

# 2001

## Human Resource Study of Commercial Pilots in Canada



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Project Administrator



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## Executive Summary

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## Environmental Background

Aviation has long played a prominent role in the life of Canada and in the development of its socio-economic fabric. And, by all accounts, the prominence, the importance of that role will reach new heights in the days and years ahead. In the age of communication, personal travel, and interlocking economies, the demands placed on Canada's air transportation system are sure to intensify.

Today, as aviation closes in on its first 100 years of flight, the Canadian industry finds itself going through a period of profound transition. Winds of change, coming from all directions, are bringing with them both opportunities and challenges.

An upsurge in the demand for air services of all kinds, projected on a global basis to increase by 4 to 5 percent a year, will undoubtedly create new job opportunities in many sectors of the industry. While fortunate for many, this positive outlook may have a downside unless properly managed. Turnover rates by pilots in the industry — already high — may accelerate even further, adding to increase training cost for operators. Even more worrisome for some is the growing potential — some would say, likelihood — for pilot shortages, perhaps not in terms of sheer numbers, but in terms of the experience and skill sets desired. No longer able to draw upon the military to the extent they once did, airlines have been increasingly turning to the smaller regional carriers for new pilots leaving the latter to scramble for replacements elsewhere. Some operators down the line have already experienced shortages or found it necessary to lower their hiring criteria. Unless countermeasures are implemented, prospects for more acute shortages in some sectors over the next 5 years seem plausible in light of the anticipated surge in the number of airline pilots that will be retiring.

Alongside these demographic and market-driven developments other trends with arguably greater implications for commercial pilots and the industry have been leaving their mark. An extensive array of new technology now coming on stream in the industry's ground-based, airborne, and satellite infrastructure is having an increasingly major impact on all aspects of the industry — none more so than the evolving need for new skills... skills to master the full potential offered by these new avionics and skills to fly the aircraft of tomorrow now on drawing boards at leading manufacturers around the world. There will always be a need for traditional "stick and rudder" skills, but in an era of computers and the glass cockpit, pilots will need to become, in effect, managers — managers of systems, managers of information, and yes, even managers of people. The recent emphasis placed on so-called "soft skills", everything from crew resource management to decision-making abilities, is sure to continue.

As though all of this were not enough, for Canadian pilots, pressure for new skills is coming from several other directions. Some, from regulatory changes affecting training and operational requirements; others, from the "globalization" of the industry. Against a backdrop of liberalized trade arrangements, "open skies" accords and strategic alliances among air operators, even pilot associations, the industry has been actively pursuing the "harmonization" of licencing requirements and the standardization of some aspects of training. When and if adopted, the standards will effectively set a new bar for all pilots around the world interested in flying on the international stage or in job opportunities abroad. Given current efforts in the United States and in Europe to revamp and elevate their skills and training requirement, that bar is likely to be high.

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## Impact on Training

All of this has generated unprecedented challenges for flight trainers — challenges that will demand, in some cases far-reaching changes. If they are to



remain viable and competitive... if they are to address the emerging skill needs of the industry and help launch safe, rewarding careers, flight training centres will be required to accelerate and intensify efforts at restructuring. Alliances, partnerships, further consolidation and possibly new financial arrangements for students and schools will undoubtedly be pivotal in that effort, as will the need for a new, more professional breed of flight instructors. And, it will require new, more varied, more elaborate curriculums, sophisticated training devices and a more modern fleet of aircraft. Most importantly, it will require new methodologies, new approaches and new thinking. As the flight training community reaches for excellence, it must be open to new ways. As it reaches out for the best of tomorrow, it must be prepared to discard those things no longer in step with the next century of flight. Obsolete procedures must give way to innovation... the inertia of the status quo must be routed by a spirit of renewal.

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## Human Resource Study of Commercial Pilots in Canada

In response to the changes taking place in the aviation industry, the Air Transport Association of Canada, (ATAC), approached Human Resources Development Canada, (HRDC), in 1998 to assist the industry undertake a comprehensive review of human resource issue affecting commercial pilots. HRDC agreed and offered logistical, analytical, and financial support in a partnership arrangement with the industry. A Steering Committee, representative of the industry, and convened to oversee the study, established three major objectives.

All are related to the overall goal that gave rise to the study; namely, the development and implementation of effective, comprehensive human resource strategies for commercial pilots in Canada.

The three major objectives for the study:

1. To undertake a comprehensive, analytical, fact-finding examination of human resource issues affecting commercial pilots in Canada. Although further research will be required by the planning process to follow, the examinations should identify trends, problematic areas, and capture the views of stakeholders on a wide range of issues.
2. To develop a series of recommendations that will constitute an action plan for future, follow-up initiatives.
3. To promote and facilitate industry cooperation in addressing areas of mutual concern.

Results of the first two objectives are evident in the report itself. The study brought forth considerable data, information and analytical insights — much of it directly obtained from those on the “front lines”... from pilots and air operators, from instructors and managers of flight training institutes across the land, even from students in flight training and those in high schools still contemplating a career in flying. In all, countless interviews, more than two dozen focus groups and four national surveys were conducted. The long series of recommendations contained in the report, in part, reflect the views and information provided through these various means of inquiry and the Committee wishes to extend its gratitude to all those who participated.

In doing so, the Committee recognizes that much work lies ahead. More research and analysis will be required and the planning process only now begun will have to be broadened and extended throughout the entire industry on an on-going basis. Implementation of many of the recommendations will undoubtedly require considerable adjustments — adjustments that will, at times, carry financial burdens and an air of uncertainty, even concern. Yet it is the belief of the Committee that

properly approached, properly structured, the process of change and renewal can in fact be an enervating and rewarding time for the industry.

The above belief is founded, in part, on the results of the third objective set for this project — the promotion of industry cooperation. Albeit somewhat more nebulous and less tangible, it was from the start, considered no less vital. Bringing the industry together, within the consultative framework of HRDC's sector study process, to jointly discuss issues of common concern and to begin mapping out widely-supported human resource strategies has — in the opinion of the Committee — advanced the cause for a more cooperative, partnership-like approach within the industry as it readies itself for the 21st century. In addition to the spirit of cooperation exemplified by members of the Committee and others throughout the project, the report contains a number of recommendations that call for, indeed depend upon, further collaboration. We, the members of the Steering Committee offer this report for your consideration and look forward to working together in the days ahead.

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## Summary of Key Findings and Recommendations

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### Chapter One: A Profile of Pilots in Canada's Commercial Aviation Industry

This chapter begins by briefly describing the various categories or types of air operations in Canada. It then goes on to profile Canadian commercial pilots in terms of their numbers and type of licence, ratings and endorsements held. It also profiles commercial pilots in terms of age, gender, the number of visible minorities, and degree of unionization. And finally, it provides a look at employment characteristics of commercial pilots in Canada today. Highlights of some of the key findings are listed below.

- At the time of the inquiry, there were 1,177 active air operator certificates issued in Canada. Of these, 204 were for helicopter operators and 287 were for flight training.
- As of 1999, the number of professional pilot licences, [i.e., Commercial and Airline Transport Pilot Licences, (ATPL) ], held had reached an all time high of 23,954. Many of these are not "active", (i.e., not used by pilots employed on a commercial basis). According to the 1996 Census, just over 11,300 individuals identified themselves as a commercial pilot.
- Of the 23,954 professional licences registered with Transport Canada, almost 3,500 are helicopter licences.
- Overall, the number of professional licences issued in Canada on an annual basis grew by an average of 2,168 between 1989 and 1999.
- Approximately 5,500 pilots belong to a labour association in Canada.
- According to Transport Canada data, in 1999, aeroplane pilots holding either a Commercial Licence or an ATPL were almost evenly divided into two age groups — those over 40 and those under 40. Helicopter pilots had a slightly higher ratio in the over 40 group.
- Approximately 3% of professional licences issued are held by females; 2.5% by Aboriginals.
- Approximately 38% of the male pilots responding to the survey conducted by this study had at least some university education; 54% of the female pilots had some university education.

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## Chapter Two: Career Progression

This chapter begins with a brief description of the typical path pursued by pilots starting their careers. It then examines recruitment methodologies, selection criteria, typical entry level positions, and various factors affecting career advancement. The chapter's final two sections centre on career satisfaction and reasons for pilot turnover and departure from the profession. Highlights of various key findings are presented below.

- Most air operators cited general attitude as the most important factor in assessing a pilot seeking employment. Next in importance was interpersonal and communications skills and the pilot's potential compatibility with the organization's culture.
- Approximately 17% of air operators responding to the survey have raised, and approximately 16% have lowered, their requirements for experience or formal education by a pilot seeking to be hired.
- Approximately 31% of responding aeroplane pilots and only 9% of helicopter pilots reported their first job in the industry was as flight instructor.
- Approximately 71% of aeroplane pilots and 74% of helicopter pilots have obtained employment as a pilot within the first 12 months after receiving a Commercial Licence.
- Asked to describe their level of satisfaction with various aspects of their entry-level job, responding pilots gave compensation and insurance coverage low marks. Compensation was later cited as one of the leading reasons pilots change employers.
- Both a majority of air operators and pilots listed personal initiative as the number one factor affecting career advancement.
- Overall, commercial pilots in Canada report being at least moderately satisfied with most aspects of their careers. The exception for both aeroplane and helicopter pilots was their retirement benefits.
- More than 1 in 5 air operators reported that the annual number of pilot turnovers they had been experiencing was equivalent to at least 30% of their pilot pool. The percent of annual turnovers varied greatly depending on the type of operation.
- Approximately 18% of helicopter pilots and 9% of aeroplane pilots expect to leave the profession; 90% of those planning to leave expect to do so within 3 years either to retire or for a variety of other reasons.
- Approximately 57% of responding pilots wish or expect to pursue training for skill upgrading or to acquire new skills.

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## Chapter Three: Professional and Work-Related Matters

This chapter examines the employment environment of commercial pilots. Specifically, it looks at compensation, benefit coverage, working conditions, labour-management relations and a few matters related to health. Highlights of some of the key findings are listed below.

- The majority of responding aeroplane pilots reported earning incomes at rates that would be equivalent to more than \$65,000 annually; a little over 25% reported earnings at rates that would be equivalent to less than \$40,000 annually. Approximately 42% of airline pilots and 28% of private corporation pilots reported annual incomes in excess of \$100,000. (Estimates are based on

an annualization of rates reported and assumes a pilot works full-time throughout the year.)

- More than 25% of air operators reported that they used a special start rate for entry-level pilots.
- The majority of incomes reported by helicopter pilots, (71.4%), fell within the range of \$40,00–\$99,000; only 0.8% reported earning at rates that would be equivalent to more than \$125,000 on an annualized basis.
- As expected, insurance and retirement plan coverage varied according to the type of operation. Pilots working for airlines, private corporations or for governments had the highest level of coverage. In general, a higher percent of helicopter pilots than aeroplane pilots were covered by various insurance and retirement plans.
- The majority of responding pilots reported rather high levels of satisfaction with most aspects of their working conditions.
- Almost one-third of responding pilots rated the state of labour-management relations as either “good” or “excellent”. Almost the same percent rated labour relations as “poor” or “very poor”. Large variations in the views of pilots on this topic were observed based on the type of operation.

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#### Chapter Four: Skills Profile

This chapter begins with a narrative review of some of the emerging skill needs in the industry based on new technology and a heightened emphasis on the part of employers for the so-called “soft” skills. It then presents data showing the percent of operators who reported that there were gaps or deficiencies with the skills held by pilots in several technical and non-technical areas. Highlights of some of the key findings are listed below.

- The last two decades have witnessed far-reaching technological advances in all aspects of aviation from ground control to flying. Spurred on by the capabilities of the micro-processor, much of the industry has become more electronically sophisticated. Use of colour graphic displays, fly-by-wire aircraft, and the glass cockpit are transforming long-standing approaches to flying.
- For some observers, the road ahead will bring even more change. There is a belief that the industry stands on the verge of a technological revolution with yet more changes expected in the next few years than occurred during the past 20 or 30 years. NASA predicts a major revolution in aircraft designs. Others predict new generations of ultra-large aircraft as well as a new fleet of small-capacity, long-range transport. Most will soon be FMS, (Flight Management System), and probably, glass cockpit equipped.
- Although this velocity of change... this conversion to the digital world is affecting various sectors of the aviation world at different rates, all sectors, including general aviation, are sure to experience the implications of the new avionics and approaches to airspace management and control now emerging on the horizon.
- All of this is translating into new training requirements and approaches as aviators seek to acquire the skills that will be required to accommodate this growing pilot-automation interface.
- Asked to rate certain skill levels of new and experienced pilots, a significant portion of air operators, (24% to 45%), responding to the survey felt that there were shortcomings in a number of technical and non-technical areas.

This chapter looks at the training side of aviation, especially, ab initio training. It profiles Canada's flight training community in terms of its composition, alliances, nature, finances, programs, and plans to modernize. It looks at flight instructors from several perspectives including their high turnover rates. It looks at student pilots. What criteria do they use in selecting a flight training institute? What are the major reasons students fail to complete their program of studies? It also presents pilot views on the effectiveness of flight training programs in Canada, and it takes a look at matters related to recurrent training. Highlights of some of the key findings are listed below.

- The two provinces with the largest number of flight training institutes are: Ontario — 86; and British Columbia — 68; Quebec and Alberta are tied with 40.
- 30% of institutes responding to the survey have been in existence for more than 25 years; 34%, for less than 5 years.
- 12% reported gross annual revenues in excess of \$1 million; 47%, less than \$200,000.
- According to Transport Canada data there are 2,133 aeroplane and 150 helicopter pilots holding an instructor rating in the country. Many of these, however, do not work as instructors at flight training institutes. Turnover rates for instructors are generally high.
- Just over half of responding flight training institutes report receiving input from air operators in the design of their curriculum.
- 80% to 85% of responding operators claim their flight training centres conduct extensive evaluation of instructors and student performance; only two-thirds do so for their training methodology or curriculum.
- Operators felt that the number one reason students do not complete their training program is “lack of funds”.
- Slightly more than half of the responding pilots to the survey, received their ab initio training at a flight school. Asked to comment on the quality of various aspects of their initial training, 6 or 7 pilots out of 10 felt that most factors listed, (such as instructor, course material, and aircraft), were excellent, meaning, of course, that 30 or more percent felt that they were poor or, at best, only adequate.
- Half of all responding flight training institutes plan to upgrade their aircraft fleet; 10.5% expect to develop or upgrade distant leaning capabilities.
- 7% of responding operators who indicated they did not expect to offer the new Integrated Commercial Pilot training program, said the financial strain on students would be too high; 13% said they did not have the necessary equipment; and, 20% said they did not feel they had a market that would support the enhanced program.
- 27% of flight training institutes that said they had formed an alliance with an air operator or with another education centre did so primarily to share resources; 11.6%, to share instructors.
- Asked about their willingness to get involved or share resources with flight training institutes, air operators were rather varied in their responses. The greatest interest was expressed in the area of curriculum development; the least, in the area of financial assistance to students.

- Almost 60% of responding operators conduct their own, in-house recurrent training program; many operators were less than satisfied with various aspects of doing so.

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#### Chapter Six: The Commercial Pilot Labour Market

This chapter gives a narrative and statistical overview of trends relevant to Canada's labour market for commercial pilots. It includes insights derived from the Labour Force Survey file of Statistics Canada and outlook information developed by Transport Canada's Forecasting Division. There is a brief overview of the supply/demand situation in the United States for commercial pilots and a summary of labour market views expressed by 18 of Canada's major airline carriers recently interviewed for this study. Highlights of some of the key findings are listed below.

- Canada's aviation industry is pro-cyclical, tending to rise and fall with greater amplitude than the general economy as measured by the Gross Domestic Product.
- Worldwide, air travel has doubled since 1985. In Canada, the number of passengers using air services, as measured by the number of enplaned and deplaned, (E&D), passengers at Canadian airports, rose at an average rate of 2.7% in the period from 1990 to 1999.
- In 1999, E&D passengers in Canada totalled 85.4 million. This is expected to grow to 98.2 million in 2004, 115.8 million in 2009 and 132.2 million by 2014.
- Canadian international passenger traffic is expected to increase by 4.8% during the period 1999–2004.
- Air cargo, which increased, on an annual basis, by an average of 3.2% between 1990 and 1999, is expected to rise by a further 5.0% between 1999 and 2004.
- Based on Statistics Canada Labour Force Survey data, the number of pilots in the labour force, (i.e., not necessarily employed), fluctuates up and down varying from a low of 8,800 pilots in 1993 to a high of 14,200 in 1998.
- Although there is generally a positive correlation with the general economy, changes in the number of pilots employed, has occasionally lagged or preceded changes in the GDP, (Gross Domestic Product) by one to two years during the 1980s and early 1990s.
- The number of annual retirements in the industry is expected to increase markedly in the next few years.
- Air operators, responding to a survey conducted in 2000 by this study, indicated that they expect, on average, to increase the number of their full-time pilots by 61% by 2005. If correct, this would represent a major increase. Changing economic conditions however, will likely moderate this outlook.
- The study interviewed 18 of Canada's major air carriers in March, 2001. Almost all expect to hire pilots in the coming year. In the case of the Air Canada family, hiring was expected to replace retiring pilots, but the prospects of expansion were less clear because of the current economic downturn. The other airlines surveyed indicated a need to recruit more than 350 pilots by the end of the year 2001.
- As before, hiring by airlines will cause a significant ripple effect throughout much of the industry as pilots move to fill positions vacated by those being employed by the majors.

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## Chapter Seven: Information/Communications

Because of its importance to the planning process, the study included a look at matters related to information and communications. It presents the views of air operators and pilots in terms of their level of satisfaction with the availability of various existing information sets. And it shows where improvements are sought. The views of flight school operators in terms of the kinds of information services they would like to see on any future Web-based training resource centre. And, it summarizes the views of student pilots, even some high school students, on their felt need for a better industry information system when it comes to matters of career decisions. Highlights of some of the key findings are listed below.

- Information available in the area of salary and benefits received the lowest rating of satisfaction by air operators. Most other categories of information, including information on regulatory matters, received a rating somewhere between “moderately satisfactory” to “very satisfactory”. Variations in ratings were found when analyzed by type of operation.
- Increased use of the Internet to disseminate information was advocated by approximately 20% of the air operators asked to suggest improvements in the current information system.
- The top two categories of information judged to be the most useful by the most number of operators were both related to aviation regulations. Several other categories including information on emerging technologies were high up on the scale.
- As with air operators, pilots were least satisfied with information available in the area of salaries and benefits. Overall, pilots were more dissatisfied with the availability of information than were operators.
- Pilots expressed the desire for more information to be made available over the Internet. And, approximately 83% of flight training institute respondents said they would find merit in a Web-based training resource centre. Between 47% and 69% of flight school respondents were in favour of various types of information sets that could conceivably be placed on such a system.

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## Chapter Eight: Recommendations

This chapter sets out a series of recommendations intended to fulfill the third major objective of the study; the development of proposals and recommendations that will form the basis of an action plan for moving forward.

Although the recommendations cover a wide range of topics, two areas stand out — recommendations concerning information gathering techniques to facilitate the planning process and recommendations designed to make Canada’s flight training community more viable and responsive to the needs of industry and student pilots.

Each of these areas of focus are complemented by proposals for two new structures. One, a proposal for an industry-wide, representative sector council, is designed to act on the recommendations and develop comprehensive strategies in the area of human resources... to carry out additional research, to coordinate joint initiatives and undertake industry-wide cooperative action. The other structure, known as Career Development Circles, is a conceptual framework designed to strengthen the relationships between training institutes and air operators. Participants electing to join would have access to a mechanism to better link the school-to-work continuum and carry out many of the initiatives embedded in the various recommendations of this report.

For the most part, the recommendations are linked to the findings of the study and are accompanied by a short rationale explaining the reason for the proposal, potential benefits, and even suggested ways to move the recommendation forward.

It is the hope of the Committee that the recommendations — many of which call for, indeed require, joint action and cooperation — will advance and strengthen a more collaborative approach in the industry.



# Introduction

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## Background to the Study

From the beginning, aviation has played a prominent role in the life of Canada. From the pilots that flew its planes during the great world wars to the unifying effect provided by its reach into the remote communities spread across the vast frontiers of this land, aviation has helped shape the country's national character and development.

Today, Canada can boast having the second highest number of pilots in the western world, and its commercial aviation industry, with more than 1,000 operators and almost 12,000 professional pilots, provides a range of aerial services from forest fighting to trans-oceanic flights that is unsurpassed by the aviation services of any other country. In an economy increasingly characterized by "just-in-time" delivery needs, over-night courier dispatches, and inter-urban, even international, commuting, the services provided by Canada's aviation community have come to form an indispensable component of its transportation infrastructure.

Over the years, the industry has witnessed substantial economic, technological, and regulatory changes. In the last 20 years alone, it has experienced periods of financial highs and lows, the introduction of space-age technology, shifts in operating procedures, innovations in aircraft designs, and the emergence of new economic realities brought on by deregulation, "open skies", privatization, and the dynamics of globalization. As the industry embarks upon the 21st century, many of this country's most experienced pilots near retirement, structural realignment in the industry's corporate and training sectors continues unabated, and skill requirements demanded of pilots reach new heights.

While the industry has made great strides in responding to this climate of change, more changes and adjustments will be required in the days ahead. Challenges posed by the upcoming wave of retirements, by projected growth rates in passenger and cargo traffic, and by an accelerated pace in the rate of technological change, will necessitate further measures, many of which will require a co-ordinated approach by all of the players involved. Doing less in an era of global markets and increasing demand for services could undermine the industry's competitive position and its ability to perform at levels Canadians have come to expect.

**Steps Leading Up To The Study** — In 1997, the Air Transport Association of Canada, (ATAC), approached Human Resources Development Canada with a proposal to undertake a collaborative, comprehensive human resource study of commercial pilots in Canada, similar to one carried out a few years earlier for the industry's maintenance sector. In calling for the study, the Association cited several specific areas needing to be addressed by the industry.

- A widening gap between current training standards and the emerging skill needs required by the industry.
- Possible shortfalls in the future number of qualified commercial pilots.
- The lack of co-ordinated, industry-wide human resource strategies for commercial pilots.

After conducting a feasibility assessment, HRDC concluded that bringing the industry together in the framework of a sector study to gather information and to identify and discuss issues of common concern would have merit and agreed to enter into a partnership arrangement with the industry. Under the arrangement, HRDC agreed to provide logistical, analytical and financial support. Industry representatives participating in the project contributed time, expertise and, in some cases, actual funds. Specific terms are set out in the Contribution Agreement between HRDC and the Air Transport Association of Canada.

A Steering Committee, representing a cross-section of industry stakeholders from across the country and representative of various segments of the industry including labour, trade associations, training institutes and large and small air operations was chosen to oversee the study. (Although HRDC provides much of the financial backing, studies undertaken through its sector study process are considered studies *by and for* the industry.) Key decisions along the way, including recommendations forthcoming from the study, were approved by the Steering Committee. ATAC served as the Project Administrator for the study.

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## Scope of the Study

The study focuses on human resource matters relevant to commercial pilots in the fixed-wing and helicopter sectors of Canada's aviation industry. Flight training institutes, student pilots and pilots flying for government operations, including civilian pilots flying for the Department of National Defence, are included. Military pilots are excluded; however, selected practices by the DND in the area of training were taken into consideration. Likewise, although the study is limited to pilots in Canada, relevant trends or developments occurring elsewhere were also considered. And finally, although the study has a human resource focus, technological, economic, and regulatory matters having the potential to affect or influence developments therein were also factored into the overall analytical process.

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## Objectives of the Study

Canada's aviation industry seeks to develop broad-based human resource strategies for its commercial pilots in order to provide a more co-ordinated, more responsive framework for decision-making... one that will offer some guidance to stakeholders in meeting the challenges and opportunities that lie ahead, one that will promote safe and rewarding careers, and one that will help assure that the industry will have the skills needed to successfully compete in an era of profound transition.

To advance these goals, the study established three major objectives — 1) the collection and analysis of comprehensive information, 2) the promotion of industry-wide co-operation, and 3) the establishment of recommendations for future action. Each is described below.

- 1. The Collection and Analysis of Information** — To facilitate the planning process, the study requires comprehensive information related to Canada's commercial pilots covering areas such as skills, training, career progression, working conditions, and the labour market. Within the context of a changing environment, the study seeks qualitative and quantitative insights describing not only current conditions, but, perhaps more importantly, trends and developments likely to play a significant role in the years ahead. In addition to traditional sources of data, much of the insights produced should be derived directly from those currently in the industry... from pilots, operators, trainers and from flight students themselves.

*Comment* — *The information and insights sought by this study will provide the industry with a strong base to begin the planning process. It is recognized, however, that additional research and analysis will be required in a number of key areas. Proposals to do so are included in the Recommendation section of the report.*

- 2. The Promotion of Industry Co-operation** — Recognizing the multi-dimensional nature of most issues affecting pilots and recognizing the value of concerted action in an era of global competition, the study seeks to foster industry-wide co-operation, in part, by identifying areas of common interest where a co-ordinated approach is likely to lead to more favourable results. It seeks also to

identify means or models able to facilitate collaborative approaches within the industry on an on-going, meaningful basis.

*Comment — The study pursued Objective 2 in part by making a series of recommendations suitable for joint action and, in part, through the study process itself. HRDC's sector study process, used to carry out the commercial pilot study, is premised on the belief that industry-wide consultation and collaboration can oftentimes achieve results not otherwise possible. Under the process, a steering committee representative of many of the industry's stakeholders oversees all aspects of the project. Its roundtable forum for discussion and deliberations constitutes a unique opportunity for the industry to come together, to look at issues from various perspectives and to formulate solutions through a process of consensus.*

- 3. Recommendations for Future Action** — The study is seen as the first step in the planning process. To help advance that process, the study seeks to go beyond fact-finding and analysis by offering a series of recommendations for follow-up action. Recommendations were selected on the basis of relevancy and feasibility and generally have industry-wide application.

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## Methodologies of the Study

Research work was undertaken by two consulting firms and Human Resources Development Canada. Although existing data sources were utilized, much of the information and insights obtained was derived — as intended — directly from those in the industry. Specific methodologies employed and key sources consulted are listed below.

- 1. Literature Review** — Included various aviation journals, publications and past studies as listed in Appendix C; various annual reports of air operators; Internet sites as listed in Appendix D; and selected information from trade associations, labour organizations and Transport Canada.
- 2. Existing Data Banks** — Included *Statistics Canada's* Labour Force Survey and the 1986, 1991 and 1996 Canadian census (for information on the scope of the industry, demographic trends and labour market characteristics); *Transport Canada* (for information on aviation statistics, licensing data, regulations, and the labour market outlook); and *Human Resources Development Canada* (for information from its Workplace Information Directorate, from its Jobs Future publication and from its Career Occupational Projection System, COPS).
- 3. Interviews with Industry Stakeholders** — Included a wide range of aviation stakeholders representing various size air operators from various sectors of the industry, various flight training centres, associations, labour organizations for pilots, and industry experts from Canada and abroad. (See list in Appendix B) The interviews were used to obtain qualitative information from different perspectives of the industry on issues and challenges related to commercial pilots.
- 4. Focus Groups** — A series of 27 focus groups were conducted across Canada in the spring of 2000. The exchange of views provided an opportunity to ascertain and explore with some depth a wide range of matters related to professional pilots from training to careers. A brief outline portraying the nature of each focus group session follows.

**Focus Groups with Pilots** — Four were held with aeroplane pilots; one with helicopter pilots. Issues discussed included:

- The quality and appropriateness of current flight training programs in Canada.
- Opportunities for skill development and recurrent training.

- Matters related to career progression.

**Focus Groups with Air Operators** — Five were held with representatives from various size operations. Issues discussed included:

- The quality and appropriateness of current flight training programs in Canada.
- Human resource management practices.
- Anticipated changes in skills and training requirements.
- Anticipated need for pilots in the future.

**Focus Groups with Flight Training Institutes** — Six were held with centres in different locations of the country. Issues discussed included:

- The quality and appropriateness of current flight training programs in Canada.
- Type of programs offered.
- Approaches to training/new directions.
- Issues confronting training institutes.

**Focus Groups with Student Pilots** — Issues discussed included:

- Career expectations and plans after flight training.
- Views on the quality and appropriateness of flight training programs.

**Focus Groups with High School Students** — Four were held; one in each region of the country including the far north. Issues discussed included:

- Degree of knowledge about the commercial pilot occupation.
- Availability of methods for students to acquire relevant career information.

5. **National Surveys** — Four surveys — perhaps unprecedented in scope for the aviation industry in Canada — were undertaken. Together with the focus groups and interviews, insights gained from the national surveys provided an unparalleled picture of the industry — in terms of its pilots — from the perspective of those most directly involved. A brief outline of each follows.

**Survey of Professional Pilots** — Over 9,000 survey forms were sent to a large cross-section of commercial pilots in Canada holding either a Commercial or an ATPL licence. Transport Canada randomly selected the names from its data base. Responses were received from 2,516 aeroplane pilots, 339 helicopter pilots, and 71 pilots who indicated they typically fly both aeroplanes and helicopters. This represents an overall response rate of 32%. Representation was obtained from all sectors of the industry and from all regions of the country. A more detailed profile of the respondents is provided in Chapter One: A Profile of Pilots in Canada's Commercial Aviation Industry.

The survey included 67 questions covering such areas as the respondent's professional and demographic background, career progression since leaving flight training, career aspirations and intentions, views on training, skill requirements, and labour relations, adequacy of available information, compensation and work-related environment.

**Survey of Air Operators** — Survey forms were sent to all 1,161 operators in Canada. Responses were received from 201 operators, a 17% response rate. Returns were received from all sectors of the industry and from all parts of the country. A more detailed profile of the respondents is provided in Appendix K.

The survey included 44 questions covering such areas as the scope, nature and location of the operator's business, thoughts on skills in terms of their importance and areas of deficiencies, sources used to hire new pilots, hiring criteria, turnover rates, quality of training received by new pilots, recurrent training practices, state of labour relations, and the adequacy of the industry's current information base.

**Survey of Flight Training Institutes** — Survey forms were sent to all 287 flight training centres in Canada. These included flying clubs, flight training schools, and aviation colleges. Responses were received from 86 institutes, a response rate of more than 30%.

The survey included 48 questions and covered such areas as the location and type of the flight training centre, nature of programs offered, facilities available for training, financial performance, the existence of alliances, retention of flight instructors, enrolment numbers and expectations, determinants used by students in selecting a school, recruitment methods utilized, policy on screening applicants, on evaluation, and on curriculum development, plus views on the new Integrated Commercial training program, on the advisability of a self-regulated certification program, and on communications/information matters.

**Survey of Student Pilots** — Questionnaires were distributed to 30 flight training centre across Canada. Responses were received from 83 student pilots.

The questionnaire included 18 questions and covered such areas as primary motive for choosing flying as a career, financial considerations, thoughts about the training program, criteria used to select the training centre chosen, and thoughts on career matters.

6. **Conference Attendance** — Included AeroVision 2000, Vancouver, 1999; International Aviation Training Symposium, Oklahoma City, 1999; Regional Air Transport Training Convention and Tradeshow, Daytona Beach, 2000; and WATS 2000, Frankfurt, 2000.
7. **Project Steering Committee** — Through roundtable discussions and individual interviews, members of the Steering Committee provided extensive insight and expertise throughout the project.

chapter **1**

**A Profile of Pilots in Canada's  
Commercial Aviation Industry**



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This chapter begins by briefly describing the various categories or types of air operators in Canada. It then goes on to profile Canadian commercial pilots in terms of their numbers and types of licences, ratings and endorsements held. It also profiles commercial pilots in terms of age, gender, the number of visible minorities, and degree of unionization. And finally, it provides a look at employment characteristics of commercial pilots in Canada today. Some of the information used to profile aeroplane and helicopter pilots is derived from government data sources; other information is taken directly from the survey of pilots conducted by this study.

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## A. Categories of Air Service Operations in Canada

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### Air carrier operations/airlines

An air carrier operation or airline is defined as a company that provides transportation services for the carriage of passengers or cargo on a trip-by-trip basis for a fee and that carries more than 5,000 passengers and/or more than a specified number of tons of cargo per year. Subcategories are (i) major scheduled carriers (any operator carrying more than a million passengers per year); (ii) scheduled regional/local services; and (iii) major charter services. Currently in Canada there are 7 major scheduled carriers and 70 operators providing scheduled regional/local services and/or major charter services, for a total of 77 in the category of air carrier operations/airlines.

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### Commercial general aviation operations

This segment consists of specialty aerial services (e.g., agricultural, firefighting, air ambulance, aerial photography, etc.) plus commuter, air taxi, cargo operations, and flight training. Currently in Canada, 22 operators provide specialty aerial services and about 800 provide commuter, air taxi, or cargo services.

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### Private general aviation operations

These involve the transportation of passengers or cargo in aircraft owned by individuals or corporations and flown by either commercial pilots or licensed non-professional pilots. In January 2000, the Alberta Aviation Strategy Steering Committee identified corporate aviation as an industry experiencing unprecedented global growth, with a Canadian capacity of some 612 aircraft, 200 of which were jet aircraft.

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### Flight training institutions

This category, considered a part of General Aviation, includes flight schools, flying clubs, and aviation colleges. As of July 2000, there were 287 certified flight training institutions in Canada.



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## Civilian government operations

Also relatively small, this category includes aircraft operated by various levels of government and piloted by government employees. Otherwise, its activities are similar to those of private corporate fleets.

**Note:** Military aircraft operations are excluded from this study. However, civilian pilots employed in the military are included.

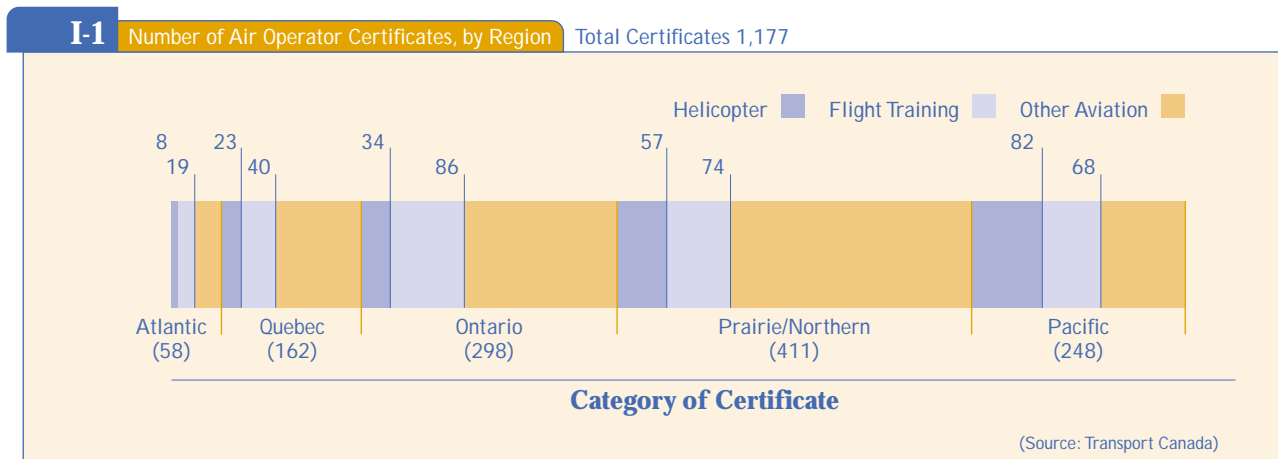


Exhibit I-1 shows the number of active air operator certificates issued in Canada by region. There are a total of 1,177 for all of Canada. Of these, 204 are helicopter certificates and 287 are certificates for flight training. Some operators hold a helicopter and an aeroplane certificate. (Based on Transport Canada records as of February 2000.)

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## B. Types of Pilot Licences

The following types of pilot licences are issued in Canada:

- *Recreational Pilot Permit:* This permit for recreational flying requires 25 hours of flight time plus passing a medical exam, a written test and a flight test. There are no ground school requirements for this permit.
- *Private Pilot Licence:* Prerequisites are a minimum of 45 hours of flying experience and passing both a written examination and a flight test. Requires 40 hours of ground school. (Up to 5 hours spent on a simulator can count towards the flying time requirement.)
- *Commercial Pilot Licence:* Prerequisites for aeroplane pilots are an additional 65 hours of training, 200 hours flight time in an aeroplane, and passing a written examination, a flight test, and a medical examination. Prerequisites for a helicopter pilot are 60 and 100 hours respectively. A Commercial Pilot Licence qualifies the holder to fly passengers or cargo on a restricted commercial basis.
- *Airline Transport Pilot Licence:* Prerequisites for an aeroplane pilot are a total of 1,500 flying hours and passing a test. Helicopter pilots require 1,000 hours. An Airline Transport Pilot Licence (ATPL) qualifies a pilot to become a captain of a multi-crew flight.

Separate licences in all three categories are issued for aeroplane and helicopter pilots.

See Appendix F for requirements for the new Integrated Commercial Licence.

Since a Commercial Licence is a prerequisite for an ATPL, any pilot who holds an ATPL also holds a Commercial Licence and thus may be deemed to hold two licences of a “commercial” nature. However, for statistical purposes of the present study, the categories “Commercial Licences” and “ATPLs” are treated exclusively, as follows:

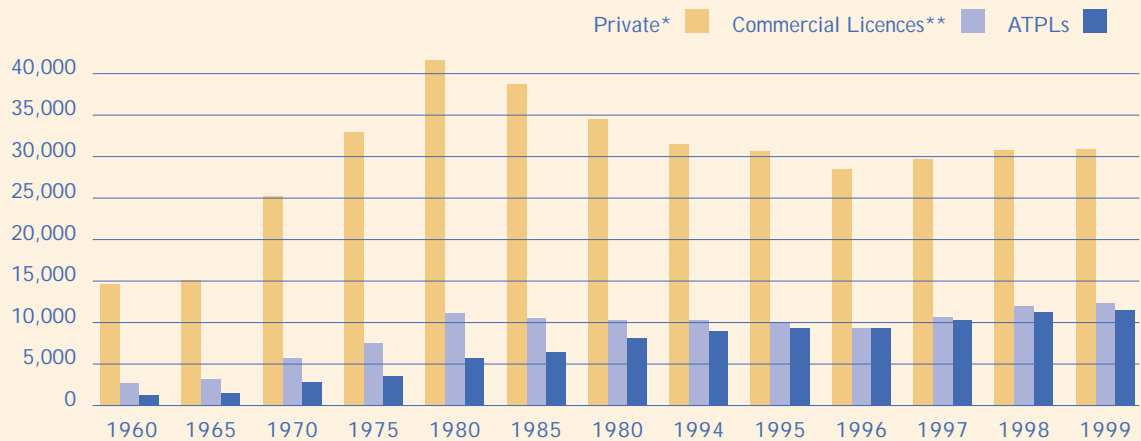
- The term “Commercial Licence” applies to situations where the pilot holds a Commercial Licence only (i.e., the holder does *not* hold an ATPL).
- Holders of ATPLs are deemed to hold one licence only (i.e., the prerequisite Commercial Licence is disregarded for present purposes).
- The generic term “professional licence” is used to mean either a Commercial Licence or an ATPL. The category “Total professional licences” thus comprises all licences of both categories.
- The term “commercial pilot” continues to apply to any professional pilot outside the military who holds either a Commercial Licence or an ATPL.

### C. Numbers of Pilot Licences by Type and Location

#### Annual totals

Exhibit I-2 shows the number of pilot licences held in Canada, by type, in selected years between 1960 and 1999. Exhibit I-3 plots the trends for the same data. Exhibit I-4 provides a provincial breakdown of pilot licences by type for 1999.

**I-2** Number of Aeroplane and Helicopter Pilot Licences Held in Canada, by Type and Year — Aeroplane and Helicopter Sectors Combined<sup>1</sup>

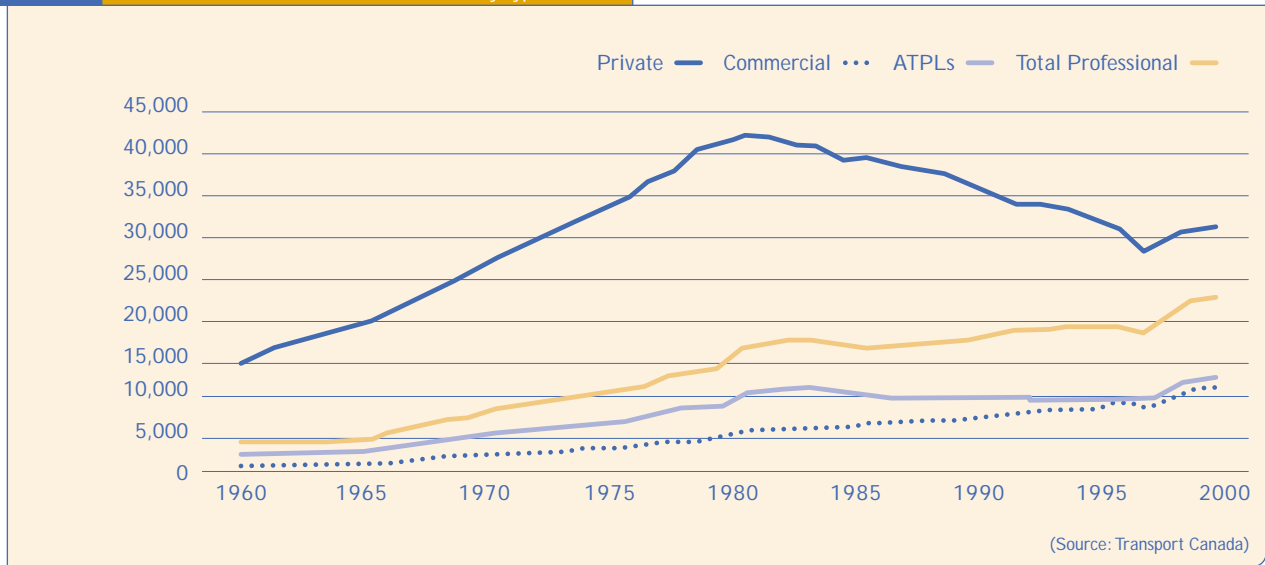


<sup>1</sup> The figures presented in Exhibit I-2 may differ from those in certain other Transport Canada data sources. Discrepancies may be explained by the time of the year at which data were published and by the inclusion or exclusion of specific types of licences such as gyro, balloon, and ultralight licences.

Both shades of blue represent total professional licences which includes both Commercial Licences and ATPLs.  
\* Includes licences for ultralight aircraft \*\* Does not include Commercial Licences held as prerequisites for ATPLs.

(Source: Transport Canada Civil Aeronautics, Summary of Personnel Licences, December 1999.)

### I-3 Number of Pilot Licences Held in Canada, by Type and Year



### I-4 Provincial Breakdown of Pilot Licences

Number of licences — 1999							
British Columbia	4,712	1,880	2,655	109	855	268	5,658
Alberta	3,544	1,224	1,452	36	433	70	3,179
Saskatchewan	1,391	436	204	1	62	5	707
Manitoba	1,287	578	453	8	89	11	1,131
Ontario	9,732	2,726	3,464	73	539	153	6,882
Quebec	4,966	1,558	1,485	78	500	60	3,603
New Brunswick	384	147	93	1	22	12	274
Nova Scotia	610	244	489	5	48	44	825
P.E. I.	96	23	10	1	5	1	39
Newfoundland	344	217	102	3	70	19	408
Yukon	126	74	23	2	22	0	119
N.W.T.	96	132	87	3	29	7	255
Other	646	368	339	11	122	49	878
<b>Total</b>	<b>27,934</b>	<b>9,607</b>	<b>10,856</b>	<b>331</b>	<b>2,796</b>	<b>699</b>	<b>23,958</b>
	Private	Commercial	Airline Transport	Private	Commercial	Airline Transport	Total Non-private
	<b>Aeroplane</b>			<b>Helicopter</b>			
Licences per 100,000 adults							
British Columbia	1,126	449	635	26	204	64	135
Alberta	3,558	1,229	1,458	36	435	70	319
Saskatchewan	196	61	29	0	9	1	10
Manitoba	225	101	79	1	16	2	20
Ontario	174	49	62	1	10	3	12
Quebec	58	18	17	1	6	1	4
New Brunswick	46	18	11	0	3	1	3
Nova Scotia	84	34	68	1	7	6	11
P.E.I.	5	1	0	0	0	0	0
Newfoundland	12	7	3	0	2	1	1
Yukon	562	330	102	9	98	0	53
N.W.T.	235	323	213	7	71	17	62
Other	3	2	2	0	1	0	0
	Private	Commercial	Airline Transport	Private	Commercial	Airline Transport	Total Non-private
	<b>Aeroplane</b>			<b>Helicopter</b>			

(Source: ?)

Observations  
(Exhibits I-2, I-3, and I-4)

- By 1999, the number of professional pilot licences held in Canada had increased to an unprecedented high of 23,954.
- The number of Private Licences held fell sharply through the 1980s and the first half of the 1990s.
- From a high of 41,592 in 1981, the number of Private Licences held steadily decreased to 29,657 by 1997.
- Following a dip in 1997, there has been a steady increase in all types of licences held.
- With the exception of only 1996, the total number of professional licences held increased every year between 1960 and 1999. Most of the gains recorded after 1980 resulted from increases in the number of ATPLs held.
- The number of Commercial Licences remained fairly steady at just over 10,000 per year for the 12-year period between 1985 and 1997. After that, the number of Commercial Licence holders increased annually.
- There was a slow but steady increase in the number of ATPLs (both aeroplane and helicopter) held annually, from a total of 6,051 in 1981 to a total of 10,345 in 1997. In 1981, a third of all professional pilot licence holders held ATPLs. By 1999, the percentage had increased to almost one-half.

Comment

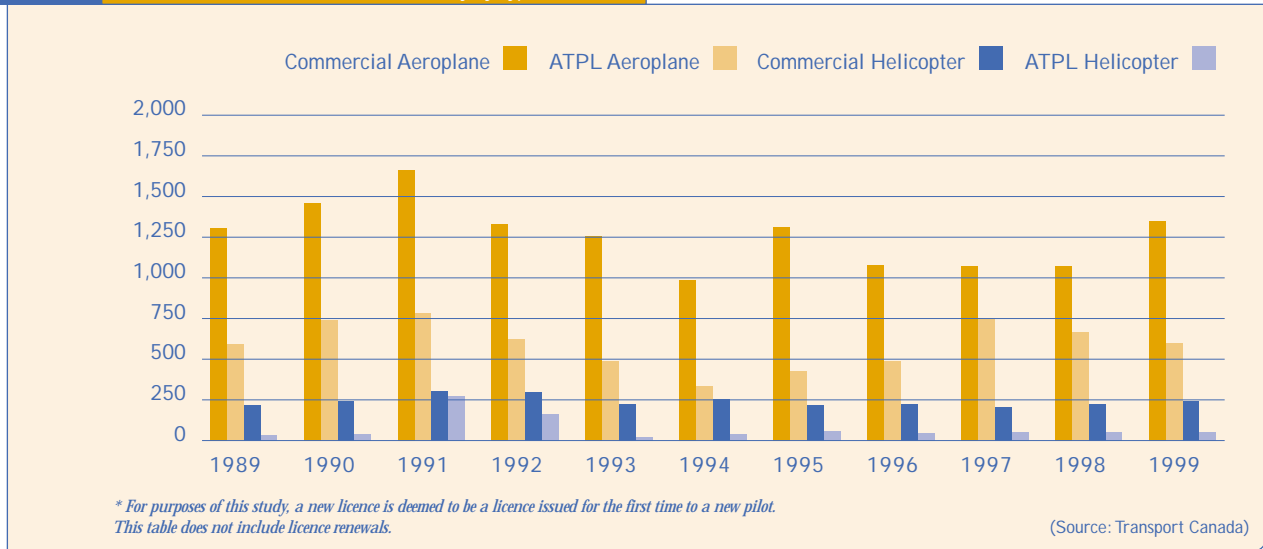
*Two factors may help explain the rise in the number of ATPLs vis-à-vis Commercial Licences:*

- *The introduction of the two-pilot cockpit (versus three) in the 1980s created the potential for accelerated progression to the position of Captain, which requires an ATPL.*
  - *The introduction of the ATPL(H) in the late 1980s also influenced the overall number of ATPL licences.*
- For 1999, of the total 12,339 Commercial Licences, 2,796 were held by helicopter pilots; of the total 11,555 ATPLs, 699 were held by helicopter pilots.
  - In 1999, a total of 1,171 pilots held both an ATPL for aeroplane and an ATPL(H) for helicopter.

## D. New Licences Issued Annually

Exhibit I-5 shows the numbers of *new* professional pilot licences issued annually by type from 1989 to 1999.

**I-5** Number of New Licences Issued Annually by Type, 1989–99 \*



### Observations

- Overall, an annual average of 2,168 new professional licences for both aeroplanes and helicopters were issued from 1989 through 1999. Average annual totals by category were as follows: Commercial aeroplane, 1,263; ATPL aeroplane, 590; Commercial helicopter, 240; and ATPL helicopter, 74.
- Highest number of professional licences issued (all categories), occurred in 1990, 1991 and 1992. Remarkably, there was no drop off during the 1991 recession. In fact, the number actually increased that year.
- In the ATPL helicopter category, the years 1991 and 1992 gave rise to a remarkable 271 and 163 new licences, respectively — both totals far exceeding the annual average of 74.
- After 1991, numbers for all categories have fluctuated. No significant upwards or downwards trend.

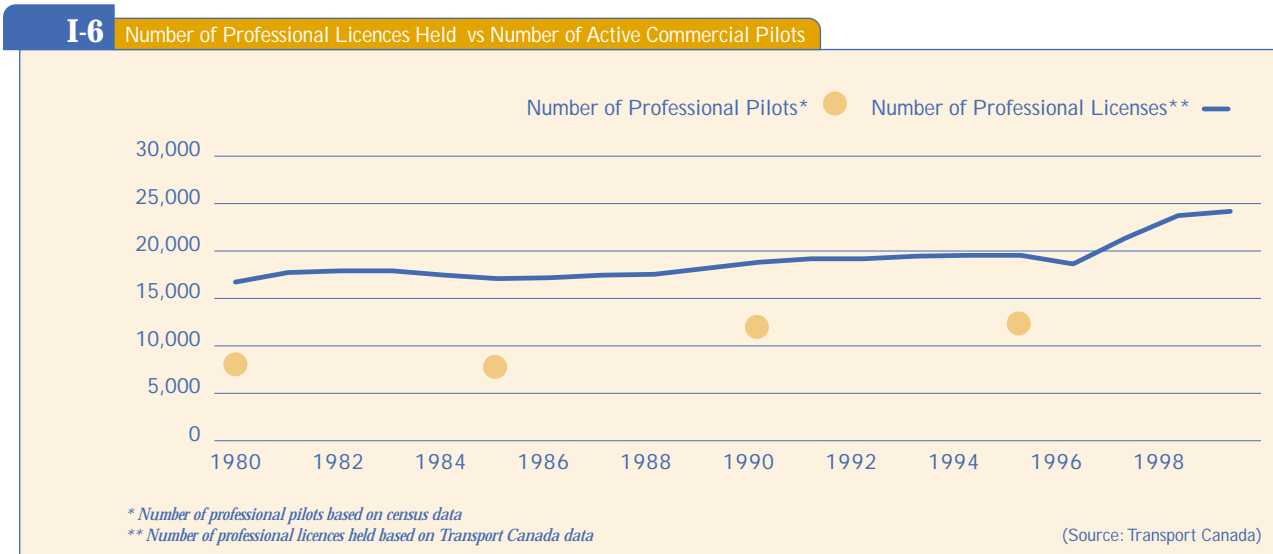
### Comment

*Overall, the normal retirement rate explains the differences between numbers of new professional licences issued (Exhibit I-5) and numbers of professional licences held (Exhibit I-2).*

*The two exceptions are the years 1996–97 and 1997–98, when some 2,000 more commercial licences were in effect than can be explained by the number of new licences issued. Even if there were fewer retirements than usual in those years, and even if some pilots revalidated their lapsed licences, this is a large discrepancy. Transport Canada has suggested that one reason for the discrepancy may be the upgrading of its licensing information system in 1997.*

## E. Active versus Non-Active Licence Holders

Exhibit I-6 compares the number of *active* pilots holding professional licences with the total number of professional licences held. The number of active commercial pilots is estimated from Canadian census data.<sup>2</sup>



### Observations

- The current number of active commercial pilots is difficult to estimate, but in the 1996 census more than 11,000 individuals identified themselves as a commercial pilot.
- Almost half of all Commercial Licences and ATPLs held are not active (i.e., not used for flying on a commercial basis). The ratio has narrowed only slightly since 1980.

### Comment

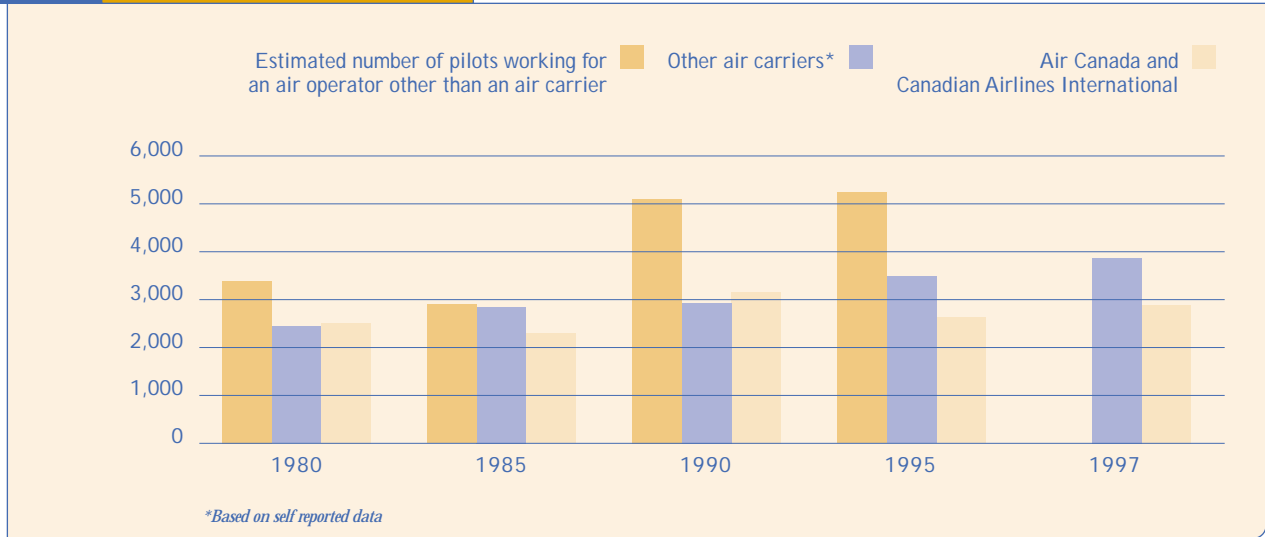
*There appear to be many holders of Commercial Licences and ATPLs who retain their licences despite having retired or otherwise withdrawn from commercial flying.*

Exhibit I-7 shows the number of pilots employed by Air Canada and Canadian Airlines and the number employed by other air carriers at five-year intervals between 1980 and 1995 and in 1997. It also shows the census totals of reported commercial pilots at five-year intervals between 1980 and 1995. By subtracting the air carrier totals from the census totals, it gives an estimate of the numbers of commercial pilots employed by operators other than air carriers.

<sup>2</sup> Although some information on the number of active commercial pilots is available from other Statistics Canada sources, such information is limited to pilots employed by air carriers that carry more than 5,000 passengers annually. There are many small service providers that are not required to report to Statistics Canada, but that in aggregate employ a large number of commercial pilots. The Canadian census, on the other hand, covers pilots in all types of air operations regardless of employer size.

However, even though the census provides actual numbers, this information must be treated with caution as potential outliers may exist. The census numbers should be taken only as a close estimate of the actual numbers of employed pilots.

**I-7** Number of Employed Commercial Pilots



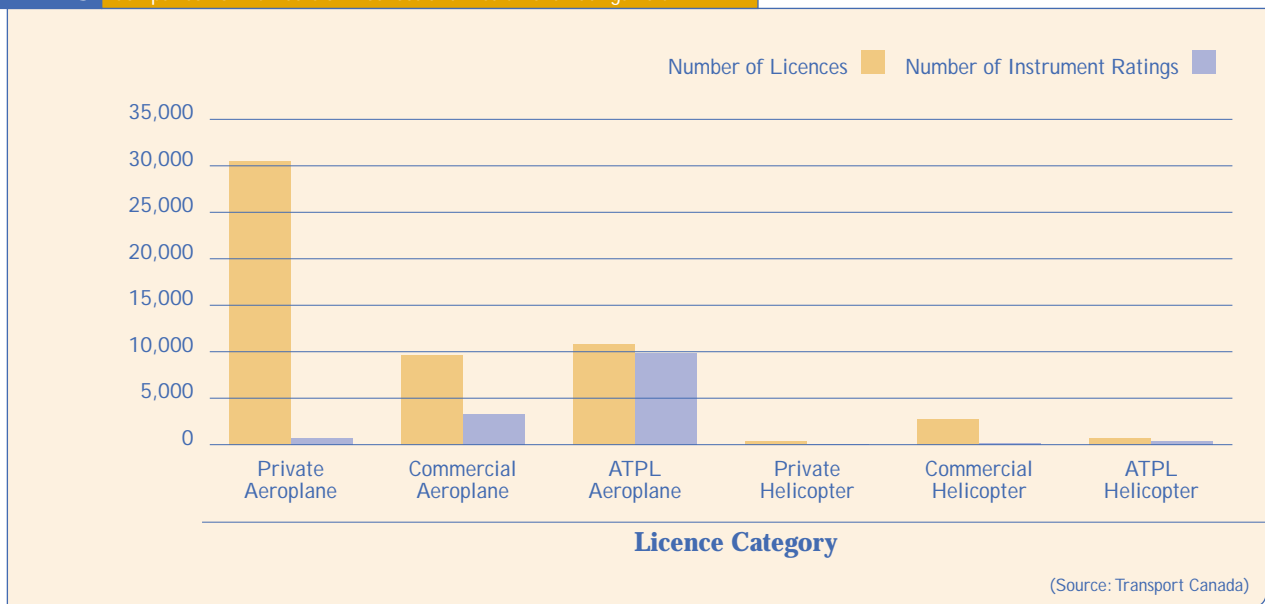
**F. Ratings**

**Instrument ratings**

Instrument ratings qualify pilots to fly aircraft by instruments alone at night and other times of poor visibility. Any pilot who wishes to fly instrument-equipped aircraft must first obtain an instrument rating. An instrument rating is also a prerequisite for any pilot who wishes to obtain an ATPL.

Exhibit I-8 compares the number of licences and instrument ratings in effect in 1999.

**I-8** Comparison of Numbers of Licences and Instrument Ratings held in 1999



**Observations**

- Though an instrument rating is a prerequisite for an ATPL, the exhibit indicates that not all pilots who hold ATPLs have instrument ratings.

Comment

*The explanation is that the requirements for issue of an ATPL differ from the requirements for ongoing validity. The ATPL may remain valid even though the instrument rating has expired.*

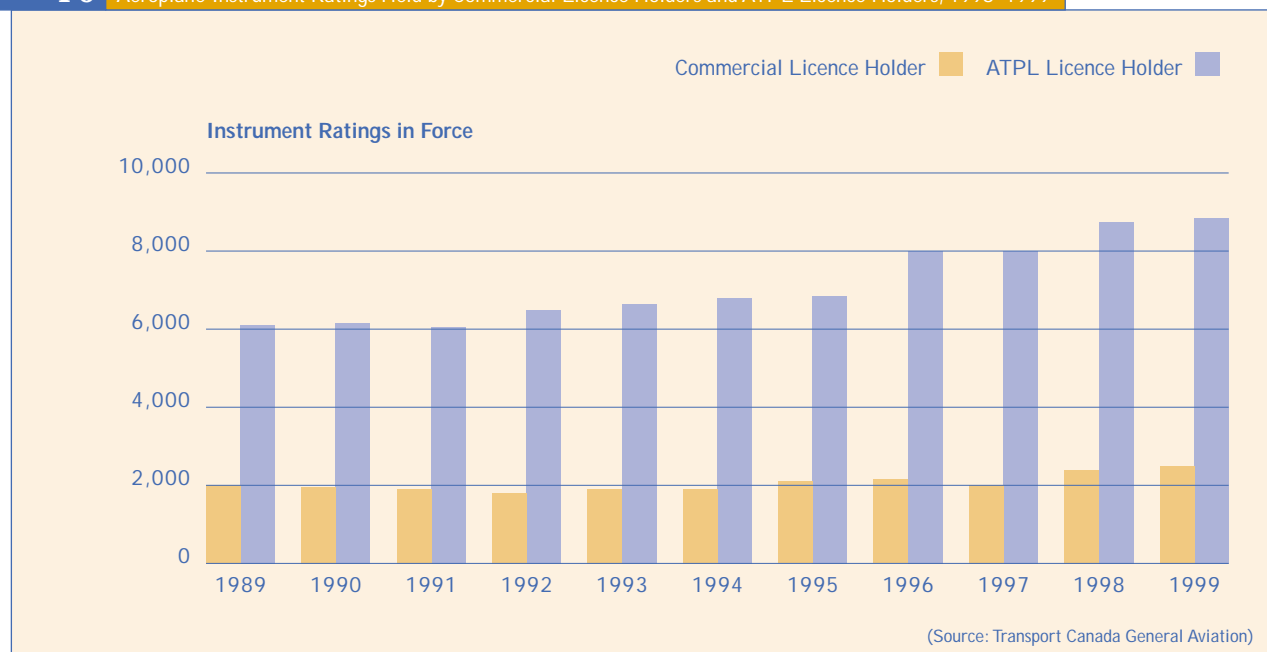
- Relatively few Private Licence holders have instrument ratings. In the aeroplane sector, only about 2.3% of private pilots have them. In the helicopter sector, only one instrument rating is recorded.
- Two-thirds of Commercial Licence holders do not have instrument ratings.

Comment

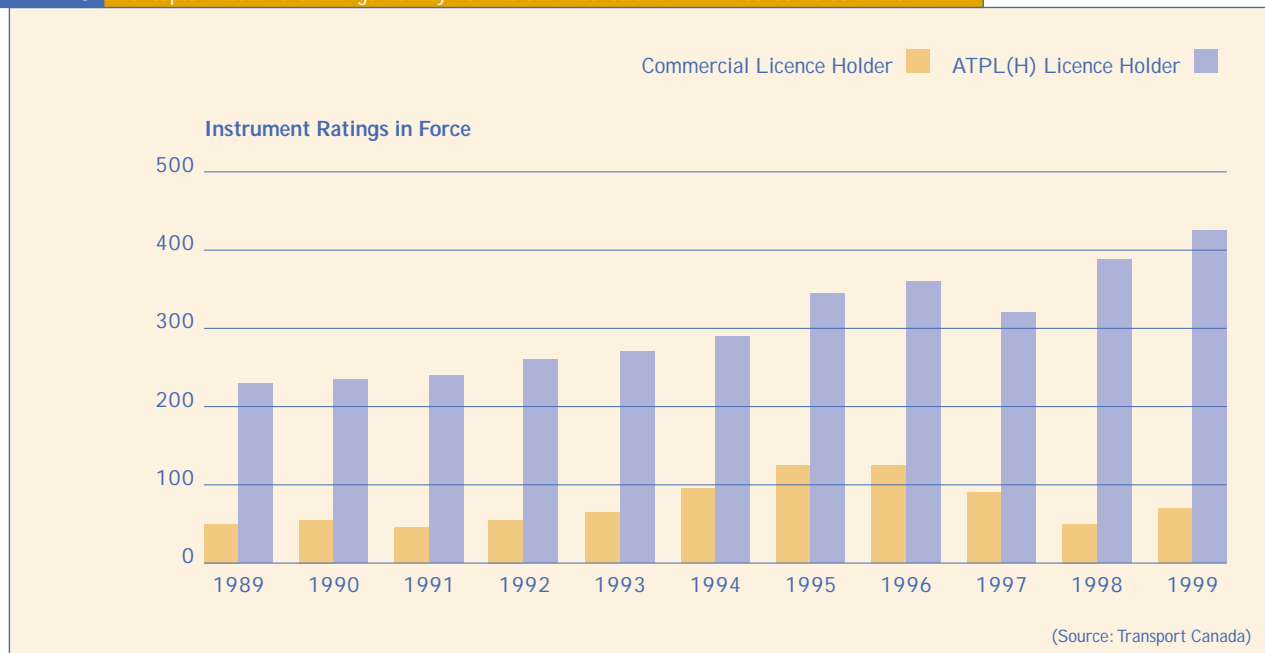
*The main reason is that many commercial pilots do not require such ratings for their work. Also, many holders of Commercial Licences do not pursue professional careers as pilots.*

Exhibit I-9 tracks the number of instrument ratings in force from 1989 to 1999 for aeroplane pilots holding a Commercial Licence and for aeroplane pilots holding an ATPL. Exhibit I-10 makes the same comparison for helicopter pilots.

**I-9** Aeroplane Instrument Ratings Held by Commercial Licence Holders and ATPL Licence Holders, 1998–1999







#### Observations (Exhibits I-9 and I-10)

- Both exhibits indicate an increasing trend in the numbers of professional pilots having instrument ratings.

#### Comment

*To some extent, the increasing numbers of instrument ratings simply reflect increasing numbers of licensed pilots. But to a significant extent it also reflects an increasing trend for pilots to obtain this rating.*

*Transport Canada has recently considered including an instrument rating in the overall requirements for a Commercial Licence.*

---

#### Other ratings

The following observations are based on Transport Canada data for 1999.

##### *Instructor ratings*

- In 1999, 2,178 aeroplane and 155 helicopter instructor ratings were in force.
- This total for aeroplane instructor ratings represents a sharp increase over that of 1998, when only 1860 aeroplane instructor licences were in force. The 1998 total is more consistent with the numbers in previous years.
- Many aeroplane pilots having instructor ratings are active instructors. However, there are also many who have acquired the rating merely as part of their overall qualifications and use it only rarely, occasionally, or on a part-time basis.

##### *Multi-engine class ratings*

- All pilots holding ATPLs have a multi-engine rating as a prerequisite for the licence.

Approximately 65% of pilots who held only a Commercial Licence had a multi-engine class rating. The other 35% may have elected not to acquire such a rating because it is not a requirement for their employment.

- Multi-engine class ratings do not exist in the helicopter sector.

*Seaplane class ratings*

- Approximately 42% (some 4,000) of aeroplane pilots holding only a Commercial Licence had a seaplane class rating.
- About 50% (some 5,000) of aeroplane pilots holding an ATPL had a seaplane rating.

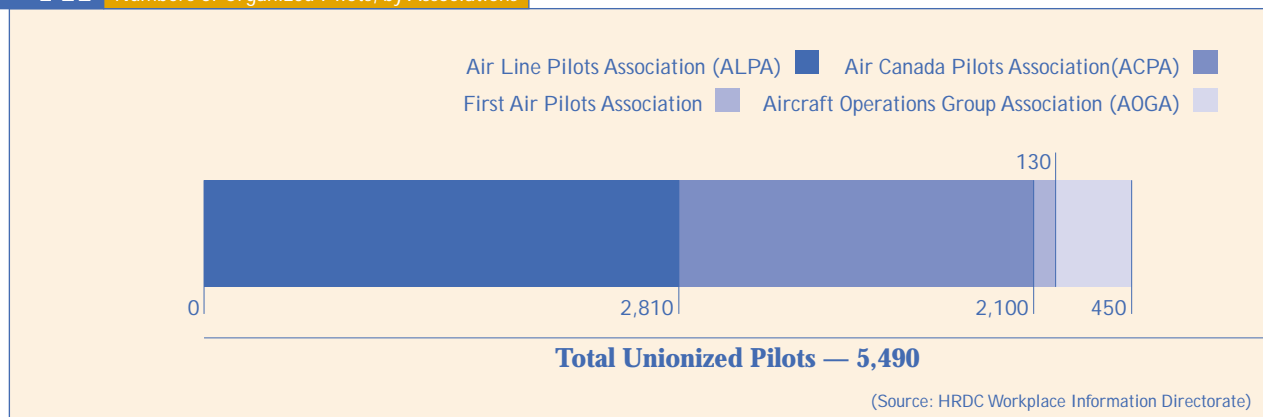
Comment

*Once obtained, a seaplane class rating does not expire. The majority of pilots holding a seaplane rating tend not to utilize it. The above percents, based on Transport Canada data, correspond with the results obtained in the survey of pilots conducted by this study. Almost 44% of pilots responding said they were qualified to fly a float plane.*

## G. Number of Pilots Belonging to a Labour Association

Exhibit I-11 shows numbers of pilots belonging to labour associations.

**I-11** Numbers of Organized Pilots, by Associations



Observations

- The vast majority of organized pilots in Canada are employed within the aeroplane sector. Most fly for the major or regional carriers.
- The majority of pilots who fly for relatively small operations do not belong to a union.
- Some helicopter pilots are represented by AOGA; others belong to broad-based industrial unions such as the International Brotherhood of Teamsters.

## H. Characteristics of Commercial Pilots in Canada

Age profile

Personal characteristics of commercial pilots in Canada, as outlined in Section H and Section I, profile Canadian commercial pilots from several other perspectives including employment patterns, experience, age, gender, visible minority status,

and level of education. Information is derived from two principle sources: Transport Canada and the Survey of Commercial Pilots conducted by this study. Additional information, derived from Statistics Canada's Labour Force Survey, and primarily describing broad employment patterns, will be presented in Chapter Six: the Commercial Pilot Labour Market.

Taken together, the three sources of data provide the best overall available picture of commercial pilots in Canada today. It should be stressed, however, that there are limitations to the data provided by each source, especially those provided by the Labour Force Survey and by the Survey of Commercial Pilots conducted by this study. In the case of the former, the data is based on a rather small sample; in the case of the latter, while large and somewhat representative, responses obtained do not constitute a perfectly weighted measure of the entire industry. Moreover, pilots responding to the survey questions presumably did so often by simply recalling or estimating facts and figures. (To improve the accuracy of the latter, responses that fell considerably outside of reasonable parameters were either discarded or noted.)

Exhibit I-12 provides an overall indication of the age distribution of all licence holders in 1999, whether or not they were active.

**I-12** 1999 Age Distribution of All Licence Holders

Age	Aeroplane			Helicopter			Total
	Private	Commercial	ATPL	Private	Commercial	ATPL (H)	Non-private
Less than 30	5,235	3,120	1,045	13	554	20	4,739
30–34	2,423	1,291	1,604	24	445	66	3,406
35–39	3,345	1,103	1,950	31	446	112	3,611
40–44	3,764	1,110	1,942	42	489	177	3,718
45–49	3,497	969	1,638	64	358	134	3,099
50–54	3,271	811	1,314	52	235	116	2,476
55–59	2,523	577	853	38	141	45	1,616
60–64	1,624	309	318	29	78	21	726
65 and over	2,252	317	192	38	50	8	567
<b>Total</b>	<b>27,934</b>	<b>9,607</b>	<b>10,856</b>	<b>331</b>	<b>2,796</b>	<b>699</b>	<b>23,958</b>

(Source: Transport Canada)

#### Observations

- In 1999, aeroplane pilots holding either a Commercial Licence or an ATPL were almost evenly divided into two age groups — those over 40 (10,350) and those under 40 (10,113).
- In the helicopter sector, a more significant number of pilots were over 40 (1,852) than under 40 (1,643).
- By comparison, in a 1991 survey of commercial pilots conducted by the Transportation Safety Board (TSB), 70% of respondents were under age 40, 35% were under age 30, and only 6% were above age 54.<sup>3</sup>

The above information on age distribution covers all licence holders whether or not in the pilot labour force (i.e. whether or not working or seeking work as a pilot). Information shown in Exhibit I-13, and derived from the Commercial Pilots Survey, applies only to pilots in the aviation labour force and is broken out by type of operation.

<sup>3</sup> Commercial Pilot Survey (1991), Levels III to VI Air Carrier Operations, *Accident Prevention Branch, Transportation Safety Board of Canada*.

## I-13 Aeroplane Sector

Number of Pilots (Respondents to the Survey)					
Specialty Aerial Work	111	77	57	39	11
Air Taxi	176	111	52	39	11
Commuter	100	78	12	10 <sup>a</sup>	—
Airlines	111	401	328	198	4 <sup>b</sup>
Corporate	37	58	69	39	14 <sup>c</sup>
Government	6	24	49	28	2 <sup>d</sup>
Military*	8	20	14	4 <sup>e</sup>	—
Cargo	97	98	25	15	4 <sup>f</sup>
Flight Schools	104	64	43	22	13
Other	35	48	39	17	10
	20–30	31–40	41–50	51–60	61–80
<b>Age Range</b>					
* Civilian pilots only.					
<sup>a</sup> Age 51–62. <sup>b</sup> Age 61–66. <sup>c</sup> Age 61–72. <sup>d</sup> Age 61–63. <sup>e</sup> Age 51–72. <sup>f</sup> Age 61–70.					
(Source: Commercial Pilot Survey)					

## I-14 Helicopter Sector

Number of Pilots (Respondents to the Survey)					
Specialty Aerial Work	38 <sup>a</sup>	94	74	40	5 <sup>b</sup>
Air Taxi	21	47	43	18 <sup>c</sup>	—
Commuter	4	24	21 <sup>d</sup>	—	—
Corporate	3	6	17	10 <sup>e</sup>	—
Government	4	13	22	13	—
Cargo	14	22	16	10	—
Flight School	1	7	8	6	—
Other	8	16	20	8	—
	20–30	31–40	41–50	51–60	61–80
<b>Age Range</b>					
<sup>a</sup> Age 18–30. <sup>b</sup> Age 64–67. <sup>c</sup> Age 51–64. <sup>d</sup> Age 41–54. <sup>e</sup> Age 51–67.					
(Source: Commercial Pilot Survey)					

### Observations

- In the aeroplane sector, the vast majority of pilots in all areas of the industry that might be considered “feeder grounds” for future pilots for airlines are below the age of 40.
- The number of airline pilots is evenly split between those over and under the age of 40.
- Helicopter flight school instructors tend to be older than their aeroplane counterpart.

### Gender profile

The following observations derive from Transport Canada data and the Canadian census of 1996.

- The percentage of female pilots within the professional pilot population is small. Transport Canada data show that women hold only about 3% of all pilot licences in the commercial pilot sector and about 6.5% of Private Licences. The census corroborates this finding.

- According to Human Resources Development Canada statistics, this level of participation is well below the 45% average recorded for women working in other occupations in Canada.
- The Canadian figures are also lower than those of the U.S., where 7.5% of all professional licence holders in the aviation industry are females.
- In the pilot survey for the present study, 93% of respondents were male, and 4.4% were female. A small percentage of survey respondents preferred not to complete the gender question.
- In the 1991 TSB survey, approximately 4% of respondents were female.

Comment

*Although females make up a small percent of Canada’s pool of commercial pilots, attitudes and opinions expressed in focus groups and interviews by pilots, operators, and by student pilots, both male and female, generally painted a picture of an equal opportunity industry for pilots. The industry seems receptive to female pilots and has lauded the success many have achieved. Asked why there are not more female pilots, perhaps Canada’s most famous female pilot, Captain Nicole Sauvé — the first Canadian women to become an airline captain — replied in a Wings Magazine interview, “It’s because most have never thought of aviation as a career.”*

A profile of commercial pilots by gender who responded to the pilot survey is shown below by type of operation.

**I-15** Profile of Commercial Pilots, by Gender

		Number of Pilots (Respondents to the Survey)			
		Male	Female	Male	Female
Specialty Aerial Work		283	12	241	5
Air Taxi		372	16	126	3
Commuter		188	12	48	1
Airlines		1,005	33	—	—
Corporate		207	8	34	2
Government		109	1	53	1
Military*		46	0	22	1
Cargo		226	14	61	1
Flight Schools		214	29	20	2
Other		139	12	50	2
		<b>Aeroplane Sector</b>		<b>Helicopter Sector</b>	

\* Civilian pilots only.

(Source: Commercial Pilot Survey)

Observations

- Although few in number relative to male pilots, female pilots are for the most part distributed across the aviation industry in approximate equal proportion as their male counterparts. With the exception of civilians working in the military, female pilots responding to the survey represented every sector and type of operation in the industry.

### Aboriginals and visible minorities

According to the 1996 census:

- Aboriginal pilots made up 2.5% of the commercial pilot population in Canada.
- Visible minorities made up 2.7% of the commercial pilot population.

In the Commercial Pilot Survey conducted for this study, 1.2% of respondents identified themselves as Aboriginals, 4.2% as a member of a visible minority, and 0.6% as being a person with a disability. Actual numbers by type of operation are shown in Exhibits I-16, I-17 and I-18.

### I-16 Number of Commercial Pilots Who Identified Themselves as a Member of a Visible Minority

	Number of Pilots (respondents to the survey)	
	Aeroplane Sector	Helicopter Sector
Specialty Aerial Work	12	9
Air Taxi	20	6
Commuter	10	2
Airlines	39	n/a
Corporate	11	2
Government	1	2
Military*	7	4
Flight Schools	14	2
Other	7	3

\* Civilian pilots only. (Source: Commercial Pilot Survey)

### Observations

- As with female pilots, visible minority pilots, although relatively few in number, can be found in every sector and type of operation in the industry.

### I-17 Number of Commercial Pilots Who Identified Themselves as an Aboriginal

	Number of Pilots (respondents to the survey)	
	Aeroplane Sector	Helicopter Sector
Specialty Aerial Work	3	4
Air Taxi	1	2
Commuter	3	1
Airlines	13	n/a
Corporate	5	3
Government	2	1
Military*	1	0
Cargo	2	2
Flight Schools	0	0
Other	4	1

\* Civilian pilots only. (Source: Commercial Pilot Survey)

#### Observations

- There were no flight instructors among the Aboriginal pilots responding to the survey, and only 1 or 2 in Air Taxi operations. If representative of all Aboriginal pilots, these numbers would seem remarkably low given the special needs of the north in terms of flight training and air taxi services.

### I-18 Number of Commercial Pilots Who Identified Themselves as a Person With a Disability

Number of Pilots (respondents to the survey)	
Specialty Aerial Work	1
Airlines	11
Corporate	3
Cargo	1
Flight Schools	1

**Aeroplane Sector**

(Source: Commercial Pilot Survey)

#### Comment

*No question on the nature of the disability was asked.*

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#### Education profile

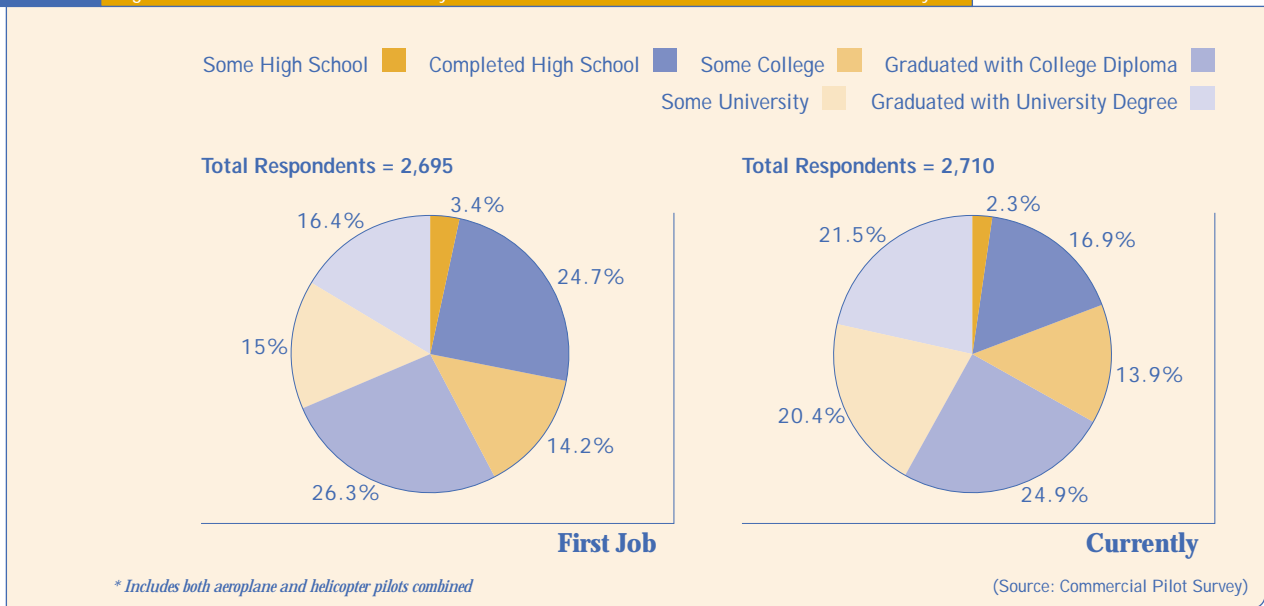
The following educational profile of Canadian commercial pilots derives from the 1996 census.

- High school education: 14%.
- Trade certificates: 6%.
- Other post-secondary certificate or diploma: 47%.
- University without degree: 19%.
- University degree: 14%.

Exhibit I-19 derives from the pilot survey for the present study and compares levels of education reached by Canadian pilots at two points in their careers: the time of the pilot's first job and the time of the survey.

**I-19**

Highest Level of Education Reached by Pilots at the Time of Their First Job and at Time Surveyed\*



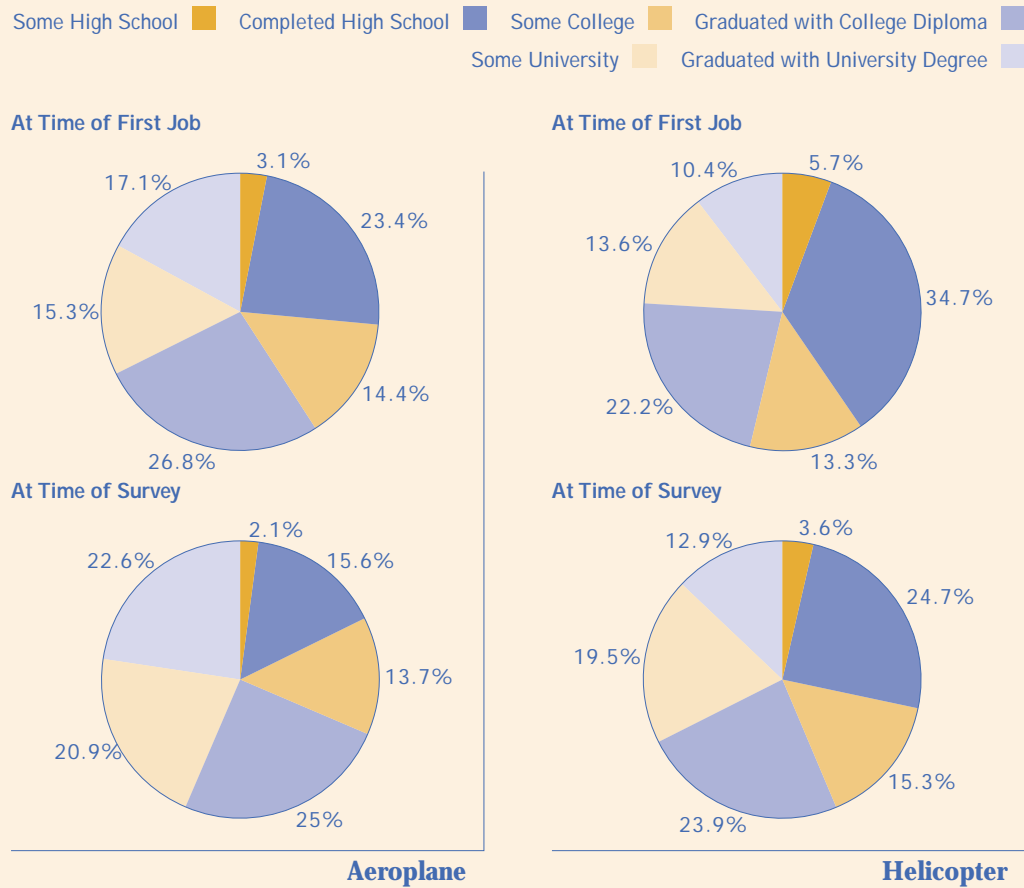
**Observations**

- The pilot survey responses suggest that pilots have availed themselves of continuing education opportunities.
- At the time they obtained their first jobs, 25% of respondents had completed high school, 14% had some college education, and 31% either had some university education or had graduated from a university.
- At the time the survey was conducted, 42% of respondents reported having some university education or a degree, and considerably fewer had only a high school education.



Exhibit I-20 compares aeroplane pilots with helicopter pilots in respect of the data in Exhibit I-19.

**I-20** Highest Level of Education Reached at First Job and at Time Surveyed — Commercial Aeroplane vs Helicopter Pilots



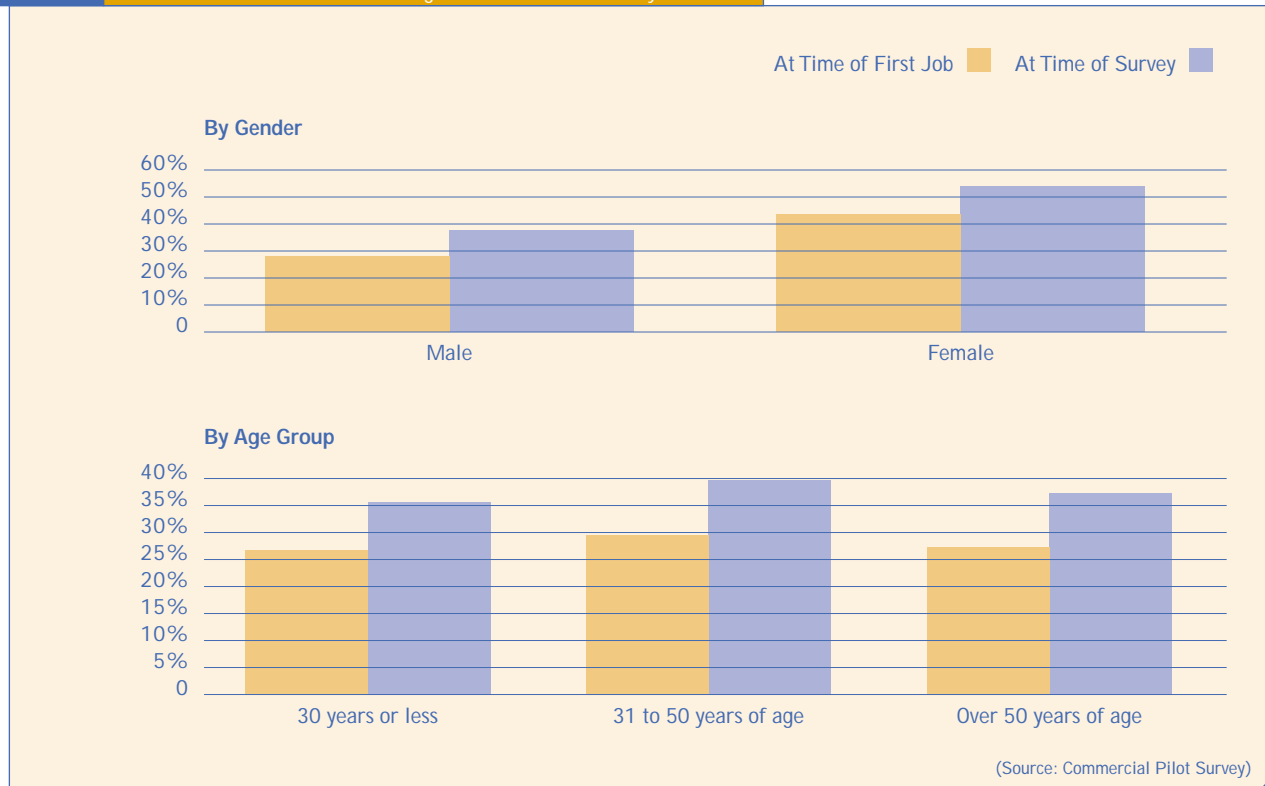
(Source: Commercial Pilot Survey)

**Observations**

- Relative to aeroplane pilots, a higher proportion of helicopter pilots have only high school diplomas and fewer have a university degree.
- Based on responses to the survey conducted by this study, a higher percent of pilots hold a university degree today than indicated by the last census.
- Survey responses suggest some pilots have been upgrading their formal education since obtaining their initial commercial licence as a pilot.

Exhibit I-21 depicts the educational status of pilots by age group and gender.

**I-21** Percent of Commercial Pilots Having at Least Some University Education



**Observations**

- A higher proportion of female respondents (43.1%) than male respondents (27.9%) had obtained at least some university education at the time they obtained their first job as a pilot.
- At the time of the survey, these percentages had increased to 53.8% for female commercial pilots and 37.7% for male commercial pilots.
- Pilots between 31 and 50 years of age were most likely to have obtained a university education.
- However, the proportions within the other age groups were comparable.
- The youngest pilot age group had the least university education.

**I. Employment Characteristics of Respondents to the Commercial Pilot Survey**

**Basis of current employment**

*Aeroplane Pilots* (1,757 respondents to this question)

- 1,757 were employed on a full-time basis
- 75 on a part-time basis
- 70 on contract
- 108 seasonally
- 46 were employed on a casual basis

### *Helicopter Pilots* (318 respondents to this question)

- 258 were employed on a full-time basis
- 8 on a part-time basis
- 38 on contract
- 12 seasonally
- 2 were employed on a casual basis

---

#### Unemployment/underemployment picture

- 32 aeroplane and 9 helicopter respondents indicated they had not been employed as a pilot at any time during the previous 12 months. Other pilots reported being unemployed at some point during the previous 12 months.
- Over 200 aeroplane and almost 50 helicopter pilots indicated it had been at least 1 year since they had been employed on a full-time, year round basis.
- 144 aeroplane and 23 helicopter respondents indicated they were currently seeking full-time work; 83 and 20 respectively were seeking part-time or contract work.

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#### Nature of current work

##### Basic type of aircraft typically flown

- 36.7% of respondents (1,096 pilots) flew aircraft requiring only a single pilot
- 55.2% (1,647 pilots) flew aircraft requiring 2 or more pilots
- 13.7% (410 pilots) flew helicopters

##### Position currently flown

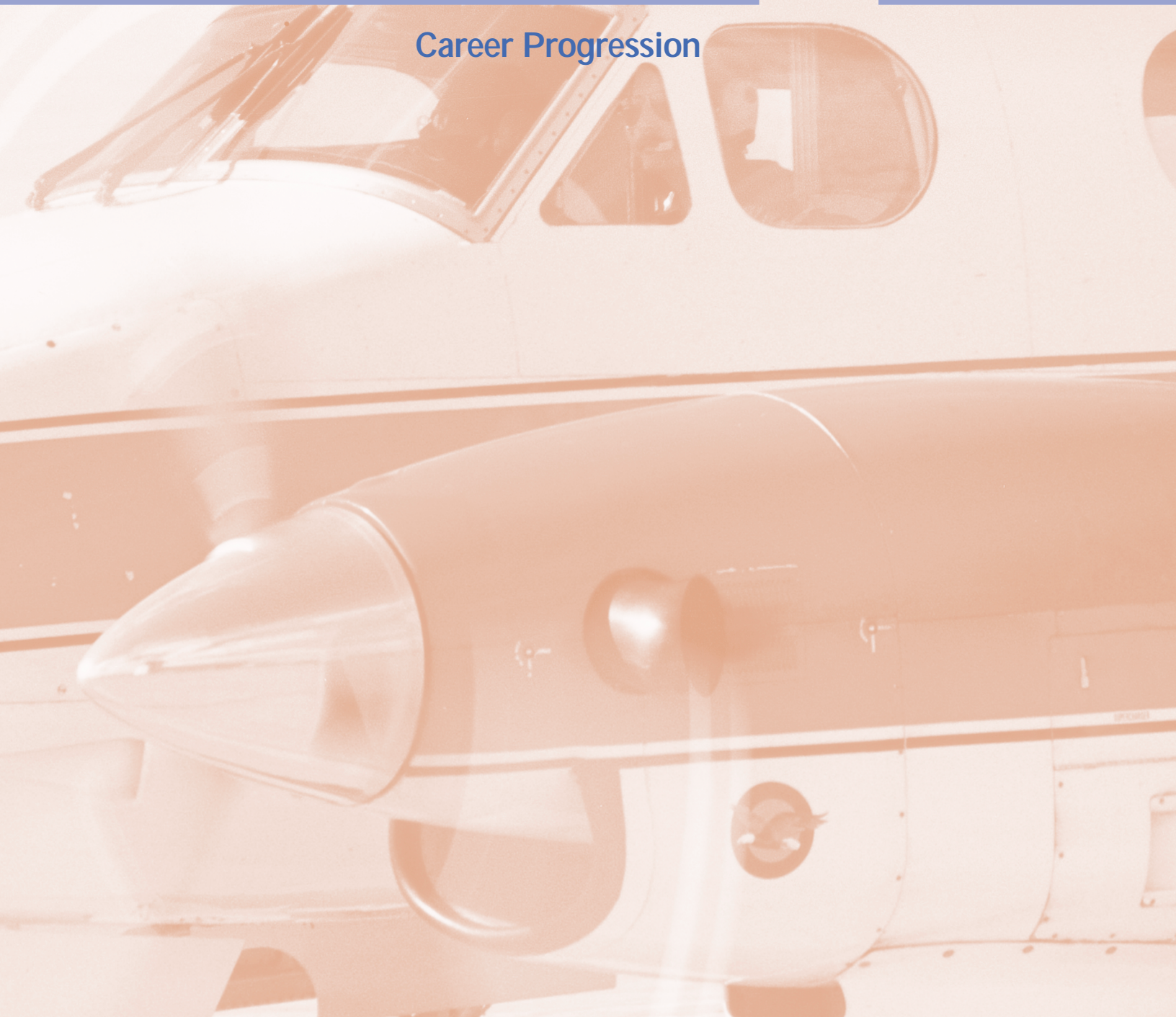
- Captain/Pilot-in-Command — 72.6% of respondents (2,169 pilots)
- First Officer — 23.5% (701 pilots)
- Second Officer — 0.6% (18 pilots)
- Captain and First Officer — 0.4% (12 pilots)

##### Percent of respondents who reported being employed in various non-flying areas of aviation

- Management 3.7%
- Air traffic control 0.5%
- Inspection/testing 1.6%
- Administration 0.7%
- Baggage handling/Cargo 0.9%
- Dispatch 1.1%
- Training 3.8%
- Other 3.7%

chapter **2**

Career Progression



---

This chapter begins with a brief description of the typical path pursued by pilots starting their careers. It then examines recruitment methodologies, selection criteria, typical entry level positions, and various factors affecting career advancement. The chapter's final two sections centre on career satisfaction and reasons for pilot turnover and departure from the profession.

Findings in this chapter derive mainly from the survey of commercial pilots and air operators, with corroborative testimony from focus groups and interviews with selected representatives from government, industry, and the health care field.

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## A. Getting a Start in the Profession: Overcoming a Lack of Experience

The minimum flight time that many air operators demand as a prerequisite to employment creates an initial hurdle for pilots attempting to enter the profession. Most air operators look for pilots that have accumulated a number of hours.

In Canada, on completing the training program for the Commercial Pilot Licence, aeroplane pilots have ordinarily accumulated 200 hours, and helicopter pilots, 100 hours of flight time. These amounts are inadequate to meet the minimum requirements set by most air operators. For pilots starting out, acquiring the additional hours needed can be difficult. Some do so by becoming flight instructors<sup>1</sup>; others seek work with an air operator under varying conditions.

Some operators will hire pilots right out of flight training. As will be seen in Exhibit II-2 later in this chapter, approximately 24% to 29% of the operators responding to a survey question said they hire pilots right out of flight training. Many of these represent relatively small air operations located up north or in remote regions of the country. While some pilots who take assignments with these operators elect to stay up north, the majority see a job in the North as a stepping stone to a career elsewhere. (Some in the industry have voiced concern that this transient usage of the North leaves aerial services in that part of the country with a smaller pool of experienced pilots.)

Apart from the difficulties associated with the frequent need to relocate, pilots starting out often face financial burdens. Remunerations are generally low in comparison with the start rates for most other professional occupations. Insurance coverage and benefit entitlements in the early years also tend to be less than the industry norm.

During round table discussions, some industry insiders voiced concern that the financial hardships sometimes encountered at the start of a pilot's career could discourage potentially good candidates from entering the profession. Others lamented the lack of professional development afforded some new pilots.

**Note:** 1) It is perhaps a testimony to the joy of flying and, ultimately, the rewards it can deliver, that so many continue to take up this profession despite the rigors some encounter in getting started. 2) Some countries in Europe and Asia use an

<sup>1</sup> Working as an instructor is usually not an option for new helicopter pilots, who ordinarily have accumulated only 100 hours of flying time on obtaining a Commercial Licence. The minimum requirement for an instructor's rating in the helicopter sector is 200 hours. As a consequence, acquiring flight time experience to qualify for a job as a helicopter pilot is often times even more difficult than those attempting to do so in the aeroplane sector.

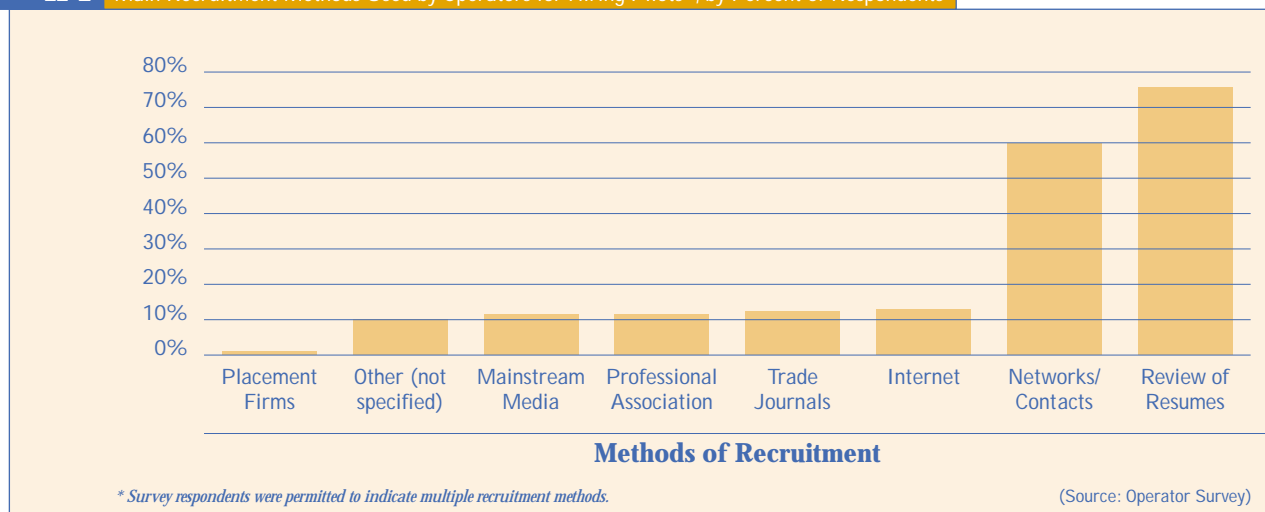
arrangement known as cadet training — an arrangement whereby an airline sponsors and helps guide the development of an individual from ab initio training to a position with the company in the right seat of an airliner. With only minor exceptions — all in the U.S. — the practice has not been adopted in North America thus far. In part, due to some disappointing outcomes experienced in Europe’s cadet training programs, a representative from a leading air operation in Canada believes the program will not be widely adopted in Canada.

## B. Hiring Practices

### Recruitment methods

The operator survey asked air operators to identify, from a list, their main methods of recruitment. Exhibit II-1 summarizes their responses to this question.

**II-1** Main Recruitment Methods Used by Operators for Hiring Pilots\*, by Percent of Respondents



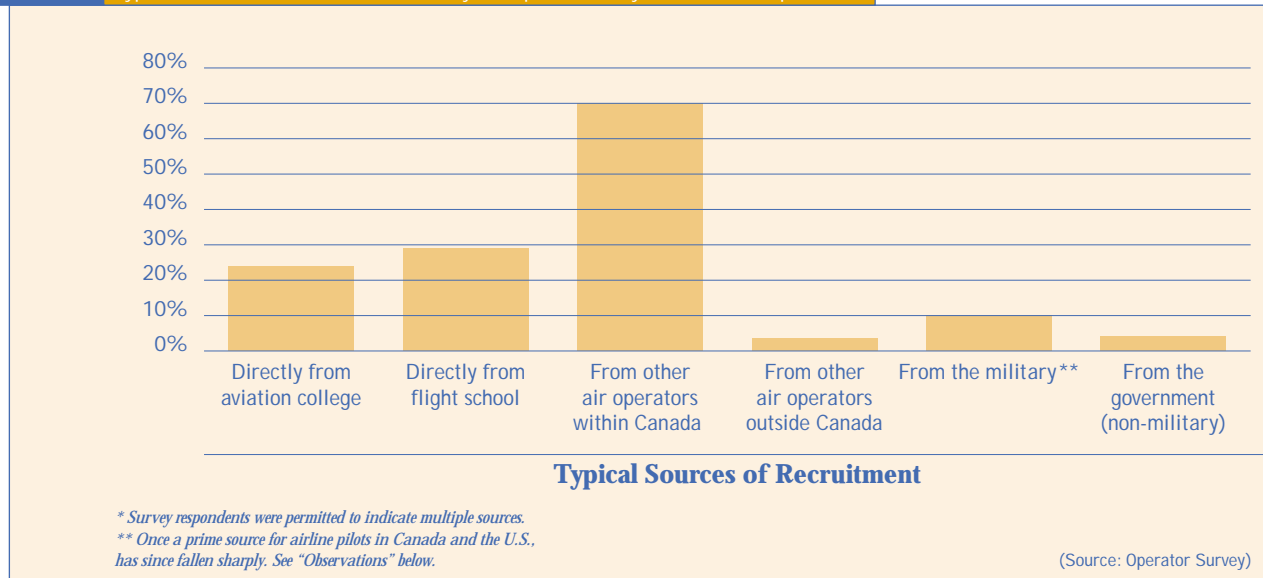
### Observations

- By far, the most common method used by respondents to recruit is review of résumés on file.
- A significant percent of respondents, (59.7%), also rely on networks and contacts.
- The mainstream media, trade journals, professional associations, and the Internet are used by relatively few respondents.

## C. Typical Sources Used for Hiring

The operator survey asked air operators to identify, from a list, sources from which their new pilots are typically drawn. Exhibit II-2 summarizes their responses.

**II-2** Typical Sources of Recruitment Used by Air Operators\*, by Percent of Respondents



### Observations

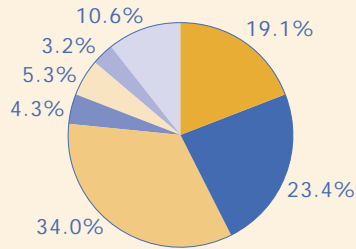
- Today, the vast majority of respondents typically hire pilots from other air operators. Following the Second World War, the military became the number one source of pilots for commercial airliners. During the 50s, 60s and 70s, up to 70% of pilots hired by airliners in Canada and in the United States came from the military. For a variety of reasons the percent has since fallen. Today, it is said that less than 40% of new airline pilots are drawn from the military.
- About 1 out of 4 respondents indicated a practice of hiring pilots directly out of flight schools or aviation colleges.
- A small but significant percent of respondents, (3.5%), have recruited pilots from outside of Canada; the same percent expects to do so in future.

**II-3**

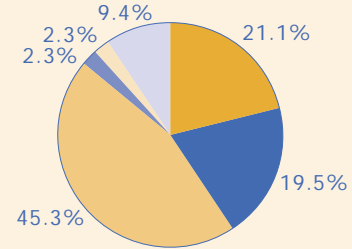
Showing Percent of Operators Using Various Sources to Hire Pilots, by Type of Operation

■ Directly from Aviation Colleges   
 ■ Directly from Flight Schools   
 ■ Other Air Operators within Canada   
 ■ Other Air Operators Abroad   
 ■ Military   
 ■ Government   
 ■ Others   
 ■ Others

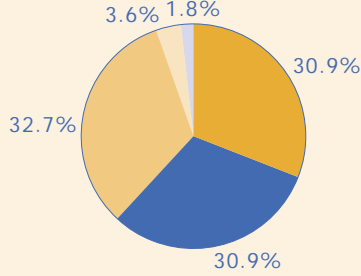
**Aerial Work**



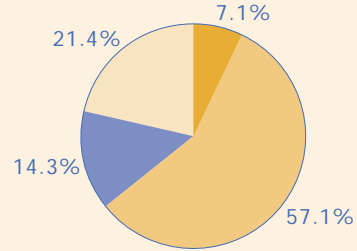
**Air Taxi**



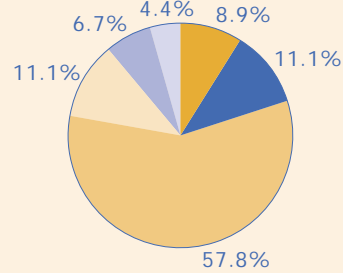
**Commuter**



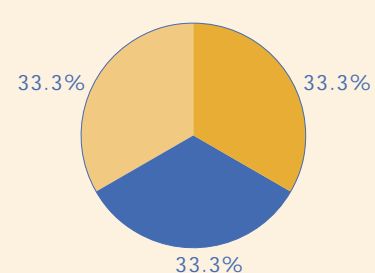
**Airline**



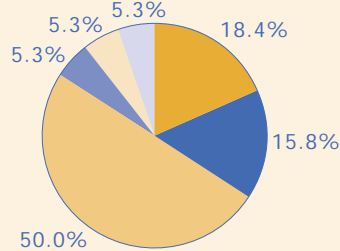
**Corporate**



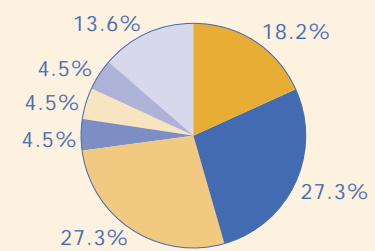
**Government**



**Cargo**



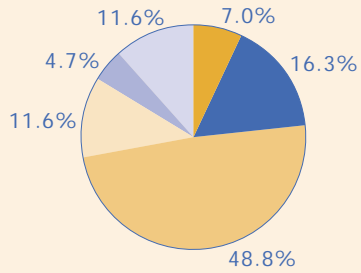
**Other**



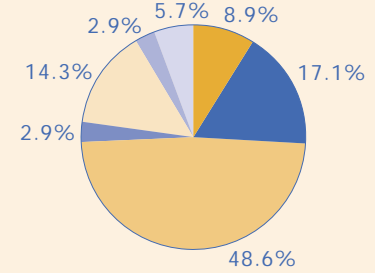
**Aeroplane**

**Aeroplane**

**Aerial Work**



**Air Taxi**



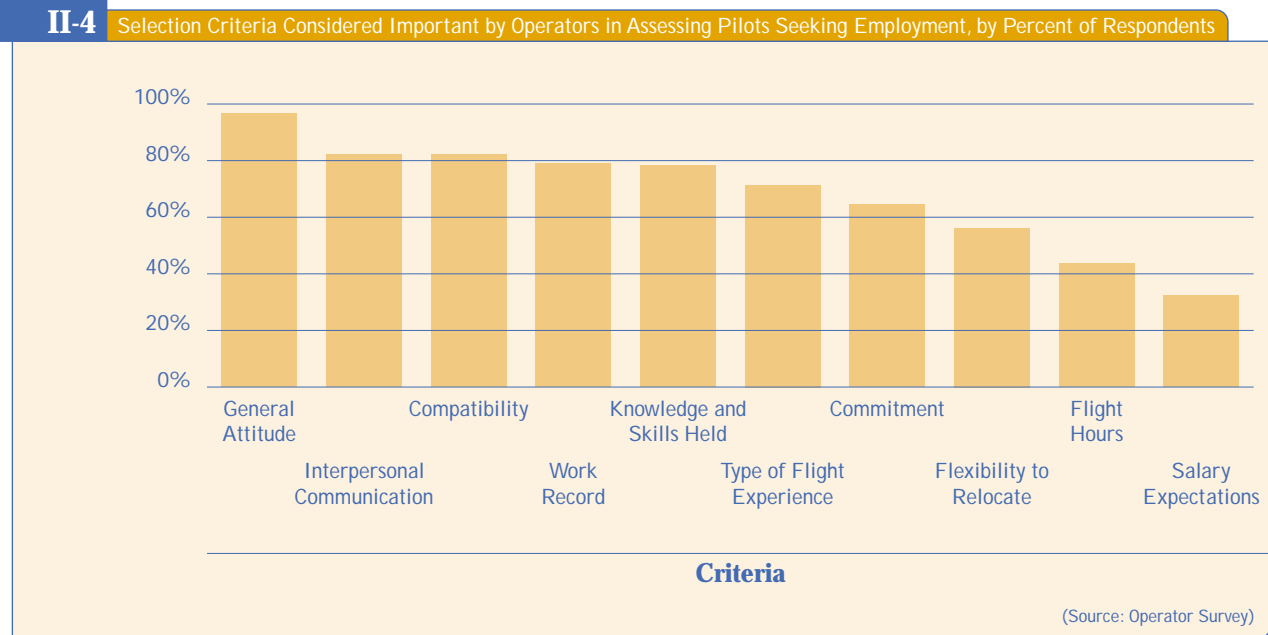
**Helicopter**

**Helicopter**



## D. Selection Criteria

The operator survey asked air operators to rate the importance of a number of criteria used in hiring pilots. Responses shown in Exhibit II-4 are based on a scale of 1 to 5, where 1 signifies “Not at all important”, 3 signifies “Moderately important”, and 5 signifies “Very important”. For each criterion, the corresponding percentage represents the percent of respondents who assigned it a rating of 4 or 5, (i.e. important to very important).



### Observations

- General attitude was the most important factor cited by operators in assessing new pilots seeking employment.
- Next in importance was interpersonal and communications skills and the pilot’s potential compatibility with the organization’s culture.
- Number of flying hours was rated as the second least important criterion.\*

*\* This surprising result may be explained in part by the profile of the respondents. Many were small operators that tended to recruit pilots with relatively low flying time. Another possible reason is that some air operators may consider flight hours to be an obvious prerequisite as opposed to a selection criterion per se. In other words, the minimum flight time threshold that the operator has set is deemed to be a basic qualification that the pilot must meet before selection criteria even come into play.*

*Although the amount of flying time is a key measure of a pilot’s overall experience for many in the industry, for some operators the type of flying experience is more important than the actual number of hours flown. For them and others, qualitative factors should be given equal weight. What kind of technical and personal skills does a pilot have? What type of flying has the pilot experienced? How many hours in command has the pilot flown? Said a chief pilot for one of Canada’s leading air operators, hours are important, but only as a qualifying bar. Beyond that, a pilot should be evaluated in terms of the type of experience recorded.*

More detailed insights by operators on the importance given seven of the hiring criteria is shown below.

*General Attitude* — Not one operator said this criterion was unimportant. Operators from every type of operations rated this criterion as either “high” or “very high”. Only a handful listed it as “moderate”.

*Interpersonal Communications* — No operator said it had “no importance”. Between 84% and 98% of operators from the airline, commuter, and air taxi sectors said this criteria was either “important” or “very important”. A slightly smaller percent, (75%), of aerial work operators gave it this rating.

*Compatibility* — Again, no one said it had no importance. A small percent, (10% to 25%), felt it had “moderate” importance. In the sectors examined, at least 80% of respondents felt “compatibility with an organization’s culture” was “important” or “very important”.

*Work Record* — Between 5% and 7% of aerial work and air taxi operators said this had little or no importance; about 14% said it had “moderate” importance, and about 80% said it was “important” or “very important” as a factor in hiring. By comparison, 100% of airline operators said work record was “important” or “very important”.

*Knowledge and Skills* — Surprisingly, 43% of airline operators said this only had “moderate” importance. (Presumably, these operators ranked it low in importance as a selection criterion, because they assume candidates coming to them have acquired all of the basic skills. Many airlines, prepared to do their own type-rating training, seem more interested in attitudes and interpersonal skills.) By comparison, operators from the aerial work sector placed a higher priority on assessing a candidate’s knowledge and skills — presumably, because many of these candidates fresh out of flight training have little or no work experience that can be used to ascertain their flying ability.

*Type of Flying Experience* — Airline operators placed more importance on this criterion than aerial work or air taxi operators.

*Number of Flying Hours* — Half of all airline operators said this was only “moderately important”; just over 37% said it was “important” or “very important”. Surprisingly, aerial work operators expressed a rather similar view. Almost 8% of air taxi operators said hours had only minor importance. (See comment on previous page.)

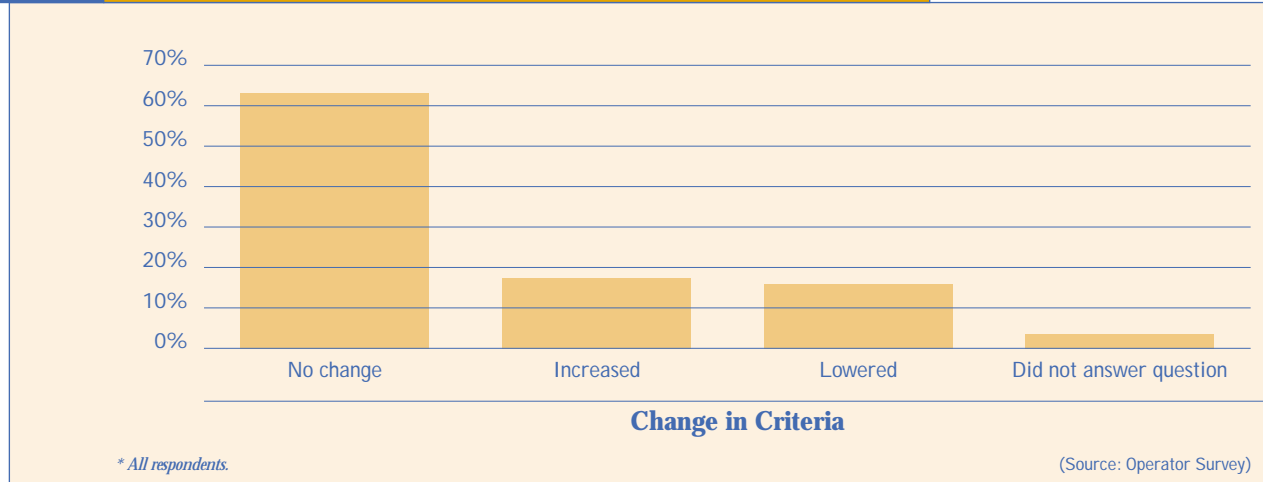
Comment

*It needs to be emphasized that the above analysis is based on aggregated responses. Individual operators may well place different levels of importance on the various criteria. In focus groups and interviews, some operators stressed factors such as ability to get along, corporate commitment and personality.*

## E. Hiring Criteria

The operators' survey asked air operators whether they had raised or lowered their hiring criteria in recent years. Exhibit II-5 below shows their responses to this question.

**II-5** Change in Hiring Criteria Used by Operators in Recent Years\*, by Percent of Respondents



### Observations

- In terms of educational requirements or years of flying experience, 17.4% of respondents to the operators' survey have raised, and 15.9% have lowered, their criteria in recent years.
- As reasons for lowering criteria, survey respondents cited lack of applicants meeting initial requirements and greater reliance on in-house training.
- As reasons for raising criteria, survey respondents cited more complex aircraft, safety, contract/insurance requirements, and customer demand. The latter two were most frequently cited.

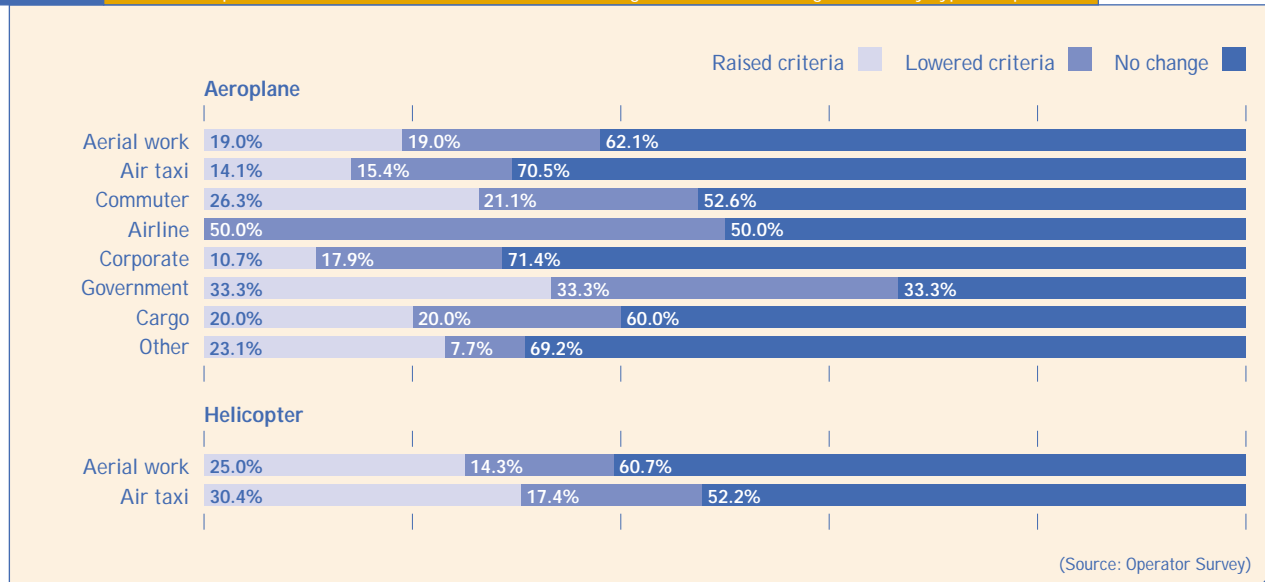
### Comment

*In focus groups, many operators noted a growing trend whereby, because of liability issues, customers were increasingly dictating pilot qualifications. Whereas in the past it was the operator who set standards, customers were increasingly influencing these operational decisions.*

Exhibit II-6 below shows the percent of operators who have raised, lowered or unchanged their basic hiring criteria, by type of operation.

**II-6**

Percent of Operators Who Have Raised, Lowered or Unchanged Their Basic Hiring Criteria, by Type of Operation



**Educational requirements at time of hiring**

Air operators were asked to identify, from a list, the required level of formal education for new pilots in their organizations. The following observations were derived from their responses.

- Some 43.5% of respondents to the operator survey indicated that they had established no minimum formal educational standard for commercial pilots entering their organizations.
- Slightly over one-third, (37.2%), required at least a high school level of education, and 12.6% required a college diploma or completion of some college courses.

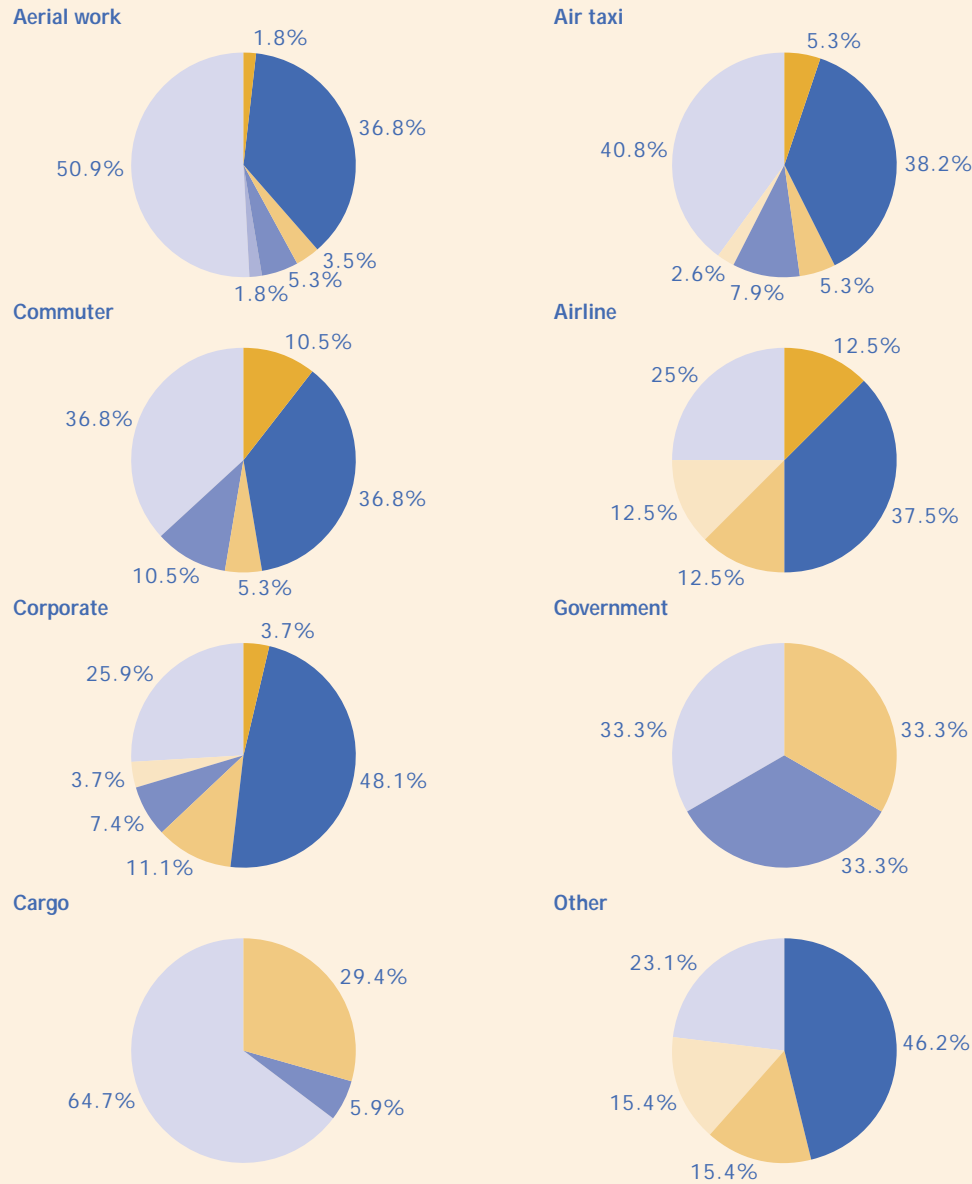
Information collected in focus groups and interviews was inconsistent with the survey results.

- Many operators indicated a preference for college and university graduates. One major airline representative noted that those having more formal education (especially in the physical science area) tend to progress better in their careers.
- In focus groups, air operators said they believed that college or university graduates would generally make better pilots because they had acquired more broad-based skills, especially non-technical skills. They did not believe, however, that a college or university education was a necessary requirement for flying an aircraft.
- For some air operators, the achievement of a higher level of education demonstrates responsibility on the part of a candidate.
- In focus groups, air operators gave the following additional reasons for favouring higher education: greater exposure to a computer environment; better teamwork habits and skills (increasingly relevant because of the growing importance of Crew Resource Management); and exposure to management practices.

Exhibit II-7 below provides more details on education requirements by type of operation for operators in the aeroplane sector.

**II-7** Showing Percent of Aeroplane Operators Who Require Various Levels of Formal Education for Pilots in Their Organization

Some High School    Completed High School    Some College    Graduated with College Diploma    Some University    Graduated with University Degree    No Formal Minimum Standard Established



(Source: Operator Survey)

**Other requirements at time of hiring**

The operator survey asked air operators to identify any other qualifications, such as ratings, required of new pilots in their organizations. The following observations were derived from their responses.

- Less than half of small to mid-size air operators (from both the aeroplane and helicopter sectors) required new pilots to have an instrument rating (40.8%);

only a third of air operators in the aeroplane sector responding to the survey indicated a requirement for a multi-engine rating.

- One out of five operators indicated a requirement for a specific aircraft rating; 18.9% look for a float rating.
- 21.9% of respondents required either an ATPL or an ATPL(H).

Comment

*In assessing the significance of the above findings, one should remember that the majority of respondents in the air operator survey represented small to mid-size operations.*

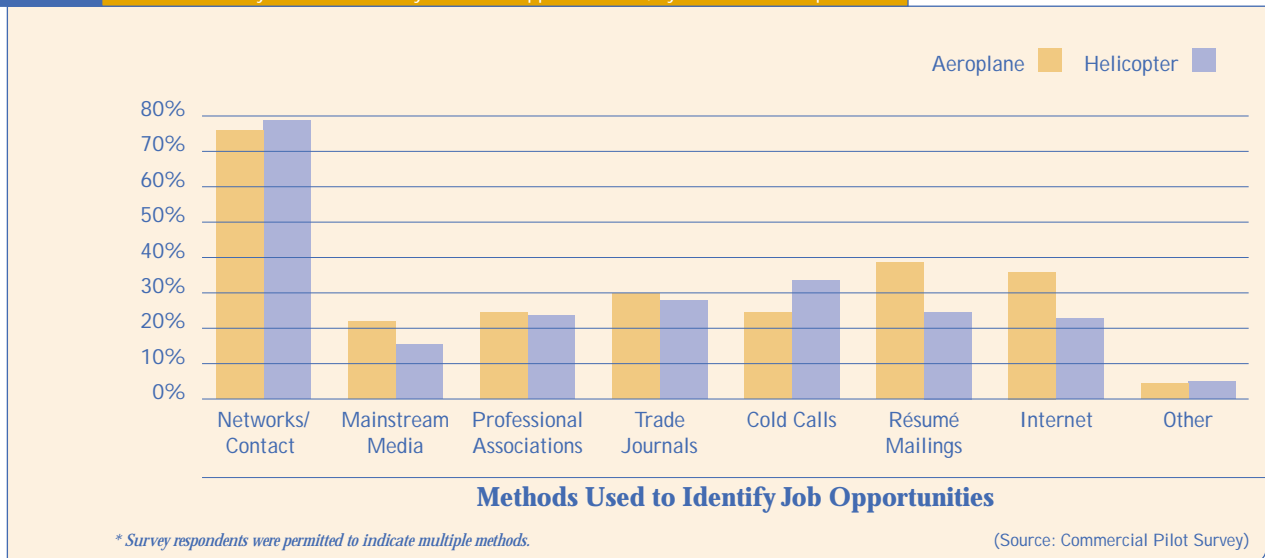
## F. Entry-Level Jobs

This section contains information on entry-level jobs, including means used by pilots to identify new job opportunities, location and type of work obtained, length of time it takes to secure a flying job after flight training, and what pilots think about their first jobs.

### Methods used to identify job opportunities

The pilot survey asked commercial pilots what methods they used to identify new job opportunities. Exhibit II-8 shows the responses to this question for both the aeroplane and helicopter sectors.

**II-8** Methods Used by Pilots to Identify New Job Opportunities\*, by Percent of Respondents



### Observations

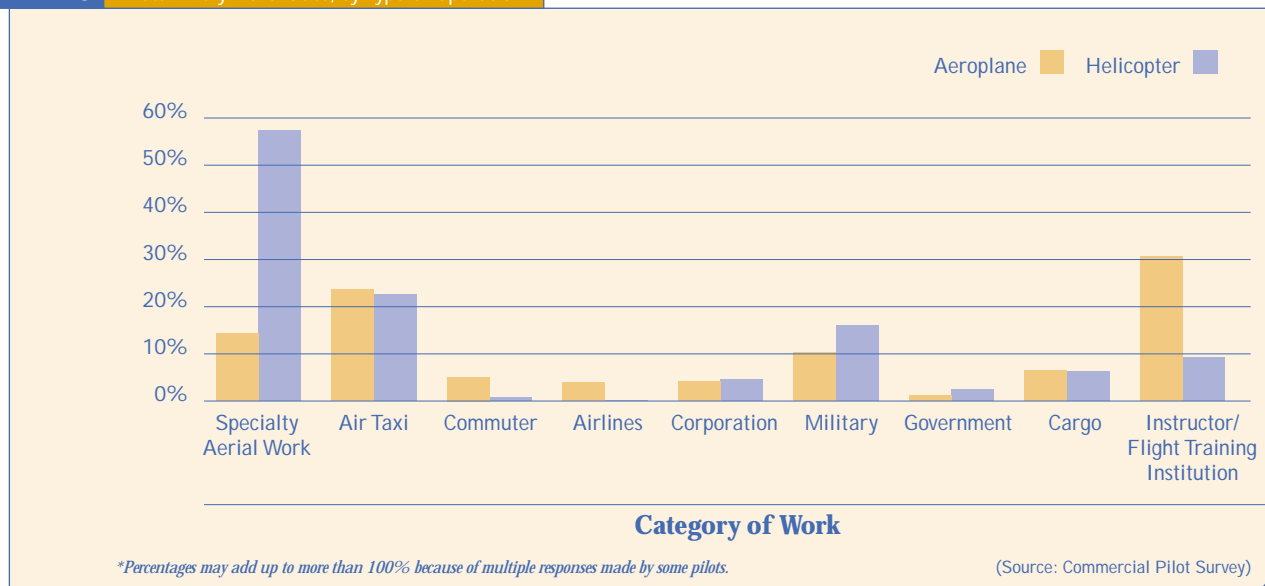
- The number-one method used by both aeroplane pilots (76.0% of respondents) and helicopter pilots (78.8% of respondents) was networks and contacts.
- A noticeably larger percentage of aeroplane pilots than helicopter pilots use résumé mailings and the Internet.
- Although the traditional “shotgun” approach of mailing out résumés to potential employers is still being used, the Internet is catching up with this more traditional method of job search.

- Responding to advertised job opportunities in media outlets appears to be utilized by only a small number of pilots.
- Among pilots who had received their licences within the last five years, “cold calls”, résumé mailings, and the Internet were the most common job search methods. For pilots who held a licence for 10 years or more, the use of professional associations, trade journals, and networks/contacts were the most common job search methods. Based on these findings, it would appear that search methods change with age and experience.

#### Categories of entry-level jobs

Commercial pilots were asked to identify the type of operation of their first job. Exhibit II-9 shows the responses to this question for both the aeroplane and helicopter sectors.

**II-9** Pilots’ Entry-Level Jobs, by Type of Operation\*

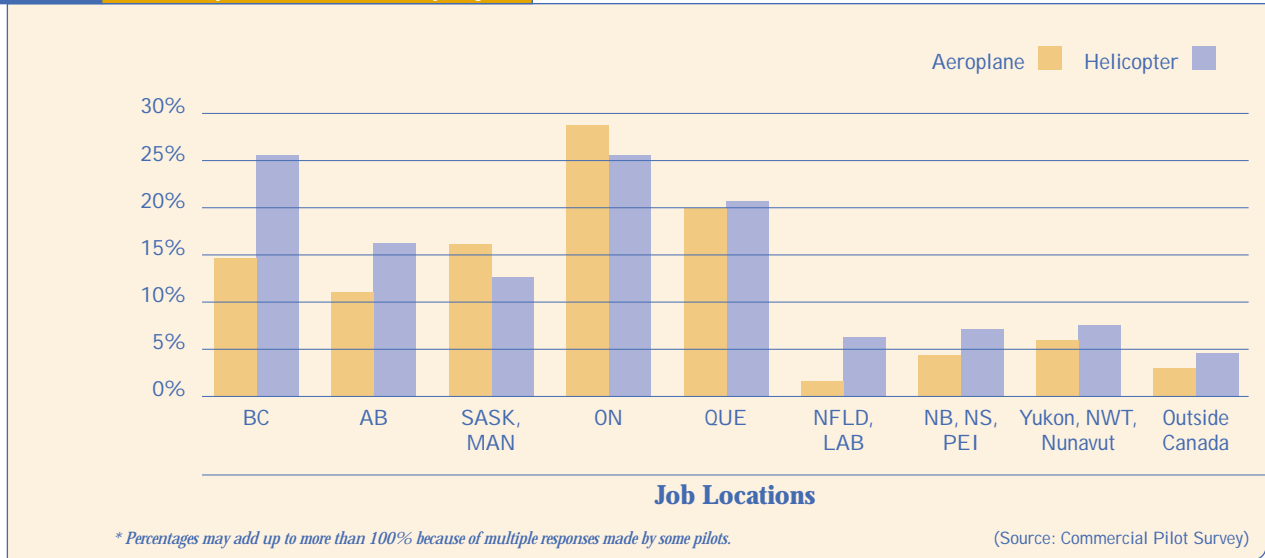


#### Observations

- In the case of aeroplane pilots, the largest percentage of respondents, (30.7%), found entry-level employment as flight instructors. In second place was air taxi work, (23.7%), and in third place, specialty aerial work, (14.3%).
- In contrast, the majority of helicopter pilots, (57.3% of respondents), entered the profession in specialty aerial work. Air taxi work placed second with 22.5% (similar to that for aeroplane pilots). Only 9.3% of responding helicopter pilots indicated that flight instruction was their first job.
- Although not shown in Exhibit II-9, pilots also identified the following entry-level jobs: bush-piloting, 2%; tourism/recreational, including skydiving, 0.8%; floatplane flying, 0.8%; and charter operations, 0.7%.

#### Location of entry-level jobs

The pilot survey asked commercial pilots in what region they had obtained their first job. Exhibit II-10 shows the response to this question for both the aeroplane and helicopter sectors.



**Observations**

- Aeroplane pilots found their first jobs most frequently in Ontario (28.8% of respondents), with Quebec placing second at 20.0% and British Columbia third at 14.7%.
- For helicopter pilots, Ontario and British Columbia shared the lead as locations for first jobs (each with 25.6% of respondents). Quebec was next in line with 20.7%.
- Northern Canada, comprising Yukon, Northwest Territories, and Nunavut, gave rise to only 7.6% and 6% of first jobs in the helicopter sector and aeroplane sector respectively.

**Comment**

*The percentages shown for northern Canada appear on the surface to be at odds with the widely held notion that many, if not most, pilots have to go north to find their first jobs. Although this study does not have overt evidence, presumably the numbers would increase substantially if the definition of “northern Canada” was broadened to include the northern part of most provinces.*

- A greater percentage of helicopter pilots, (4.6% of respondents), than aeroplane pilots, (3%), found their first jobs outside of Canada. The U.S. was the country most frequently identified as the location of first jobs outside of Canada. Other countries identified were Switzerland, France, Germany, Australia, and New Zealand.
- By operational category, the following are the regional leaders in location of first jobs for aeroplane pilots:  
*Specialty aerial* — Quebec, 26.5%; Saskatchewan/Manitoba, 18.4%;  
*Air taxi* — Ontario, 24.6%; Saskatchewan/Manitoba, 20.7%;  
*Commuter* — Northern Canada, 26.7%; Saskatchewan/Manitoba, 19.1%;  
*Airline* — British Columbia, 23%; Ontario, 18%;  
*Corporation* — Ontario, 28.4%; Quebec, 24.8%;  
*Military* — Ontario, 27.3%; Saskatchewan/Manitoba, 19.7%;  
*Government* — Ontario and Quebec, each with 26.7%;



*Cargo* — Ontario, 27.9%; Saskatchewan/Manitoba, 17.6%;  
*Instruction* — Ontario, 35.2%; Quebec, 19%; British Columbia, 17.7%;  
*Other* — Ontario, 40%; Saskatchewan/Manitoba, 16.4%.

- By operational category, the following are the regional leaders in location of first jobs for helicopter pilots:

*Specialty aerial* — British Columbia, 23.8%; Ontario, 20%;

*Air taxi* — British Columbia, 22.8%; Ontario, 20.7%;

*Commuter* — British Columbia, Ontario, and Newfoundland/Labrador,  
33% each;

*Airline* — Saskatchewan/Manitoba, 100%;

*Corporation* — Quebec, 26.3%; Ontario and Alberta, 21.1% each;

*Military* — Ontario, 22.7%; Alberta and Atlantic (NS/NB/PEI), 19.7% each;

*Government* — British Columbia, Ontario, and Newfoundland/Labrador,  
20% each;

*Cargo* — British Columbia, 26.9%; Alberta, 23.1%;

*Instructor* — Quebec, 26.3%; Ontario, 18.4%;

*Other* — Quebec, 24.1%; Ontario, 17.2%.

- In focus groups, pilots stated that for the most part they had been able to find entry-level jobs in their regions of choice, but finding a job in a preferred region often required a greater investment of time.

#### Comment

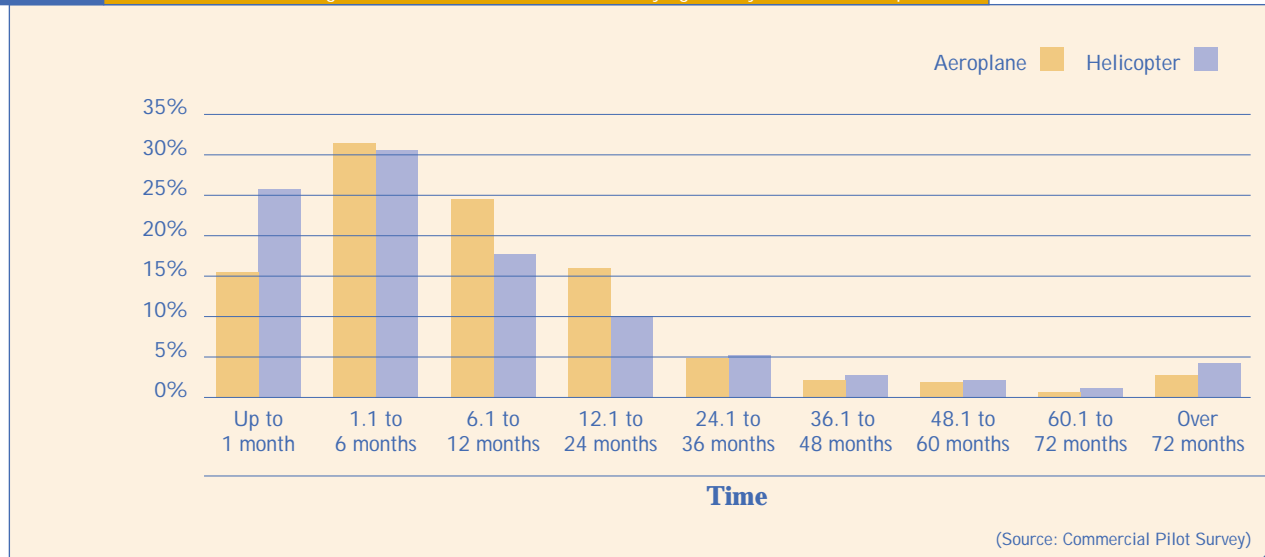
*Although the overall number of respondents reporting that their first job as a pilot was outside of Canada is small, the percent for certain sectors of the industry was rather significant. In the aeroplane sector, 15% of pilots whose first job was with an airline, obtained that job outside of Canada; and 10% of pilots whose first flying job was with a government, found that job abroad. For helicopter pilots, 7.6% of those finding their first job with the military, did so outside of Canada; 10.5% of first jobs as instructors were located abroad; and 10.3% of pilots obtaining various other type of work as a pilot, in terms of their first job, did so outside of Canada.*

## Time taken to obtain first job

Exhibit II-11 shows the percent of pilots taking various lengths of time to obtain their first job after acquiring a Commercial Licence.

### II-11

Time Between Obtaining a Commercial Licence and First Flying Job, by Percent of Respondents



#### Observations

- Remarkably, 15.5% of aeroplane pilot respondents and 25.8% of helicopter pilot respondents claimed to have obtained their first job within one month of having earned their Commercial Licence.
- Within 12 months, 71.4% of aeroplane pilots and 74.1% of helicopter pilots had obtained an entry-level position.

#### Comments

*On a regional basis in the aeroplane sector, approximately 60% of pilots from Newfoundland and the Prairies, 54% of Quebec pilots, and 48% of British Columbia pilots found their first jobs within a period of one to six months. Alberta had the lowest percentage of pilots (only 36%) who were able to obtain their first job within six months.*

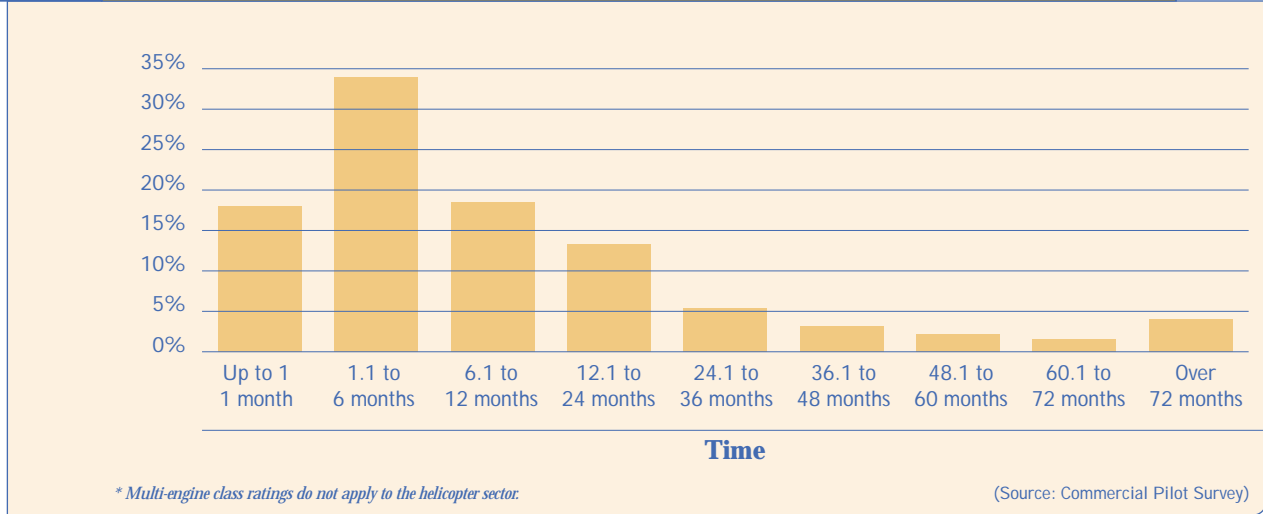
*In the helicopter sector, pilots in Quebec and Newfoundland were the most successful in obtaining first jobs within six months, (66% of respondents within those provinces). Quebec pilots had the highest success rate, (85%), at finding first jobs within 12 months, with British Columbia and Alberta pilots taking second and third place. Helicopter pilots in the Prairies and Atlantic regions were the least successful in obtaining entry-level positions within a year.*

## G. Instrument Ratings

### Time taken to obtain ratings and ATPL

The pilot survey asked aeroplane pilots how long it had taken from the time of obtaining a Commercial Licence to the time they earned a multi-engine class rating. Exhibit VI-12 shows their responses.

**II-12** Time Taken to Obtain Multi-Engine Class Ratings After Obtaining a Commercial Licence\*, by Percent of Respondents

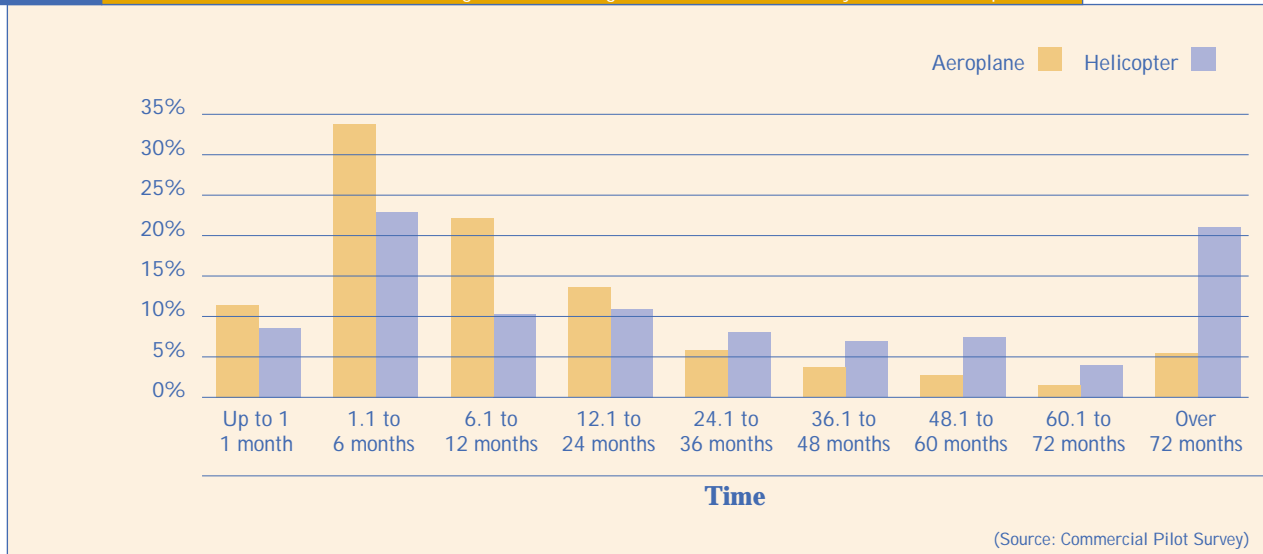


### Observation

- Some 52% of aeroplane pilot respondents obtained their multi-engine class ratings within six months of receiving their Commercial Licences.

Next, the pilot survey asked pilots how long it had taken from the time of obtaining a Commercial Licence to the time of acquiring an instrument rating. Exhibit II-13 shows the responses to this question for *both* aeroplane and helicopter pilots.

**II-13** Time Taken to Obtain Instrument Rating After Obtaining a Commercial Licence, by Percent of Respondents



Observation

- About 45% of aeroplane pilots and 31.5% of helicopter pilots responding to this question obtained their Instrument Rating within six months of obtaining their Commercial Licence.

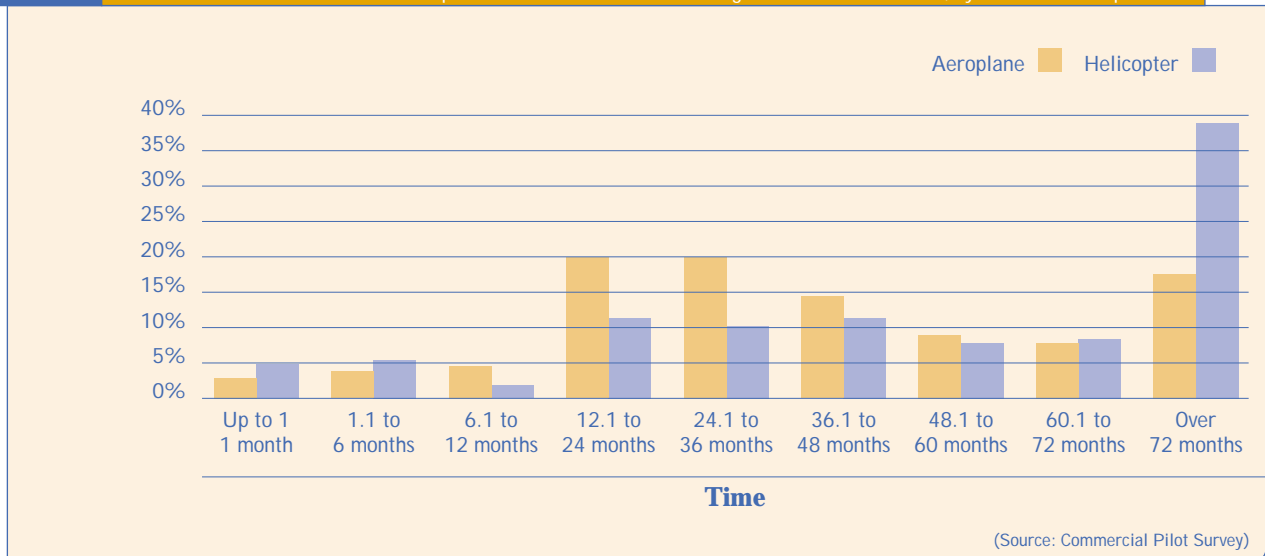
Comment

*About 30% of the pilots responding to the survey did not answer this question. It is left to speculation as to whether they could not recall the length of time taken or whether they, in fact, had not obtained an Instrument Rating.*

Time taken to obtain an ATPL

The pilot survey asked pilots how long it had taken after receiving a Commercial Licence to obtain an Air Transport Pilot Licence. Exhibit II-14 shows the responses to this question for both aeroplane and helicopter pilots.

**II-14** Time Taken to Obtain an Airline Transport Pilot Licence After Obtaining a Commercial Licence, by Percent of Respondents



Observations

- About 32% of aeroplane pilots responding to this question indicated that they had obtained an ATPL within two years of obtaining a Commercial Licence; a little more than half, (approximately 52%), had their ATPL within 3 years.
- By contrast, 39% of helicopter pilot respondents had not obtained an ATPL after six years.

Comment

*Only about half of the helicopter pilots taking part in this survey responded to this question, most likely because they had not yet obtained an ATPL(H).*

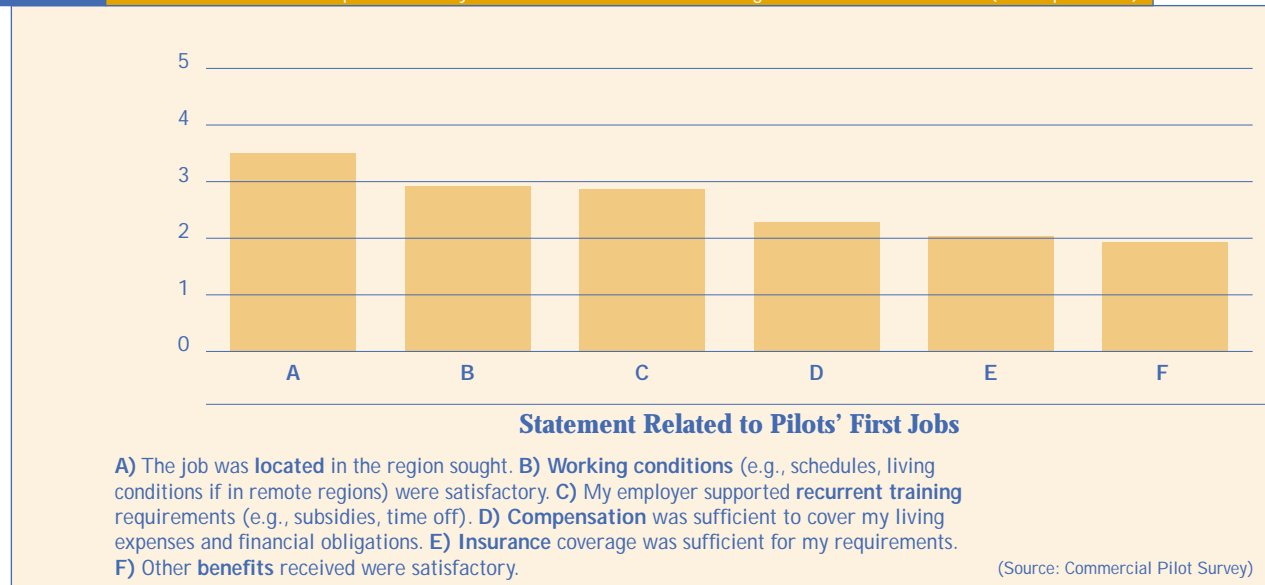
*Many helicopter pilots never obtain an ATPL(H) as the demand for such licences is lower in the helicopter sector than in the aeroplane sector. Most helicopter operations are in the aerial specialty and air taxi categories (i.e., non-airline operators), where ATPLs are not required.*

## H. Pilots' Opinions of First Flying Jobs

The pilot survey asked commercial pilots to give their views on various aspects of their first job as pilots by specifying levels of agreement with given statements. Exhibit II-15 presents responses to this question in the form of mean levels of agreement using a 5-point scale, where 1 represents “Strongly Disagree”, 3 represents “Neither Agree nor Disagree”, and 5 represents “Strongly Agree”.

### II-15

Pilot Views on Various Aspects of Entry-Level Jobs — Mean Level of Agreement with Statement (all respondents)

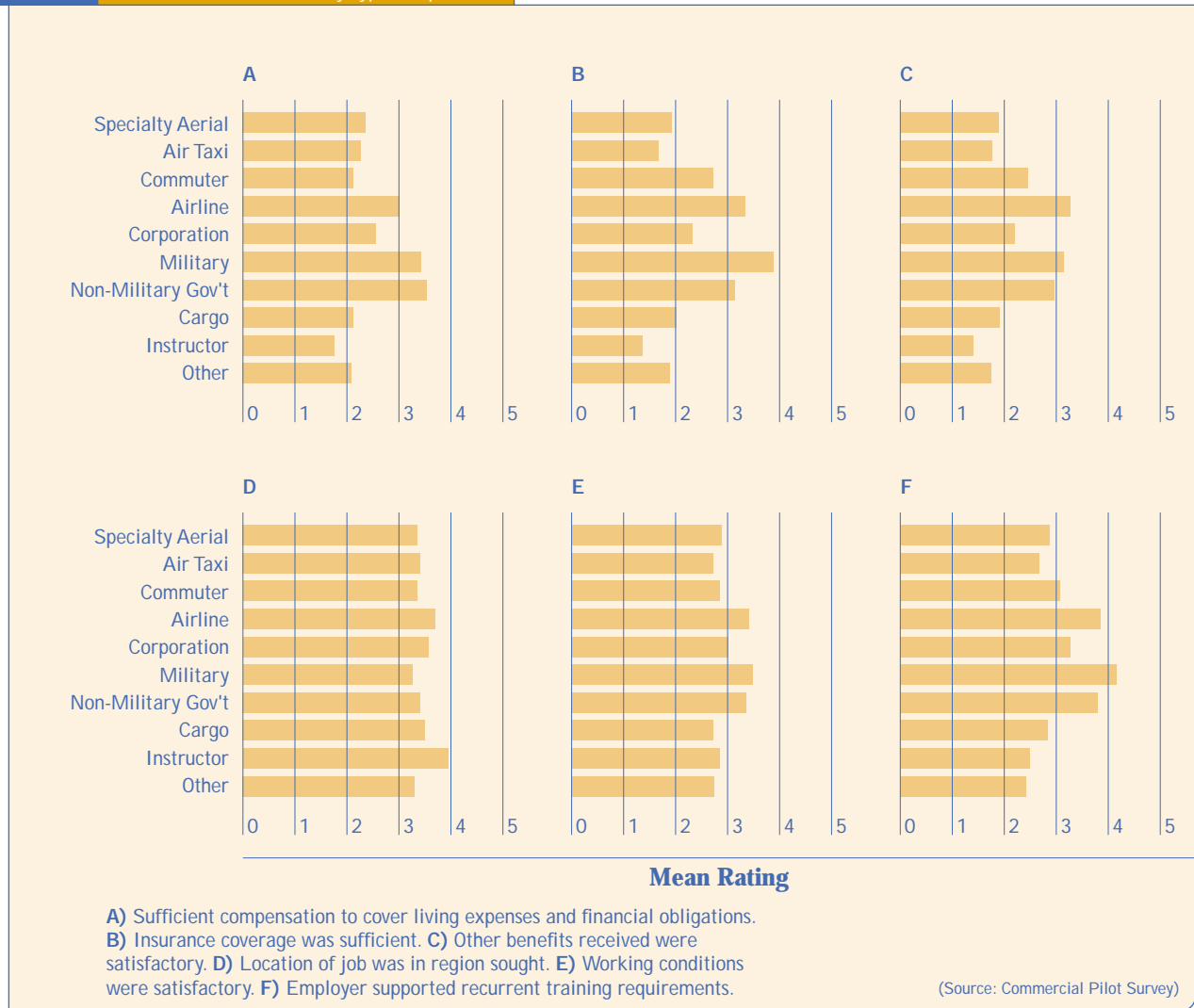


#### Observations

- On average, respondents rated benefits, insurance coverage, and compensation as the least satisfactory aspects of their first job as commercial pilots.
- Although not all entry-level jobs had been located in the pilot's preferred region, job location was on average given the highest rating of satisfaction among the various aspects considered.

Exhibit II-16 breaks down the information in Exhibit II-15 by category of operation. Numbers shown represent the mean rating given each item by pilots responding for that particular operation. Based on a 5-point scale where 1 represents “Strongly Disagree”, 3 represents “Neither Agree nor Disagree” and 5 represents “Strongly Agree”.

**II-16** Pilot Views on First Jobs, by Type of Operation



**Observations**

- Of all respondents, pilots whose first jobs had been as a flight instructor gave the lowest ratings to compensation, insurance coverage, and benefits, and the highest satisfaction rating to job location. (As an entry-level job, most new pilots working as a flight instructor would likely be at the Class 3 or Class 4 Instructor levels. Remunerations at these levels are significantly less than those typically paid more senior instructors.)
- Pilots whose first jobs had been in the military or the government were the most satisfied with compensation, insurance coverage, and benefits.
- Overall, pilots whose first jobs had been with airlines tended to rate all aspects higher than most other respondents.

Comments

*Though many pilots rated the benefit coverage of their first jobs as poor, some operators indicated that younger pilots tended to show less interest in benefits such as pension plans if such benefits required a trade-off in the amount of salary offered.*

*Focus group participants held mixed views on the merits of new pilots “paying their dues” in terms of working conditions and work demands encountered at the start of their careers. On the one hand, some maintained that the “pay-your-dues” experience provides pilots with the opportunity to learn “real piloting” and problem-solving skills and helps to filter out those not dedicated to the profession. Others felt the “pay-your-dues” experience to be unnecessary, given that the work involved in entry-level jobs was usually quite different from the work in an airline operations environment.*

I. Career Mobility

Frequency of changing jobs

The pilot survey asked pilots to indicate the number of times they had moved between employers in their piloting careers. Exhibits II-17 and II-18 show the responses to this question, categorized by years of piloting experience, for the aeroplane and helicopter sectors respectively.

**II-17** Number of Moves between Employers, by Years of Experience — Aeroplane Pilots

Number of Moves	Years of Experience			
	Up to 1 year	1.1 to 5 years	5.1 to 10 years	Over 10 years
16 +	0	0	0	42
11-15	0	0	0	83
6-10	0	14	29	325
5	0	14	23	177
4	6	21	58	242
3	0	77	87	242
2	18	91	75	125
1	12	56	41	107
0	24	49	29	42
Average	1.2	2.3	3.0	5.3

(Source: Commercial Pilot Survey)

## II-18

### Number of Moves between Employers, by Years of Experience — Helicopter Pilots

Number of Moves	Years of Experience			
	Up to 1 year	1.1 to 5 years	5.1 to 10 years	Over 10 years
16 +	0	0	0	4
11-15	0	0	1	10
6-10	0	2	10	58
5	0	3	6	29
4	0	4	10	32
3	2	10	12	42
2	2	9	9	24
1	4	11	7	23
0	3	6	3	12
Average	1.4	2.3	3.8	4.6

(Source: Commercial Pilot Survey)

#### Observations

- On average, respondents with less than one year of experience had moved at least once between employers (1.2 moves for aeroplane pilots, 1.4 for helicopter pilots).

Of the 60 aeroplane pilots who responded to this question with less than one year experience as a commercial pilot, 24 reported that they had not changed employer; 12 had changed once; 18, twice; and 6 actually claimed to have changed employer 6 times.

- Three moves was the most common number of moves made by aeroplane pilots responding to this question.
- Three was also the single most frequent number of moves made by helicopter pilots. However, as with aeroplane pilots, many reported much higher frequencies — some as high as 16 or more moves in the course of their careers.
- As pilots progress in their career, the average number of moves a pilot has made declines as a function of time.

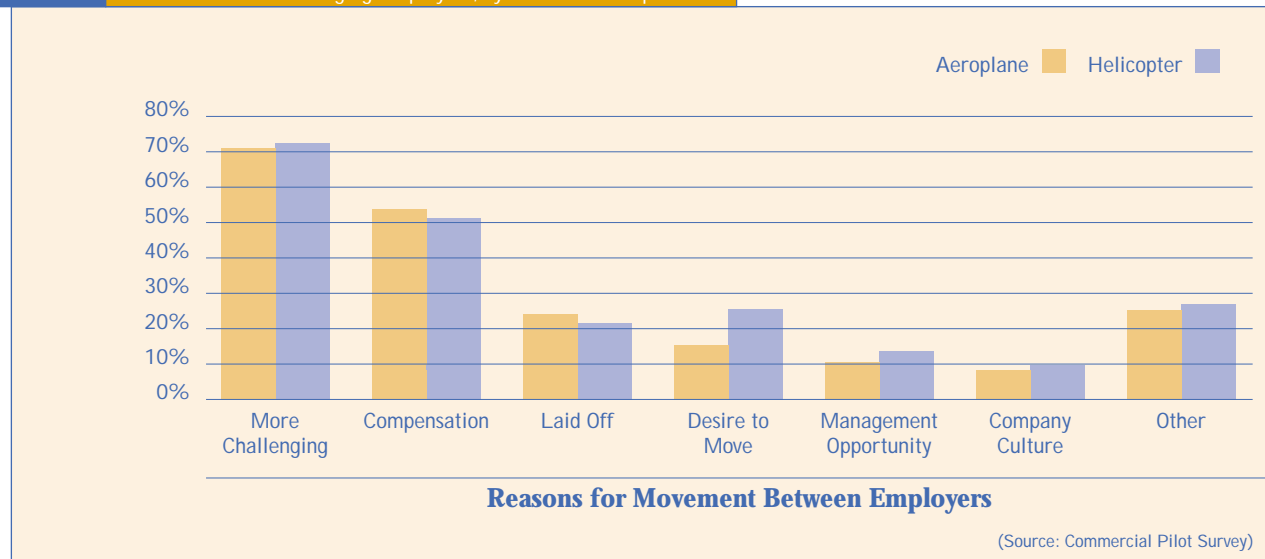
#### Comment

*In part, this latter point can be explained by the fact that working conditions tend to improve as pilots progress in their careers, reducing the incentive to change employers. In addition, once pilots enter a unionized environment, they enter a seniority system that creates an inducement for remaining with an employer.*

#### Reasons for changing jobs

The pilot survey asked commercial pilots to identify, from a list, the reasons for their moves between employers. Exhibit II-19 shows the responses to this question for both the aeroplane and helicopter sectors.





#### Observations

- Both aeroplane and helicopter pilots identified the same two main reasons for moving between employers: (1) pursuit of more challenging/varied opportunities elsewhere and (2) better compensation.
- Other reasons frequently identified were company bankruptcy, corporate re-structuring and transfers, military requirement, advancement to a “bigger and faster airplane”, better quality of life and working conditions, expiry of a seasonal position, poor equipment or maintenance, and safety issues.

#### Willingness to change location

The pilot survey asked pilots whether they would be willing to move to another region of the country to advance their careers or seek employment as a pilot and whether they would consider accepting a flying job with a foreign-based carrier or a Canadian-owned operation based abroad. The following observations derive from the responses to these questions.

- Respondents appeared to be very mobile, with 70.1% of aeroplane pilots and 64.9% of helicopter pilots indicating a willingness to move to another region of the country.
- Not surprisingly, willingness to move declined with age and with increased family commitments. The vast majority (91.0%) of respondents aged 30 years or less were willing to move, compared with 68.4% of those aged 31 to 50, and only 43.5% of those over 50.
- The willingness of pilots to relocate to other regions of the country is matched, to some extent, by a willingness to relocate abroad. Responses show that 67.8% of aeroplane pilots and 75.4% of helicopter pilots may be prepared to consider accepting a job with a foreign-based carrier or a Canadian-owned operation based abroad. Again, willingness declined with respondents' age, with 87.7% of respondents aged 30 years or less saying they would consider such an offer, versus 69.8% of those aged 31 to 50, and 55.5% of those over 50.

Comment

*By itself, this response would suggest that Canada is potentially at risk of losing many of its pilots, especially if U.S. work visa restrictions are eased for commercial pilots. See the following, however, for some offsetting considerations.*

*Reportedly, one reason pilots are said to contemplate a move to another country is a feeling that governments in Canada do too much intervention and impose relatively high tax regimes.*

The following insights derive from focus group discussions with pilots and flight students and interviews with industry stakeholders.

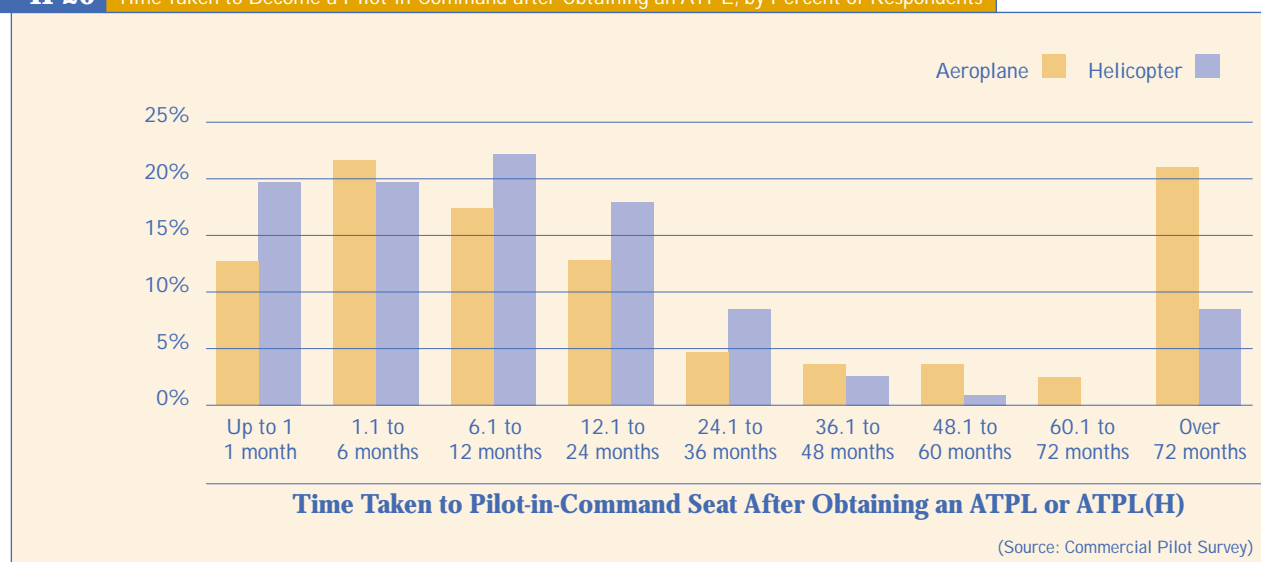
- Despite indicating a willingness to move, pilots in focus groups expressed concerns that working abroad would mean loss of seniority in Canada. Pilots returning to Canada after working abroad would be required to begin again at the lowest seniority ranks.
- Pilots and flight students also expressed concern about the possibility of poor working and living conditions in some countries. While recognizing foreign experience as an excellent opportunity for career development, many were also concerned about different standards of safety and cultural differences and practices.
- Currently, “Green Card” restrictions are the most significant impediment for a Canadian pilot considering a move to the U.S. Because the NAFTA agreement does not list the commercial pilot profession as a preferred occupation, it is currently difficult for a Canadian pilot to obtain a working permit in the U.S.
- The “transferability” of pilot licences varies according to country. Some countries recognize Canadian licences, others do not. The European community makes it very difficult for external pilots to be employed with European air operators. This is in large measure a political issue that has been sparking a lot of debate, especially with U.S. authorities. Although the future is less than clear, the world of aviation is in some quarters expressing an increasing interest in creating a standardized commercial pilot licence to allow more mobility and flexibility in the industry. Creating a widely recognized standard would, according to proponents, promote safety and labour mobility and possibly expand markets for flight training institutes.

## J. Career Advancement

### Time taken to become a Pilot-in-Command

The pilot survey asked commercial pilots approximately how long it had taken after obtaining an Airline Transport Pilot Licence to become a Captain/Pilot-in-Command. Exhibit II-20 shows the responses to this question for both the aeroplane and the helicopter sectors.

**II-20** Time Taken to Become a Pilot-in-Command after Obtaining an ATPL, by Percent of Respondents



#### Observations

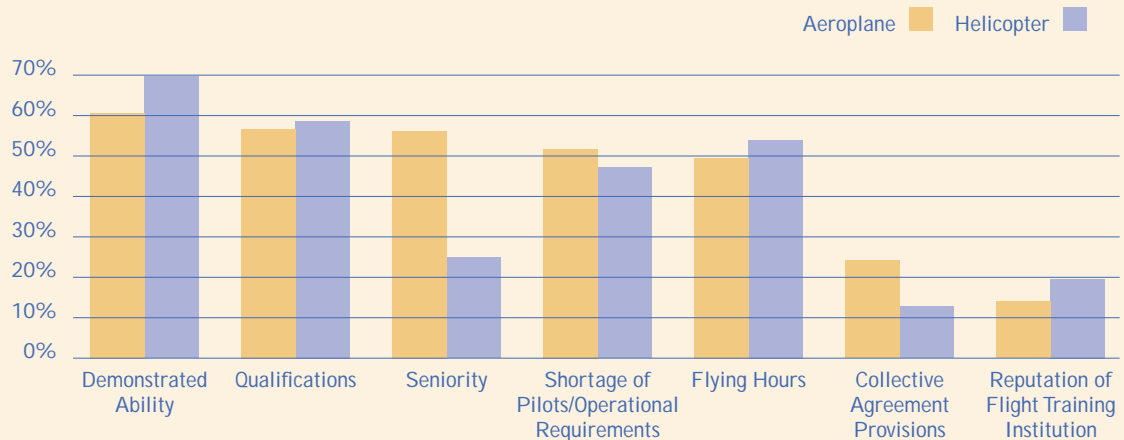
- Just over half of aeroplane pilots and slightly more than 6 out of 10 helicopter pilots had moved to a Pilot-in-Command position within 12 months of obtaining an ATPL.

#### Comment

*Typically, the time taken to progress to a Pilot-in-Command position is relatively short for pilots working in the commercial general aviation segment of the industry (e.g., specialty aerial work or air taxi operations) or in the helicopter sector. Such pilots often assume command very early in their careers since most helicopters and many of the aeroplanes operating in the commercial general aviation segment are single-crew aircraft.*

#### Factors affecting progress to a command position

The pilot survey asked pilots to rate the significance of certain factors affecting time taken to progress to the position of Captain/Pilot-in-Command. Exhibit II-21 shows the responses to this question for both the aeroplane and the helicopter sectors.



### Factors Affecting Time Taken to Progress to Pilot-in-Command Position

\* Responses are based on a scale of 1 to 5, where 1 represents "Not at all significant", 3 represents "Moderately significant", and 5 represents "Very significant". For each given factor, the corresponding percentage is based on the number of respondents who assigned ratings of 4 or 5.

(Source: Commercial Pilot Survey)

#### Observations

- In both the aeroplane and the helicopter sectors, the factor considered most significant by the largest percent of respondents was demonstrated ability. Qualifications was close second. The factors rated significant to very significant by the lowest percent of pilots were collective agreement provisions and the reputation of flight training institute where the pilot received his or her training.
- More than twice the percentage of aeroplane pilots, (56.2%), than of helicopter pilots, (24.9%), rated seniority as a very important factor.

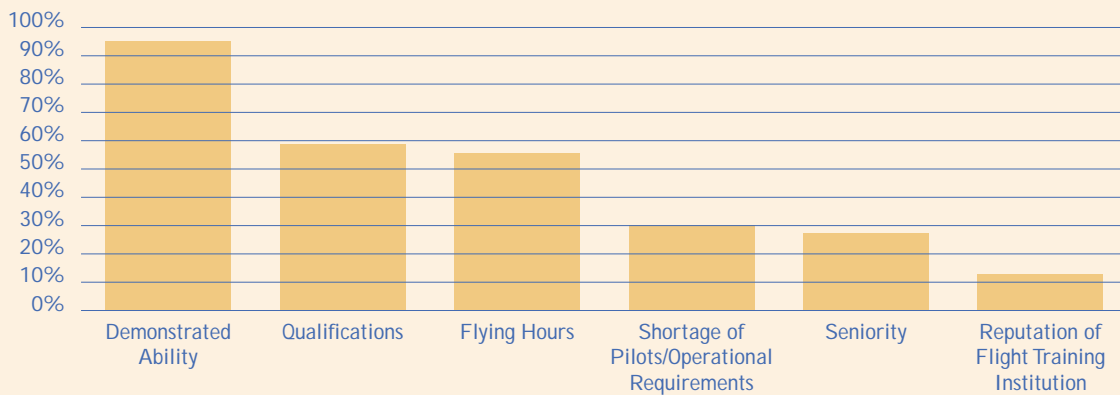
#### Comment

*This latter point may be due to the fact that more aeroplane pilots than helicopter pilots are covered by collective agreements that provide for seniority clauses. In addition, because many helicopter pilots fly single pilot, factors like seniority have less relevancy.*

The operator survey asked air operators to rate the significance of the same factors rated by pilots. Exhibit II-22 summarizes their responses.

## II-22

Key Factors Affecting Time Taken to Progress to Pilot-in-Command Position — Operators' Perspective\*, by Percent of Respondents



### Factors Affecting Time Taken to Progress to Pilot-in-Command Position

\* Responses are based on a scale of 1 to 5, where 1 represents "Not at all significant", 3 represents "Moderately significant", and 5 represents "Very significant". For each given factor, the corresponding percentage is based on the number of respondents who assigned ratings of 4 or 5.

(Source: Operator Survey)

#### Observations

- Over all, the operators tended to rank the given factors in the same order of importance as pilots.
- The main differences in the operators' response compared to those made by pilots occurred at the two extremes. A significantly higher percent of operators rated demonstrated ability as the most significant factor; a considerably smaller percent rated the reputation of the pilot's flight training institution as significant or very significant.

#### Comment

*In focus groups, some air operators expressed somewhat mixed views about the significance of a pilot's training institution. Although many felt it was not significant, there were others who drew distinctions in the type of training institute attended by the pilot.*

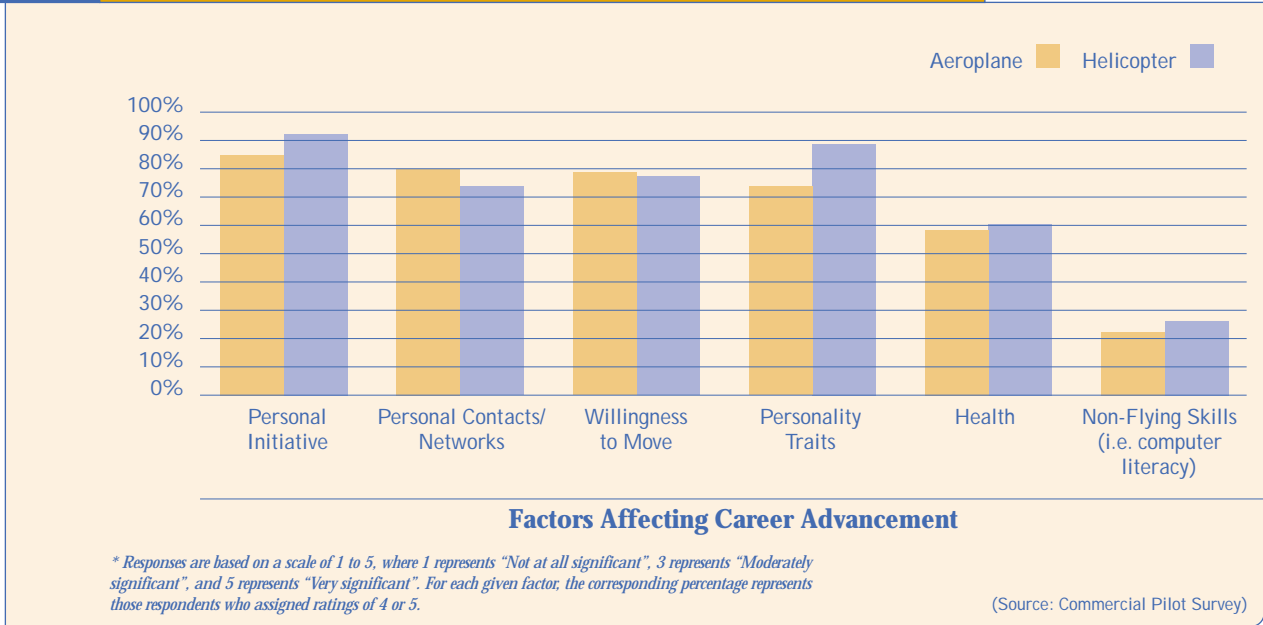
*In any case, it would appear that to whatever extent the reputation of a pilot's training institution may influence an air operator's decision to hire at entry level, this factor tends to diminish in importance as the pilot progresses through his or her career.*

#### Other factors affecting career advancement

The pilot survey asked pilots to rate the significance of certain other factors in career advancement. Exhibit II-23 shows the responses to this question for both the aeroplane and the helicopter sectors.

**II-23**

**Other Factors Affecting Career Advancement — Pilots' Perspective\*, by Percent of Respondents**



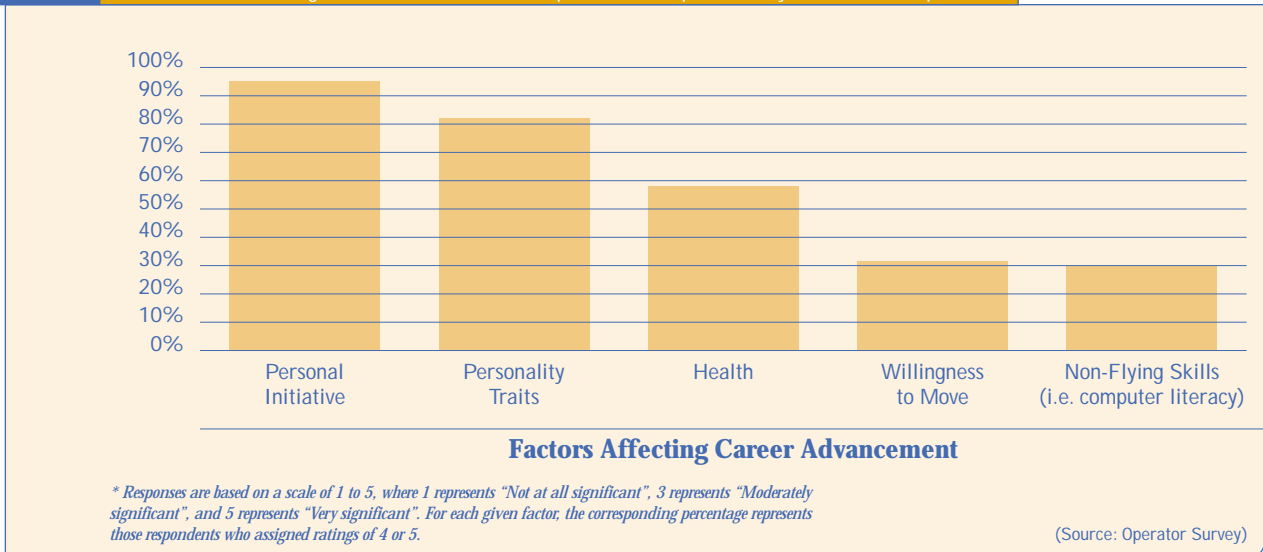
**Observations**

- In both the aeroplane and the helicopter sectors, the vast majority of respondents rated personal initiative as the most significant factor in career advancement among all of the factors presented in this question. The vast majority also rated contacts/networking, willingness to move, and personality traits as either significant or highly significant factors.
- Relatively few pilots rated non-flying skills such as computer literacy as a significant factor or very significant factor.

The operator survey asked air operators to rate the significance of these same "other factors" in career advancement. Exhibit II-24 summarizes their responses.

**II-24**

**Other Factors Affecting Career Advancement — Operators' Perspective\*, by Percent of Respondents**



### Observations

- Operators tended to agree with pilots on the high significance of personal initiative and personality traits and the relatively low significance of non-flying skills (e.g., computer and administrative skills).
- A considerably smaller percent of operators than pilots rated willingness to move as a significant or very significant factor in career advancement.
- For both operators and pilots, health was rated low relative to most other factors, possibly in large part because health was an issue only for a very small number of respondents. Almost all pilot respondents, (97.9%), reported holding a valid medical certificate.

### Comment

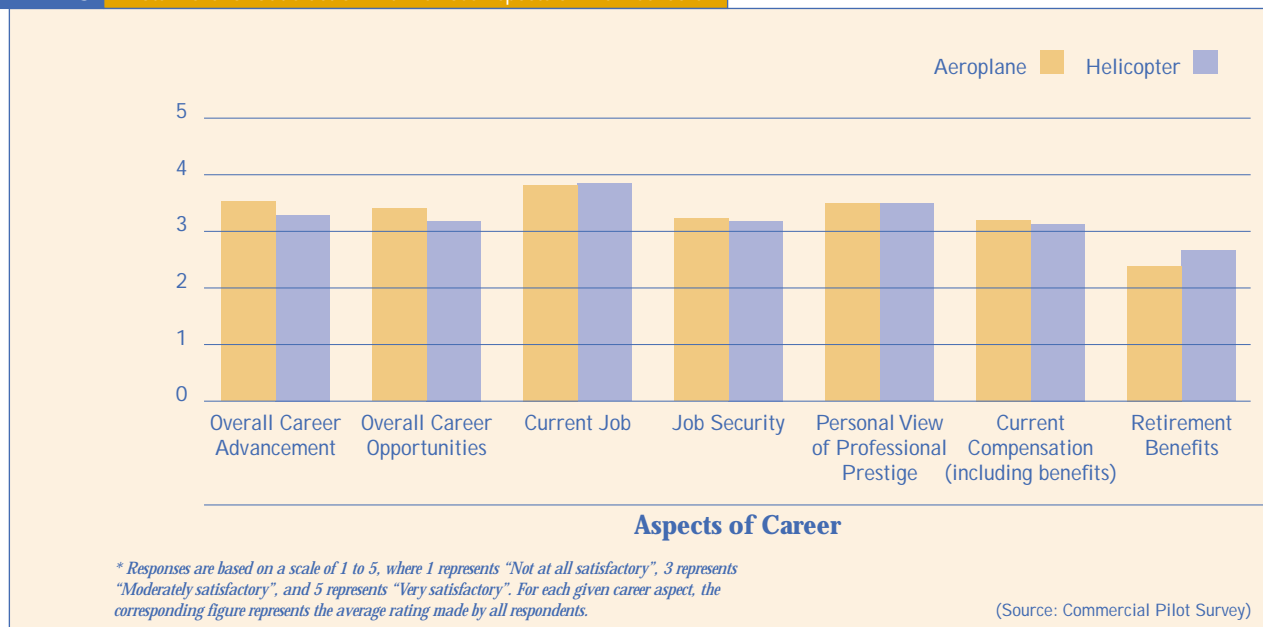
*Nevertheless, the impact of health-related problems on a pilot's career was a subject of some discussion in the focus groups of both pilots and operators. A few participants cited fatigue as a health-related issue for pilots.*

## K. Career Satisfaction

### Satisfaction with career aspects

The pilot survey asked pilots to rate their levels of satisfaction with certain aspects of their careers. Exhibit II-25 shows the responses to this question for both the aeroplane and the helicopter sectors.

**II-25** Pilots' Level of Satisfaction with Various Aspects of Their Careers\*



### Observations

- In general, commercial pilots in Canada appear to be at least moderately satisfied with most aspects of their careers. On average, respondents in both the aeroplane and the helicopter sectors assigned ratings of between 3 and 4, (3 representing "moderately satisfactory"), to six of the seven career aspects listed.

- The exception was the aspect of retirement benefits, which both aeroplane pilots and helicopter pilots rated as less than satisfactory.

Comment

*As the next few pages will show, the averages presented in Exhibit II-25 mask a real variance in the responses received from pilots in specific situations or at specific career stages.*

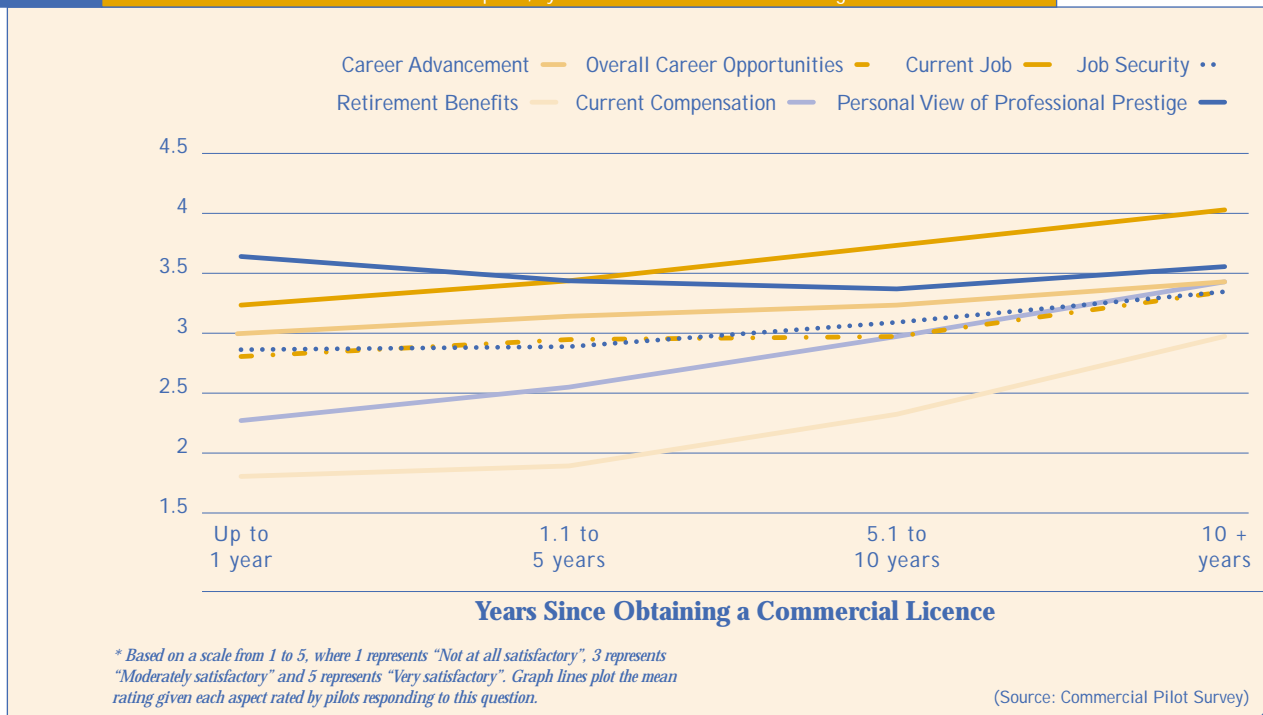
The following insights on career satisfaction derive from focus group discussions with pilots.

- Organized pilots and pilots with extended flying experience tended to describe their working conditions in more favourable terms. Pilots covered by collective agreement have a wide range of benefits, entitlements and working conditions established through negotiations.
- Some pilots voiced dissatisfaction with:
  - the lack of recognition for seniority in transferring between employers; pilots sometimes lose seniority and have to start again from the bottom of the pay scale;
  - the willingness of some pilots to “work for nothing” to get flight time; and
  - long hours with insufficient time off.<sup>2</sup>
- Notwithstanding the various shortcomings and concerns expressed by pilots about their profession, many pilots in the focus groups indicated that they would not trade their profession for any other. The “love of flying” often emerged as the key reason.

Exhibit II-26 breaks down the preceding satisfaction levels by pilots’ years of experience since obtaining a Commercial Licence.

**II-26**

Pilots’ Level of Satisfaction with Career Aspects, by Number of Years Since Obtaining Commercial Licence \*



<sup>2</sup> Fatigue is an occupational concern for many pilots due to scheduling, operational demands, and circadian rhythm factors in the industry.

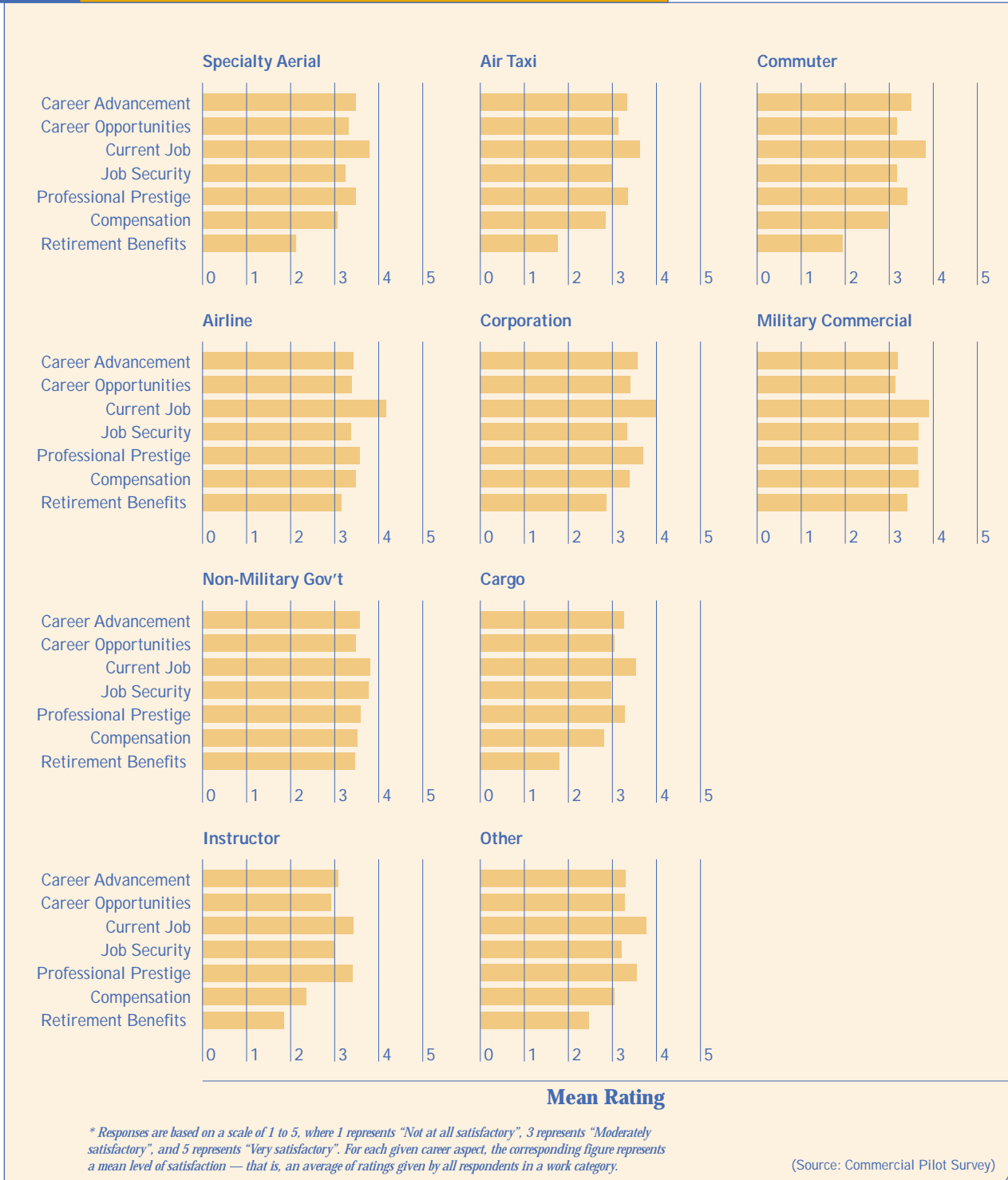


#### Observations

- It is clear that, in general, pilots' satisfaction with most aspects of their careers increases steadily with their years of experience after obtaining a Commercial Licence.
- Satisfaction with compensation and retirement benefits increases more dramatically than satisfaction with career advancement and job security. The latter two start from a very low point.
- The single exception to the trend of increasing satisfaction is the aspect of the pilot's personal views on professional prestige. It starts relatively high, but then tends to fall during the first 10 years of a pilot's career.
- Satisfaction with "current job" held was rated relatively high throughout all years of experience, and received the highest rating by pilots with 10 or more years of experience.

Exhibit II-27 breaks down the preceding satisfaction levels by category of work.

**II-27** Pilots' Level of Satisfaction with Career Aspects, by Current Type of Operation\*



**Observations**

- Based on the survey responses, it appears most pilots in every operational category are generally content — in an overall sense — with their current jobs.

- Airline pilots appear to be the most satisfied with their current jobs, with an average satisfaction rating of 4.16, followed closely by corporate pilots with a rating of 4.00. Flight instructors appear to be the least satisfied with their current jobs, though their average satisfaction level of 3.43 is still above the rating of “moderately satisfactory”.
- Pilots in the air taxi, cargo, instruction, and commuter categories were generally unsatisfied to very unsatisfied with their retirement benefit plans. Many small operators, commonplace in these sectors of the industry, tend not to offer such plans. If offered on a contributory basis, or if offered as a trade-off for some wage level, young pilots starting out are said to be rather uninterested.
- Pilots in the air taxi, cargo, and flight instruction categories also recorded below average levels of satisfaction with their level of job security.
- On average, flight instructors record the lowest satisfaction level for four of the seven listed career aspects, the second-lowest for one other, and the third-lowest for the remaining two.

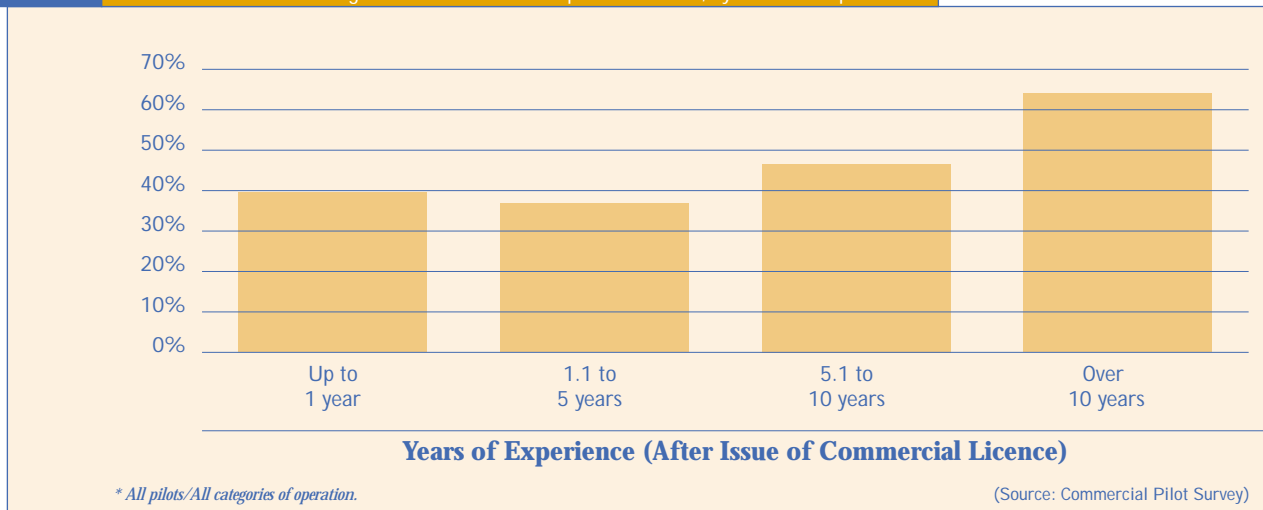
Comment

*Flight instructors’ relatively low satisfaction levels are consistent with comments made in focus groups and in the qualitative section of the survey. Reports of poor pay, poor benefits and work hours that were either long or not sufficient to make a reasonable income were frequently cited. (Again it should be noted, however, that the level of satisfaction for Senior, Class 1 and Class 2 instructors is likely to be significantly higher than the average figures shown here which includes the views of more junior instructors.)*

Level of career expectations met

Exhibit II-28 breaks down *by years of experience* the percentage of respondents who indicated that most of their initial career expectations had been met.

**II-28** Percent of Pilots Indicating Most Initial Career Expectations Met, by Years of Experience\*



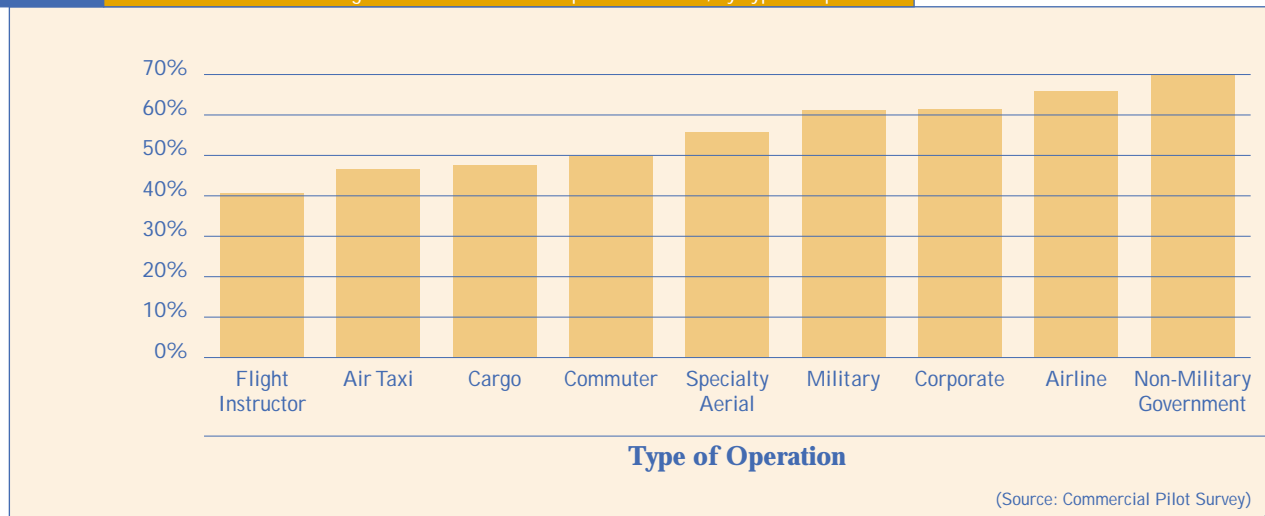
### Observations

- According to a cross-analysis of data from the pilot survey, less than half of responding pilots with 10 or fewer years of experience, (assumed in this case to be the number of years since first obtaining a Commercial Licence), were prepared to say that most of their initial career expectations had been met. By contrast, more than 6 out of 10 pilots with more than 10 years of experience felt their expectations had been met to a large degree.
- A greater percentage of helicopter pilots, (61.4%), than of aeroplane pilots, (54.9%), indicated that most of their initial career expectations had been met.

Exhibit II-29 breaks down *by type of operation* the percentage of respondents who indicated that most of their initial career expectations had been met.

## II-29

Percent of Pilots Indicating Most Initial Career Expectations Met, by Type of Operation



### Areas of disappointment in careers

In cases where none or only some of a respondent's initial career expectations had been met, the pilot survey asked the individual to indicate his/her areas of disappointment. The following are summaries of pilots' commentary on the main areas of disappointment, as indicated in the pilot survey and largely confirmed in focus groups.

- **Compensation:** Some pilots expressed dissatisfaction with the remuneration they received at the beginning of their careers. In general, given the qualification levels required and amounts of money invested in training, they considered entry-level compensation to have been inadequate. Pilots also resented situations where they had to take a cut in pay and work their way up from the bottom again after moving to a new employer.
- **Quality of life:** Some pilots remarked that the demands of a piloting career sometimes adversely affect a pilot's quality of life. In some cases, long and irregular hours of work may conflict with personal and family time. For airline pilots, however, quality of life does not appear to be an overriding issue.
- **Working conditions:** A few pilots objected to poor working conditions and what they perceived to be ill-treatment of individuals in some small and mid-sized air operations. Pilots flying for larger operators, however, were generally satisfied with working conditions.

- **Job security:** Several pilots mentioned the lack of job security. Some noted the sensitivity of their profession to economic downturns and the need to maintain exceptional health.
- **Lack of reliable information on the career in terms of prospects:** Some pilots expressed concern about the inadequacy of career information available to entry-level pilots.

Comment

*With regard to pilots employed in the specialty aerial category (Transport Canada category 702), it is noteworthy that, although such pilots tended overall to express much the same concerns as did other pilots, many in this category also spoke of it in highly favourable terms — “ideal” being one of the adjectives used to describe it. Several indicated that the seasonal nature of specialty aerial work was actually a positive aspect of their jobs.*

*Specifically, some pilots, particularly in the helicopter sector, appreciated the higher pay rates of seasonal work and the flexibility it afforded them either for taking time off to spend with family or for moving south to work in warmer climes during the Canadian winter. Some also appreciated the opportunity of working in other, non-piloting jobs during the off-seasons.*

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## L. Turnover

Turnover rates, the frequency that employees need to be replaced due to transfers, “quits” or retirements is a normal phenomenon of all industries. Within reasonable limits, it represents a process of healthy renewal both for the organization and the employee. Beyond a certain limit however, the practice takes on a negative connotation where cost outweighs benefits.

Although there are exceptions — most notably with Canada’s major national airline — many feel that turnover rates for many operators have tended to be excessive and detrimental. What’s more, the situation is likely to worsen. Projected growth rates in cargo and passenger traffic along with a wave of retirements in the coming years of senior pilots in the airline sector, is sure to open up increased opportunities for pilots all along the so-called “food chain”, including flight instructors, to move up the ladder. For regional air carriers, the need for replacements, already reported in the United States, and to some extent, Canada, to be running at rate unseen since the mid-1960s, is sure to intensify.

For the operator, all of this carries a cost in terms of recruitment and training. Operators have reported that the cost associated with type-rating a new pilot is typically in the \$8,000 range — an investment that can take 2 years for an operator to recover in terms of service from the pilot trained. In an effort to minimize training cost and being “burned” by a pilot prematurely moving on, some operators, have instituted payback schemes whereby the cost of training is covered by the operator by an amount tied to the length of time a pilot stays with the company.

Pilots of course view “turnovers” somewhat differently. After all, a pilot initiates a transfer between employers because he or she sees an advantage. Yet here too there can be cost for the pilot. Leaving aside the sometimes costly and disruptive personal aspects of relocations, pilots who change employers frequently fail to achieve a senior position in any one company and tend to move from “right seat” to “right seat” thereby missing out on command positions and the opportunity to acquire good decision-making skills. Many operators reviewing a pilot’s career record prefer to see a pilot who has progressed “up the ladder” in a reasonable

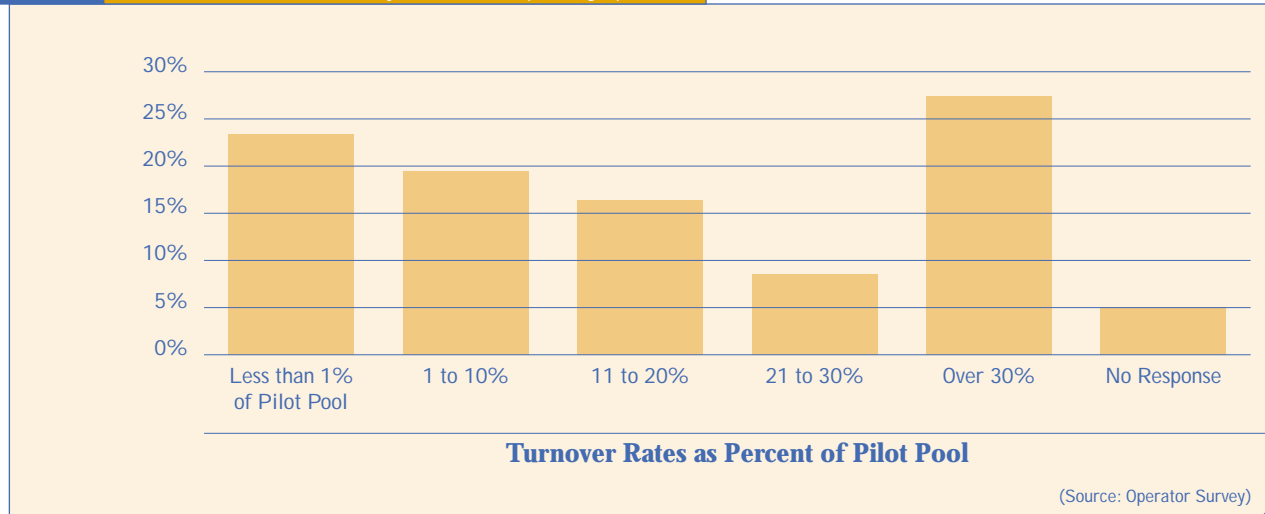
pace, one that has allowed the pilot to demonstrate commitment for his or her employer and gain the full potential from each experience.

This section examines pilot turnover rates within the industry and identifies reasons commercial pilots leave the profession.

#### Pilot turnover rates

The operator survey asked air operators to indicate within specified ranges the average annual pilot turnover rates in their organizations over the preceding five years. Exhibit II-30 shows their responses as a percentage of their pilot pools.

**II-30** Annual Pilot Turnover Rates, by Percent of Responding Operators



#### Observations

- A significant percentage of respondents, (23.5%), had experienced an average annual turnover rate of less than 1% of their pilot pool during the past five years. However, an even higher percentage, (27.4%), had experienced a pilot turnover rate of more than 30%.

Exhibit II-31 breaks down the reported pilot turnover rates in the aeroplane sector by category of operation.

**II-31** Annual Pilot Turnover Rates, by Type of Operation — Aeroplane Sector

Type of Operation	Less than 1%	1 to 10%	11 to 20%	21 to 30%	Over 30%
Specialty Aerial Work	27.6%	15.5%	15.5%	8.6%	32.8%
Air Taxi	20.8%	18.2%	15.6%	11.7%	33.8%
Commuter	5.0%	5.0%	30.0%	10.0%	50.0%
Airline	0.0%	37.5%	25.0%	0.0%	37.5%
Corp./Private Employers	34.6%	15.4%	15.4%	11.5%	23.1%
Government	33.3%	33.3%	0.0%	0.0%	33.3%
Cargo	10.0%	20.0%	15.0%	5.0%	50.0%

**Turnover Rates as Percent of Pilot Pool**

(Source: Operator Survey)

Observations

- In both the commuter and the cargo categories, half of the respondents reported annual turnover rates of more than 30% of their pilot pools. (Many of the pilots flying for commuter or small cargo operators would have acquired the experience and skill sets required by regional carriers, making them prime candidates for job opportunities therein.)
- In the specialty aerial and air taxi categories, fairly significant percentages of respondents, (43% and 39%, respectively), reported pilot turnover rates of less than 10% per year. (Perhaps a surprisingly low rate given the widely held notion in the industry about the frequency of moves at the entry level.)
- The lowest turnover rates were reported in the government (non-military) sector, where two-thirds of respondents indicated annual turnover of less than 10% of their pilot pools.

Comments

*Data shown for airline category, especially the 37.5% of respondents who reported having turnover rates of more than 30% a year, is likely not representative of the average airline. Given the relatively small number of airline operators responding to this question, the statistical significance of the data in this case is not high. A large majority of the commercial pilots working for airlines are covered by seniority clauses and benefit packages that tend to lessen turnover rates.*

Exhibit II-32 breaks down reported annual pilot turnover rates in the helicopter sector by type of operation.

**II-32** Annual Pilot Turnover Rates by Type of Operation — Helicopter Sector

Specialty Aerial Work	28.6%	32.1%	17.9%	0.0%	21.4%
Air Taxi	13.6%	36.4%	18.2%	0.0%	31.8%
Commuter	20.0%	60.0%	0.0%	20.0%	0.0%
Airline	n/a	n/a	n/a	n/a	n/a
Corp./Private Employers	57.1%	0.0%	28.6%	0.0%	14.3%
Government	0.0%	50.0%	50.0%	0.0%	0.0%
Cargo	0.0%	66.7%	33.3%	0.0%	0.0%
	Less than 1%	1 to 10%	11 to 20%	21 to 30%	Over 30%
<b>Turnover Rates as Percent of Pilot Pool</b>					
(Source: Operator Survey)					

Observations

- Of all responding helicopter operators, by far the highest percentage reporting annual pilot turnover rates of more than 30% were in the air taxi category. By comparison, no operators in the commuter, government, or cargo categories reported turnover rates that high.
- A higher percent of helicopter operators than aeroplane operators (in every category) reported having turnover rates up to 20% a year. Conversely, a higher percent of aeroplane operators has turnover rates in excess of 20% a year.

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## Reasons for pilot turnover

The operator survey asked air operators to identify, from a list, the main reasons for pilot turnover in their organizations. The following observations are derived from their responses. (Operators were permitted to indicate multiple reasons.)

- A full 54.2% of respondents identified “career progression” as a prime reason for pilot turnover in their organizations.
- Next in order of importance was “competition from other operators in Canada”, identified by 33.8% of respondents. By comparison, only 2.5% identified “competition from abroad” as a main reason for pilot turnover.
- The third most frequently indicated reason for pilot turnover at 17.9% was “nature of operations” — defined as including such considerations as low wages or benefits and type of work.
- The other listed reasons incurred response rates as follows:
  - Market demand, 16.4%;
  - Location of operations, 12.4%;
  - Retirement, 9.0%;
  - Restructuring, 5.5%;
  - Other, 9.5%.

## Comments

*1. Some operators taking part in the focus groups felt that the rate of turnovers was increasing in recent years. One reason suggested for the increase, (not included in the list of possible causes in the survey questionnaire), concerned a regulatory change made by Transport Canada a few years ago. The latter lowered flight and duty time requirements — a change that made it easier for pilots working for mid-size operators to move up the “ladder”, and in so doing, created vacancies for those in the lower levels.*

*2. While recognizing the inevitability — even desirability — of turnovers, operators expressed a wish to see the practice stabilized and moderated — perhaps through co-operative arrangements with different levels of operators.*

*3. One operator felt that money alone would not slow the rate down appreciably. His top pilots make \$60,000 a year and still move on when opportunities arise.*

*4. Others felt that management relations was the key. It was said that a third of all helicopter operators enjoy considerable success in retaining pilots. The two-thirds that did not were said to be employers lacking human resource skills.*

*5. Although a certain degree of mobility can be beneficial in terms of career progress and skill development, some pilots tend to move for the sake of the move — oftentimes laterally. “Jumping around sideways” can reduce the opportunity to gain command experience.*



## Expectations and reasons for leaving the profession

The pilot survey asked commercial pilots whether, (and if so when and why), they expected to switch careers and move away from line flying on a commercial basis. The following observations derive from the pilots' response to this question.

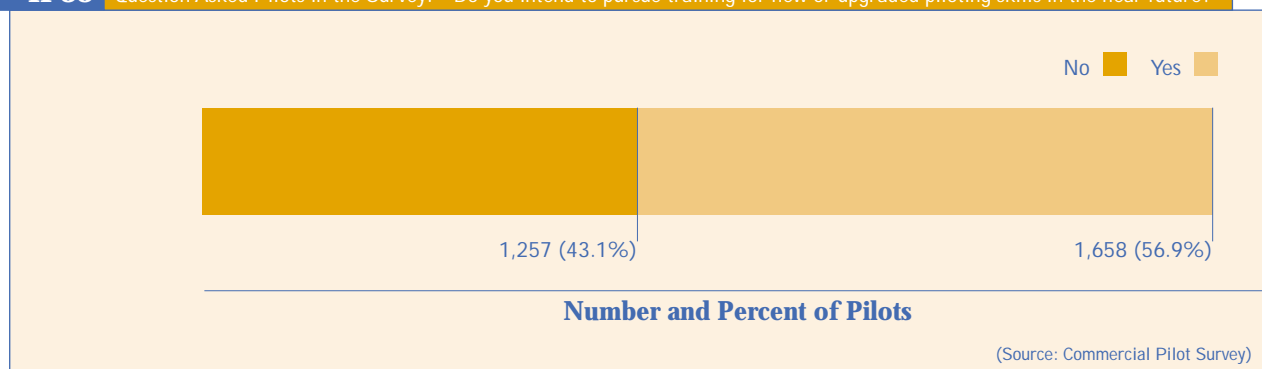
- About 18.0% of responding helicopter pilots and 9.0% of aeroplane pilots indicated that they expected to move away from line flying on a commercial basis.
- Of the 18% in the helicopter sector, about two-thirds expect to leave the profession within three years; about 90% expect to leave within six years.
- Similarly, of the 9.0% in the aeroplane sector, about two-thirds expected to leave the profession within three years; 85%, within six years.
- Frequently identified reasons for leaving the profession were age/retirement, lifestyle, lack of stability, working conditions (pay, benefits, job security), heavy and unsafe workloads, and unrealistic expectations on the part of air operators. On this question, focus group response was generally consistent with the pilot survey response.

## M. Training Intentions

The pilot survey asked pilots for their intentions on the matter of training — specifically whether or not they expect to take training to acquire new skills or upgrade existing skills. Exhibit II-33 shows a summary of their responses.

### II-33

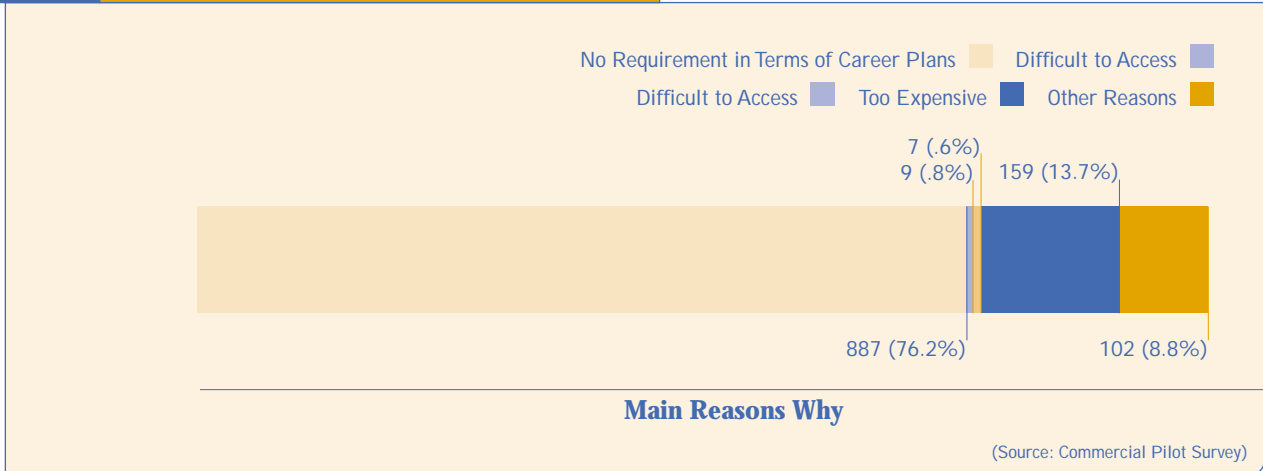
Question Asked Pilots in the Survey: "Do you intend to pursue training for new or upgraded piloting skills in the near future?"



#### Comment

*Since the number of pilots survey represent approximately 25% of all commercial pilots in Canada, by extrapolation, it is reasonable to conclude that something in the order of 6,000 to 7,000 pilots intend to seek additional training.*

*As a follow-up to the first question, pilots who indicated they did not intend to pursue any further training, beyond regulatory requirements, were asked to state the reason. Exhibit II-34 shows a summary of their responses.*



**Observations**

- By far the two major reasons were “lack of requirement in terms of career plans” and the expense of training programs.