



## ADE-2 - Airport Development Economics Model<sup>®</sup>

### *Airport Effects on Surrounding Land Use & Development*

**What is it?** ADE-2 is an enhanced and updated version of the Airport Area Economic Development Model, originally developed by Glen Weisbrod. It estimates airport and directly-related off-airport business activity, employment and building development. It is applicable to assess existing conditions, impacts of future airport expansion and impacts of a new airport.

**What does it do?** The model provides a means for estimating current and/or future changes in employment and building development at the airport, adjacent to the airport and elsewhere in the community, which are attributable to airport activities. The model also provides a means for estimating the potential direct and indirect impacts of airport activity changes on local and regional business growth and attraction. It can be used alone or in conjunction with input-output and benefit-cost models to estimate total economic impacts. The core model is an expert system that establishes a relationship between airport growth and surrounding area development, depending on local conditions.

#### **Model Inputs:**

- *airport activity*: based aircraft; passengers; flights; volume of freight and mail
- *characteristics of the regional economy*: population, employment, gross domestic product
- *airport function*: commuter, corporate, reliever, hub, gateway, maintenance functions
- *characteristics of the airport setting*: land available, land use patterns, access to downtown, specialization of surrounding business activity

#### **Model Output:**

- *business activity*: jobs, income & business output, by type of business (SIC/NAICS) -- separating at-airport, surrounding vicinity and elsewhere in the region
- *net and gross demand for building space* -- by building/land use type (sq feet or sq meters)

**What are its uses?** Applications include:

- estimation of *airport benefits* - current and future;
- forecasting the potential for *future area development*; and
- as an input to *benefit/cost analysis*.

**Application.** ADE-2 is customized for specific clients and projects. It has been applied in various forms for airports in South Africa, Scotland and Japan, as well as the US. The related ABC -- Airport Benefit Cost model -- has also been applied for airports in Arizona, Massachusetts, Michigan, Oregon, New York, Tennessee, Virginia, Vermont, and Wisconsin.