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The Real World of Business Aviation:

A Survey of Companies Using General Aviation Aircraft

Prepared For:

The National Business Aviation Association

And

The General Aviation Manufacturers Association

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Background & Objectives

The Real World of Business Aviation: A Survey of Companies Using General Aviation Aircraft was conducted by Harris Interactive on behalf of the National Business Aviation Association (NBAA) and the General Aviation Manufacturers Association (GAMA). The survey was commissioned to better understand who is flying on turbine-powered business aircraft and why they use the aircraft. Specifically, the survey examined:

- Who flies on business aircraft;

- Use of time and productivity aboard the aircraft;

- Characteristics of business aircraft fleet.

- Destinations accessed on business aircraft; and

- Reasons for and frequency of business aircraft use.

The survey also updates similar Harris research conducted in 1997, which helped NBAA and GAMA relay the nature of business aviation to policymakers and others.

Methodological Overview

The findings of the survey are based on interviews with both business aircraft pilots and passengers. These interviews were conducted in two phases. The first phase was conducted online between June 1-16, 2009 among 305 Chief Pilots, Pilots, Flight Department Managers and Directors of Flight Operations or Aviation (referred to in report as "Pilots"). Figures for the number of aircraft per company and size of aircraft were weighted where necessary to bring them into line with their actual proportions in the business aircraft population.

The second phase consisted of 289 interviews among passengers on business aircraft (referred to in report as "Passengers") conducted between June 12 - October 6, 2009. Pilots distributed a paper survey and a URL link to passengers aboard their aircraft. The passenger had the option to either fill out the survey by hand or complete it online. Passenger data were not weighted. A detailed methodology is outlined in Appendix A.

Notes on Reading Report

The base for each question is the total number of respondents answering that question. All base sizes shown in the report are unweighted; percentages for pilot responses are weighted, percentages for passengers are not. This is because an asterisk (*) signifies a value of less than one-half percent; a dash (--) represents a value of zero. Percentages may not always add up to 100% because of computer rounding or the acceptance of multiple answers from respondents answering that question. Note that in some cases results may be based on small sample sizes (< 100 respondents). This is typically true when questions were asked of subgroups. Caution should be used in drawing any conclusion from results based on these small samples.

Overview

The business aviation community consists of companies of all sizes that rely on many different types of aircraft - from single-engine piston airplanes, to turbo-props, to turbine jet aircraft that fly internationally, to helicopters - to be more competitive, productive, efficient and successful. Business aviation is a diverse composite of entrepreneurs and organizations located in all parts of the United States.

Although industry data published elsewhere reveals that manufacturing and the use of business aircraft contributes significantly to the national economy, the industry is often not well understood. Frequently lost in consideration of business aviation are the types of aircraft and airports used, the wide range of employees that rely on the aircraft for transport, and other realities about business aviation use.

This survey - based on interviews conducted with actual pilots and passengers involved in the use of business aircraft - reveals some important and illuminating insights into the real world of business aviation and the true nature of the industry.

Equally important, the survey updates and remains consistent with a very similar survey, conducted by Harris Interactive in 1997 to shed light on basic facts about business aviation use and benefits. Not surprisingly, in the twelve years since the 1997 study was published, the makeup of the business aviation community remains unchanged.

Small companies operate the majority of business aircraft.[1]
- The majority (59%) of companies operating business aircraft have fewer than 500 employees and seven in ten have less than 1,000 employees.

Managers and other mid-level employees are the typical passengers on business aircraft.
- Only 22% of passengers on business aircraft are top management; the majority are other managers (50%) and or technical, sales or service staff (20%)[2].

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[1] According to the Small Business Administration (SBA), a small business is defined as a company with less than 100 to1,500 employees, depending on the industry.

[2] Examples of top management include "Chairman, CEO, CFO, President, Board of Directors". Examples of other managers include "Vice President, General Manager, Director".

A company's business airplane use is wide-spread among employees.

- An average of 327 passengers per company were flown on business aircraft in the past six months.

- Companies operating more than one aircraft carry more passengers, averaging 743 total passengers in the past six months as compared with 190 flown by companies with only one business aircraft.

- Discounting for passengers who flew on multiple trips, the individual count of people flown on business aircraft averages 85 per company.

Employees use their time onboard company aircraft more effectively and productively than when they are in the office or on commercial flights.

- Passengers dedicate the majority of their time aboard business aircraft to work-related tasks: an average of 36% of their time is spent in meetings with colleagues and almost one-third (30%) of their in-flight time is dedicated to doing individual work tasks.

- Passengers estimate that they are 20% more productive on the company aircraft than they are in the office. This is contrast to being 40% less productive on commercial flights.

Companies using business aviation typically operate a single aircraft.

- The majority (75%) of companies operate only one turbine-powered aircraft. Slightly more companies today own only one aircraft as compared to 1997 when over a third (37%) had more than one in their fleet.

A large majority of business aircraft flights (80%) are made into secondary airports or airports with infrequent or no scheduled airline service.

- Approximately half (47%) of business aircraft flights are made into an airport with infrequent or no scheduled airline service and another third (33%) are into a secondary airport. Pilots in the survey report that only one in five (19%) flights are into a large commercial airport, representing at most, 4% of total operations at the nation's top ten airports according to FAA Air Traffic Activity Data System (ATADS)[3].

- Pilots estimate that in the past year, an average of two in five (40%) trips were to airports in communities that never had scheduled airline service.

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[3] The Air Traffic Activity Data System (ATADS) contains the official NAS air traffic operations data available for public release. On the 20th of each month, data for the previous month is made available. The first year of data available is FY 1990.

1. Who Flies on Business Aircraft?
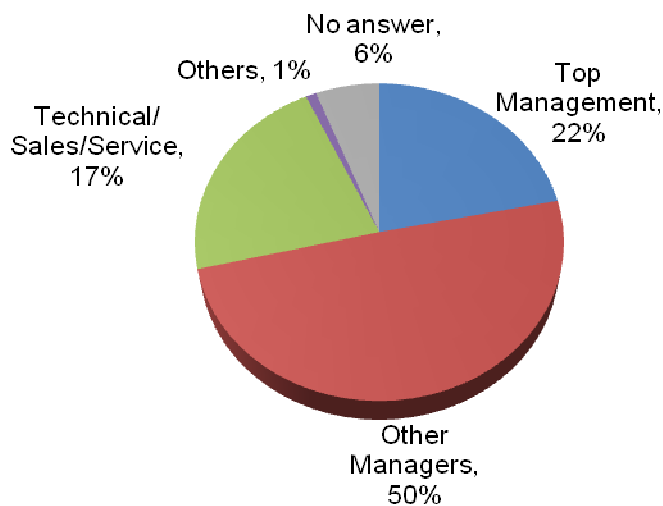
Companies Flying on Business Aircraft

The business aviation community consists of all kinds of companies, located across the United States, and involved in a countless number of enterprises. Some companies using business aircraft are household names. However, results from the survey show that small and mid-sized companies make up the large majority of business aircraft operators. According to pilots, seventy percent of companies surveyed have less than 1,000 employees and three in five (59%) companies have less than 500 employees.

Classification of Business Aircraft Passengers by Title

The typical passengers on business aircraft are mid-level managers or other employees (70%). Just 22% are a part of top management, whereas half (50%) are other managers and 20% are technical, sales or service staff. The remaining 7% are comprised of passengers with other titles (family, non-business guests, etc.) or those who declined to answer.
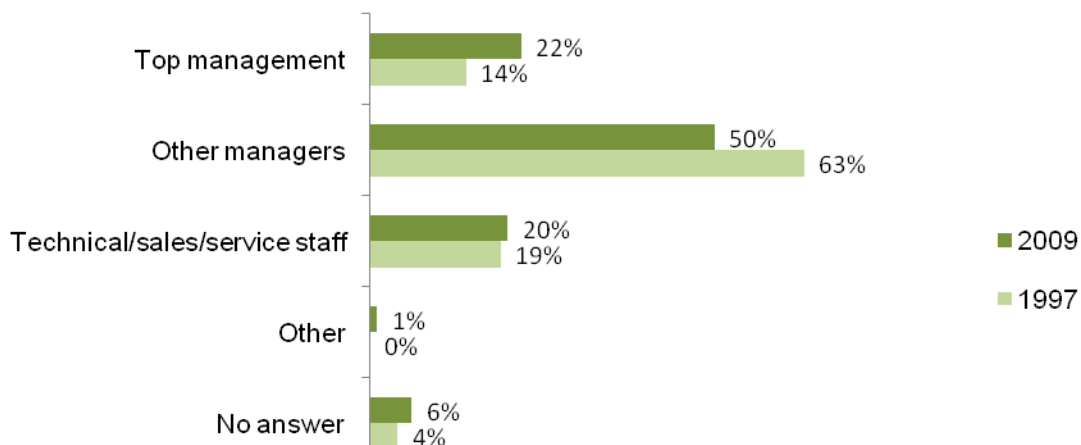
Table 1.1
Passenger Profile by Title

Base: Passengers (n=289)
Q1015: What is your title?

Comparing 1997 titles to 2009 titles, it is interesting to note that the percentage of other management is less today than it was in 1997. Accordingly, there are slightly more top managers, others, and technical staff who took the survey in 2009.

Table 1.2
Passenger Profile by Title - Trended

Title	2009	1997
Top management	22%	14%
Other managers	50%	63%
Technical/sales/service staff	20%	19%
Other	1%	0%
No answer	6%	4%

Base: Passengers (2009: n=289; 1997: n=346)
Q1015: What is your title?

Number of People Flown

The number of passengers flying on business aircraft can be measured in two ways:

1. **Total Passenger Trips**: The total count of the number of passengers on each flight over the given time period. In other words, if one person flew three times, then that person would represent three passengers.
2. **Individuals**: The number of different people who have flown on the aircraft over the given time period. If one passenger flew three times, then that person would still only represent one passenger.

When pilots were asked for the total count of passenger trips, they reported an average of 327 passengers flown on business aircraft in the last six months. As might be expected, the total count of passengers was higher for companies that owned more than one aircraft (average of 743 passengers) than those that owned only one (average of 190 passengers).

Table 1.3

Number of Passengers Flown – Total Passenger Trips

	Total	1 Aircraft	2+ Aircraft
< 75 passengers	23%	28%	7%
76 – 250 passengers	37%	41%	24%
251 – 500 passengers	28%	27%	29%
> 500 passengers	12%	3%	40%
Not sure	*	--	*
Mean	*327*	*190*	*743*

Base: Pilots (n=305)
Q700: Over the last six month, a total of approximately how many passengers flew on business aircraft chartered or operated by your company?

After discounting for passengers who flew on more than one flight in the past six months, pilots report that the individual count of passengers is 85, implying that all passengers flew on multiple flights. Again, differences exist between companies with only one aircraft and those with more than one: the average number of individual passengers is approximately four times higher for companies with more than one aircraft (202 individual passengers vs. 46 individual passengers at companies with only one aircraft).

Table 1.4

Number of Passengers Flown – Individuals

	Total	1 Aircraft	2+ Aircraft
< 25 passengers	44%	53%	17%
26 – 75 passengers	33%	33%	33%
76 – 250 passengers	16%	11%	31%
> 250 passengers	7%	3%	20%
Mean	*85*	*46*	*202*
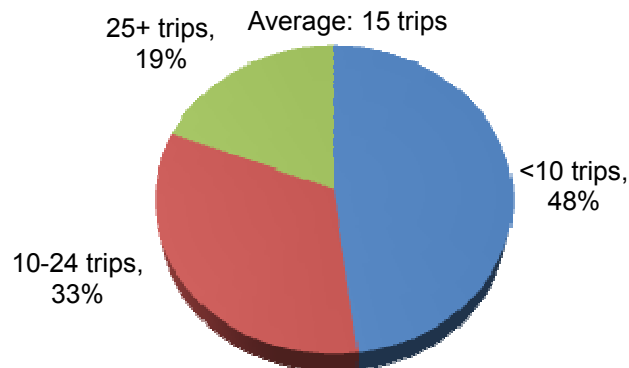
Base: Pilots (n=305)
Q705: Now, if all the passengers who flew on business aircraft chartered or operated by your company in the last six months were standing in a hangar at once, approximately how many people would be there?

These numbers have decreased significantly from 1997 when the average was 800 total passengers and 478 individual passengers.

Passengers' Flight Frequency

The average business aircraft passenger has taken 15 business trips in the past six months, which involved travel by air. This averages out to 2-3 business trips per month, down slightly from 3-4 per month in 1997. Approximately half (48%) report taking less than 10 trips in the past six months, a full one third (33%) took between 10 and 24, and one in five (19%) took 25 or more.

Table 1.5
Number of Business Trips

Base: Passengers (n=289; no answer=2)
Q700: In the past six months, how many business trips did you take which involved travel by commercial or business aircraft?
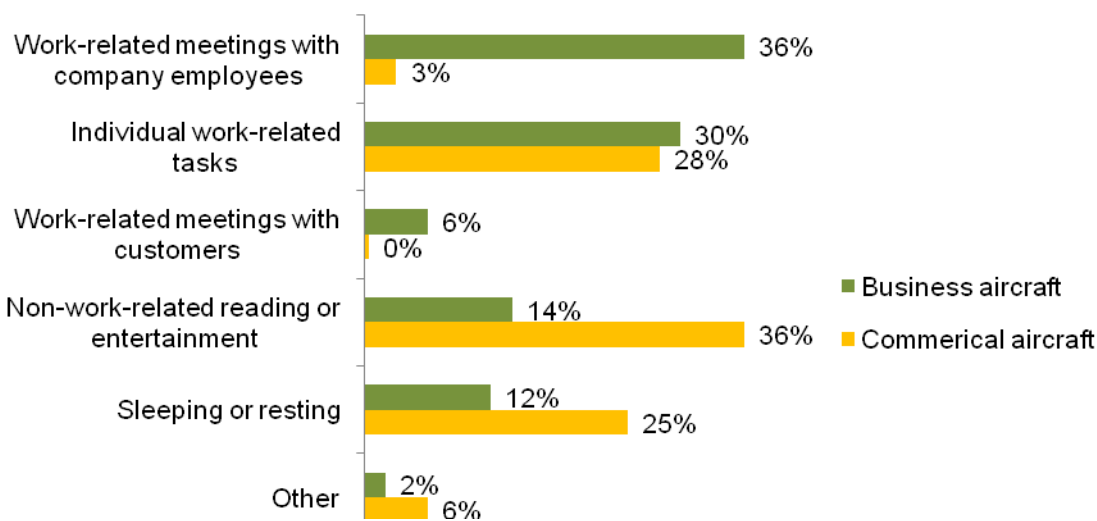
2. Time & Productivity on Business Aircraft

Use of Time Aboard Business Aircraft

When asked to describe their time aboard business and commercial aircraft, passengers report spending much more time on work-related tasks aboard business aircraft as opposed to commercial aircraft. When aboard a company-operated aircraft, passengers spend approximately two-fifths (36%) of their time in meetings with colleagues, 30% of the time is dedicated to doing individual work tasks and the remaining time is spent on non-work related things, such as leisurely reading or sleeping.

The allocation of time changes significantly when these passengers fly on commercial planes. Over one-third (36%) of the time is spent doing non-work related activities such as reading or entertainment, 28% of the time is allocated to individual work tasks and most of the remaining time (25%) is spent sleeping or resting. In total, passengers spend over twice the amount of time on work-related tasks when they are on business aircraft as opposed to commercial (72% vs. 31%).

Table 2.1
Time Spent Aboard Aircraft

	Business aircraft	Commercial aircraft
Work-related meetings with company employees	36%	3%
Individual work-related tasks	30%	28%
Work-related meetings with customers	6%	0%
Non-work-related reading or entertainment	14%	36%
Sleeping or resting	12%	25%
Other	2%	6%
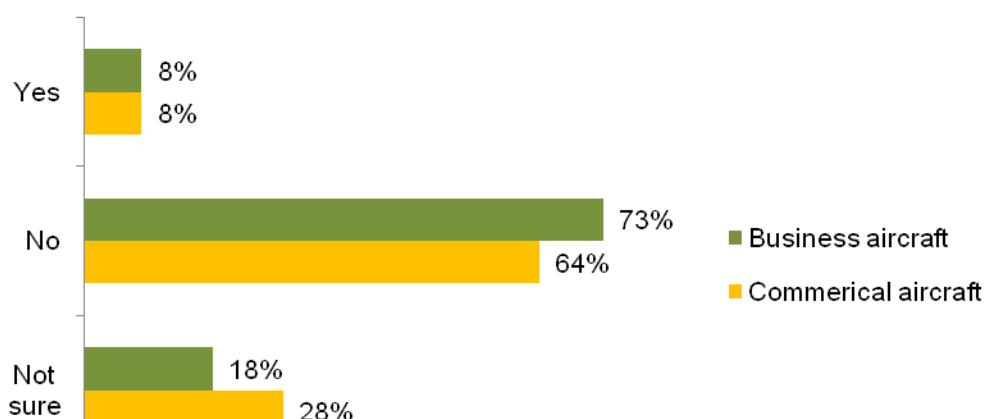
Base: Passengers (Business aircraft n=284; no answer=5; Commercial aircraft n=270, no answer=19)
Q810/820: Approximately what percent of your time aboard [business aircraft/commercial airlines' would you say you spend on the following?
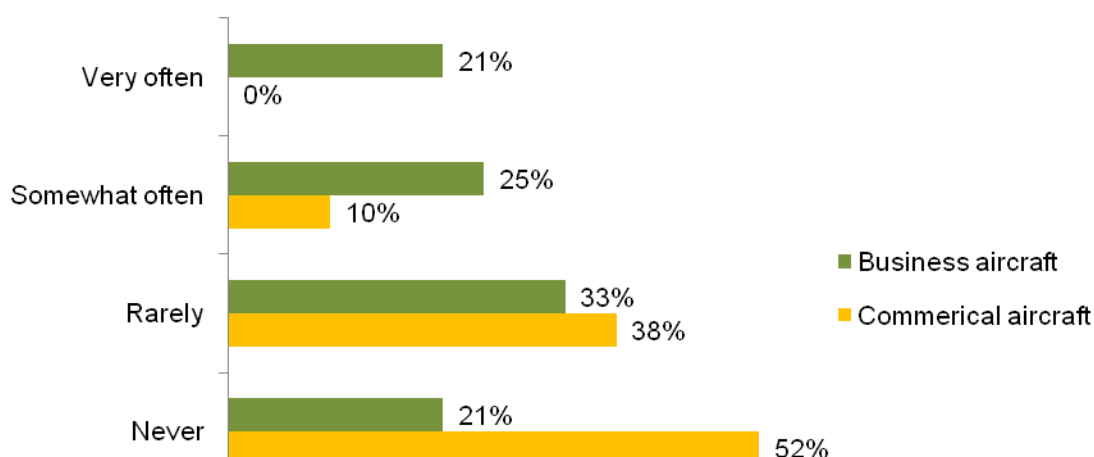
Although there is little difference in internet availability between business and commercial aircraft, passengers who have the option to connect to the internet while flying are much more likely to access it aboard company-operated aircraft than on commercial flights. Aboard business aircraft, almost half (46%) of passengers use the internet at least somewhat often, whereas only 10% use it as frequently on commercial airlines. In fact, half (52%) of passengers who have access to the internet on commercial flights never use it compared to only 21% aboard business aircraft.

Table 2.2
Internet Access Availability

Base: Passengers (Business aircraft n=287, no answer =2; Commercial aircraft n=266, no answer=23)
Q905/Q915: Is internet access available [on your business aircraft/when you fly on commercial airlines]?

Table 2.3
Use of Internet Access
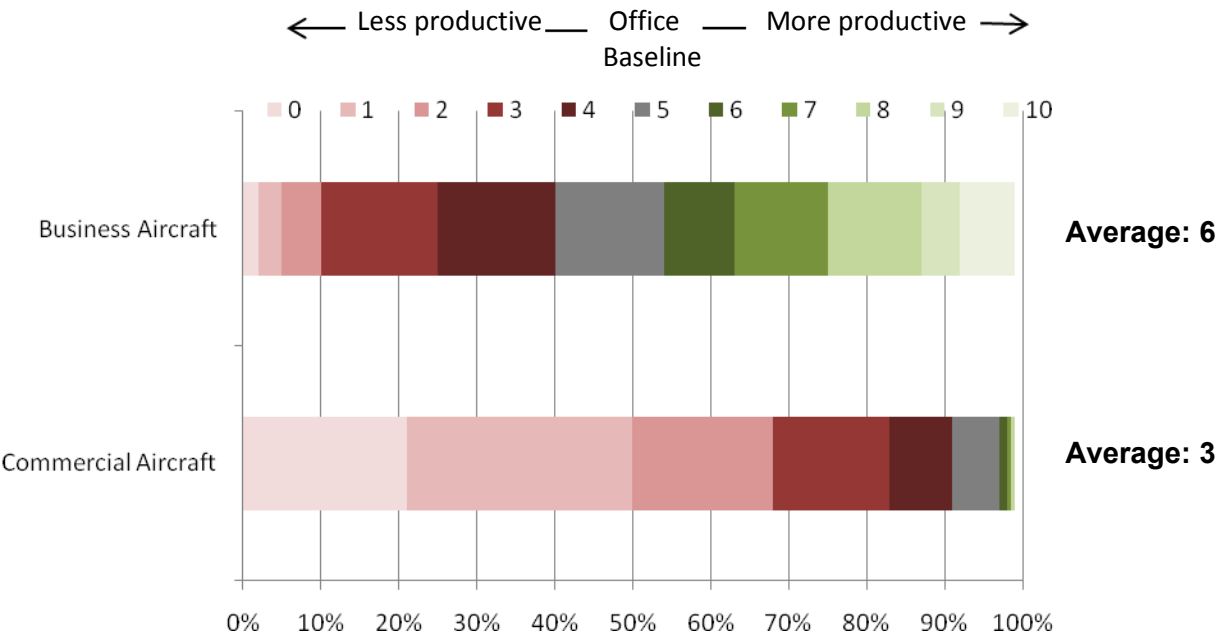
Base: Internet is Available (On business aircraft n=24; On commercial aircraft n=21, no answer=1)
Q910/920: How often do you access the Internet while you are aboard [business aircraft/commercial airlines]?

Productivity Aboard Business Aircraft

In addition to being more engaged in work-related tasks while aboard company aircraft, passengers also perceive themselves to be more productive on the aircraft than even in the office. Passengers were asked to rate their productivity aboard the aircraft in a typical hour using a scale from 1 to 10, where 5 was the office baseline. Compared to a typical hour in the office (five, the baseline on the scale), passengers rate their productivity aboard a company jet at 6, which is a 20% increase in productivity as compared to the office. Airline aircraft productivity ranks significantly below office productivity at an average of 3. This is a 40% drop in productivity from time in the office.

Table 2.4
Productivity Aboard Aircraft
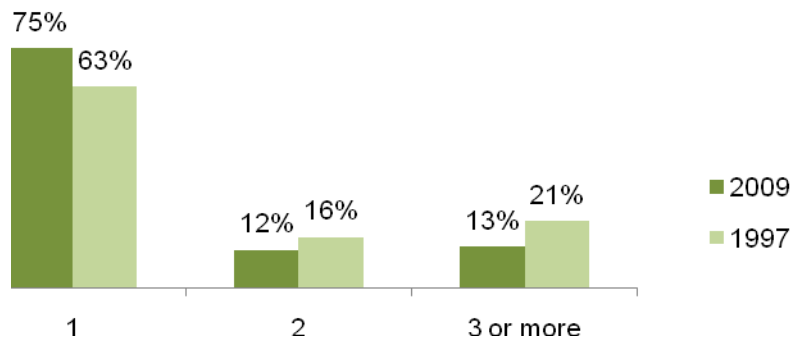
Base: Passengers (Business aircraft=285,no answer=4; Commercial aircraft=283, no answer=6)
Q900: On a scale of zero to ten where five represents your productivity in an average or typical hours in your office, how would you rate your productivity in a typical hour aboard [business/commercial aircraft]?

3. Characteristics of the Business Aircraft Fleet

The majority (75%) of companies operate only one turbine-powered aircraft. Of the 25% operating more than one aircraft, 12% own two and the remaining 13% own three or more. Slightly more companies today own only one aircraft as compared to 1997 when over a third (37%) had more than one in their fleet.

Table 3.1
Number of Aircraft Operated
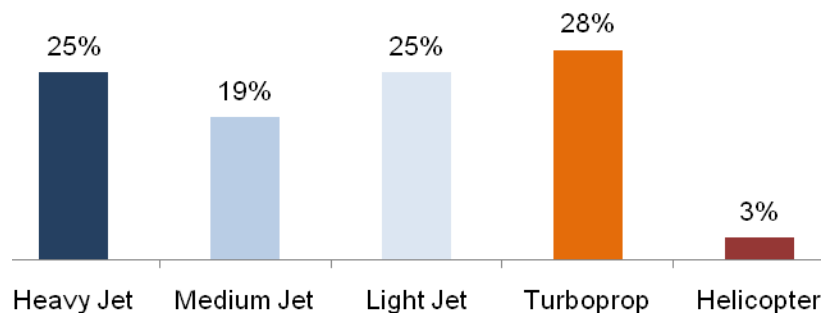
Base: Pilots (n=305)
Q655 How many turbine-powered aircraft does your company operate? Please include all turbine-powered aircraft operated under either Part 91 or Part 135.

Light jets (< 20,000 lbs.) represent a quarter of general aviation, medium jets (20,000-35,000 lbs.) account for 19% and heavy jets (>35,000 lbs.) for another quarter. Turboprops account for 28% of the turbine fleet, and helicopters comprise about 3%.

Table 3.2
Type of Aircraft Operated
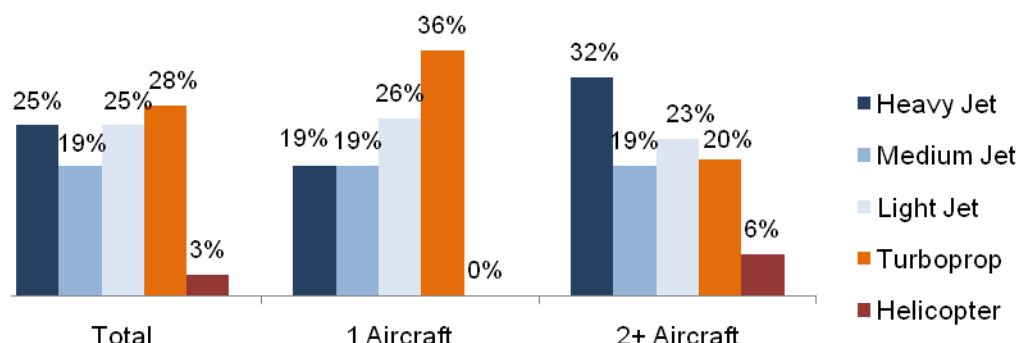
Base: Pilots (n=305)
Q660: How many of the turbine-powered aircraft your company operates are…?
Base: Jets (n=440)
Q905: Is it a heavy, medium, or light jet? By heavy we mean more than 35,000 lbs., medium is 20,000 to 35,000 lbs., and light is less than 20,000 lbs. The weight we are referring to is the Maximum Gross Take-Off Weight (MGTOW).

Jets are even more popular among companies that own more than one aircraft; three-quarters (74%) of the most utilized aircraft are jets, 20% are turboprops and 6% are helicopters. No company with only one aircraft owns a helicopter; instead, the aircraft is either a jet (64%) or a turboprop (36%).

Table 3.3
Type of Aircraft Operated by Number of Aircraft Owned

Base: Pilots (n=305)
Q660: How many of the turbine-powered aircraft your company operates are…?
Base: Jets (n=440)
Q905: Is it a heavy, medium, or light jet? By heavy we mean more than 35,000 lbs., medium is 20,000 to 35,000 lbs., and light is less than 20,000 lbs. The weight we are referring to is the Maximum Gross Take-Off Weight (MGTOW).

Business aircraft use averaged 358 hours in 2008. As might be expected, companies with more than one aircraft report significantly higher use over the past year than companies that operate only one aircraft (299 hours vs. 431 hours). Average trip length is virtually identical for companies operating both one (1.9 hours) and more than one aircraft (2.0 hours).

Table 3.4
Annual Flight Hours

	Total	1 Aircraft	2+ Aircraft
< 200 hours	26%	30%	21%
201 – 300 hours	26%	32%	20%
301 – 400 hours	21%	18%	23%
401 – 500 hours	14%	13%	16%
> 500 hours	13%	8%	20%
Not sure	*	--	*
Mean	*358*	*299*	*431*

Base: All Aircraft (n=440)
Q915: For this aircraft, how many flight hours did your company log in 2008?

Table 3.5
Average Trip Length

	Total	1 Aircraft	2+ Aircraft
0.1 -1.0 hours	12%	5%	20%
1.1-1.5 hours	33%	37%	28%
1.6-2.0 hours	24%	31%	16%
2.1-3.0 hours	23%	21%	24%
3.1-9.9 hours	8%	5%	12%
Mean	*1.9*	*1.9*	*2.0*

Base: All Aircraft (n=440)
Q920: What was the average trip length for this aircraft, in hours? We are referring here to flight time, not ground time.

The average passenger count per flight in 2008 was 3.4, with a practical maximum of 8 passengers. Twelve years ago, the average passenger count was 3.9 with a similar practical maximum of 7.5 passengers. The passenger count of flights operated by companies with more than one aircraft is significantly higher than the passenger count of companies with a sole aircraft (3.6 vs. 3.3, respectively). A slight majority (53%) of aircraft operated by pilots at companies with only one aircraft have an average passenger count of less than 3.0, whereas only 40% of pilots at companies with more than one aircraft have this count.

Table 3.6
Average Passenger Count

	Total	1 Aircraft	2+ Aircraft
< 2.0 passengers	17%	17%	17%
2.1 - 3.0 passengers	30%	36%	23%
3.1 – 4.0 passengers	31%	30%	33%
4.1 – 5.0 passengers	12%	10%	14%
5.1 – 6.0 passengers	5%	4%	7%
> 6.0 passengers	3%	2%	6%
Mean	*3.4*	*3.3*	*3.6*

Base: All Aircraft (n=440)
Q925 What was the average passenger count on this aircraft last year?

Table 3.7
Maximum Number of Passengers
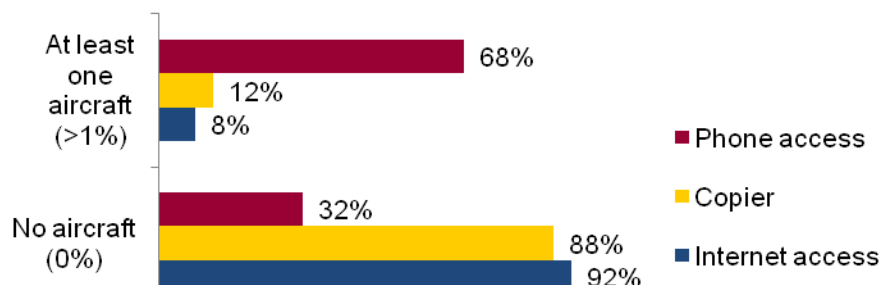
	Total	1 Aircraft	2+ Aircraft
1- **4 passengers**	7%	7%	7%
5 - 6 passengers	27%	31%	23%
7 - 8 passengers	37%	36%	37%
9 - 10 passengers	17%	18%	17%
> 10 passengers	12%	5%	16%
Mean	7.7	7.4	8.0

Base: All Aircraft (n=440)
Q930 What is the practical maximum number of passengers your company carries on this aircraft?

A significant number of aircraft are equipped with office equipment. Just over two-thirds (68%) of the companies surveyed have phone access aboard at least one aircraft, 12% have a copier and 8% have internet access. Companies are more likely to have access to office equipment aboard at least one aircraft if they own more than one.

Table 3.8
Percentage of Aircraft with Office Equipment

Base: Pilots (n=305)Q1040: Approximately what percent of your company's turbine-powered aircraft allow a passenger to use the following products?

Table 3.9
Percentage of Aircraft with Office Equipment

	Total	1 Aircraft	2+ Aircraft
Phone Access			
At least one aircraft	68%	62%	87%
No aircraft	32%	38%	13%
Copier			
At least one aircraft	12%	8%	22%
No aircraft	88%	92%	78%
Internet Access			
At least one aircraft	8%	6%	16%
No aircraft	92%	94%	84%
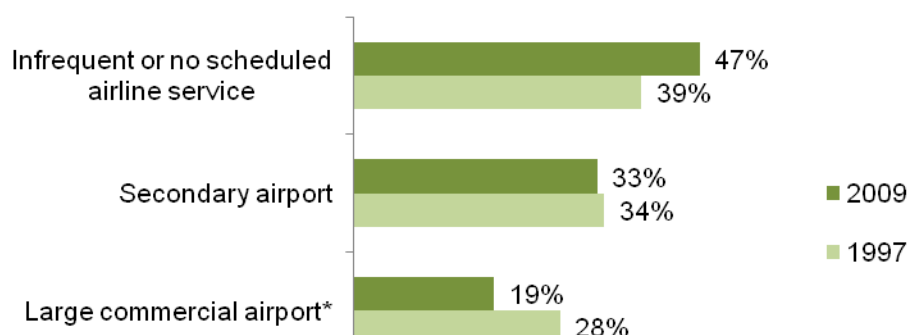
Base: Pilots (n=305)
Q1040: Approximately what percent of your company's turbine-powered aircraft allow a passenger to use the following products?

4. Destinations Accessed on Business Aircraft

To meet passengers' needs, most business aircraft flights are made into airports with infrequent or no scheduled airline service. In fact, almost half (47%) of flights are made into an airport with infrequent or no scheduled airline service, another third (33%) are into a secondary airport, and 19% are into a large commercial airport.* These proportions are similar to those reported in 1997 when two in five (39%) trips were made to an airport with infrequent service, 34% into a secondary airport and 28% into a large commercial airport.

Table 4.1
Types of Airports Flown Into by Year
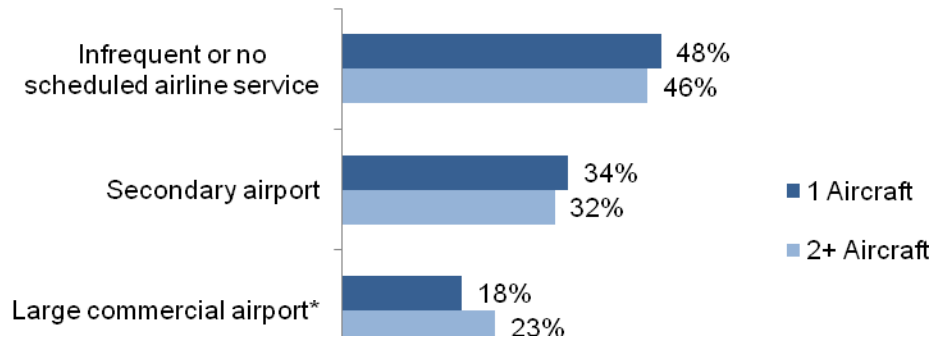
	2009	1997
Infrequent or no scheduled airline service	47%	39%
Secondary airport	33%	34%
Large commercial airport*	19%	28%

General Aviation represents, at most, 4% of total operations at the nation's top ten airports (FAA Air Traffic Activity Data System)

Base: Pilots (2009: n=305; 1997: n=301)
Q800: Approximately what percentage of your flights are into the following types of airports?

The type of airport flown into does not change based on how many aircraft the company owns or size of the company. The average company pilot flies into airports with infrequent scheduled airline service about half the time and secondary airports roughly a third of the time, regardless of how many aircraft the company owns or charters.*

Table 4.2
Types of Airports Flown Into by Number of Aircraft
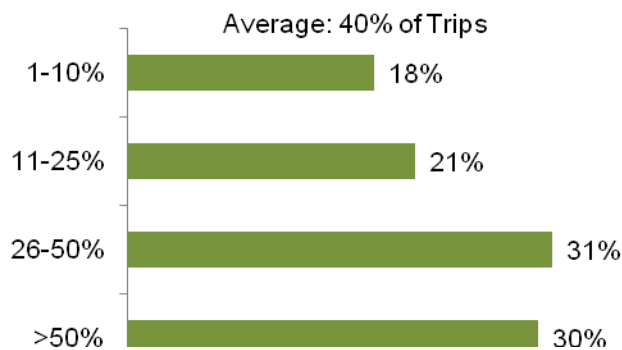
Type of Airport	1 Aircraft	2+ Aircraft
Infrequent or no scheduled airline service	48%	46%
Secondary airport	34%	32%
Large commercial airport*	18%	23%

General Aviation represents, at most, 4% of total operations at the nation's top ten airports (FAA Air Traffic Activity Data System).

Base: Pilots (n=305)
Q800: Approximately what percentage of your flights are into the following types of airports?

Companies with business aircraft are reaching locations that would not otherwise be reachable with commercial flights. Pilots estimate that in the past year, an average of two in five (40%) trips were to airports in communities that never had scheduled airline service. In fact, three in ten pilots fly to communities that have never had commercial service for over half of their flights.

Table 4.3
Percentage of Trips to Communities that Never had Scheduled Airline Service

Average: 40% of Trips

1-10%	18%
11-25%	21%
26-50%	31%
>50%	30%
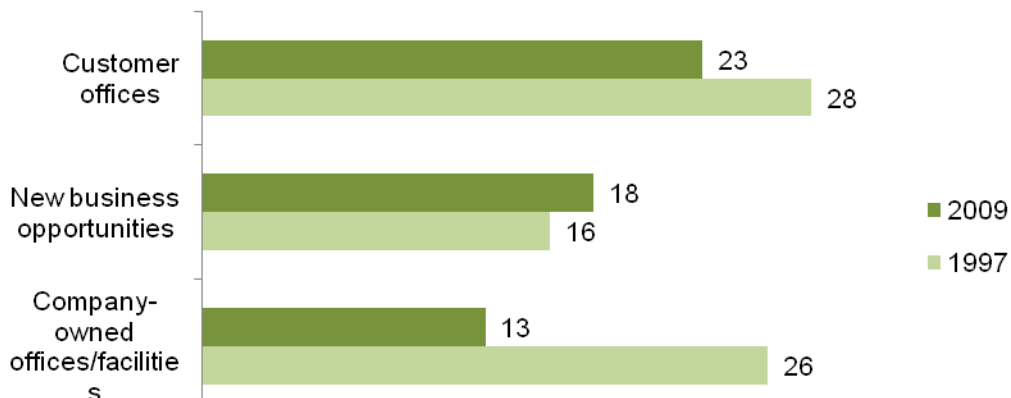
Base: Pilots (n=305)
Q807 In the past year, what percentage of your trips was to airports in communities that have never had schedule airline service?

Further, in the past year, half (50%) of pilots have flown into at least one community that had scheduled airline service at one time during the past decade but has since lost it.

Pilots are flying to many different locations to meet various company needs. The biggest proportion of their trips facilitate meetings between the company's employees and current or potential clients. Over the last six months, pilots report flying to an average of 23 different customer offices, 18 different locations to seek out new business opportunities, and 13 different company-owned offices or facilities. In 1997, although pilots were flying to more locations on average than they are now (28 customer offices, 16 locations to seek out new business, 26 company-owned offices), they were proportionately flying to more company-owned locations than locations to do new business. Now, pilots are more likely to fly to a location for a new business opportunity than they are to fly to a company-owned office.

Table 4.4
Types of Locations Flown Into

Base: Pilots (n=305)
Q: In the last six months, to how many different [INSERT RESPONSE] did you fly?
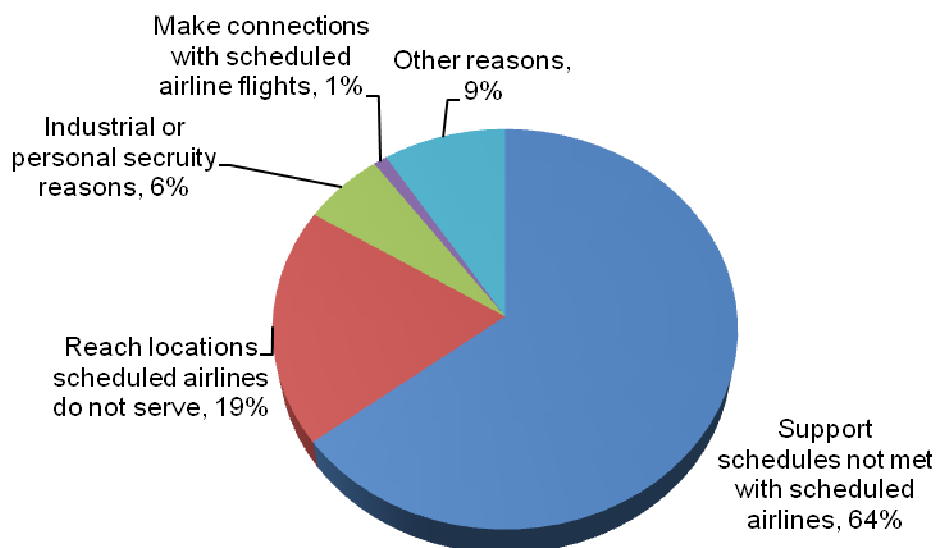
Approximately half (46%) of the flights involve multi-leg trips to more than one destination location.

5. Reasons for Using Business Aircraft

Missions That Can't Be Conducted With the Airlines

The primary reason for using business aircraft, as reported by passengers, is to support business schedules that cannot be met solely with the use of the scheduled commercial airlines. Passengers estimate that on average, two-thirds (64%) of trips are made for the purpose of meeting such schedules. The next-most-common use of company-owned or chartered aircraft is to reach locations that scheduled airlines do not serve (19%). Other reasons include the value of business aviation in helping prevent threats to industrial or personal security (6%) or to make connections with scheduled airline flights (1%). Interestingly, 5% of passengers volunteered an answer not listed in the survey, which is that flying on their company-owned or chartered aircraft is more cost effective than buying commercial flights for everyone to fly to the same place.

Table 5.1
Reasons for Business Aircraft Use
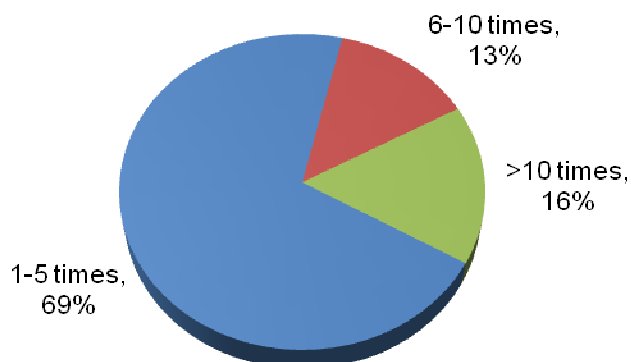
Base: Passengers (n=287)
Q800: Approximately what percent of your travel aboard business aircraft is because of the following reasons?

Humanitarian Missions

Although most trips are made to transport company officials to customers or company-owned facilities, on schedules that cannot be met with airline flights, not all pilots are flying company-operated aircraft solely for business reasons. According to GAMA, general aviation conducted more than15,000 flights in one recent year in support of missions for humanitarian organizations including the Corporate Angel Network, Veterans Airlift Command and others[4]. Of the 32% companies that flew humanitarian missions in the survey, 69% flew between one and five trips, 13% between six to ten trips and another 16% over ten trips.

Table 5.2
Number of Times Flown for Humanitarian Reasons

6-10 times, 13%

>10 times, 16%

1-5 times, 69%

Base: Pilots Who Have Flown for Humanitarian Reasons in Past Year (n=98)
Q815: In the past year, approximately how many times did you fly for humanitarian reasons? This can include trips related to disaster relief, transporting patients for life saving medical procedures, emergency organ donations, or volunteer transportation for organizations like the Red Cross

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[4] GAMA conducted a survey in February 2009 which showed the number of missions by charitable organizations in 2008 was over 15,000.

Appendix A:

Survey Methodology

Survey Methodology

The Real World of Business Aviation: A Survey of Companies Using General Aviation Aircraft is based on a survey of 305 Chief Pilots, Pilots, Flight Department Managers and Directors of Flight Operations or Aviation from U.S. companies, universities, and governmental agencies and 289 passengers on business aircraft at these organizations. The companies, universities and government agencies were randomly selected from one of two lists. The first list was supplied by JetNet, the most comprehensive data source for the business aviation universe available; the second list was drawn from NBAA's member database.

Before Harris Interactive conducted the pilot interviews for the survey, NBAA sent an email to the pilot respondents describing the nature of the study and urging participation. NBAA then emailed a survey invitation to one person from each company whose title matched the desired audience.

Upon completion of the online interview, pilots were asked to assist in distributing the passenger survey to 15 passengers on upcoming flights. A letter explaining the nature of the passenger study and describing the desired passenger survey dissemination process was sent in a package to all pilots who agreed to help with the distribution. The package also included 15 copies of the materials to hand out to the passengers: a passenger questionnaire, a postage-paid return envelope and a postcard with the survey URL.

Pilot Interviewing Procedures

The pilot interviews were conducted online between June 1 and 16, 2009 and averaged 14 minutes in length. The online surveys were hosted on Harris Interactive's server, and all interviews were conducted using a self-administered, online questionnaire via proprietary, web-assisted interviewing software. Each email invitation contained a URL with a built-in password, respectively, that was uniquely assigned to that email address. Password protection ensured that a respondent was able to complete the survey only one time.

Passenger Interviewing Procedures

The passenger interviews were conducted between June 12 and October 6, 2009. The passengers were given the option of filling out their surveys by hand or taking the surveys online. A total of 47 passengers chose to complete the survey online, which was hosted on the same Harris Interactive web-assisted interviewing software as the pilot survey. The postcards included in the passenger survey packets contained a URL with a unique ID and password that each respondent was required to enter on the homepage of the survey. This ensured that the respondent was able to complete the survey only one time. The other 242 passengers filled out a hard copy of the survey by hand.

The passengers were recruited in two phases. The first phase consisted of recruiting the passengers directly through pilots who participated in the pilot survey. The second phase consisted of recruiting passengers through pilots listed in either the JetNet or NBAA database who did not participate in the pilot survey. Those pilots who did not participate in the pilot survey were contacted either through an email sent from NBAA or a phone call made by Harris Interactive. These emails and calls described the nature of the study and urged the pilots' participation in the research.

Several potential consequences of this sampling methodology should be kept in mind when reviewing data collected from passenger surveys. Only those passengers aboard business aircraft whose pilots or staff members were willing to disseminate the survey were contacted. Pilots who refused to distribute the packets or selectively distributed them (perhaps excluding certain passengers like top management) may have had an impact on the sample of passengers who received the survey. Additionally, since the survey is self-completed, the sample of passenger interviews is based upon only those passengers who read, completed, and returned the survey. One might expect to reach a slightly more representative sample had a random sample of all business aircraft passengers been accessible and used to conduct online or telephone interviews.

Weighting of Data

The pilot data for the number of aircraft per company and size of aircraft were weighted where necessary to bring them into line with their actual proportions in the business aircraft population. The actual proportions were derived from data available by JetNet (see below). The passenger data were not weighted.

Table A.1
Profile of Business Aviation Population (JetNet)

Variable	Weighted Percentage
Type by Weight	
Jet HEAVY	22%
Jet MEDIUM	19%
Jet LIGHT	25%
Turboprop HEAVY	10%
Turboprop LIGHT	23%
No Answer	1.3%
Total Aircraft	100%
Number of Aircraft	
1 Aircraft Companies	75%
2 to 5 Aircraft Companies	22%
6 to 10 Aircraft Companies	2%
>10 Aircraft Companies	1%
Total Companies	100.0%

Appendix B:

Topline Data

Topline Data

Field Dates: June 1 -16, 2009
Sample size: 305 Pilots, Flight Department Managers and Directors of Aviation of Business Aircraft

BASE: ALL RESPONDENTS
Q650 Which of the following best describes your title?

	Total
Base	305
Chief Pilot	50%
Flight Department Manager	22%
Director of Aviation	19%
Pilot	3%
Vice President of Flight Operations	2%
Other	3%

BASE: ALL RESPONDENTS
Q655 How many turbine-powered aircraft does your company operate? Please include all turbine-powered aircraft operated under either Part 91 or Part 135.

	Total
Base	305
1	75%
2 or more (NET)	25%
2	12%
3	4%
4	4%
5+	5%
MEAN	*1.8*

Q660 How many of the turbine-powered aircraft your company operates are…?

	Jets	Turboprops	Helicopters
Base	305	305	305
0	30%	64%	96%
1	53%	32%	2%
2 OR MORE (NET)	17%	5%	2%
2	8%	4%	1%
3	4%	1%	*
4	2%	*	1%
5+	3%	*	*
MEAN	*1.2*	*0.5*	*0.1*

Q700 Over the last six months, a total of approximately how many passengers flew on business aircraft chartered or operated by your company? Please count each time an individual passenger flew.

	Total
Base	305
< 75	23%
76-250	37%
251-500	28%
> 500	12%
MEAN	*327*

Q705 Now, if all the passengers who flew on business aircraft chartered or operated by your company in the last six months were standing in a hangar at once, approximately how many people would there be? Please count each individual passenger only once.

	Total
Base	305
< 25	44%
26-75	33%
76-250	16%
> 250	7%
MEAN	*85*

BASE: ALL RESPONDENTS
Q800 Approximately what percentage of your flights are into the following types of airports?

	A **major hub** with scheduled airline service	A **secondary airport** with scheduled airline service	An airport with **infrequent or no scheduled airline service**
Base	305	305	305
10% or less	51%	19%	12%
11%-25%	26%	27%	14%
26%-50%	16%	38%	33%
51%-75%	5%	11%	23%
>75%	4%	6%	17%
MEAN	*19%*	*33%*	*47%*

BASE: ALL RESPONDENTS
Q805 In the past year, did you fly to a community that had scheduled commercial airline service, but lost it during the past decade?

	Total
Base	305
Yes	50%
No	13%
Not sure	37%

BASE: ALL RESPONDENTS
Q807 In the past year, what percentage of your trips was to airports in communities that have never had scheduled airline service? Your best estimate is fine.

	Total
Base	305
10% or less	18%
11%-25%	21%
26%-50%	31%
>50%	30%
Mean	*40%*

Q810 Approximately what percentage of your flights involve multi-leg trips to more than one destination location?

	Total
Base	305
25% or less	33%
26%-50%	31%
51%-75%	17%
> 75%	19%
MEAN	*46%*

Q815 In the past year, approximately how many times did you fly for humanitarian reasons?

	Total
Base	305
0	68%
1+ (NET)	32%
1-5	22%
6-10	6%
>10	5%
MEAN	*4*

AIRCRAFT CHARACTERISTICS

ONLY ONE AIRCRAFT

BASE: ONLY AIRCRAFT IS JET
Q905 Is it a heavy, medium, or light jet?

Heavy = More than 35,000 lbs.
Medium = 20,000 to 35,000 lbs.
Light = Less than 20,000 lbs

	Total
Base	132
Heavy	29%
Medium	30%
Light	41%

BASE: ONLY AIRCRAFT IS TURBOPROP
Q910 Is it a heavy or light turboprop?

Heavy = 12,500 lbs. or more
Light = Less than 12,500 lbs.

	Total
Base	27
Heavy	25%
Light	75%

BASE: ONLY ONE AIRCRAFT
Q915 For this aircraft, how many flight hours did your company log in 2008?

	Total
Answering Base	159
< 200 hours	29%
201-300 hours	32%
301-400 hours	18%
401-500 hours	13%
> 500 hours	8%
MEAN	*299*

BASE: ONLY ONE AIRCRAFT
Q920 What was the average trip length for this aircraft, in hours? We are referring here to flight time, not ground time.

	Total
Base	159
0.1-1.0 hours	5%
1.1-1.5 hours	37%
1.6-2.0 hours	31%
2.1-3.0 hours	21%
3.1-9.9 hours	5%
MEAN	*2*

BASE: ONLY ONE AIRCRAFT
Q925 What was the average passenger count on this aircraft <u>last year</u>?

	Total
Base	159
2.0 or less	17%
2.1-3.0	36%
3.1-4.0	30%
4.1-5.0	10%
5.1-16.0	7%
MEAN	*3*

BASE: ONLY ONE AIRCRAFT
Q930 What is the practical maximum number of passengers your company carries on this aircraft?

	Total
Base	159
1-4	**7%**
5-6	**31%**
7-8	**36%**
9-10	18%
11-15	8%
16+	1%
MEAN	*7*

MORE THAN ONE AIRCRAFT

BASE: MORE THAN ONE AIRCRAFT
Q935/Q970/Q1005 Thinking of the aircraft your company utilizes [most /second most/third most] often, is that a jet, a turboprop, or a helicopter?

	Most Used	Second Most Used	Third Most Used
Base	146	146	78
Jet	70%	77%	77%
Turboprop	25%	18%	11%
Helicopter	5%	5%	12%

BASE: MORE THAN ONE AIRCRAFT AND MOST/SECOND/THIRD MOST USED IS JET
Q940/Q975/Q1010 Is it a heavy, medium, or light jet?

Heavy = More than 35,000 lbs.
Medium = 20,000 to 35,000 lbs.
Light = Less than 20,000 lbs

	Most Used	Second Most Used	Third Most Used
Base	124	120	64
Heavy	43%	44%	41%
Medium	26%	25%	29%
Light	31%	31%	30%

BASE: MORE THAN ONE AIRCRAFT AND MOST/SECOND/THIRD MOST USED IS TURBOPROP
Q945/Q980/Q1015 Is it a heavy or light turboprop?

Heavy = 12,500 lbs. or more
Light = Less than 12,500 lbs.

	Most Used	Second Most Used	Third Most Used
Base	18	19	5
Heavy	51%	24%	24%
Light	49%	76%	76%

BASE: MORE THAN ONE AIRCRAFT
Q950/Q985/Q1020 For this aircraft, how many flight hours did your company log in 2008?

	Most Used	Second Most Used	Third Most Used
Answering Base	146	146	78
< 200 hours	7%	25%	39%
201-300 hours	15%	27%	15%
301-400 hours	25%	24%	19%
401-500 hours	20%	10%	20%
> 500 hours	33%	15%	7%
MEAN	*545*	*335*	*392*

BASE: MORE THAN ONE AIRCRAFT

Q955/Q990/Q1025 What was the average trip length for this aircraft, in hours? We are referring here to flight time, not ground time.

	Most Used	Second Most Used	Third Most Used
Base	146	146	78
0.1-1.0 hours	17%	20%	25%
1.1-1.5 hours	34%	24%	25%
1.6-2.0 hours	15%	15%	17%
2.1-3.0 hours	22%	29%	21%
3.1-9.9 hours	12%	12%	13%
MEAN	*2*	*2*	*2*

BASE: MORE THAN ONE AIRCRAFT

Q960/Q995/Q1030 What was the average passenger count on this aircraft <u>last year?</u>

	Most Used	Second Most Used	Third Most Used
Base	146	146	78
2.0 or less	11%	22%	24%
2.1-3.0	24%	23%	20%
3.1-4.0	37%	32%	26%
4.1-5.0	14%	11%	24%
5.1-16.0	14%	13%	7%
MEAN	*4*	*3*	*4*

BASE: MORE THAN ONE AIRCRAFT

Q965/Q1000/ Q1035 What is the practical maximum number of passengers your company carries on this aircraft?

	Most Used	Second Most Used	Third Most Used
Base	146	146	78
1-4	5%	8%	10%
5-6	19%	24%	29%
7-8	39%	35%	38%
9-10	20%	16%	12%
11-15	15%	16%	10%
16+	2%	1%	--
MEAN	*8*	*8*	*7*

COMBINED THREE MOST USED AIRCRAFT

BASE: ALL RESPONDENTS
Q900/Q935/Q970/Q1005 Thinking of the aircraft your company utilizes [most /second most/third most] often, is that a jet, a turboprop, or a helicopter?
.

	Total Responses
Base	529
Jet	69%
Turboprop	28%
Helicopter	3%

BASE: ALL RESPONDENTS WITH AT LEAST ONE JET
Q905/Q940/Q975/Q1010 Is it a heavy, medium, or light jet?

Heavy = More than 35,000 lbs.
Medium = 20,000 to 35,000 lbs.
Light = Less than 20,000 lbs.

	Total Responses
Base	440
Heavy	36%
Medium	28%
Light	36%

BASE: RESPONDENTS WITH AT LEAST ONE TURBOPROP
Q910/Q945/Q980/Q1015 Weight of turboprop.

Heavy = 12,500 lbs. or more
Light = less than 12,500 lbs.

	Total Responses
Base	69
Heavy	29%
Light	71%

BASE: ALL RESPONDENTS
Q915/Q950/Q985/Q1020 How many flight hours did your company log in 2008? If you are unsure, please use your best estimate.

	Total Responses
Answering Base	528
< 200 hours	26%
201-300 hours	26%
301-400 hours	21%
401-500 hours	14%
> 500 hours	13%
MEAN	*358*

BASE: ALL RESPONDENTS
Q920/Q955/Q990/Q1025 What was the average trip length, in hours?

	Total Responses
Base	529
0.1-1.0 hours	11%
1.1-1.5 hours	33%
1.6-2.0 hours	24%
2.1-3.0 hours	23%
3.1-9.9 hours	9%
MEAN	*2*

BASE: ALL RESPONDENTS
Q925/Q960/Q995/Q1030 What was the average passenger count per flight last year?

	Total Responses
Base	529
2.0 or less	17%
2.1-3.0	30%
3.1-4.0	31%
4.1-5.0	12%
5.1-16.0	10%
MEAN	*3*

BASE: ALL RESPONDENTS
Q930/Q965/Q1000/Q1035 What is the practical maximum number of passengers your company carries on its aircraft?

	Total Responses
Base	529
1-4	7%
5-6	27%
7-8	37%
9-10	17%
11-15	11%
16+	1%
MEAN	*8*

BASE: ALL RESPONDENTS
Q1040 Approximately what percent of your company's turbine-powered aircraft allow a passenger to use the following products?

	Phone access	Copier	Internet access
Base	305	305	305
0%	32%	88%	92%
1%+ (NET)	68%	12%	8%
1%-99%	5%	3%	2%
100%	63%	9%	6%
MEAN	*65%*	*10%*	*7%*

FACTUALS

BASE: ALL RESPONDENTS
Q1100 In the last six months, to how many different company-owned offices or facilities did you fly?
Q1105 In the last six months, to how many different customer offices or facilities did you fly?
Q1110 In the last six months, to how many different locations did you fly to seek out new business opportunities?

	Company-owned offices	Customer offices	New business opportunities
Base	305	305	305
0 times	11%	12%	8%
1-5 times	51%	22%	29%
6-10 times	12%	19%	28%
11-25 times	14%	26%	21%
26-50 times	6%	14%	9%
>50 times	6%	8%	4%
MEAN	*13*	*23*	*18*

BASE: ALL RESPONDENTS
Q1115 Approximately how many total employees work for your company? Please include headquarters, as well as any other locations of your company in the United States.

	Total
Base	305
< 500	59%
501-1,000	11%
1,001-5,000	16%
5,001+	15%

Topline Data

Field Dates: June 12 – October 6, 2009
Sample size: 289 Pilots, Flight Department Managers and Directors of Aviation of Business Aircraft

BASE: ALL RESPONDENTS
Q700. In the past six months, how many business trips did you take which involved travel by commercial or business aircraft? By business trip, we mean leaving and returning to your place of origin. It can involve multiple destination cities. If you are unsure, please use your best estimate.

	Total
Base	289
<10	42%
10-24	39%
25+	19%
No Answer	1%

BASE: ALL RESPONDENTS
Q705. Approximately what percent of all business trips that you took by air in the last six months were flown on...? *Please enter a number from 0-100 in each set of boxes. Your total must add to 100%.*

	Total
Base	289
Company-operated aircraft	69%
Company-chartered aircraft	3%
Commercial airlines	27%
Fractional share/Jet card aircraft	*
A combination of these	*

Q800. Approximately what percent of your travel aboard business aircraft is because of the following reasons? *Please enter a number from 0-100 in each set of boxes. Your total must add to 100%.*

	Total
Base	289
To support business schedules that could not be efficiently met using scheduled airlines	64%
To reach locations that the scheduled airlines do not serve	19%
Other reasons	9%
For industrial or personal security purposes	6%
To make connections with scheduled airline flights	1%

Q805. What are the other reasons you use business aircraft?

	Total
Base	45
Cost effective	33%
Convenience (unspecified)	22%
Other reasons	18%
Combining travel with other company trips	13%
Flexibility of timing	9%
Convenient for client	7%
Personal travel	7%
None/Nothing	2%
Decline to answer/No answer	2%

Q810. Approximately what percent of your time aboard ***business aircraft*** would you say you spend on the following? *Please enter a number from 0-100 in each set of boxes. Your total must add to 100%.*

	Total
Base	289
In work-related meetings, conferences or discussions with other company employees onboard or by telephone or Internet	36%
Doing individual work-related tasks such as reading, study, analysis, preparing for a presentation or writing a report	30%
Doing non-work-related reading or entertainment	14%
Sleeping or resting	12%
In work-related meetings, conferences or discussions with customers onboard or by telephone or Internet	6%
Other	2%

BASE: ALL RESPONDENTS

Q820. Approximately what percent of your time aboard ***commercial aircraft*** would you say you spend on the following? *Please enter a number from 0-100 in* <u>*each set of boxes*</u>. *Your total must add to 100%.*

	Total
Base	289
Doing non-work-related reading or entertainment	36%
Doing individual work-related tasks such as reading, study, analysis, preparing for a presentation or writing a report	28%
Sleeping or resting	25%
Other	6%
In work-related meetings, conferences or discussions with other company employees onboard or by telephone or Internet	3%
In work-related meetings, conferences or discussions with customers onboard or by telephone or Internet	*

BASE: ALL RESPONDENTS

Q900. On a scale of zero to ten where *five* represents your productivity in an average or typical hour *in your office*, how would you rate your productivity in a typical hour aboard a ***business aircraft?***

	Total
Base	289
MORE PRODUCTIVE (NET)	**44%**
More productive (10)	7%
More productive (9)	5%
More productive (8)	12%
More productive (7)	11%
More productive (6)	9%
Average productivity in office (5)	14%
LESS PRODUCTIVE (NET)	**40%**
Less productive (4)	15%
Less productive (3)	15%
Less productive (2)	5%
Less productive (1)	3%
Less productive (0)	2%
No Answer	1%
MEAN	*6.4*

Q900. How would you rate your productivity in a typical hour aboard a ***commercial airline*?**

	Total
Base	289
MORE PRODUCTIVE (NET)	**2%**
More productive (10)	-
More productive (9)	-
More productive (8)	*
More productive (7)	*
More productive (6)	1%
Average productivity in office (5)	6%
LESS PRODUCTIVE (NET)	**91%**
Less productive (4)	8%
Less productive (3)	15%
Less productive (2)	18%
Less productive (1)	29%
Less productive (0)	21%
No Answer	2%
MEAN	*2.9*

Q905. Is Internet access available on your ***business aircraft*?**

	Total
Base	289
Yes	8%
No	73%
Not sure	18%
No Answer	1%

BASE: INTERNET IS AVAILABLE ON BUSINES AIRCRAFT

Q910. How often do you access the Internet while you are aboard *__business aircraft__*?

	Total
Base	24
TOP 2 BOX (NET)	**46%**
Very often	21%
Somewhat often	25%
BOTTOM 2 BOX (NET)	**54%**
Rarely	33%
Never	21%

BASE: ALL RESPONDENTS

Q915. Is Internet access available when you fly on *__commercial airlines__*?

	Total
Base	289
Yes	8%
No	58%
Not sure	26%
No Answer	8%

BASE: INTERNET IS AVAILABLE ON COMMERCIAL AIRLINES

Q920. How often do you access the Internet while you are aboard *__commercial airlines__*?

	Total
Base	22
TOP 2 BOX (NET)	**9%**
Very often	-
Somewhat often	9%
BOTTOM 2 BOX (NET)	**86%**
Rarely	36%
Never	50%
No answer	5%

BASE: ALL RESPONDENTS

Q1000. Approximately how many total employees work for your company? *Please include headquarters, as well as any other locations of your company in the US.*

	Total
Base	289
< 500	30%
501-1,000	14%
1,001-5,000	25%
5,001+	27%

BASE: ALL RESPONDENTS

Q1005. Approximately what were the total revenues for your company in 2008? *If you are unsure, your best estimate is fine.*

	Total
Base	289
<$1B	33%
$1B+	25%
Not sure	42%

BASE: ALL RESPONDENTS

Q1010. What percent of passengers who flew on your business aircraft in the <u>past six months</u> were…? *Please enter a number from 0-100 in <u>each set of boxes</u>. Your total must equal 100%. If you are unsure, please use your best estimate.*

	Total
Base	289
Top Management (Chairman, CEO, COO, CFO, Board Directors)	31%
Middle/Senior Management (Executive Vice President, Senior Vice President, Vice President, General Manager, Directors)	40%
Technical/Sales/Service/Professional/Contract Staff	19%
Customers	6%
Humanitarian (Corporate Angel Network, organ transport, other charities or public service activities)	1%
Others (Family, Non-business guests, Political)	3%

BASE: ALL RESPONDENTS
Q1015. What is your title?

	Total
Base	289
Top Management (Chairman, CEO, COO, CFO, Board Directors)	22%
Middle/Senior Management (Executive Vice President, Senior Vice President, Vice President, General Manager, Directors)	50%
Technical/Sales/Service/Professional/Contract Staff	20%
Customers	-
Humanitarian (Corporate Angel Network, organ transport, other charities or public service activities)	-
Others (Family, Non-business guests, Political)	1%
Decline to answer	6%

BASE: ALL RESPONDENTS
Q1020. What is your relationship with the company that operates the plane in which you are flying?

	Total
Base	289
I am an employee	80%
I am the owner	11%
I am the company's customer	3%
Other	3%
I am the company's vendor	2%
I am a guest or family member	-
No Answer	1%

BASE: ALL RESPONDENTS
Q1025. Are you…?

	Total
Base	289
Male	82%
Female	18%
No Answer	1%

BASE: ALL RESPONDENTS
Q1030. How old are you?

	Total
Base	289
18-29	4%
30-39	14%
40-49	33%
50-59	31%
60-69	12%
70+	2%
No Answer	4%