

## **MEMORANDUM**

To: Kevin Smith, General Manager,  
Truckee Tahoe Airport District

From: Economic & Planning Systems

Subject: Responses to Airport Economic Impact Study Supplemental  
Questions

Date: August 5, 2016

*The Economics of Land Use*



The following are EPS's responses to the District's supplemental questions regarding how we would approach addressing these factors in the study.

**1) While facilitated by the airport now, what direct, indirect, and induced benefits/impacts would the community still receive anyway independent of the existence of the airport. How would your firm account for this factor?**

- EPS would take the approach of identifying the portion of economic activity from the airport that would likely still occur in the area without the airport.
- **Business/Leisure Travelers:** EPS would utilize the survey to understand the degree to which travelers might still visit the area without the airport, by collecting data on:
  - Origin and destination (i.e. distance of travel);
  - Reason for travel;
  - Cost of travel
  - Total daily spending on lodging, retail, entertainment;
  - Location of spending (local versus non-local)
  - Question: Would they travel by car (or another mode of travel) if the airport did not exist?

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- **Vendor/TTAD Operations:** EPS would utilize operational and expenditure data from vendors and the District to characterize the portion of business to business activity that occurs locally versus non-locally
  - What portion of salaried or contracted employment lives locally?
    - EPS could identify ways to capture this with some reference to location and/or zip code. HR personnel are sometimes willing to share this level of information, because it doesn't disclose personal information.
    - Alternatively, EPS could evaluate using a secondary data source, such as the U.S. Census Longitudinal Employer Household Dynamics data, to document location of employment and local of residence.
  - What portion of business-to-business transactions occur with locally-based businesses?
    - Again, EPS would look for ways to capture data with geographic specificity, such as zip code, without disclosing sensitive or confidential information
  - Question: Would vendors (e.g. restaurants, Care Flight, etc.) still be located in the area independent of the airport?
- **District-Funded Facilities or Activities:** EPS understands that the District has funded community facilities and annual community activities. Some of these questions could be answered with both qualitative and quantitative answers. EPS would evaluate answering them from both perspectives.

**2) In reviewing capital spending such as FAA grants, how would your firm account for impacts of funding for projects where funding is used by out of region contractors? (Reno, Sacramento) example: Out of region contractor is issued a contract and their employees do not reside with the Airport District boundaries nor is the contractor purchasing materials within the District.**

- EPS understands that TTAD receives an average of \$1 million annually from federal grants, according to recent materials prepared for a Neighborhood Meeting Board presentation.
  - An example of an out of region contractor is Care Flight. EPS understands that Care Flight operates a base out of the airport. As a community-based model, i.e. not one based at or serving a specific hospital, EPS understands that it staffs this base with only a pilot, nurse, and paramedics with potentially contracted ground support. Other operations, such as its accounting, finance, management, HR, etc. are likely employed in a location central to Care Flight's multiple bases.
- Approach
  - In general, EPS will carefully evaluate all expenditure line items in operational and expenditure data from the vendors and the District to ensure we can identify out-of-region economic activities.
    - If staff have specific records, EPS will collect this either through the initial data collection effort or individual interviews.
    - In the absence of documentation, EPS will work with staff contacts to understand their best estimate of the portion of expenditures occurring in the area.

- Examples
  - **Transportation facility economic impact study:** in a recent study of a \$1.6 billion managed roadway network, we worked with the finance director to ensure that only its operational expenditures that were being put into the local economy were being attributed to the facility, which did not include massive multi-million dollar debt service payments that went to bond holders and Wall Street.
  - **US AMT Economic Impacts:** In this study, we collected operational and financial data from hospital-based and community-based operators. Nearly all of the community-based operations had centralized administrative, accounting, financial, and dispatch jobs, whereas the bases were located throughout the US. These were jobs and economic activity impacts that could not be attributed to the region in which their bases were located. As with that study, EPS will ensure that economic activity is appropriately attributed to the location of the impact.

**3) If the airport did not exist, what direct, indirect, and induced revenue might still be generated by the traveler and business community?**

- EPS would use primary survey data (described in the response to Question 1) from both business and leisure travelers as well as vendors to quantify the portion of activity that would likely still occur even if the airport did not exist.
  - This would involve looking at likelihoods of certain vendors operating independent of the airport (for example, the restaurant or Care Flight)
  - It would involve looking at the distance leisure and business travelers travel from their origins, whether or not the area is their final destination, and whether or not those travelers could reasonably or would still want to travel to the Truckee Tahoe area by automobile.

**4) Are survey methods considered effective to understand traveler and airport user spending behavior as it relates to Economic Impact Studies? Why? How do you account for self-selection bias particularly with web based surveys?**

- *Are survey methods considered effective to understand traveler and airport user spending behavior as it relates to Economic Impact Studies?*
  - Yes. Survey methods are well documented in economic literature/theory as a good tool to draw conclusions on provided they are designed appropriately.
  - In EPS's resort work, this is a common tool and analytical/data collection feature. No secondary data source on visitor spending exists that is both available at this level of geography and that identifies detailed spending categories, such as lodging, retail, etc.
  - EPS has also integrated operational, expenditure-related, and consumer behavior data from surveys into numerous recent economic impact studies.
  - These datasets complement and provide a refinement to the off-the-shelf nature of IMPLAN findings, which frequently do not capture the nuance of local economic dynamics.
- *Why?*
  - The information gleaned from a survey in this type of study is to document the benefits that accrue to the area versus those where dollars are taken outside or not spent in the area at all (addressing the concern in question 2 as well).

- *How do you account for self-selection bias particularly with web based surveys?*
  - EPS proposed a variety of and potentially a combination of survey methods – mail, web-based, and intercept/combination.
  - To guard against any type of web-survey bias, EPS would:
    - Monitor responses by type of respondent
    - Monitor responses by other important cohorts, such as income level, and to generally ensure that responses are representative of the distribution of activity to the greatest extent possible.
  - Because it would be critical for the District to collect traveler survey data, EPS would encourage the District to support a combination survey effort, where the survey instrument utilizes either:
    - an intercept and web-based combination,
    - a mail and web-based survey combination, or
    - some combination of all
  - EPS would also anticipate validating the data by using demographic or economic distributions from past robust survey efforts, either in the Tahoe region or specific to similar airports, or known data sources to provide the District with assurances of its representative nature.
- *Our past experience with guarding against self-selection bias:*
  - Our approach is two-fold:
    - Over-sample specific population groups that are unlikely to respond in great numbers, and
    - Weight the responses, even after over-sampling, to ensure that the findings by population group are not skewed
  - EPS understands that self-selection bias in a web-based survey, or any type of survey, is always possible and detrimental to the findings especially when motivated advocates/opponents can dominate survey responses.
    - In community surveys, for example, this involves over-sampling age, renter/owner, and income levels.
    - Again, most importantly, even with over-sampling, weighting the responses avoids self-selection bias in the findings and analysis.

## **5) What are the impacts to the community of not having an airport?**

- EPS would look at the all of the economic contributions that are being evaluated as a part of this study, utilizing traveler spending and business transaction data from the survey, vendor operational and expenditure data, District-funded facilities and activities, property valuations and tax revenue contributions, potentially travel time savings and safety data, as well as data from the District, and looking at those portions which represent activities likeliest to still occur without an airport, such as:
  - What portion of business/leisure travelers are still likely to visit the area?
  - What portion of vendors is still likely to operate in the area?
  - What community facilities and/or activities are still likely to exist?
- These estimates would be translated then into total annual economic activity and used as inputs to the I/O model to understand the magnitude by which they ripple through the local economy.

**6) How do you account for adverse impacts of airport that might offset economic benefits?**

- In an honest assessment of economic contributions, it is important to document the positives and negatives to make an honest claim of benefit.
  - For example, in our work for the E-470 toll authority, we ensured that the economic value of the travel time savings it construed to travelers was netted against the dollars spent on tollway fares
  - In our fiscal impact work, it is critical to develop accurate cost and revenue factors for each demand unit
- EPS would plan to incorporate the findings of the GHG Inventory study which will document the direct and indirect sources of GHG by sector. EPS would translate these findings into economic values, associated with such potential factors as the cost to mitigate each ton of carbon emissions.
  - For example, in our work for the City of San Antonio, we documented the GHG and economic costs associated with automobile trips when evaluating different citywide land use development scenarios. This effort would utilize some of the structure built for that model.