Information on ACRP

- www.TRB.org/ACRP
- Regular news and updates on:
  - Upcoming and ongoing research projects
  - New publications
  - Success stories
  - Announcements
  - Webinars
- Find ACRP on Facebook and LinkedIn
Upcoming ACRP Webinars

- **March 17** – Identifying and Developing New Sources of Airport Revenue
- **April 6** – Effective Emergency Management Preparedness
- **April 25** – Guidance for General Aviation Facility Planning

You can register for and learn more about upcoming 2016 webinars by visiting: http://www.trb.org/ACRP/ACRPwebinars.aspx
Opportunities to Get Involved!

- ACRP’s Champion program is a new initiative!
- Designed to help early- to mid-career, young professionals grow and excel within the airport industry.
- Airport industry executives sponsor promising young professionals within their organizations to become ACRP Champions.
- Visit ACRP’s website to learn more.
Additional ACRP Publications Available on this Topic

- **ACRP Report 48** – Impact of Jet Fuel Price Uncertainty on Airport Planning and Development

- **ACRP Report 76** – Addressing Uncertainty About Future Airport Activity Levels in Airport Decision Making

- **ACRP Report 82** – Guidebook for Preparing Peak-Period and Operational Profiles to Improve Airport Facility Planning and Environmental Analyses

- **ACRP Synthesis 65** – Practices in Developing Effective Stakeholder Relationships at Smaller Airports

You can learn more about these publications by visiting [www.trb.org/publications](http://www.trb.org/publications)
Today’s Speakers

Moderated by Mike Hainsey, Golden Triangle Regional Airport

1) Report 142: Effects of Airline Industry Changes on Small and Non-Hub Airports
   • William Spitz, GRA, Inc. and Russell Mills, Bowling Green State University

2) Synthesis 68: Strategies for Maintaining Air Service
   • Mike Gordon and Melissa Galvan Peterson, Sixel Consulting Group, Inc.
Effects of Airline Industry Changes on Small- and Non-Hub Airports

Dr. William Spitz
GRA, Incorporated
and
Dr. Russell W. Mills
Bowling Green State University
Outline

- Introduction to Project and Research Team
- Changes in Air Service at Small and Non-Hub Airports (2001-2013)
- Case Studies and Focus Groups
- Lessons Learned and Strategies
- Products and Outcomes
Introduction to ACRP Report 142

- Research Objectives
  - Identify and quantify impacts on small- and non-hub airports and the communities they serve, of changes in commercial airline service resulting from airline consolidation, fleet realignment and other factors
  
  - Develop strategies for maintaining or achieving desired commercial service at these airports in response to changing market conditions and airline business plans
Project Team Leaders

- **GRA, Incorporated**
  - Rich Golaszewski, Project Manager
  - William Spitz, Ph.D., Principal Investigator
  - Primary responsibility for analysis and dissemination of air service changes across all small and non-hub airports; overall project management

- **Bowling Green State University Center for Regional Development**
  - Russell Mills, Ph.D., Lead Investigator
  - Primary responsibility for conducting case studies and focus groups of selected airports; analysis of air service development strategies

- **Strategic Partners and Associates (SPA)**
  - Sonjia Murray, Lead Investigator
  - Primary responsibility for conducting on-line surveys of airport managers and airline route planners
Airline Industry Changes

- Major trends in commercial air service since 2001
  - Airline consolidation
  - Increasing reliance on connecting hubs by mainline carriers
  - Extremely volatile fuel prices
  - Recovery from 9-11 and great recession
  - Fleet changes away from small regional jets

Planned domestic fleet of Small RJs 2000-2032
Changes in Small- and Non-Hub Flights and Seats, 2001-2015

Continuation and acceleration of trend toward fewer flights, larger aircraft, and remaining legacy carriers exiting smaller destinations.
Flight Shares at Small- and Non-Hubs by Aircraft Type, 2001-2013 Year by Year

**Small Hubs**

**Non-Hubs**
Going Beyond Flight and Seat Counts: Access to the Air Transportation Network

- For small and non-hubs, access to desired destinations depends on how flights mesh with schedule banks of major network carriers
- Go beyond simple analysis of nonstop flights and seats
- Derive connectivity measure for individual airports based on actual connection opportunities to 50 largest US airports as well as 17 major foreign destinations
- Analysis based on proprietary QSI model (Quality of Service Index):
  - QSI points assigned to nonstop, one-stop and two-stop services, varying by equipment type
  - Total QSI points across all 100 potential destinations summed to yield a single QSI score for each airport
  - Scaling: One daily nonstop on a narrowbody jet to a single destination is worth 10 QSI points
Change in Nonstop Seats vs. QSI at Small- and Non-Hub Airports, 2006-2013

Small- and Non-Hub Service to Major US and Foreign Destinations
Percent Change Nonstop Seats vs. QSI, 2006-2013

- Nonstop Seats
- QSI - Study Airports
- QSI - Other
QSI Estimates by Hub Type, 2006-2015

Average QSI Change by Hub Size
(2006 = 100)

Updated to 2015; now includes largest 50 domestic and 50 foreign destinations
### QSI Example: Monterey CA (MRY)

#### October 2006

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Destination</th>
<th>Service</th>
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<tbody>
<tr>
<td>United</td>
<td>San Francisco</td>
<td>7x/day</td>
</tr>
<tr>
<td></td>
<td>Denver</td>
<td>1x/day</td>
</tr>
<tr>
<td></td>
<td>Los Angeles</td>
<td>6x/day</td>
</tr>
<tr>
<td></td>
<td>Los Angeles</td>
<td>4x/day</td>
</tr>
<tr>
<td></td>
<td>Salt Lake City</td>
<td>2x/day</td>
</tr>
<tr>
<td>American</td>
<td>Phoenix</td>
<td>2x/day</td>
</tr>
<tr>
<td>America West</td>
<td>Las Vegas</td>
<td>4x/wk</td>
</tr>
<tr>
<td>TOTAL</td>
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<td>22.5x/day</td>
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</table>

#### October 2013

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Destination</th>
<th>Service</th>
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<tbody>
<tr>
<td>United</td>
<td>San Francisco</td>
<td>5x/day</td>
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<tr>
<td></td>
<td>Denver</td>
<td>1x/day</td>
</tr>
<tr>
<td></td>
<td>Los Angeles</td>
<td>3x/day</td>
</tr>
<tr>
<td>American</td>
<td>Los Angeles</td>
<td>3x/day</td>
</tr>
<tr>
<td>Allegiant</td>
<td>Las Vegas</td>
<td>2x/wk</td>
</tr>
<tr>
<td>US Airways</td>
<td>Phoenix</td>
<td>3x/day</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>17x/day</td>
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</tbody>
</table>

#### 2006 vs 2013

- **Reductions in service to network hubs at San Francisco, Los Angeles and Salt Lake City by United, American and Delta**
- **Total airport QSI declined from 514 in 2006 to 451 in 2013 (-12%)**
- **Service to most destinations declined, but actually increased at some**
- **Further cuts since 2013 – UA exits MRY-DEN, AA exits MRY-LAX, Allegiant exits MRY-LAS, UA service to SFO cut from 5x to 2x; total service now 10x/day**
Ongoing Analysis of Airport Access to the Air Transportation Network

- www.gra-inc.com → Areas of Practice → Insights

- Adjustments and improvements from current analysis:
  - Looks at domestic airports of all sizes, not just Small and Non-hubs
  - Considers economic importance of destinations

Updated to 2015; now includes largest 50 domestic and 50 foreign destinations
Survey Analysis – What Have Airports Done to Retain or Attract Service?

Survey of 78 Small and Non-hub Airports Conducted in December 2013

Incentive Types Offered by Small and Non-Hub Airports

Has the Incentive Program Been Effective?

- Yes: 76%
- Need More Time: 11%
- No: 13%
Community-Driven Air Service Development

- **Typical actors:**
  - Air Service Coalition
  - Economic Development Corp.
  - Chamber of Commerce
  - Convention and Visitors Bureau
  - Local business owners
  - Tourism drivers

- **Types of incentives:**
  - Minimum revenue guarantee (MRG)
  - Travel banks
  - Community advertising

- **Federal Programs:**
  - Small Community Air Service Development (SCASD) grants
**Case Studies and Focus Groups**

- Case studies built from interviews with airport managers and consultants and media reports.

- **Case study selection driven by:**
  - Recent air service performance
  - Recent economic performance
  - Geographical diversity

- **Focus Group site selection driven by:**
  - Type(s) of air service development incentives
  - Level of community involvement in air service development
Focus Groups

- **Focus Group Locations:**
  - Fargo, ND (FAR); Sonoma, CA (STS); Asheville, NC (AVL); Redding, CA (RDD); Toledo, OH (TOL)

- **Two day site visit comprised of:**
  - Interviews with airport manager, air service development consultant, local economic development director, Chamber of Commerce officials, and Convention and Visitors Bureau.
  - Focus group session with local business owners and citizens

- Gain insight into community-driven ASD efforts and develop lessons learned and strategies that may be replicable in other locations.
Focus Group Conclusions

There is little connection between air service growth and population growth; there is a somewhat stronger connection between air service growth and regional employment change.
Focus Group Conclusions

Community-driven incentive programs also are a signal to air carriers of a community’s commitment and demand for new service. But incentives based entirely on SCASD funds are a signal of weak community support.
Focus Group Conclusions

Incentives are a complement, not a substitute, for underlying local demand. There is no “silver bullet” incentive.
Focus Group Conclusions

Although incentive programs can influence air carrier decisions at the margins, local economic growth and market demand are the factors most likely to influence air carrier decision-making.
Lessons Learned

- Air service development is relative. Air carriers do not choose new routes in a vacuum but through a comparative analysis of profitability across communities.

- Many of the factors that determine whether an air carrier will start new service in a community are out of the hands of airport and community leaders.

- When deciding whether to initiate an air service development program, communities must weigh the cost of the initial investment in incentives for new air service with the likelihood that their market can sustain the service once the incentives end.
Lessons Learned (cont.)

- As communities look to organize and develop air service development efforts, alternative modes of transportation that take passengers to larger hub airports are an effective way to build community support for the local airport.

- Due to industry demand-reduction and the competitive nature of air service development, a focus on retaining existing air service can be an effective strategy.
Air Service Development Strategies and Self-Assessment Tool

Self-assessment tool asks airport managers and community leaders to answer a series of brief questions in five categories:

- Local Economic Performance
- Existing Air Service Profile
- Recent Changes in Air Service Performance
- Airline and Community Incentive Programs
- Level of Community Engagement

Local Economic Performance

Does your region have a major industry or business that is dependent upon airline service?  
Yes= 1  No=0

Is the count of annual enplaned passengers greater than your current population total?  
Yes= 1  No=0

Over the past five years, has your region experienced employment growth greater than or equal to the national average?  
Yes= 1  No=0

Over the past five years, has your region experienced per capita income growth greater than or equal to the national average?  
Yes= 1  No=0

Total Score

Total Score 3 or more = Strong Economic Performance  
Total Score 2 or less = Weak Economic Performance

Similar questions for other categories; integer scores can be summed up to provide an overall assessment of whether an airport is Strong orWeak in each category.
## Air Service Development Strategies and Self-Assessment Tool

### Strong Regional Economic Performance

- Ensure that Major Businesses that Depend on Air Service are Active Members of Airline Attraction Committees
- Officials Should Routinely Meet to Quantify Both Realized and Unrealized Demand for Air Service Generated by Changes in Economic Indicators and Demographic Factors.
- Use Indicators of Strong Economic Performance to Expand Existing Service

### Weak Regional Economic Performance

- Airport Managers Should Be Actively Involved in Local Economic Development Efforts to Attract New Businesses or Industries to a Region
- Airport Experience Branding or Tourism Investment Can be an Effective Strategy to Overcome Limited Economic Growth and Generate Demand for New Service
## Air Service Development Strategies and Self-Assessment Tool

### Strong Level of Community Engagement
- Airport Managers Must Continue to Educate and Reach Out to Local Businesses and Civic Groups on the Performance of the Airport and the Airline Industry.
- Formalize Governance Arrangements to Allow for Nimble Responses to Future Air Service Development Opportunities

### Weak Level of Community Engagement
- Airport Managers Must Establish Education and Outreach Programs that Communicate the Value of the Airport to the Community
- Develop Close Working Relationships with Key Community and Economic Leaders Such as the EDC, CVB, and Chamber of Commerce
ACRP Report 142 Materials


- Guidebook that contains case studies, focus groups, lessons learned and strategies for airport managers and community leaders:
  - Linking Economic Performance and Air Service Development
  - Developing an Air Service Development Program
  - Identifying an Air Carrier and a New Destination
  - Developing an Effective Incentive Program
  - Meeting with Air Carriers and Community Leaders
  - Ensuring the Sustainability of New Service

- Airport/Community Self-Assessment Tool and Customized Strategies for Air Service Development
ACRP Synthesis 68: Strategies for Maintaining Air Service

• The objective of Synthesis 68 was to describe strategies pursued by non-hub, small- and medium-sized airports, their communities, and local businesses to maintain air service.

• The audience for the report was geared toward non-hub, small- and medium-sized airport operators, governing entities, and their communities.

• Did not evaluate the merits of the EAS program or the SCASD program.

• Usable reference guide as well as a living document.
Methodology

• 3-pronged approach: literature review, emailed survey, and follow-up in-depth phone interviews.
  • Same process for airport participants as domestic air carrier planning staff.

• How were airports selected?
  • Based on geographic location, and upon each airport’s classification, utilizing FAA calendar year 2013 enplanement data.

• Response rate of 81.3% for airport participants while only 40% for airline participants.
Increasing Costs Have Spurred Consolidation

FIGURE 1 Airline consolidation since 1978
(Source: Penning 2014)
Southwest Airlines – Love Field Prior to Sunset of Wright Amendment

FIGURE 2 First quarter 2009 nonstop Southwest Airlines routes from Dallas Love Field. (Source: Compiled by Sixel Consulting Group, Inc.)
Southwest Airlines – Love Field Post Wright Amendment

FIGURE 3 First quarter 2015 nonstop Southwest Airlines routes from Dallas Love Field. (Source: Compiled by Sixel Consulting Group, Inc.)
Six Broad Characteristics of Airport Participants

1. Regional makeup
2. Airport size (based upon enplanements)
3. Enplanement trends
4. Seats, frequency, and number of carriers
5. Destination characteristics (Does airport serve as gateway to vacation destination?)
6. Community characteristics (Does airport serve mostly leisure or business traffic?)

• Then airport participants grouped into characteristics to identify trends/strategies.
Figure 4 US map depicting number of survey respondents in each region. (Source: Compiled by Sixel Consulting Group, Inc.)
The Three Cs: COST, COMMUNICATION, AND COMMUNITY ENGAGEMENT

• Throughout all six broad characteristics noted previously, cost, communication, and community engagement were thoroughly embedded.

  • Cost: true cost of operating from the airfield (CPD vs. CPE) whether controllable or uncontrollable
  • Communication: incumbent air carriers, stakeholders, public, governmental entities, etc.
  • Community engagement: process in which identified groups (communities) are engaged in opportunities which have the potential to affect them
<table>
<thead>
<tr>
<th>Controllable:</th>
<th>Uncontrollable:</th>
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<tbody>
<tr>
<td>– Air Carrier incentive programs</td>
<td>– Ground handling and 3rd party vendor costs</td>
</tr>
<tr>
<td>– Cost per departure vs. cost per enplanement</td>
<td>– Wright Amendment lifting</td>
</tr>
<tr>
<td>– Communication</td>
<td>– Communication with community</td>
</tr>
<tr>
<td>– Community engagement</td>
<td>– Fuel</td>
</tr>
<tr>
<td>– Resources available</td>
<td>– Aircraft fleet issues</td>
</tr>
<tr>
<td></td>
<td>– Economy</td>
</tr>
</tbody>
</table>
Cost:
Case Study #1 - Rapid City Regional Airport (RAP)
Communication:
Case Study #2- Reno–Tahoe International Airport (RNO)
Community Engagement:
Case Study #3- Rogue Valley International–Medford Airport (MFR)

- **ACE (Airport Community Enthusiasts)**
  - An advocacy extension of the Airport Advisory Committee established to encourage, promote, support and aid the development and use of the Rogue Valley International-Medford Airport.

- **Quarterly eNewsletter updates 7,000+ members on events at the airport as well as a number of fun facts designed to pique public interest.**

- **Incentive for joining and maintaining a free membership:** ACE members receive up to two hours of free parking near the main terminal on a first come, first served, basis with local businesses assisting in covering the cost of parking for ACE members.
In Summary…

• Are you aware of your airport’s true costs?
  • Fuel flowage fees, into plane fees, landing fees, ground handling fees, etc.
  • Objectively, if you were an airline, would you want to partner with your airport?

• How are you actively communicating with your incumbent airlines?
  • Conference calls, conference meetings, headquarters meetings, emails, etc.
  • What type of information are you sharing, and who is the facilitator of the conversation?

• What are you doing to engage your “communities?”
  • Do you have a schedule of speaking events you regularly attend?
  • Are you spending the time required to understand your stakeholders and their travel patterns?
  • Have you established your position as the “local expert” for aviation?
For additional information:

ACRP Synthesis 68: *Strategies for Maintaining Air Service*

http://www.trb.org/Main/Blurbs/173208.aspx

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