
Aircraft Affordability Survey Report

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On October 30th 2017 an aircraft affordability survey was posted on the European General Aviation forum EuroGA.org. The aim with the survey was to evaluate the current aircraft affordability status around Europe. Although a few responses from pilots outside of Europe had been submitted, a choice was made to include those in this report as they were not significantly many.

1 SOURCES OF DATA

The initial survey was posted on EuroGA.org¹ on October 30th 2017. At the same time, the survey was posted to multiple aviation related Facebook groups, mainly Swedish and Greek. Due to that fact those two countries might be over-represented in this survey. A week after the initial posting, on November 6th, a mailing went out to the users of EuroGA.org. About 20% of ca 1200 users responded. The total participation number in the survey at the time of publishing this report has been 311 responses.

The survey was performed using Google Forms². Analysis was performed using MATLAB³. Questions 1 and 2 were not mandatory to answer as they could have been used to identify individuals.

¹<https://www.euroga.org/forums/hangar-talk/8574-aircraft-affordability-survey>

²<https://www.google.com/forms/about/>

³<https://www.mathworks.com/products/matlab.html>

2 QUESTION IN THE SURVEY

2.1 FOR ALL PILOTS

1. Which country do you live in?
This is the country of your residence, not the country in which you have your aircraft registered.
2. What licenses/ratings do you possess?
*These are the licenses and ratings that you possess. Please only indicate the highest license at your possession. E.g. if you have CPL **do not** also indicate PPL. If you only have ATPL theory or frozen ATPL, **do not** indicate ATPL.*
3. How many hours do you fly per year in average?
This is the amount of hours that you fly in average in one year, both professionally and for fun.
4. Are you employed (working for somebody else) or are you running your own business?
This is your current employment situation. If you have a constant flow of cash from somewhere else and you do not need to work please indicate "Own business". If you are retired, please indicate your employment situation prior to your retirement.
5. What is your annual (per year) individual disposable (all taxes paid) income? (in EUR)
*This is your annual (per year) individual (not household) disposable (after all taxes have been paid) income, in Euros. Please **do not** deduct any expenses such as rent, food, etc. If you do not need to work due to accumulated wealth, please indicate 1 EUR. If you are retired, please indicate the annual pension amount that is paid to your bank account. If you are retired but are not receiving a pension, e.g. due to accumulated wealth, please indicate 1 EUR.*
6. Do you own an aircraft or do you rent from an entity?
Whether you own an aircraft or you rent from an aeroclub or other owners. If you own only a share of an aircraft, please indicate "Own", or "Both" if you rent at the same time.

2.2 FOR AIRCRAFT OWNERS

7. What kind of aircraft do you own?
This is the type of aircraft that you own. If you own multiple aircraft please indicate the one that you fly more often.
8. What was the price of the aircraft at the time of purchase?
This is the price that you paid at the time of purchase of your aircraft, including any value added tax (VAT) if you have paid such a tax. If you only own a share of an aircraft, indicate the price that you paid for that share, including any taxes.
9. Did you take a loan to buy the aircraft?
Whether you took a loan to buy your aircraft / share of an aircraft or not.

10. What are the annual (per year) fixed costs of the aircraft? (in EUR)
*This is the annual (per year) costs of your aircraft that **do not** change. E.g. insurance, hangarage, annual service, etc. If you only own a share of an aircraft, please indicate the costs that you pay for your share.*
11. What are the annual (per year) running costs of the aircraft? (in EUR)
*This is the annual (per year) costs of your aircraft that **do** change. This usually depends on how many hours you fly. E.g. fuel consumption, oil consumption, wear and tear that depends on hours of flight, etc.*
12. Do you mainly use the aircraft for business or leisure?
Whether you mainly use your aircraft to fly to business meetings, fly commercially and such or if you are mainly using it for fun and leisure.
13. Is the aircraft owned privately or through a business?
Whether you own your aircraft yourself or it is assigned to a business of your own.
14. Do you rent your aircraft to aeroclubs and/or other pilots?
Whether you rent your aircraft to other entities such as aeroclubs and pilots or not. This could be e.g. to be able to afford it or to make sure that the engine is not sitting unutilized for too long time.

3 RESULTS

3.1 ALL PILOTS

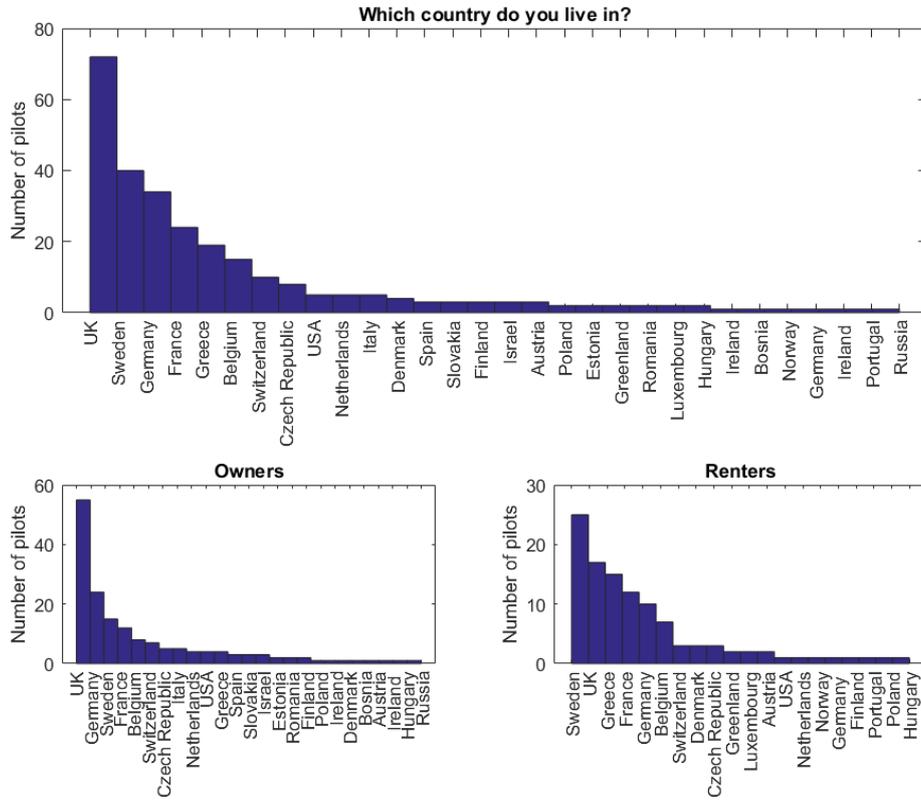


Figure 3.1: Countries of residence of the pilots that have responded to this survey.

From this figure it can be seen that pilots in the UK, Germany, Belgium, Switzerland and Czech Republic are more prone to own aircraft while pilots in Sweden, Greece and Denmark are more prone to rent aircraft. Other countries have too small sample size to draw any conclusions.

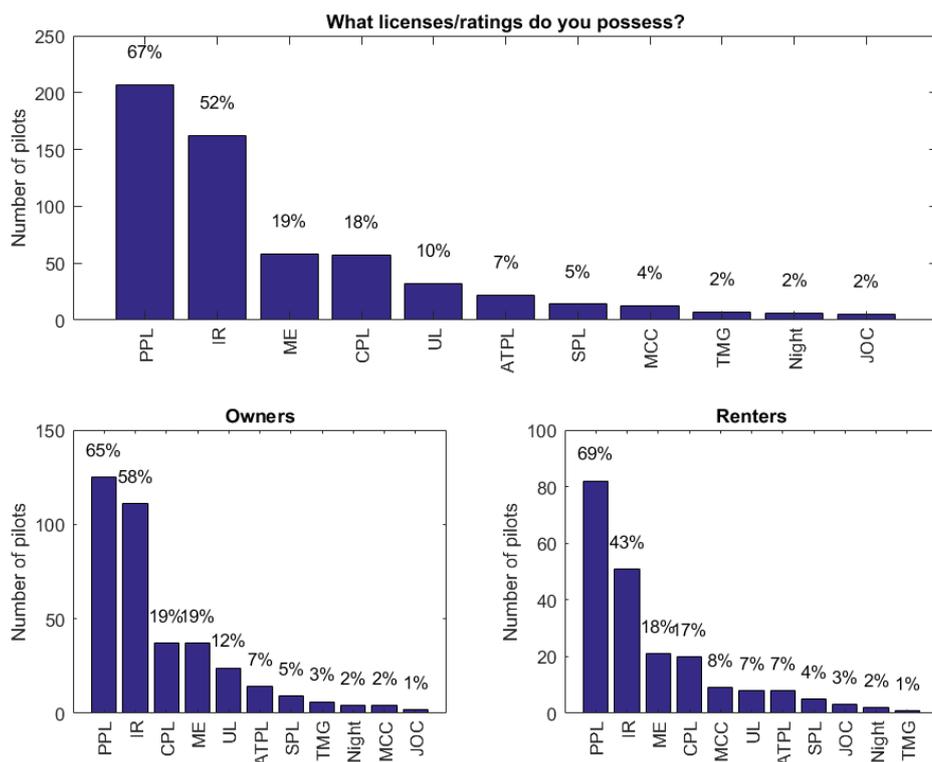


Figure 3.2: Distribution of licenses and ratings among pilots that have responded to this survey.

For the sake of this figure, all kinds of instrument rating have been aggregated in the category "IR". It can be seen that more than half of the aircraft owners have some kind of instrument rating while less than half of the aircraft renters have the same. The majority of pilots have a private pilots license. Be advised that not all of the instrument rated pilots are private pilots.

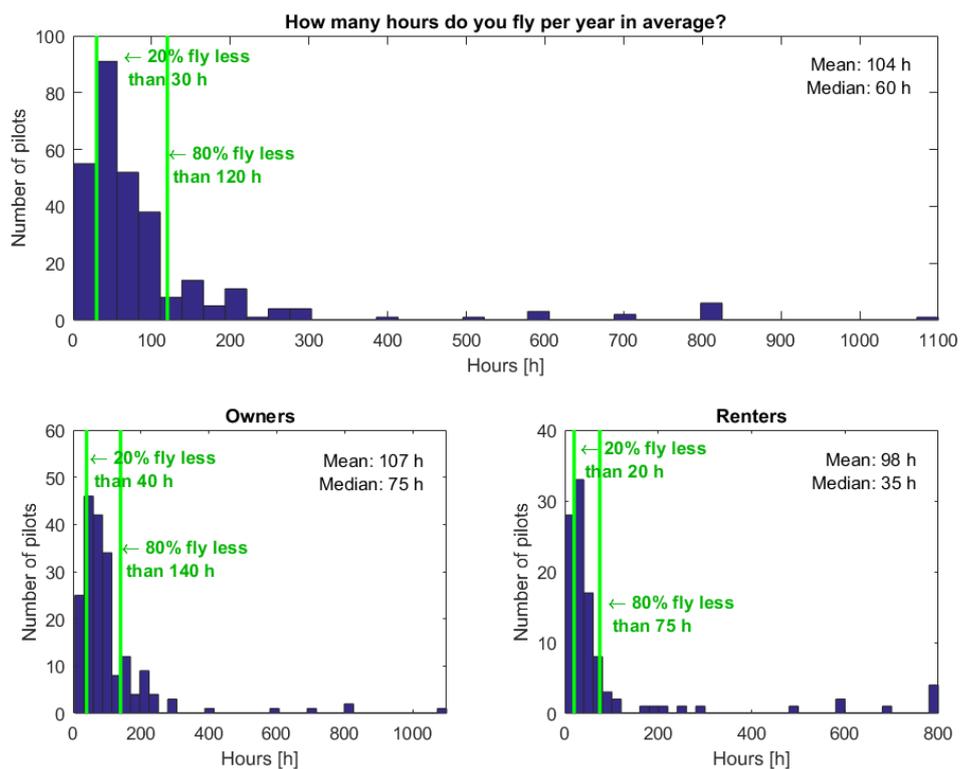


Figure 3.3: Hours that pilots fly in one year in average.

This figure contains both commercial and private pilots, thus the range of values is very high. It can be seen that aircraft owners fly more than aircraft renters.

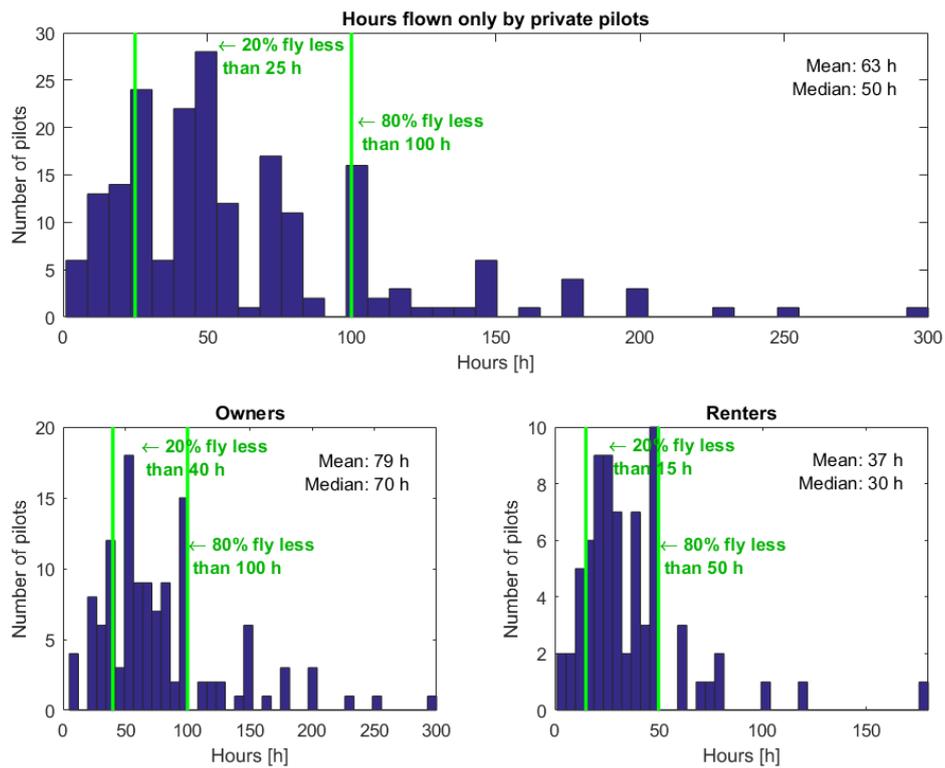


Figure 3.4: Hours that private pilots fly in one year in average.

This figure displays hours for private pilots only. It can be seen that the range of values has decreased significantly when commercial pilots have been removed. Private pilot aircraft owners fly at least twice as much as private pilot aircraft renters.

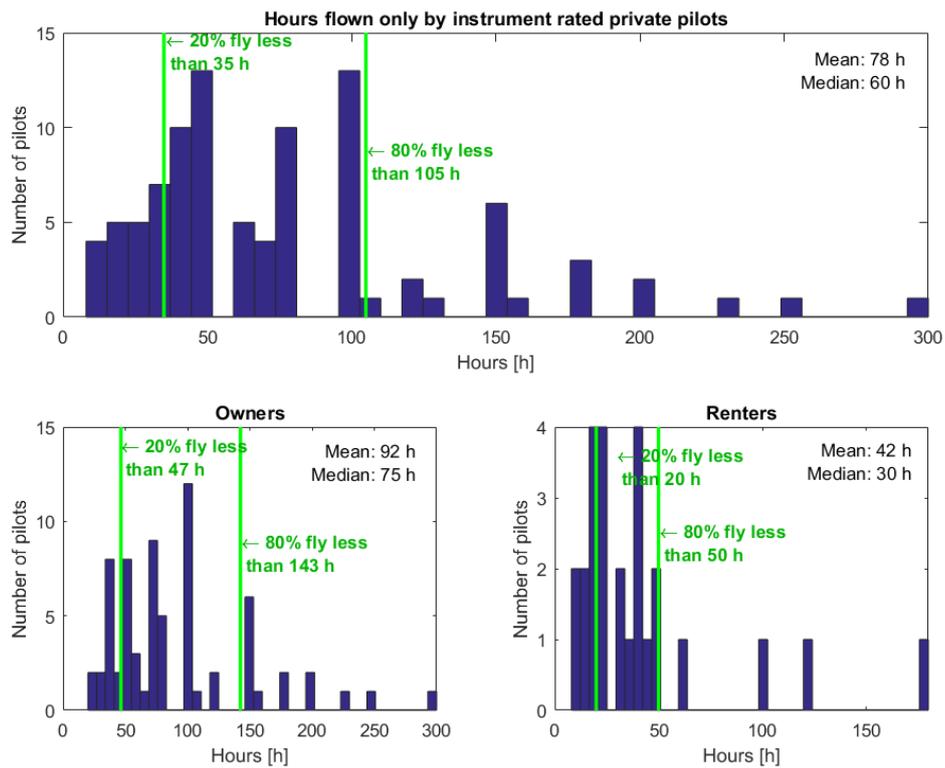


Figure 3.5: Hours that instrument rated private pilots fly in one year in average.

Comparing this figure to the previous one it can be concluded that instrument rated private pilots fly more than non-instrument rated private pilots, regardless of aircraft ownership or not.

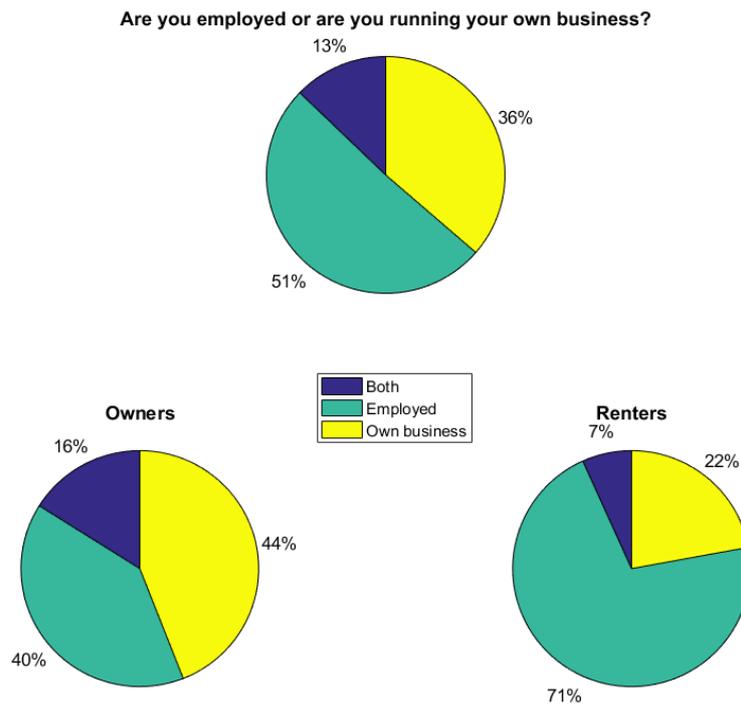


Figure 3.6: Whether pilots are working for somebody else or running their own business.

From this figure it can be concluded that people that own their own business are more prone to own an aircraft.

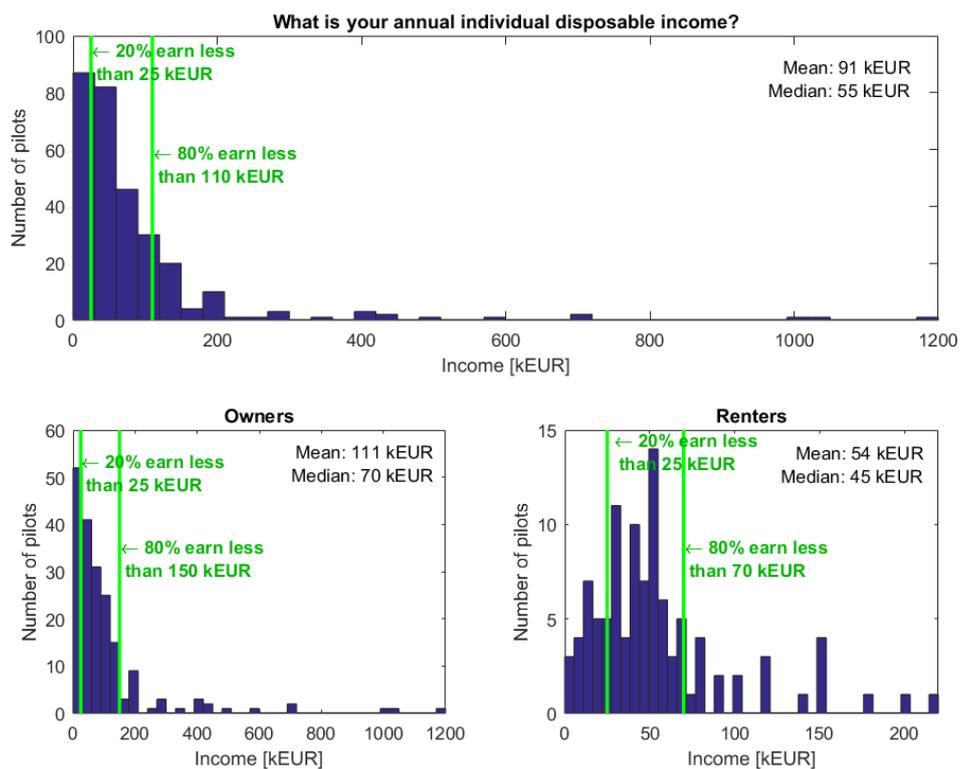


Figure 3.7: Annual disposable individual income of all pilots.

It can be seen from this figure that most pilots have an annual disposable individual income below 200 kEUR. There are however some that earn significantly more, however none of these are aircraft renters.

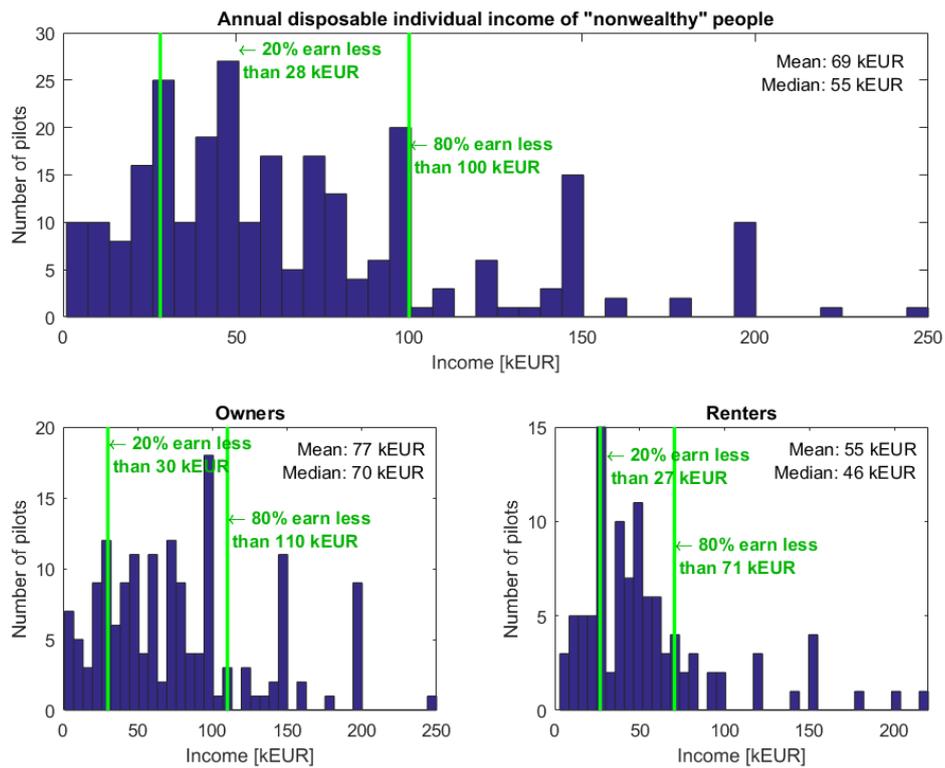


Figure 3.8: Annual disposable individual income of all nonwealthy pilots.

Nonwealthy pilots in this figure have been defined as pilots that have annual disposable individual income higher than 0 kEUR and lower than 300 kEUR. Pilots with an income of 0 kEUR are considered wealthy as they do not need to work for a living. This figure is representative for most of the private pilots. Here it can also be seen that aircraft owners earn significantly more than aircraft renters.

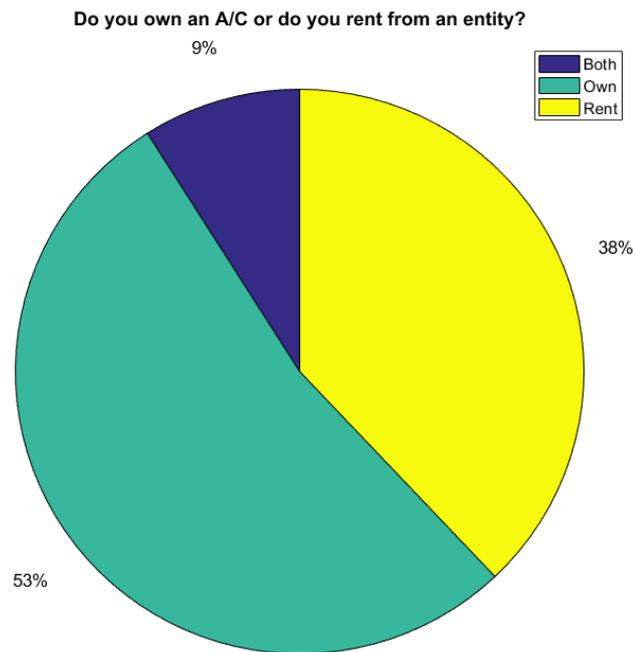


Figure 3.9: Whether pilots own or rent an aircraft.

Surprisingly, the percentage of aircraft owners is higher than aircraft renters. The reason for that might be the high participation of pilots from the UK where aircraft ownership is dominant.

3.2 AIRCRAFT OWNERS

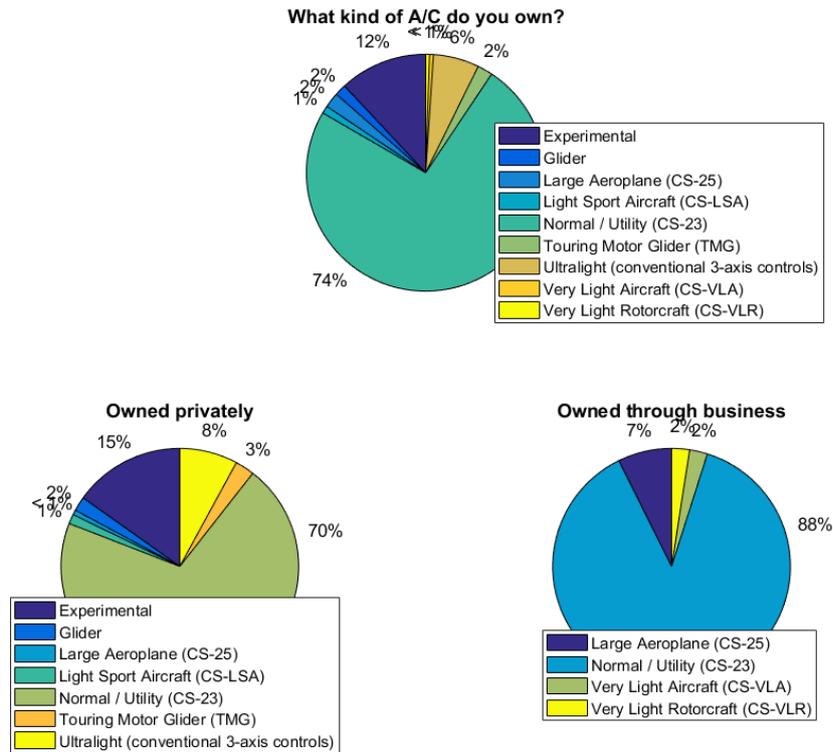


Figure 3.10: The kinds of aircraft that pilots own.

The vastly more common aircraft type to own is the Normal / Utility (CS-23) category. Private owners also own a large percentage of Experimental and Ultralight aircraft. Not surprisingly, business owners own Large Aeroplanes (CS-25) as second most common type of aircraft.

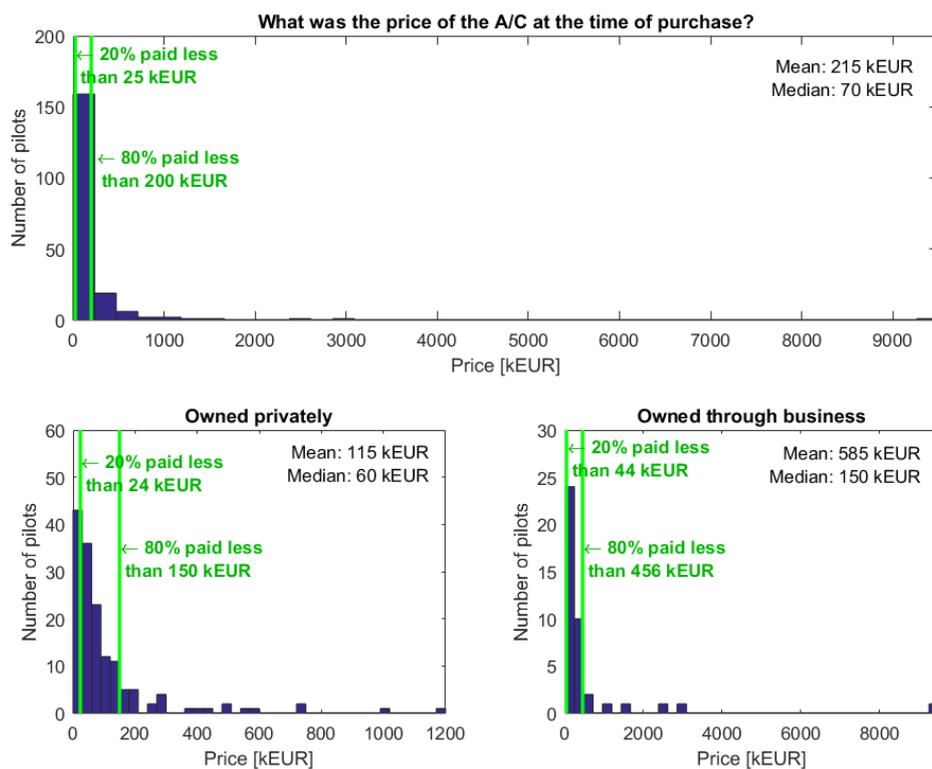


Figure 3.11: Price of aircraft at the time of purchase.

In this figure the price of all different kinds of aircraft can be seen. However, since most of the aircraft are below the 1000 kEUR interval, this figure is not so informative. See the next figure for aircraft owned by private pilots.

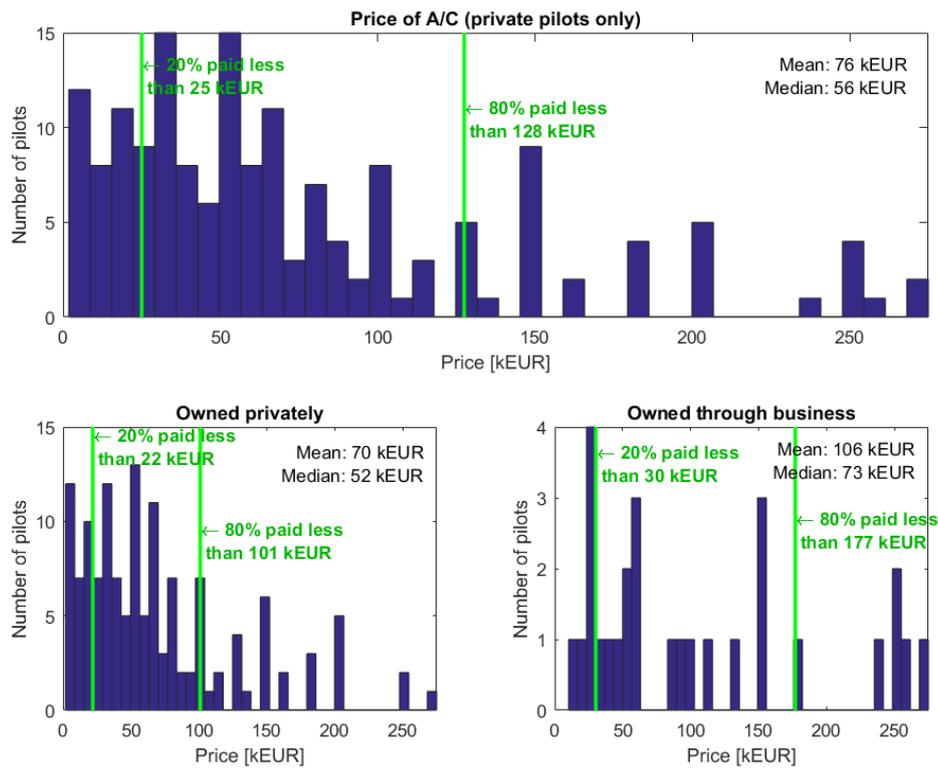


Figure 3.12: Price of aircraft at the time of purchase by private pilots.

From this figure it can be seen that aircraft owned through businesses are somewhat more expensive than aircraft owned privately. Also, the price of aircraft is in the order of magnitude of the annual disposable individual income of pilots, which more or less represents what a pilot is willing to pay to acquire an aircraft.

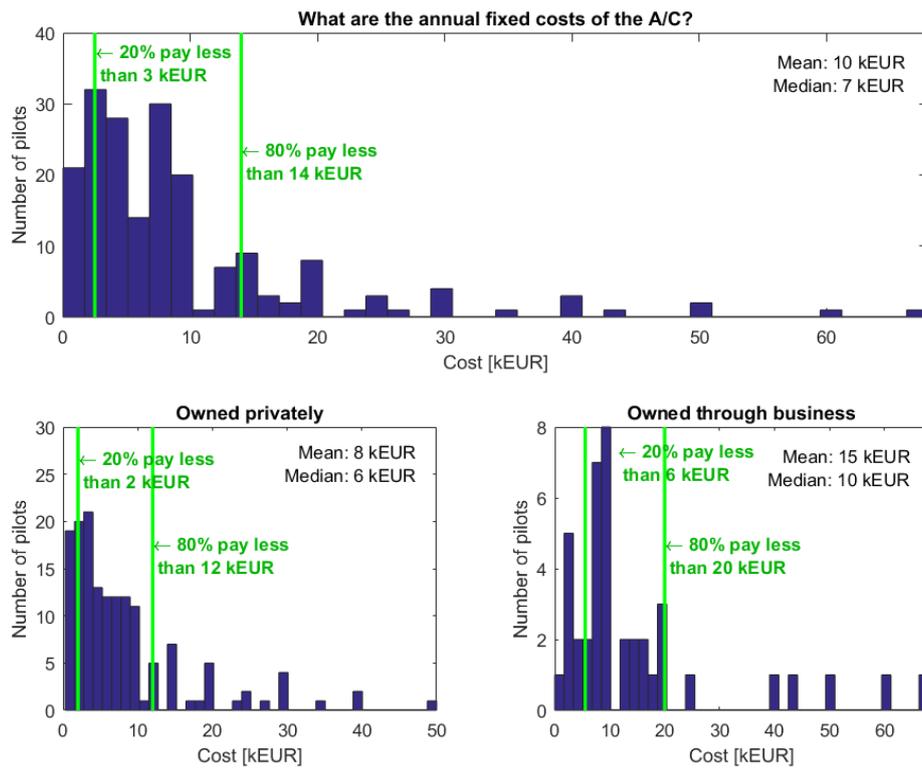


Figure 3.13: Annual fixed costs of an aircraft.

From this figure it can be seen that businesses tend to spend more on their aircraft than private owners, which makes sense if they own more expensive aircraft.

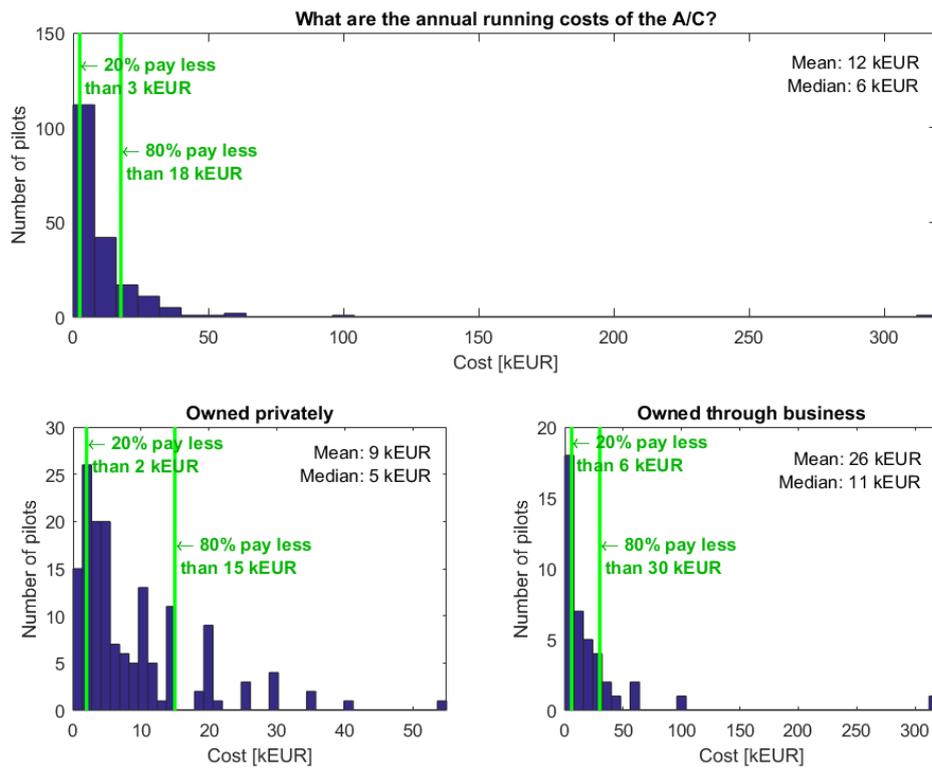


Figure 3.14: Annual running costs of an aircraft.

Same observation here as in the previous figure. Businesses must be flying more often with their aircraft thus higher running costs.

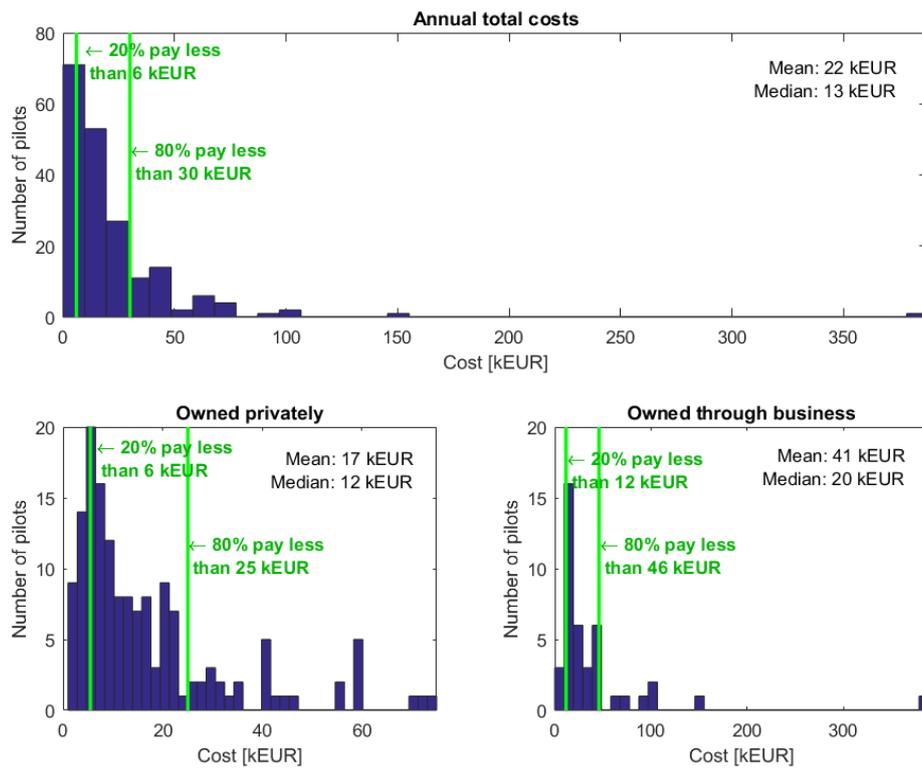


Figure 3.15: Annual total costs of an aircraft.

Similar observations as in the previous two figures, as this figure represents the summation of the previous two figures.

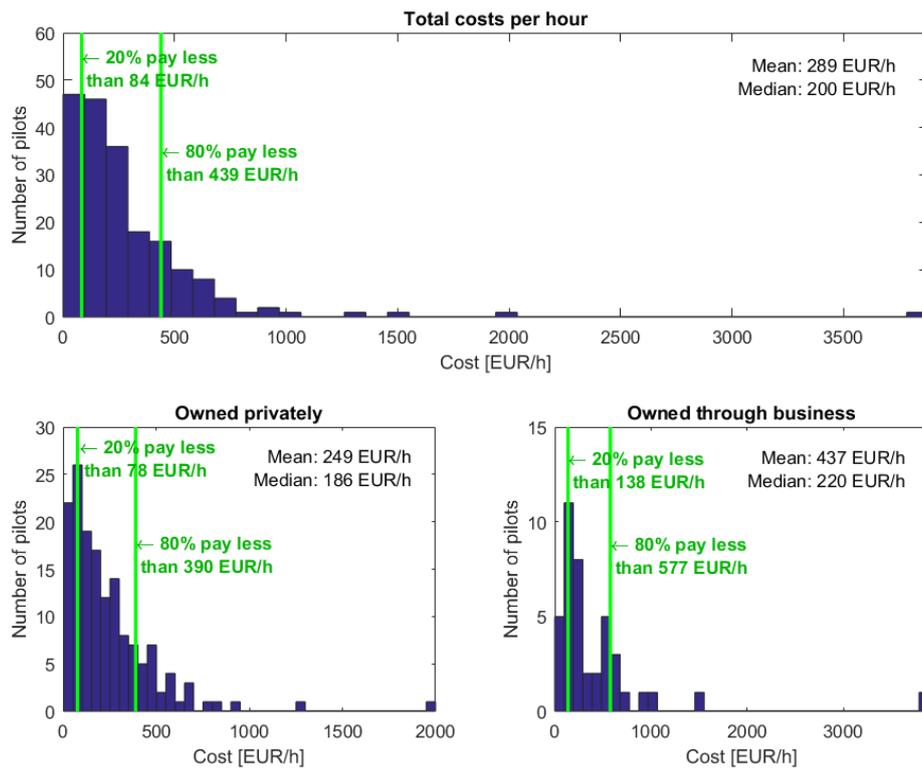


Figure 3.16: Hourly cost of an aircraft.

This figure was generated by taking the total annual cost of an aircraft and dividing it by the hours flown by its pilot. Surprisingly, privately owned aircraft are cheaper to fly per hour even though their pilots fly less often. The reason for that must be that the annual total costs are significantly lower than for aircraft owned through businesses.

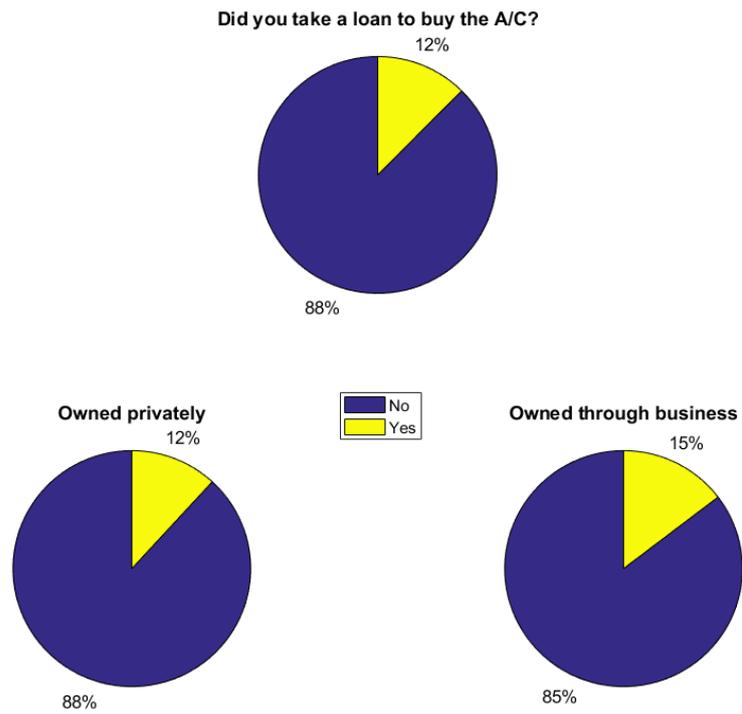


Figure 3.17: Whether a loan was taken to purchase the aircraft or not.

Almost the same percentage of pilots took a loan to finance their purchase of an aircraft regardless of the aircraft being owned through a business or privately.

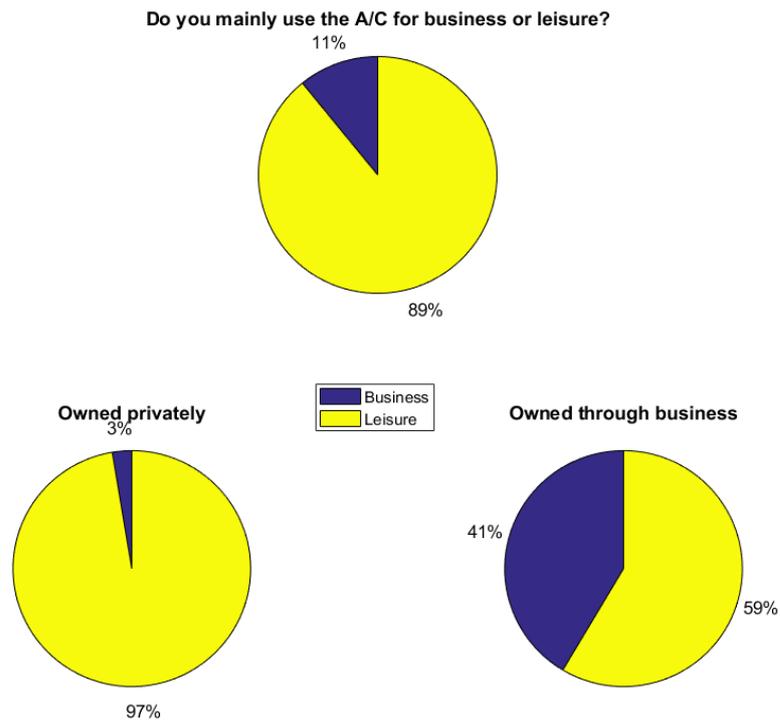


Figure 3.18: Whether the aircraft is mainly used for business or leisure.

As expected, aircraft owned through a business are more often flown for business. However, it is surprising that aircraft owned through a business are flown most of their time for leisure.

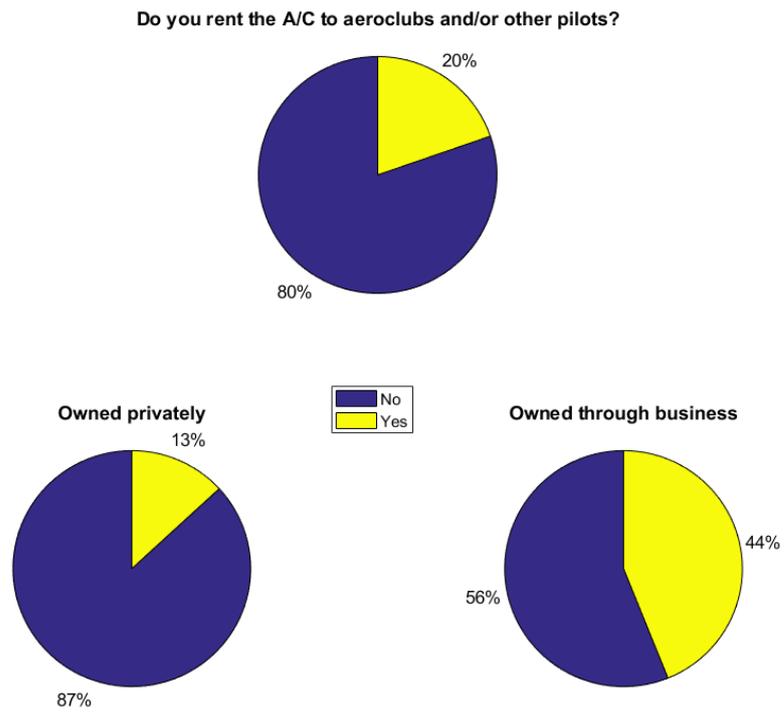


Figure 3.19: Whether the aircraft is rent to others or not.

Aircraft owned through a business are more prone to be rent out to others. This might actually be part of the business model, to rent out aircraft.

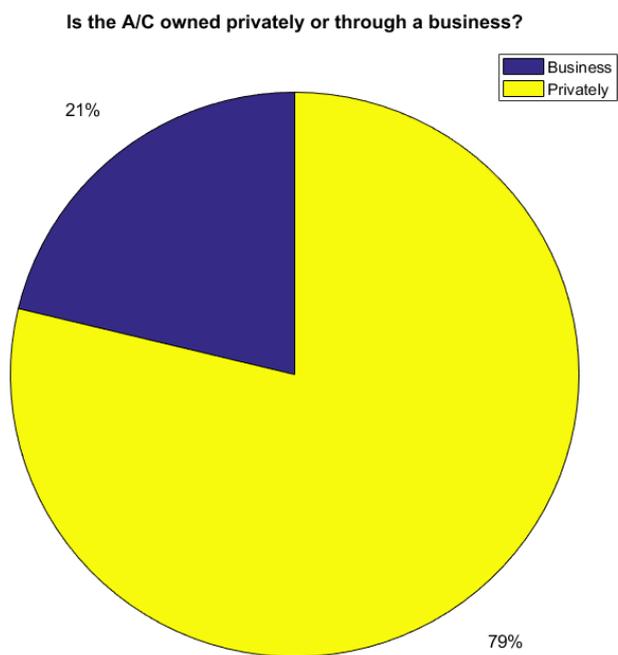


Figure 3.20: Percentage of aircraft owned privately or through a business.

This figure serves as a complement to the previous figures, where aircraft owned privately are presented in different graphs from aircraft owned through a business. The vast majority of aircraft are owned privately.