



Economic **Contribution** of **Civil** Aviation

Ripples of prosperity



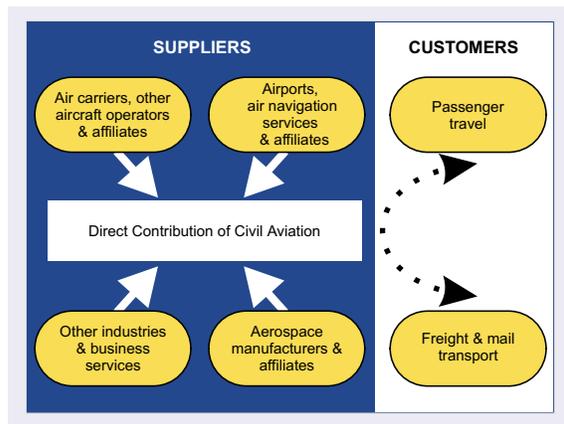
Civil Aviation and the Economy

Civil aviation includes air transport (commercial carriage by air), non-commercial flying (such as private flying), commercial non-transport (such as aerial crop dusting and surveying), infrastructure (such as airports and air navigation facilities) and manufacturing (such as aircraft, engines, and avionics).

Air transport is the lead constituent of civil aviation. In 2001, airline scheduled services alone carried about 1 600 million passengers and moved about 30 million tonnes of freight and mail worldwide. Some 40 per cent by value of the world's manufactured exports and over 45 per cent of the more than 700 million international tourists were transported by air that year.

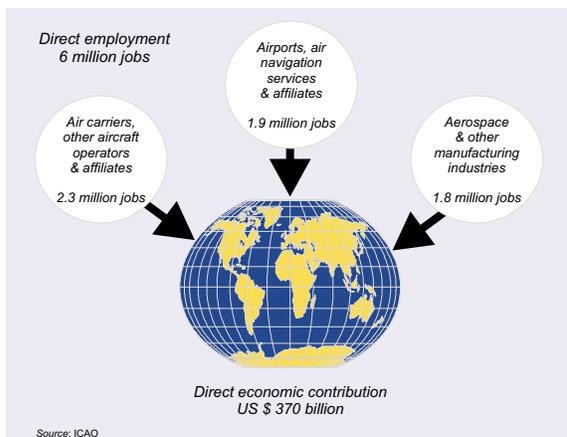
Air transport has traditionally experienced higher growth than most other industries. Demand for air transport is closely linked with economic development; at the same time air transport is a driver in an economy.

The contribution of air transport and related civil aviation industries to local, regional or national economies includes the output and jobs directly attributable to civil aviation as well as the multiplier or ripple effect upon other industries throughout the economy.



Direct Economic Contribution

Air transport services deliver the final product of civil aviation industries to customers around the globe. To provide passenger, freight and mail services, air carriers, business aviation and other commercial operators purchase a wide range of products and services from airports and air navigation service providers, manufacturing and service industries, which in turn depend on numerous suppliers.



ICAO estimates the direct contribution of civil aviation, in terms of the consolidated output of air carriers, other commercial operators and their affiliates, as \$370 billion for the year 1998. These operators had 2.3 million employees on their payrolls. Further direct employment on-site at airports and by air navigation service providers accounted for another 1.9 million jobs while production by aerospace and other manufacturing industries generated at least 1.8 million jobs. Thus civil aviation directly contributed no less than 6 million jobs to world economies in 1998.

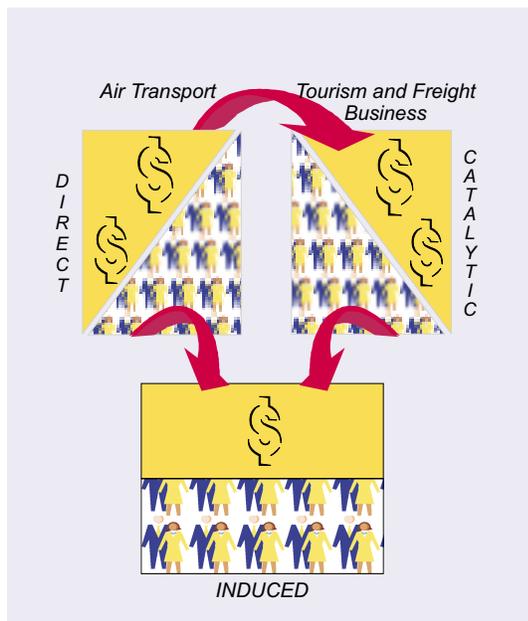
Multiplier Effects

Beyond the direct economic contribution of civil aviation industries, there are multiplier, or ripple, effects with a wider or narrower spread throughout an economy depending on the circumstances (for example, countries with significant aerospace manufacturing will show a wide spread, while those with limited air transport services may have a relatively narrow spread).

Multiplier effects of non-directly generated output and employment are assessed by combining what is referred to as catalytic and induced demand effects.

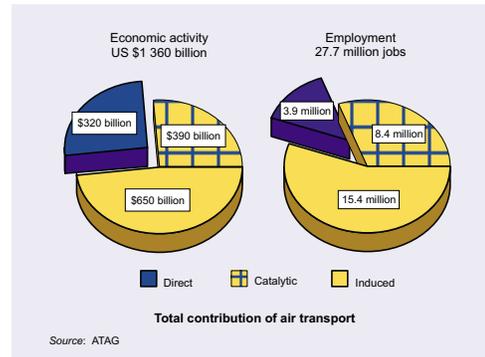
Catalytic demand effects include off-airport expenditures directly related to the use of air travel and shipment of freight and mail, notably travel and tourism businesses (such as hotels and restaurants, travel agencies, tour operators and retailers) as well as the whole spectrum of freight business activity.

Induced demand effects are consumer spending from income earned through direct and catalytic economic activities and public expenditures from related tax revenues.



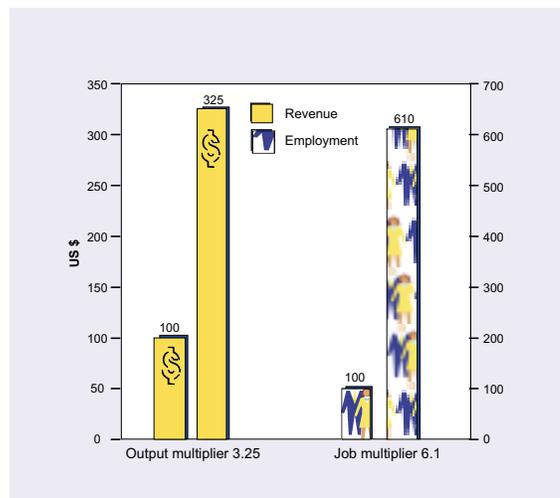
Considering direct and multiplier effects of air transport alone, a total output of \$1 360 billion and 27.7 million jobs were generated worldwide in 1998, according to an estimate for the Air Transport Action Group (ATAG – a

Coalition of broad-ranging organizations and businesses from civil aviation and related industries). The direct contribution of the air transport component of civil aviation was estimated at \$320 billion and 3.9 million jobs. Catalytic demand effects accounted for \$390 billion output and 8.4 million jobs, while induced demand effects accounted for \$650 billion output and 15.4 million jobs.



The economic stimuli of civil aviation — beyond their direct contribution — can be expressed in terms of output and employment multipliers:

In the global economy, every \$100 of output produced and every 100 jobs generated by air transport trigger additional demand of some \$325 and 610 jobs in other industries.



In a nutshell, more than four and a half per cent of world economic output may be attributed to the air transport component of civil aviation.

International Civil Aviation Organization (ICAO)

ICAO was created in 1944 to promote the safe and orderly development of civil aviation in the world. A specialized agency of the United Nations, it sets international standards and regulations necessary for the safety, security, efficiency and regularity of air transport and serves as the forum for cooperation in all fields of civil aviation among its 187 Contracting States.

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