waste, and climate change
- Julie holds a B.A. in English and mathematics from Swarthmore College, an M.A. in English from Indiana University, and an M.S. in Earth sciences from the University of California, Santa Cruz. She received her Ph.D. in engineering (hydrology) from the University of Arizona.



# Akiya Simms, AA BS.SEM, MPA, CEM Panel Member

- ➔ Risk, Resilience, and Sustainability Planner, Hartsfield-Jackson Atlanta International Airport
- ➔ Master's of Public Administration, Bachelor of Science in Business degree with a concentration in Sustainable Enterprise Management and a Legal Principles Claims Specialist.
- ➔ Over a decade of strategic planning experience in Enterprise Sustainability and Risk Management for airport programs and projects, including the material formulation of contract risk and holistic information systems analysis



# ACRP Report 221 Oversight Panel

Michael Pape, Idaho Division of Aeronautics (Chair)

Casey-Marie Claude, Boston Region MPO

Sam Mehta, Gresham Smith

Barbara Packer- Muti, Nova Southeastern University

Akiya Simms, Hartsfield-Jackson Atlanta International Airport

Meghna Tare, University of Texas at Arlington

Jackie Sweatt-Essick, FAA Liaison

Michon L. Washington, FAA Liaison

Veronica Bradley, A4A Liaison

Sabrina Johnson, USEPA Liaison

Molly Cervinia Laster, US GAO Liaison

Melinda Pagliarello, ACI-NA Liaison

Christine Gerencher, TRB Liaison

Joe Navarrete, ACRP Senior Program Officer

# Community Quality of Life

## What is Quality of Life?

Quality of life is a **broad, multi-dimensional concept** that refers to an individual's or community's **perception of and actual well-being and position in life**, encompassing many categories of variables, including health, economics, environment, psychological, social, etc.



# What is the Challenge?

- Airports often face community / public opposition due to concerns over noise, air quality, safety, etc. This opposition can hinder an airports ability to grow in order to meet demand
- Airports often have robust community outreach, public engagement, and government relations efforts but they may not be coordinated with all other areas of airport operations and, therefore, lack a **holistic** understanding of how airport decisions affect the community
- Airport as well as Community activities can impact public QOL in both a positive and negative manner
- Numerous factors affect QOL that are **not** influenced by airports, but those trends may not

# How ACRP 221 Addresses the Challenge

- Provides guidance for airports to identify and measure quality of life components
- Presents a methodology for measuring these components in the community context
- Serves as a tool for in-depth engagement with community stakeholders and increases transparency
- Provides a mechanism for airports improve cross-departmental communication, and demonstrate awareness of their effects on neighbors
- Flexible approach works regardless of airport size or resource availability
- Promotes cooperation with community / municipal partners



# QOL Assessment Methodology

## How is the methodology structured?

- The QOL assessment methodology makes use of existing, publicly-available data and stakeholder input on various components of QOL, using a “mixed methods” approach.
- Quantitative data, such as population, average income, air quality index, crime statistics, etc., which can be gathered from airport and publicly available datasets.
- Qualitative data is gathered via community survey



# QOL Indicators

- The QOL assessment methodology includes 100 indicators for airports to consider
- 99 of the indicators fall within the six categories below. The 100<sup>th</sup> indicator concerns overall QOL.



## ECONOMIC

23 Indicators  
14 Qualitative | 9 Quantitative



## ENVIRONMENTAL

14 Indicators  
10 Qualitative | 4 Quantitative



## HEALTH

22 Indicators  
18 Qualitative | 4 Quantitative



## LOCAL GOVERNANCE/ COMMUNITY SERVICES

17 Indicators  
14 Qualitative | 3 Quantitative



## SOCIAL RELATIONSHIPS

11 Indicators  
11 Qualitative | 0 Quantitative

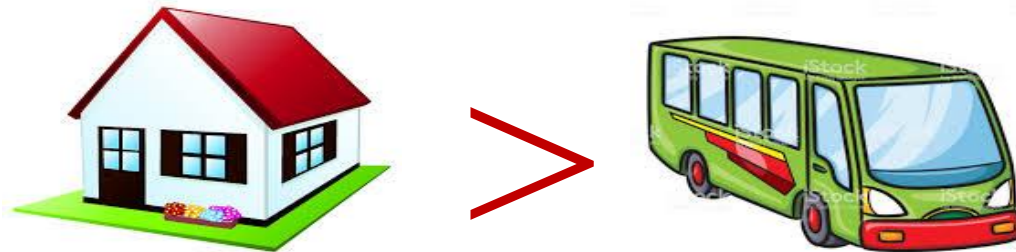


## TRANSPORTATION

12 Indicators  
8 Qualitative | 4 Quantitative

# QOL Indicators

- Many indicators **are not directly impacted by the airport** but are important components of overall QOL from a community standpoint.
- Important to understand all factors that contribute to or detract from QOL in order to provide context for airport activities.
- Not all indicators contribute equally to an individual's or community's QOL so a **weighting mechanism** is included in the QOL Assessment.

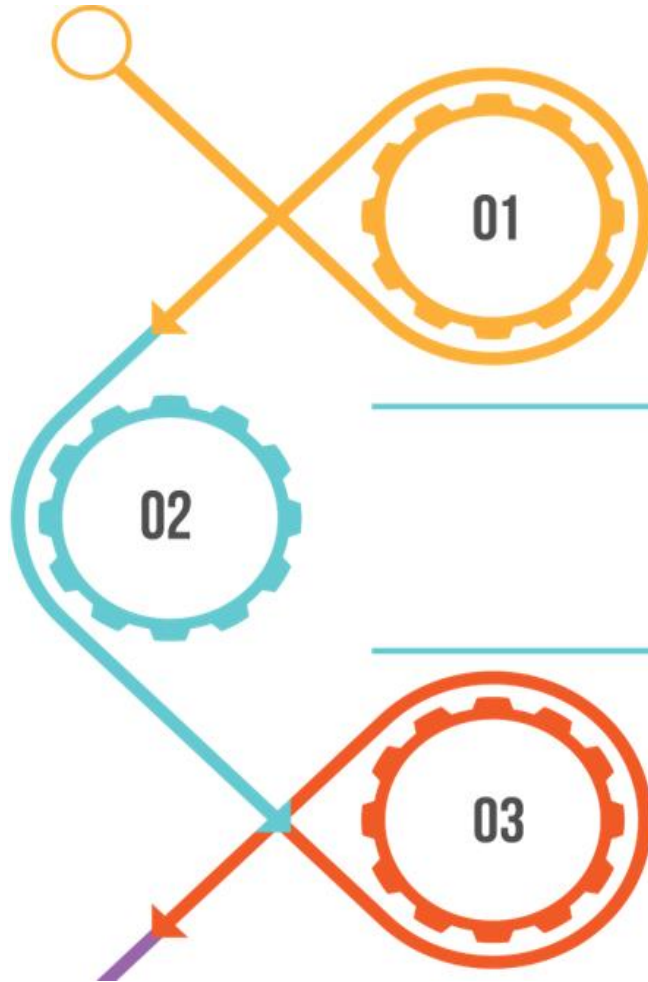


# How to Conduct a QOL Assessment

## QOL Assessment Steps

- The QOL assessment has six steps – airports decide how many they want to complete.
- Benefits accrue even at steps 1 and 2.
  - Increased coordination and communication internally and with external stakeholders
  - Improved community relationships
  - Additional information for airport decision makers to consider

# QOL Assessment Steps



## Initiate QOL dialogue internally

- Identify lead individual and department
- Identify internal airport stakeholders
- Convene discussion
- Define airport goals and desired assessment achievement

## Engage external stakeholders

- Identify external stakeholders
- Discuss indicators and thresholds for quantitative indicators
- Discuss assessment scope

## Determine study area & gather quantitative data

- Determine study area
- Gather quantitative data

# QOL Assessment Steps



## Administer Survey

- Determine survey budget and methodology
- Determine survey administrator (airport or third party)
- Administer survey & collect responses



## Analyze data

- Determine QOL score for quantitative indicators based on thresholds
- Calculate average QOL score for each qualitative indicator
- Calculate average importance score for each indicator
- Visualize data



## Review or update assessment at future date

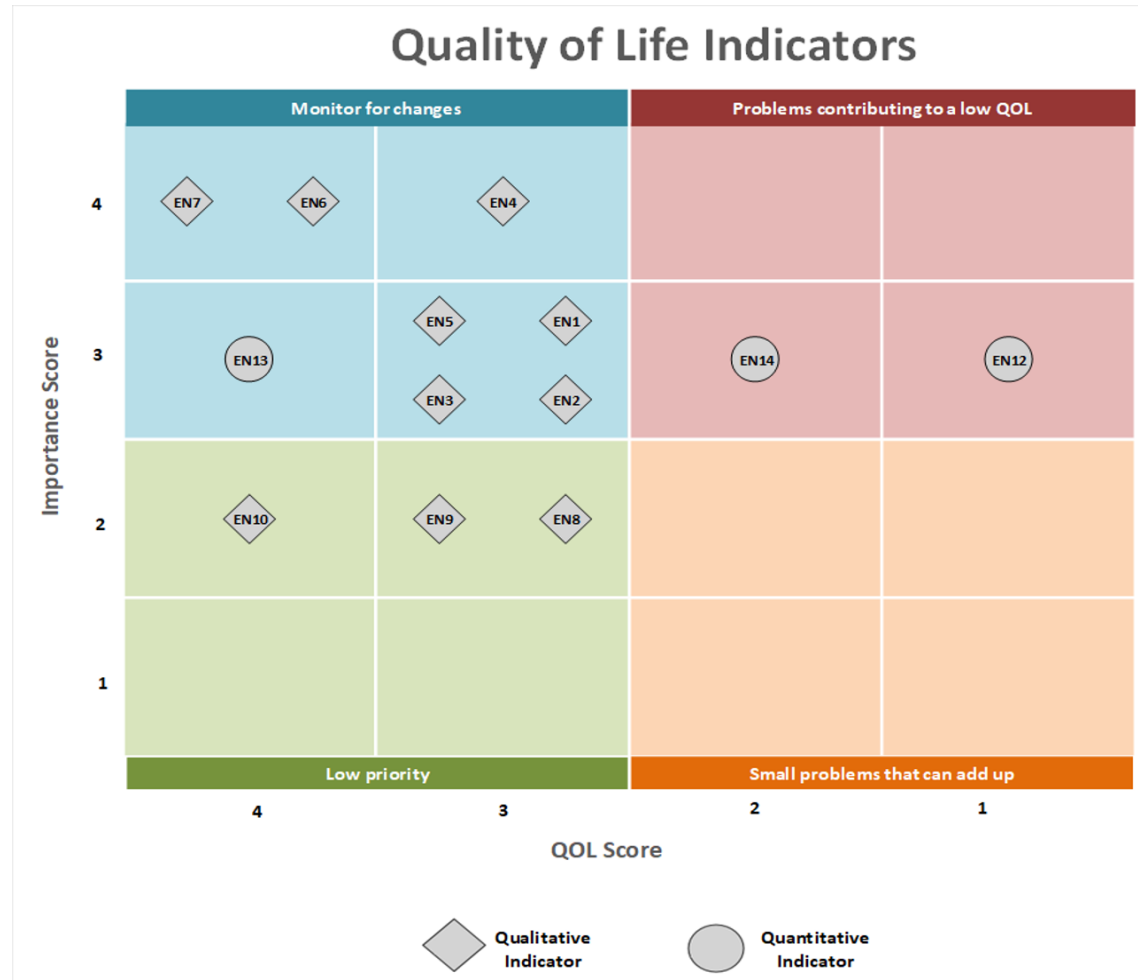
# How to Conduct a QOL Assessment

- The QOL assessment includes a scoring mechanism for each indicator – based on publicly available data (for quantitative indicators) or survey responses (qualitative indicators) and each indicators average importance score
- Results from quantitative data collection and surveys are aggregated and scored
- Each indicators “score” is then plotted on a basic quadrant chart to graphically depict the results

# How to Conduct a QOL Assessment

## Example Quad Chart

Indicators are assigned a designator depending on their category. So EN = Environmental



# How to Conduct a QOL Assessment

- The QOL assessment methodology is flexible, airports choose how many indicators they want to measure based on available resources.
- In some cases, airports may decide to formally partner with a third party conduct the study (i.e. another city department, local 'council of governments', community development organization, etc). Benefits of partnering include:
  - Pooling of staff and financial resources
  - Greater access to community stakeholders/ residents
  - These organizations may already have data on a number of indicators
- The project did not include completion of a QOL Assessment but focused on developing and validating methodology



# Panelist and Airport Perspective



# FOR ADDITIONAL INFORMATION



Katherine Preston

[kpreston@hmmh.com](mailto:kpreston@hmmh.com)

Julie Blue

[Julie.blue@erg.com](mailto:Julie.blue@erg.com)

# Other Ways to Participate



Become an Ambassador. Ambassadors represent ACRP at events and conferences across the country!



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# Other ACRP Research Related to Today's Topic

Report 16: *Guidebook for Managing Small Airports—Second Edition*

Report 20: *Strategic Planning in the Airport Industry*

Report 26: *Guidebook for Conducting Airport User Surveys*

Report 216: *Guidebook for Assessing Collaborative Planning Efforts Among Airport and Public Planning Agencies*

Synthesis 65: *Practices to Develop Effective Stakeholder Relationships at Smaller Airports*

Web-Only Document 17: *Research Methods for Understanding Aircraft Noise Annoyances and Sleep Disturbance*

Web-Only Document 34: *Assessing Aircraft Noise Conditions Affecting Student Learning—Case Studies*

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# Upcoming ACRP Webinars

**February 18**

**A Two-Way Ticket—Collaborative Planning Among Airports  
and Public Agencies**

**March 2**

**Airport Emergency Plan Development Tool**

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# #TRBAM is going virtual!

- 100<sup>th</sup> TRB Annual Meeting is fully virtual in January 2021
- Continue to promote with hashtag #TRBAM
- Check our [website](#) for more information





# TRB turns 100 on November 11, 2020

100  YEARS  
2020

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