



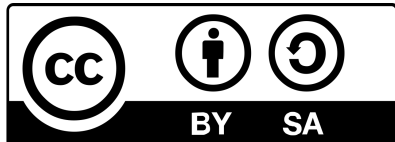
Navigraph

FlightSim Community Survey 2024

Final Report

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Preamble

We are happy to share the results from the seventh consecutive FlightSim Community Survey! This year, 23,600 respondents participated in the survey, answering 50 questions prepared by Navigraph in collaboration with 75 survey partners. The number of respondents, partners, and questions make this the most comprehensive survey of its kind in the flight simulation community.

Typically, the survey is released at the end of the year. However, the end of 2024 brought a wave of highly anticipated releases – including FlyByWire’s A380, PMDG’s Boeing 777, and Microsoft Flight Simulator 2024. This eventful period made us realize that we should shift the survey schedule to more accurately cover the entire year. Subsequently, 2025’s survey will be published early next year.

As part of our continuous improvement process, we made a few methodological changes. While last year’s survey leaned heavily into open-ended questions and AI-based analysis, this year we opted for fewer free-text questions. Instead, we used the insights generated by AI from last year’s responses to shape new closed-ended questions. For example, in 2023 we asked respondents to describe their expectations for MSFS 2024 in their own words. This year, we were able to compile those themes into structured answer options, enabling both easier participation and more straightforward analysis. For these kinds of questions, we also introduced a new diagram type to better illustrate the data. Can you spot them?

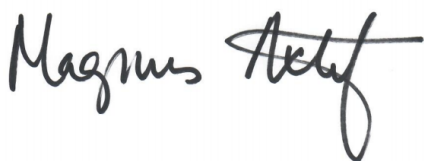
We have also further embraced our Business Intelligence system for both analysis and visualization. The BI platform now plays a central role in how we explore trends, segment responses, and present results in a way that is both interactive and transparent. This year’s stronger integration with BI has made our process more collaborative, efficient, and insightful.

Out of the 23,600 responses received, we have based the analysis in this report on the 14,489 respondents who completed the entire survey. While this helps ensure higher data quality, all responses – complete or partial – are still included in the anonymized dataset which is freely available for download by the community.

We would like to extend a sincere thank you to all respondents for your time and thoughtful answers, and to all survey partners – developers, companies, organizations, and media outlets – for contributing ideas and helping to distribute the survey. Together we continue to build a better understanding of the flight simulation community and its future direction.

At Navigraph, Jennifer Bunn, Malin Söderlund, Gordon O’Callaghan, Natalie Selin, Markus Hamburger, Stephen O’Connell, and I have worked together to organize, design, analyze, and communicate the results of this year’s survey. As always, it’s been both hard work and a lot of fun. We hope you enjoy reading it!

Stockholm, April 2025

A handwritten signature in black ink, reading "Magnus Axhult". The signature is fluid and cursive, with the first name "Magnus" and the last name "Axhult" clearly distinguishable.

Magnus Axhult, Navigraph CEO & Co-Founder

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1. Introduction

1.1. Partners

The FlightSim Community Survey 2024 is a collaborative effort conducted by the developers, organizations, and companies alphabetically presented in the list of partners below.



- Aerosoft
- Air France Virtuel
- BelGeode (Boomflowah production)
- Bluebird Simulations
- BRAVO 737
- British Avgeek
- Carenado

- Closed Traffic Podcast
- Contrail Shop
- Cruiselevel.de
- Delta Virtual Airlines
- Digital Flight Dynamics
- Efbx.io
- Elevatex
- Fenix
- Flight1/ Flight One Software
- Flight Sim Labs, Ltd.
- Flight Simulation Association (FSA)
- FlightGear
- FlightFX
- FlightSim Studio AG
- FlightsimWebshop
- FlightSimWeekend
- Fly UK Virtual Airways
- Fly By Wire
- FS-FlightControl – AB-Tools GmbH
- FSElite
- FSExpo
- FSiPanel
- FSNews
- FSNews24
- FSReborn
- FS Reviews
- GearDown Simulations
- GeoFS
- Haversine
- Headwind Simulations
- HeliSimmer.com
- Horizon Simulations
- Hype Performance Group
- Infinite Flight
- iniBuilds
- IVAO
- Laminar Research
- Leonardo Software House (Flythemaddog)
- LH Virtual
- Lockheed Martin
- MSFSAddons
- Navigraph*
- NextGen Simulations
- ORBX
- Parallel 42

- PMDG
- PMS50
- Q8Pilot
- Qbit Simulations
- RealSimGear
- RealTraffic
- SayIntentions.AI
- simFlight
- SIMMARKET
- Simvol
- SimWorks Studios
- TDS Sim Software
- TFDi Design
- The Flight Lounge
- Threshold
- TorqueSim Aircraft Development
- Total Aviation
- V Pilot Designs
- vAMSYS
- VATSIM
- VATSIM Radar
- Verticalsim
- X-Crafts
- XP72

*) Navigraph was responsible for coordinating, designing, compiling, and funding the survey, as well as authoring this document.

1.2. Purpose and Target Audience

The primary purpose of the survey is to provide participating partners with comprehensive insights into the flight simulation community, enabling them to:

- Recruit new pilots to the flight simulation hobby
- Develop products and services that meet the needs and preferences of the community
- Make informed product decisions based on market data, such as user needs, preferences, and price sensitivity

The secondary purpose is to support the wider community by providing valuable information that enables individuals to:

- Discover resources to deepen their flight simulation interest
- Contribute to the development and growth of the community
- Influence the direction of product development by sharing their experiences and preferences
- Engage in meaningful discussions in forums and on social media following the survey results
- Learn what other users consider good software, hardware, and services

In addition, the survey serves as a resource for media outlets, providing data and insights to support articles and reporting on the state of the flight simulation industry.

1.3. Data Protection

The data was collected from the respondents anonymously without storing any personally identifiable information. No tracking mechanisms were used in the survey, and individual responses cannot be linked back to any respondent. The results are presented in aggregated form, never individually. The data was collected in the legitimate interest pursued by Navigraph and the partners. To the best of our judgment, the survey was conducted in a fashion compliant with the General Data Protection Regulation (EU) 2016/679. For any questions regarding user privacy, please contact contact@navigraph.com.

1.4. Previous Work

VATSIM conducted a survey in 2006, with a total of 6,691 respondents.

AVSIM has previously published a demographic survey for the flight simulation community. The most recent one was made in 2013¹. It had approximately 2,800 respondents.

In 2016 there was a DCS Playerbase Survey² with 851 respondents³. It was repeated in 2022⁴ and had 1,488 respondents⁵.

Laminar Research has collected usage data from its X-Plane simulator and published two reports⁶ in November 2017, and June 2018.

¹ <https://www.avsim.com/forums/topic/430855-results-of-the-2013-avsim-community-demographics-survey/>

² https://www.reddit.com/r/hoggit/comments/4m4ooo/june_2016_dcs_playerbase_survey_inprogress/

³ https://docs.google.com/forms/d/1bNSk2Z8qt0utoiKrGHpuxdG_xnvoG6dTUaVXiQKxi5c/viewanalytics

⁴ https://www.reddit.com/r/hoggit/comments/wmkon8/dcs_community_survey/

⁵ <https://docs.google.com/forms/d/1t9baBZGenMZXUfzdg1iJdTeu9hEkgAQdMfSYcpR4FBs/viewanalytics>

⁶ <https://developer.x-plane.com/category/x-plane-usage-data/>

Navigraph has previously conducted customer surveys. In 2017⁷ it had 3,187 respondents. In 2016 2,200 participated. While these surveys had significant portions aimed at product feedback specific for Navigraph, they also had demographic questions included from the AVSIM survey.

With the collaboration of partners, Navigraph conducted flight community surveys in 2018⁸ (15,000 respondents), 2019⁹ (17,800 respondents), 2020¹⁰ (23,500 respondents), 2021¹¹ (24,200 respondents), 2022¹² (25,400 respondents) and 2023¹³ (23,736 respondents).

It is our impression that there have been additional small surveys completed in the past. Either they have been published by various developers with the intent of obtaining specific product feedback, or they have been published by interest organizations with the intent of obtaining feedback on the particular operations of that organization.

The FlightSim Community Surveys from 2018 to 2024 are different by offering:

- A significantly larger sample size compared to any previous flight simulation community survey
- A diverse sample representing multiple user groups, including users from various developers and members of different organizations
- Carefully designed questions, developed by a dedicated survey team to capture the broad range of interests and perspectives within the community
- An effort to track trends over time, with each year's question set adjusted to focus on topics that require close and continuous monitoring

⁷ <http://blog.navigraph.com/post/167492052421/survey-results-prepar3d-x-plane-up-fsx-down>

⁸ <https://navigraph.com/blog/flightsim-community-survey-2018-results>

⁹ <https://blog.navigraph.com/post/190623949491/flightsim-community-survey-2019-results>

¹⁰ <https://blog.navigraph.com/post/640055551804489728/flightsim-community-2020-survey-results>

¹¹ <https://navigraph.com/blog/survey2021>

¹² <https://navigraph.com/blog/survey2022>

¹³ <https://navigraph.com/blog/survey-2023>

2. Method

Navigraph initiated the survey collaboration by issuing an official invite through social media channels and the Navigraph newsletter, inviting partners to participate. Partners who contributed to the survey in earlier years were contacted directly via email. In order to achieve a representative sample of the community, partners were purposefully selected from diverse segments of the flightsim community.

Navigraph requested partners to submit areas of particular interest to them. Navigraph edited, consolidated, and designed questions based on the partners' areas of interest.

All partners were asked to publish an individual survey link at a specific date and time. The partners were free to choose how to distribute the link, but many chose to publish on social media, forums, websites, and newsletters. The individual links permitted tracking of how successful each partner was at gathering respondents to the survey.

The respondents were not compensated for their contribution. The incentive for the respondents to contribute to the survey is the possibility to guide development in the flightsim community. The incentive for the partners to contribute to the survey is the possibility to direct the survey into various areas of interest and reach a wider audience compared to publishing an individual survey themselves.

The information presented in this survey report is only based on aggregated data. No other analysis as to statistical significance, power, or confidence interval has been done.

This year, we have based the analysis and diagrams on data only from respondents who completed all 50 questions of the survey.

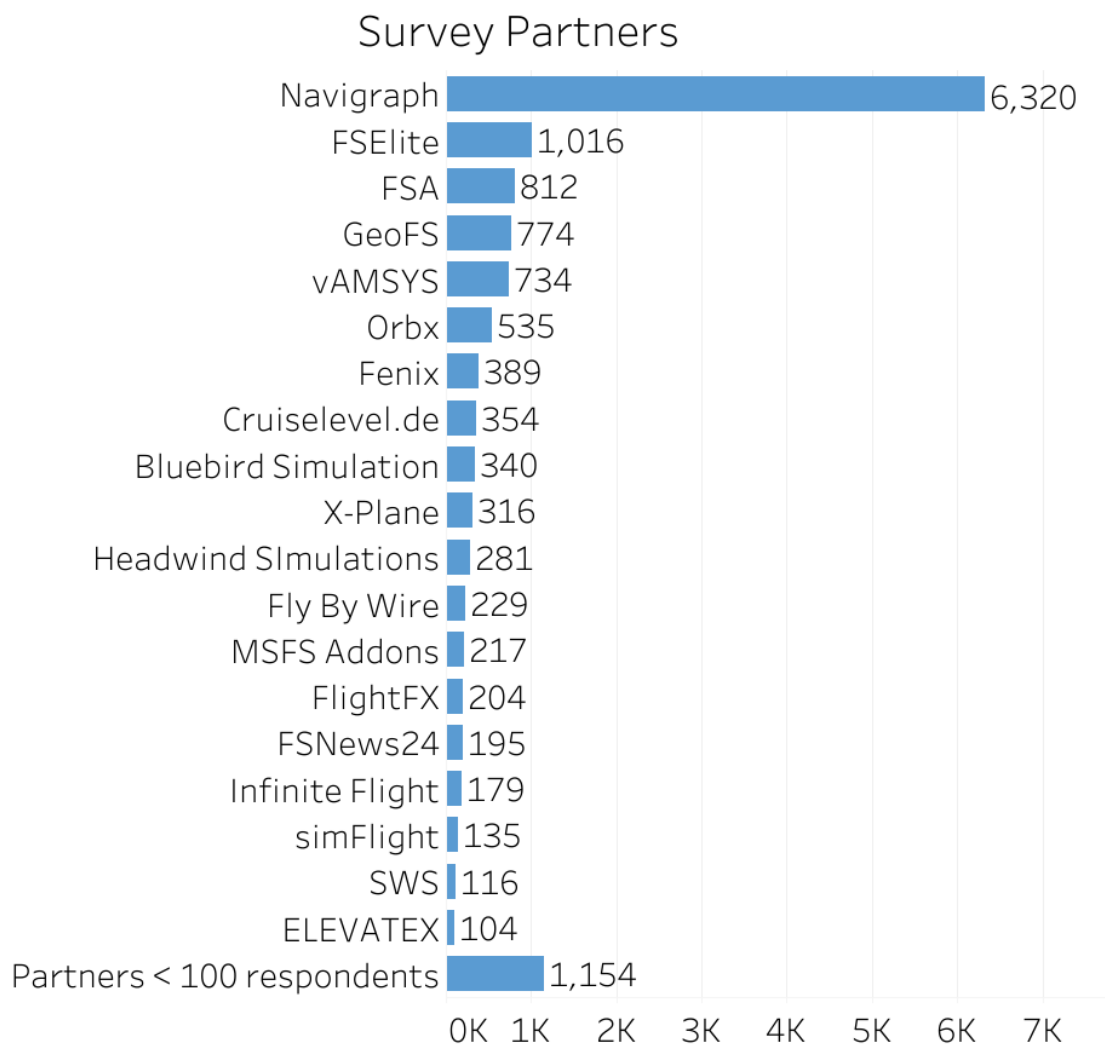
3. Analysis

3.1. Respondents

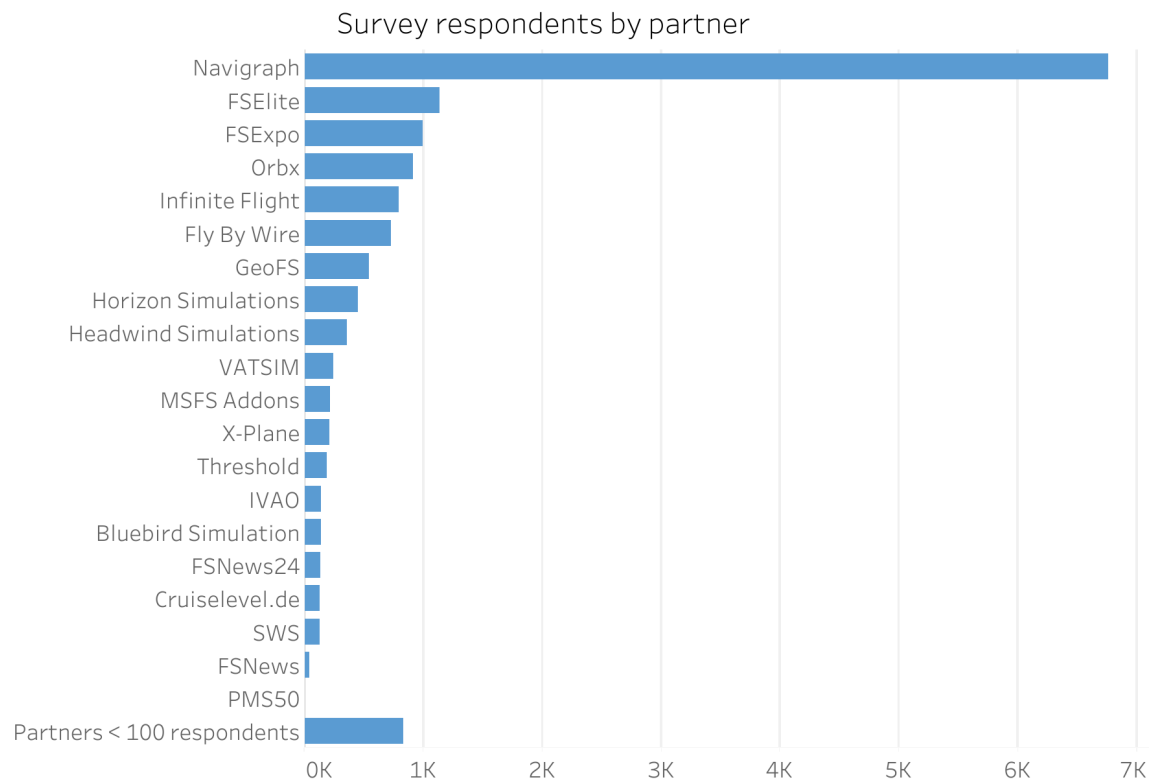
The survey received responses from 23,600 participants with 61% (66%) completing all 50 (82) survey questions. (Values from the previous year are shown in parentheses.)

The diagram below illustrates respondent engagement from links published by survey partners during the survey period, March 7th-17th 2025.

Navigraph contributed the highest number of respondents, followed by FSElite, FSA, and GeoFS, whereas last year's top contributors included Navigraph, FSElite, FSEXpo, and Orbx. The consolidation of smaller contributors into a single category highlights that while a variety of sources drive participation, the majority of responses come from a few key platforms. These insights help refine outreach strategies for future surveys to ensure broad and representative participation.



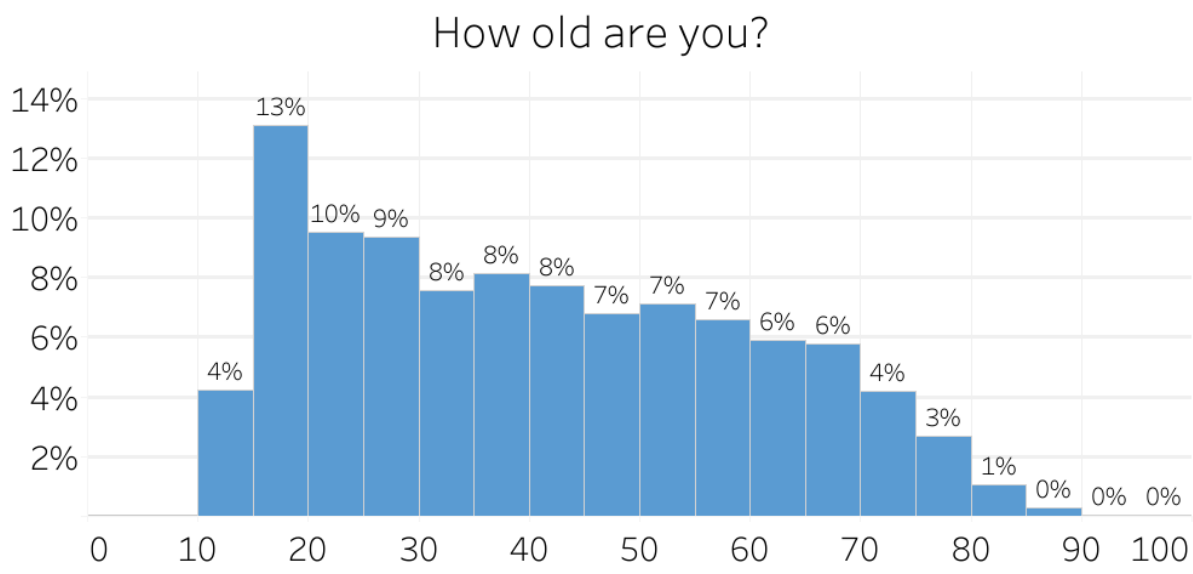
Last year's result:



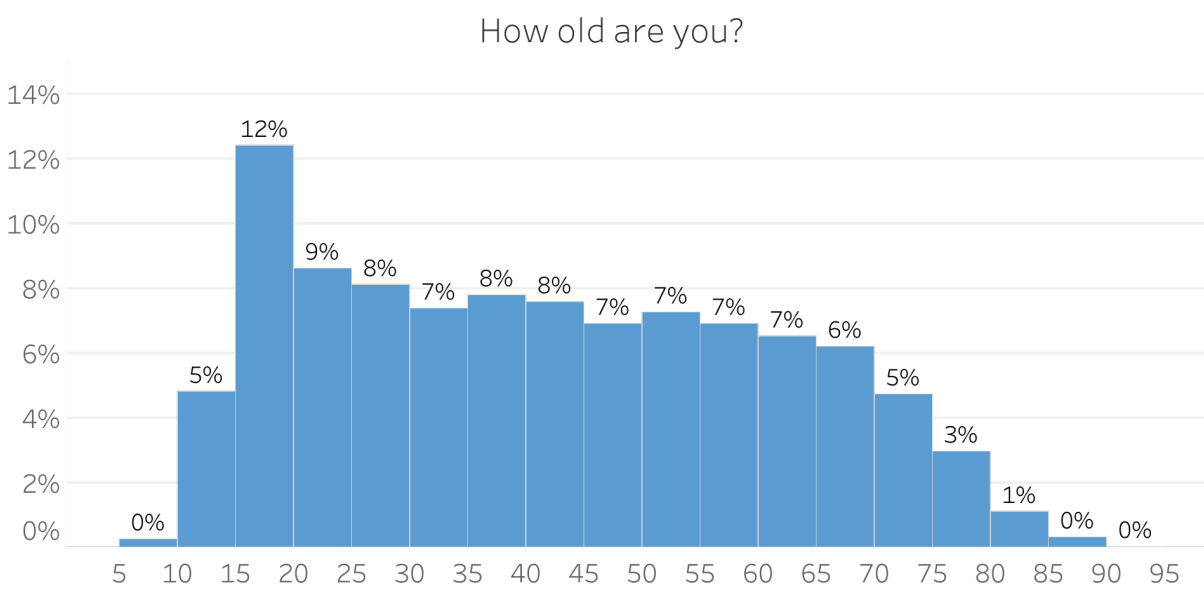
3.2. Demographics

3.2.1. Age

The steady distribution suggests that the flight sim community continues to attract individuals across a wide range of age groups. Although the core user base falls between 15 and 85 years old, there is a clear concentration around age 20, with significant engagement extending towards 85. The age distribution has been constant for the past six surveys.

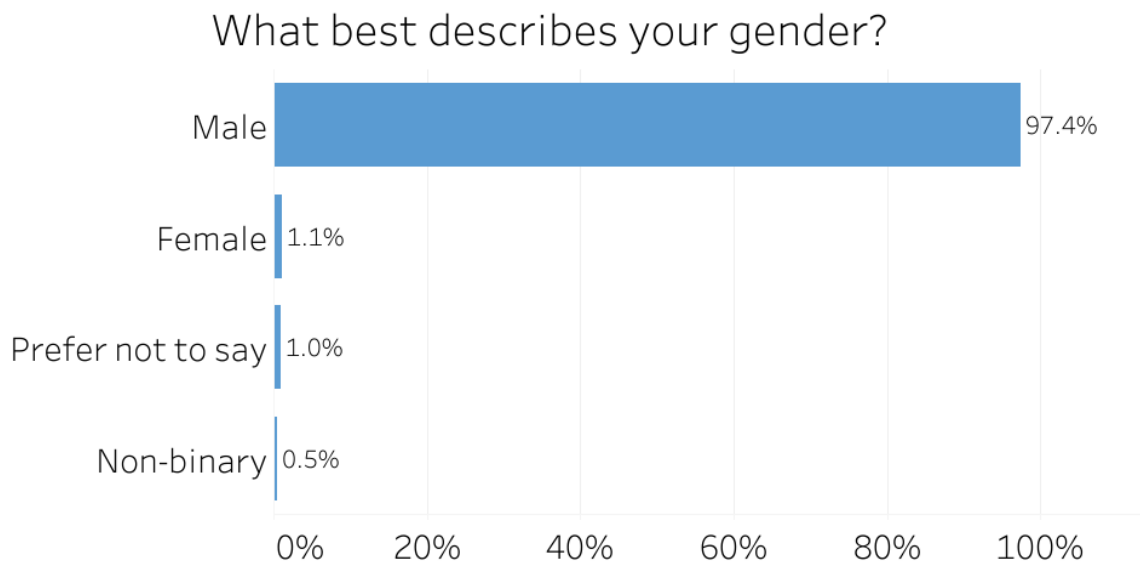


Last year's result:

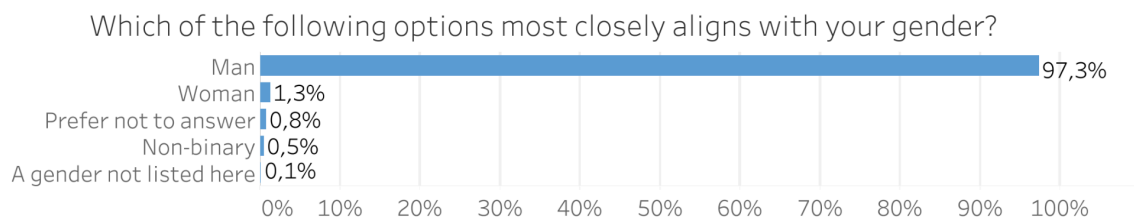


3.2.2. Gender

This year's survey results show that 97.4% of respondents are male, while 1% are female or chose not to disclose their gender. These findings are consistent with previous years' trends, reflecting the longstanding demographics of the flight simulation community.



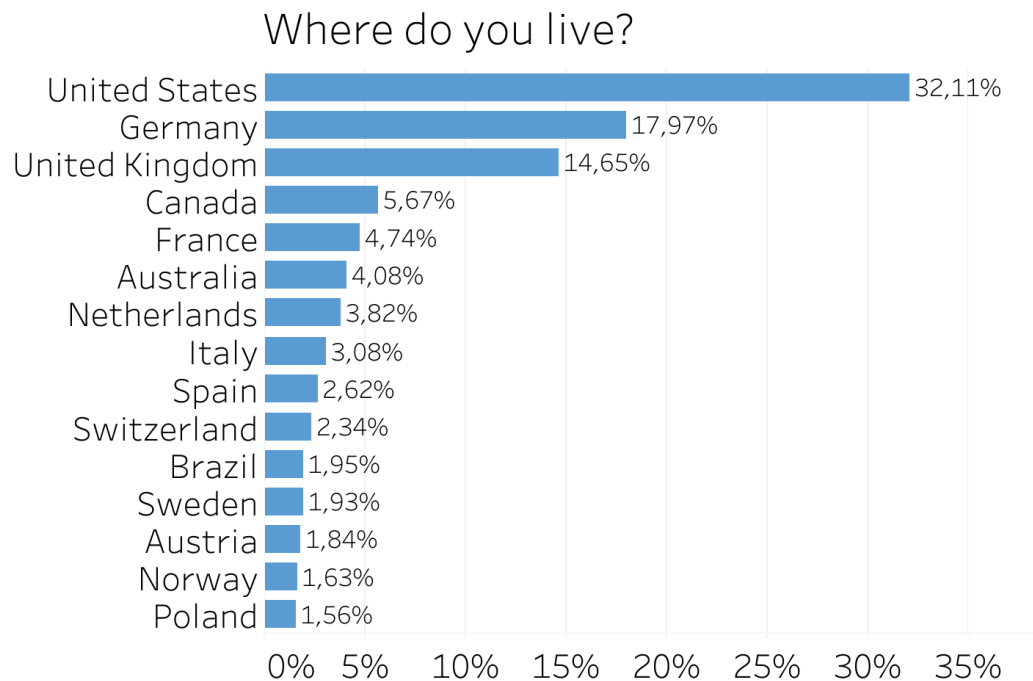
Last year's result:



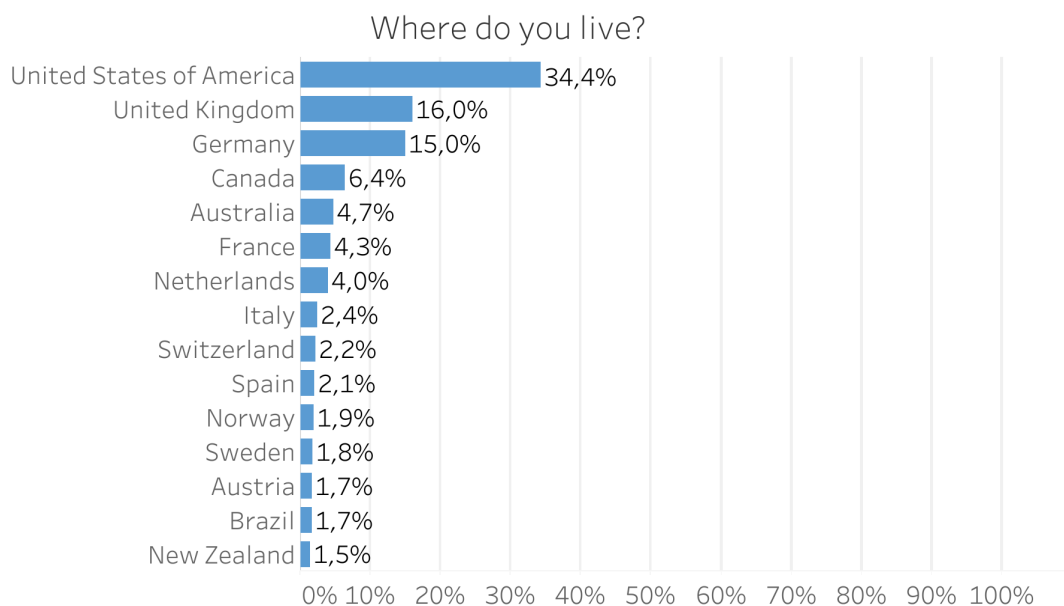
3.2.3. Location

3.2.3.1 Country Location

For the fourth consecutive year, the United States remains the leading country among respondents. This year, Germany and the United Kingdom have swapped positions, with Germany moving into second place and the United Kingdom now third. This year we can see that Poland has entered the top 15 countries, displacing New Zealand from the list.



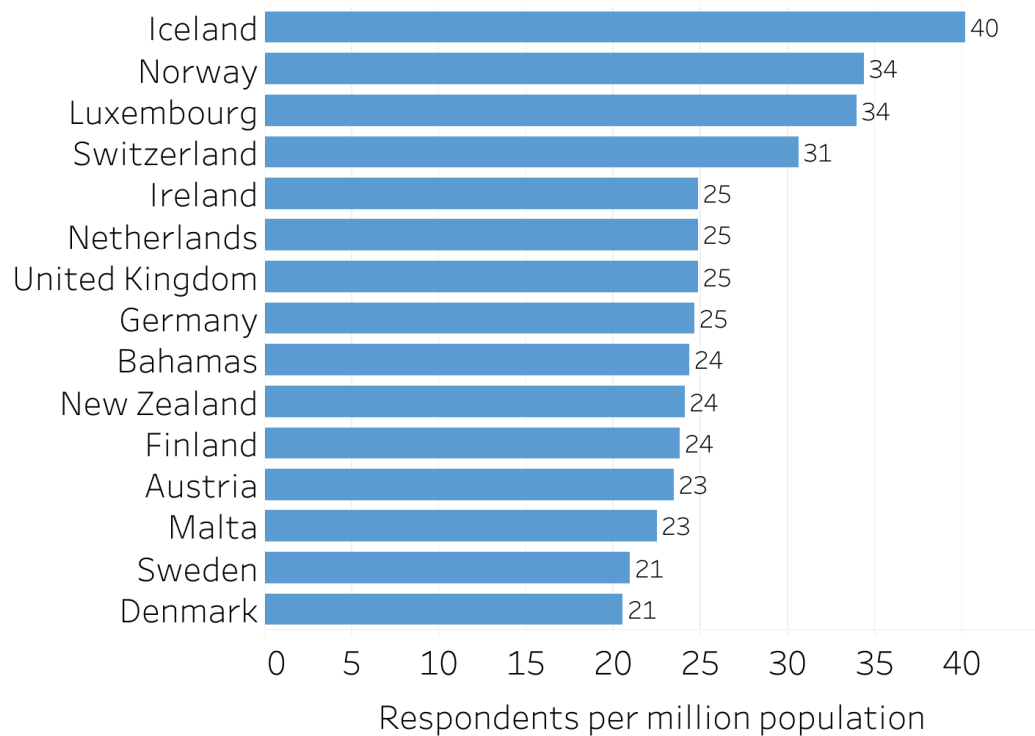
Last year's result:



3.2.3.2. Location Normalized by Population

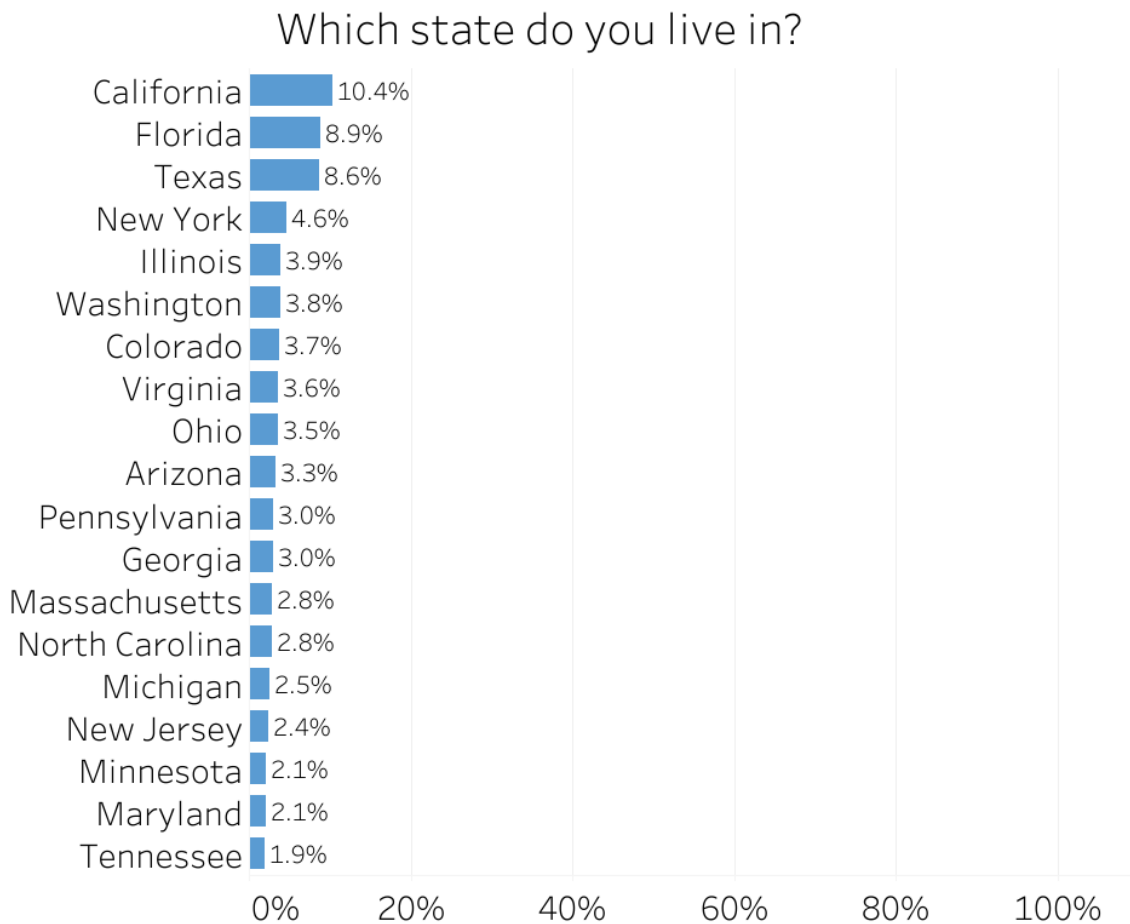
In addition to measuring the total number of respondents by country, we also analyzed participation relative to national population size. This provides insight into which countries have the highest concentration of flight simulation enthusiasts per capita. Iceland leads with 40 respondents per million people, followed closely by Norway and Luxembourg, both at 34, and Switzerland at 31. These results suggest a particularly strong engagement with flight simulation in smaller, aviation-focused nations, where accessibility to real-world aviation may influence interest in virtual flying.

Where do you live? (Normalized by country population)



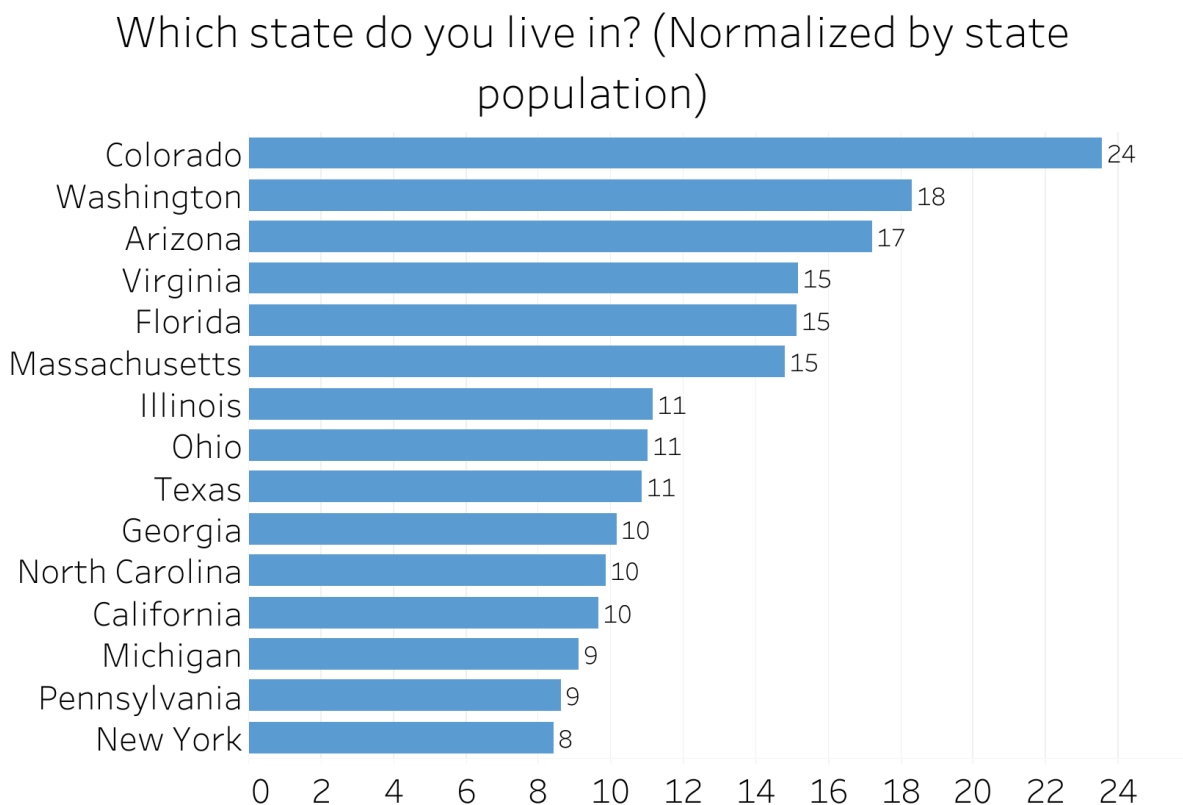
3.2.3.3. U.S. State Distribution

When asked which U.S. state they reside in, 10.4% of respondents selected California, making it the most represented state. Florida followed at 8.9%, with Texas at 8.6% and New York at 4.6%. These results align with overall population distribution trends, as larger states tend to have more respondents.



3.2.3.4. U.S. State Distribution Normalized by Population

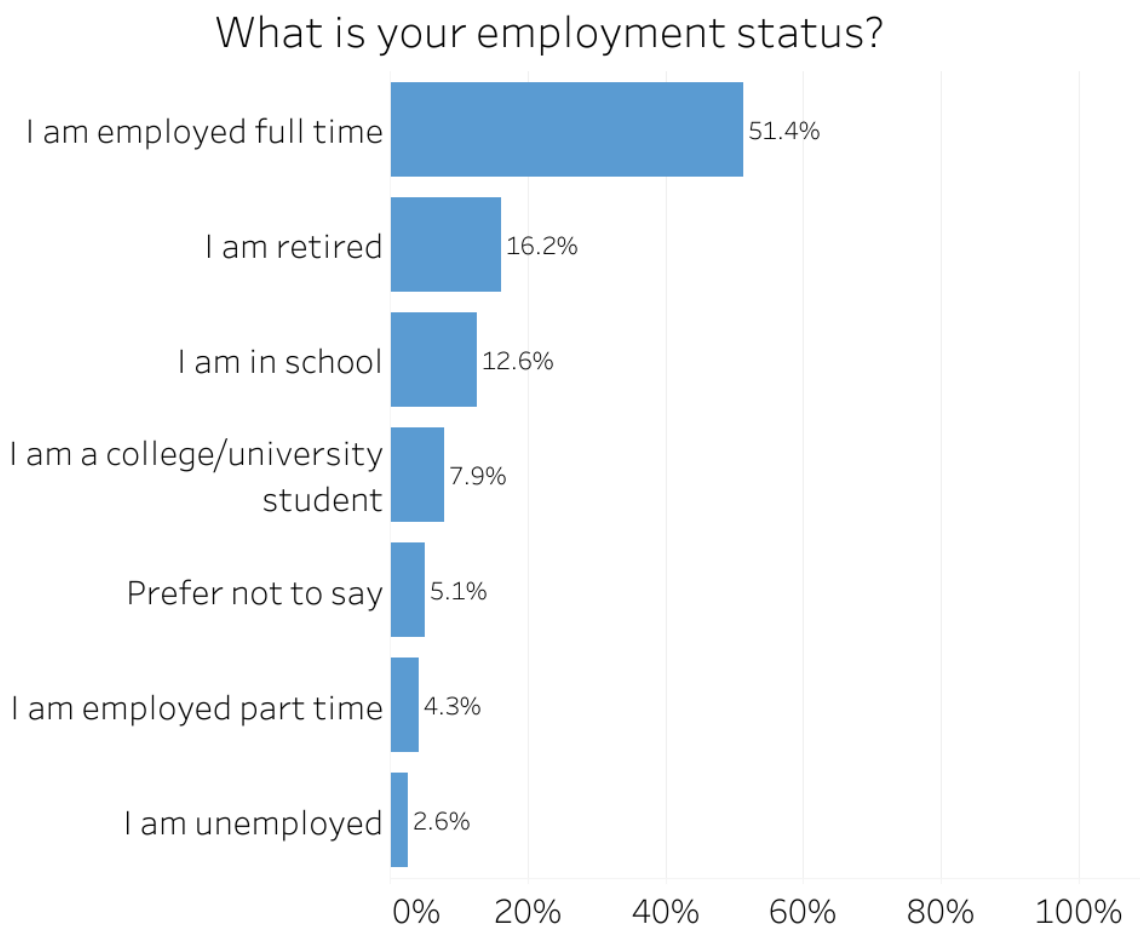
In addition to analyzing the total number of respondents by state, we also normalized the data based on population size to highlight states with a higher concentration of flight simulation enthusiasts. While California had the highest overall number of respondents (10.4%), its large population means it does not rank as highly when adjusted for per capita engagement. Colorado leads in normalized participation with 24 respondents per million residents, followed by Washington (18), Arizona (17), and Virginia and Florida and Massachusetts (all at 15). This adjustment provides a different perspective, showing that while populous states contribute the most respondents, smaller states with strong aviation communities or tech engagement may have a higher per capita interest in flight simulation.



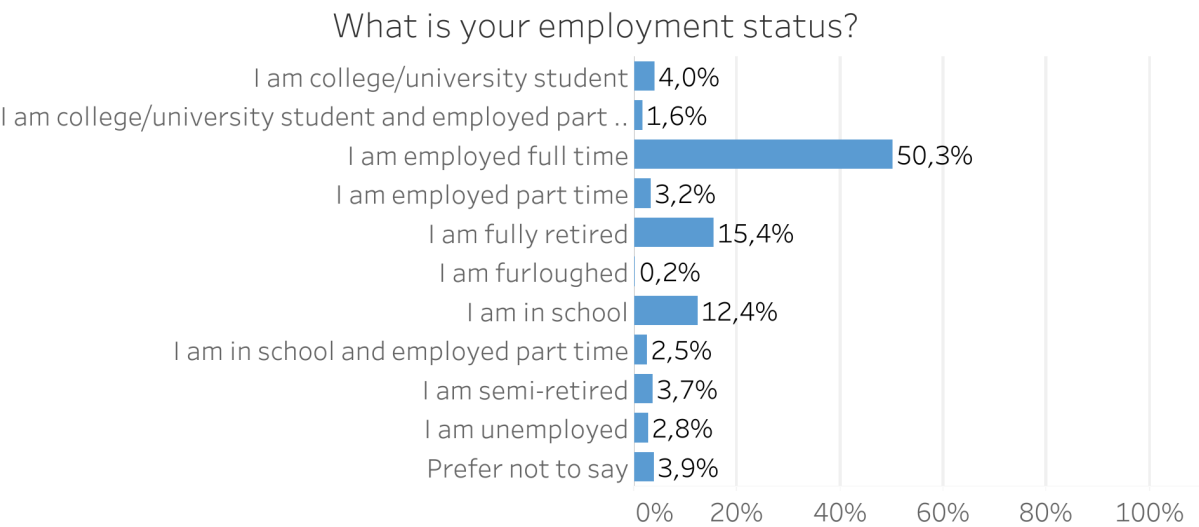
3.2.4. Work

3.2.4.1 Employment Status

The results from this year's survey indicate that the employment status of respondents remains largely consistent with previous years, despite the removal of certain answer options. As before, the majority of participants (over 50%) are employed full-time. This is followed by a significant proportion of retirees (around 15%) and students (12%). The data suggests that the flight simulation community encompasses a wide range of individuals, from those actively engaged in the workforce to those who are retired or still in education.



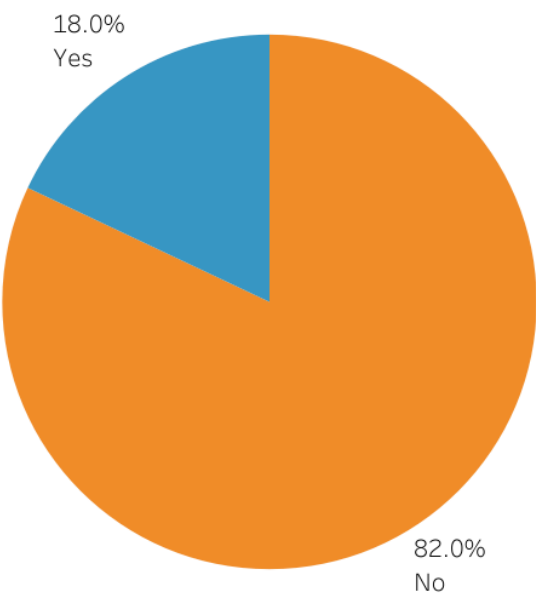
Last year’s result:



3.2.4.2. Working Within Aviation

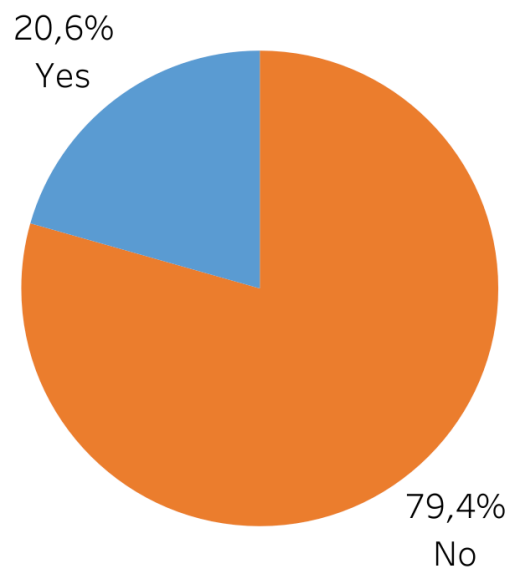
The survey inquired about respondents' involvement in the aviation industry. Comparing the results to those from the previous year's survey, a 2% decrease was observed. This suggests that a slightly smaller portion of the respondents are actively involved in the aviation industry this year compared to last year.

Do you work within aviation?



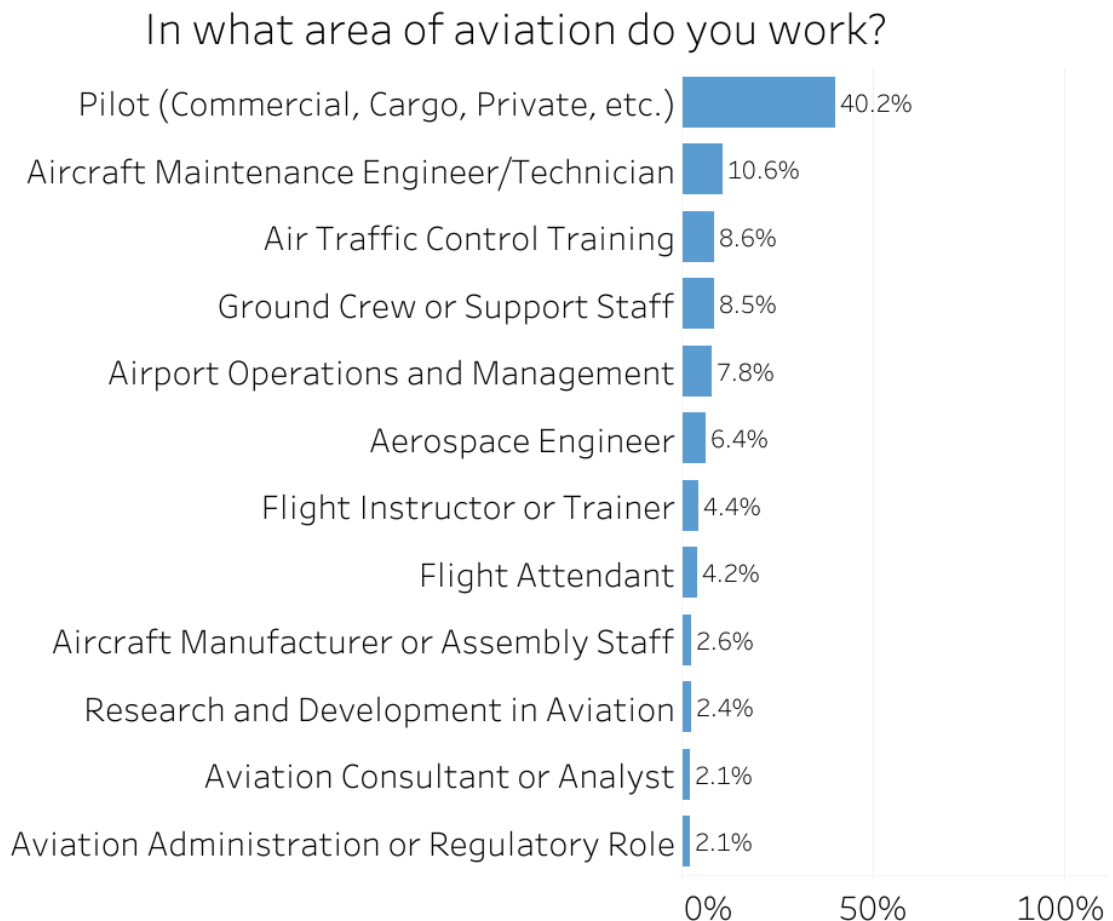
Last year's result:

Do you work within aviation?

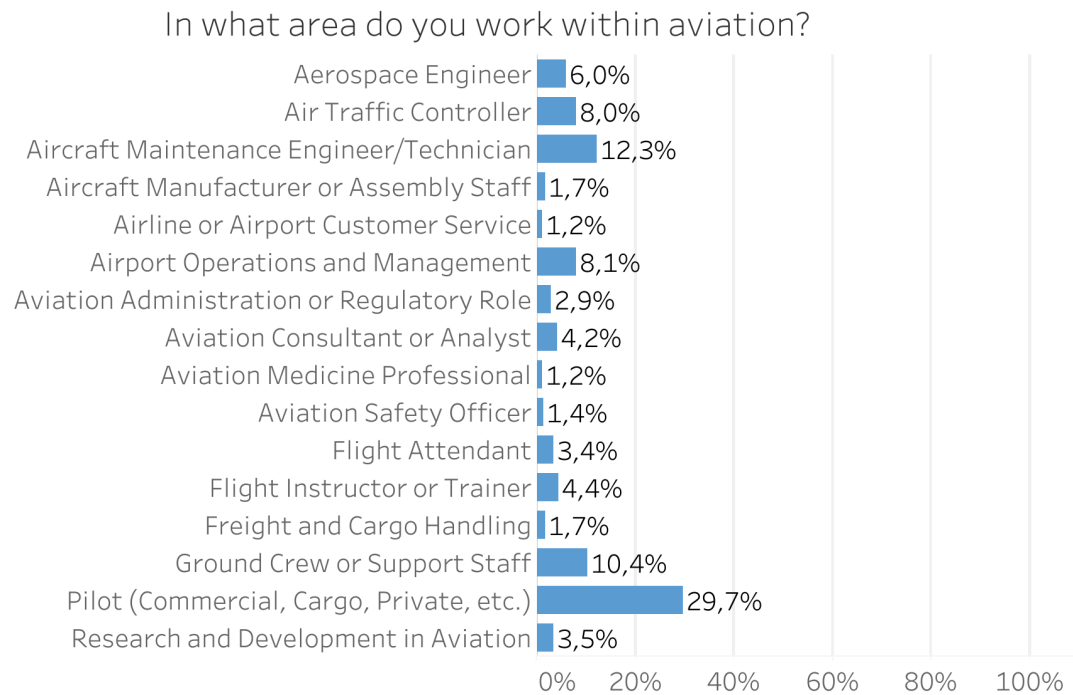


3.2.4.3. Area of Aviation

The following question was only posed to those who stated that they work within the aviation industry in the previous question. The percentage of respondents who identify as Pilots has increased significantly, rising over 10% from 29.7% to 40.2%. Runner up is Aircraft Maintenance Engineers/Technicians with 10.6% and Ground Crew and Support Staff accounted for 8.5%. This aligned with last year's survey data with a slight decrease. These results suggest a growing proportion of pilots within the group of respondents while other aviation roles remain relatively stable.



Last year's result:

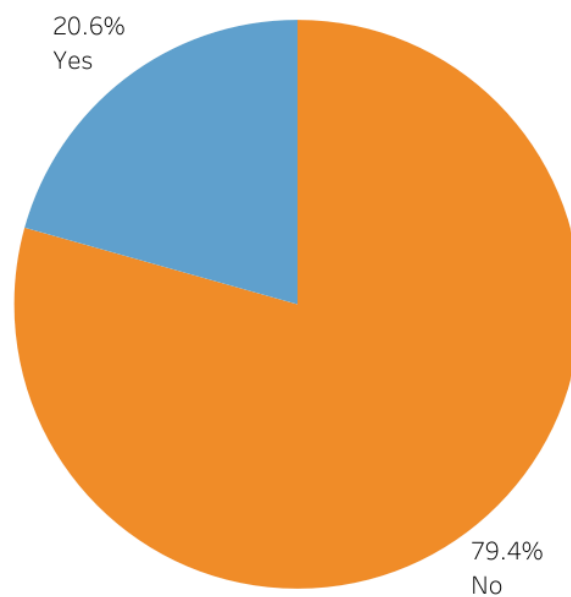


3.3. Background

3.3.1. Pilot License

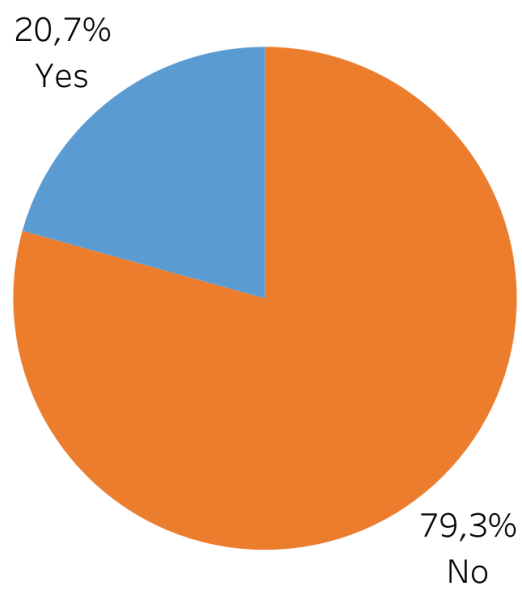
The percentage of respondents holding a pilot license remains stable, with 20.7% answering yes, last year and 20.6% this year. This consistency suggests a steady level of licensed pilots within the flight simulation community.

Do you have a pilot license?



Last year's result:

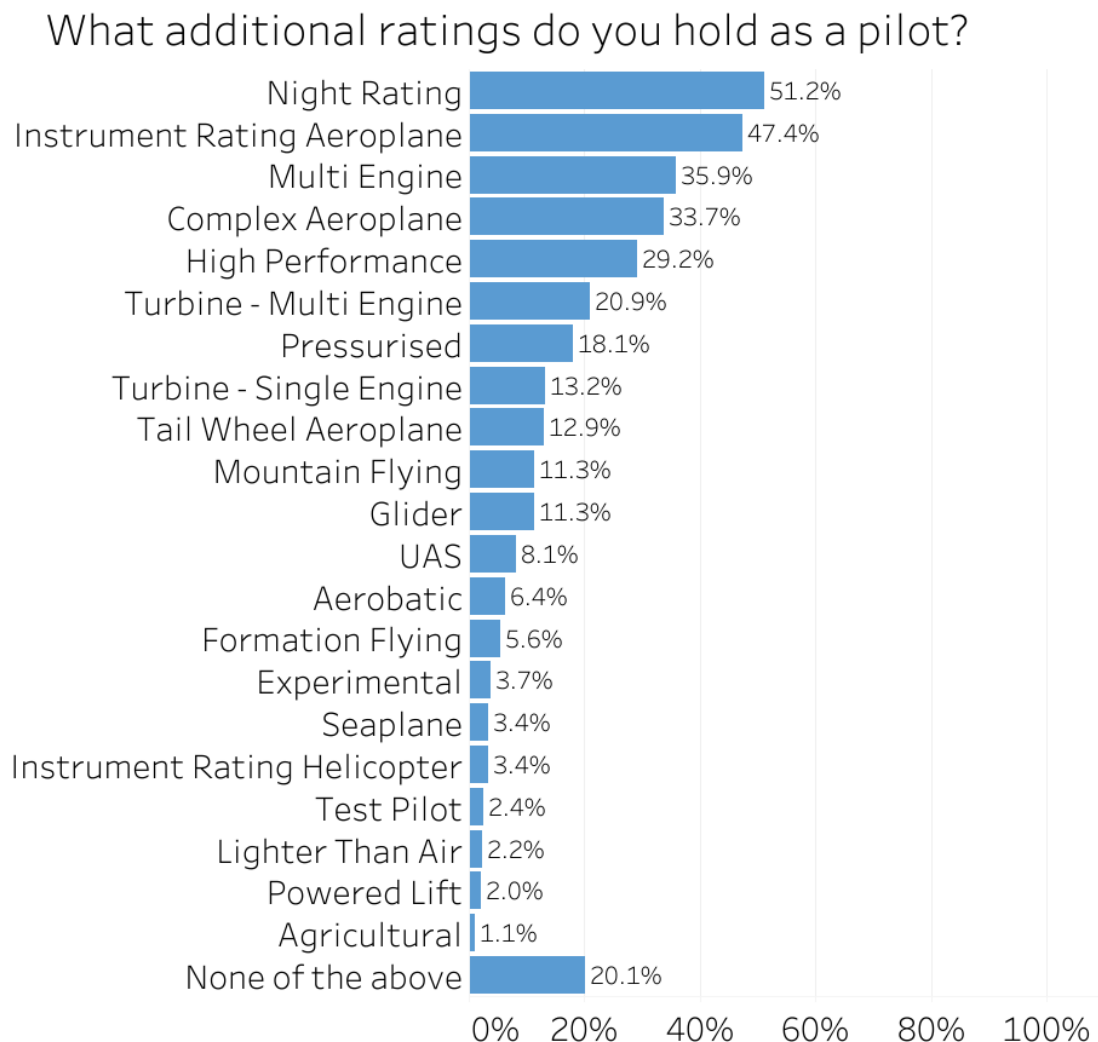
Do you have a pilot license?



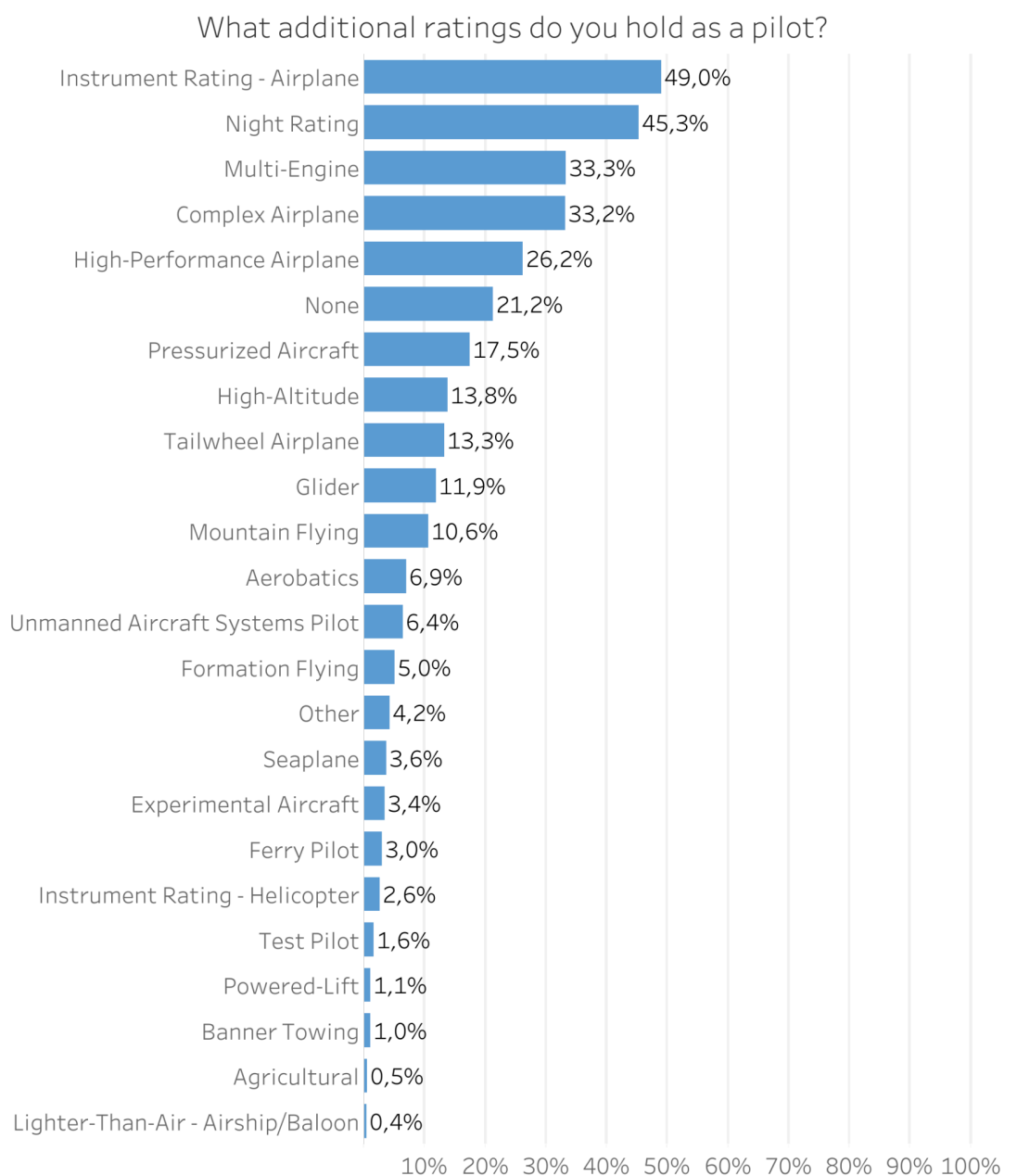
3.3.2. Additional Ratings

This question was only presented to respondents who answered “yes” to having a pilot’s license. Among them, 51.2% hold a Night Rating, making it the most common additional qualification, likely due to its affordability and short dedication time to pass; this is a clear next step after the license. 47.4% hold an Instrument Rating - Aeroplane, which enhances operational capabilities in varied weather conditions and is often pursued for safety and professional advancement.

Meanwhile, 35.9% have a Multi-Engine Rating, typically associated with career progression in commercial aviation. At the lower end of the list, 2% of respondents hold a Powered Lift Rating, while 1.1% have an Agricultural Rating reflecting specialized areas of aviation. Additionally, 20.1% of respondents selected “None of the Above”, indicating a segment of pilots who have not pursued additional ratings beyond their initial license.



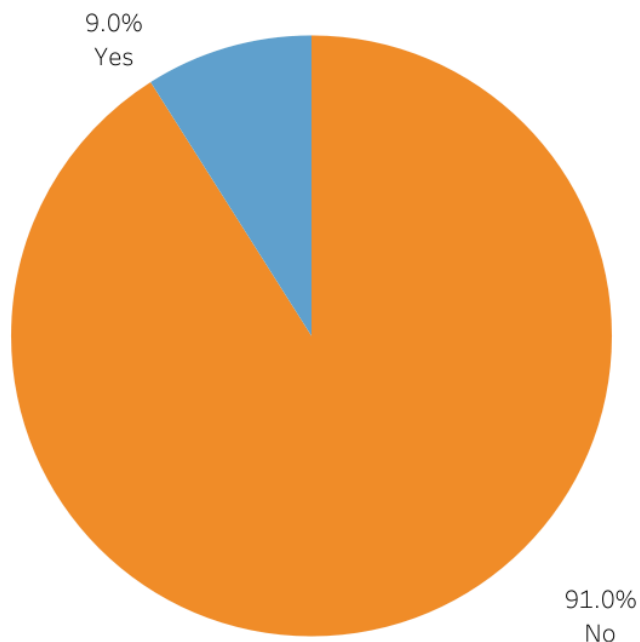
Last year's result:



3.3.3. Flight School Enrollment

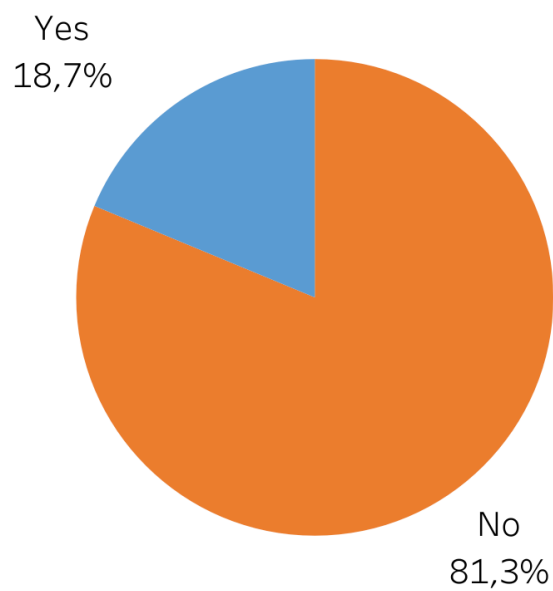
This question was directed to respondents who do not hold a pilot's license. In the 2023 survey, 19% of licensed pilots reported being in flight school; however, due to a survey logic issue, direct comparison is not possible, as the question was previously asked to all respondents. To provide better context, we have included data from the 2022 survey, which shows that the percentage has remained stable over the past three years. In the 2024 survey, 9% of respondents are currently enrolled in flight school. Suggesting a consistent level of interest in real-world aviation training among flight simulation enthusiasts rather than a significant increase or decline.

Are you currently enrolled in flight school?



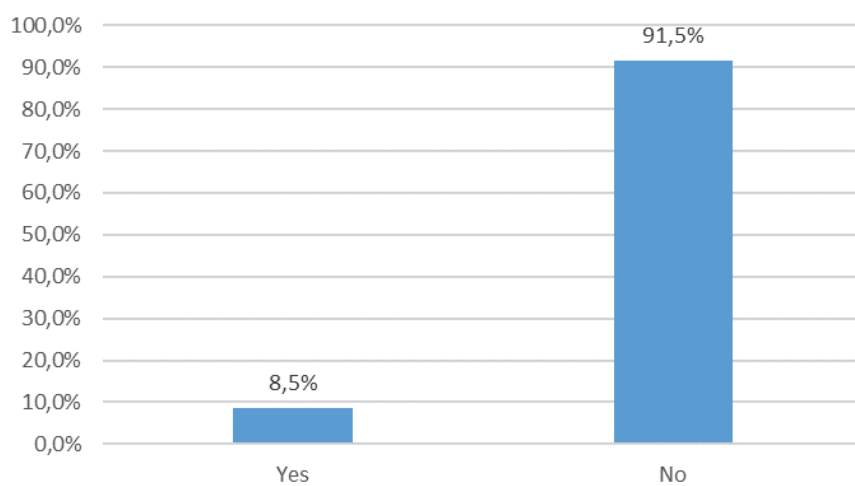
Last year's result:

Are you currently enrolled in flight school?



2022's survey data:

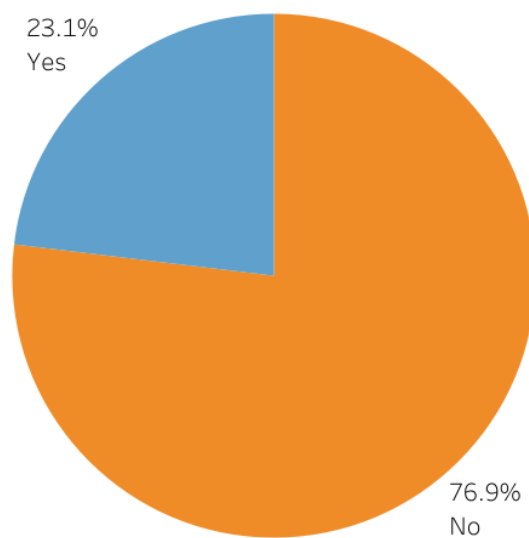
Are you currently enrolled in flight school?



3.3.4. Flight Lesson Consideration

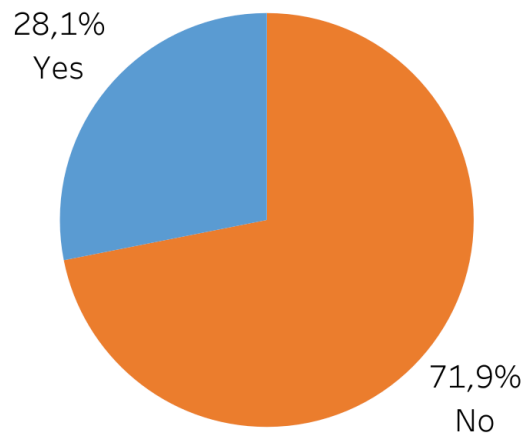
The survey indicates a slight decline in the number of respondents considering real-world flight lessons within the next year. Last year, 28% expressed interest, while this year, that number has decreased to 23%. This decline may reflect financial constraints, shifting priorities, or a growing focus on virtual aviation. Future surveys will help determine if this is a temporary trend or a lasting shift in interest.

Are you considering taking
real-world flight lessons within the next year?



Last year's result:

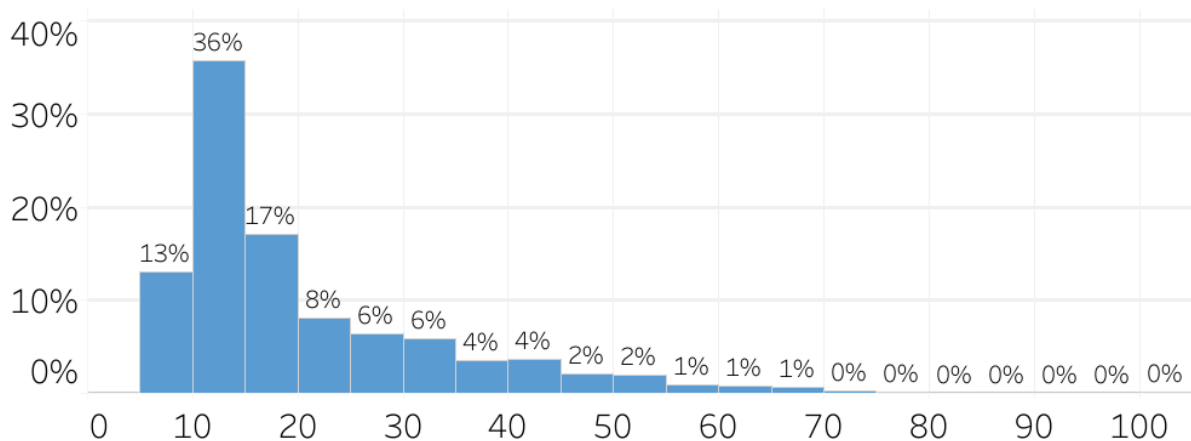
Are you considering taking real-world flight lessons within the next year?



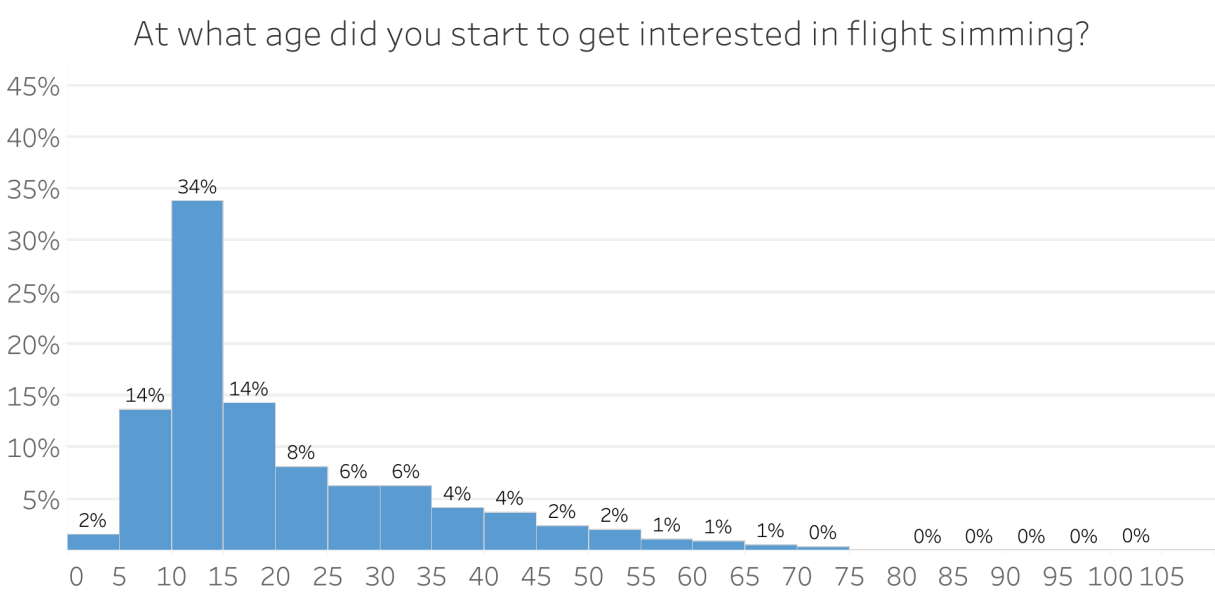
3.3.5. Simulation Introduction Age

The age range when most respondents first became interested in flight simulation has remained largely unchanged. The 10-15 age range continues to be the most common starting point, with a slight 2% increase from last year's survey. This consistency suggests that interest in flight simulation continues to develop at a young age, reinforcing its appeal as an early gateway into aviation. The slight increase may indicate growing accessibility and engagement among younger audiences.

At what age did you start to get interested in flight simming?



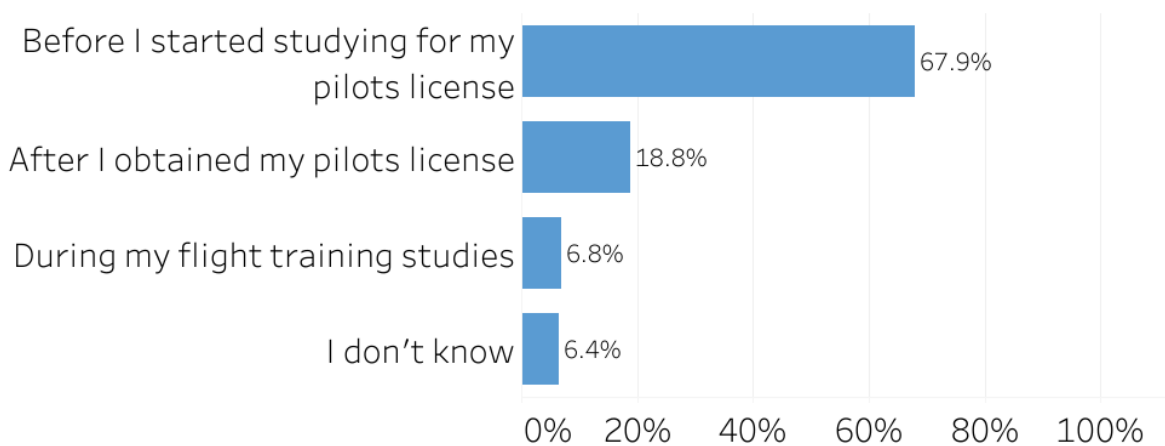
Last year's result:



3.3.6. Simulator Relative to Training

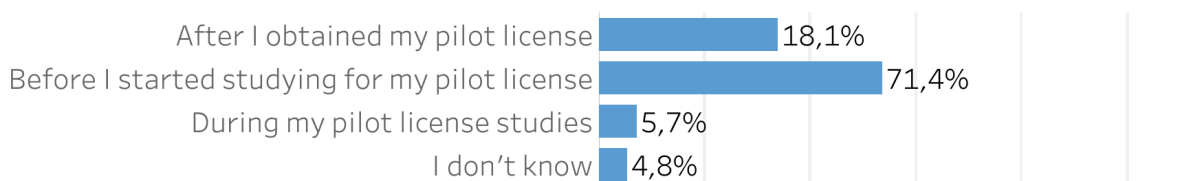
While this year's question specifically asked when licensed pilots became interested in flight simulation, last year's survey instead focused on when they acquired their first flight simulator. Despite the difference in wording, the responses show similar trends. This year, 67.9% reported gaining interest before studying for their license, compared to 71.4% who acquired their first simulator before training last year. Similarly, 18.8% became interested after obtaining their license this year, aligning closely with the 18.1% who purchased their first simulator post-license last year. The results suggest that while flight simulation is often an early influence, there is also a consistent portion of pilots who adopt it later in their aviation journey.

When did you get interested in flight simming in relation to your pilot license?



Last year's result:

When did you get your first flight simulator?

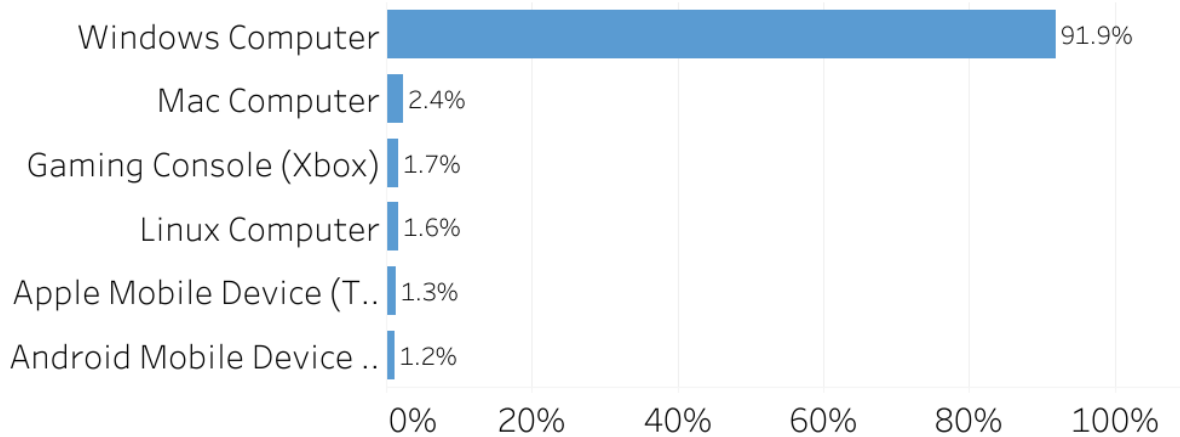


3.4. Hardware Setup

3.4.1. Primary Hardware

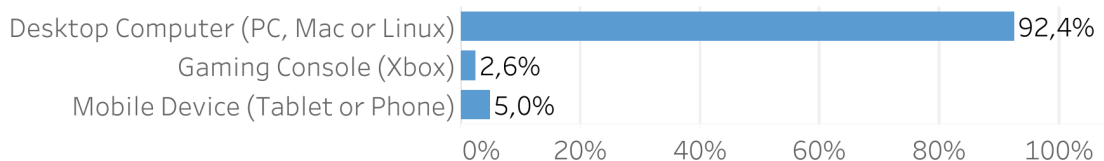
This year we separated Windows Computer and Mac Computer from each other. The result shows that most of the respondents are on a Windows Computer (91.9), 2.4% on a Mac Computer, and 1.7% on a Gaming Console (Xbox), which is a decrease from last year's 2.6%. Notable is that respondents who use a tablet or a phone decreased from 5% to 2.5%, suggesting that while mobile platforms remain an option, they are becoming less favored for flight simulation compared to dedicated computer setups among the respondents.

Which hardware do you primarily use to run your flight simulator?



Last year's result:

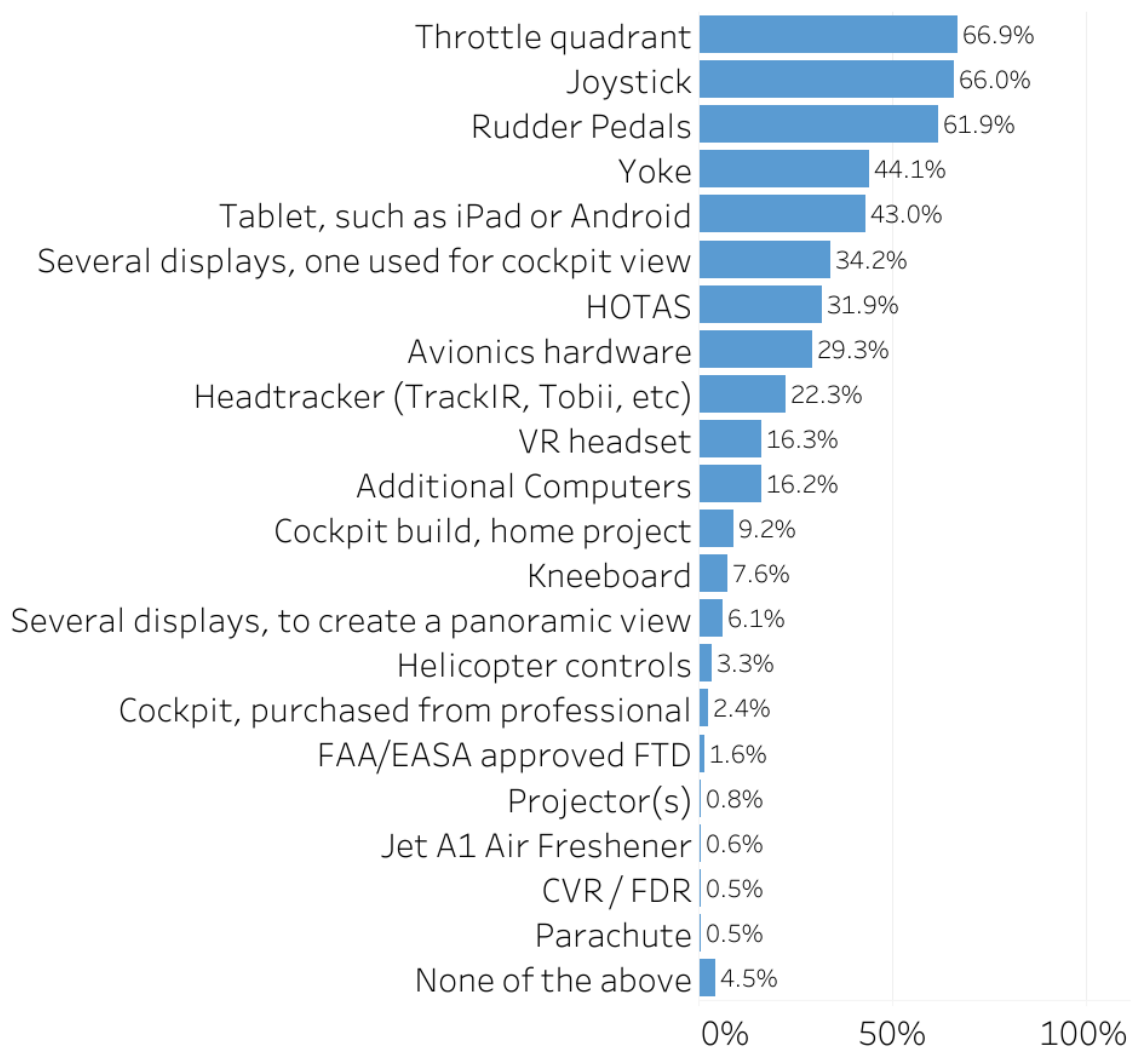
Which hardware do you primarily use to run your flight simulator?



3.4.2. Peripheral Hardware

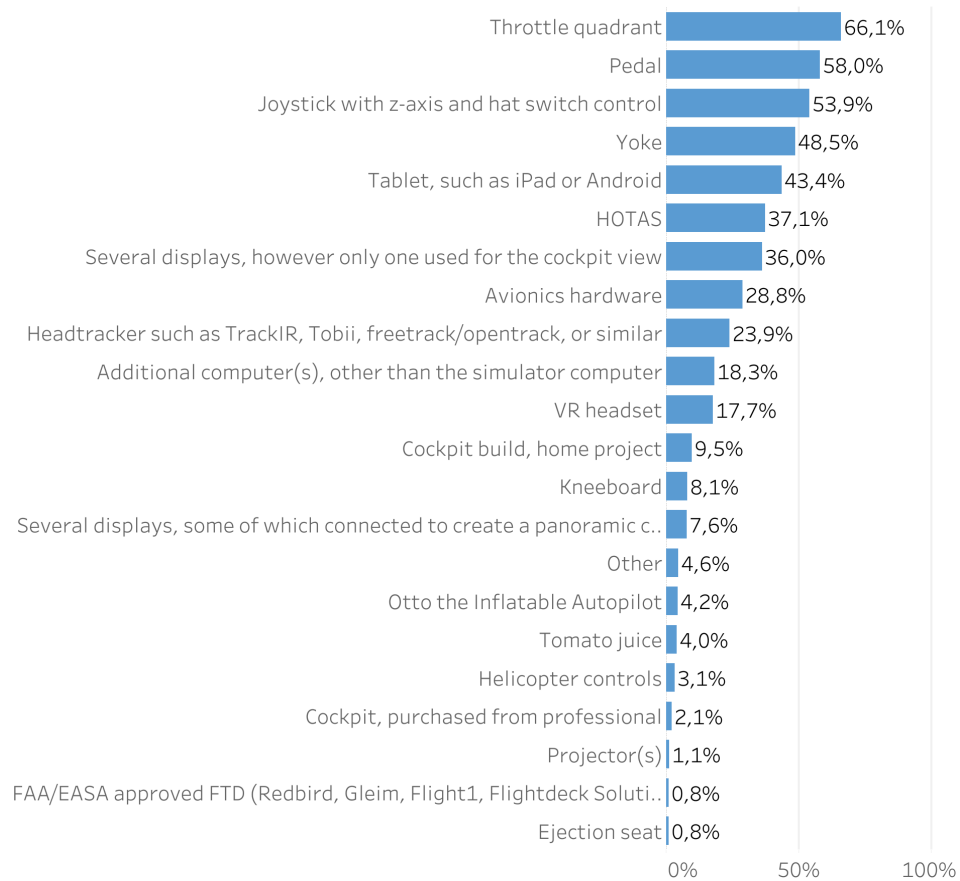
The question we all want an answer to and the question that has been constant in the survey for years: "What peripheral hardware does the community use?" We can see that the Throttle quadrant is still at the top with 66.9%, closely followed by a new number two, the Joystick at 66%. Notable is that last year Joystick had a 53.9% and this year 66%, around a 12% increase. In third place, we have Rudder pedals at 61.9%, also an increase from last year's 58%. The increasing popularity of joysticks, rudder pedals, and throttle quadrants points to a growing demand for more realistic and accurate control systems.

Which additional peripheral hardware do you use together with your flight simulator?



Last year's result:

Which additional peripheral hardware do you use together with your flight simulator?

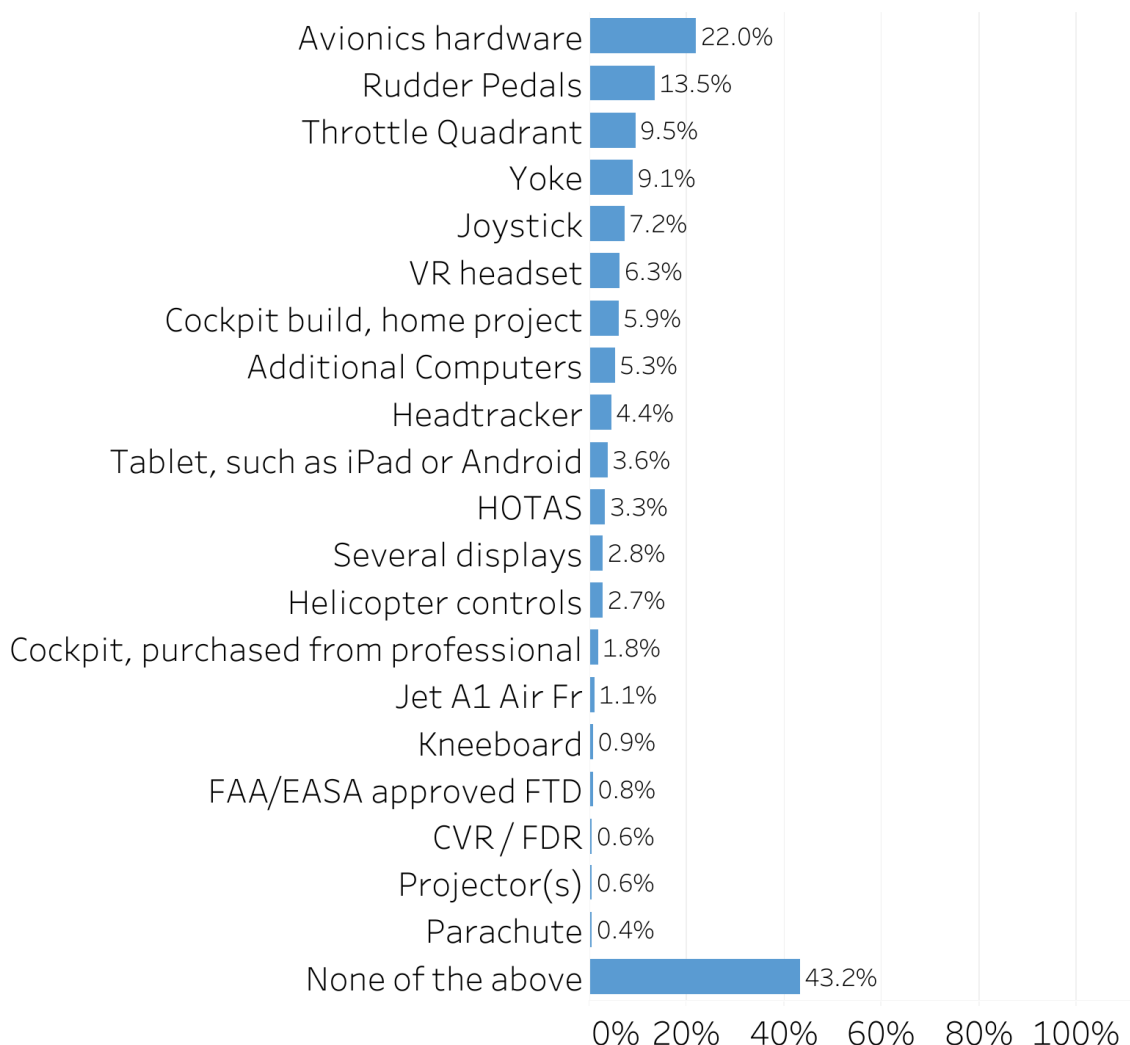


3.4.3. Planned Peripheral Purchases

The most planned purchase is avionics hardware (22%), indicating a strong focus on enhancing realism. Other popular upgrades include rudder pedals (13.5%), throttle quadrants (9.5%), and yokes (9.1%), reflecting an interest in improving flight control precision. Joystick (7.2%) and VR headsets (6.3%) also show notable demand.

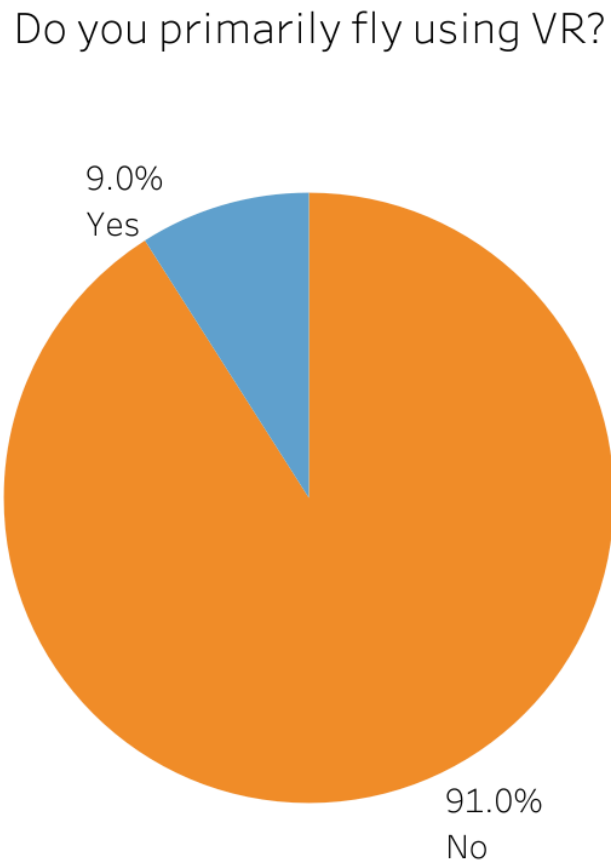
In terms of DIY setups, home cockpit building (5.9%) is more common than professionally purchased cockpits (1.8%). Niche items such as head trackers (4.4%) and tablets for sim use (3.6%) also maintain a solid following.

In the coming 12 months, which peripheral hardware do you plan to purchase for use with your flight simulator?



3.4.4. Do You Primarily Fly Using VR?

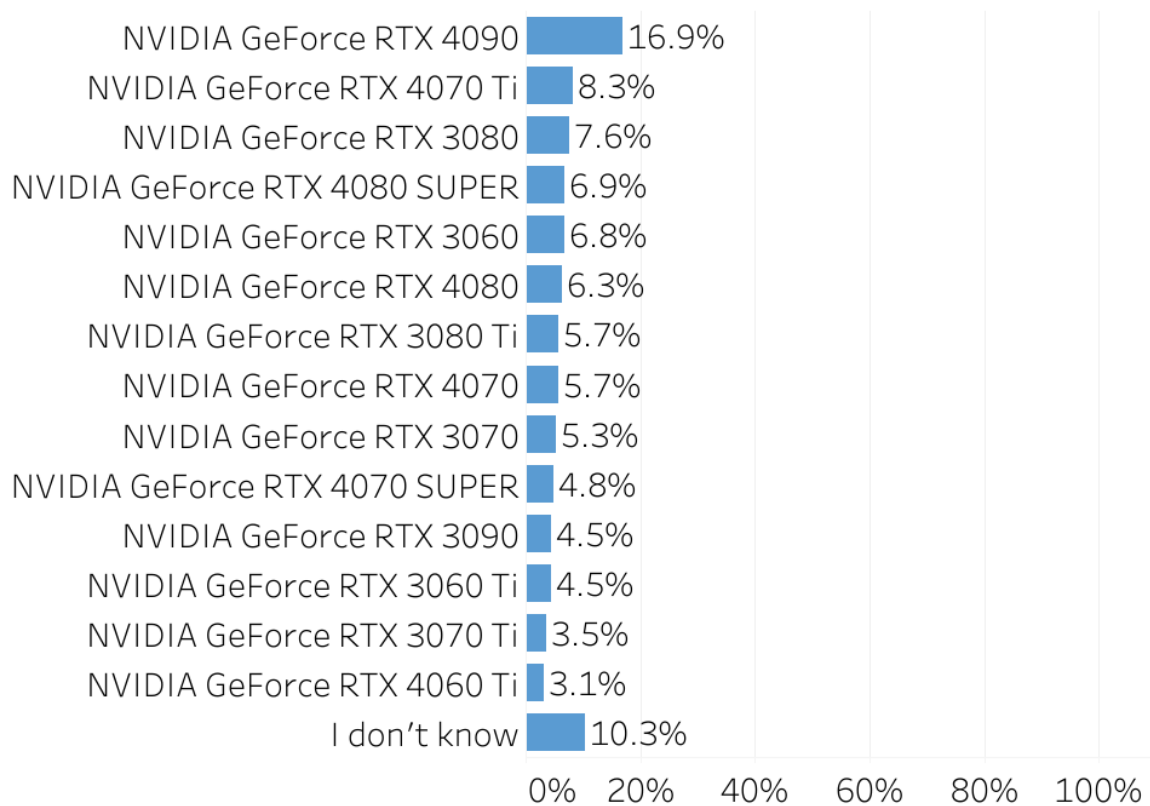
Virtual Reality (VR) continues to be a niche but dedicated part of the flight simulation community. When asked if they primarily fly using VR, 9% of respondents said yes, while the vast majority (91%) still prefer traditional setups.



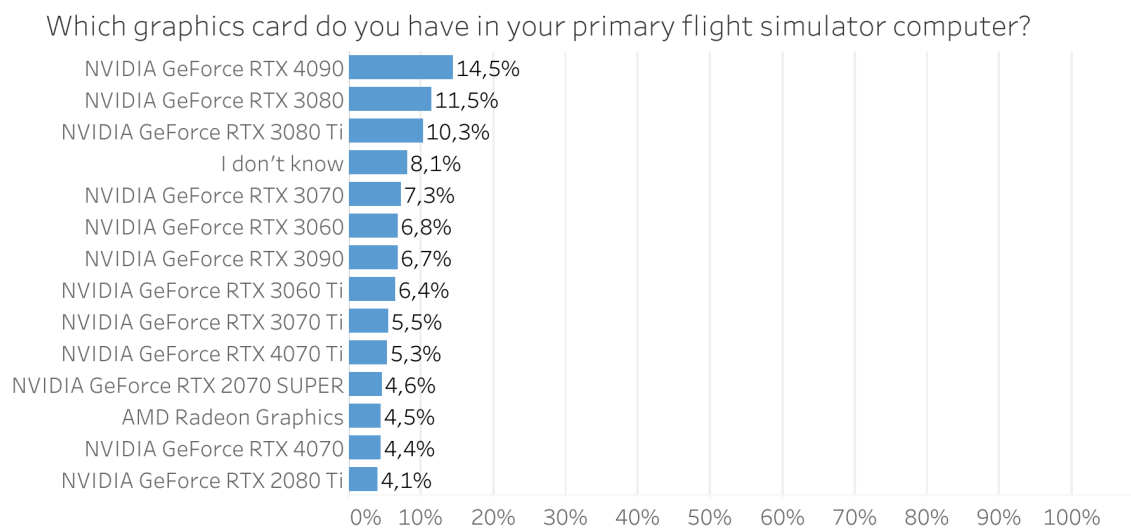
3.4.5. Graphics Card

Among the respondents of this year's survey, we can see in the top 15 that NVIDIA is the most popular. The NVIDIA GeForce RTX 4090 continues to be the most popular with an increase of 2.5% from last year from 14.5% to 16.9%. Notable is that AMD is not in the top 15 anymore. NVIDIA remains the dominant graphics card choice among the respondents, with the RTX 4090 seeing increased adoption. The absence of AMD from the top 15 highlights a shift in preference towards NVIDIA's offerings, solidifying its position as the preferred choice for most respondents.

Which graphics card do you have in your primary flight simulator computer?



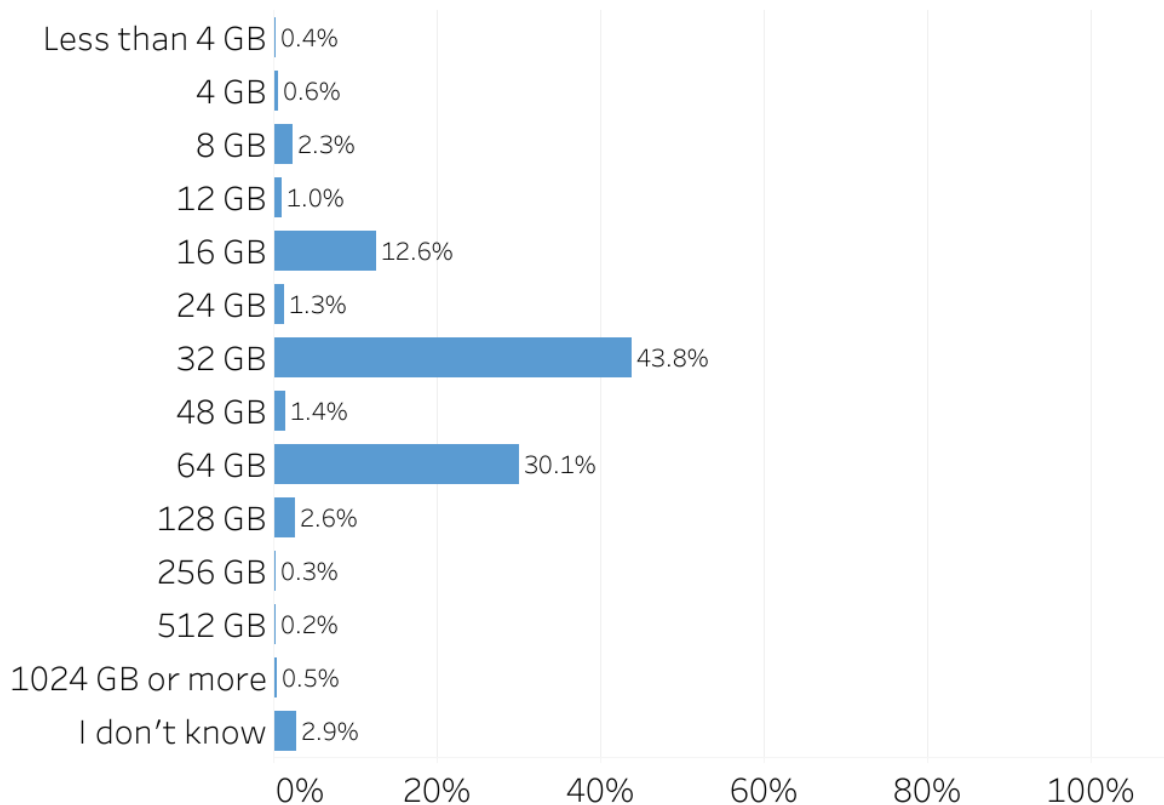
Last year's result:



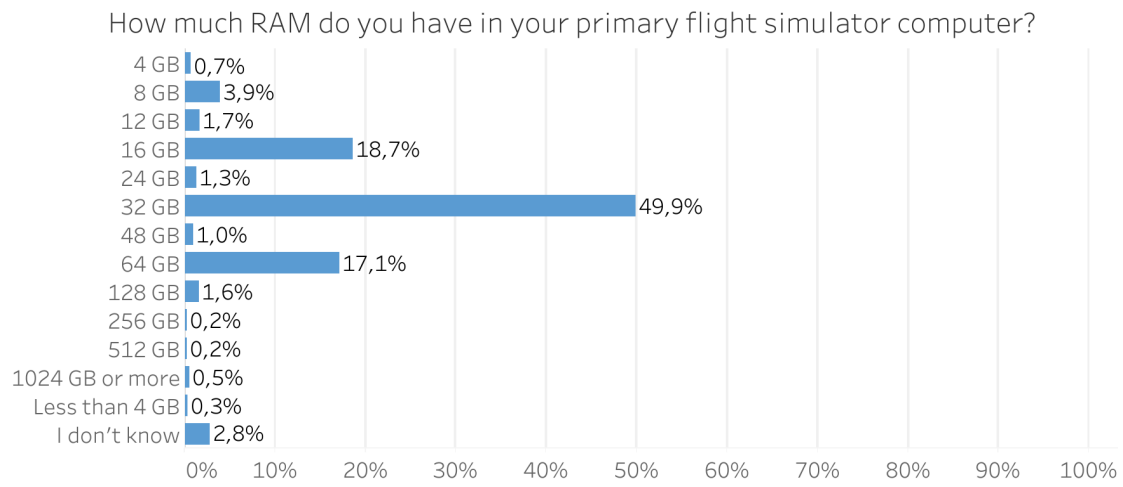
3.4.6. RAM

This year, we've seen a 13% increase in respondents with 64GB of RAM, compared to last year's 17.1%. While 32GB remains the most common choice, its share has dropped slightly from 49.9% to 43.8%. Additionally, the percentage of users with 128GB of RAM has grown from 1.6% to 2.6%. These trends reflect a shift towards higher RAM configurations, showing that users are increasingly prioritizing performance for a smoother and more immersive flight simulation experience.

How much RAM do you have in your primary flight simulator computer?



Last year's result:



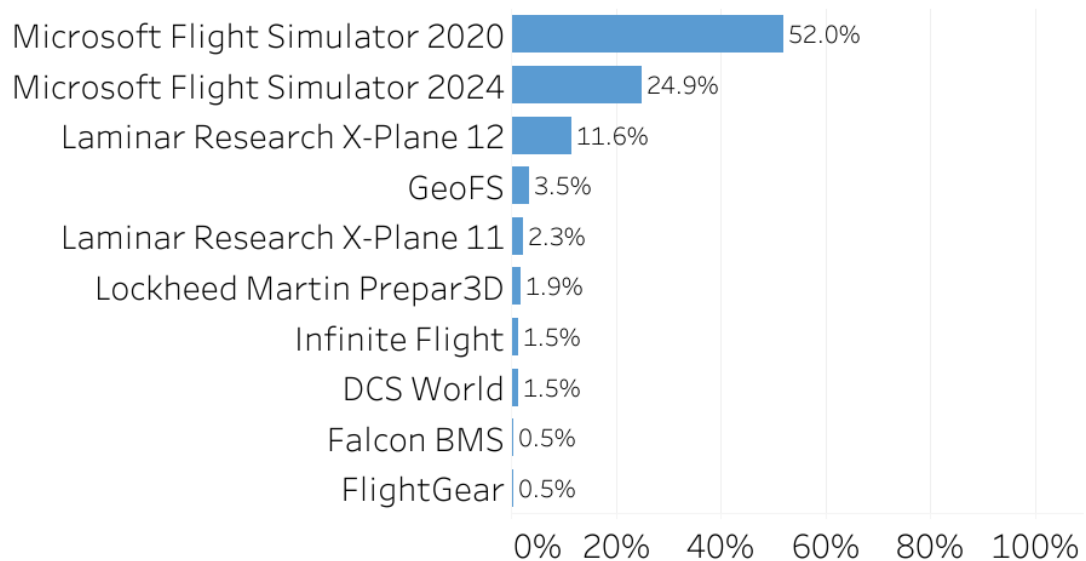
3.5. Software Setup

3.5.1. Primary Flight Simulator

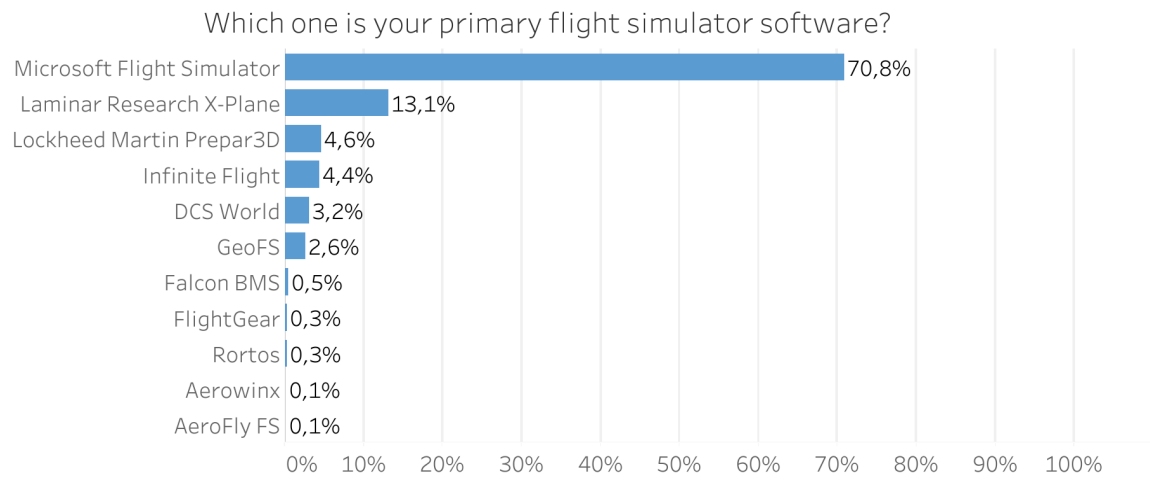
When asked about their primary flight simulator software, 52% of respondents reported using Microsoft Flight Simulator 2020, making it the most popular choice. Microsoft Flight Simulator 2024 follows at 24.9%, which reflects the recent release of MSFS 2024 and the migration of users from the previous iteration. In comparison, the 2023 survey showed Microsoft Flight Simulator 2020 at 70.8%, highlighting the shift as users transition to the new version.

Laminar Research X-Plane 12 is used by 11.6% of respondents, while X-Plane 11 accounts for 2.3%, and GeoFS at 3.5%. In the 2023 survey, Laminar Research X-Plane was reported at 13.1%, but this year, the data has been separated between X-Plane 12 and X-Plane 11, which accounts for the differences.

Which one is currently your primary flight simulator software?



Last year's result:



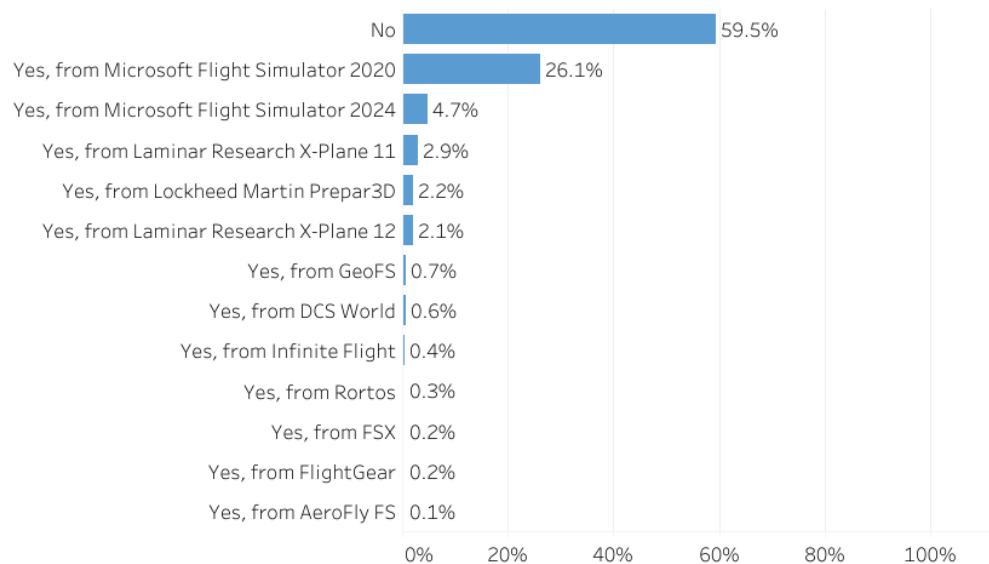
3.5.2. Flight Sim Loyalty and Switching Trends

When asked if they had switched their primary flight simulator in the past 12 months, the majority (59.5%) said no, indicating strong loyalty to their current platform. However, a sizable 40.5% did make a switch, with most (26.1%) coming from Microsoft Flight Simulator 2020.

Interestingly, 4.7% of respondents had already switched from MSFS 2024, despite its recent release. Smaller but notable shifts came from X-Plane 11 (2.9%), X-Plane 12 (2.1%), and Prepar3D (2.2%). Other simulators, including Infinite Flight, DCS World, and FlightGear, saw minimal movement.

These results highlight ongoing transitions within the flight sim community, particularly from older platforms to newer ones, with MSFS 2024 playing a key role in recent migration trends.

Have you switched your primary flight simulation software in the past 12 months?

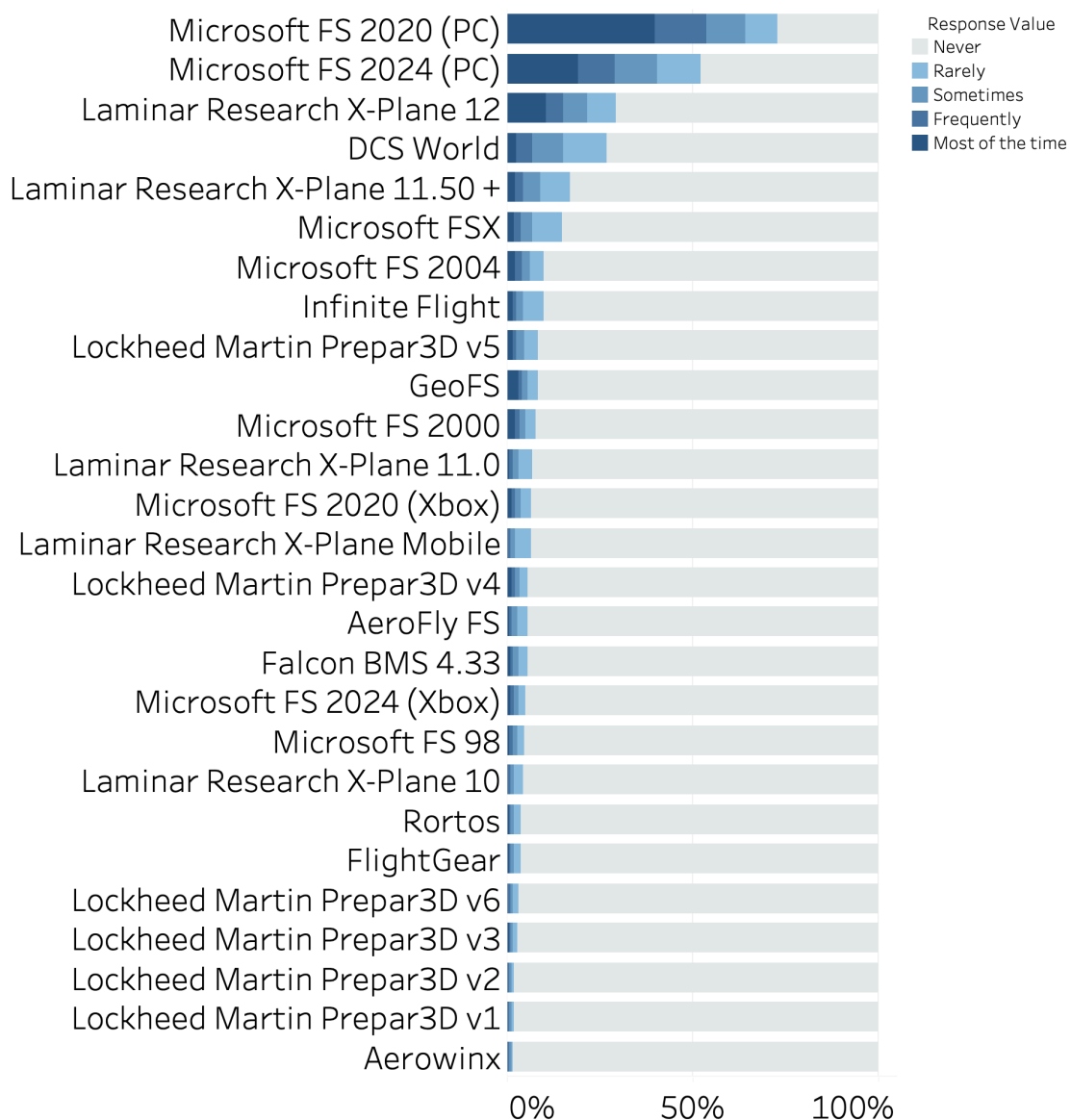


3.5.3. Simulator Preference

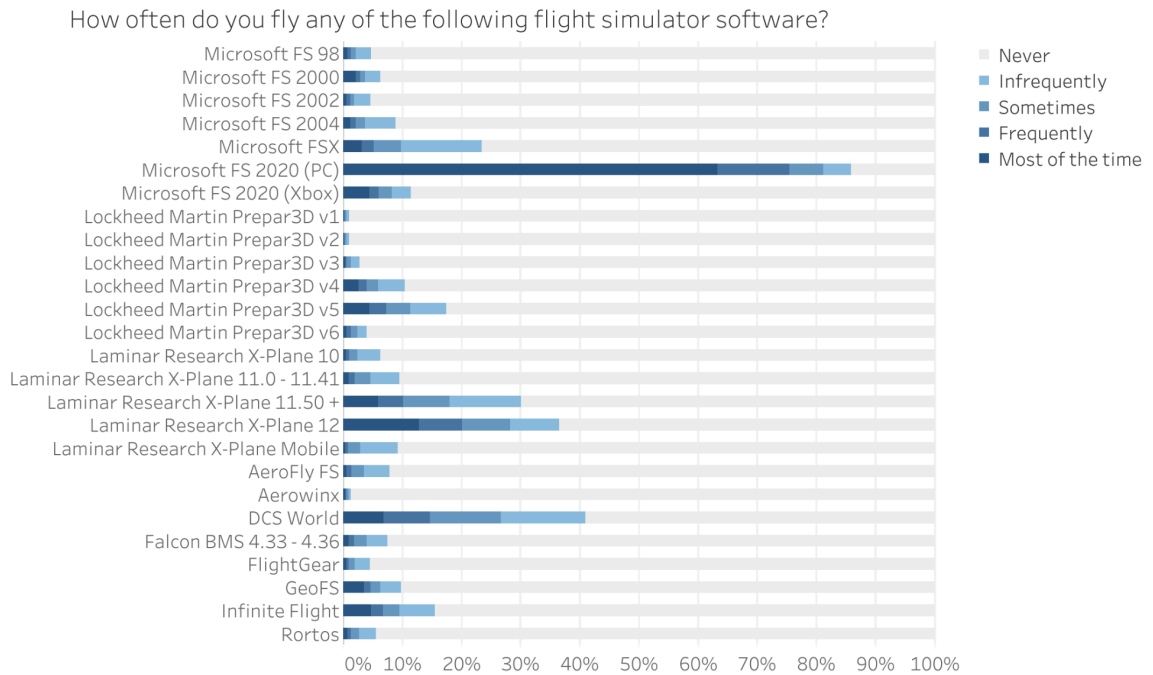
This year's survey shows that MSFS 2020 (PC) remains the dominant simulator, with around 55% of users flying it "most of the time." MSFS 2024 (PC) has seen strong early adoption, with 18% flying it "most of the time." Older simulators like FSX and FS98 have seen significant declines in usage, indicating a shift to newer platforms.

X-Plane 12 is also gaining traction, with 10% flying it "most of the time," while other simulators like DCS World and FlightGear maintain smaller user bases. Console versions of MSFS are growing in popularity but still lag behind PCs in usage among the respondents. Overall, MSFS 2020 and 2024 are at the top, while older simulators decline in favor of more modern platforms.

How often do you fly any of the following flight simulator software?



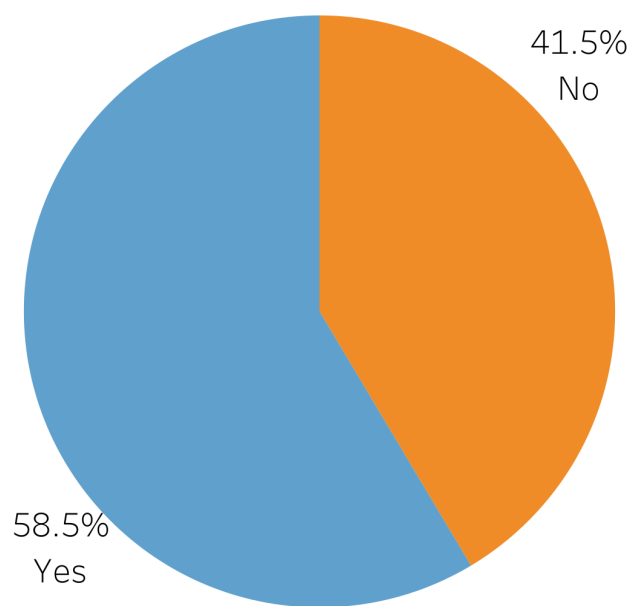
Last year's result:



3.5.4. MSFS 2024: Early Adoption Trends

A key question in this year's survey asked whether respondents had tried Microsoft Flight Simulator 2024. With significant anticipation surrounding its release, 58.5% of respondents reported having tried it, while 41.5% had not. This indicates a strong early adoption rate, though a sizable portion of the community has yet to make the switch. Factors such as hardware limitations, content availability, or preference for their current simulator may be influencing the decision to wait.

Have you tried MSFS 2024?



3.5.5 MSFS 2024: High Hopes and Mixed Results

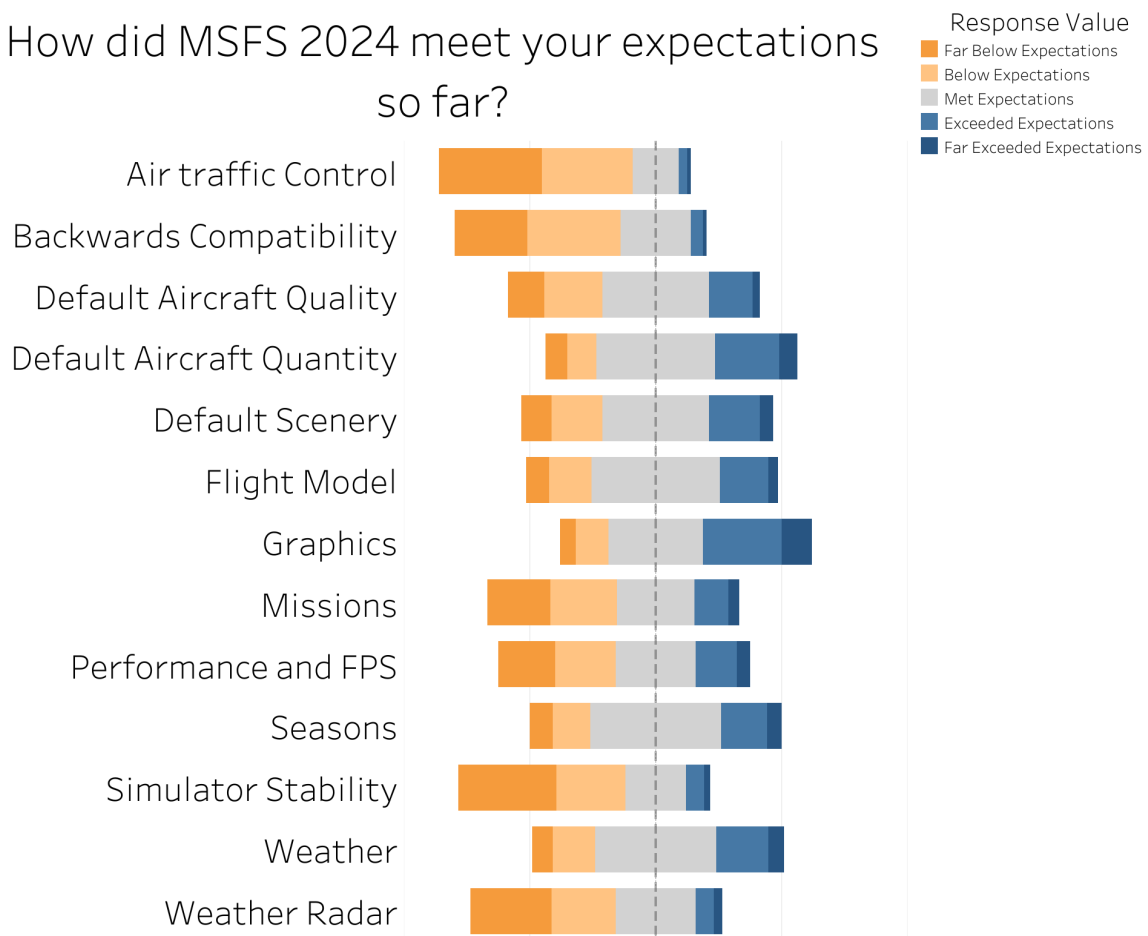
With all the excitement around MSFS 2024, we wanted to see how well it met expectations across different aspects of the simulator. The categories were selected from last year's free text question 'What are your expectations on the upcoming MSFS 2024?' (shown below this year's graph).

The results were mixed, highlighting both strengths and areas for improvement. Graphics received the most praise, as described by the blue bars on the right, with roughly half of respondents saying they exceeded or far exceeded expectations. Enhanced graphics and realism ranked as the second most anticipated feature for 2023, with 20.2% of respondents highlighting it. The flight model and default aircraft quality also performed well, with the majority stating they met or surpassed expectations.

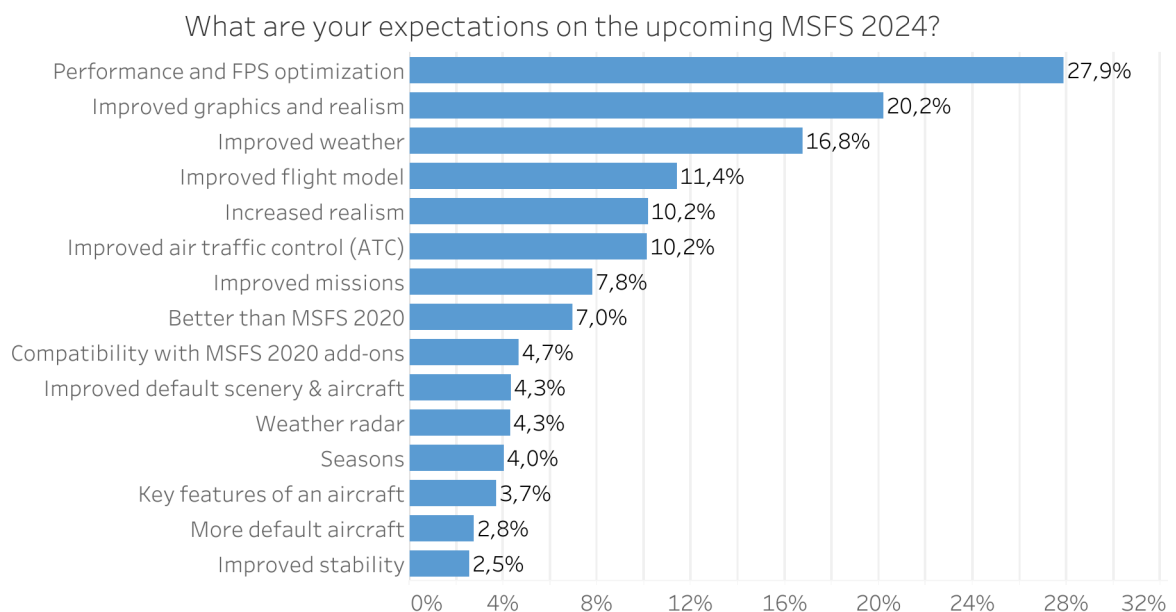
However, some areas fell short of expectations. Air Traffic Control was one of them, with over half rating it below or far below expectations. Simulator stability also struggled, with the majority stating that it did not meet their expectations. The top anticipated category from the 2023 survey was "Performance & FPS" (27.9%), which received a mixed response, with almost as many people finding it below expectations as those who found it meeting or exceeding them.

Features like seasons, weather, and default scenery were generally well-received, though weather radar and backwards compatibility had a large portion of respondents feeling underwhelmed. Missions saw the highest 'no opinion' response, indicating it may not be a widely used feature yet. Overall, while MSFS 2024 impressed in visuals and aircraft quality, several key aspects, especially ATC and stability, left many in the community wanting more.

How did MSFS 2024 meet your expectations so far?



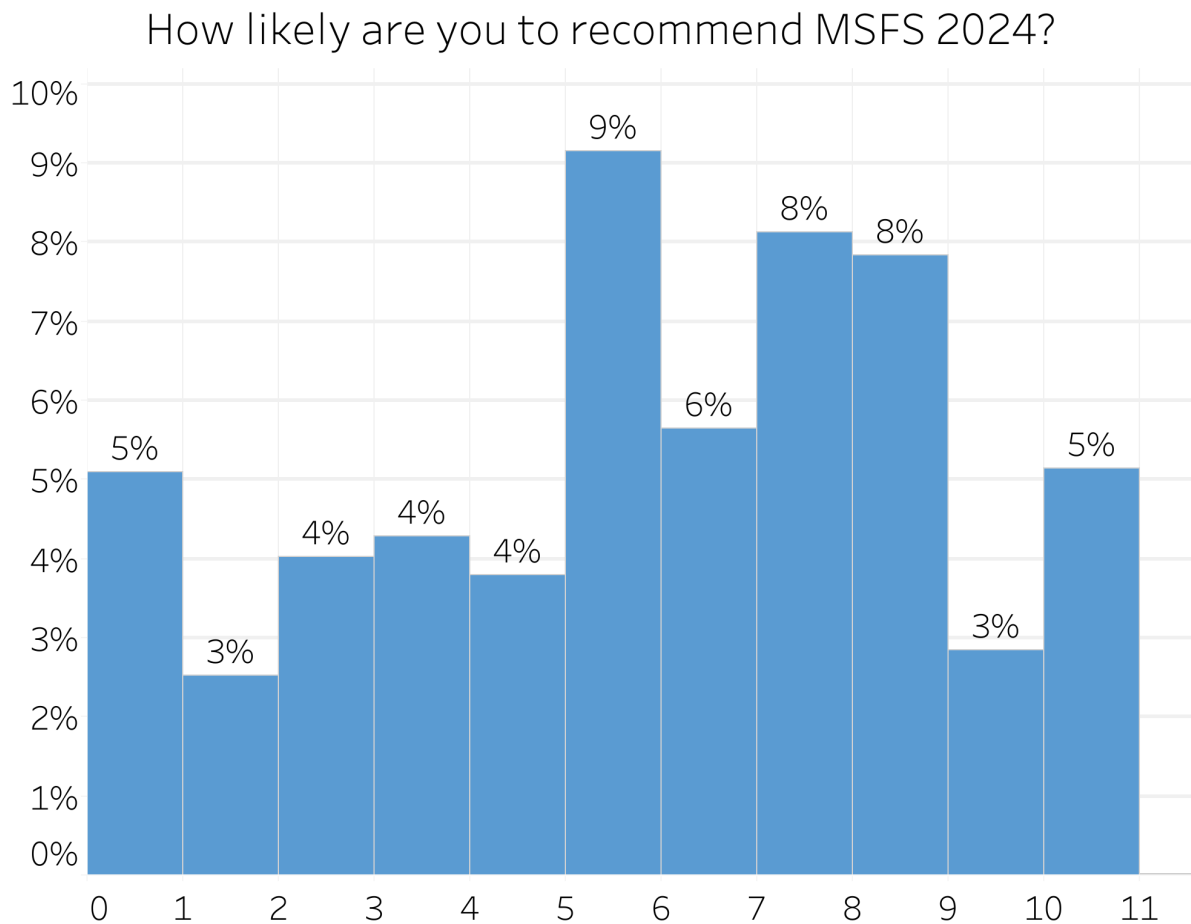
Last year's expectation results



3.5.6. How likely are you to recommend MSFS 2024?

When asked how likely they were to recommend MSFS 2024, responses were mixed. While 24% of users rated it positively 7 or above, a significant 16% gave it a low rating (below 4), indicating dissatisfaction. The most common response was a neutral 4-6 (19%), showing that many users feel the simulator is just average at this stage.

Enthusiasm for MSFS 2024 is present, but it's not overwhelming. While some users are happy with the experience, many remain hesitant to recommend it fully. This suggests that while the simulator has potential, it may still need further improvements to win over the broader community.



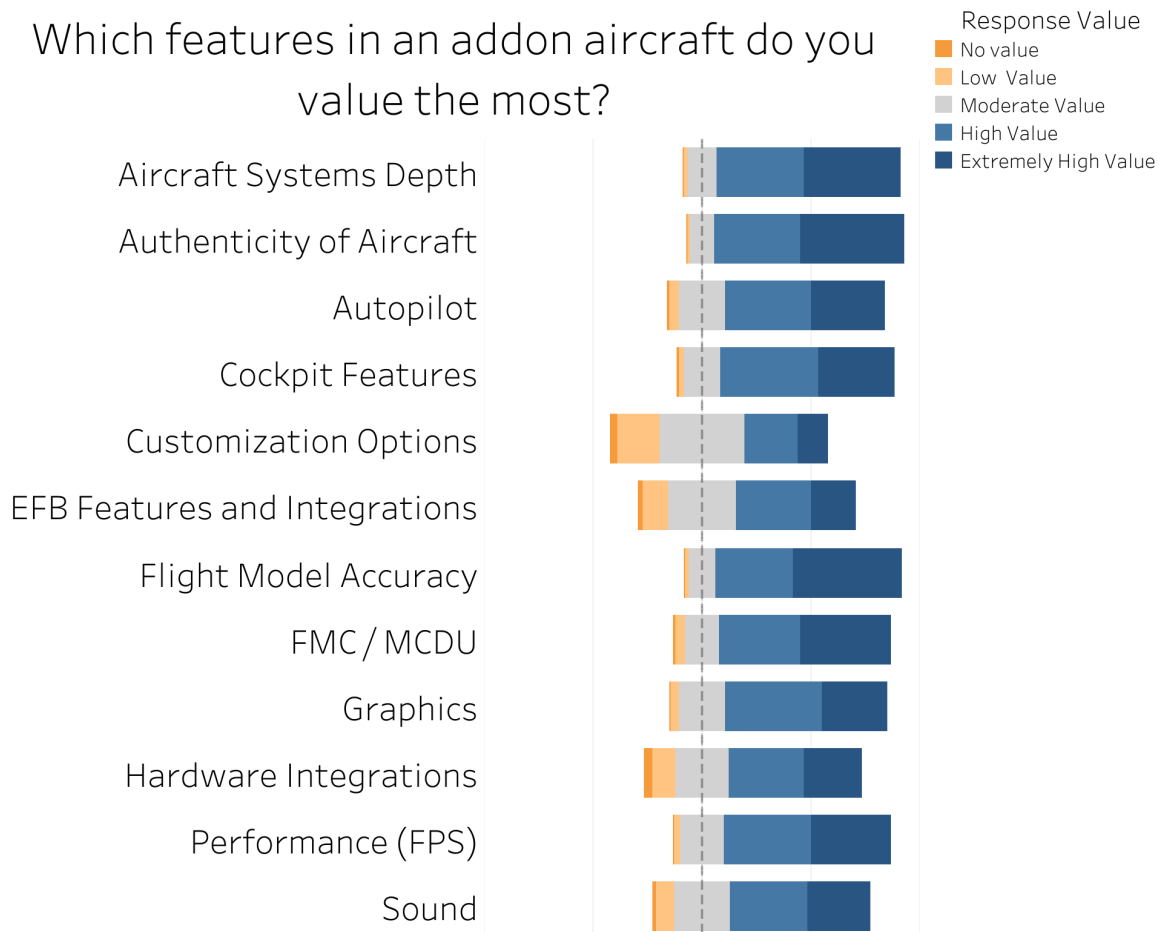
3.5.7. Addon Aircraft Features

Last year, this question had a free-text answer. This year, we used AI to create a matrix with the free-text answers provided by the respondents last year.

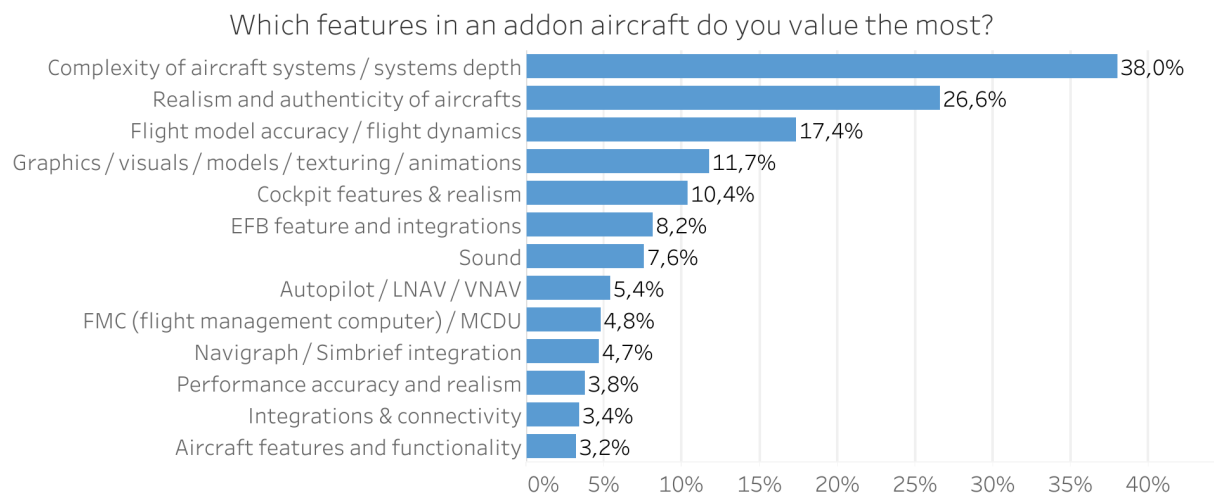
Comparing this year's structured ratings to last year's open-ended responses, some clear trends emerge. Aircraft Systems Depth, Authenticity, and Flight Model Accuracy remain the top priorities, with respondents rating them extremely high in value. Graphics and Cockpit Features continue to be important, maintaining strong ratings.

Interestingly, Performance (FPS) ranked much higher in this year's structured survey than last year's free-text responses suggested. Similarly, Autopilot and FMC/MCDU functionality scored higher, showing increased demand for advanced avionics.

Overall, the structured format provided clearer insights into simmer priorities, confirming that realism, depth, and performance are at the heart of the experience.



Last year's result:

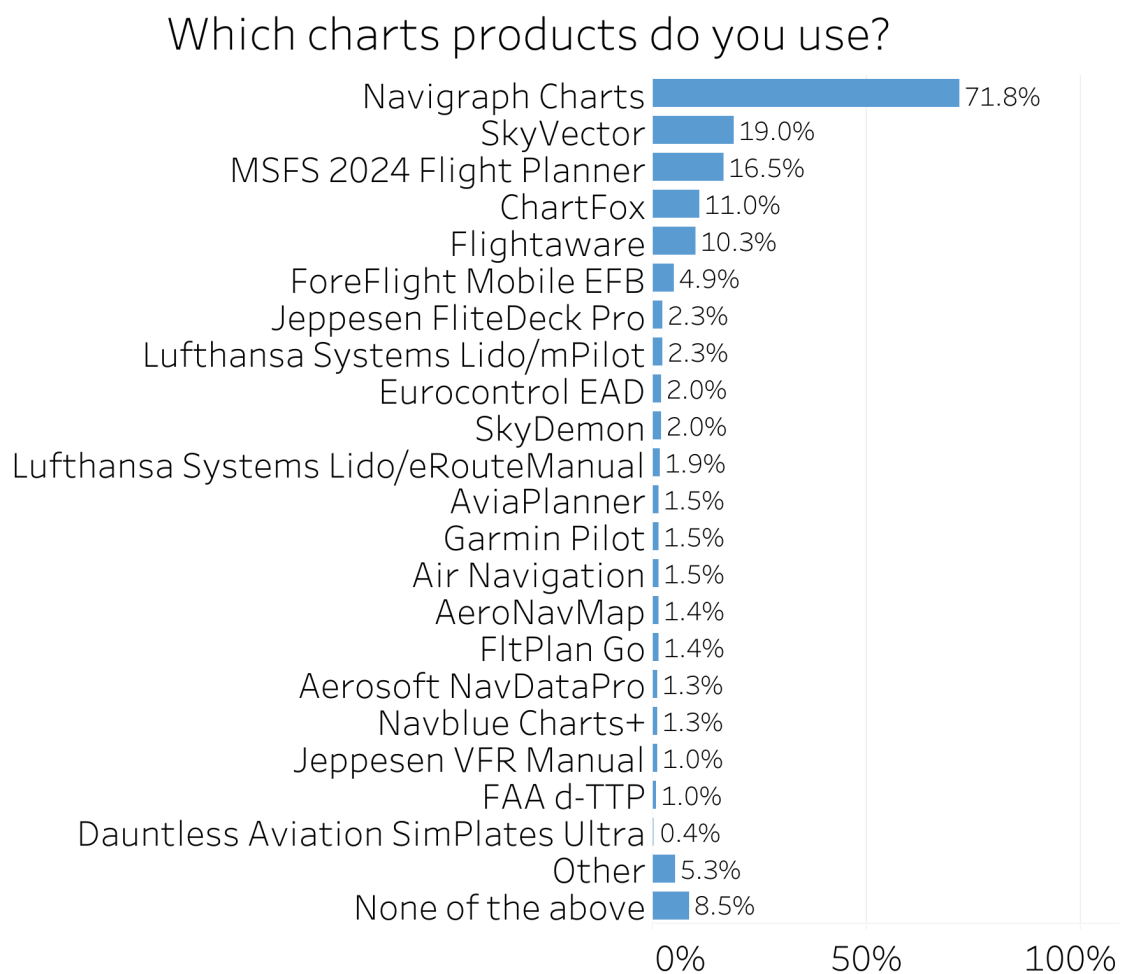


3.5.8. Charts Products

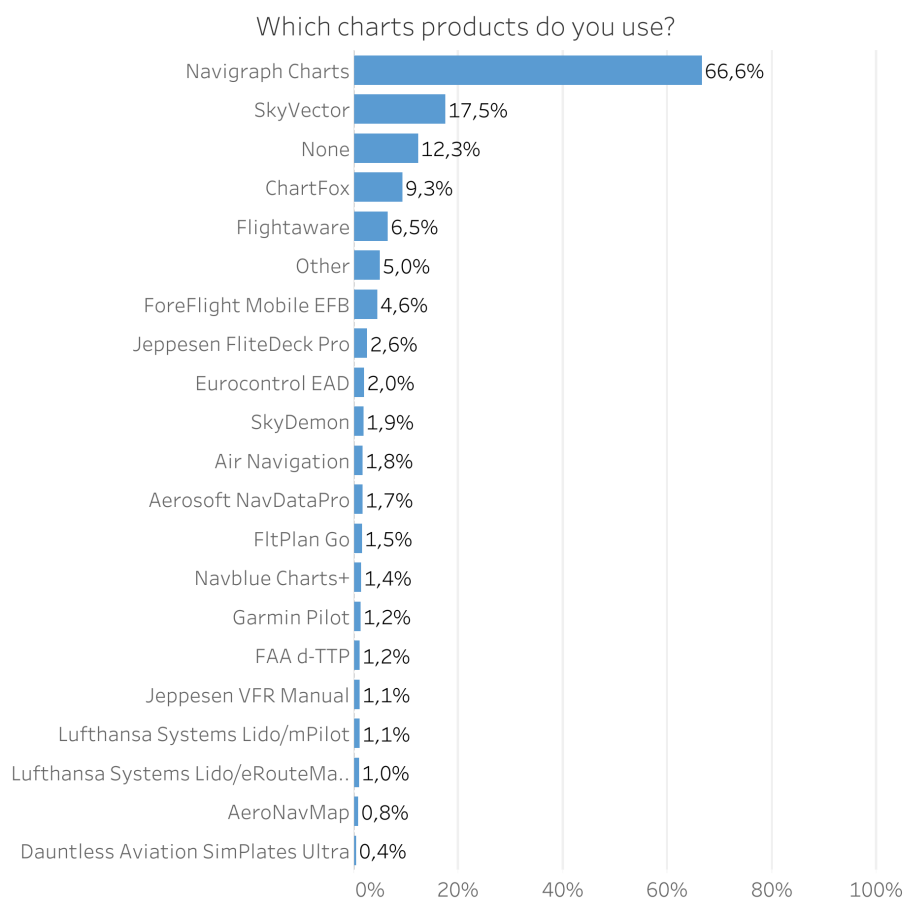
Navigraph Charts continues to be respondents' preferred chart product with 71.8% of users reporting they use it, showing an increase from last year's 66.6%. The MSFS 2024 Flight Planner emerged as a notable new option, with 16.5% of users choosing it, indicating a growing interest in flight planning integrated with the latest simulator.

SkyVector maintains strong usage, with 19.0% this year compared to 17.5% last year. Flightaware has also seen an increase in popularity, moving from 6.5% last year to 10.3% this year.

Other products such as ChartFox and Eurocontrol EAD have remained fairly consistent, while Jeppesen FliteDeck Pro has seen a slight decrease from 2.6% to 2.3%.



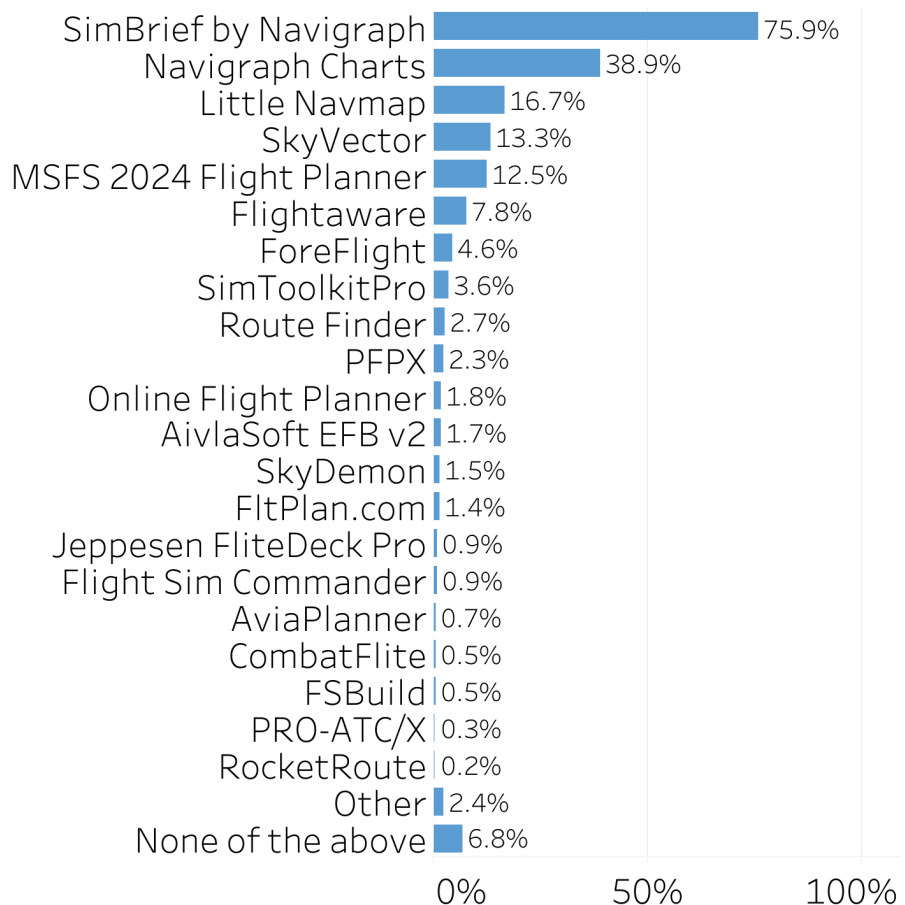
Last year's result:



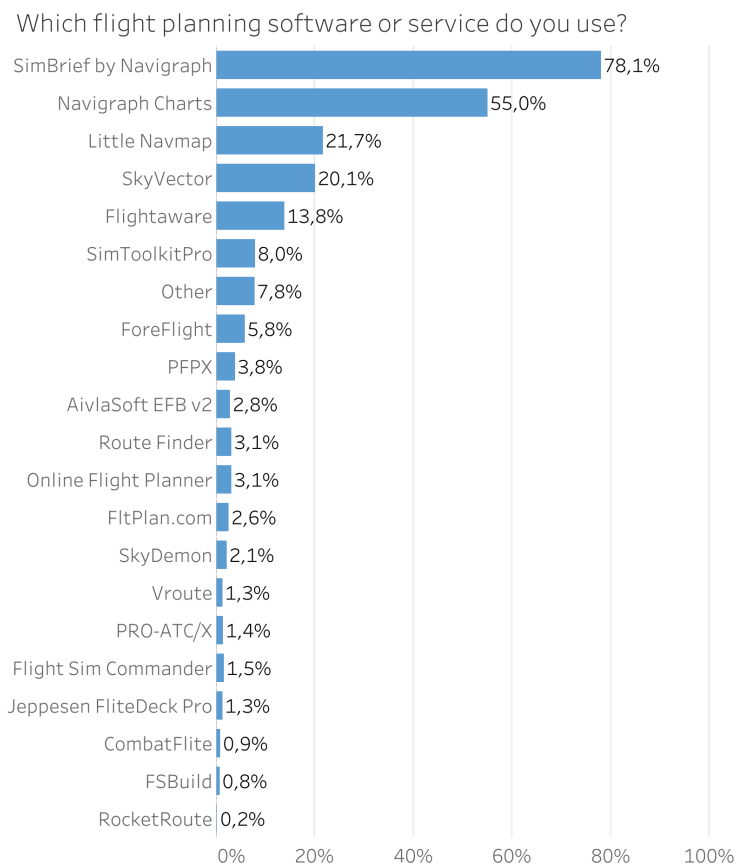
3.5.9. Flight Planning

This year, SimBrief by Navigraph remains the most popular flight planning tool, used by 75.9% of respondents, though this marks a slight decrease from 78.1% last year. Navigraph Charts also saw a decline, dropping from 55% to 38.9%. Little Navmap usage fell from 21.7% to 16.7%, while SkyVector decreased from 20.1% to 13.3%. A new addition to the survey, the MSFS 2024 Flight Planner, was used by 12.5% of respondents. Other notable changes include a drop in FlightAware from 13.8% to 7.8% and SimToolkitPro from 8% to 3.6%. These shifts suggest a gradual consolidation around a few key tools, with Navigraph products maintaining a leading position despite some decline, while newer options like the MSFS 2024 Flight Planner begin to gain traction.

Which flight planning software or service do you use?



Last year's result:



3.6. Media

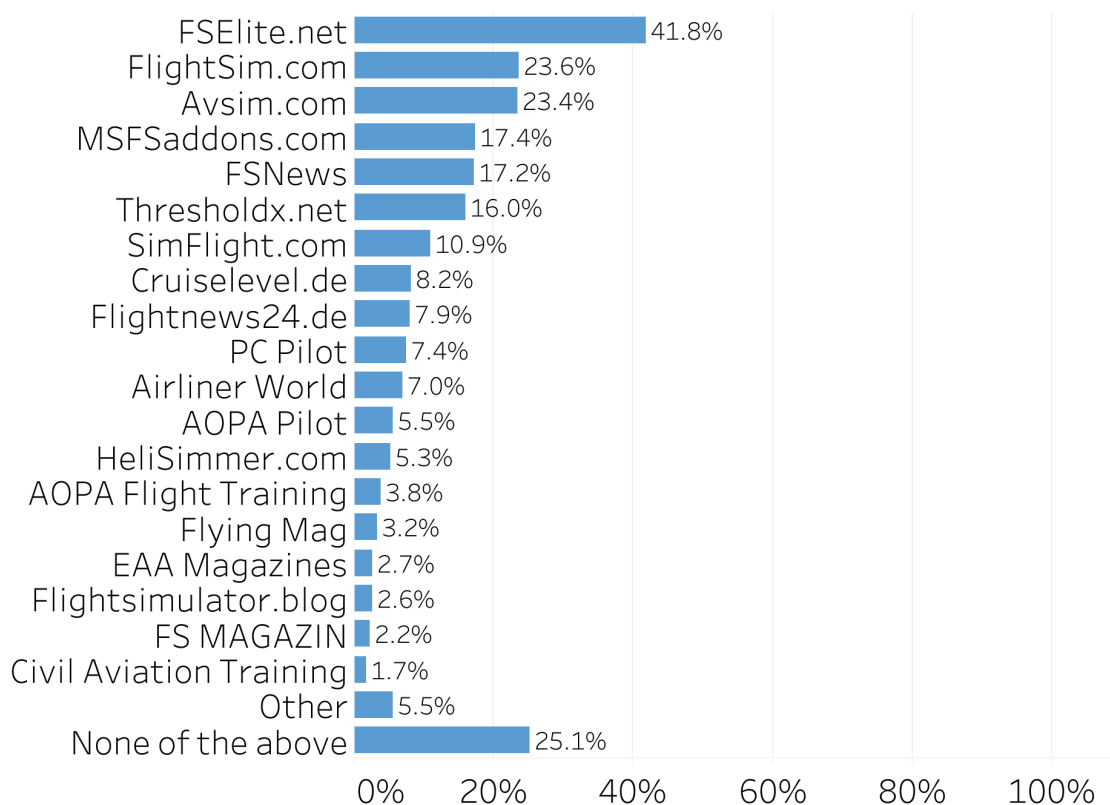
3.6.1. Media Consumption

In comparing media consumption over the past year, several trends emerge. FSElite.net continues to be the most frequently consumed source, though its share decreased slightly from 44.9% to 41.8%. FlightSim.com and Avsim.com both saw declines, with FlightSim.com dropping from 33.2% to 23.6% and Avsim.com from 28.9% to 23.4%.

Notable decreases were also seen in MSFSaddons.com (from 21.6% to 17.4%) while Thresholdx.net experienced a slight drop, from 18.4% to 16%. However, Cruiselevel.de saw a rise, increasing from 6.1% to 8.2% which could be the result of the increase in German survey respondents (15% to 18% this year).

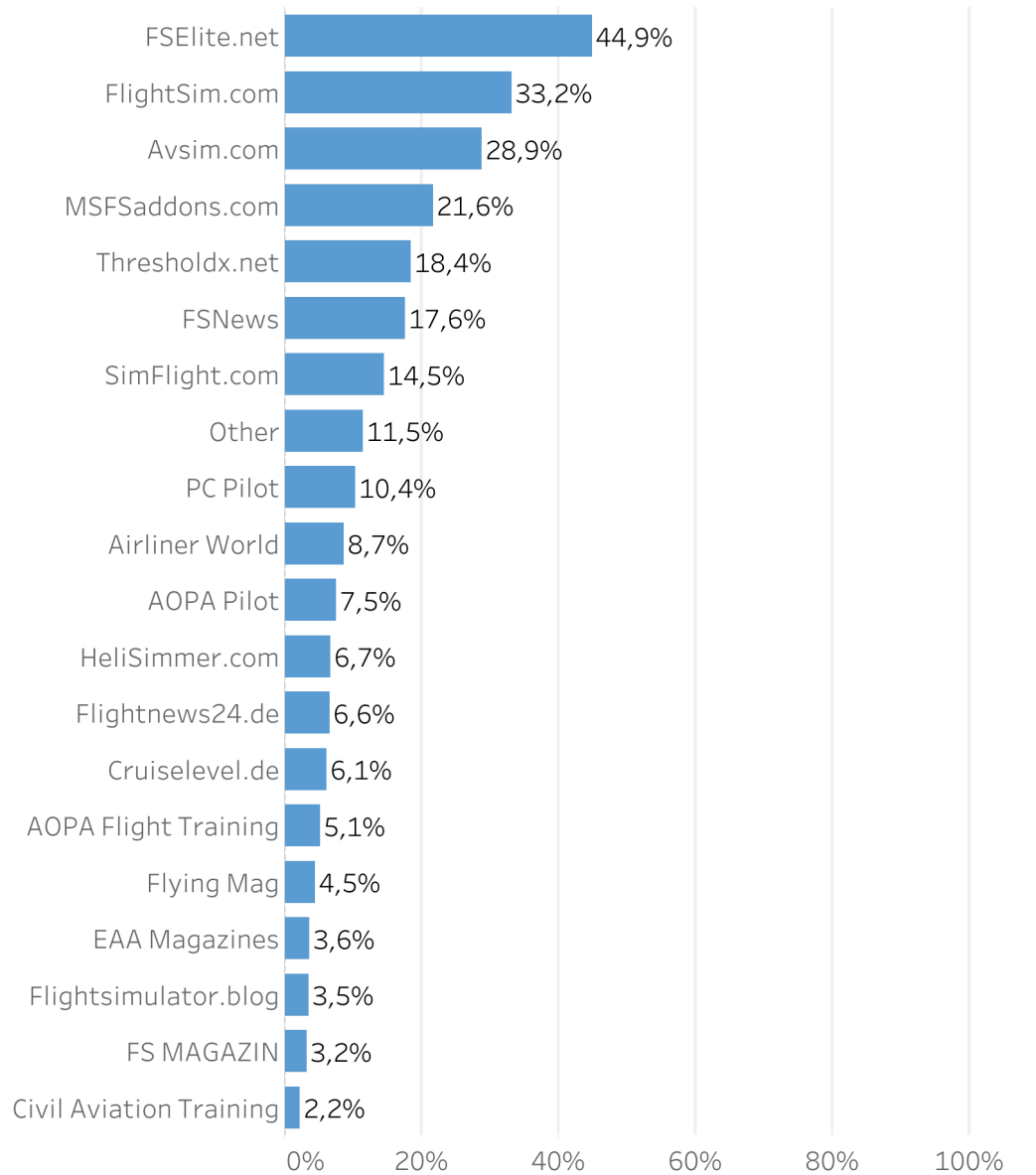
These trends suggest a gradual decline in traditional community news sources, with only a few platforms maintaining or increasing their reach.

Which flightsim or aviation-related media have you consumed in the past 12 months?



Last year's result:

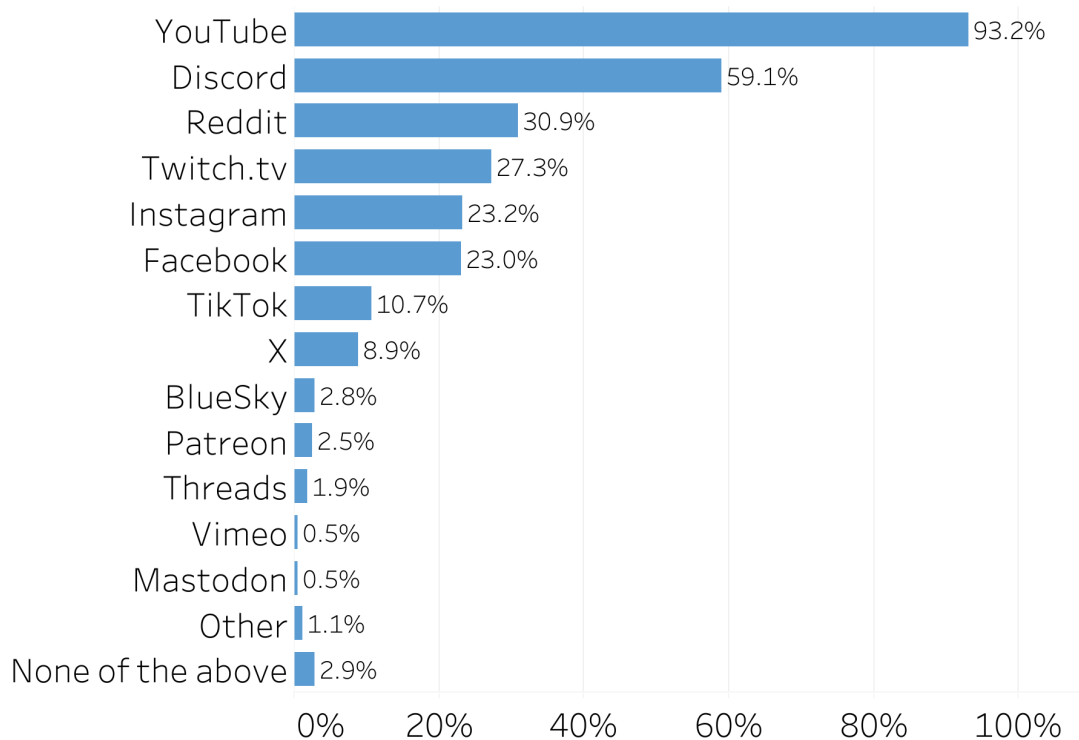
Which flightsim or aviation related media have you consumed in the past 12 months?



3.6.2. Social Media

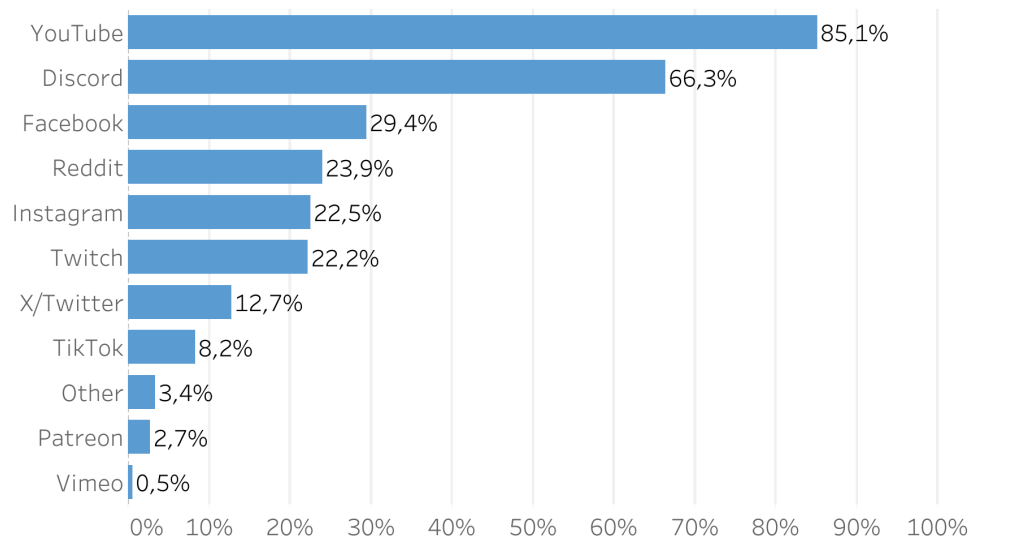
When asked which social media platforms they used to consume flight simulation-related content in the past 12 months, 93.2% of respondents selected YouTube, making it the dominant platform for the community. Discord followed at 59.1, indicating its strong role in real-time discussions and community engagement. Reddit was used by 30.9%, while Twitch.tv was chosen by 27.3%, reflecting a smaller but dedicated audience for live content, while Discord serves as a key hub for interaction. Meanwhile, Reddit and Twitch cater to niche segments, suggesting carried preferences in how users engage with the community.

Which social media platforms have you used for consuming flight simulation related content in the past 12 months?



Last year's result:

What social media platforms have you used for consuming flight simulation related content during the past 12 months?

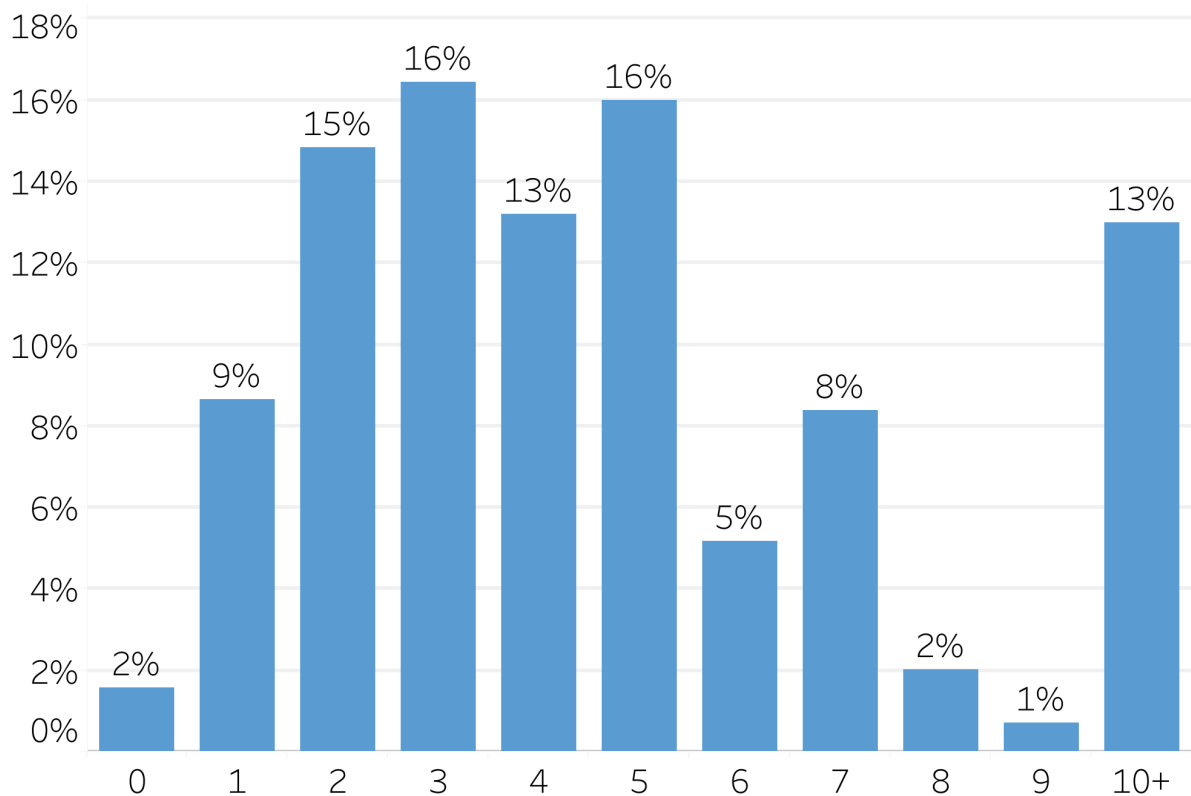


3.7. Simulator Habits

3.7.1. Usage - Sessions per Week

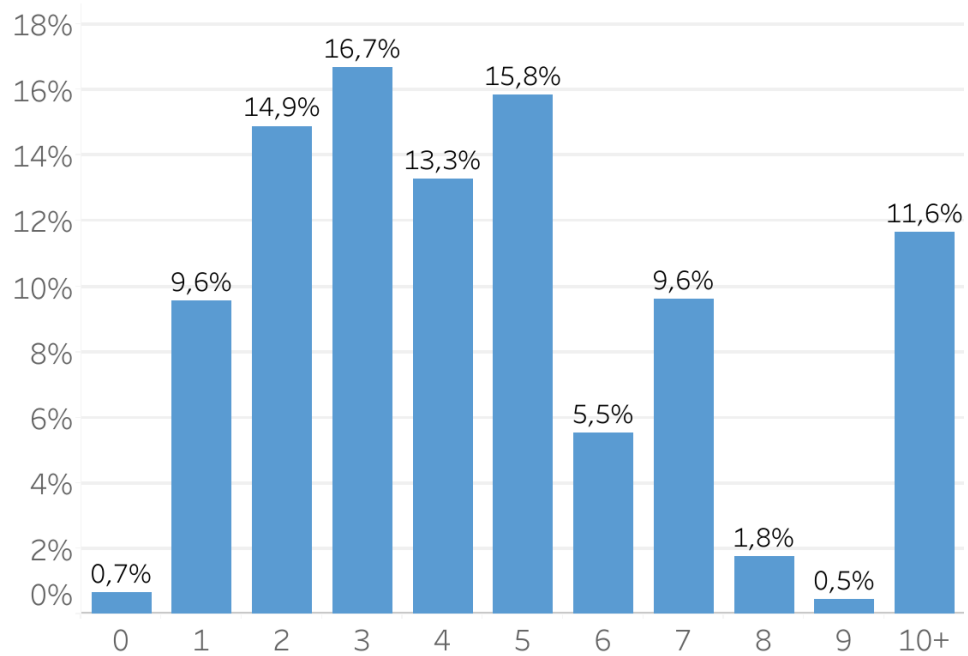
This year, there was a slight increase in users with no sessions per week (from 0.7% to 2%) and those with 10+ sessions per week (from 11.6% to 13%). Usage between 2 to 5 sessions per week remained stable, but the percentage of users reporting 7 sessions decreased slightly (from 9.6% to 8%). Overall, there's a trend towards both more occasional and more frequent use of flight simulators, with small shifts at the extremes.

How many sessions per week do you use the flight simulator on average?



Last year's result:

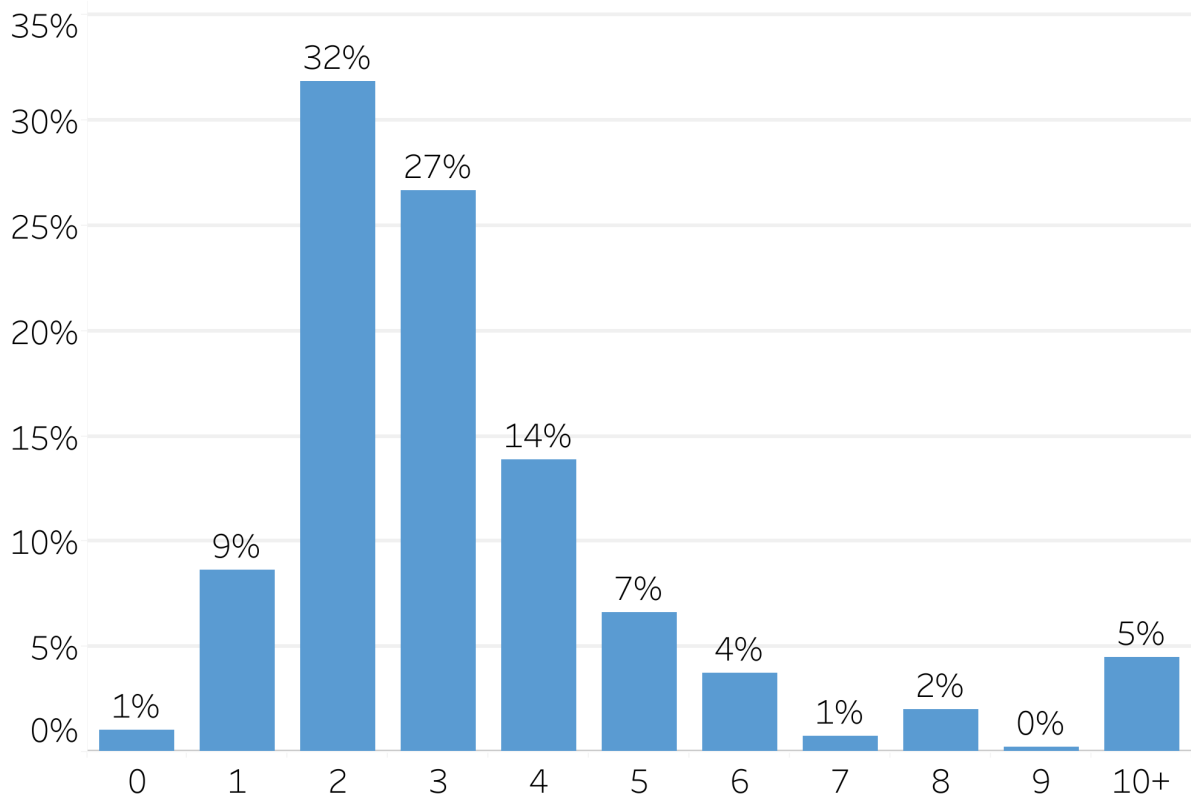
How many times do you use the flight simulator per week, on average?



3.7.2. Usage - Hours per Session

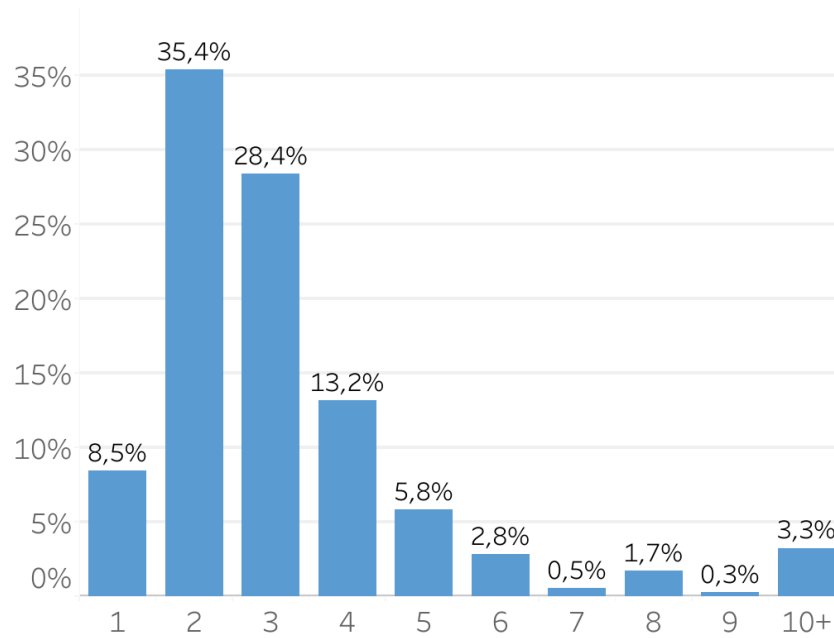
The percentage of users spending 2 hours per session has slightly decreased this year (from 35.4% to 32%), while those spending 3 hours per session remained stable at around 27%. The percentage of users spending 1 hour per session increased (from 8.5% to 9%). There is a noticeable rise in users spending 10+ hours per session (from 3.3% to 5%). Overall, the shift indicates a slight increase in the number of longer sessions (4+ hours) this year compared to last year.

How many hours do you use the flight simulator during a typical session?



Last year's result:

How many hours do you use the flight simulator during a typical session?

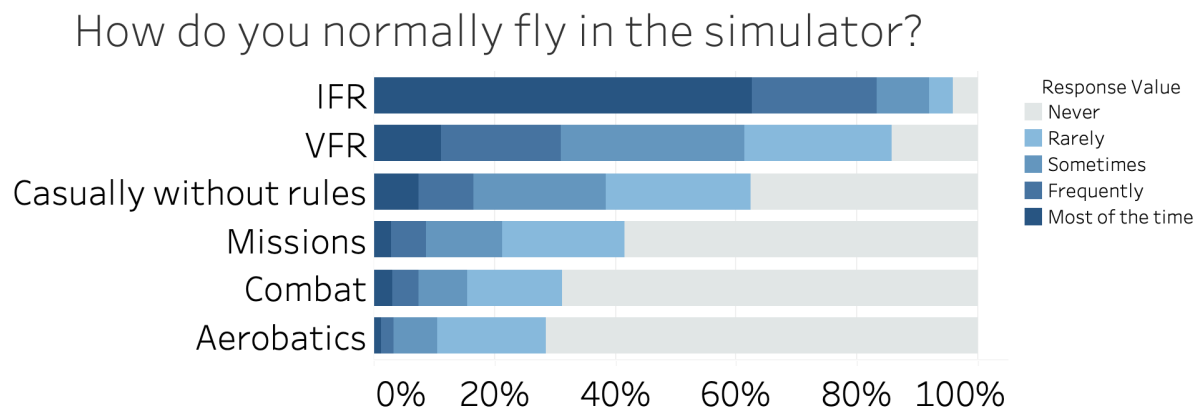


3.7.3. Flight Rules

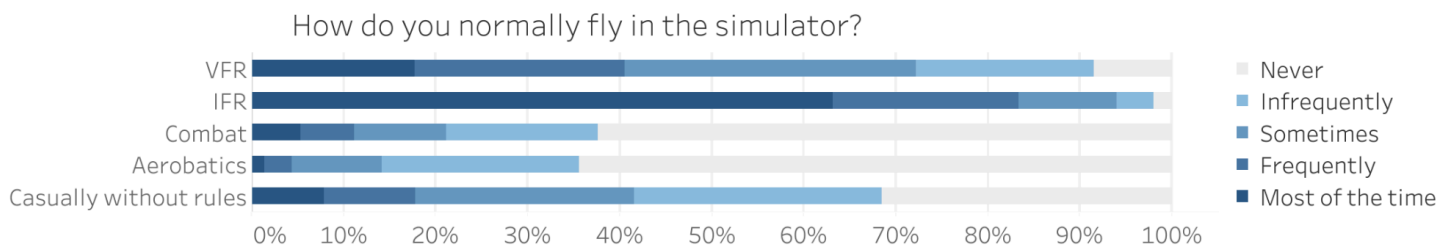
Compared to last year, there have been noticeable shifts in how users perform different flights in the simulator. VFR flying has become less common with fewer respondents indicating they fly VFR most of the time. IFR flight continues to be the most frequently flown method overall. Combat flying shows an evident decline, a visibly more significant portion of users saying they never perform combat flights. In contrast, the number of respondents who fly combat most of the time has decreased slightly.

Aerobatics has declined in popularity, with more respondents indicating that they never conduct aerobatics compared to last year. Similarly, casual flying without rules appears to be less common, respondents reporting never flying casually have grown noticeably.

Overall, the data suggest a shift towards more structured flying experiences, particularly IFR flying, while other methods of flight have decreased in popularity.



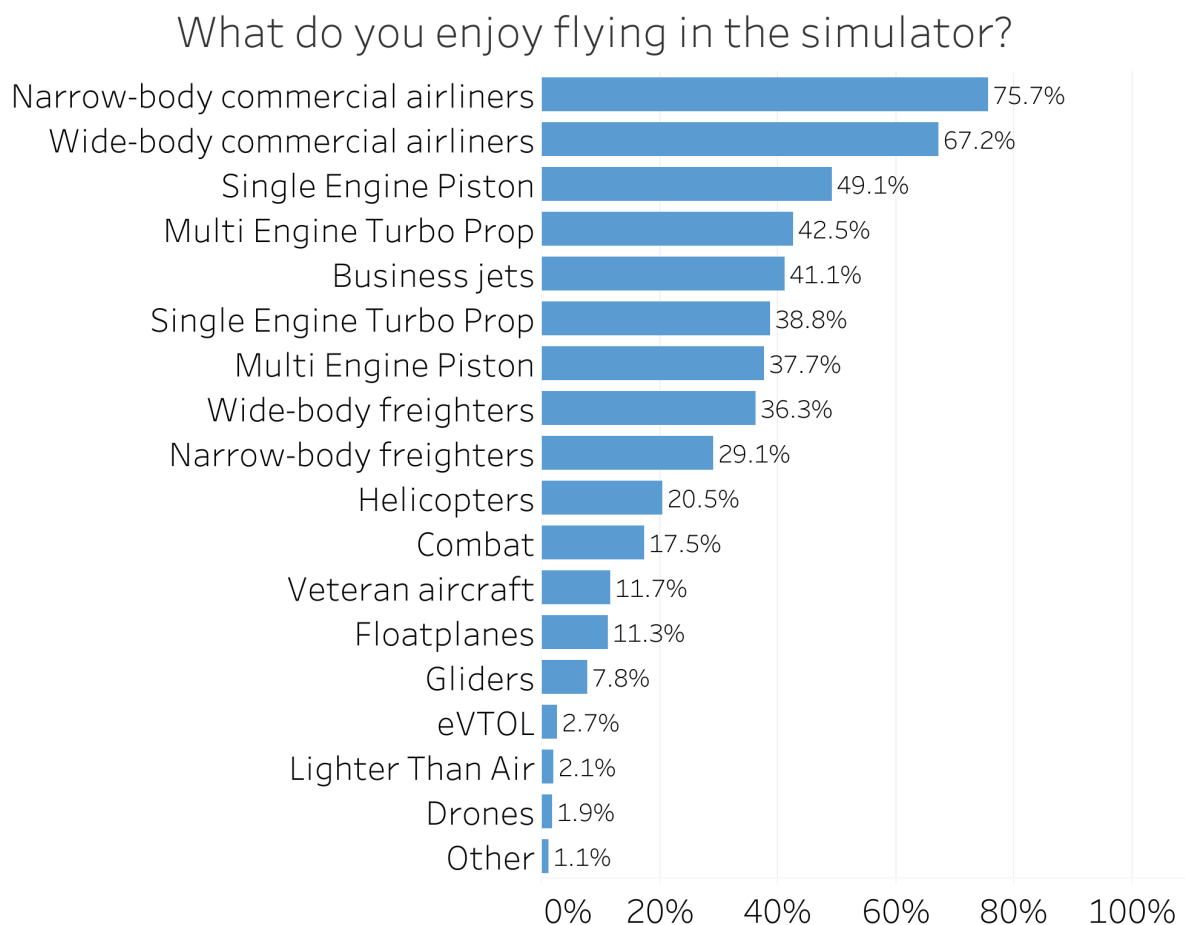
Last year's result:



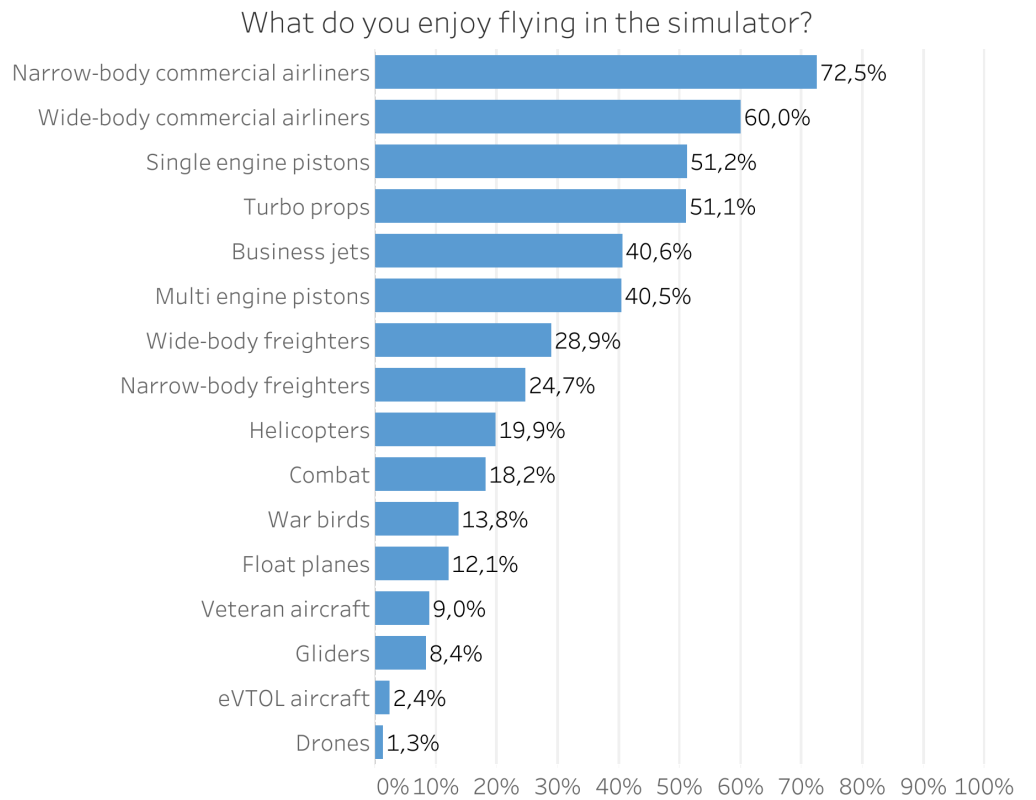
3.7.4. Aircraft Types

Commercial airliners continue to be the most popular, with narrow-body and wide-body models seeing increases in interest, 75.7% for narrow-body (up from 72.5%) and 67.2% for wide-body (up from 60%). Single-engine piston aircraft slightly decreased (49.1% vs 51.2%), while multi-engine turbo props grew in popularity (42.5%). Combat flying declined, dropping from 18.2% to 17.5%, and helicopters and floatplanes experienced small decreases. However, interest in veteran aircraft increased significantly, from 9% to 11.7%.

Newer categories like eVTOL aircraft and drones showed modest growth, but they remain niche interests compared to airliners and propeller-driven planes.

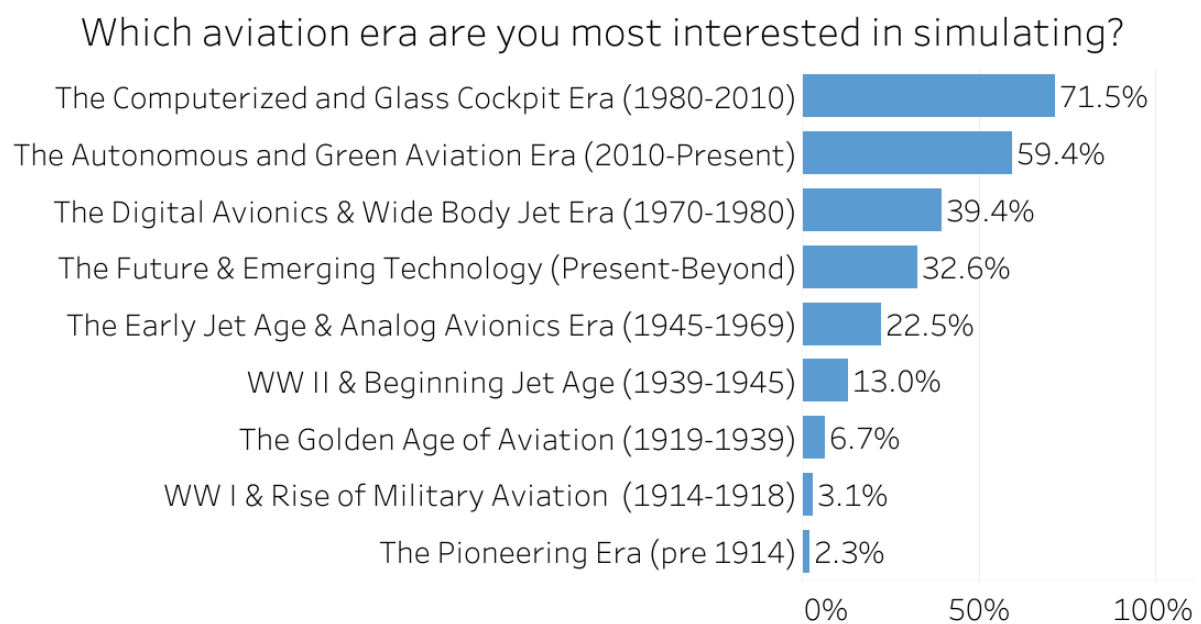


Last year's question:



3.7.5. Most Popular Aviation Eras for Flight Simulation

The majority of flight sim enthusiasts are most interested in simulating modern aviation eras, with The Computerized and Glass Cockpit Era (1980-2010) leading at 71.5%, followed by The Autonomous and Green Aviation Era (2010-Present) at 59.4%. Classic eras, like WW II & The Early Jet Age, still hold some appeal, but interest in earlier periods, such as the Pioneering Era (pre-1914), remains minimal. Emerging technologies and futuristic aviation also spark curiosity, with The Future & Emerging Technology (Present-Beyond) drawing 32.6%. Modern aviation, particularly post-1980, clearly dominates the community's focus, though there remains interest in historical and future aviation developments.

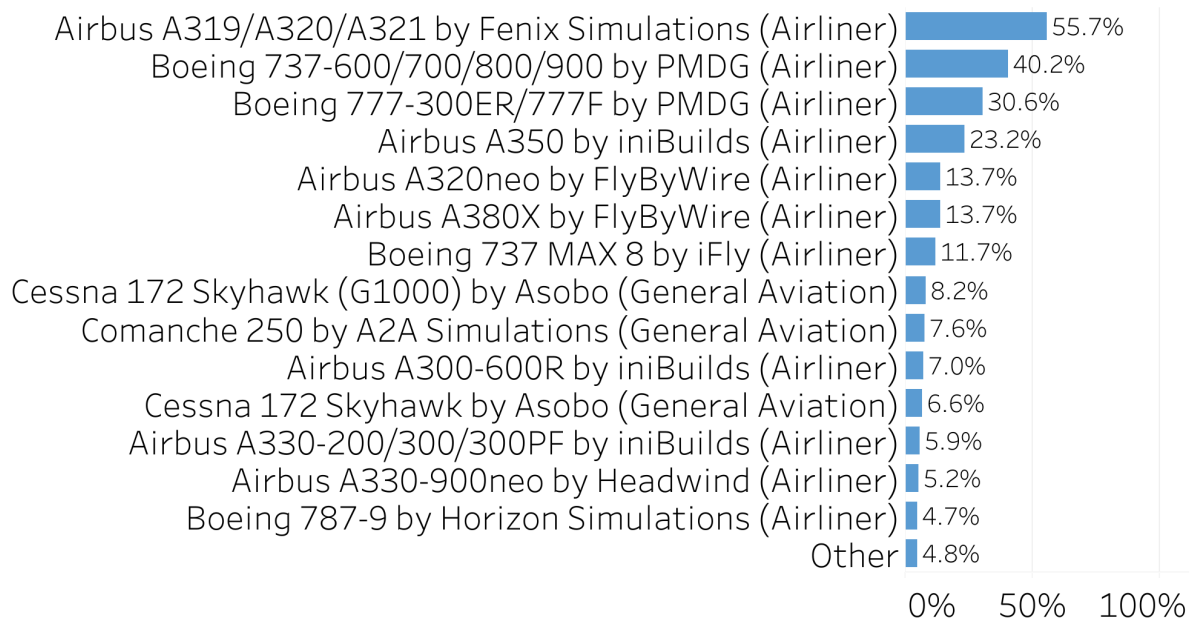


3.7.6. MSFS Aircraft Addons

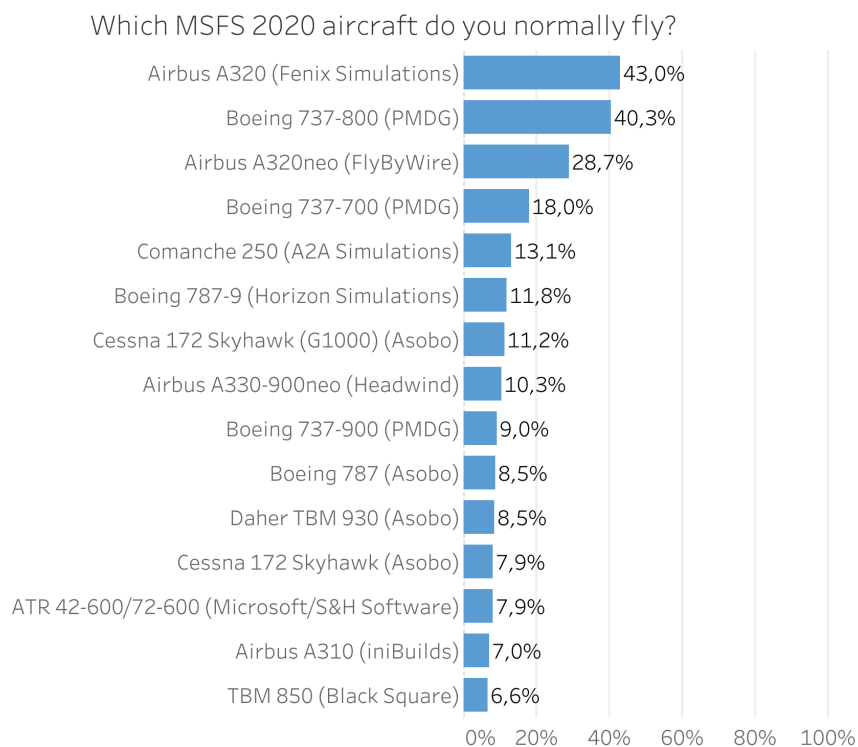
This question highlights the most popular aircraft used in MSFS. The top spot within the community goes to Fenix Simulations A319/A320/A321 at 55.7%. PMDG's 737 series is next at 40.2%. Notably, iniBuilds A350 is becoming more popular, currently sitting at 23.2%.

Other honorable mentions goes to FlyByWire's A380X and iFly's 737 MAX 8, 13.7% and 11.7% respectively.

Which MSFS aircraft do you normally fly?



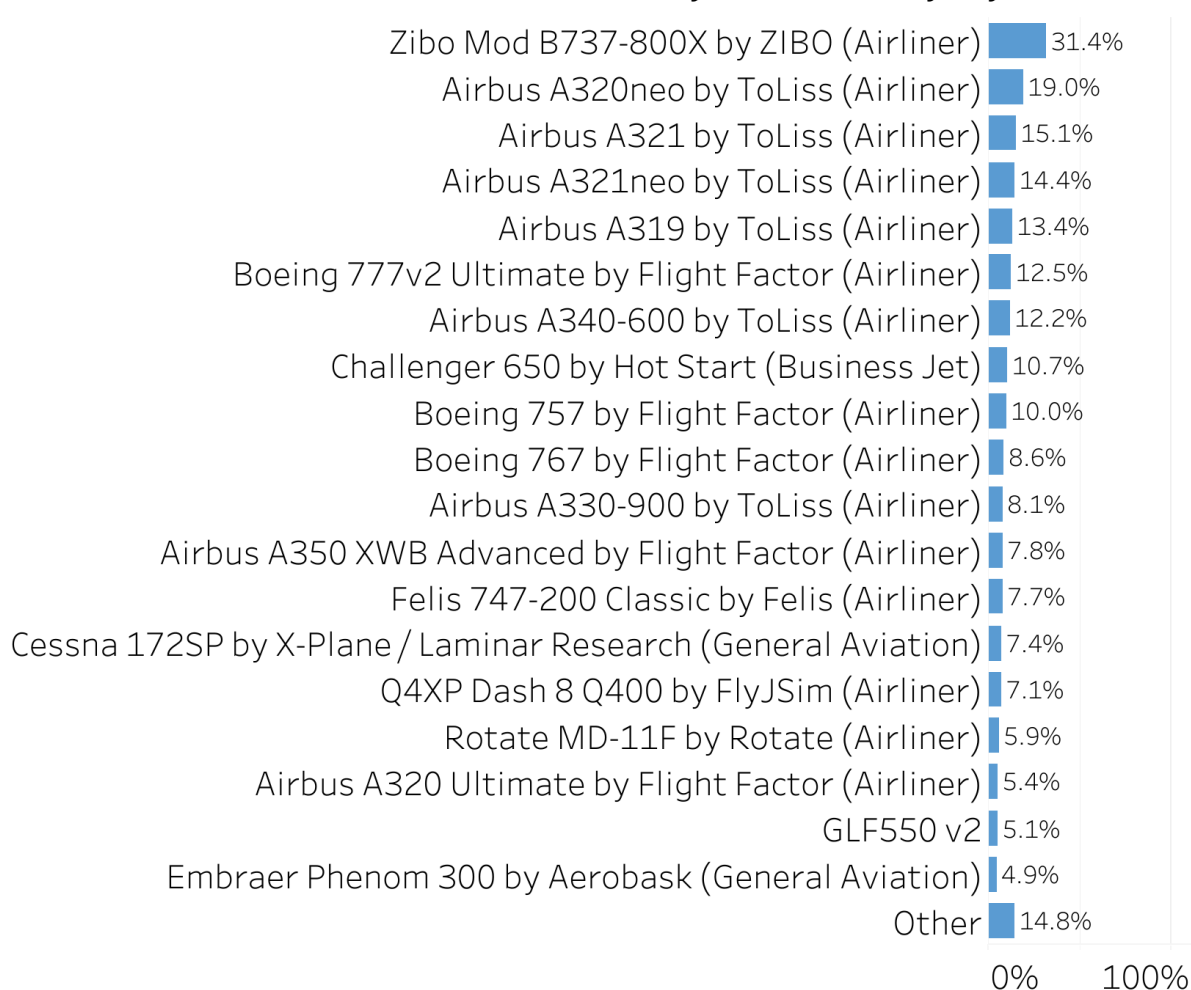
Last year's result:



3.7.7. X-Plane Aircraft Addons

In this survey, according to respondents, the most frequently flown X-Plane aircraft is the Zibo Mod Boeing 737-800X with 31.4%. The Airbuses by ToLiss, A320neo (19%), A321 (15.1%) and A319 (13.4%) follow, making for a significant portion of preference, collectively accounting for roughly 50% when grouped. This reflects a strong interest in modern Airbus narrowbody operations. Notably, Flight Factor's 777v2 Ultimate accounts for 12.5%, showing that users enjoy widebody operations also.

Which X-Plane aircraft do you normally fly?



3.7.8. What's Important to You?

3.7.8.1 Global Flight Preferences in Simulators

We asked “What's important to you when selecting where to fly?”. This open-ended question revealed several common factors influencing where flight simmers choose to fly. The most frequently mentioned factor was scenery, cited in 35% of responses. Examples of answers grouped under this category include “Good scenery available”, “Quality scenery”, “Airport and scenery”, “Detail of the airport”, “Having detailed handcrafted scenery for both departure and arrival”, and “Realistic airport layout/graphics”. These responses indicate that users place high importance on detailed and realistic airport scenery when deciding where to fly.

The second most commonly mentioned factor was realism and real-world routes. In this category, responses included phrases such as “Flying real routes”, “Real routings/airlines”, “Real life airliner routes”, “Real life operation”, “According to real world rules”, “Real world flights”, “Authenticity of route”, “Real world schedule”, and “Realistic ops”. We also included general answers such as “Realism”, “Realistic”, and “Realistic flight” in this group. While these answers could possibly relate to scenery as well, respondents more frequently used them when referring to routes and operations rather than visual aspects of scenery which motivated this grouping. It should be noted that these two leading themes, totalling 59% of the answers, both reflect a strong user preference for realism, whether through visually accurate environments or adherence to real-world flight procedures.

Geographic preferences / Interesting places / Terrain (10%) contains responses like “Somewhere familiar”, “Interesting surroundings”, “Having interesting things to see”, “Personal interest in the region”, “I normally fly within my own country”, “Locations I know and have personal meaning to me”. For users where scenery is not the main priority, it seems instead to choose places to fly which are personally meaningful or known to them, such as their home country or places with visually engaging environments and terrain.

Weather conditions (7%) contains answers like “Challenging weather”, “Weather”, “Weather conditions”, “Weather is ok at both ends”, “Good weather conditions”, “Bad weather”, “Current weather”, “Wind”, “Interesting weather”. These responses indicate a range of motivations, such as seeking out challenging or interesting weather or preferring good or stable conditions for a smoother flight.

Flight Duration / Distance (6%) indicates the importance of time for some respondents when choosing a flight. Examples of answers in this category are “Time”, “Flight duration”, “Time duration”, “Within 600 miles”, “Distance”, “Total flight time”, “Time constraints”, “Time frame available”, “Max flight of 3 hours”, “1-2 hours flight time”. This answer reflects practical constraints with many responses emphasizing the need to align flightsim sessions with available time frames, often citing specific durations. The focus on manageable flight lengths underscores the need to integrate flight simulator sessions into everyday routines.

ATC Coverage (6%) consists of responses like “Atc”, “Vatsim staffing”, “Available controller on IVAO”, “Vatsim Coverage”, “Atc cover on Vatsim”, “Atc activity”, “Connected controllers”. Which indicates the important role the online networks play in enhancing the flight simulation experience for many users.

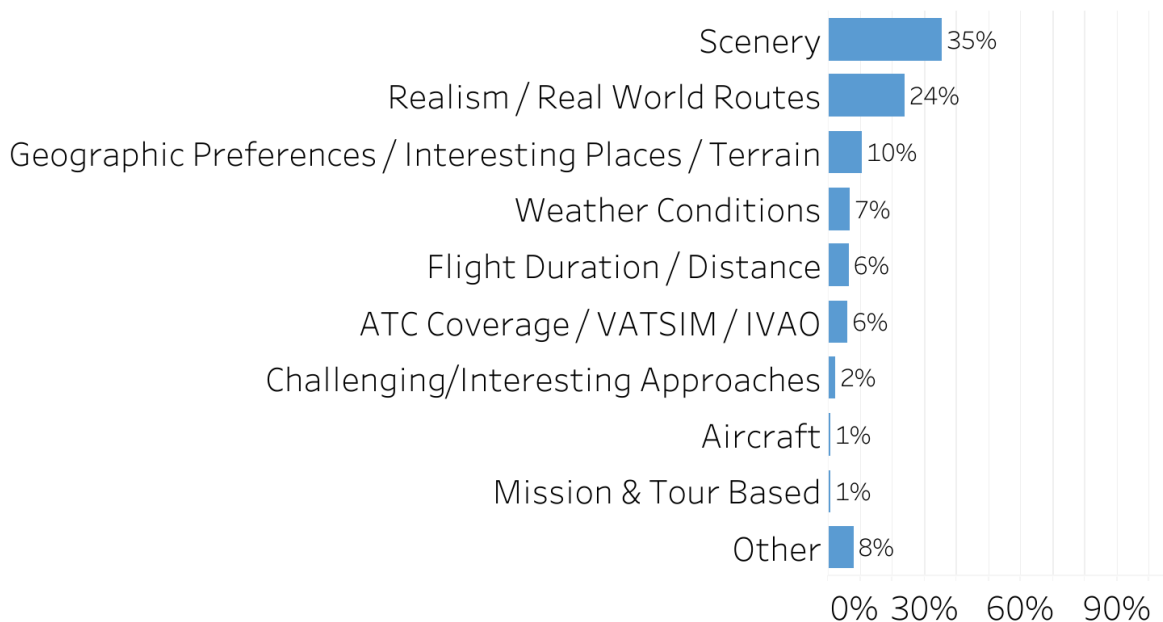
A smaller yet notable group of users mentions Challenging/Interesting Approaches (2%) as being important for them when choosing where to fly. Examples of answers in this category are “Scenic and challenging approach”, “Interesting approach”, “Types of arrivals and approaches”, “Beautiful approach”, “Rnav approach”.

Some users choose where to fly based on Aircraft (1%). Responses here can look like “Aircraft type”, “Steady in flight”, “Depends on the type of aircraft”, “The speed of the aircraft”, “Fidelity of aircraft systems”, “Places that operate an aircraft I feel like flying”, “Complex & Real aircraft”.

Mission & Tour Based (1%) is made up of responses such as “Tours”, “Missions & Campaigns”, “Task or mission”, “Where the mission is”, “Mission/Job pay”.

In summary: Flight simmers choose where to fly primarily based on scenery quality (35%) and realism in routes and operations (24%), reflecting a strong preference for authentic and immersive experiences. Other factors include geographic interest or personal connection to locations (10%), weather conditions (7%), flight duration (6%), and ATC coverage (6%). Smaller groups are motivated by challenging approaches (2%), specific aircraft (1%), and mission or tour-based activities (1%). Overall, realism—both visual and operational—is the dominant theme in flight planning choices.

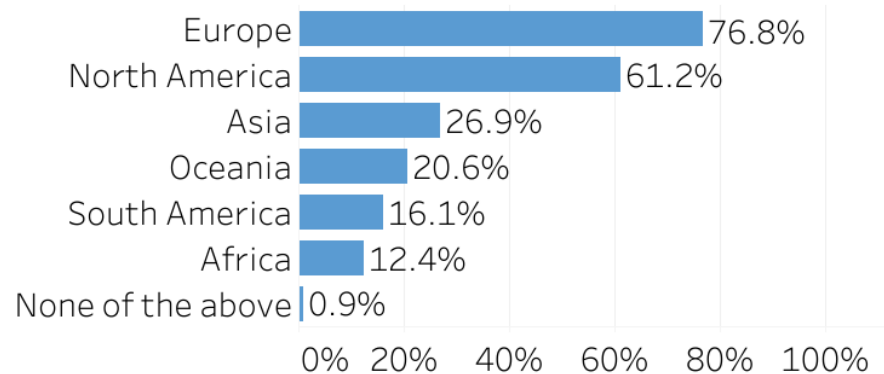
What’s important to you when selecting where to fly?



3.7.8.2 Continent Flight Preferences

This question shows the global preferences of flight simmers when choosing where to fly. The majority of respondents (76.8%) prefer to fly in Europe, followed by North America at 61.2%. Asia comes in third with 26.9%, while Oceania and South America have smaller shares at 20.6% and 16.1%, respectively. A small percentage (0.9%) indicated they fly in regions outside the listed options. These results reflect the strong interest in flying across well-known and diverse global locations.

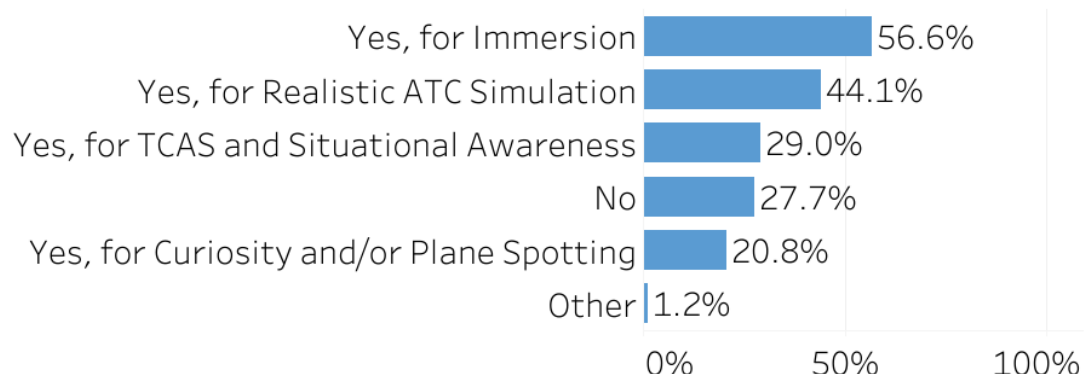
Where in the world do you typically fly?



3.7.8.3 Importance of Real World Traffic

Real world traffic plays a significant role for many flight simulation users, particularly in enhancing immersion (56.6%) and enabling realistic ATC simulation (44.1%). A notable portion also values it for collision avoidance and situational awareness (29%), while 20.8% enjoy it for curiosity or plane spotting. However, 27.8% of respondents do not consider real world traffic important to their experience.

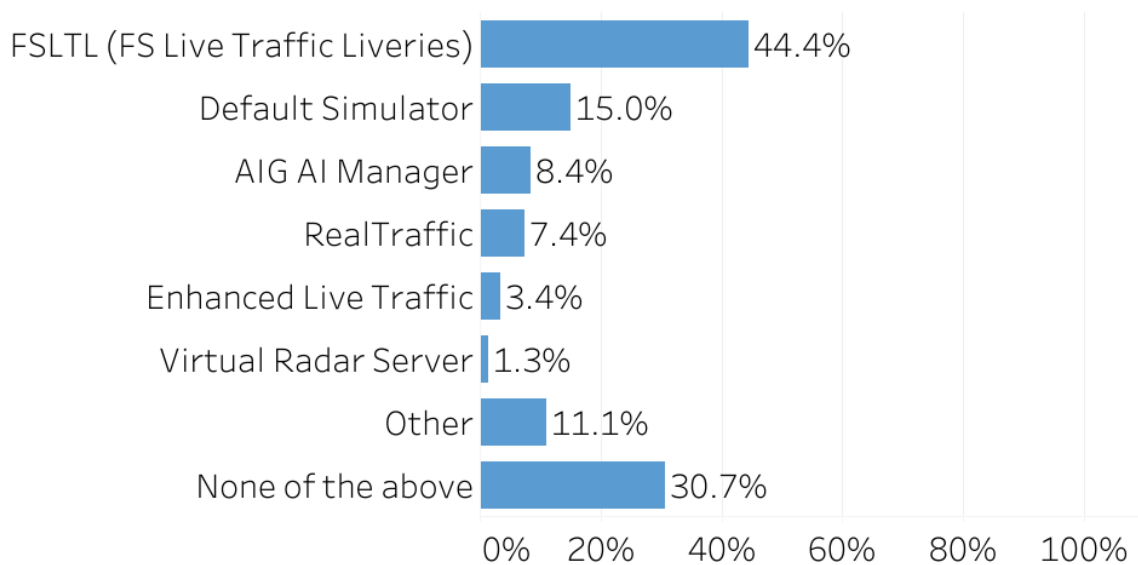
Is real world traffic important to you?



3.7.8.4 Real-world Traffic Services

When it comes to injecting real-world traffic into flight simulators, FSLTL (44.4%) is the most widely used service. Default simulator traffic (15%) remains a common choice, while AIG AI Manager (8.4%) and RealTraffic (7.4%) also have dedicated user bases. A smaller percentage use Enhanced Live Traffic (3.4%) or Virtual Radar Server (1.3%). Notably, 30.7% of respondents do not use any of these options, and 11% rely on other solutions.

Which of the following services are you using for injecting real-world traffic into your flight simulator?

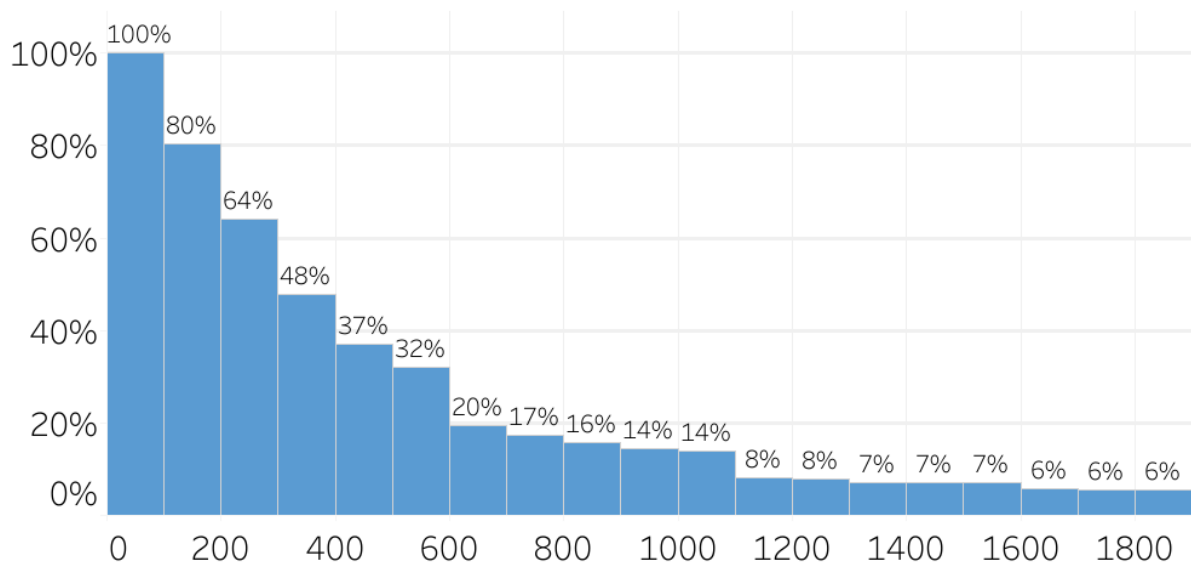


3.8. Consumption Habits

3.8.1. Software Expenses

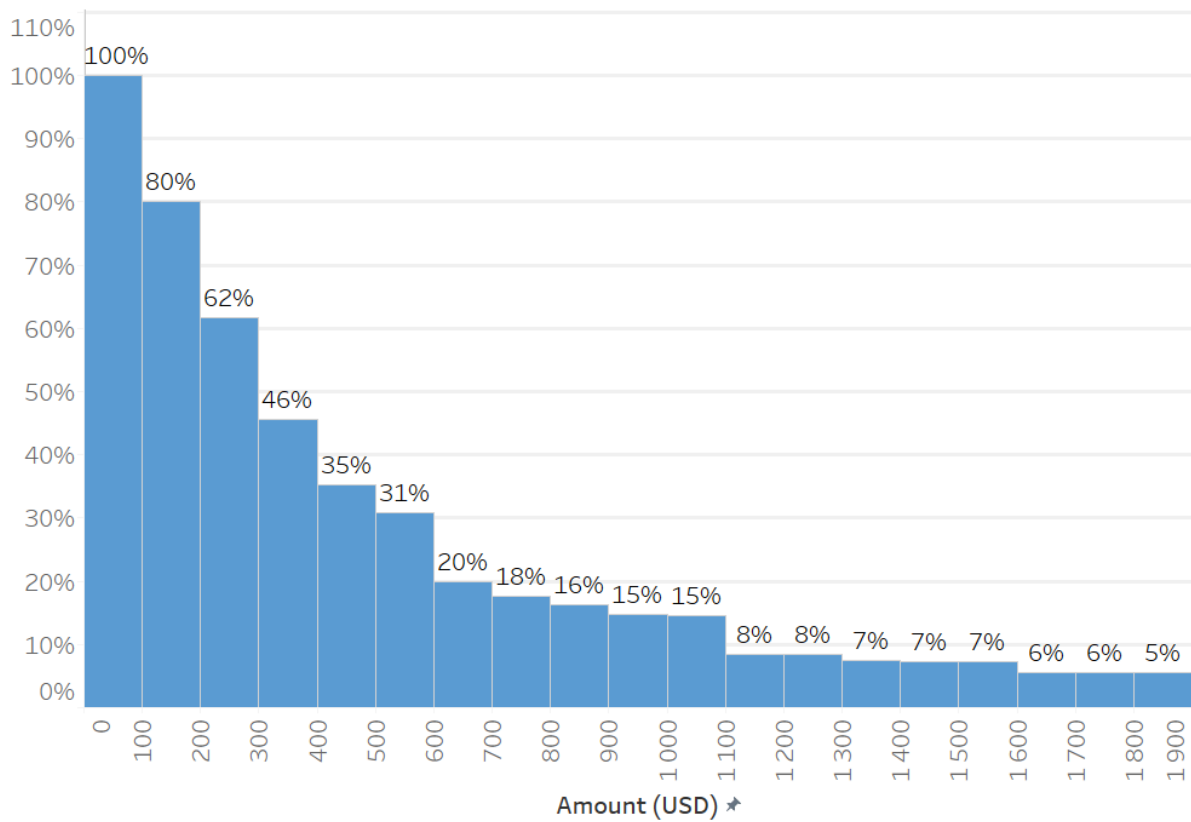
When asked about their estimated spending on flight simulation software and add-ons over the past 12 months, respondents showed a clear decline in likelihood as spending increased. 100% reported some level of spending, with 80% estimating their costs between \$100-\$200. The likelihood dropped to 64% for \$200-\$300, 48% for \$300-\$400, and continued to decline at higher spending brackets. By \$1,100-\$1,200, only 8% of respondents reported spending in this range, and those exceeding \$1,600, the percentage fell to 6%. These results suggest that while investment in flight simulation is universal among respondents, the majority keep their spending within moderate ranges, with fewer committing to high-cost purchases, possibly reflecting budget constraints or selective spending on premium addons.

How much do you estimate you have spent on flight simulation software and addons in the last 12 months? (in United States Dollars).



Last year's result:

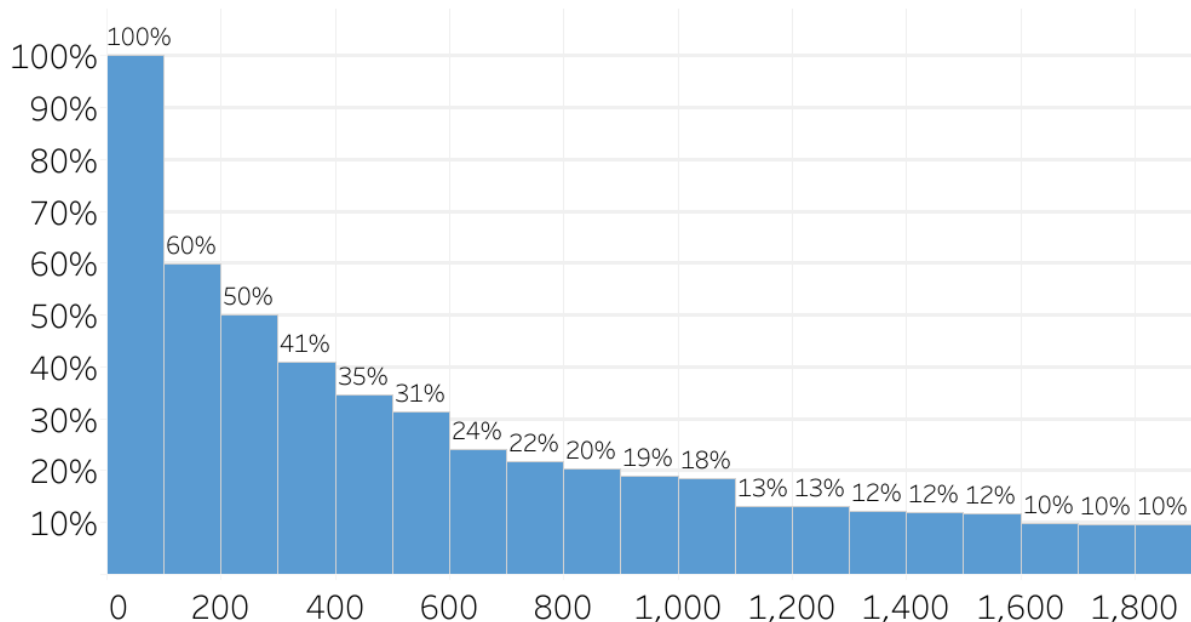
How much do you estimate you have spent on flight simulation software and addons in the last 12 months?



3.8.2. Hardware Expenses

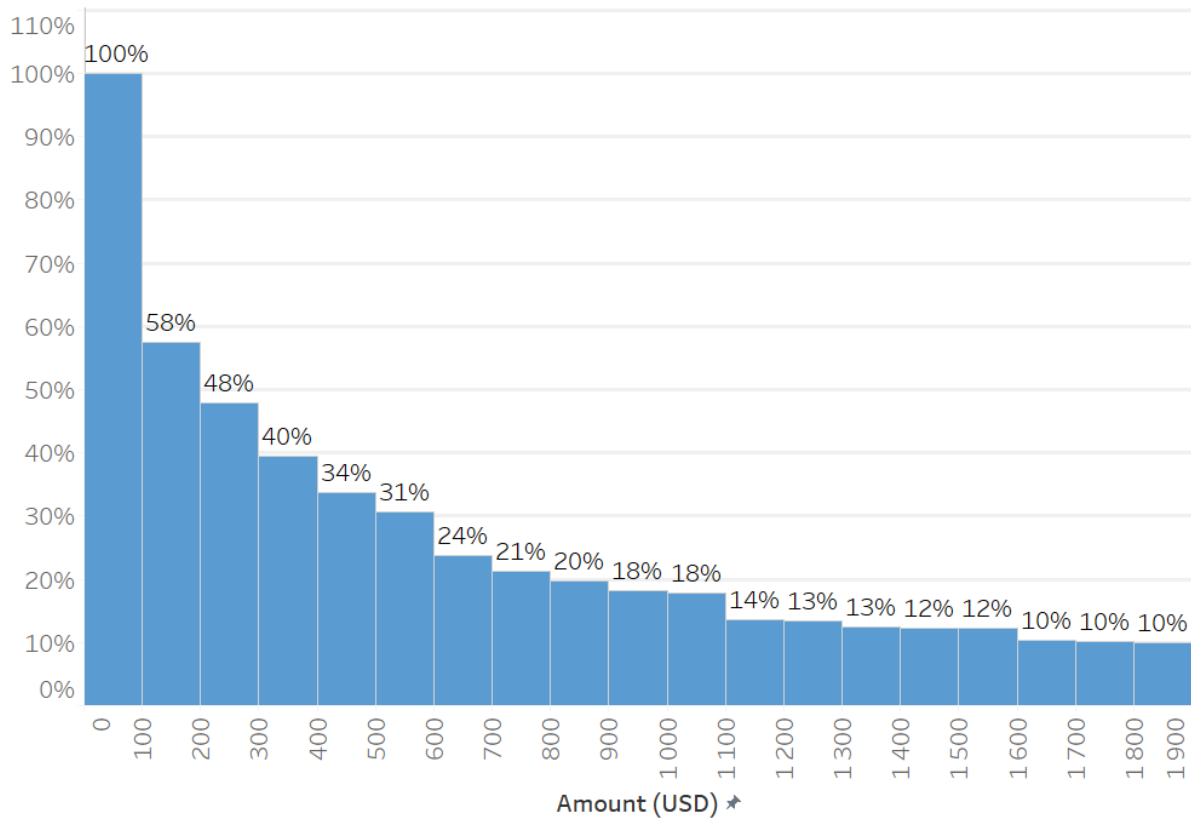
When asked about their estimated spending on flight simulation hardware over the past 12 months, responses showed a gradual decline as spending amounts increased. 60% of respondents reported spending between \$100-\$200, while 50% estimated their costs between \$200-\$300. The likelihood of higher expenditures decreased significantly, with 13% reporting spending between \$1,100-\$1,200, and only 10% exceeding \$1,600. These results suggest that while a majority of users invest in hardware upgrades, most keep their spending within moderate ranges, with fewer committing to high-cost purchases, likely reflecting individual budget limits and the long-term nature of hardware investments.

How much do you estimate you have spent on flight simulation hardware in the last 12 months? (in United States Dollars).



Last year's result:

How much do you estimate you have spent on flight simulation hardware in the last 12 months?

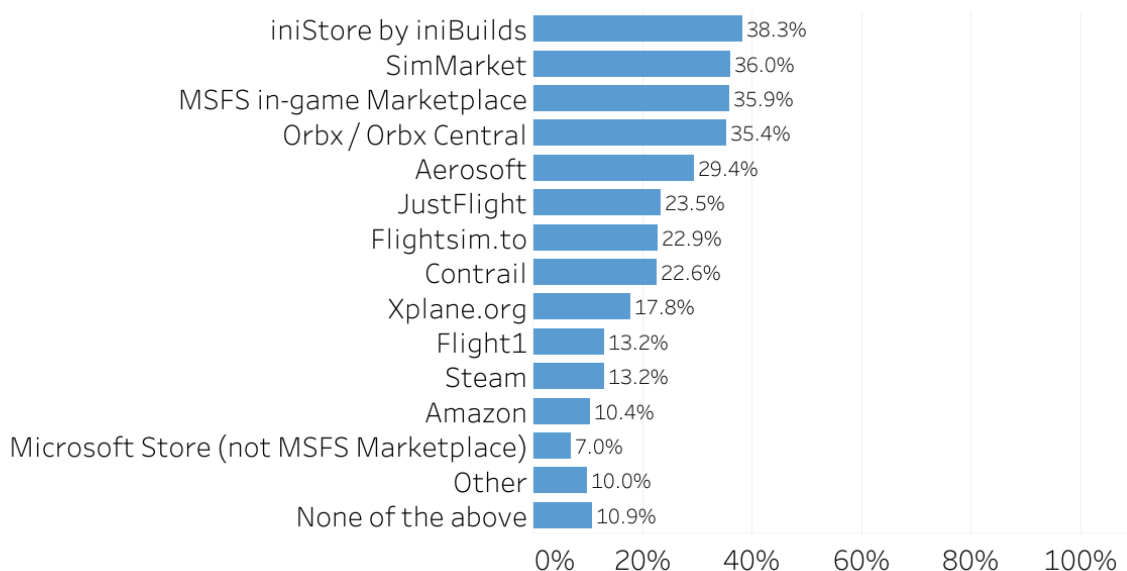


3.8.3. Online Stores for Software

Purchasing habits for flight simulation software have shifted slightly over the past year. The MSFS in-game Marketplace remains a major platform, though its usage decreased significantly from 54.4% to 35.9%. One possible factor influencing these changes is the inability to purchase products for Microsoft Flight Simulator 2024 via the in-game Marketplace at the time of the survey. SimMarket also saw a drop from 45.4% to 36%, while Orbx declined from 44.1% to 35.4%. Meanwhile, newer platforms like iniStore by iniBuilds gained traction, increasing from 26.8% to 38.3%, and Contrail grew from 15.8% to 22.6%. Flightsim.to remained stable, while JustFlight saw a slight decline. Retailers such as Aerosoft, Xplane.org, and Flight1 experienced minor decreases.

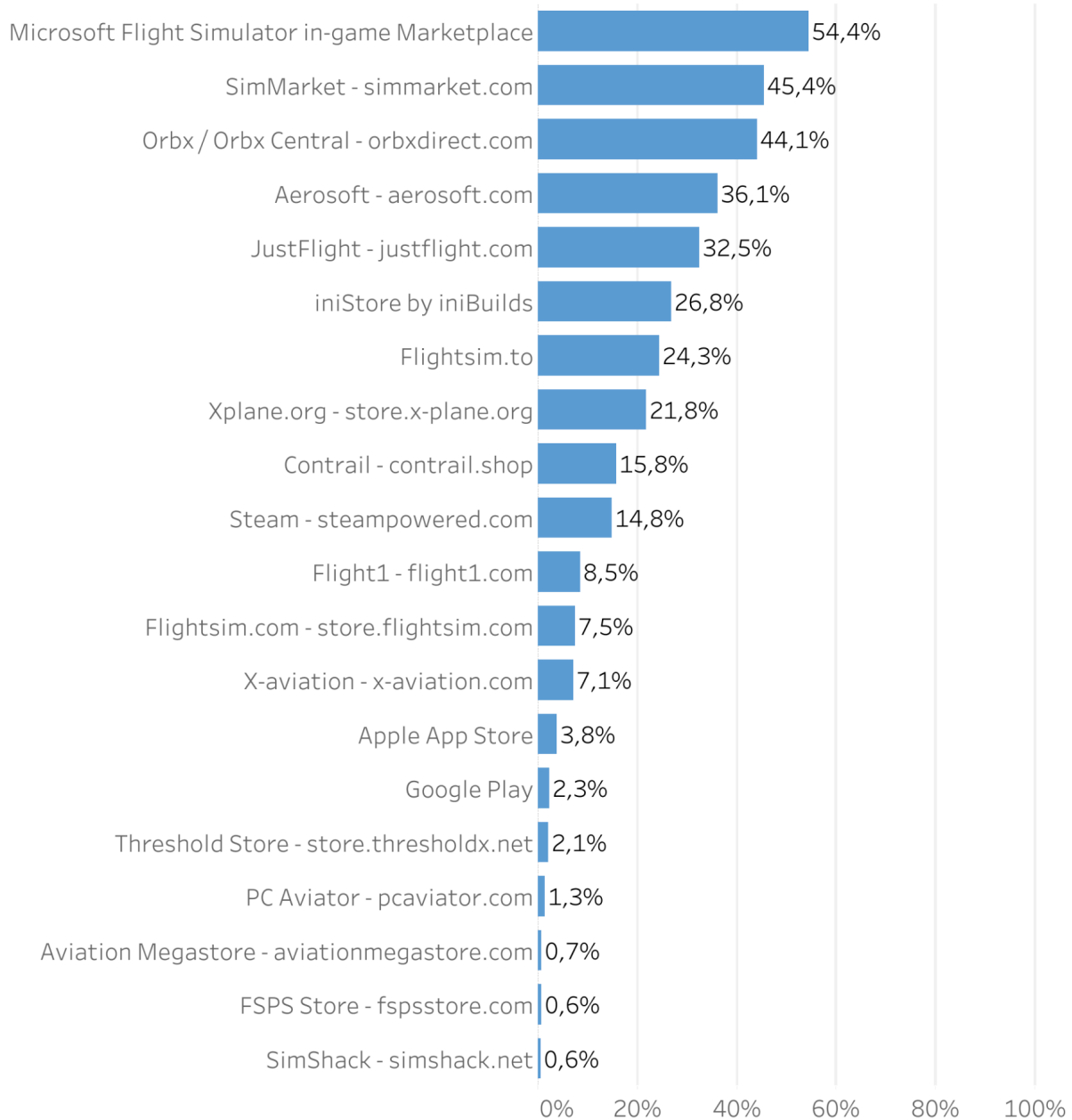
Despite these shifts, the percentage of users who did not purchase from any of these stores remained relatively low, indicating that purchasing activity remains strong across platforms.

From which online stores have you purchased flight simulation software products in the past 12 months?



Last year's result:

From which online stores have you purchased flight simulation software products in the last 12 months?

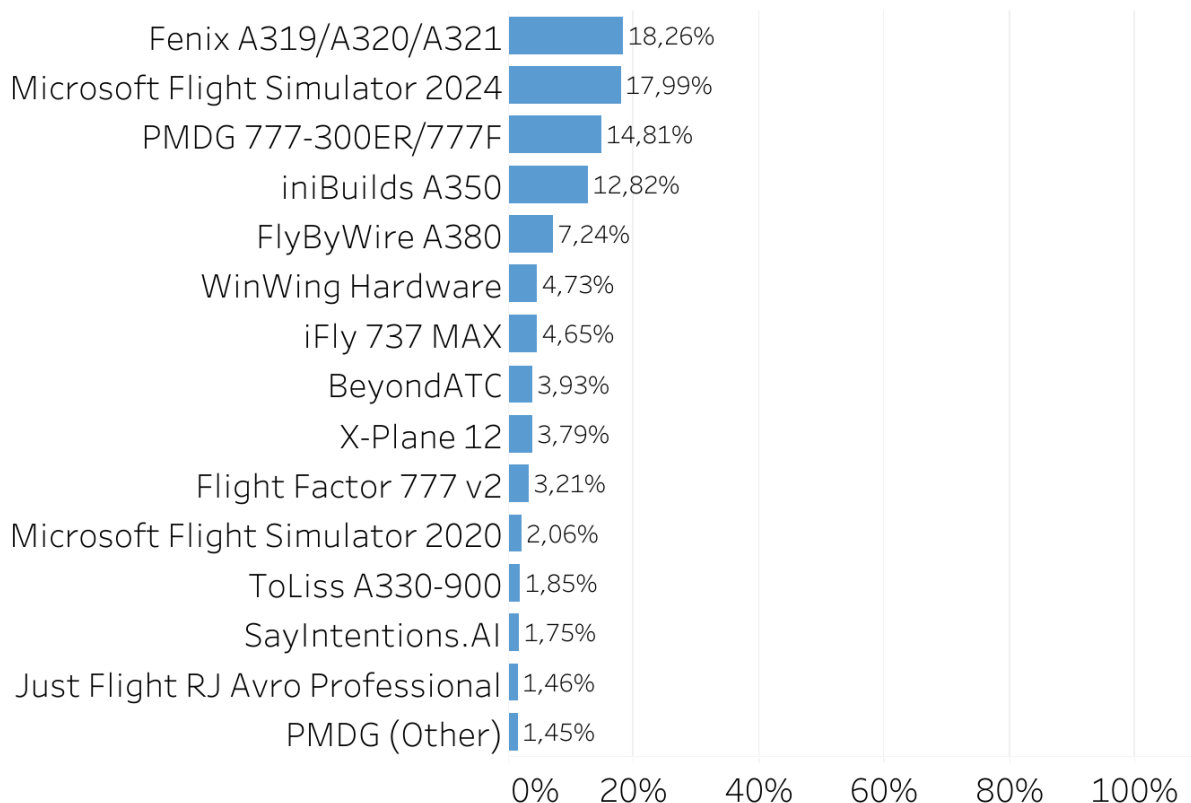


3.9. Highlights

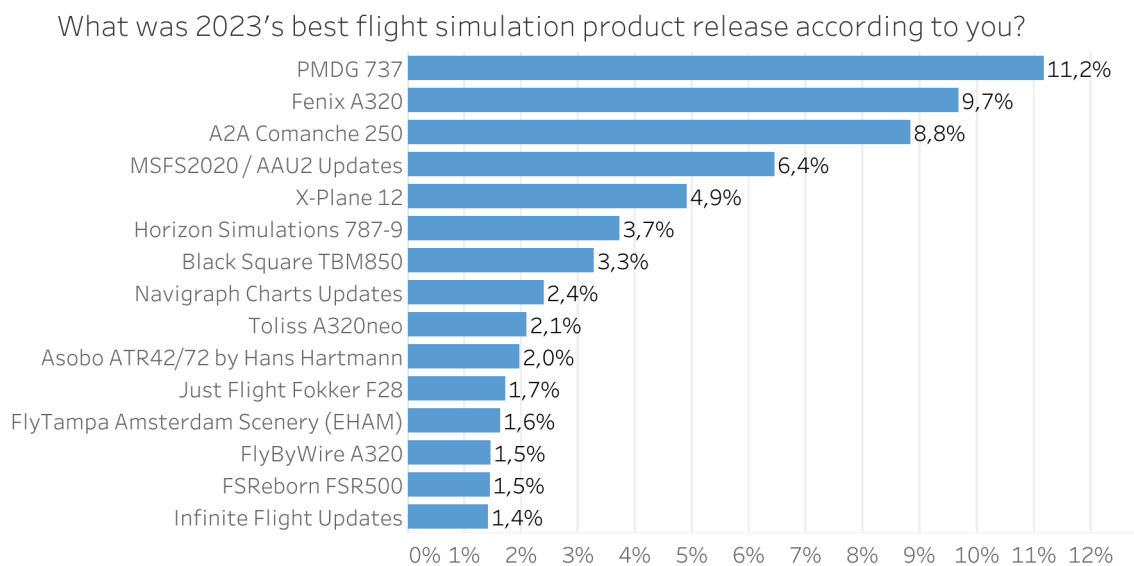
3.9.1. What was the best product release?

The following question had a free-text field, in which respondents got to share what they consider to be the best flight simulation product release in the last 12 months according to them. The highest rated product releases were the Fenix A319/A320/A321 series and Microsoft Flight Simulator 2024, each receiving roughly 20% of the votes. PMDG 777-300ER/777F followed closely at 15%, while the iniBuilds A350 secured 13%. These results highlight the community's strong enthusiasm for high-fidelity airliners and highlights the impact of the new version of Microsoft Flight Simulator in the community. FlyByWire's A380, is also on the list with 7% of the respondents which is a testament to the strong open-source community on the MSFS platform. What stands out is also responses mentioning WinWing hardware which is the first time a hardware manufacturer makes it onto the list, reflecting the growing popularity of WinWings products. The popular iFly 737 Max clocks in at 5%, just above Beyond ATC which is the only 3rd party software product on the list which is not an airliner. X-Plane 12 is mentioned by 4% of users which should be understood as the continuous updates of the simulator as X-Plane 12 has been out longer than 12 months. Flight Factor 777 v2 is highly regarded by 3% of the respondents and is the only X-Plane aircraft on the top list. Last year's top release, the PMDG 737, set a high bar, and this year's results highlight a continued appetite for advanced airliners, and related hardware products.

What was the single best flight simulation product release
in the last 12 months?



Last year's question:



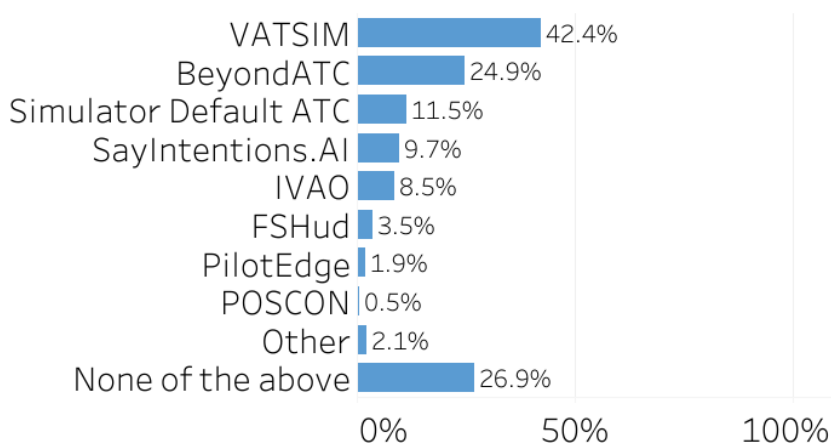
3.10. ATC Networks

3.10.1. ATC Network Usage

Last year we asked, “Which of the following online ATC networks have you flown on in the past 12 months?” This year, the question was modified from Online ATC to ATC Networks. The use of VATSIM remains strong, with 42.4% of respondents using it in the past 12 months, although last year VATSIM’s usage share was 88.7%, this can not be compared as the question was presented to a smaller group of people last year. In last year’s survey this question was preceded by a question “Have you flown in an ATC network in the past 12 months?” and only those answering “yes” contributed to the results. In this year’s survey, all respondents were presented with this question.

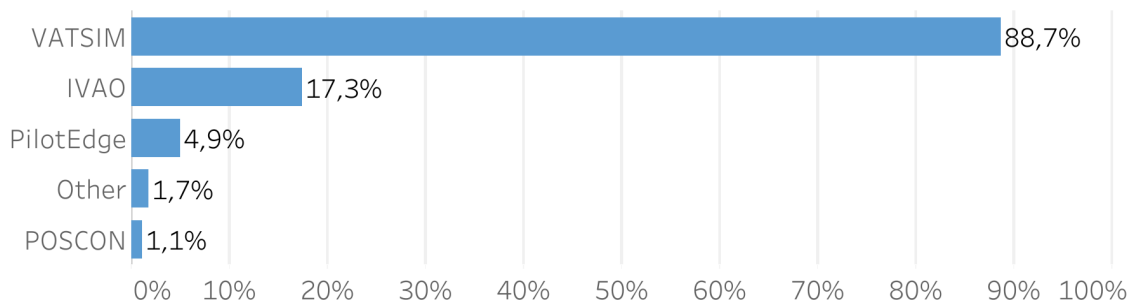
New to the survey, BeyondATC made an impressive debut with 24.9%, and SayIntentions.AI also saw notable adoption at 9.7%. Simulator Default ATC was used by 11.5%, showing that many still rely on built-in solutions. Meanwhile, 26.9% of respondents reported using none of the listed ATC options, highlighting a significant portion of the community that either flies offline or without ATC interaction.

Which of the following ATC networks/software have you used in the last 12 months?



Last year's

Which of the following online ATC networks have you flown on in the past 12 months?

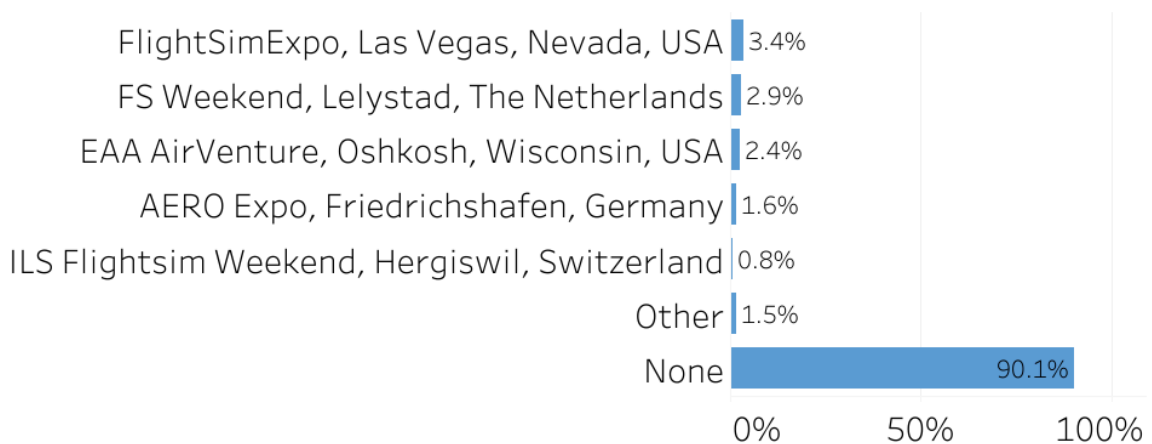


3.11. Exhibitions & Conferences

3.11.1. Attendance

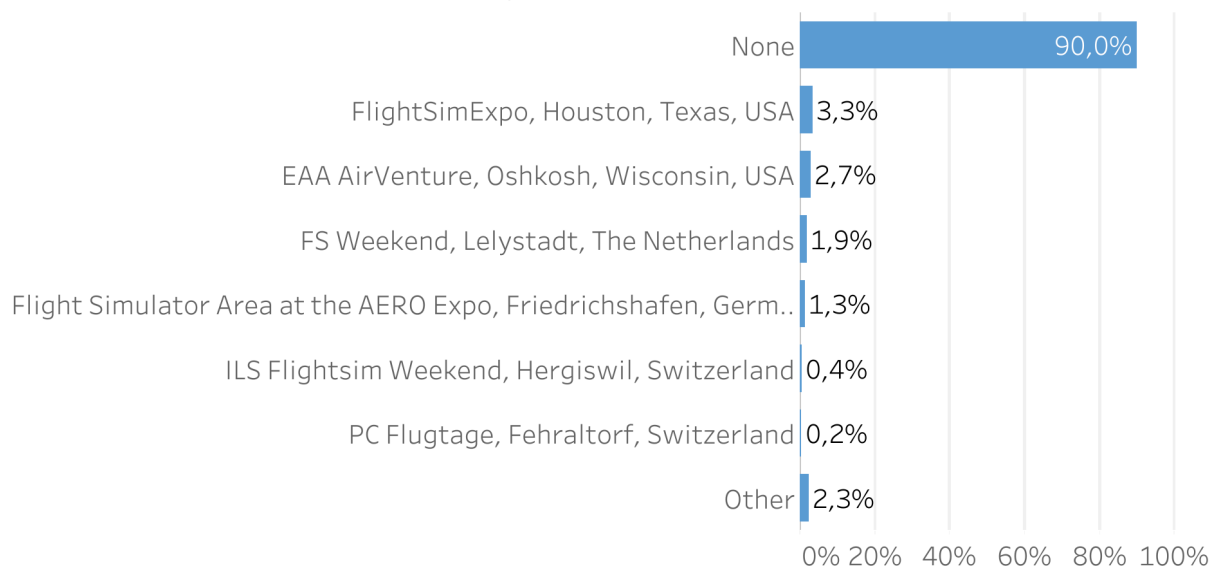
Flight simulation event attendance remained steady, with around 10% of respondents visiting at least one event. FlightSimExpo, held in Las Vegas, was the most attended (3.4%), similar to last year in Houston (3.3%). FSWeekend saw a rise in visitors (2.9% vs. 1.9%), while EAA AirVenture had a slight decrease (2.4% vs. 2.7%). Other events saw minor shifts, reflecting consistent engagement in in-person gatherings.

Which flight simulator exhibitions or conferences have you visited during the last 12 months?



Last year's result:

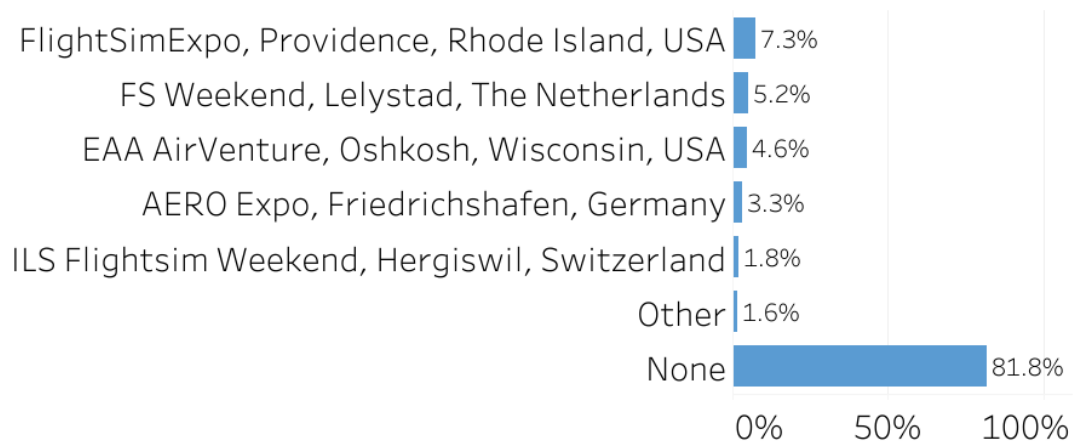
Which flight simulator exhibitions or conferences have you visited during the past 12 months?



3.11.2. Future Event Plans

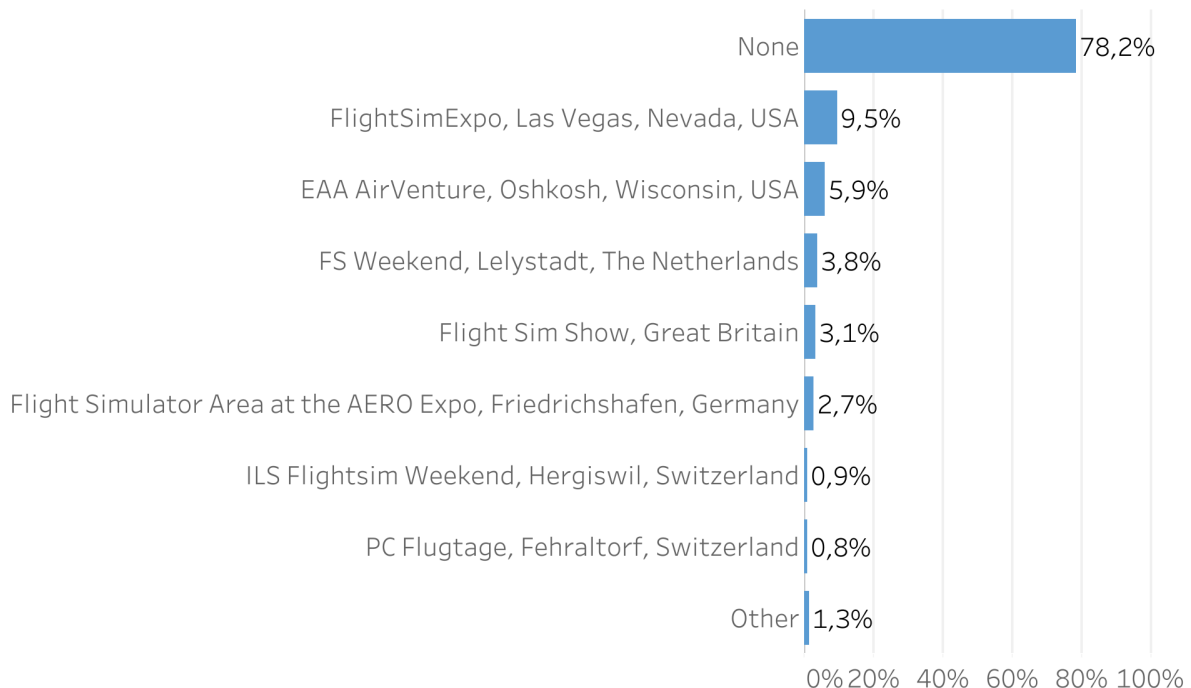
Around 20% of respondents plan to attend a flight simulation event in the next year. FlightSimExpo (7.3%) is the most popular choice, followed by FSWeekend (5.2%) and EAA AirVenture (4.6%). Attendance interest in AERO Expo increased slightly, while ILS Flightsim Weekend saw a small rise to 1.8%.

Which flight simulation exhibitions or conferences do you plan to attend during the next 12 months?



Last year's result:

Which flight simulation exhibitions or conferences do you plan to attend during the next 12 months?

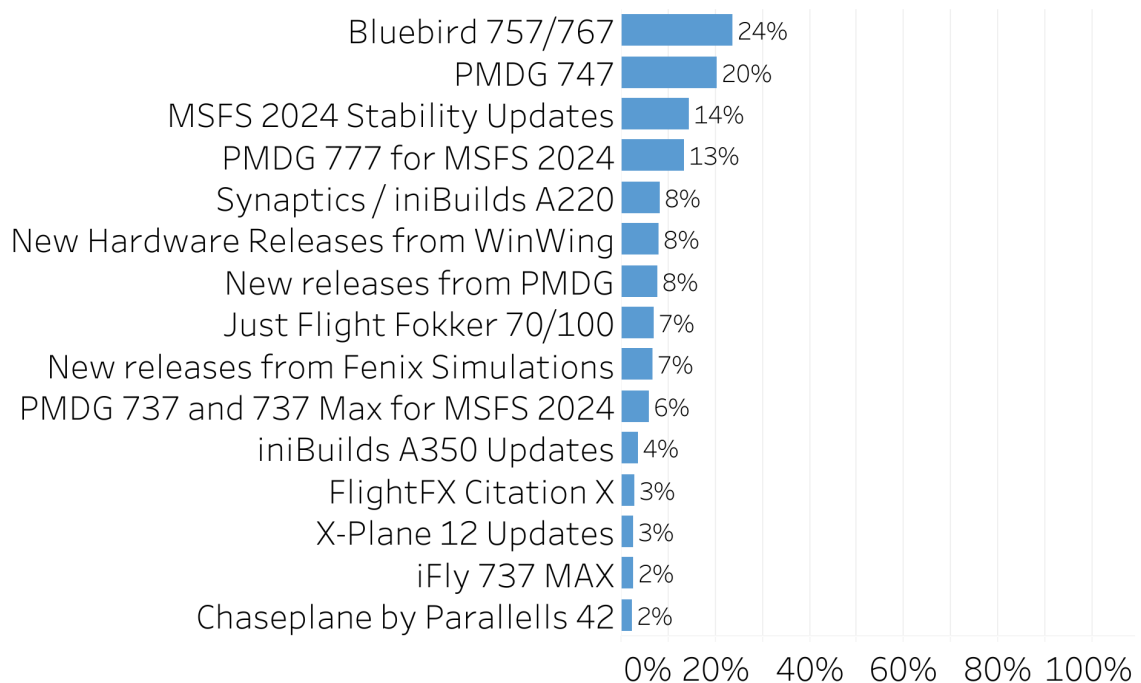


3.12. The Future

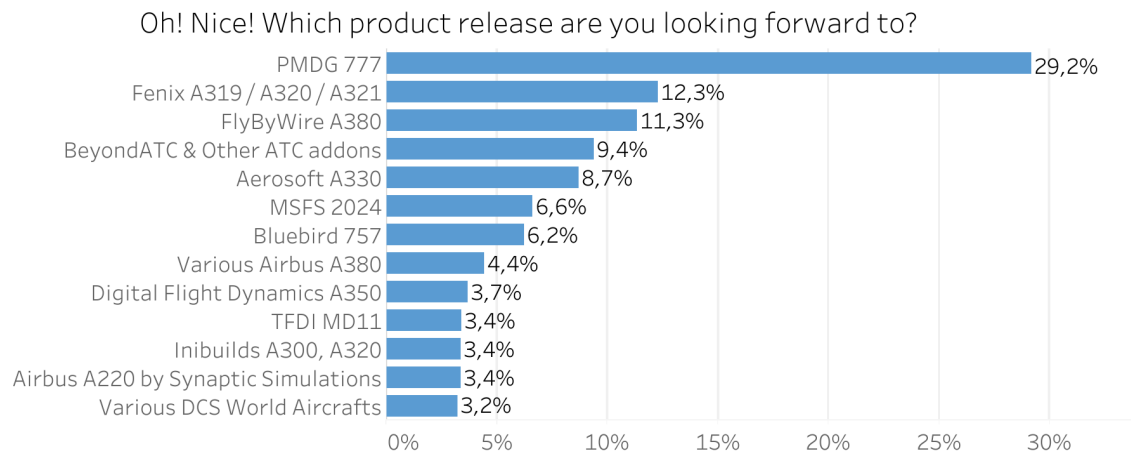
3.12.1. Anticipated Product Releases

According to the survey respondents the most anticipated product release in the coming 12 months is the Bluebird 757/767 with 24% of interest. PMDG's 747 follows second at 20%, with Stability updates for MSFS 2024 ranking third at 14%. Other notable releases are the PMDG 777 for MSFS 2024 at 13% and Synaptics/iniBuilds A220, Hardware from WinWing and new releases from PMDG, all sitting at 8%. This showcases a diverse range of interest among our respondents from classic airliners to new hardware releases.

Which flight simulation-related product releases are you looking forward to in the next 12 months?



Last year's question:

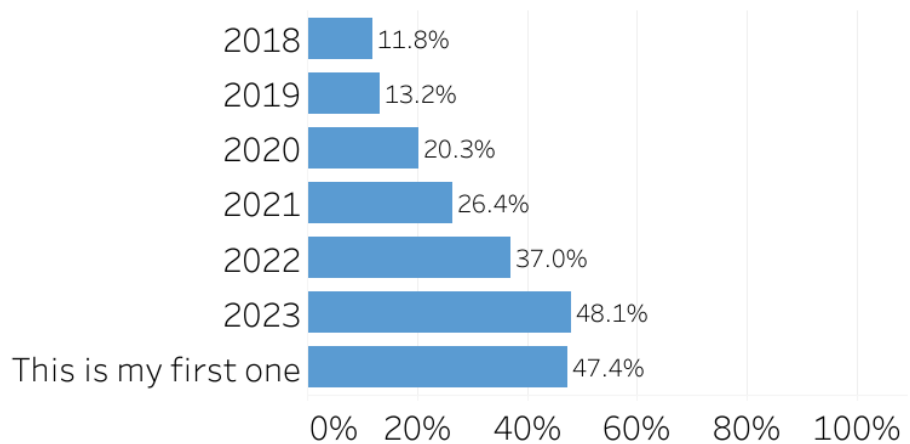


3.13. Survey Experience

3.13.1. Participation

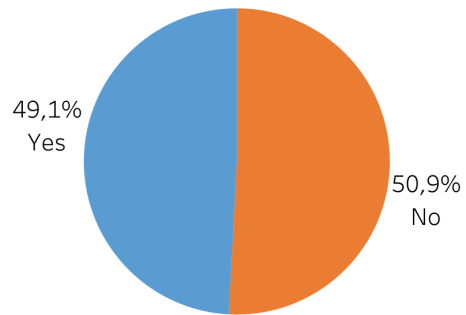
Nearly half (47.4%) of respondents are taking the survey for the first time, similar to last year's results. This year we also checked how many respondents that have been a part of previous surveys.

Which previous FlightSim Community Survey have you taken?



Last year's result:

Did you participate in the 2022 FlightSim
Community Survey?



4. Results

4.1. First, a Word on Sampling Bias and Validity

Since respondents were not selected through a random sampling technique but instead chose to participate voluntarily, there is a potential for bias in the collected data. This is a common limitation in surveys where participants are self-selected rather than randomly chosen based on the survey's intended focus.

It is important to emphasize that this chapter simply summarizes the survey data rather than drawing definitive conclusions. Because we cannot confirm whether the dataset accurately represents the broader flight simulation community, we refrain from making absolute claims. For this reason, confidence intervals and margins of error were not calculated.

That said, what can we infer from this dataset? First, with 23,600 respondents, it is a large sample compared to similar surveys. Generally, larger samples tend to better reflect the broader population, and a high number of participants can help reduce the impact of selection bias. While the dataset may not be fully representative of the entire flight simulation community, it does accurately reflect the responses of those who chose to participate.

Additionally, the dataset allows for trend analysis and year-over-year comparisons. This year, 47.4% of participants were new and had not taken the survey the previous year. Yet, many survey questions show consistent response patterns across consecutive years. If significant sampling bias were present, greater variation might be expected, particularly given that each year sees around 50% new respondents. The low variance between yearly samples suggests that the results may be representative of the population or that a consistent type of bias is present across surveys. While this consistency increases confidence in the results, absolute certainty remains unattainable.

With these considerations in mind, we now turn to an analysis of the collected data.

4.2. Brief Summary

The Flight Simulation Community Survey 2024 gives an in-depth view of current preferences, behaviours and spending patterns within the global flight simulation community. Below is a concise overview of the key results with comparisons from the previous year.

Charts & Flight Planning

- **Navigraph Charts** usage increased from **66.6%** to **71.8%**, maintaining dominance.
- **MSFS 2024 Flight Planner** emerged with **16.5%** usage.
- **SkyVector** saw a slight increase (**17.5% → 19%**), while **FlightAware** rose (**6.5% → 10.3%**).
- **SimBrief by Navigraph** remains the most popular flight planner (**75.9%**, down from **78%**).
- **Navigraph Charts** saw a decline (**55% → 38.9%**).
- **Little Navmap** usage fell (**21.7% → 16.7%**), and **SkyVector** dropped (**20.1% → 13.3%**).

Media Consumption

- **FSElite.net** remains the top news source but saw a slight decline (**44.9% → 41.8%**).
- **FlightSim.com** and **Avsim.com** saw declines (**FlightSim.com: 33.2% → 23.6%**, **Avsim.com: 28.9% → 23.4%**).
- **MSFSaddons.com** and **FSNews** also declined.
- **Cruiselevel.de** gained traction (**6.1% → 8.2%**).
- **YouTube** is the top social media platform (**93.2%**), followed by **Discord (59.1%)** and **Reddit (30.9%)**.

Simulator Habits

- Users flying 10+ sessions per week increased (**11.6% → 13%**).
- Users spending 10+ hours per session increased (**3.3% → 5%**).
- **VFR flying** declined (**16% → 11%**), while **IFR flying** increased (**60% → 61%**).
- **Combat flying** and **aerobatics** declined significantly.

Aircraft Preferences

- **Narrow-body airliners** rose (**72.5% → 75.7%**).
- **Wide-body airliners** saw significant growth (**60% → 67.2%**).
- **Single-engine piston aircraft** decreased slightly (**51.2% → 49.1%**).
- Interest in **veteran aircraft** grew (**9% → 11.7%**).
- **eVTOL** and **drones** showed modest growth but remain niche.

Popular Aviation Eras for Flight Simulation

- **The Computerized & Glass Cockpit Era (1980-2010)** is the most popular (**71.5%**).
- **Modern aviation (2010-Present)** follows at **59.4%**.
- **WWII & Early Jet Age** maintain some appeal, but **early aviation** interest is low.
- **Future aviation** attracts **32.6%** of interest.

MSFS & X-Plane Addons

- **Fenix Simulations A319/A320/A321 (55.7%)** and **PMDG 737-800 (38.5%)** are the most popular MSFS aircraft.
- **iniBuilds A350** is rising in popularity **(25.3%)**.
- **X-Plane's most popular aircraft: Zibo Mod B737-800X (34.3%)**, followed by **ToLiss A320Neo (20.7%)**.

Global Flight Preferences & Real-World Traffic

- **Europe** is the most popular region for flying **(76.8%)**, followed by **North America (61.2%)**.
- **56.6%** value real-world traffic for immersion, **44.1%** for realistic ATC.
- **FSLTL** is the most used **AI traffic tool (44.4%)**.

Spending on Flight Simulation

- **80% spent \$100-\$200 on software; fewer spent higher amounts.**
- **60% spent \$100-\$200 on hardware**, with only **10% spending over \$1,600.**
- **MSFS in-game Marketplace usage declined (52.04% → 35.22%).**
- **SimMarket and Orbx also saw declines**, while **iniStore (25.55% → 37.40%)** and **Contrail (15.06% → 22.16%)** gained traction.

Best Product Releases

- **Fenix A319/A320/A321 and MSFS 2024** were the most mentioned **(20% each)**.
- **PMDG 777-300ER/777F** followed at **15%**, **iniBuilds A350** at **13%**.

ATC Networks

- **Vatsim** stays strong with **42.4%** usage
- **BeyondATC** debuted with strong adoption **(24.9%)**.
- **26.9%** reported not using any **ATC network**.

Exhibitions & Conferences

- **10%** attended an event, **FlightSimExpo** was the most attended **(3.4%)**.
- **FSWeekend** saw an increase **(2.9% → 1.9%)**.
- Around **20%** plan to attend a future event, with **FlightSimExpo (7.3%)** leading interest.

Anticipated Releases

- **Bluebird 757/767** is the most anticipated **(24%)**, followed by **PMDG 747 (20%)**.
- **MSFS 2024** stability updates rank third **(14%)**.

Survey Experience

- **47.5%** of respondents were first-time participants.
- **48%** had taken last year's survey, **37% the 2022 edition**

4.3. Discussion

4.3.1. The Role of Real-World AI Traffic in Flight Simulation

Real-world traffic remains essential for many flight sim users, with 56.6% citing enhanced immersion and 44.1% valuing it for realistic ATC simulation. AI-driven live traffic solutions play a key role in replicating real-world airspace, airport congestion, and separation between aircraft. The popularity of FSLTL (44.4%) as the leading live traffic provider highlights a strong demand for AI-generated traffic that mirrors real airline operations. Other solutions like AIG AI Manager (8.4%) and RealTraffic (7.4%) further reflect the community's interest in accurate, customizable traffic.

The rise of AI traffic solutions like FSLTL suggests a shift toward more sophisticated and accessible real-world traffic implementations. As AI models continue to improve, future iterations of live traffic tools may offer even greater accuracy, performance efficiency, and integration with evolving ATC systems, further shaping how simmers engage with virtual airspace. However, 27.7% of respondents do not consider real-world traffic important, possibly due to performance concerns, offline flying preferences, or a focus on other aspects like aircraft handling .

4.3.2. The Rise of Alternative ATC Networks

VATSIM has been long regarded as the cornerstone of realistic virtual air traffic control for flight simulation enthusiasts and still continues to be so with 42.4% of the respondents utilizing it. However, the flight simulation community is increasingly exploring alternative ways to experience ATC, including AI-driven systems like BeyondATC and SayIntentions.AI, which together account for 34.6% of usage. AI driven systems can offer instant interaction and sequencing without the need for scheduling or live controllers.

VATSIM still remains the single most used ATC platform, flight simulator enthusiasts still valuing human interaction for its authenticity and dynamic environment. The inherent ecosystem VATSIM provides may also create an environment for Virtual Airlines and training to remain loyal to the network. This evolving landscape suggests that AI-driven and human-controlled ATC may continue to coexist, catering to different preferences within the community.

4.3.4. Shift in Purchasing Habits: Rise of Alternative Stores

Flight simulation software purchasing habits have shifted, with established stores like the MSFS in-game Marketplace (from 54.4% to 35.9%), SimMarket (from 45.4% to 36%), and Orbx (from 44.1% to 35.4%) experiencing declines. In contrast, iniStore by iniBuilds and Contrail saw significant growth, with iniStore increasing from 26.8% to 38.3% and Contrail growing from 15.8% to 22.6%.

One possible factor influencing these changes is the inability to purchase products for Microsoft Flight Simulator 2024 via the in-game Marketplace at the time of the survey. This may have led users to explore alternative platforms, contributing to the rise of other stores. Additionally, the growing popularity of iniStore and Contrail could be attributed to factors such as competitive pricing, exclusive products, and strong customer engagement.

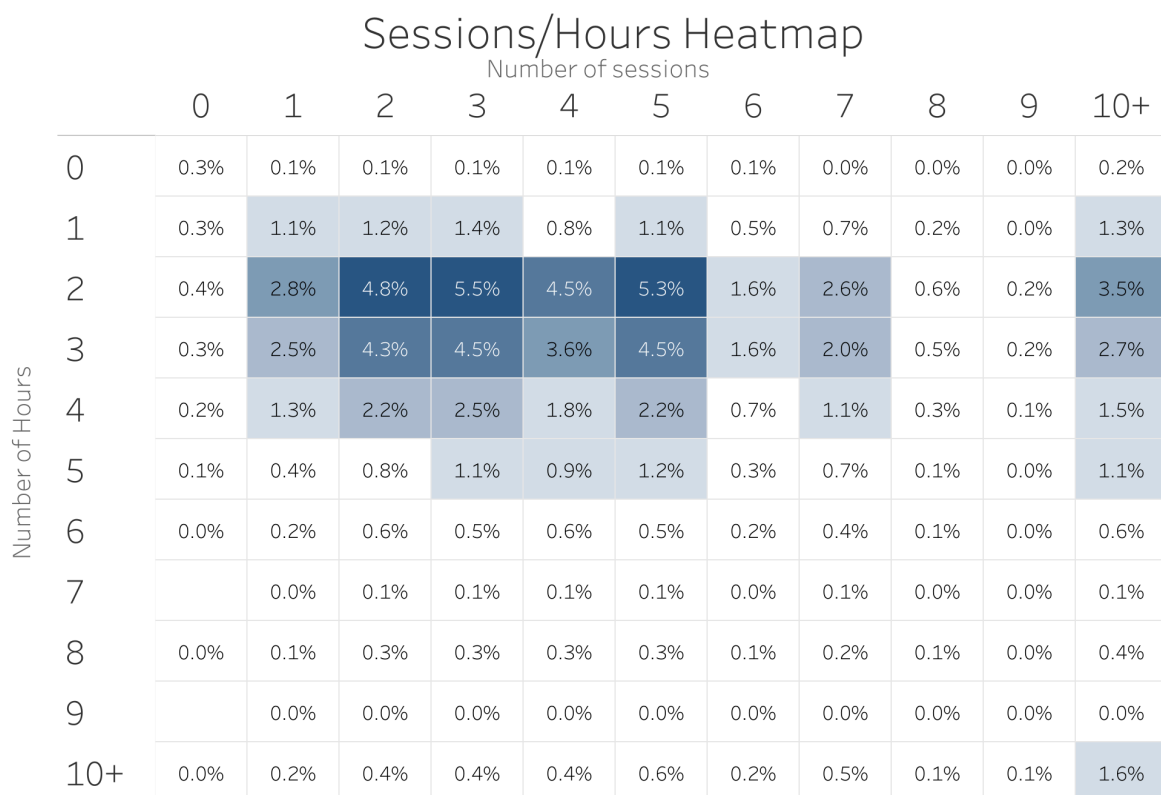
4.3.5. A Divide in User Engagement

Flight simulation use is becoming more divided, 13% of users are flying more than 10 times a week, while 2% aren't flying at all. This points to a split between highly dedicated users and those who are losing interest. The increase in frequent flying might be due to more immersive content, while those flying less could be dealing with time constraints or shifting priorities.

We correlated the data from 'number of sessions' and 'duration of sessions'. We find the most common pattern is 3 sessions per week, with each session averaging 3 hours (5.5%). The heatmap shows that most respondents typically average 2 to 5 sessions per week, with each lasting between 2 to 4 hours. On the higher end, 3.5% of respondents engage in 10+ sessions per week, each lasting 2 to 3 hours. Additionally, 1.6% reported 10+ sessions per week, with each session lasting 10+ hours.

While this extreme figure of 10+ sessions at 10+ hours each seems highly unlikely, it may reflect a very small number of outliers, dedicated enthusiasts, or some who fly exceptionally long distances. For the majority of people, achieving this level of commitment would be practically impossible due to time constraints and other life responsibilities. This raises the possibility that these data points represent unusual cases that are skewing the overall patterns.

In any case, the broader trends still highlight a clear divide in user engagement: while most users maintain a moderate level of activity, a smaller group of highly dedicated people invests significantly more time into flight simulation. The variation suggests that personal interest, time availability, and the changing nature of the simulation all impact how people engage with the hobby, offering useful insights into user behavior.



4.3.6. Regional Flying Dominates

The correlation between where simmers live and where they typically fly reveals a strong preference for regional flying, with most simmers choosing to fly within their own continent. The heatmap, which compares simmers' locations across Africa, Asia, Europe, North America, Oceania, and South America, shows high levels of intra-continental flights. For example, 98% of simmers in Europe and North America, 94% in Oceania, and 90% in South America primarily fly within their respective regions. Similarly, simmers in Africa and Asia show strong regional trends, with 77% and 83%, respectively.

Most simmers prefer to fly within their home continent, with the lowest correlations occurring when simmers fly outside their region. For example, only 6% of South American simmers fly to Africa, 9% of North American simmers choose Africa, 10% from Oceania fly to Africa, and 11% from Oceania fly to South America. This suggests regional flying dominates, but some simmers occasionally explore destinations beyond their continent.

Where in the world do you typically fly?

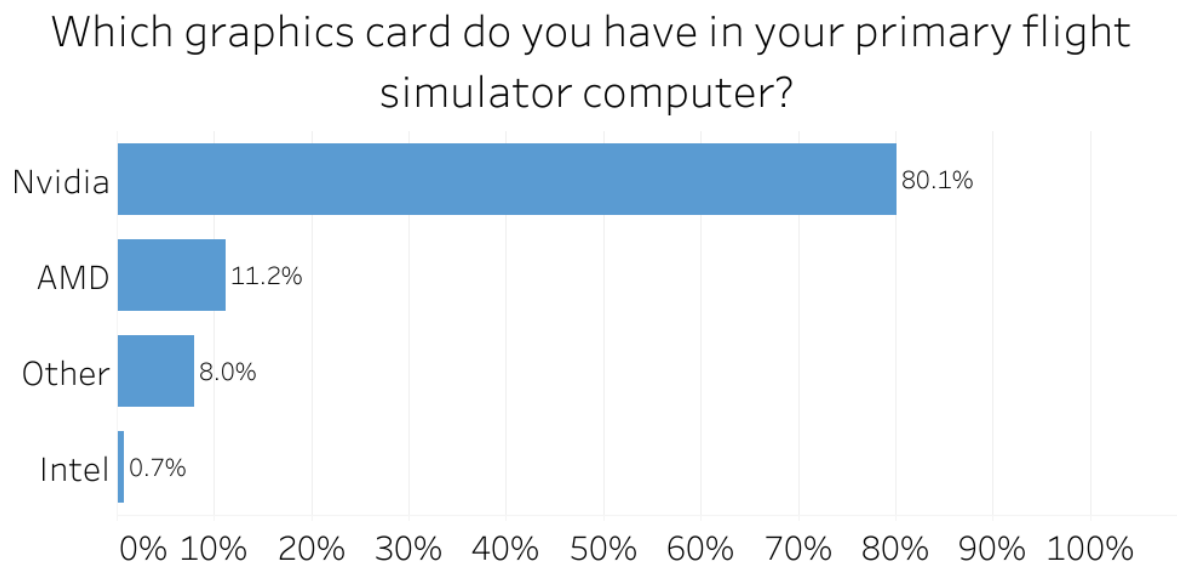
		Continent lived in					
		Africa	Asia	Europe	North America	Oceania	South America
Continent typically flown in	Africa	77%	13%	13%	9%	10%	6%
	Asia	32%	83%	23%	22%	40%	19%
	Europe	72%	61%	98%	49%	56%	54%
	North America	48%	42%	45%	98%	42%	60%
	Oceania	19%	22%	15%	21%	94%	13%
	South America	19%	11%	13%	18%	11%	90%

4.3.7. Graphic Card Trends

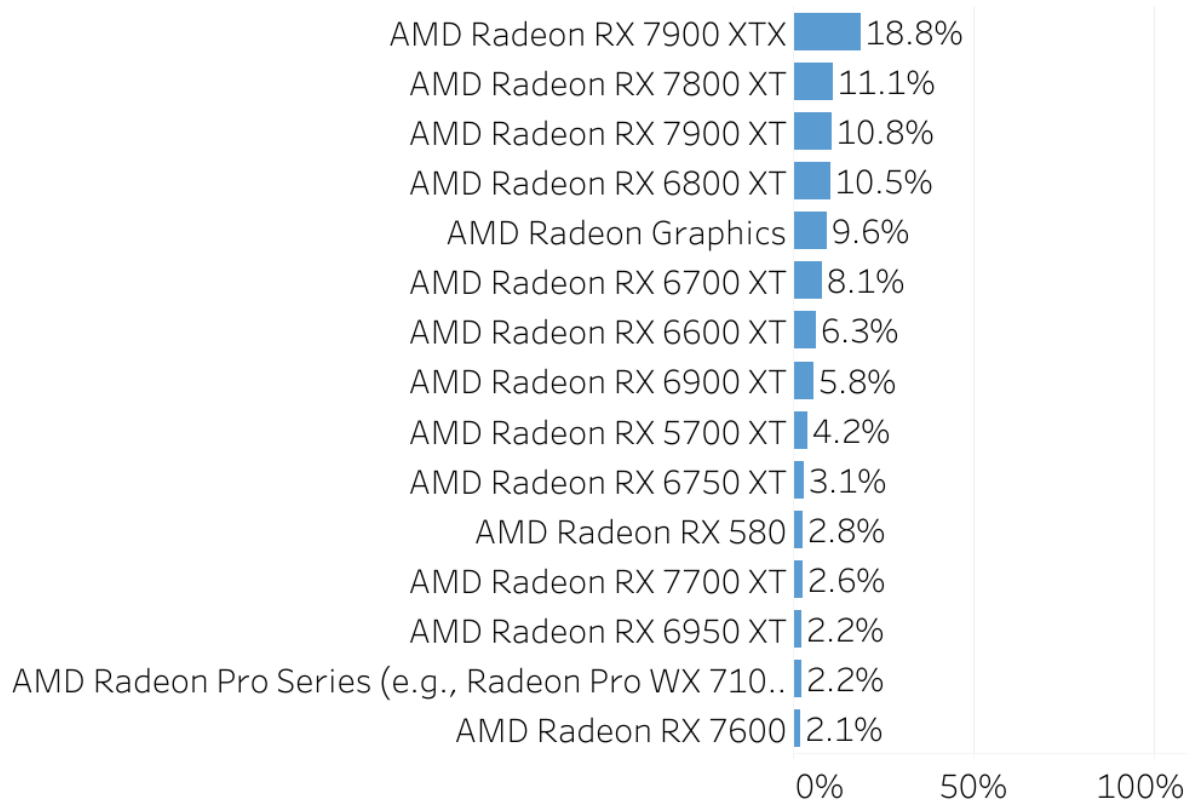
Survey data indicates NVIDIA's overwhelming dominance, with 80.1% of respondents using it as their primary GPU. AMD holds 11.2%, while 8.0% use other brands, and Intel lags behind at 0.7%, likely due to performance limitations in modern simulators.

To better understand AMD and Intel users, we analyzed their most common models. Among AMD users, the Radeon RX 7900 XTX (18.8%) is the most popular, followed by the RX 7800 XT (11.1%) and RX 7900 XT (10.8%). Despite a niche following, no AMD GPU ranks in the overall top 15. Intel users primarily rely on integrated graphics, with Iris Xe Graphics (34.3%) leading, followed by UHD and HD Graphics. The Intel Arc A Series (6.1%) sees minimal adoption.

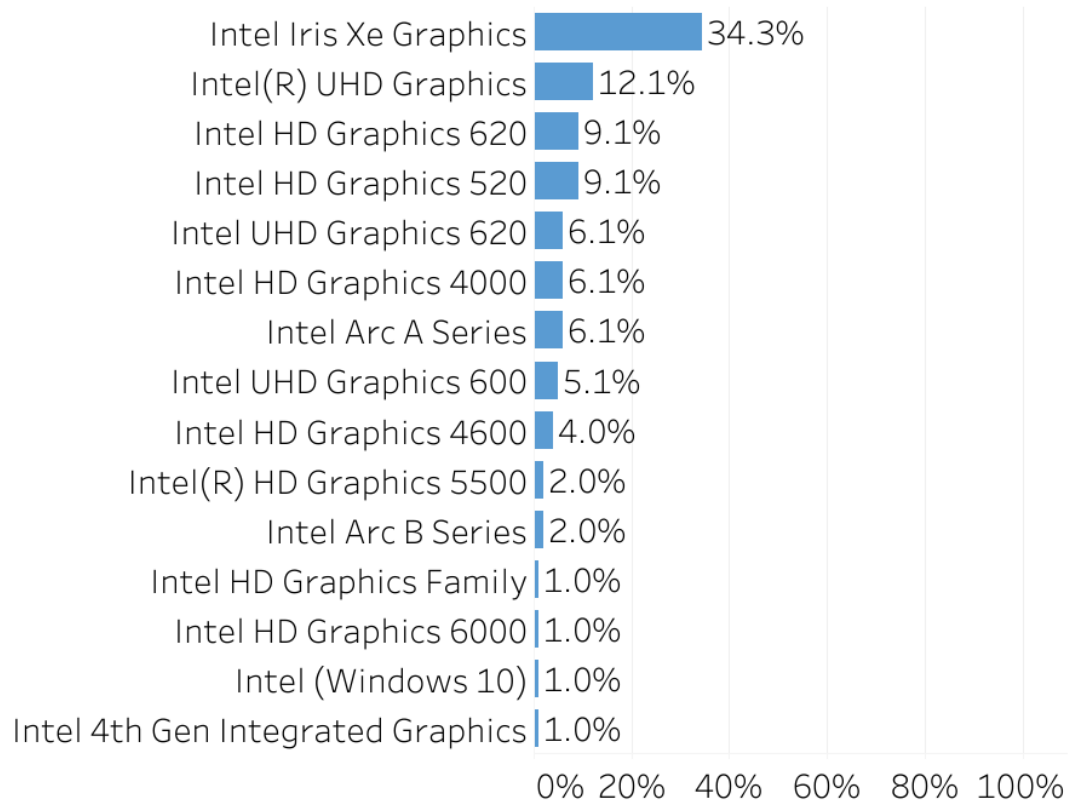
The data shows that flight simulation enthusiasts prefer high-performance GPUs, and NVIDIA remains the top choice due to its superior performance and compatibility.



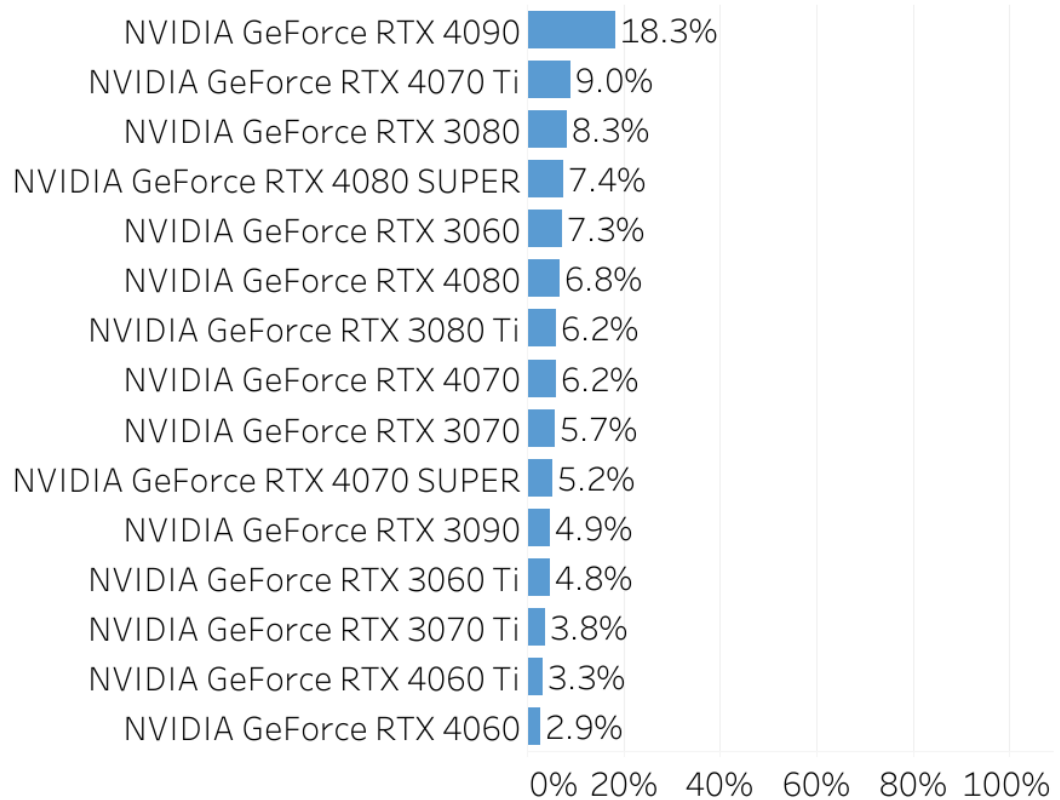
Which graphics card do you have in your primary flight simulator computer? (AMD)



Which graphics card do you have in your primary flight simulator computer? (INTEL)



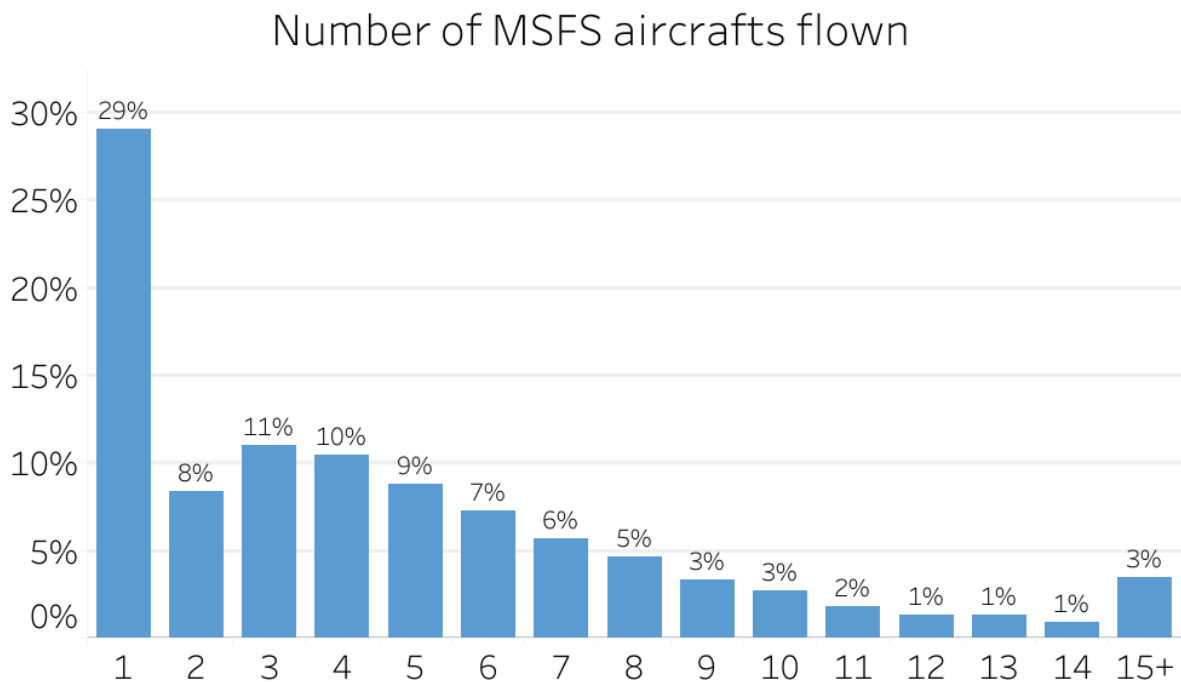
Which graphics card do you have in your primary flight simulator computer? (NVIDIA)



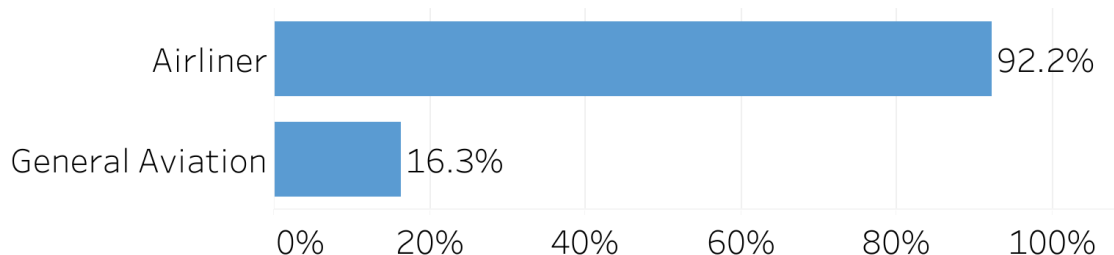
4.3.8. MSFS Aircraft Preferences

Survey data shows that the vast majority of MSFS users, 92.2%, prefer flying airliners, with only 16.3% flying general aviation aircraft. This highlights the community's strong interest in commercial aviation. The A319/A320/A321 by Fenix Simulations is the most popular aircraft, used by 55.7% of respondents. PMDG follows with its 737 series (46.6%) and 777 series (34.3%), showing its continued dominance. The A350 by iniBuilds is also widely used at 26.1%, while FlyByWire's freeware A320neo and A380X each attract 15.4% of users, indicating strong interest in high-quality community-developed aircraft. Aircraft like the 737 MAX 8 by iFly, 787-9 by Horizon, and MD-11, ATR 42/72 by TFDi have smaller but dedicated followings, while regional jets such as the CRJ series remain more niche.

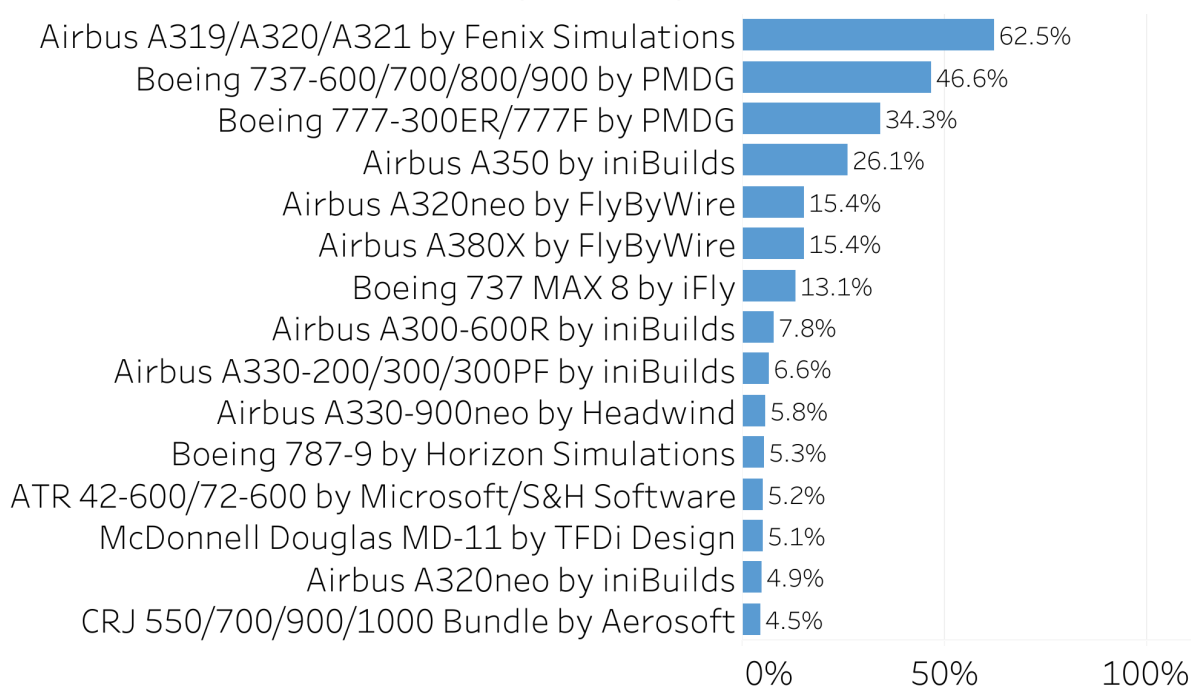
This analysis is part of a broader effort to better understand what interests the MSFS community most. The data shows a clear preference in high-fidelity airliners, with Fenix and PMDG leading the pack, mirroring NVIDIA's dominance in the GPU space. Narrow-body aircraft are especially popular, but wide-bodies and freeware options also have a firm place in the simulator community.



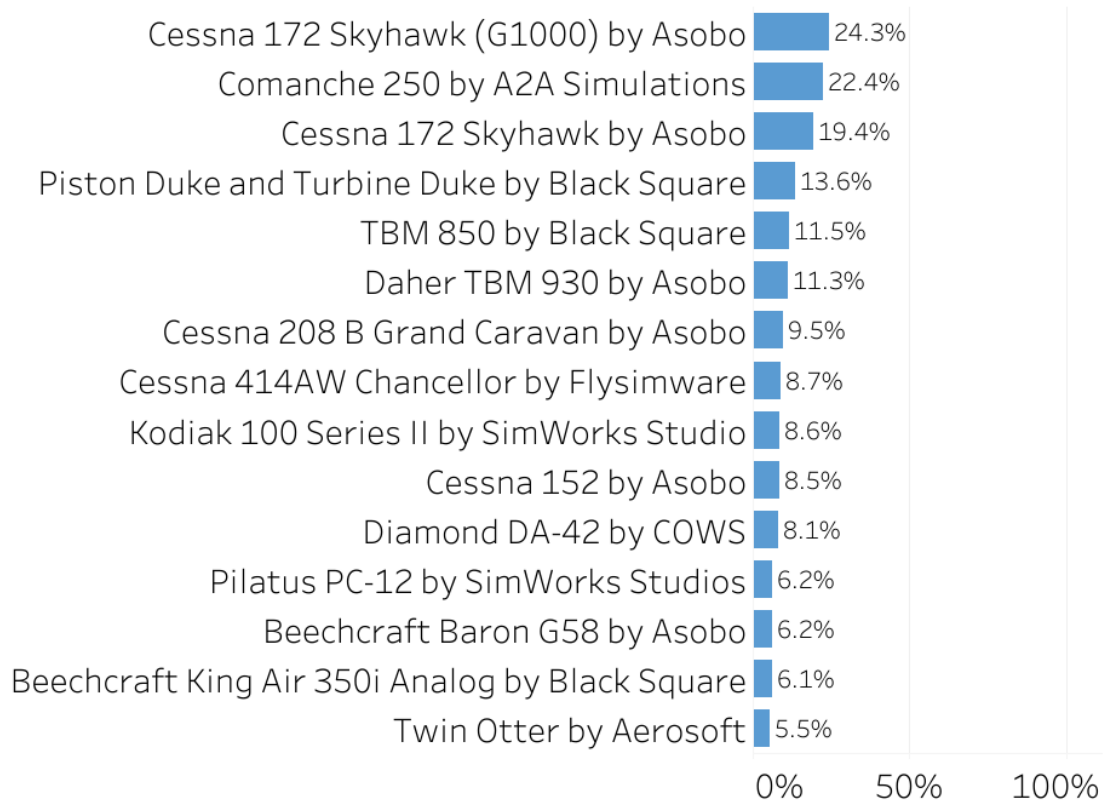
Which MSFS aircraft do you normally fly?



Which MSFS aircraft do you normally fly? (Airliner)



Which MSFS aircraft do you normally fly? (General Aviation)



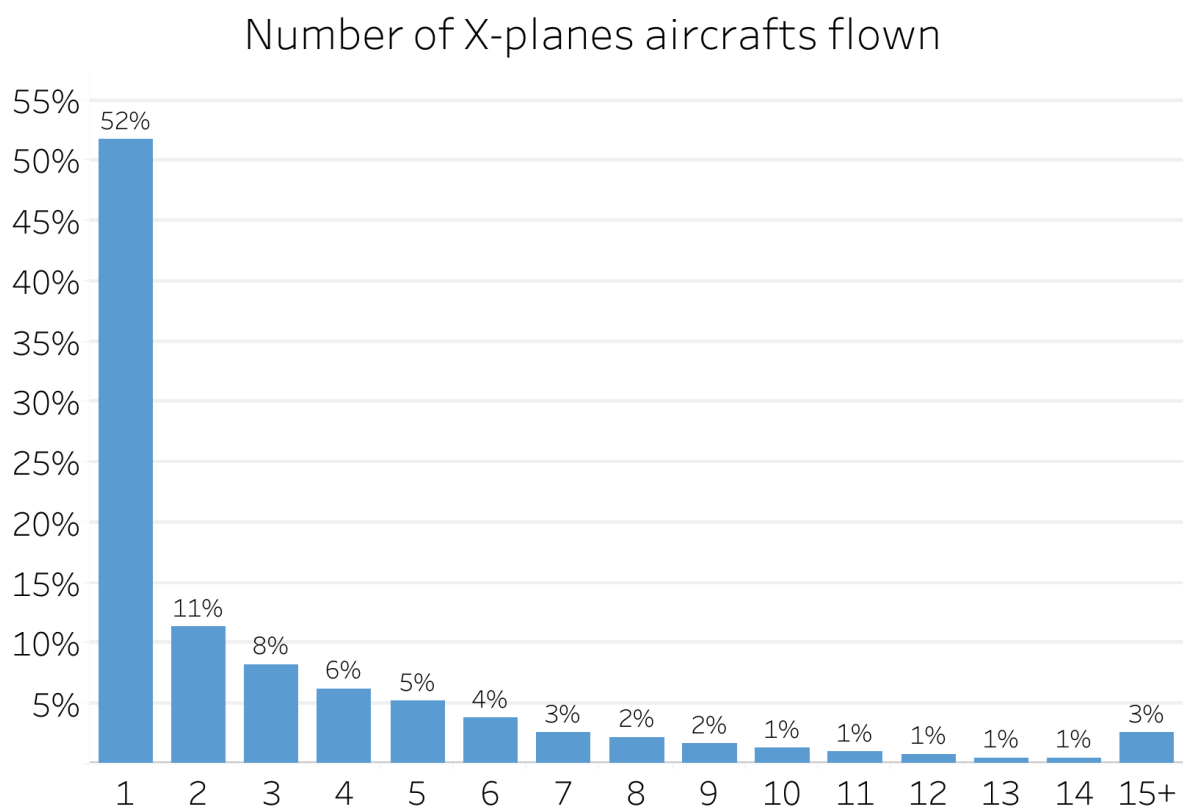
4.3.9. X-Plane Aircraft Preferences

Similar to MSFS, the majority of survey respondents primarily fly mainly airliners in X-Plane (75.7%). To capture the full range of interests within the community, we've created separate graphs for each group (Airliner, General Aviation and Other) to highlight the variety of aircraft flown in X-Plane.

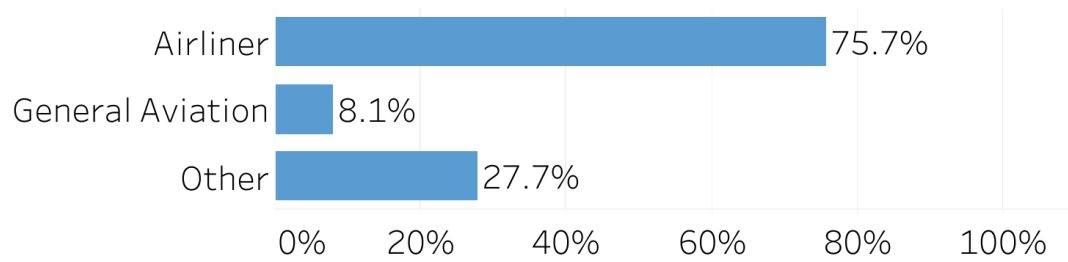
On average, respondents fly 1 X-Plane aircraft (52%), with the number dropping to 11% for those who fly 2 aircraft. The trend continues to decline steadily up to 14 aircraft, after which 3% of respondents report flying more than 15 aircraft.

Among the X-Plane respondents, 42.6% prefer the Zibo Mod B737-800X by ZIBO as their airliner of choice. For general aviation, the Cessna 172SP by X-Plane is their preferred aircraft for 21.4% of respondents. The 'Other' category, which includes business jets, military aircrafts and helicopters, reveals that the Business Jet Challenger 650 by Hot Start is the most popular, chosen by 29.2% of those who selected 'Other'.

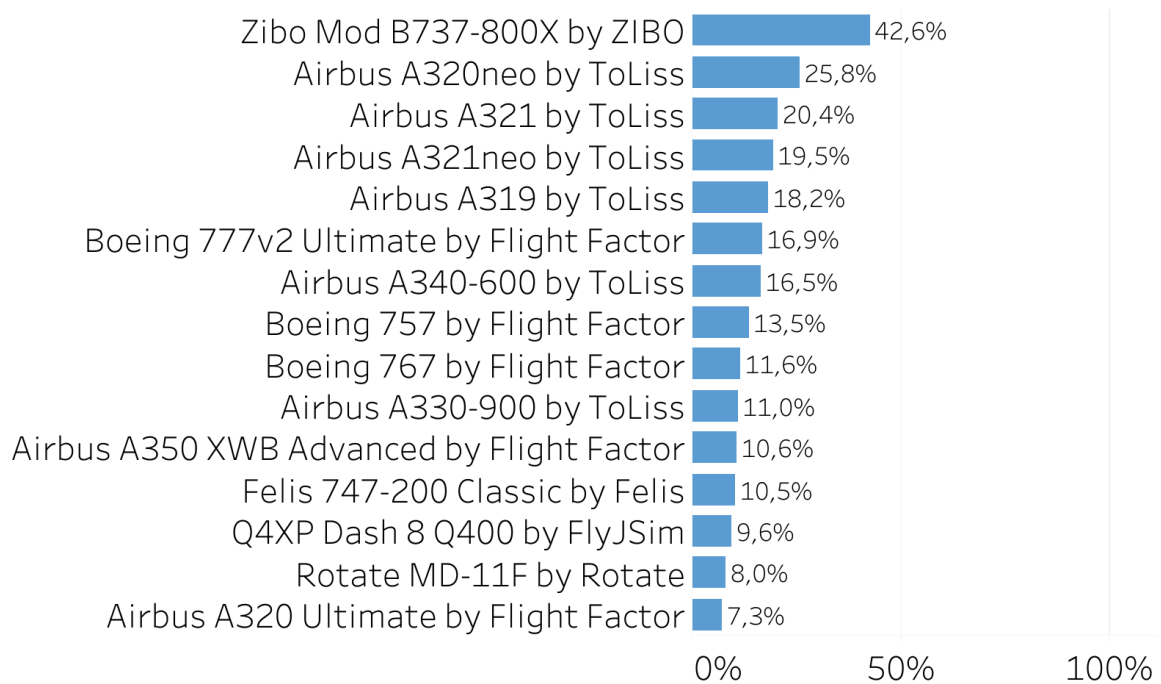
Within the 'Other' category, 40.5% of respondents listed their own preferences, highlighting the wide variety of aircraft options available and the diverse tastes within the X-Plane community.



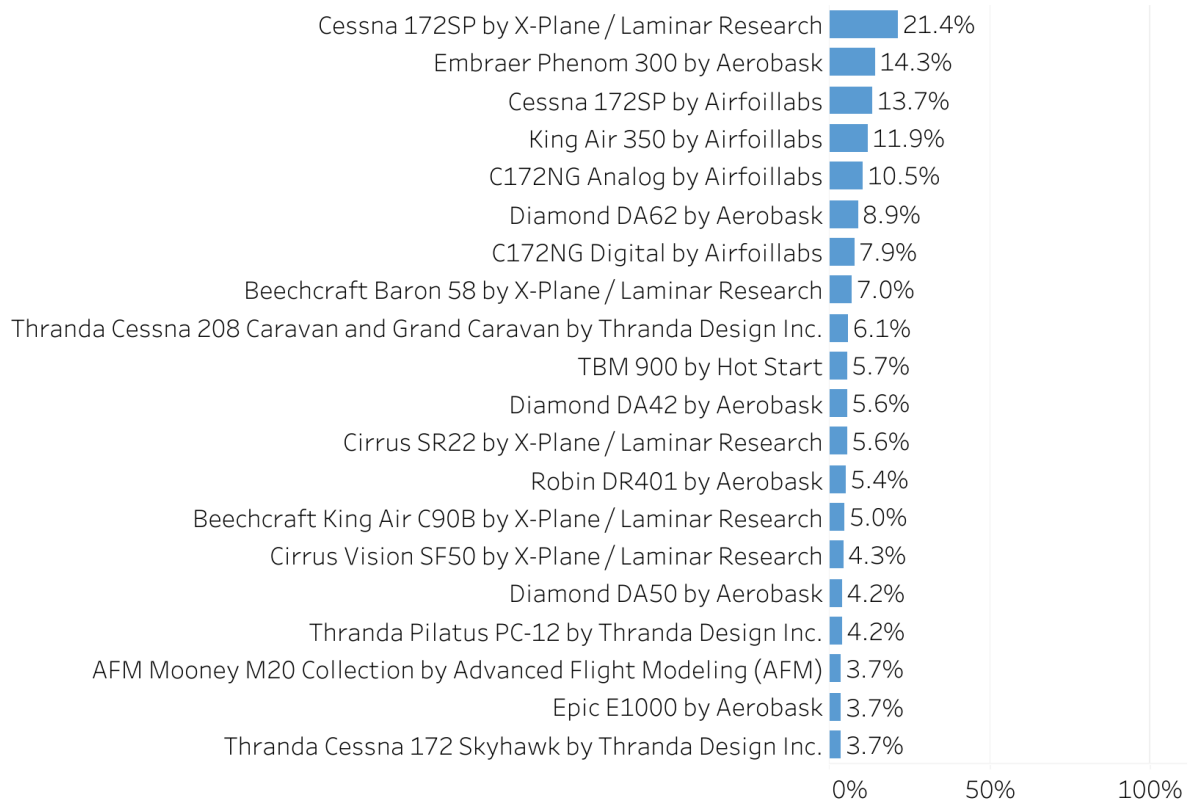
Which X-Plane aircraft do you normally fly?



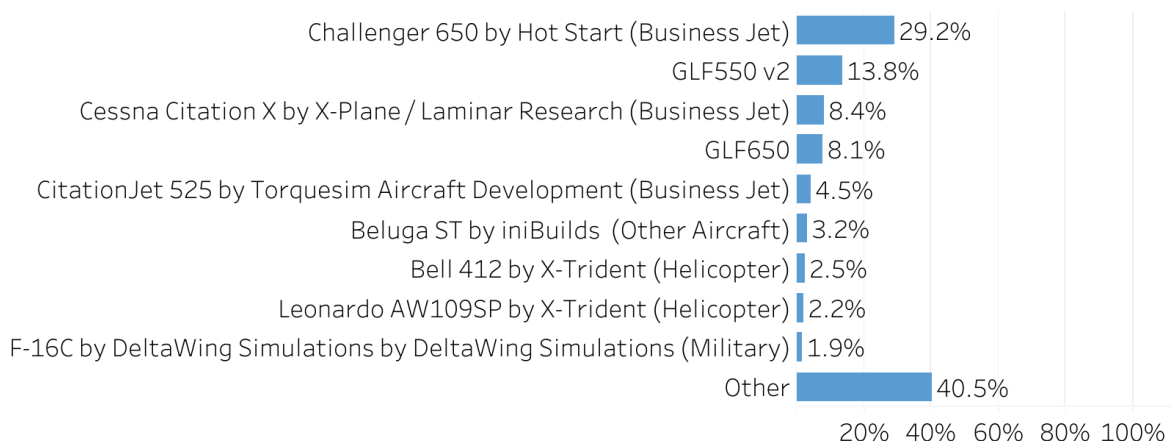
Which X-Plane aircraft do you normally fly? (Airliner)



Which X-Plane aircraft do you normally fly? (General Aviation)



Which X-Plane aircraft do you normally fly? (Other)



5. Future Work

Each year, we strive to increase the number of respondents and ensure broader representation of the entire community. Since participation is voluntary, future surveys will focus on enhancing dataset representativeness, including expanding survey partnerships to reach a more diverse group of respondents. Additionally, a deeper analysis of price sensitivity and the impact of inflation on spending habits will offer valuable insights into consumer behavior.

We encourage respondents to share any analyses they conduct using the data on social media with [#flightsimsurveyanalysis](#). We'll be happy to repost and help drive deeper discussions within the community.

By building on these efforts, we can better understand emerging trends and support the continued growth of the flight simulation industry.