



ASHLAND MUNICIPAL AIRPORT

Economic Impact Study

1997

**Prepared for:
The City of Ashland
The Ashland Airport Commission
Ashland, Oregon**

**Prepared by:
Ryan Kralman
Donna Langlois
Andy Larson
Jason Lukaszewicz**

**In Conjunction with:
Dr. Terry Gaston
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BA 428 Undergraduate Business Research**



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EXECUTIVE SUMMARY

The following is an economic impact study done of the Ashland Municipal Airport. It has been undertaken in order to determine the economic impact of the airport on the City of Ashland and surrounding areas. The study was requested by the City of Ashland Airport Commission.

In order to determine economic impact, the Southern Oregon State College research team which undertook this project used a variety of primary and secondary sources. The two significant primary sources of data consisted of a survey of local users of the Ashland Municipal Airport and a survey of transient pilots who flew into the airport during 1996. Also conducted were various interviews with local organizations which have economic associations with the airport. Finally, in an attempt to verify the approach taken to determine economic impact, various other economic impact studies of airports of similar size were reviewed.

As a direct result of the research described above, the following information was obtained: The estimated total direct annual economic impact of the Ashland Municipal Airport on the City of Ashland is \$1,132,160. The total of indirect impact is \$16,255. *The total induced impact, which is a combination of direct and indirect impacts multiplied by the economic multiplier is \$2,871,037.* This figure compares to a 1989 economic impact study done by another SOSC research team which arrived at an economic impact of \$1,041,623

The paper which follows describes how the above number was calculated, as well as providing other non-economic justifications for the existence and operation of the Ashland Municipal Airport.

INTRODUCTION

A. Background And Need For The Study

In January 1997 the Ashland Airport Commission and the City of Ashland requested that an updated economic impact study be made to determine the current impact of the Ashland Municipal Airport on the City of Ashland.

Over the years several studies have been completed of the Ashland Municipal Airport. Most important of these was the completion of the *Ashland Municipal Airport Master Plan* in 1992. A study was done in 1989 as well to determine economic impact on the city at that time.

The Ashland Municipal Airport was established in 1949. The location of the airport has not changed over the years. It is located on Dead Indian Memorial Road, approximately one-half mile from Interstate 5, the main artery for ground transportation for the west coast corridor. Additionally, the city of Medford is approximately 16 miles north of the airport, with downtown Ashland about three miles away.

This is a general aviation airport. There are currently no commercial flights available through this airport. Medford International Airport is the closest facility to offer these services to residents of Ashland.

The AMA is situated on approximately ^{95.27}67 acres of land owned by the City of Ashland. The runway measures 3,603 feet long by 75 feet wide. It also has a full length ~~parallel runway~~ which measures 30 feet in width.

taxi way

B. Problem Statement

This study was undertaken in order to determine the current economic impact of the Ashland Municipal Airport on the City of Ashland. To complete this task two surveys were done to assess economic impact of transient and local users of the airport facility. It was also decided, whenever possible, to compare current results with those obtained from the 1989 economic impact study in order to identify any significant changes in patterns.

C. Research Design

This study is comprised of the following elements:

1. A mail survey sent to local users
2. A phone survey conducted with transient users
3. Interviews with local businesses which use the airport
4. Interviews with officials of the City of Ashland
5. Information obtained from the Oregon Department of Transportation regarding economic impact studies done for Oregon airports

D. Limitations

1. The data base used for the transient survey was inadequate since information obtained from the airport was limited in nature. The airport tracks transient aircraft by logging the tail numbers of planes. While this team appreciates all the of assistance given by Bob Skinner, it proved to be extremely difficult and time consuming to obtain enough personal

information from the numbers to do a statistically significant survey. Using a list of 460 planes, only 28 transient pilots were identified and surveyed.

2. All efforts were made to be objective and to ask significant questions in the surveys. However, none of the team members has a background in aviation and this could have resulted in bias or misunderstanding in the context of the questions.
3. Time constraints have effected the amount of material obtained for reporting purposes.

CHAPTER II

HISTORY AND BACKGROUND OF THE AIRPORT

A. Review Of The Relationship With The City Of Ashland

The AMA is located on approximately ^{95.27}~~67~~ acres of land owned by the City of Ashland. It is leased to Robert A. Skinner. Skinner has the right as lessee to operate as a fixed based operator at the airport. This includes the aircraft fueling system, storage tanks, tie-down spaces, terminal building, maintenance hangar, and parking spaces for rental cars. This lease is currently due to expire on January 31, 1998, however he has the right to extend the lease based on conditions stated in the current lease.

C. Review Of Prior Economic Studies

As stated earlier a study was conducted in 1989 which determined the economic impact at that time to be \$1,041,623. The 1995 study conducted by the ODOT *Aeronautics Div.* determined the impact to be \$3.1 million dollars.

D. Improvements Due To FAA Grants

Since the completion of the *Ashland Municipal Airport Master Plan* in October of 1992, the airport has undergone a significant change. Due to a \$145,000 grant furnished by the FAA (*Master Plan*, 8-3), a 6-foot tall, chain link fence was constructed along the *east* airport property lines. The main intent behind the construction of this fence is to limit animal and human access to active airport areas.

Other improvements are a direct result of FAA grants are the work done on the tie-down ramps and on the drainage system of the airport. The extension of the tie-down area provided an increased amount of available tie-down space for planes. The work completed on the drainage system provided an improved flow system for the underground drains.

E. Planned Improvements Per Master Plan

In accordance with the *Ashland Municipal Airport Master Plan* (1992), the proposed improvements are to take place in a three stage development process. The first stage, which addresses the first five years following 1992, will focus on improvements to the new aviation development area. These improvements will include the relocation of the existing dirt access road to adjacent residential property, T-hanger area development, construction of two T-hangers, a realignment of taxiway access to accommodate the new T-hangers, installation of security fencing, land preparation of the area adjacent to the Civil Air Patrol hanger to accommodate smaller conventional aircraft hangers, and the development of a tie-down area on the west side of Runway 12-30. This phase of improvement is currently underway.

The second stage of the facility improvement will be focused on the five years following stage one. This will include the development of connecting access roads between the apron and newly developed hangers, an extension of the development to the T-hangers which began in the first stage, an upgrade of runway edge lighting, the addition of taxiway edge lighting, and the further expansion of the main apron to accommodate the current demand needs.

The third and final stage of these improvements will cover the 10 year time period beyond stage two. The primary focus of stage three will be to improve the facility as to meet the long-term needs of the airport. Such long-term improvements include the continued development of T-hangers and the conventional hanger lease area, a further expansion of airport aprons, the expected replacement of airport pavements, and improvements to water and electrical utilities in the newly developed areas.

F. Proposed Improvements To Land And Services

An immediate improvement to the facility will consist of new hanger availability, which will begin as soon as adequate fire hydrants are installed. This improvement will fall in line with the proposed stage two of the facility improvement plan.

The proposed improvements to the services provided and the land being utilized by the airport will greatly enhance the usability of the airport by local and transient pilots alike. The cost of the three stage, twenty-year facility improvement plan is estimated at a total of \$4,107,125 ^{90% of} which will be funded through FAA grants, debt financing, and third-party support. The need for these improvements is vital and must be met in order to accommodate the present and future needs of all people who use the airport.

CHAPTER III

SUMMARY OF SURVEYS AND RESEARCH

A. Analysis Of Local Survey Results

The SOSC research team conducted a mail survey of local pilots randomly selected from a population of those registered with the City of Ashland. Thirty-eight surveys were mailed out with twenty being returned in time for inclusion in this study. Although this represents a response rate of more than 50%, the absolute value of respondents is too low to be considered statistically significant. This research team believes that valuable information can be inferred from the data gathered through the nine questions asked in these mail surveys. The number and percentage of each response of the nine questions are analyzed individually on pages found in Exhibit D. Toward the end of this report, a section presenting the numerous comments and suggestions received from transient and local pilots is presented.

The survey of the local pilots began with Question #1 to help determine the level of use by those pilots. Of the pilots responding, 88% indicated that they used the Ashland Municipal Airport 11 or more times during 1996. After reading through the responses of the local pilots, especially the comment section, it became clear that the vast majority of the pilots used the airport regularly and consider it indispensable to the City of Ashland. One respondent wrote, "This is a great asset to all of Southern Oregon..." and went on to list some of the same reasons for the airport's importance as have been previously listed in this paper.

Question #2 indicated that the vast majority of the local pilots own the planes, which they operate out of the airport. Question #3 was asked to find out how the Ashland pilots originally learned of the airport. Most of the respondents, however, indicated that they knew of the airport because they have lived in the area, and used the airport, for a number of years (the “other” answer). Though this question was not very useful in determining the original items which brought the pilots attention to the Ashland Municipal Airport, it has shown that the pilots have been using the airport for a long time.

Along the same lines as the analysis presented for the previous question, Question #4 indicates that 65% of the local operators have been using the airport for more than 10 years. As later questions help to determine, these pilots have an economic impact on the study through a variety of ways--aircraft expenditures collected by Skinner Aviation, hanger rent payments collected by the City of Ashland, etc. In relation to the revenue collected by Skinner Aviation, it also spends a significant portion of its receipts in the local economy (please see the financial statement analysis section). If the airport was not operating in Ashland, this money would be spent in the economy of another local airport, probably the Medford Airport.

Question #5 indicated that, by far, the airport that these pilots prefer to use is the Ashland Municipal Airport (16 people marked Ashland with 1 person marking both Ashland and Medford). The following question was asked to help determine the reasons for this preference. However, before proceeding, it should be noted that multiple respondents indicated that while they preferred to use the AMA, some of them were forced into using the Medford Airport as Ashland could not accommodate their needs. (Please see the section on comments and suggestions.)

As mentioned above, Question #6 was asked to gauge the reasons for the pilots' preferred airport. Given the results of the preceding question, these reasons should be applied to the Ashland Municipal Airport. The answers were each weighted based on the number of responses and the ranking given each one. Using this method, the question analysis shows that "convenience" was given as the number one reason for preferring the Ashland Municipal Airport.

Question #7 asked the pilots for the amount of their average aircraft expenditures at the airport. The weighted average response is \$153. This dollar amount could be multiplied by the expected number of visits by local pilots per year to determine the amount of money that they contribute to Skinner Aviation. As mentioned above, this money is then recycled back into the local economy through lease payments to the City of Ashland, salaries and wages paid to airport employees, etc.

Finally, Question #8 illustrates that 32% of the local pilots use the airport for business or work while 55% use the airport for recreation. Though it would be difficult to determine the dollar amount of economic impact felt by the business brought to the area due to the airport, it appears, with 32% of the local operators using the airport for business of some sort, that it is significant. Also, recreational use of the Ashland Municipal Airport should not be discounted as often times pleasure and hobby activities result in more expenditures than controlled business expenditures under tight budgets.

B. Analysis Of Transient Survey Results

The SOSC research team conducted a telephone survey of twenty-seven transient pilots randomly selected from a population of every transient pilot who flew into the Ashland Municipal Airport during 1996. Due to the low number of respondents, the survey is not statistically significant. However, this research team believes that valuable information can be inferred from the data gathered through the ten questions asked during these telephone surveys. The number and percentage of each response of the ten questions are analyzed individually on the following pages. Also, where possible, the survey results are compared to the original 1989 survey. Towards the end of this report, a section presenting the numerous comments and suggestions received from transient and local pilots is presented.

Question #1 was not asked in the original survey. However, this group felt that it would be of significance for the AAC to know from where the transient pilots arrive. As might be expected, the number one response indicates that approximately one-third of the pilots are from somewhere else in Oregon. However, if answers C and D are combined, one would see that 41% of the transient pilots are from somewhere in California.

Question #2, which was asked in both the 1989 and 1997 surveys, can be used to help determine the transient pilots economic impact on the community. By multiplying the average number of visits by each transient aviator times the average expenditures by each aviator, the suspected economic impact of each pilot can be determined on an annual basis.

A majority of respondents stated that they flew into the AMA two to three times during the years under study. An additional one-third flew into the airport three to five times. 44% flew into the airport three or more times. This indicates that there is a relatively high degree of return aviators. It would seem to be significant that pilots from out of the area tend to return to the AMA multiple times throughout the year. In 1989, 29% of the respondents indicated that they flew into the airport three or more times. It appears as if the pilots are increasing the frequency of their visits.

Question #3 indicates that the vast majority of respondents own the planes they use to fly into the AMA. A few utilized a charter service. This question, in combination with some of the others, help to provide a demographic background of the pilots who fly into the airport.

Question #4 indicates that the number one item used to refer pilots to the Ashland Municipal Airport are airport directories. However, between the 1989 and 1997 surveys, a greater percentage of respondents indicated that they learned of the airport through friends/relatives or while visiting the area. Also, the "other" category increased 10% between the two years. A number of "other" responses included the comment that the pilots did not remember because they had been flying into the airport for so many years.

Question #5 relates more directly to the economic impact of the transient pilots. This question should also be analyzed in conjunction with the next question which asks where these transient pilots stayed during their visits. 11% of the pilots did not stay overnight. Some of them stayed for a few hours during the day while others landed just long enough to refuel or have minor repairs performed on their planes. (Please see Question #7 for activities undertaken.) The remaining 89% stayed over for at least one

night. 44% of the respondents stayed 3 or more days. While a quantitative analysis is performed to come up with a specific dollar amount of economic impact in a later section of this paper, qualitative analysis would indicate that these respondents are highly likely to be spending money in the local economy during the course of their stays.

Question #6 asks where each pilot stayed during the course of their visit. In both studies, none of the respondents indicated that they call Ashland their second home. However, 19% (17% in 1989) of the pilots have friends or relatives in the area with whom they stayed. 79% (70% in 1989) of the pilots stayed in a local commercial overnight lodging facility. These people had a direct economic impact on the Ashland establishments in which they stayed.

Question #7 is asked to help determine on which activities these transient pilot visitors are spending their time and money. In both of the studies undertaken, the Oregon Shakespeare Festival received the greatest number of responses of each of the individual items. It would seem as if it presents the greatest attraction to the area (37% in 1989; 36% in 1997). The Oregon Shakespeare Festival's own economic impact study indicates that a recognizable percentage of their patrons fly into the area to see their plays. Economic impact, in this case, can be measured by an estimate of the number of tickets sold per year by the average price of their tickets.

This question further indicates that shopping is the number two draw to the area for transient pilots (22% in 1989; 16% in 1997). Miscellaneous items round out the "other" answers. The "other" group in particular contained at least a few responses that indicated that transient travelers entered the area for business purposes.

The original 1989 study used Question #8A as the primary indication of economic impact--“Approximately, how much money did you spend on average *per visit* while you were in the Rogue Valley *excluding aircraft expenditures?*” The \$200 to \$499 range received the greatest number of responses in both surveys. Using the conventions followed in the 1989 survey, the midpoint of each range (\$50, \$150, \$350, \$750, and \$1,000, respectively) is multiplied by the number of responses for each answer and divided by the total number of responses to determine the weighted average expenditure of each visit.

Given the results of the two surveys, it would appear as if the weighted average expenditures increased from \$328 in 1989 to \$424 in 1997. However, as with each of the questions in this survey analysis, the reader should remember that the 1997 survey has not reached the level of statistical significance that was reached by the 1989 study.

Question #8B was asked in this year’s survey to give an indication of the amount of money spent at the Ashland Municipal Airport at Skinner Aviation on aircraft expenditures. A similar question was not asked in the 1989 survey. The results of this question, with 71% of respondents choosing the less than \$100 range, point to a weighted average of \$96 on aircraft expenditures.

Question #9 asks when the transient pilots next plan to visit the Ashland area *by aircraft*. Though the 1989 version of the question was worded to provide a less detailed response, the two sets of answers can still be compared. In both years, 88% of the respondents indicated that they intended to visit the area again within the next three years. This is a positive sign which shows a continuance of economic impact upon the parties which currently benefit from the transient pilots’ expenditures.

Question #10 is closely related to #9 in that it points toward the ability of the Ashland Municipal Airport to sustain its current economic impact on the City of Ashland and surrounding areas. In 1989, 60% of the transient pilots conveyed that they had flown into the area prior to the year under study. In 1997, an increased number, 70%, conveyed the same answer.

C. Oregon Airports Economic Impact Comparison

In order to compare the economic impact of the AMA with other general aviation airports in Oregon, it was necessary to obtain several different economic impact studies. The ODOT published *The Economic Impact of Airports in Oregon* which was completed in 1995 and contains impact studies on airports throughout Oregon.

As stated earlier, ODOT calculated AMA's impact to be approximately \$3.1 million dollars. In order to find similar size airports Bob Skinner, manager of the AMA, was consulted. With his assistance, five airports were identified within Oregon that appeared to be similar both in size and services offered. Airports which have runways which exceed 4,000 feet in length were not included as this additional length allows for jet traffic which can not land at AMA.

The first airport selected was Albany Municipal. Albany has a runway which is 3,004 x 75 feet. Albany's economic impact was calculated to be \$3,369,400, an increase of about \$250,000 as calculated by ODOT.

Next looked at was Bandon which has a runway of 3600 x 60 feet. Bandon is a small community located on the coast of Oregon and is known as an important harbor. Its impact was estimated at \$2.3 million dollars.

Brookings which is the airport furthest south on the Oregon coast has a runway of 2900 x 60 feet. Brookings is also a harbor community and does not have the cultural and business related activity present in the Rogue Valley. Brookings Airport has a impact of \$967,100.

Corvallis Municipal airport is located in the south central portion of Lane County. It is located near the Cottage Grove State Airport which is widely know for its Oregon Antique and Classic Aircraft Club Fly-in. Its runway is 3200 x 60 feet. The impact of this airport is approximately \$17,159,200, which is a substantial difference from the impact felt due to the AMA. It's proximity to a more populated area as well as being closer to Portland is no doubt the reason for this substantial difference in dollars.

Lastly, figures for Hood River Airport were reviewed. Hood River is located in the northern part of Oregon, just south of the Columbia River. It's runway is measured at 3040 x 75 feet. In addition to being located near the famous Columbia River it is also known as the "Sailboarding Capital of the World". The impact of this facility is approximately \$2.4 million.

After reviewing the report prepared by the ODOT, this research team has concluded that AMA appears to be doing well when compared to other general aviation airports. Although Corvallis has a much larger impact, that can be expected due to the reasons stated above. When compared to the other regional airports however, Ashland appears to actually be doing better than most.

D. Interviews

~~United States Fish & Wildlife Service~~
~~Oregon Department of Fish and Game Forensics Lab, Ashland, Oregon~~

In an interview with the Oregon Department of Fish and Wildlife Forensics Lab, it was determined that the Forensics Lab generates a significant amount of revenue for the Ashland Municipal Airport.

Karen Averill, secretary and receptionist for the Forensics Lab, disclosed valuable information pertaining to its level of airport usage as well as specific reasons for using the AMA. In order to create meaningful information for its purposes, the Forensics lab must receive its specimens for study in a timely fashion. The location and availability of the Ashland Municipal Airport allows this need to be met. An estimated average of six times per year, the Forensics Lab uses the airport facility to fly in large, full carcasses of specimens for study purposes. Each subject of study varied in cost but was estimated to have an average cost of \$105.00.

Due to the nature of the Forensics Lab, the scientists often testify in courts of law as expert witnesses. The information they compile is often used as evidence. Thus, the scientists who generate this information are often subpoenaed to present their findings in the courtroom.

Approximately 125 times per year, these scientists use the airport facility in order to reach the courtroom and present their findings. The dollar value associated to this varies, depending on the destination and means of travel, but the average cost which is directly associated to the Ashland Municipal Airport is estimated to be approximately \$125 per flight.

The next significant area of usage by the Forensics lab comes through the usage of Federal Express. Federal Express is the source the Lab prefers to use whenever the specimen being studied is small enough to be shipped via mail services. Federal Express flies mail directly into the Ashland Municipal Airport and both parties are able to benefit from the convenience and advantageous location provided by the airport's proximity to the Forensics Lab.

In conclusion, the research team has found that there is significant usage of the AMA by the ~~Oregon Department of Fish and Wildlife~~ ^{United States Fish and Wildlife Service} Forensics Lab which is directly attributable to the location and convenience of use provided by the Ashland Municipal Airport. The AMA provides the Forensics Lab with the ability to meet its needs in a timely and efficient manner.

Oregon State Police, Southern Oregon

Lieutenant Fordice of the Oregon State Police (OSP), Medford district, was able to provide information as to why the OSP finds the Ashland Municipal Airport to be such a valuable asset to both the OSP and the community it serves. Some of the reasons include investigation of criminal activities, highway patrol needs, game department services, and in cases of disaster. In the winter months, when the Rogue Valley becomes plagued with intense fog, the OSP air patrol service in Medford uses the AMA in order to be able to perform its duties. The airport also allows year round service for the OSP on an as needed basis.

The use of airplanes in law enforcement has become vital for the OSP. It allows the OSP to conduct surveillance operations and take aerial photographs which would not

otherwise be available. The AMA provides the OSP with the means to conduct these operations with great success.

The OSP also uses its airplanes to monitor the traffic speed on the freeways. By using check points and timing devices, it is able to accurately clock the speed of motor vehicles and issue citations accordingly. Another asset the planes provide is the ability to monitor the trucks which have been on the road for more hours than allowed by law. This issue is directly related to public safety. Tractor trailers are allowed only a certain number of hours per day of travel before they are considered to be a potential risk to the safety of other vehicles. The AMA allows the OSP the opportunity to accurately monitor the trucks and maintain safety on the freeways. The overall estimated amount of money which is saved in stopping these potential accidents comes to an estimated \$550,000 per truck. This number includes possible accident costs which may occur to the truck, other vehicles, and the freeways.

The Ashland Municipal Airport also provides the OSP's game department with an efficient means for tracking the populations of deer, elk, bear, cougars, and endangered species. Close monitoring of these populations can be vital for the well-being of animal populations in the area. The location of the AMA allows the OSP to do this monitoring in the winter months when all animals are most likely to be seen.

During the recent flooding of the Southern Oregon area, the AMA was used by the state police in patrolling the damaged areas of Southern Oregon by air. State and local government officials were able to use the airport facilities in assessing the damage caused by the flooding.

Lieutenant Fordice commented on the location of the airport and the availability of its services as being an “integral part of the team.” The direct economic impact of their use is primarily linked to fuel expenditures, landing fees and tie-down fees, but the actual impact of the service of the airport cannot be traced to any dollar value. The availability of the airport seems to be the greatest asset for the OSP. If the facility were not readily available, it would have substantial negative impact on the services provided by the OSP.

Oregon Shakespeare Festival, Ashland, Oregon

Every three years Oregon Shakespeare Festival conducts an economic impact study to create useful information about the effects the Festival has on Ashland and its surrounding community. In this study, information was used from the last economic impact study pertaining to the use of the Ashland Municipal Airport.

The last economic impact study, conducted in 1996, revealed that in this particular year of operation, the Oregon Shakespeare Festival had a total of 351,879 people attend their plays. Further information revealed that the average person who attended the Festival, saw between three and four plays during their visit. This results in a new total of between 117,293 and 87,969 people. Five percent of these people disclosed that they had traveled to the area through the use of airplane transportation. This five percent of the play attendees constitutes a new total of between 4,398 and 5,864 people.

Ticket prices for the Shakespeare Festival vary due to different age categories of the people attending, the theater at which the play is to be presented, and the particular play itself. Including all variables, five percent of people who attend the Festival through

airplane transportation, between \$82,462.50 and \$263,880 was spent on tickets prices alone.

The findings of the Oregon Shakespeare Festival 1996 economic impact study were very valuable in presenting information about the direct impact of the location and availability of the Ashland Municipal Airport. Even though this value cannot be completely attributed to the Ashland Municipal Airport, in conjunction with the Medford Airport it does show the importance of having this means of transportation available for the attendees of the Festival.

Federal Express

Federal Express frequently uses the Ashland Municipal Airport. Its most frequent usage comes during the winter when the Medford Airport experiences closures and delays due to foggy weather conditions. The amount of days that they use the AMA according to Cindy Brothers of Federal Express, is about once a week. If Federal Express could not use the AMA as a secondary landing facility during those times then there would be no second day air service to the Rogue Valley. Not only is next day air service important to regular citizens of the Valley but it is also very important to the hospitals of the valley. The very nature of medicine implies the need for dependability, especially for delivery of such items as organs for transplants, emergency supplies, and air transport. There is obviously a huge economic impact from next day air service. However, the impact appears to be more qualitative than quantitative in nature.

United States Forest Service

The United States Forest Service uses the AMA as a secondary airport. It has a fire center which is located at the Medford airport, and therefore uses that facility for most flights. However, it uses the AMA for transporting personnel during large fires. The airport is too small to fly in tankers and other large planes. This airport provides an overflow for the Forest Service during very large fires which is an essential service and helps save money because personnel can be put on the scene of a fire in an expeditious manner. It also uses the AMA as a secondary means of chartering flights to do aerial surveys of timber conditions on national forest land.

CHAPTER IV

ANALYSIS/ECONOMIC IMPACT

A. Selection Of Economic Multiplier

In determining what economic multiplier to use for this impact study, several economic impact studies were reviewed. Some of those were done for the Oregon Shakespearean Festival, the Natural History Museum, as well as the AMA. In addition, a report was located which was prepared by the Oregon Department of Transportation Aeronautics Division. The consensus from the earlier impact studies was a multiplier of 2.5. The ODOT used a much more complicated system of multipliers, however the average used for its 1995 study was 2.3. In order to remain consistent with other studies done for entities located in Southern Oregon, it was decided to use an economic impact multiplier of 2.5.

B. Direct Impact

Direct impacts are defined as those which result from activity that occurs on, or as a result of an airport. These are considered first round since they start the economic cycle. Direct impacts result from such things as income from the FBO, tenants, flight schools, etc. For simplicity, visitor expenditures identified from the two surveys conducted have been included. The inclusion of visitor expenditures as direct impacts is in accordance with ODOT method of determining economic impact.

With the information available to this team, it has been determined that the direct economic impact as a result of airport operations is approximately \$140,000 annually.

With information obtained from the Ashland Public Works department, it appears that there were approximately 900 transient overnight stays at the AMA. If the accepted ODOT average of 2.6 persons per plane is used, as well as the most common length of stay of 2 days, combined with average expenditures of \$212 per day, a direct impact resulting from transient users of approximately \$992,160 is estimated. This figure specifically excludes any aircraft expenditures which would be included in the direct impact resulting from the AMA.

Therefore, estimated total direct economic impact is \$1,132,160.

C. Indirect Impact

For this study indirect impacts have been identified through transactions done with businesses that use the airport. These would be things such as the Forensics Lab and the Oregon State Police.

As stated earlier, there are several different entities which use the airport. Using the information derived from the interviews, estimated indirect impact is approximately \$16,255.

D. Induced Impact

This is the result of adding all direct and indirect impacts and calculating the induced impact using the economic impact multiplier explained in section A of this chapter.

Induced impacts are estimated for 1996 to be \$2,871,037.

E. Analysis Of Economic Impact Of Skinner Aviation

Based on an interview with Bob Skinner, owner and director of Skinner Aviation, on February 12, 1997, the following information was obtained to help determine the economic impact of Skinner Aviation on the Ashland economy. Skinner Aviation employs one part-time and five full-time employees in addition to Bob Skinner. Also, the City of Ashland hires a flight instructor for the airport. Skinner estimates that annually \$110,000 is paid out in salaries and wages to himself, his employees, and the instructor. Here, the local economy is supported by the existence of these eight positions. In addition, Skinner Aviation spends approximately \$30,000 per year in local businesses for support of its aircraft maintenance, etc.

Based on these figures obtained during the interview, an estimated \$140,000 per year is paid directly to employees and suppliers in the area. Using a multiplier of 2.5 (Section A, Chapter IV), for the \$140,000 that is initially pumped into the local economy, another \$350,000 is generated as it is circulated within the community.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A. Comments And Suggestions

Throughout the course of the two surveys, both transient and local pilots had numerous suggestions or comments to make about the Ashland Municipal Airport. The number one comment was that local pilots felt that the City of Ashland needed to build more hangars for use by Ashland residents. Some were very adamant about this. Along the same lines, local pilots called for expansion of airport facilities, more airport-related businesses, etc.

Transient pilots had similar comments calling for a growth in what the airport offers. However, they still expressed their appreciation for having an airport in Ashland so that they may fly into and enjoy the Ashland area.

This section does not go into too much detail on the comments and suggestions as many of those received are similar to those of the past survey or are already indicated as a future direction of the airport in the *Master Plan*.

GLOSSARY OF TERMS

AAC:	Ashland Airport Commission
AMA:	Ashland Municipal Airport
Aviation:	The operation of and/or design, development, and production of aircraft.
FAA:	Federal Aviation Administration
FBO:	Fixed Base Operator (i.e., Skinner Aviation)
GA:	General Aviation
Master Plan:	A research study done for the City of Ashland Airport Commission to plan for the future of the Ashland Municipal Airport.
ODOT:	Oregon Department of Transportation
OSP:	Oregon State Police
Resident Operator:	A person residing in the Rogue Valley who is a licensed pilot and flies out of Ashland.
Significance:	Statistical significance requires a minimum sample size. (While statistical significance was achieved at a 90% confidence level in the 1989 survey, the 1997 survey is not statistically significant due to the smaller sample size.)
Transient Aircraft:	A plane flying into an airport which is not his or her home base.
Transient Operator:	The pilot of transient aircraft.

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EXHIBIT A

February 3, 1997

Ashland Municipal Airport
Airport Commission, City of Ashland
403 Dead Indian Memorial Rd.
Ashland, OR 97520

Dear Ms. Lil Insley:

The purpose of this letter is to verify that we intend to pursue the consulting project that we discussed with you on our recent visit and to explain our understanding of the tasks that we are expected to accomplish. We are required to bring to your attention the following statement concerning the nature of the student consulting engagement that we are embarking upon:

“The Small Business Institute (SBI) is made possible under the cooperative agreement between Southern Oregon State College and the Small Business Institute Directors Association. The analysis, recommendations, and final report that will be provided are based on provisions of that agreement. The report that you will receive should not be interpreted as the official position of SOSC. Rather, it will contain views and opinions of the SBI student team based on discussions, observations, investigations, and analysis of your firm’s operations and its business environment.”

Based on our discussion with you on Friday, January 24, 1997, we intend to accomplish the following tasks in the process of completing this consulting engagement:

1. Survey transient and local users of the Ashland Airport from 1996 to determine their economic impact on the City of Ashland. Compare results of the transient survey to the original 1989 study.
2. Interview major commercial and governmental institutions suspected to have significant relationships with the Ashland Airport to receive expert testimony as to the indispensability of the airport.
3. Contact by phone a selected list of comparable airports in the region to inquire about their suspected economic impact on their own communities.

(Over, Please)

We expect to generate useful recommendations as a result of completing the above tasks. We hope that our recommendations will be of some assistance to you in achieving the long-run effectiveness of your firm. Whereas additional tasks may be undertaken (time allowing), our emphasis will be on completing the tasks listed above. Our goal is to provide a final written report and oral briefing to you by the week of March 17, 1997.

Thank you for giving us this opportunity to apply our knowledge and skills in an actual business environment. We are looking forward to an interesting and challenging assignment.

Sincerely,

Ryan Kralman

Donna Langlois

Andy Larson

Jason Lukaszewicz

Dr. Terry Gaston, SBI Director

Receipt of engagement letter acknowledged by:

Signature

Date

EXHIBIT B

Please complete the following research survey as accurately as possible and mail it no later than **Wednesday, February 26, 1997**. The questionnaire you complete will be kept confidential and only the findings of the project will be published. Your assistance in this study will be greatly appreciated. The information you provide will help the *Ashland Municipal Airport* to provide better service to the community. Thank you for your time and cooperation in completing this survey. *Please mail the completed survey in the enclosed postage-paid return envelope or to Dr. Terry Gaston at the above address.*

1. How many times during 1996 did you use the Ashland Airport?
 0 times
 1 to 2 times
 3 to 5 times
 6 to 10 times
 11 or more times

2. What type of aircraft service did you utilize to fly out of the Ashland Airport in 1996?
 borrow
 rent # of times _____
 charter
 own

3. How did you find out about the Ashland Airport?
 airport directory
 travel guide
 friend/relative
 Internet
 other, please specify _____

4. How long have you been using the Ashland Airport?
 less than 1 year
 1 to 3 years
 4 to 6 years
 7 to 10 years
 11 or more years

(OVER, PLEASE)

5. Please check the airport you prefer to use.
- Ashland
 - Medford
 - no preference
 - other, please specify _____
6. Please rank *up to five reasons* for selecting your preferred airport in the order of their importance
(1 = most important, 5 = least important).
- ease of scheduling
 - quality of service
 - type of facilities
 - convenience
 - number of services available
 - other, please specify _____
7. Approximately how much money did you spend on average *each time* you used the Ashland Airport on aircraft expenditures?
- less than \$100
 - \$100 to \$199
 - \$200 to \$499
 - \$500 to \$999
 - more than \$1,000
8. What are your *primary purposes* for using the Ashland Airport? (More than one item may be checked.)
- charter service
 - air freight
 - pleasure/hobby
 - work/commute
 - sales
 - other, please specify _____
9. Please describe any suggestions you may have for the Ashland Airport that would make your flying experience better:
-
-
-
-

EXHIBIT C

Hello, My name is _____. I am a senior at Southern Oregon State College, in Ashland Oregon. I am working on an economic impact study for the Ashland Municipal Airport. I'd like to take a few minutes to ask you a some questions related to your usage of the airport if you don't mind. I assure you that all the answers you give me will be kept confidential and only the results of this survey will be published. Your assistance in this survey will help us determine how the airport can best serve the community.

1. In what region of the country is your home airport located?
 Oregon
 Washington
 Northern California
 Southern California
 Nevada
 other, please specify _____

2. How many times during 1996 did you fly into the Ashland Airport?
 0 times
 1 to 2 times
 3 to 5 times
 6 to 10 times
 11 or more times

3. What type of aircraft service did you utilize to fly into the Ashland Airport in 1996?
 borrow
 rent # of times _____
 charter
 own

4. How did you find out about the Ashland Airport?
 airport directory
 travel guide
 while visiting the area
 friend/relative
 Internet/world wide web
 other, please specify _____

5. What was your average length of stay in Ashland?
 less than 1 day
 1 to 2 days
 3 to 5 days
 6 to 7 days
 more than 1 week

6. Where did you stay while in Ashland?

- hotel/motel
- second residence
- friends/relatives
- bed and breakfast
- campground
- other, please specify _____

7. Please indicate the number of times you attended or participated in any of the following activities during your visit(s) to Ashland during 1996.

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> Oregon Shakespearean Festival | <input type="checkbox"/> fishing |
| <input type="checkbox"/> Britt Music Festival | <input type="checkbox"/> shopping |
| <input type="checkbox"/> Fourth of July Parade | <input type="checkbox"/> camping |
| <input type="checkbox"/> Halloween | <input type="checkbox"/> boating |
| <input type="checkbox"/> event at Southern Oregon State College | <input type="checkbox"/> rafting |
| <input type="checkbox"/> golfing | <input type="checkbox"/> skiing |
| <input type="checkbox"/> flying club | |
| <input type="checkbox"/> other, please specify _____ | |

8. Approximately how much money did you spend on average *per visit* while you were in the Rogue Valley?

Excluding aircraft expenditures:

- less than \$100
- \$100 to \$199
- \$200 to \$499
- \$500 to \$999
- more than \$1,000

On aircraft expenditures:

- less than \$100
- \$100 to \$199
- \$200 to \$499
- \$500 to \$999
- more than \$1,000

9. When do you next plan to visit the Ashland area *by aircraft*?

- within one year
- within three years
- more than three years
- plan to visit again, but not by aircraft
- never

10. Had you flown into the Ashland Airport prior to 1996?

- yes
- no

11. Please describe any suggestions you may have for the Ashland Airport that would make your flying experience better:

EXHIBIT D
GRAPHICAL REPRESENTATION OF SURVEY RESPONSES

TRANSIENT SURVEY

QUESTION #1:

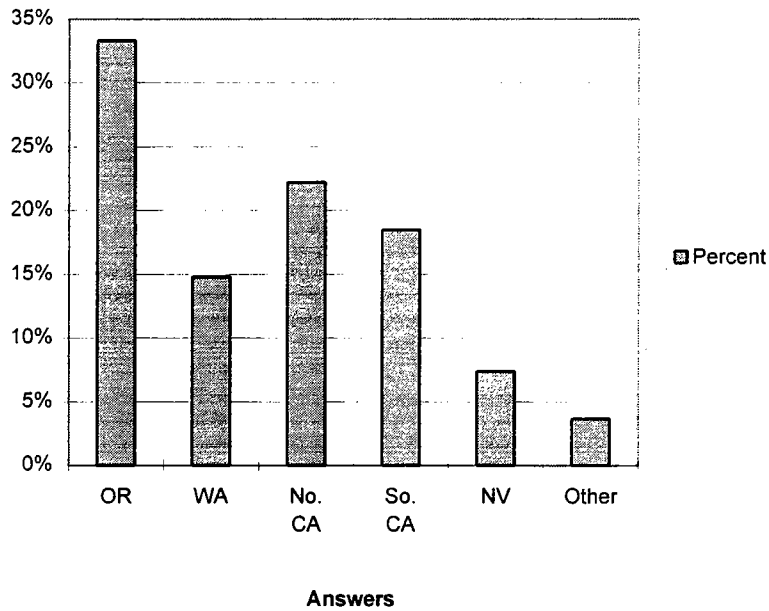
In what region of the country is your home airport located?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Oregon	9	33%	N/A	N/A
B	Washington	4	15%	N/A	N/A
C	Northern California	6	22%	N/A	N/A
D	Southern California	5	19%	N/A	N/A
E	Nevada	2	7%	N/A	N/A
F	Other	1	4%	N/A	N/A
TOTAL		27	100%	0	0%

**This question was not asked in the original 1989 survey.

Percentage Responses



TRANSIENT SURVEY

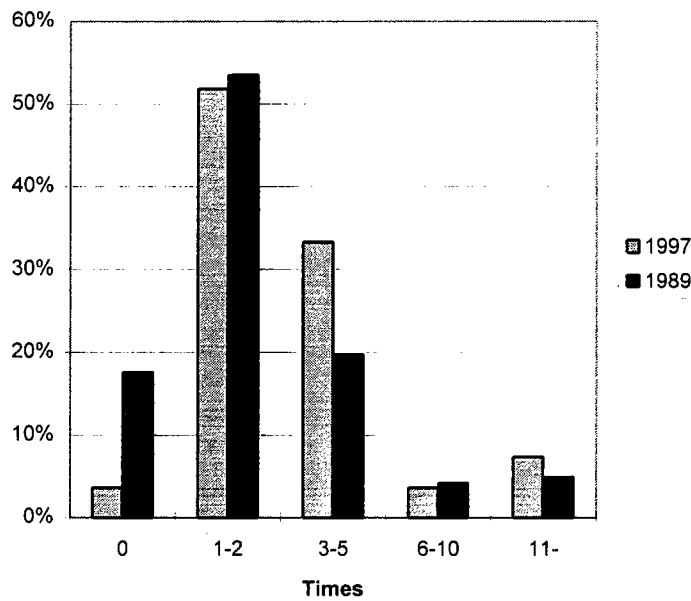
QUESTION #2:

How many times during 1996 (1988) did you fly into the Ashland Municipal Airport?

ANSWERS:

	1997		1989	
	#	%	#	%
A 0 Times	1	4%	25	18%
B 1 to 2 Times	14	52%	76	54%
C 3 to 5 Times	9	33%	28	20%
D 6 to 10 Times	1	4%	6	4%
E 11 or More Times	2	7%	7	5%
TOTAL	27	100%	142	100%

Percentage of Responses



TRANSIENT SURVEY

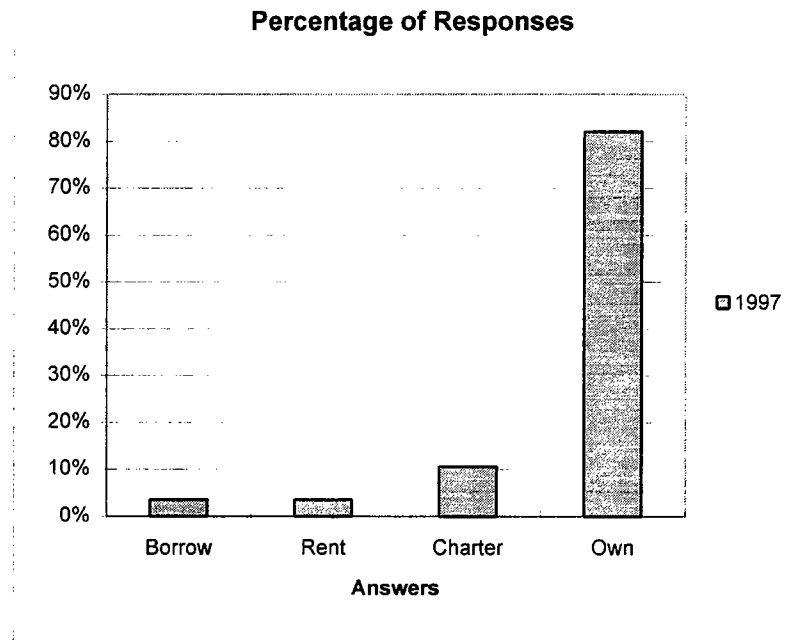
QUESTION #3:

What type of aircraft service did you utilize to fly into the Ashland Municipal Airport?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Borrow	1	4%	N/A	N/A
B	Rent	1	4%	N/A	N/A
C	Charter	3	11%	N/A	N/A
D	Own	23	82%	N/A	N/A
TOTAL		28	100%	0	0%

**This question was not asked in the original 1989 survey.



TRANSIENT SURVEY

QUESTION #4:

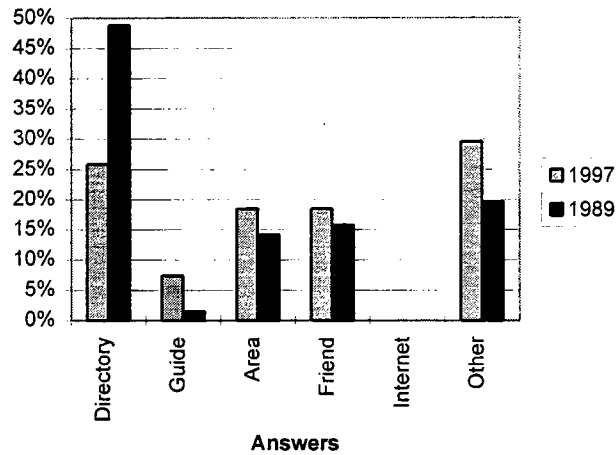
How did you find out about the
Ashland Municipal Airport?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Airport Directory	7	26%	62	49%
B	Travel Guide	2	7%	2	2%
C	While Visiting the Area	5	19%	18	14%
D	Friend/Relative	5	19%	20	16%
E	Internet/World Wide Web	0	0%	N/A	N/A
F	Other	8	30%	25	20%
TOTAL		27	100%	127	100%

**This question was not asked in the original 1989 survey.

Percentage of Responses



TRANSIENT SURVEY

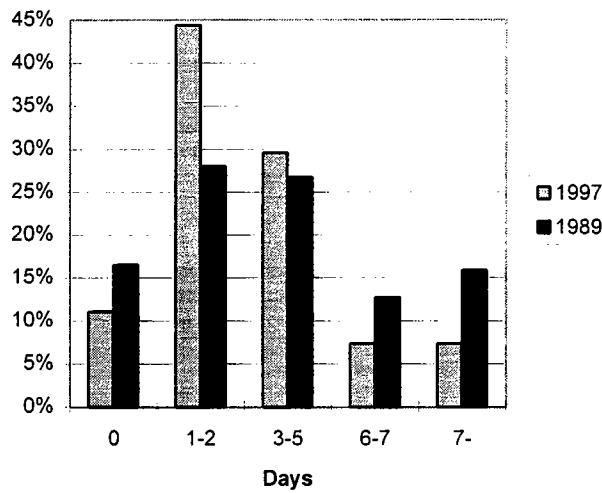
QUESTION #5:

What was your average length of stay in Ashland?

ANSWERS:

	1997		1989	
	#	%	#	%
A Less Than 1 Day	3	11%	26	17%
B 1 to 2 Days	12	44%	44	28%
C 3 to 5 Days	8	30%	42	27%
D 6 to 7 Days	2	7%	20	13%
E More Than 1 Week	2	7%	25	16%
TOTAL	27	100%	157	100%

Percentage of Responses



TRANSIENT SURVEY

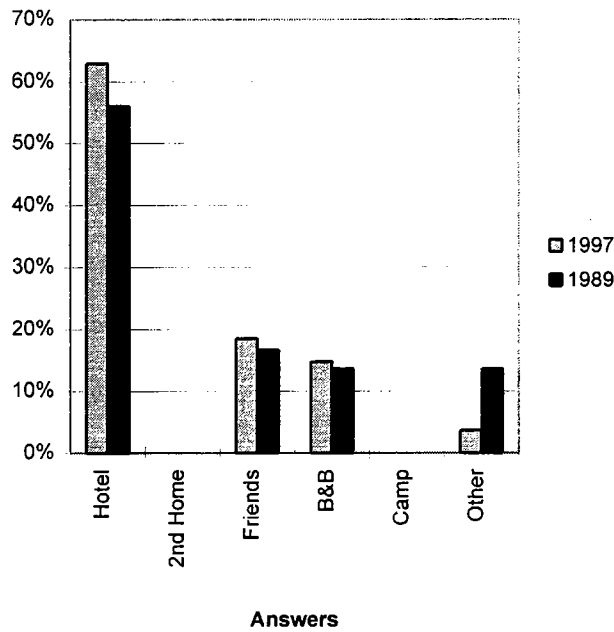
QUESTION #6:

Where did you stay while in Ashland?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Hotel/Motel	17	63%	74	56%
B	Second Residence	0	0%	0	0%
C	Friends/Relatives	5	19%	22	17%
D	Bed and Breakfast	4	15%	18	14%
E	Campground	0	0%	0	0%
F	Other	1	4%	18	14%
TOTAL		27	100%	132	100%

Percentage of Respondents



TRANSIENT SURVEY

QUESTION #7:

Please indicate the number of times you attended or participated in any of the following activities during your visit(s) to Ashland during 1996.

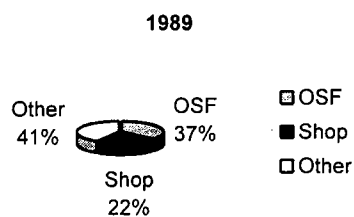
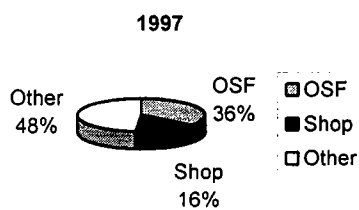
ANSWERS:

		1997		1989	
		#	%	#	%
A	Oregon Shakespeare Festival	25	36%	96	37%
B	Britt Music Festival	2	3%	2	1%
C	Fourth of July Parade	1	1%	3	1%
D	Halloween	1	1%	3	1%
E	Event at S.O.S.C.	1	1%	3	1%
F	Golfing	0	0%	10	4%
G	Flying Club	3	4%	N/A	N/A
H	Fishing	1	1%	11	4%
I	Shopping	11	16%	59	22%
J	Camping	3	4%	10	4%
K	Boating	4	6%	8	3%
L	Rafting	1	1%	11	4%
M	Skiing	1	1%	10	4%
N	Other	16	23%	37	14%
TOTAL		70	100%	263	100%

of Respondents Indicating 2 or More

44%

52%



TRANSIENT SURVEY

QUESTION #8A:

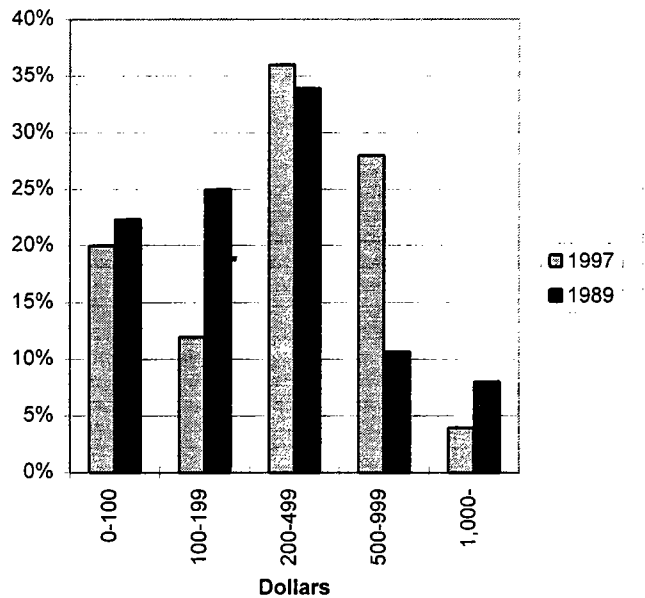
Approximately, how much money did you spend on average *per visit* while you were in the Rogue Valley *excluding aircraft expenditures*?

ANSWERS:

	1997		1989		
	#	%	#	%	
A	Less Than \$100	5	20%	25	22%
B	\$100 to \$199	3	12%	28	25%
C	\$200 to \$499	9	36%	38	34%
D	\$500 to \$999	7	28%	12	11%
E	More Than \$1,000	1	4%	9	8%
TOTAL		25	100%	112	100%

Weighted Average Expenditures	\$404	\$328
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Percentage of Respondents



TRANSIENT SURVEY

QUESTION #8B:

Approximately, how much money did you spend on average *per visit* while you were in the Rogue Valley *on aircraft expenditures*?

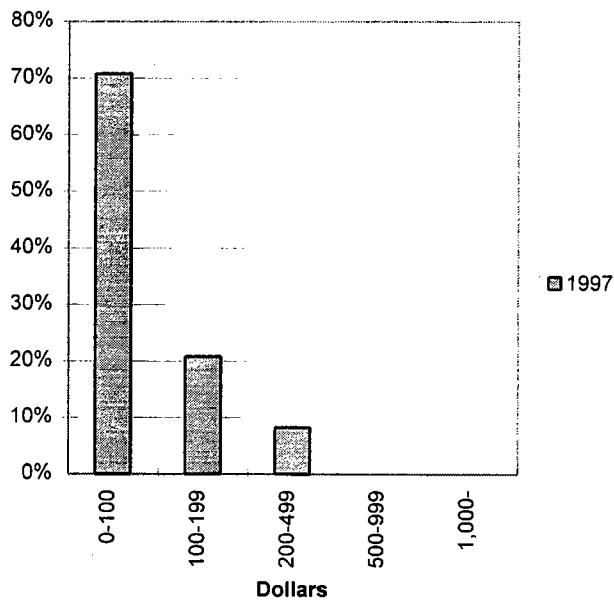
ANSWERS:

		1997		1989	
		#	%	#	%
A	Less Than \$100	17	71%	N/A	N/A
B	\$100 to \$199	5	21%	N/A	N/A
C	\$200 to \$499	2	8%	N/A	N/A
D	\$500 to \$999	0	0%	N/A	N/A
E	More Than \$1,000	0	0%	N/A	N/A
TOTAL		24	100%	0	0%

Weighted Average Expenditures	<u>\$96</u>	<u>N/A</u>
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**This question was not asked in the original 1989 survey.

Percentage of Respondents



TRANSIENT SURVEY

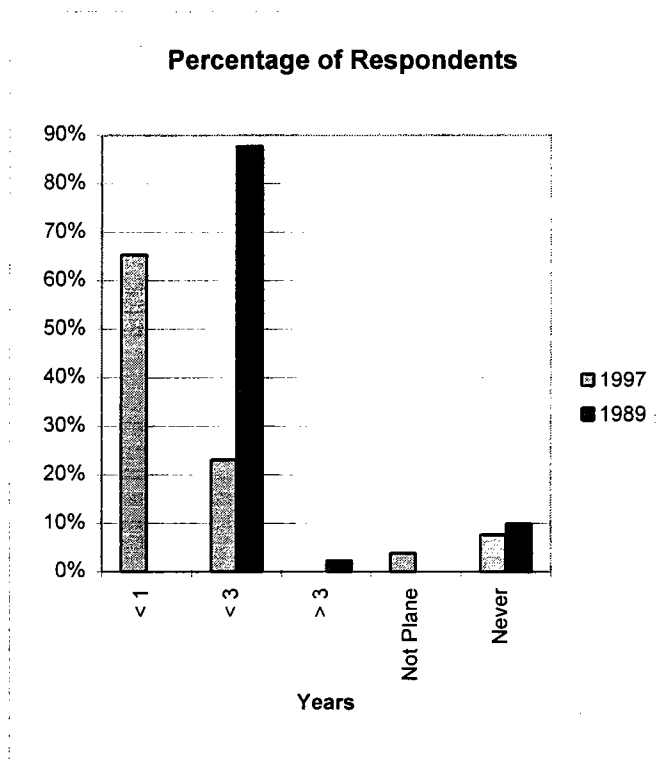
QUESTION #9:

When do you next plan to visit the Ashland area *by aircraft*?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Within 1 Year	17	65%	N/A	N/A
B	Within 3 Years	6	23%	114	88%
C	More Than 3 Years	0	0%	3	2%
D	Again, But Not by Aircraft	1	4%	N/A	N/A
E	Never	2	8%	13	10%
TOTAL		26	100%	130	100%

**This question was worded differently in the original 1989 survey.



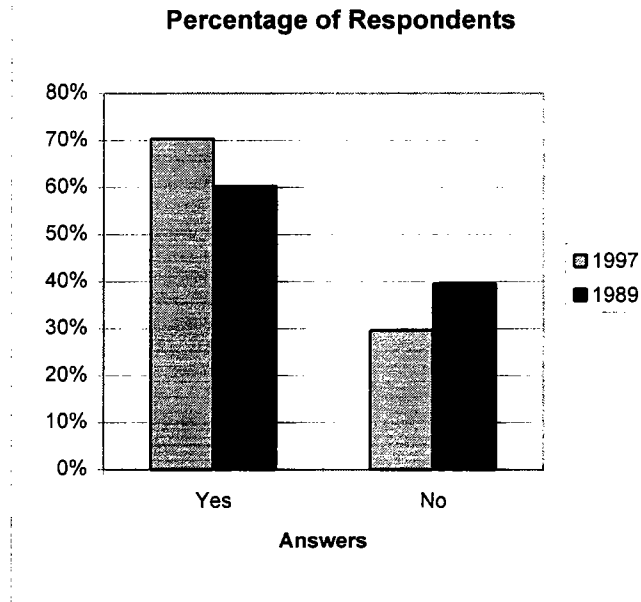
TRANSIENT SURVEY

QUESTION #10:

Had you flown into the Ashland Municipal Airport prior to 1996 (1988)?

ANSWERS:

		1997		1989	
		#	%	#	%
A	Yes	19	70%	79	60%
B	No	8	30%	52	40%
TOTAL		27	100%	131	100%



LOCAL SURVEY

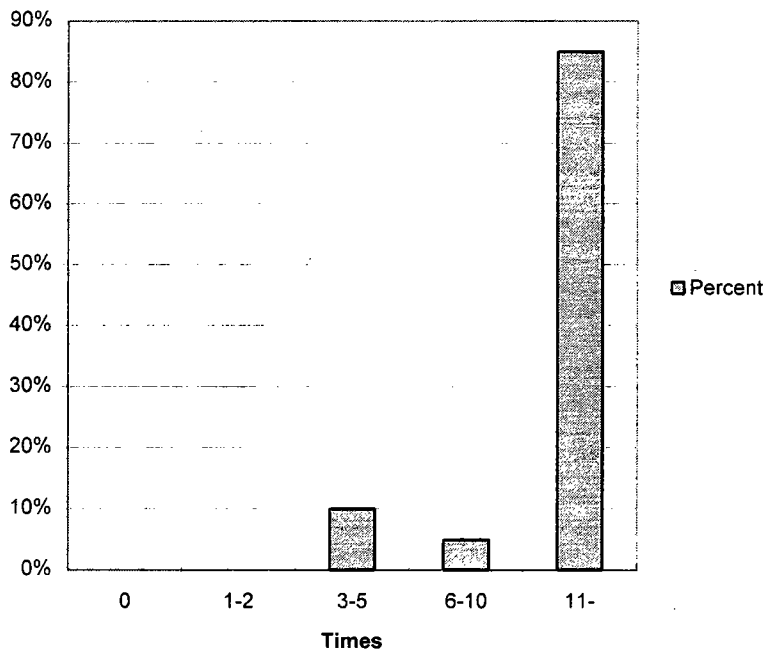
QUESTION #1:

How many times during 1996 did you use the Ashland Municipal Airport

ANSWERS:

		1997	
		#	%
A	0 Times	0	0%
B	1 to 2 Times	0	0%
C	3 to 5 Times	2	10%
D	6 to 10 Times	1	5%
E	11 or More Times	17	85%
TOTAL		20	100%

Percentage Responses



LOCAL SURVEY

QUESTION #2:

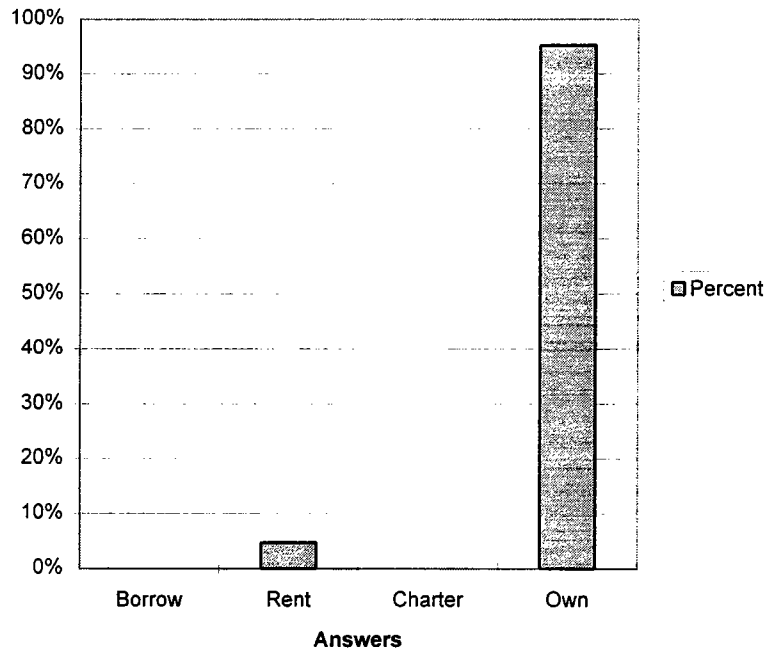
What type of aircraft service did you utilize to fly out of the Ashland Municipal Airport in 1996?

ANSWERS:

		1997	
		#	%
A	Borrow	0	0%
B	Rent	1	5%
C	Charter	0	0%
D	Own	20	95%
TOTAL		21	100%

Average # of Flights 70

Percentage Responses



LOCAL SURVEY

QUESTION #3:

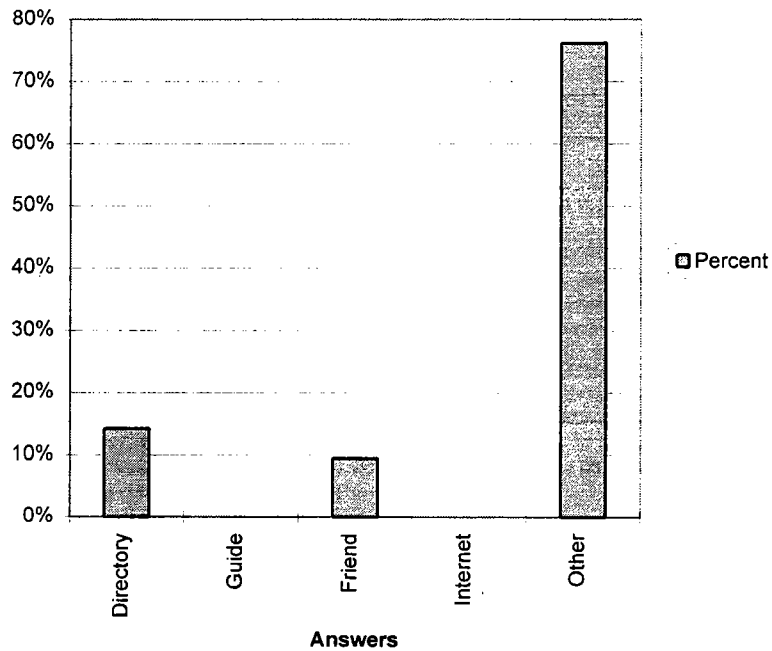
How did you find out about the Ashland Municipal Airport?

ANSWERS:

		1997	
		#	%
A	Airport Directory	3	14%
B	Travel Guide	0	0%
C	Friend/Relative	2	10%
D	Internet/World Wide Web	0	0%
E	Other*	16	76%
TOTAL		21	100%

*Other primarily specified as "live in area."/See Question #4.

Percentage Responses



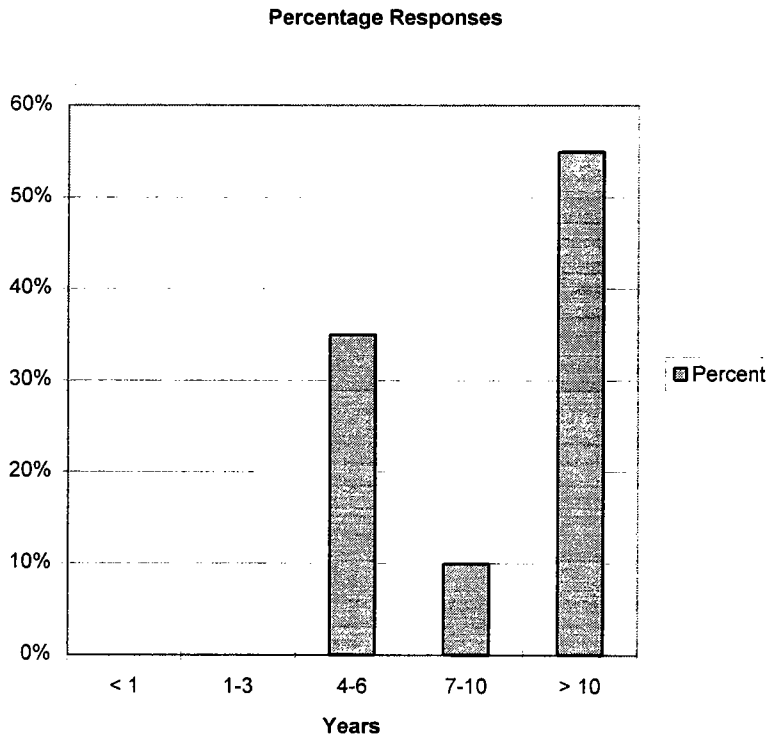
LOCAL SURVEY

QUESTION #4:

How long have you been using the Ashland Municipal Airport?

ANSWERS:

		1997	
		#	%
A	Less Than 1 Year	0	0%
B	1 to 3 Years	0	0%
C	4 to 6 Years	7	35%
D	7 to 10 Years	2	10%
E	More Than 10 Years	11	55%
TOTAL		20	100%



LOCAL SURVEY

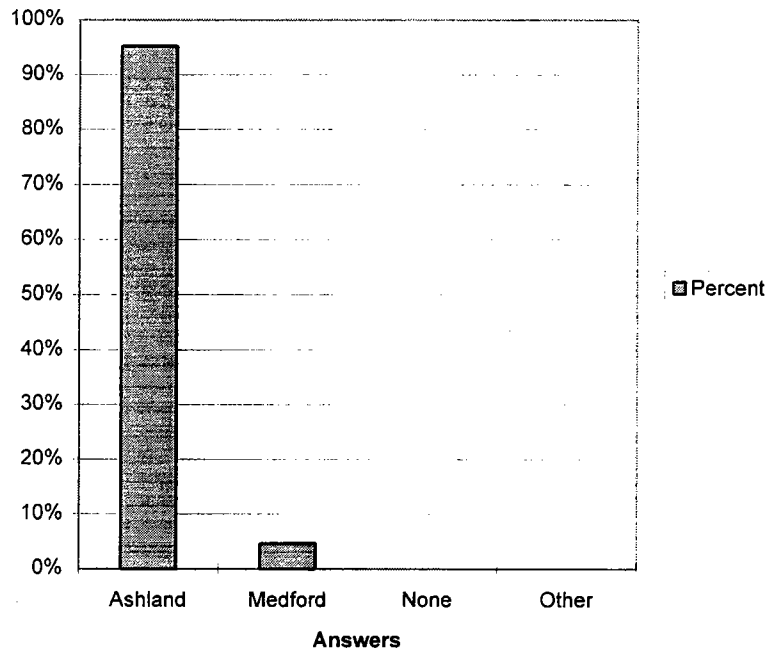
QUESTION #5:

Please check the airport you prefer to use.

ANSWERS:

		1997	
		#	%
A	Ashland	20	95%
B	Medford	1	5%
C	No Preference	0	0%
D	Other	0	0%
TOTAL		21	100%

Percentage Responses



LOCAL SURVEY

QUESTION #6:

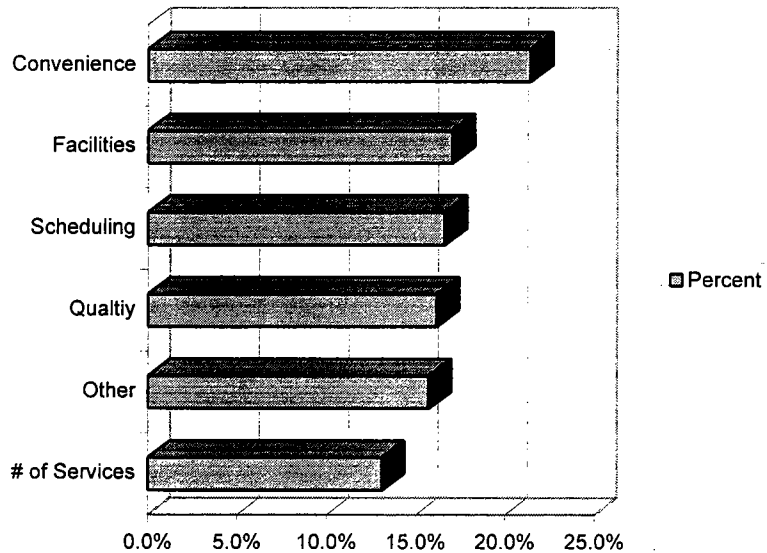
Please rank *up to five reasons* for selecting your preferred airport in the order of their importance.

ANSWERS:

		1997		
		Rate	Rank	%
A	Eash of Scheduling	3.6	3rd	16.8%
B	Quality of Service	3.5	4th	16.4%
C	Type of Facilities	3.7	2nd	17.3%
D	Convenience	4.8	1st	22.4%
E	# of Services Available	2.6	6th	12.1%
F	Other	3.2	5th	15.0%
TOTAL				<u>100.0%</u>

**Ranking is based on weighted average of responses for each answer.

Answers



LOCAL SURVEY

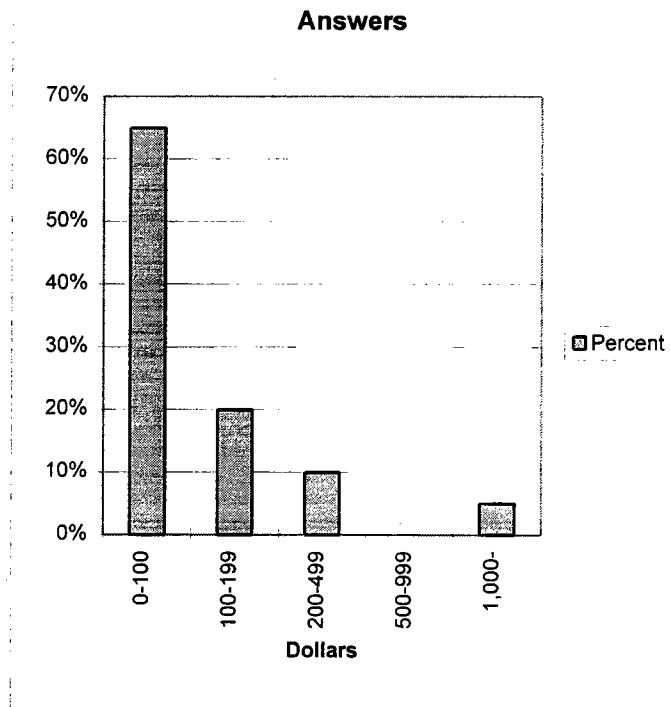
QUESTION #7:

Approximately how much money did you spend on average *each time* you used the Ashland Municipal Aircraft *on aircraft expenditures*?

ANSWERS:

		1997	
		#	%
A	Less Than \$100	13	65%
B	\$100 to \$199	4	20%
C	\$200 to \$499	2	10%
D	\$500 to \$999	0	0%
E	More Than \$1,000	1	5%
TOTAL		20	100.0%

Weighted Average Expenditures \$148



LOCAL SURVEY

QUESTION #8:

What are your *primary purposes* for using the Ashland Municipal Aircraft?

ANSWERS:

		1997	
		#	%
A	Charter Service	0	0%
B	Air Freight	0	0%
C	Pleasure/Hobby	19	53%
D	Work/Commute	10	28%
E	Sales	2	6%
F	Other	5	14%
TOTAL		36	100.0%

Answers

