

What If General Aviation Ceased to Exist?

The effects here were segregated into two outputs, namely the effects on productivity and consumer benefits.

Productivity benefits basically address the question of how much income would producers of different goods and services in the country lose if general aviation ceased to exist? This is illustrated via a substitution model between two large cities. Automobile travel was considered to substitute for general aviation on short trips and commercial aviation for longer trips. Then using official airline guide data, the model analysis predicted some \$850 million in productivity losses if general aviation did not exist.

Considering the size of the general aviation industry, the impact on GNP resulting from the model analysis, and deemed to be conservatively on the low side, is substantially large. This procedure was extended to include the effects of general aviation loss to other industries such as agriculture, off-shore oil recovery activities, and the like. In total, the impact on productivity amounted to about \$1.3 billion. It follows that the impact of general aviation on the national economy, relative to its size is fairly dramatic.

The effects on consumer benefits were estimated via a 'consumer surplus analysis', which endeavored to estimate the benefits that consumers derive over and above the general aviation goods and services they pay for. This figure was estimated to be of the order of \$1.0 billion.

This result is also considered indicative of the widespread recreational benefits that the community derives from general aviation.

Finally, as a sidelight to the study, the analysis applied to the business and executive side enabled the establishment of an aircraft profile: when each would and would not be profitable to use. These results depict economic returns to owners or users of general aviation aircraft as a function of flight distance.

One of the major objectives of the study was to serve as a source of information for aviation. Since the nature of these was not known at the time, this study provides a large volume of data which hopefully will be useful in further work.

OVERVIEW OF BENEFITS OF GENERAL AVIATION
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Summary

The first part of this paper discusses an earlier attempt, some ten years ago, by R. Dixon Speas, at determining the effects of general aviation on the national economy; the second part highlights the benefits of general aviation to individual organizations and the community at large.

The Speas study concluded that the direct economic impact of general aviation was about \$3.0 billions per annum, and the indirect impact much higher. Moreover, the study outlined many intangible benefits, including the value of time saved, the emergency saving of human life and property, national defense, and general business and industry stimulated by general aviation travel, most of which cannot be specified in monetary terms. General aviation growth over the last decade supports the view that the general conclusion of the Speas study is equally valid today.

Impact of General Aviation

The following quotation, made by Mr. Drew Lewis, then Secretary Designate of the U.S. Department of Transportation, in his confirmation hearings before the Senate Committee on Commerce, Science and Transportation, provides an introductory perspective on general aviation today.

"The industry in itself provides a great impact on our economy in general. The airlines deregulation in itself is going to bring about a greater need for general aviation. To the extent possible, I am supportive of general aviation. I think it is an extremely important mode of transportation."

To date, some of the attempts to quantify precisely the overall economic impact of general aviation, have been instructive, but not really conclusive. An extensive study done over ten years ago by R. Dixon Speas concluded that the direct economic impact of general aviation was about \$3.0 billion per annum, and the indirect impact much higher. Therefore when Berardino cites a figure of \$3.0 billion for 1977, it makes one wonder what is being counted.

The Speas report also concluded by stating:

"Upon considering the many intangible ways general aviation has an impact on the nation's economy, . . . that quantifying even a very few of the most important items, is reduced to judgment, because of the very diversity that maims the industry. . . . It would require a singular research effort of considerably greater proportion than the present one to accomplish the task. It is questionable whether further research is warranted, or even would be fruitful."

The Speas study outlined many ways that general aviation has a beneficial but intangible and immeasurable, impact upon the economy, e.g., the value of time saved, the emergency saving of human life and property, national defense, general business and industry stimulated by general aviation travel and the like. Speas concluded that in the final analysis most cannot be specified in monetary terms, notwithstanding the fact that many of the components stem from economic factors. In view of the considerable growth of the general aviation industry over the past ten years, the general conclusion of the Speas study appears equally valid today.

The following comments on the contribution of general aviation to the overall economy support the above notion:

- 1) The general aviation industry had a record year in 1980 delivering over \$2.4 billion in new aircraft. This figure is expected to exceed \$3.0 billion in 1981.
- 2) General aviation continues to be a consistent contributor to the U.S. balance of trade. Some 30 percent of the industry's production was exported in 1980, exclusive of the estimated millions of dollars that go overseas for engines to foreign manufacturers, avionics and other components where the U.S. industry has a leading world share.
- 3) A survey recently released by Airport Services Management magazine, showed that service and sales of aircraft by FBO's at U.S. airports reached \$10.7 billion in 1980.

- 4) The White Plains Regional Chamber of Commerce in a recent study of Westchester County Airport, showed that the White Plains airport generates about 28,000 jobs, \$242 million annually in personal income, \$109.8 million annually in retail sales, \$133.7 million annually in bank deposits, and in addition the airport represents yearly expenditures of about \$62.12 million, and generates nearly \$7.7 million annually in property taxes. White Plains is principally a general aviation airport.
- 5) Overall the general aviation industry currently employs about 300,000 people in sales, manufacturing, service, flight instruction, agricultural operations and related activities.
- 6) Perhaps most important is that general aviation serves as the main power pool for future pilots, engineers and technicians.
- 7) General aviation is playing an increasing role in the national transportation system and will carry over 110,000,000 passengers in 1981. Airline deregulation is having a stimulating effect on the commuter airlines, on business aviation, including air charter, air taxis, and aircraft ownership. As the larger regional trunk airlines further eliminate marginal services to smaller communities, general aviation will continue to fill the gap. An October 1980 report by the Civil Aeronautics Board depicts the following:

	Departures Oct. 1980 as % of Oct. 1979
Overall	92.4 %
Non-hub	88.3
Small-hub	92.8
Medium-hub	91.2
Large-hub	94.4

The above is indicative that not only are the smaller airports being affected, but also that larger hub airports are being affected by reduced service to smaller airports around the country.

- 8) It is expected that as many communities continue to lose service, business aviation will grow even larger. There are reservations as to whether the substitution effects cited in the Berardino paper are entirely appropriate, and whether people will be willing to give up the greater benefits inherent in air travel, for slower service by alternative modes. This is particularly relevant to travel over longer distances. The fuel and cost efficiencies of general aviation are being recognized by more and more businessmen and individuals while increases in airline fares are making general aviation more competitive with the airlines. The following example based upon official airline data serves to illustrate this point.

Consider a three person sales team stationed, say at Burlington, Vermont. Suppose this team has to go to Iron Mountain, Michigan to make a presentation to a new customer. On the airlines the team will have to leave Burlington at

10:11 A.M. and after a two hour lay-over in Chicago they will arrive at Iron Mountain at 3:00 P.M. Total travel time is 5 hours, 49 minutes. Coming back they will leave at 12:30 P.M. after layovers at Chicago they will arrive home at 9:17 P.M. The total return time will be 7 hours, 47 minutes, and the round trip cost is \$1428.00. If they had access to a high performance single-engine aircraft, they could make the same trip in 4 hours, 11 minutes, and if the airplane rental was \$60/hour, the round trip would have cost \$502.00. This represents a cost savings of almost 200 percent.

- 9) The decentralization of industry, apparent from the last census, is also having a major impact in stimulating general aviation.
- 10) During the fuel crisis of 1974, the general aviation industry was nearly grounded. Many businesses, institutions, and state and local government officials responded to this crisis, and kept the proposed 42.5 percent fuel allocation to general aviation from happening. This response showed a great grass roots movement throughout the country as to what would have happened had this allocation actually taken effect. The activity of thousands of general aviation airplanes would have come to a halt. Production lines would have stopped; businesses would not have been able to keep their necessary parts moving; crews traveling to oil producing facilities and on pipeline patrol would have become immobilized; seeding and fertilizing by air would have ceased; emergency medical services would have come to a halt; and the transport of business personnel would have been severely affected to mention but a few of the impacts.

Conclusion

It is apparent that the full economic impact of general aviation is not known. What is evident though, is that increasingly businesses are buying aircraft to increase productivity and profit. Indeed, industry decentralization, efficiency of business aircraft compared with other forms of transport, greater flexibility in travel skills, valued savings of time to key personnel, technological progress in aircraft and avionic systems, increased operating safety, airline deregulation, are all reasons why general aviation has become an important part of the system of transportation and will continue to do so in the future.