



Gamedev.js Survey 2023 Report

Current state of Web Game Development in 2023

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INTRO

We, the [Gamedev.js](#) Community (led by [Andrzej Mazur](#) from [Enclave Games](#), creator of the [js13kGames](#) competition), were wondering what tools and technologies people use to develop web games, how much do they earn, what monetization strategies are they using, and more. There was almost no up-to-date, solid data on the topic, so we decided to ask the community directly and publish the results afterwards.

The **Gamedev.js Survey 2023** was open between December 8th and December 22nd, and the [Report](#) was published on January 17th 2024 - we received a total of **491** submitted results. You can also see the Reports [from 2021](#) and [from 2022](#) if you'd like to compare the answers.

Thank you to every single one of you who sent a response, promoted the Survey through your community, or in any other way helped make it happen - we really appreciate it! You are free to use any data listed below, but please give credit and link to the original source when using it, thank you!

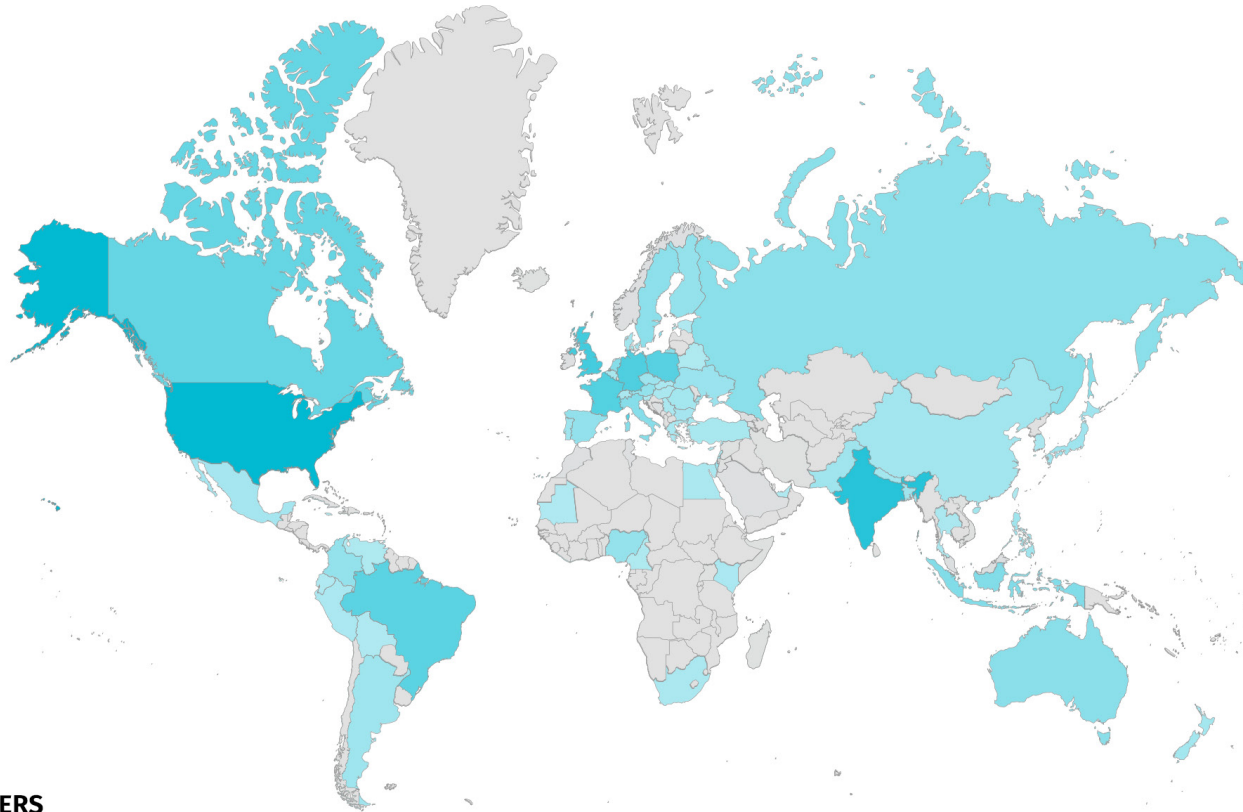
SURVEY RESULTS



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DEMOGRAPHY

01. WHAT COUNTRY DO YOU LIVE IN AND WORK FROM?



467 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

The survey received a total of 467 answers to this question, with top 10 being USA (18,4%), India (6%), France (5,4%), Germany (4,9%), United Kingdom (4,9%), Canada (4,3%), Poland (4,1%), Austria (2,8%), Brazil (2,8%), and Colombia (2,1%). There were 82 different countries selected, with many unique and exotic ones, which shows a good geographical diversity.

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DEMOGRAPHY

What country do you live in and work from?

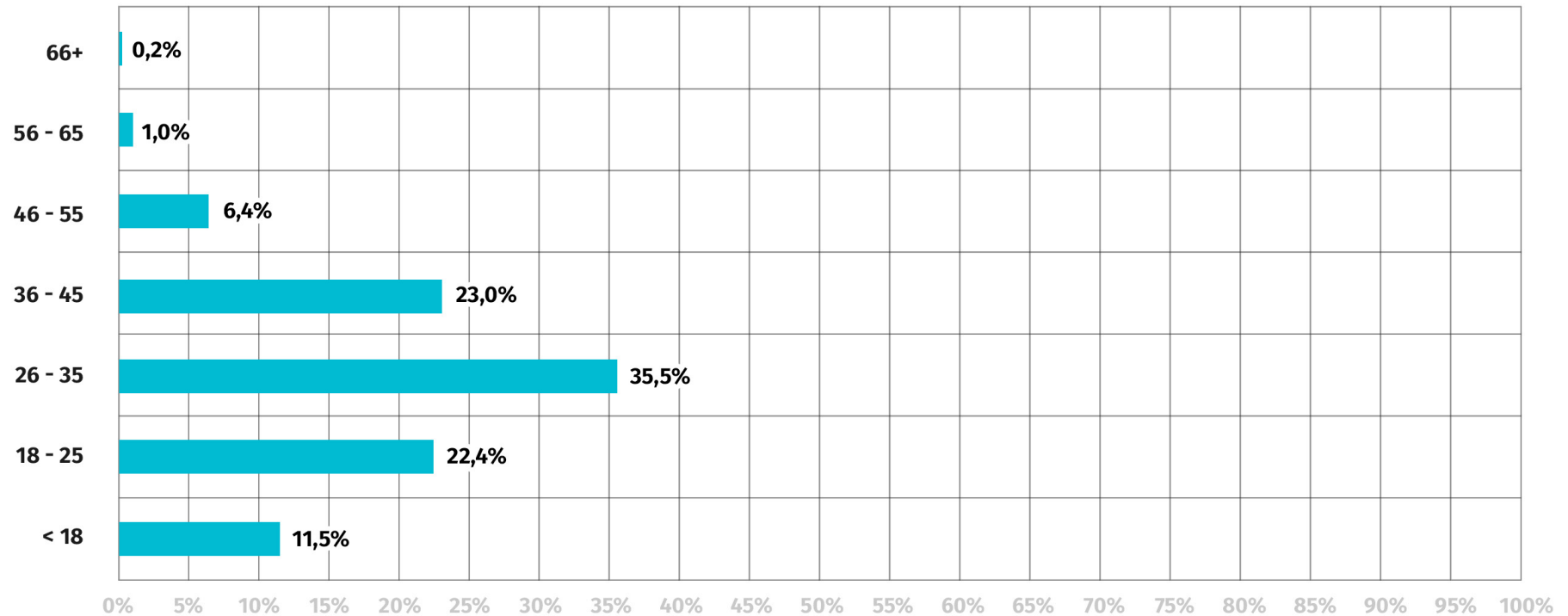
United States 86
India 28
France 25
Germany 23
United Kingdom 23
Canada 20
Poland 19
Austria 13
Brazil 13
Colombia 10
Indonesia 10
Italy 10
Netherlands 10
Argentina 9
Japan 7
Sweden 7
Ukraine 7
Australia 6
China 5
Czech Republic 5
Finland 5
Nigeria 5
Russian Federation 5
Belgium 4
Denmark 4
Nepal 4

New Zealand 4
Portugal 4
Romania 4
Turkey 4
Egypt 3
Hungary 3
Israel 3
Korea South 3
Serbia 3
South Africa 3
Spain 3
Switzerland 3
Thailand 3
Bangladesh 2
Belarus 2
Bosnia Herzegovina 2
Cameroon 2
Georgia 2
Ireland {Republic} 2
Lebanon 2
Malaysia 2
Malta 2
Morocco 2
Norway 2
Pakistan 2
Philippines 2
Saudi Arabia 2
Slovenia 2
Taiwan 2

Tunisia 2
Venezuela 2
Armenia 1
Benin 1
Bolivia 1
Cyprus 1
Ecuador 1
Estonia 1
Greece 1
Iceland 1
Iran 1
Jamaica 1
Jordan 1
Kenya 1
Macedonia 1
Madagascar 1
Mauritania 1
Mexico 1
Peru 1
Qatar 1
Singapore 1
Slovakia 1
Somalia 1
Syria 1
Trinidad & Tobago 1
Uganda 1
Vietnam 1

DEMOGRAPHY

02. HOW OLD ARE YOU?



487 ANSWERS

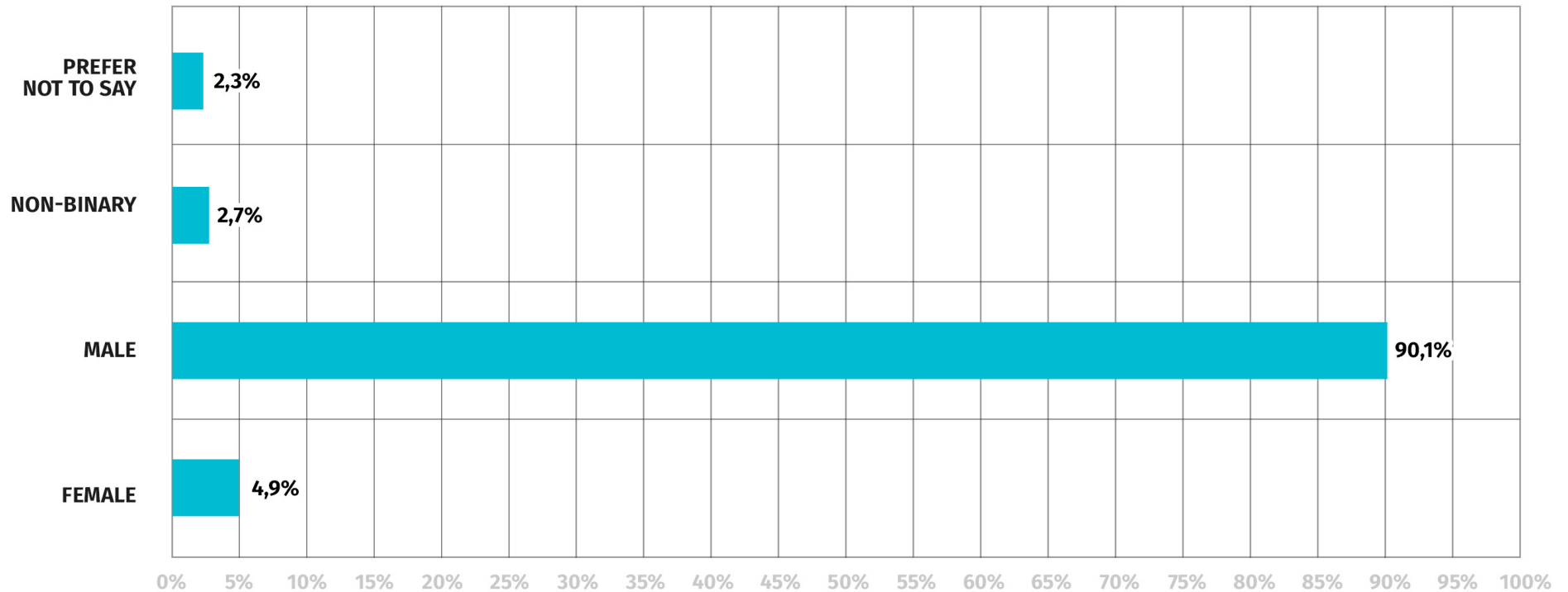
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

With 487 total answers, top responses were 26-35 (35,5%), followed by 36-45 (23%), 18-25 (22,4%), and <18 (11,5%). We had 6,4% of the responses from people aged 46-55, 1% of those 56-65, and 0,2% 66+.

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DEMOGRAPHY

03. WHAT IS YOUR GENDER?



487 ANSWERS

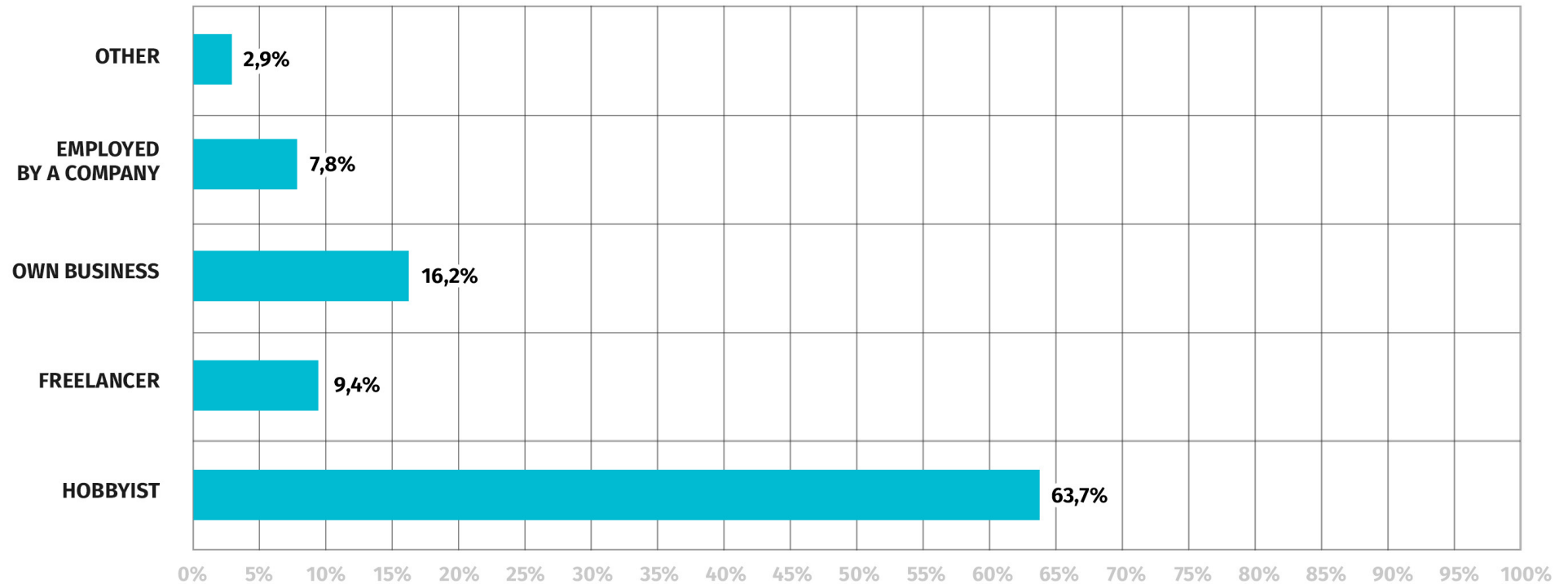
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

Males are the majority with 90,1% of the 487 answers, followed by 4,9% from females, and 2,7% non-binary. Also, 2,3% preferred not to say.

BACK TO MENU

WORK EXPERIENCE

04. YOUR GAMEDEV JOB STATUS



487 ANSWERS

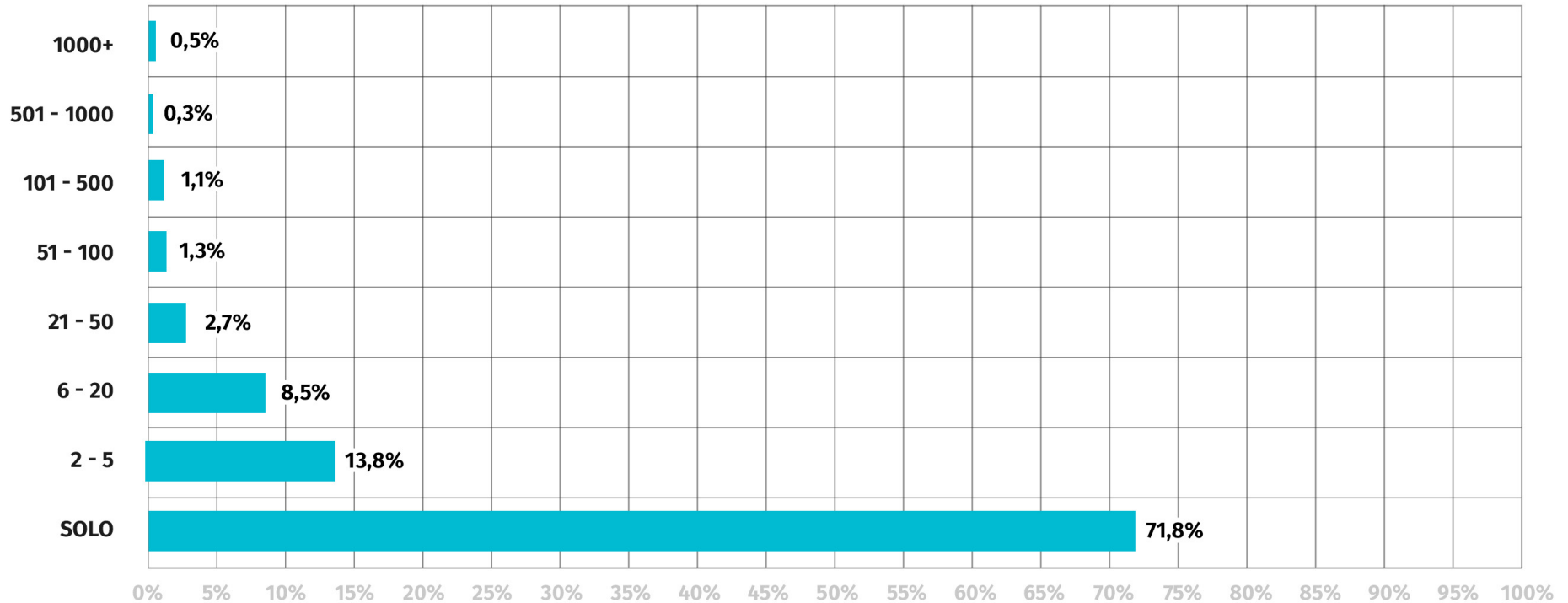
 GAMEDEV.JS
gamedevjs.com/survey/2023/

A little bit less than two thirds of the 487 answers went for being hobbyists (63,7%), followed by those running their own businesses (16,2%), freelancers (9,4%), and employed by a company (7,8%). There were a few answers about being a student.

BACK TO MENU

WORK EXPERIENCE

05. IF YOU WORK PROFESSIONALLY AS A GAME DEVELOPER, WHAT IS THE SIZE OF YOUR COMPANY?



376 ANSWERS

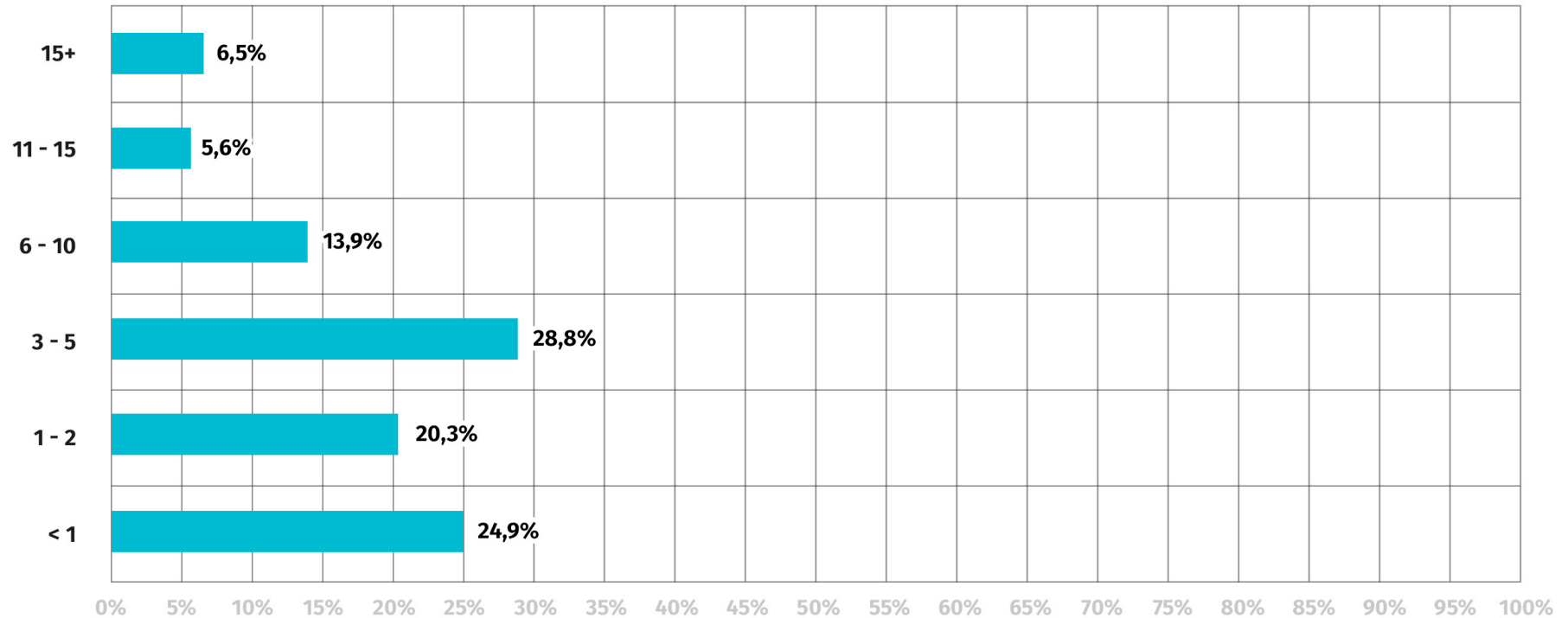
 GAMEDEV.JS
gamedevjs.com/survey/2023/

Out of 376 answers, 71,8% are solo devs, with the second place being a team of 2-5 people (13,8%), and third 6-20 (8,5%). There aren't many devs working in 1000+ companies anymore compared to the [previous year](#) though.

[BACK TO MENU](#)

WORK EXPERIENCE

06. YEARS OF GAMEDEV WORK EXPERIENCE



462 ANSWERS

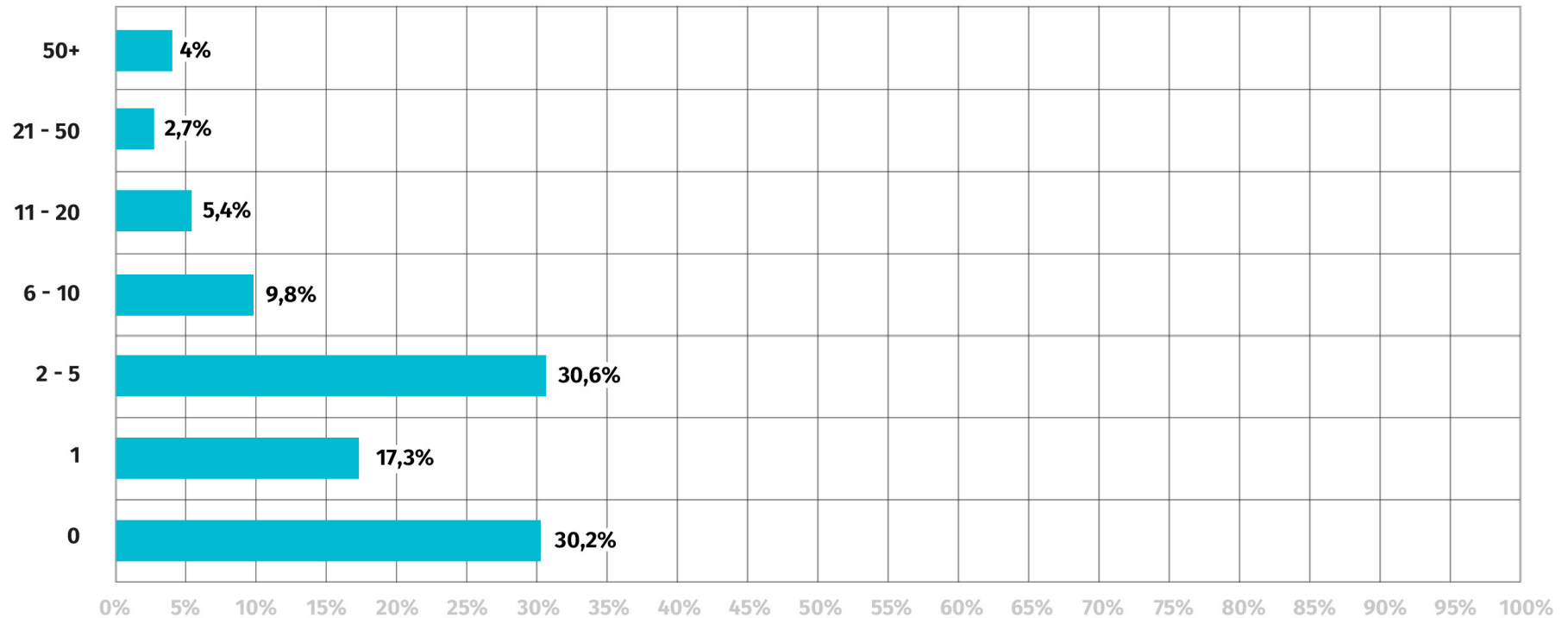
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The most popular option here is 3-5 years of experience (28,8%), but the follow-up is being brand new to the space with less than a year of gamedev experience (24,9%) - people who joined before previous Survey was conducted. The third is 1-2 (20,3%), and fourth 6-10 (13,9%). All that from 462 answers.

BACK TO MENU

WORK EXPERIENCE

07. HOW MANY GAMES HAVE YOU RELEASED SO FAR?



480 ANSWERS

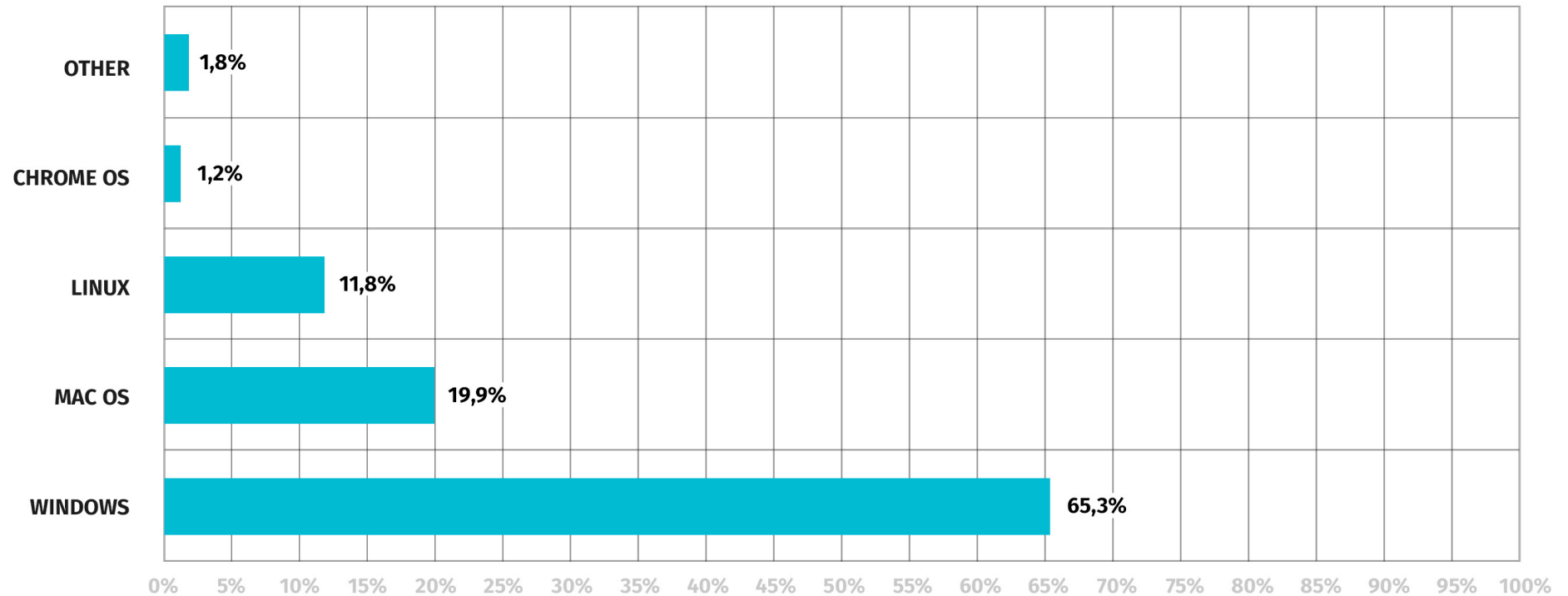
 GAMEDEV.JS
gamedevjs.com/survey/2023/

Out of 480 answers this year, zero released games (30,2%) is not the most popular answer anymore, but 2-5 (30,6%). New option this year, 1 game, accounts to 17,5% of answers. Around 20 devs total released more than 50 games each, which is impressive.

BACK TO MENU

DEVELOPMENT

08. WHAT OPERATING SYSTEM ARE YOU MAINLY USING TO DEVELOP YOUR GAMES?



490 ANSWERS

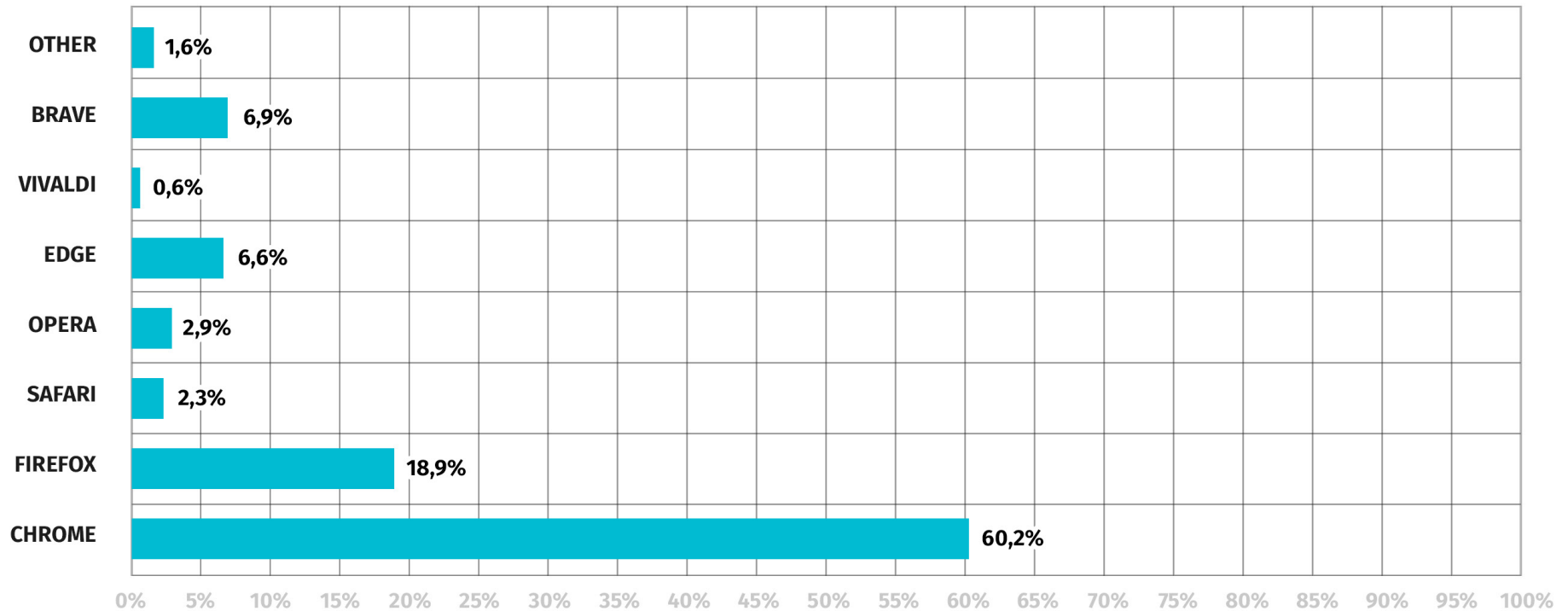
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

There was 65,3% out of 490 answers for Windows, 19,9% for MacOS, and 11,8% for Linux. The newly added option for Chrome OS ended up with 1,2%.

BACK TO MENU

DEVELOPMENT

09. WHICH BROWSER ARE YOU USING AS A MAIN DEVELOPMENT ONE?



487 ANSWERS

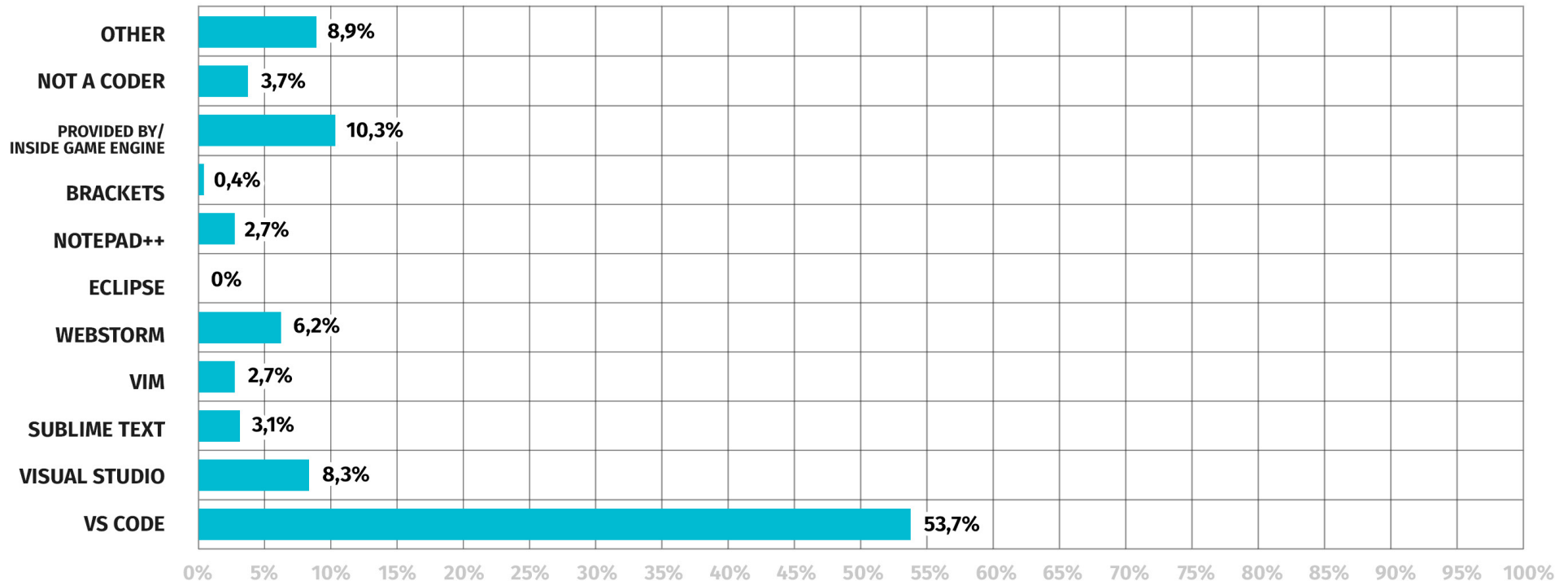
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

The sentiment is similar to the front-end development community: 60,2% for Chrome, 18,9% for Firefox, and then Brave (6,9%), Edge (6,6%), and Opera (2,9%), totaling in 487 answers. Three people participating in the survey are using Vivaldi as their main browser.

BACK TO MENU

DEVELOPMENT

10. WHAT EDITOR ARE YOU MAINLY USING TO CODE?



484 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

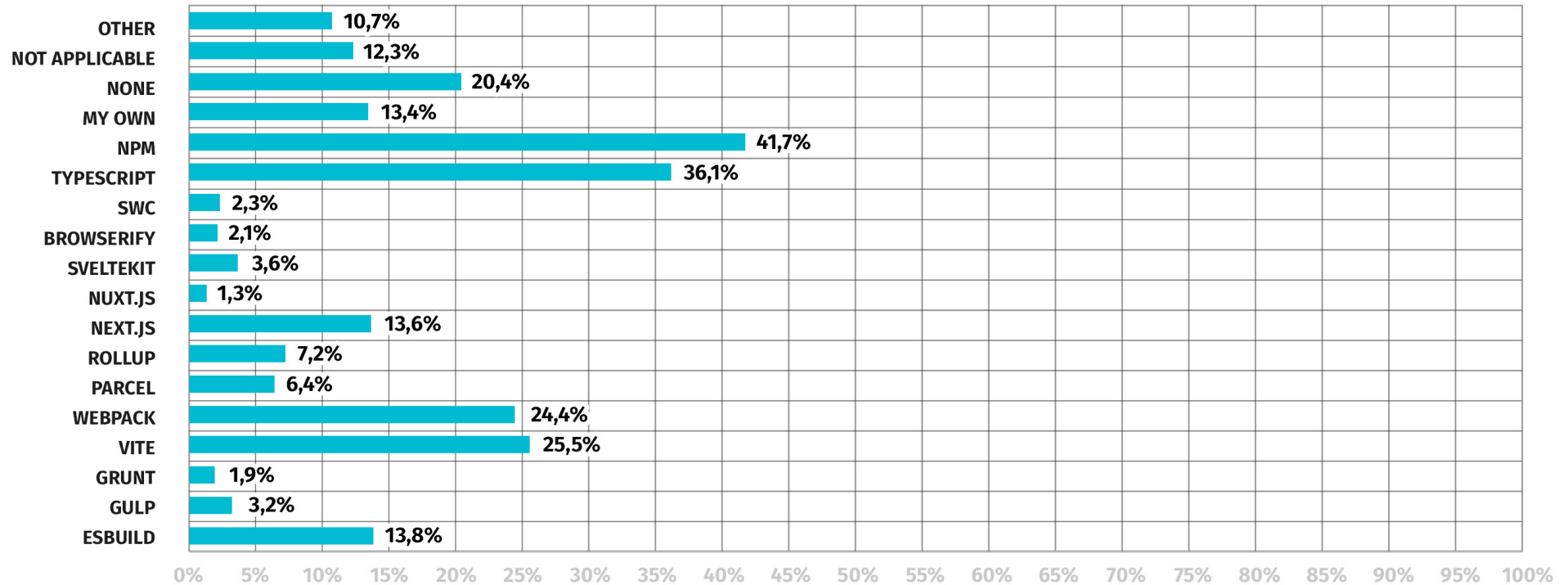
The most popular editor is definitely VS Code (53,7%), though its usage percentage-wise declined from last year. Interesting second pick is the one provided by or the one inside the game engine itself. Next are Visual Studio (8,3%) and Webstorm (6,2%), with 3,7% out of a total of 484 answers not being coders at all. Sublime Text is used by 3,1%, while Notepad++ and Vim both got 2,7% each.

[BACK TO MENU](#)

DEVELOPMENT

11. WHAT BUILD TOOLS ARE YOU USING?

MULTIPLE CHOICE



471 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

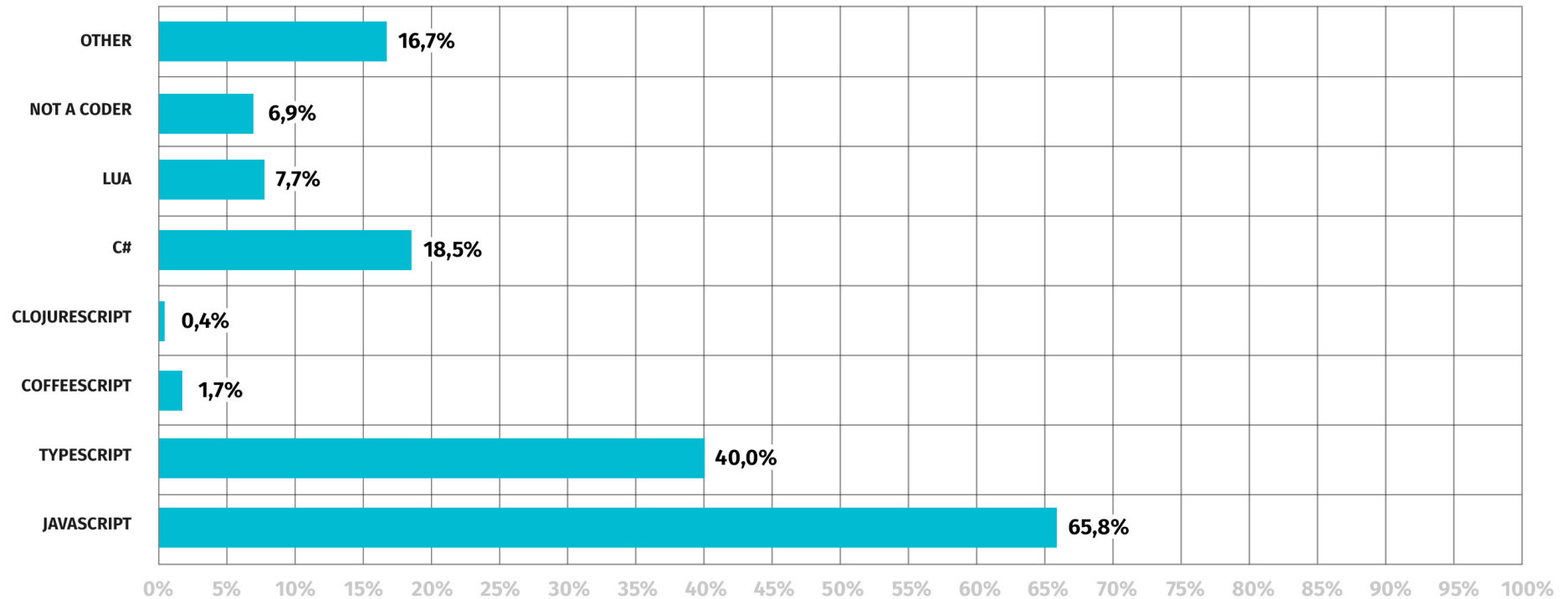
NPM (41,7%) and TypeScript (36,1%) are still leading the way, although Webpack (24,4%) was overtaken by Vite (25,5%). Interestingly enough, “none” is still strong with 20,4% and the fifth place overall. There’s a long tail of various tools people are using as well.

BACK TO MENU

DEVELOPMENT

12. WHAT LANGUAGES ARE YOU USING TO CREATE WEB GAMES?

MULTIPLE CHOICE



480 ANSWERS

 GAMEDEV.JS

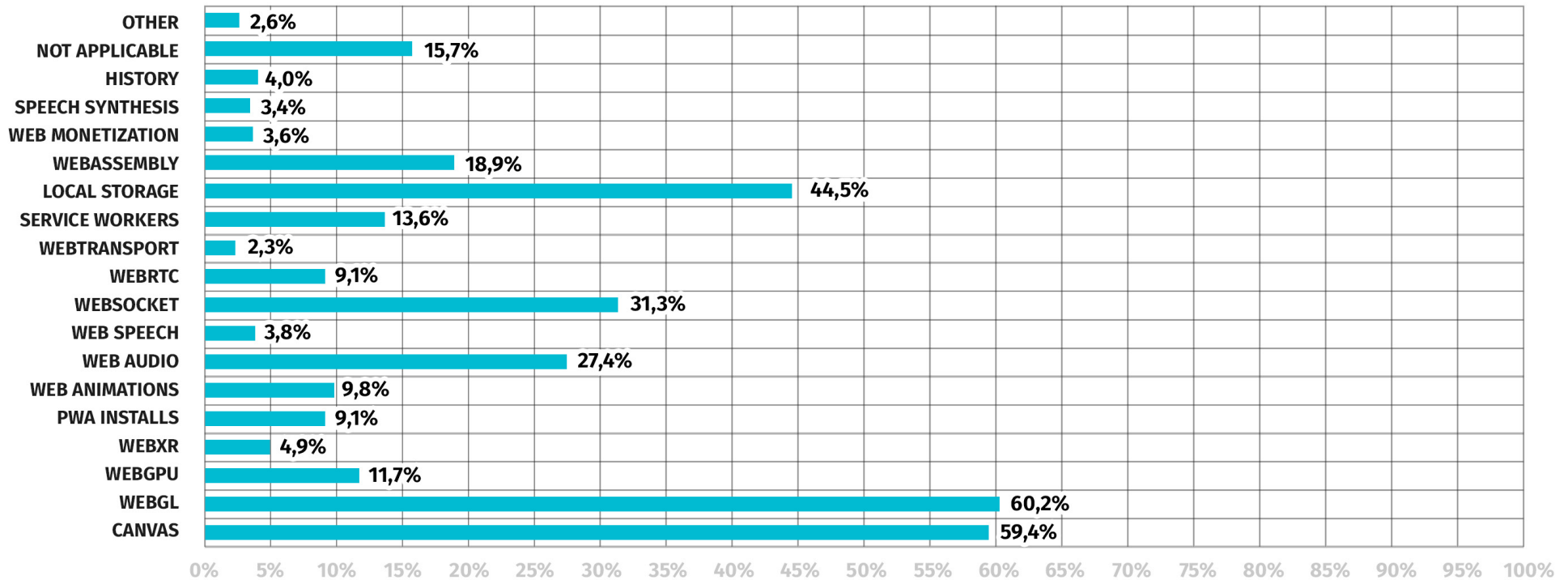
gamedevjs.com/survey/2023/

Around two thirds (65,8%) out of 480 people are programming in JavaScript, while 40% are doing that in TypeScript, but there's a big rise in C# this year (18,5%), followed by Lua (7,7%). We had 6,9% of no coders, and again a long tail of answers like Python, Go, PHP, Rust, C, and even a single one for Odin.

[BACK TO MENU](#)

DEVELOPMENT

13. WHAT TECHNOLOGIES / APIS ARE YOU USING? MULTIPLE CHOICE



470 ANSWERS

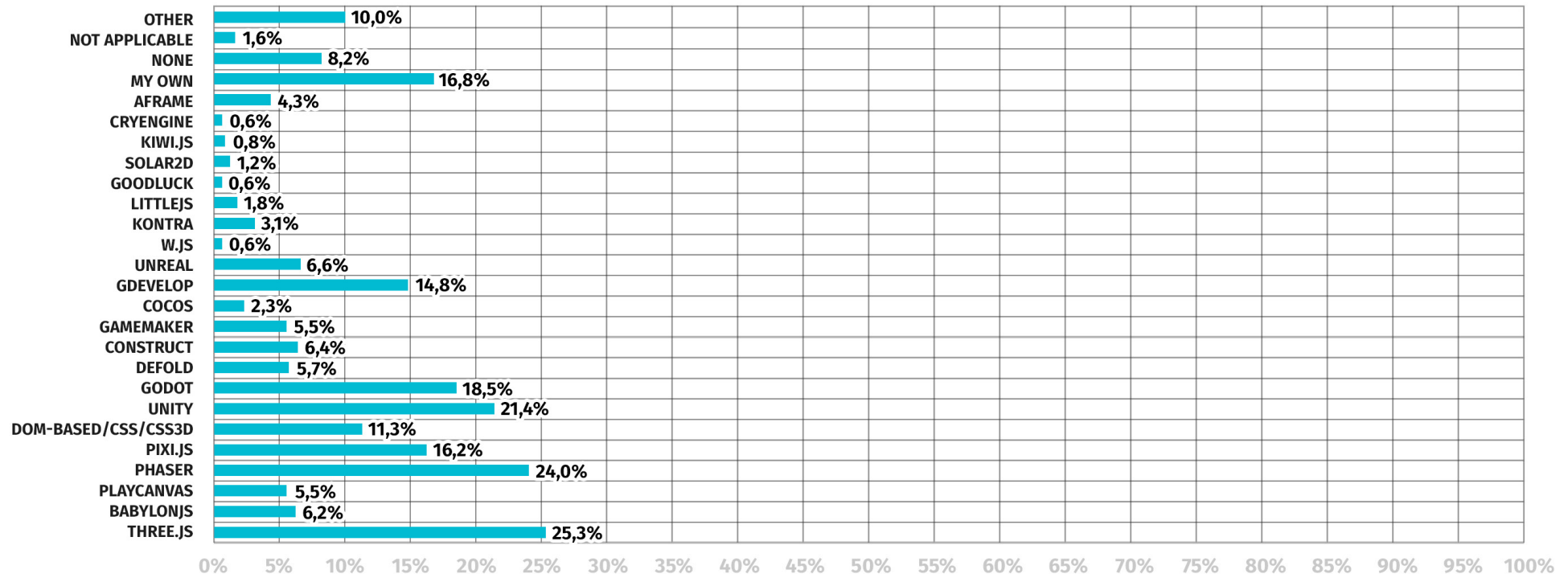
 GAMEDEV.JS
gamedevjs.com/survey/2023/

WebGL got 60,2%, Canvas 59,4%, with Local Storage being the third with 44,5%. Almost one third out of 470 are using Websockets (31,3%), followed with 27,4% for Web Audio. WebGPU increased to 11,7% and WebTransport debuted with 2,3%.

BACK TO MENU

DEVELOPMENT

14. WHICH FRAMEWORKS / ENGINES ARE YOU USING? MULTIPLE CHOICE



487 ANSWERS

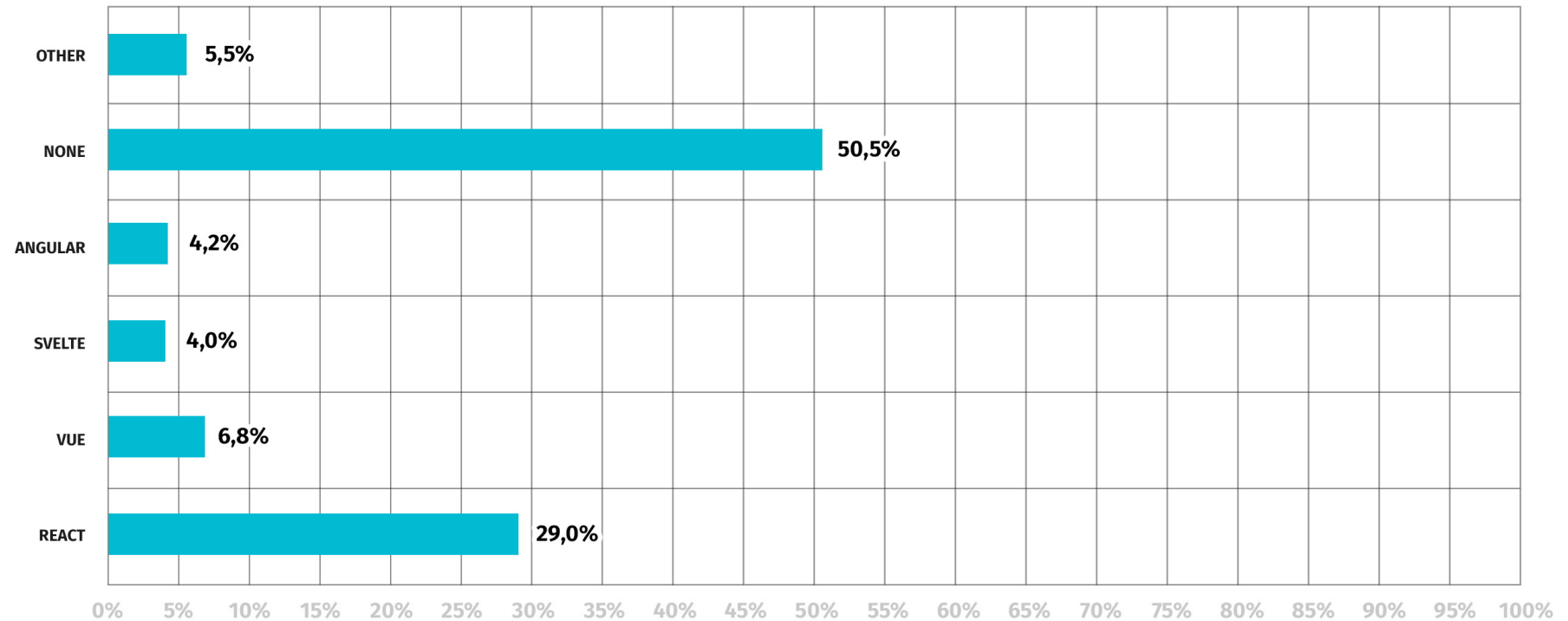
 GAMEDEV.JS
gamedevjs.com/survey/2023/

A bit surprising, but Three.js ended up first place with 25,3%, followed by Phaser (24%), Unity (21,4%), and Godot (18,5%). Next is “my own” with 16,8% and GDevelop with 14,8%. Notable others included Wonderland, Excalibur, and Kaboom.

BACK TO MENU

DEVELOPMENT

15. WHICH UI LIBRARY ARE YOU USING THE MOST?



473 ANSWERS

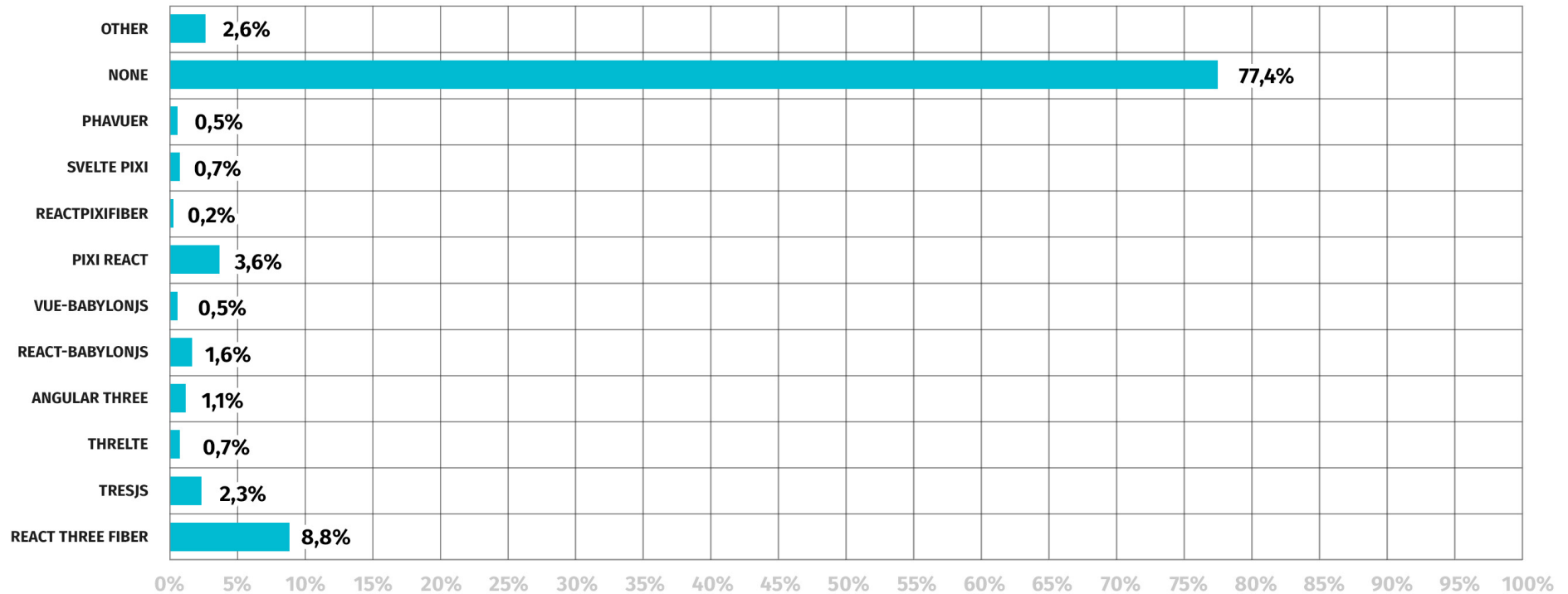
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

New question this year, with half of the 473 people not using any UI library at all. Those who do are choosing mostly React (29%), followed by Vue (6,8%), Angular (4,2%), and Svelte (4%). Few answers included “my own” or “in-house”.

BACK TO MENU

DEVELOPMENT

16. WHICH ENGINE WRAPPER ARE YOU USING THE MOST?



443 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

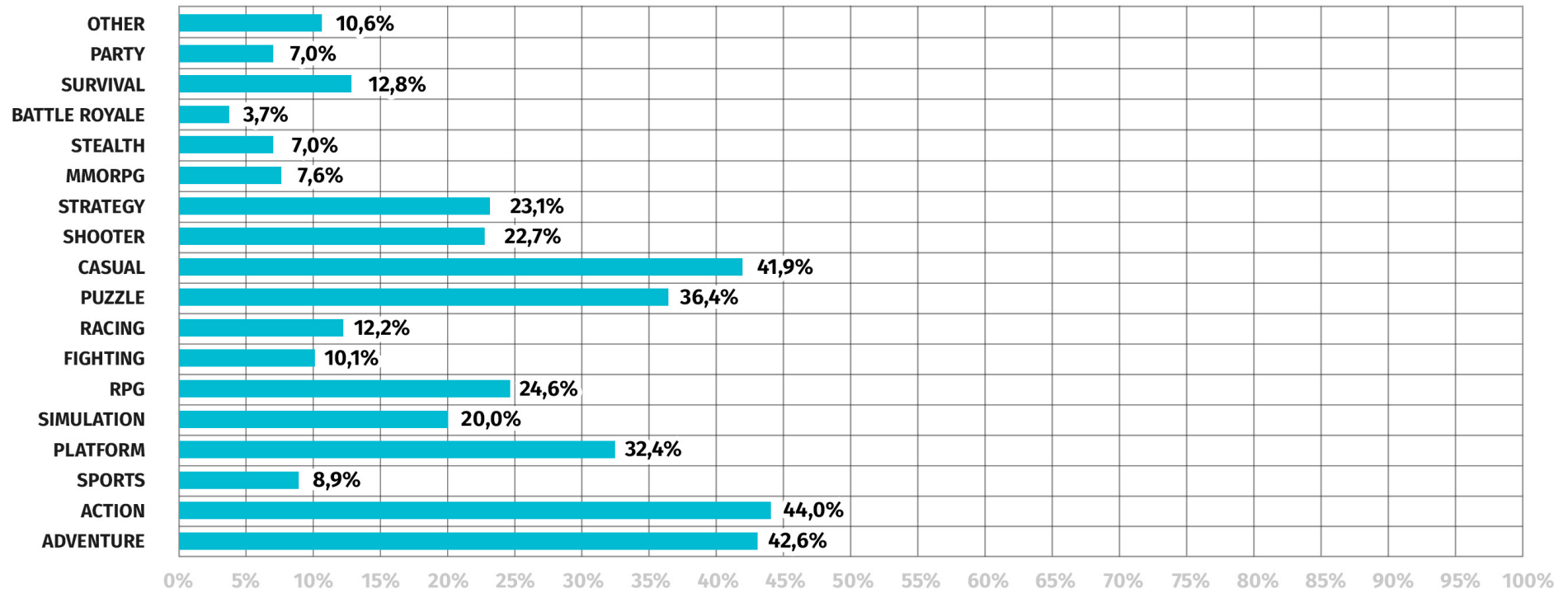
Another new question this year, with majority (77,4%) out of 443 not using any wrappers at all. Those who did, used React Three Fiber (8,8%), Pixi React (3,6%), and ThesJS (2,3%).

BACK TO MENU

DEVELOPMENT

17. WHAT GENRES OF GAMES DO YOU DEVELOP?

MULTIPLE CHOICE



484 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

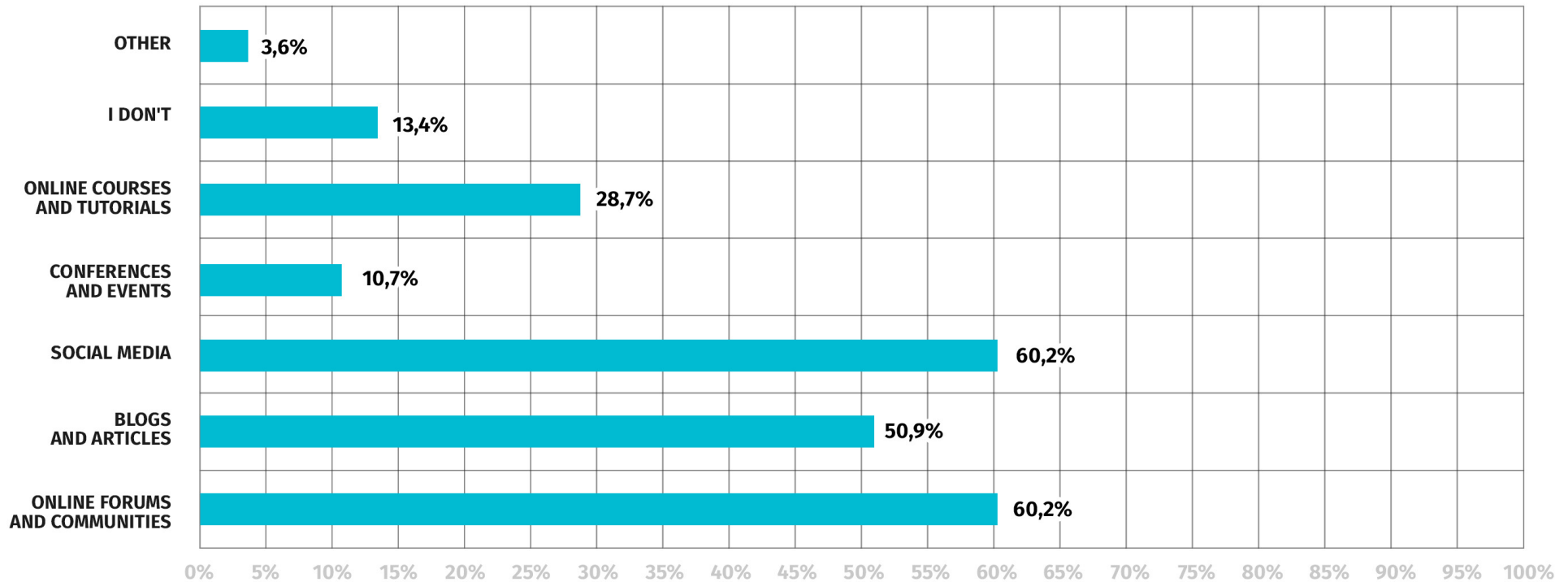
Out of 484 answers the most popular ones were Action (44%), Adventure (42,6%), and Casual (41,9%), with Puzzle (36,4%) and Platform (32,4%) right after. The least selected option was Battle Royale with only 3,7%. Other include roguelikes, MMORTS, remakes, games for children, but also casino slots, narratives, fitness, or idle clickers.

BACK TO MENU

DEVELOPMENT

18. HOW DO YOU STAY UPDATED ON THE LATEST TRENDS AND ADVANCEMENTS IN WEB GAME DEVELOPMENT?

MULTIPLE CHOICE



485 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

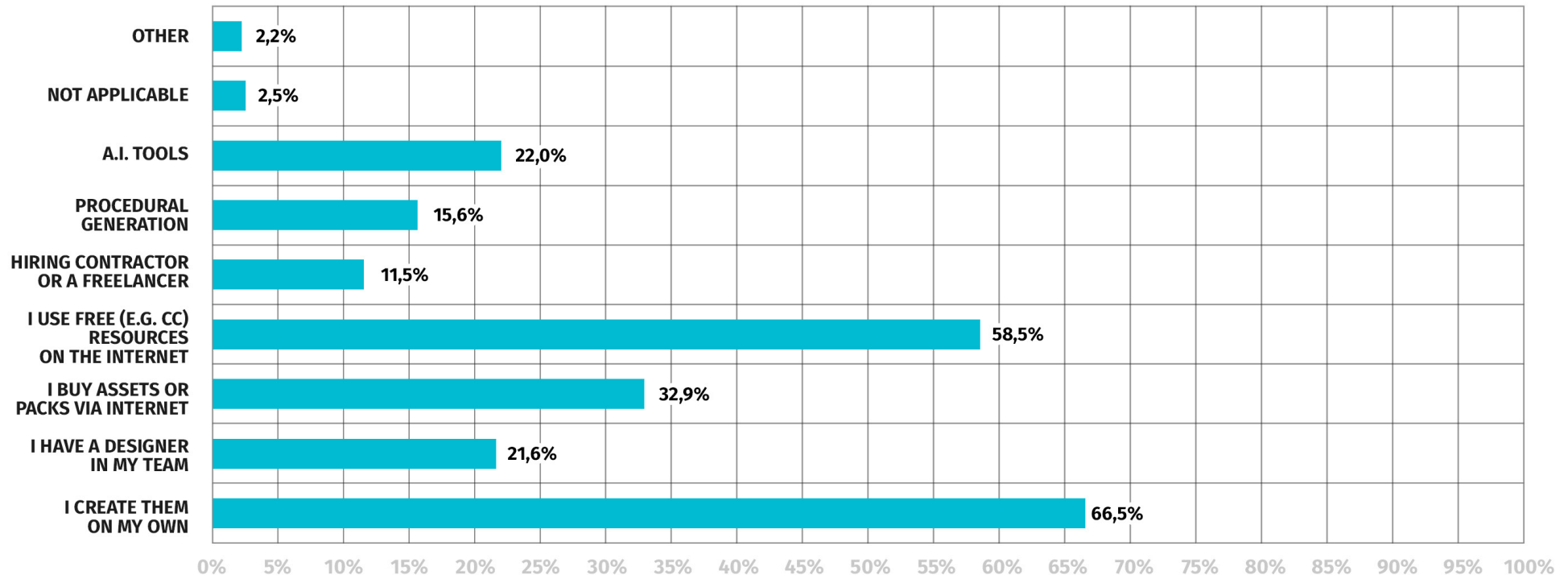
The best way to be up to date according to 485 answers were online forums and social media (both 60,2%), followed by blogs and articles (50,9%). Newsletters were clearly missing as an option as many entered that on their own. Also YouTube, Discord, podcasts, or colleagues.

BACK TO MENU

GRAPHIC DESIGN, SOUNDS AND MUSIC

19. WHERE ARE YOU GETTING YOUR GRAPHIC DESIGN ASSETS FROM?

MULTIPLE CHOICE



487 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

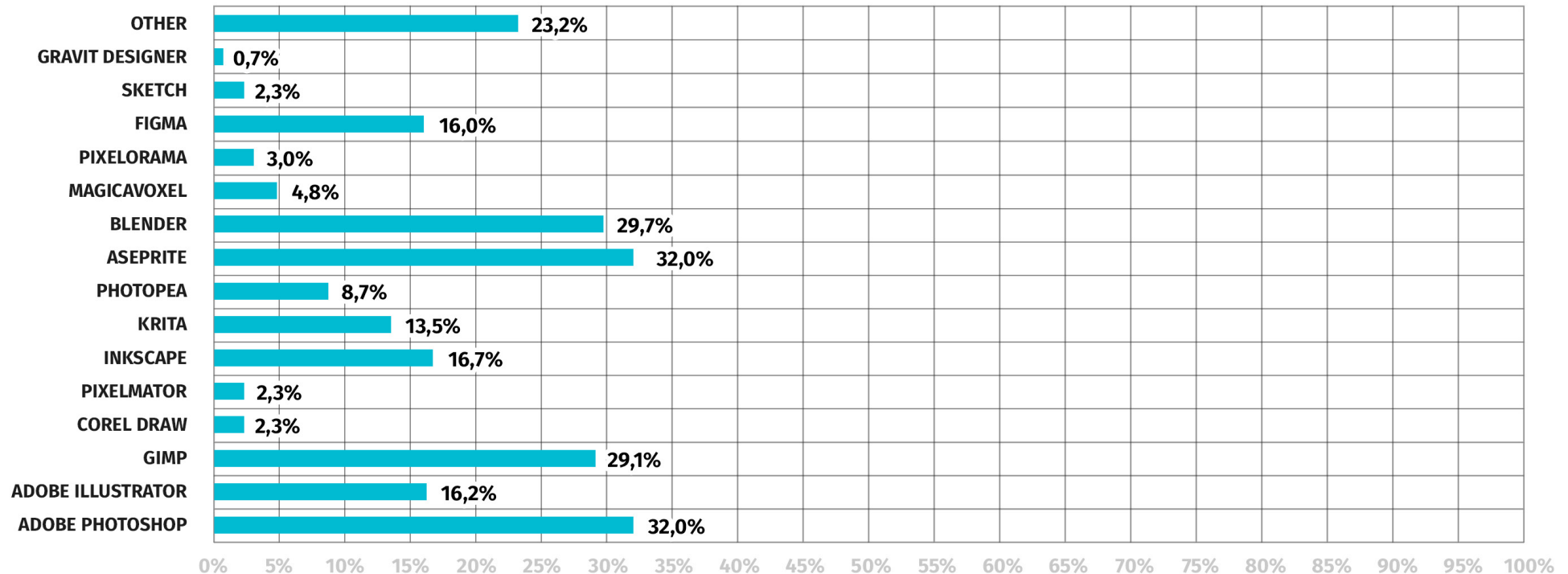
Most of the graphic design assets are created by the developers themselves (66,5%), but also by downloading free assets from the Internet (58,5%), buying those (32,9%), or having a designer in the team (21,6%). Interestingly, AI tools are used by 22% out of 487 people already. Other answers included geographical spatial data or... someone's brother.

BACK TO MENU

GRAPHIC DESIGN, SOUNDS AND MUSIC

20. IF YOU CREATE GRAPHIC DESIGN ASSETS, WHAT TOOL ARE YOU USING?

MULTIPLE CHOICE



437 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

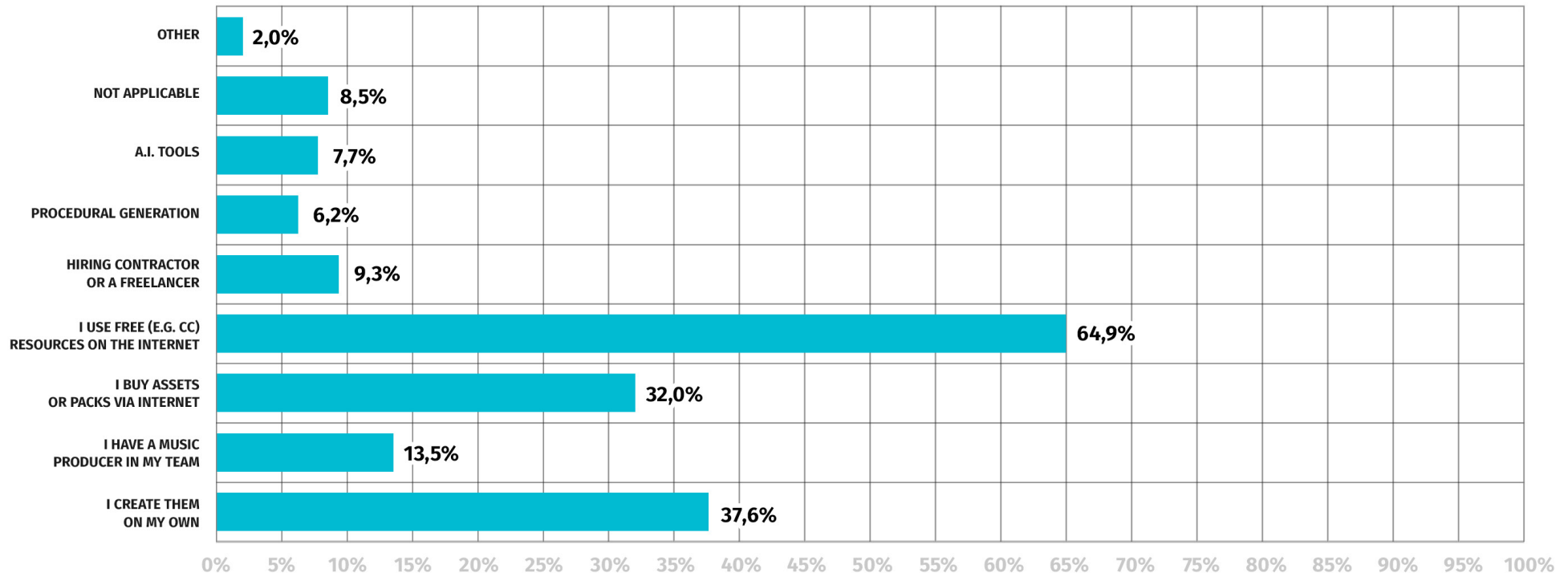
Given 437 answers to this question out of 491 submitted total, the most popular tools are Photoshop and Aseprite (both 32%), with Blender (29,7%) and GIMP (29,1%) right after. There's a whole variety of other tools used by the devs, including Paint and various online editors.

BACK TO MENU

GRAPHIC DESIGN, SOUNDS AND MUSIC

21. WHERE ARE YOU GETTING YOUR SOUND AND MUSIC ASSETS FROM?

MULTIPLE CHOICE



482 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

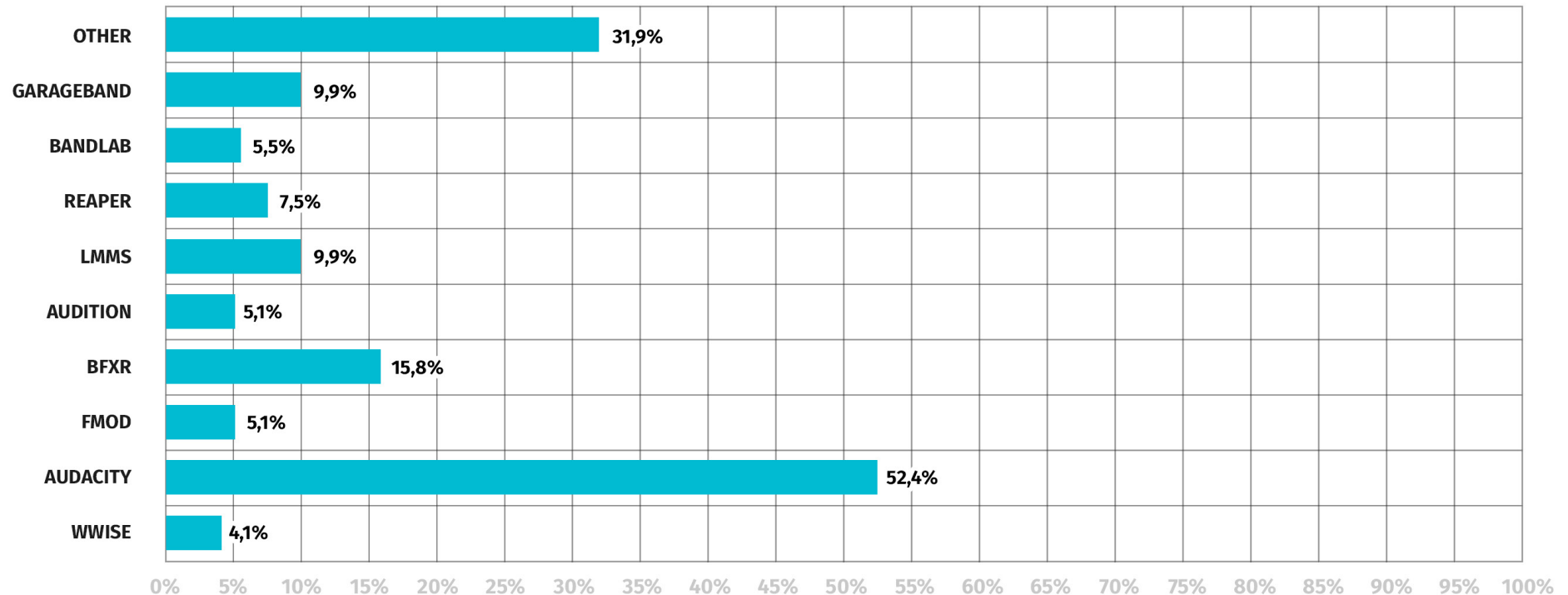
Almost two thirds of the 482 answers for sound and music assets are freely downloaded from the Internet (64,9%), while more than one third is created by the developers themselves (37,6%), and a bit less than that is bought (32%). Producers in the teams account for 13,5%.

BACK TO MENU

GRAPHIC DESIGN, SOUNDS AND MUSIC

22. IF YOU CREATE SOUND AND MUSIC ASSETS, WHAT TOOL ARE YOU USING?

MULTIPLE CHOICE



292 ANSWERS

 GAMEDEV.JS

gamedevjs.com/survey/2023/

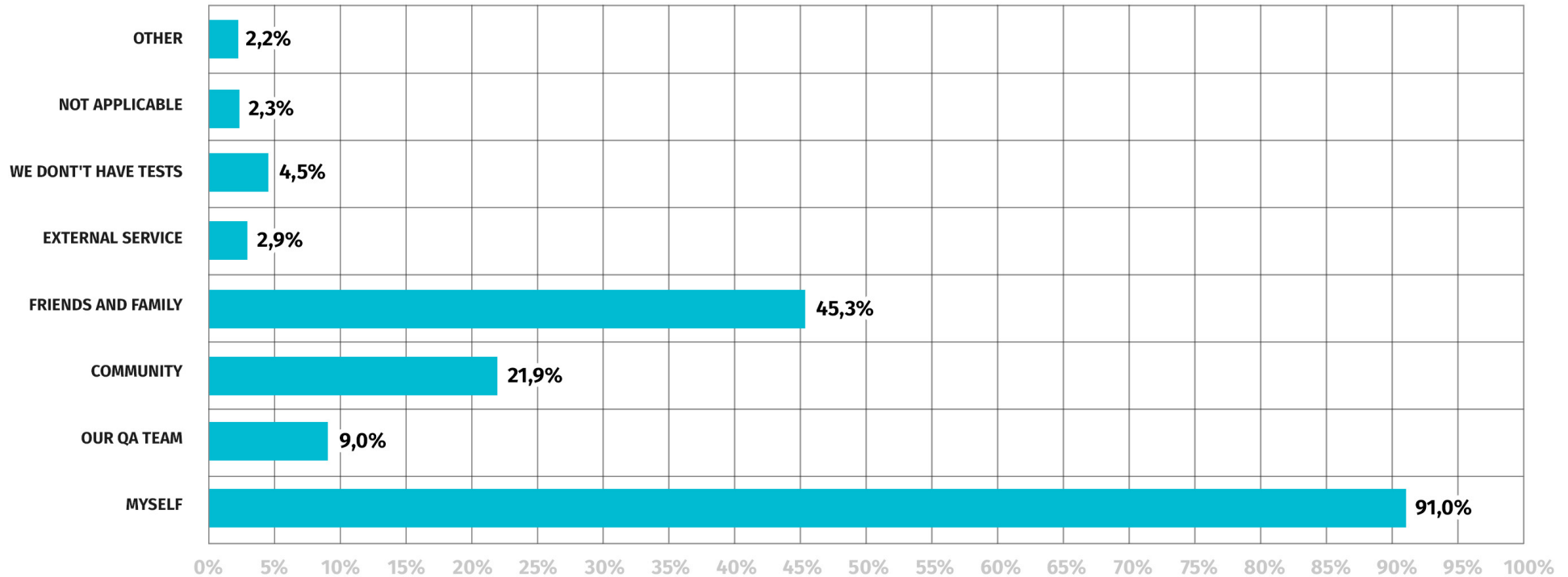
Out of the 292 answers, more than a half is using Audacity (52,4%), with the second Bfxr taking 15,8%, and both Garageband and LMMS taking 9,9%. There's a whole lot of other tools folks are using like Ableton, Soundtrap, Cubase, Jsfxr, or 1BitDragon.

BACK TO MENU

TESTING AND PUBLISHING

23. HOW DO YOU TEST YOUR CODE?

MULTIPLE CHOICE



488 ANSWERS

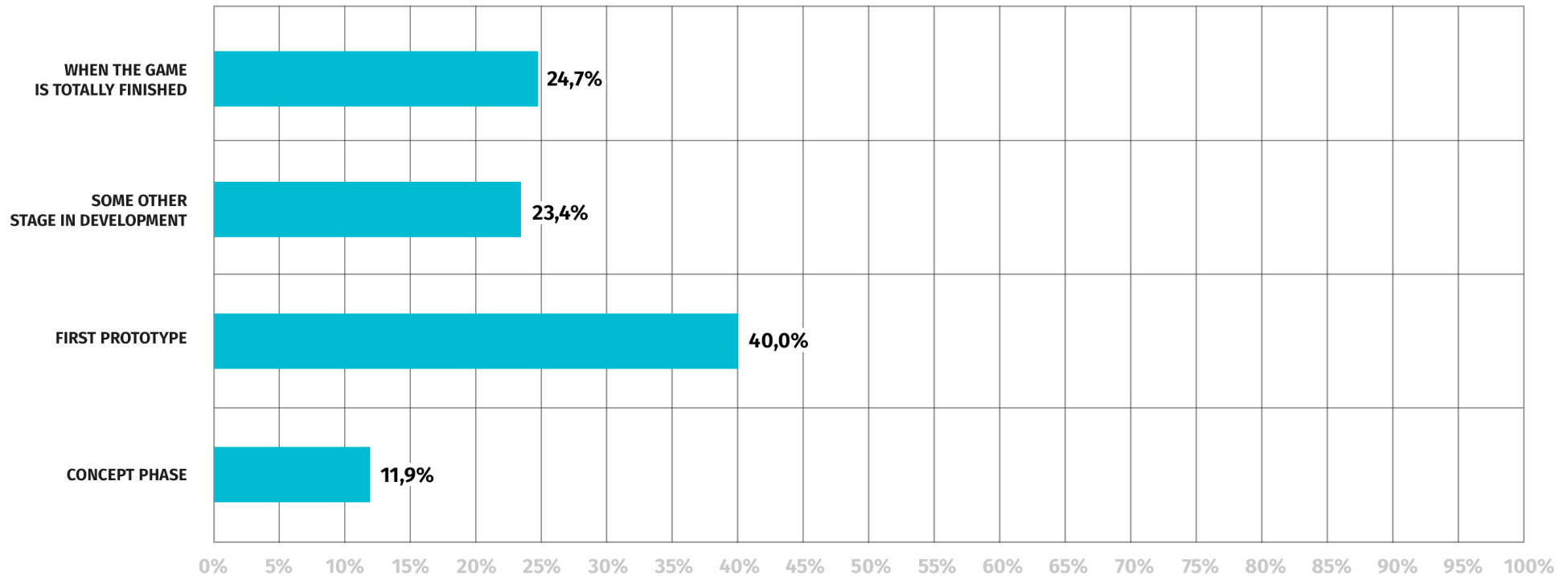
 GAMEDEV.JS
gamedevjs.com/survey/2023/

The staggering majority (91%) of all 488 answers went for testing themselves, with 45,3% getting help from friends and family, and 21,9% from community. Only 9% have their own Quality Assurance team, while 4,5% don't test at all. Other answers included automated, unit tests, or even covered by the publisher.

BACK TO MENU

TESTING AND PUBLISHING

24. WHEN IS THE FIRST MOMENT IN YOUR GAME DEVELOPMENT PROCESS THAT YOUR TARGET AUDIENCE PLAYS YOUR GAME (FAMILY AND FRIENDS NOT INCLUDED)?



478 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

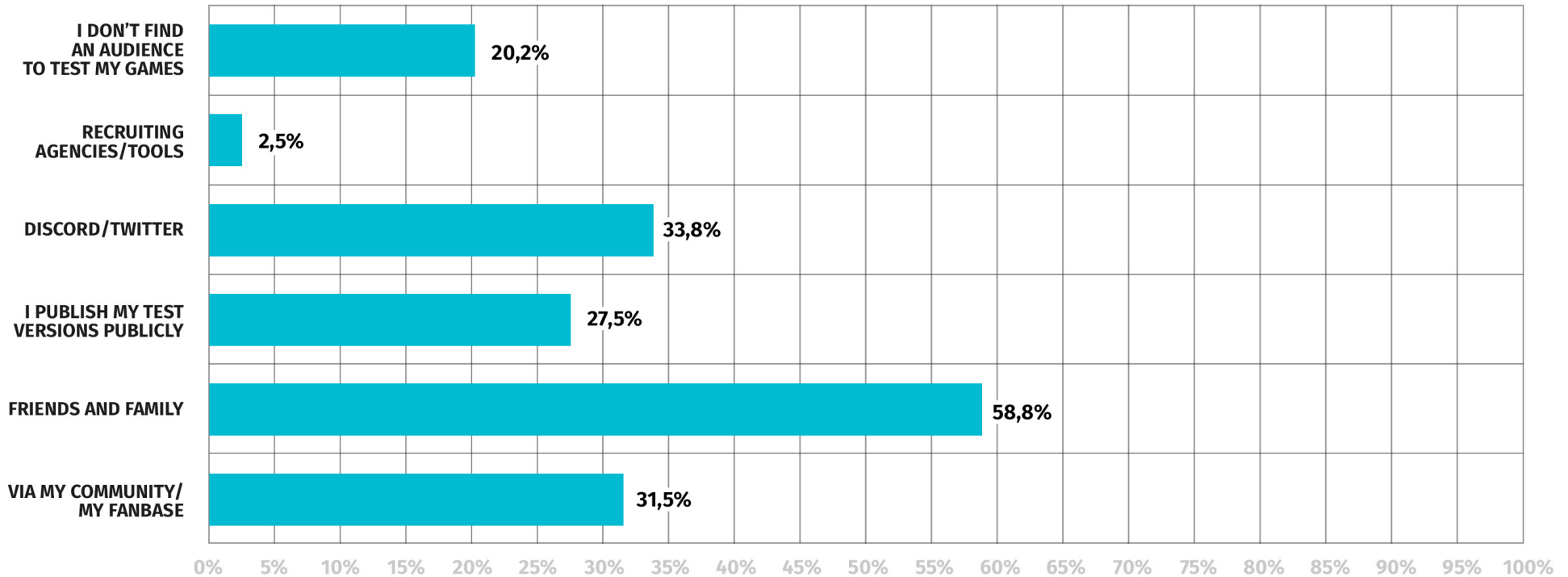
Most of the developers (40%) have their games played at the prototype stage, with 24,7% having that with a finished game, and only 11,9% at a concept phase.

BACK TO MENU

TESTING AND PUBLISHING

25. WHERE DO YOU FIND YOUR TARGET AUDIENCE TO TEST YOUR GAME?

MULTIPLE CHOICE



476 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

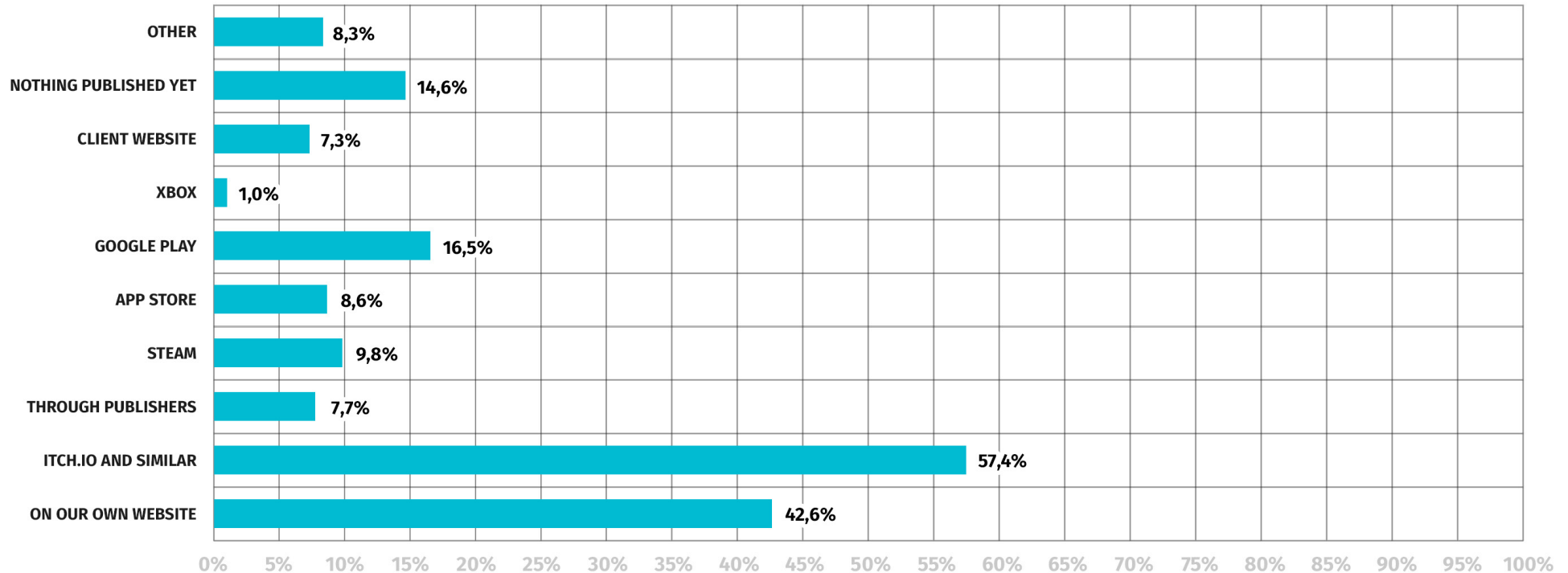
With no surprise, friends and family are the most common choice (58,8%), followed by Discord/Twitter (33,8%) and community/fanbase (31,5%). One fifth (20,2%) out of 476 answers are not interested in the search at all.

BACK TO MENU

TESTING AND PUBLISHING

26. WHERE DO YOU PUBLISH YOUR GAMES?

MULTIPLE CHOICE



479 ANSWERS

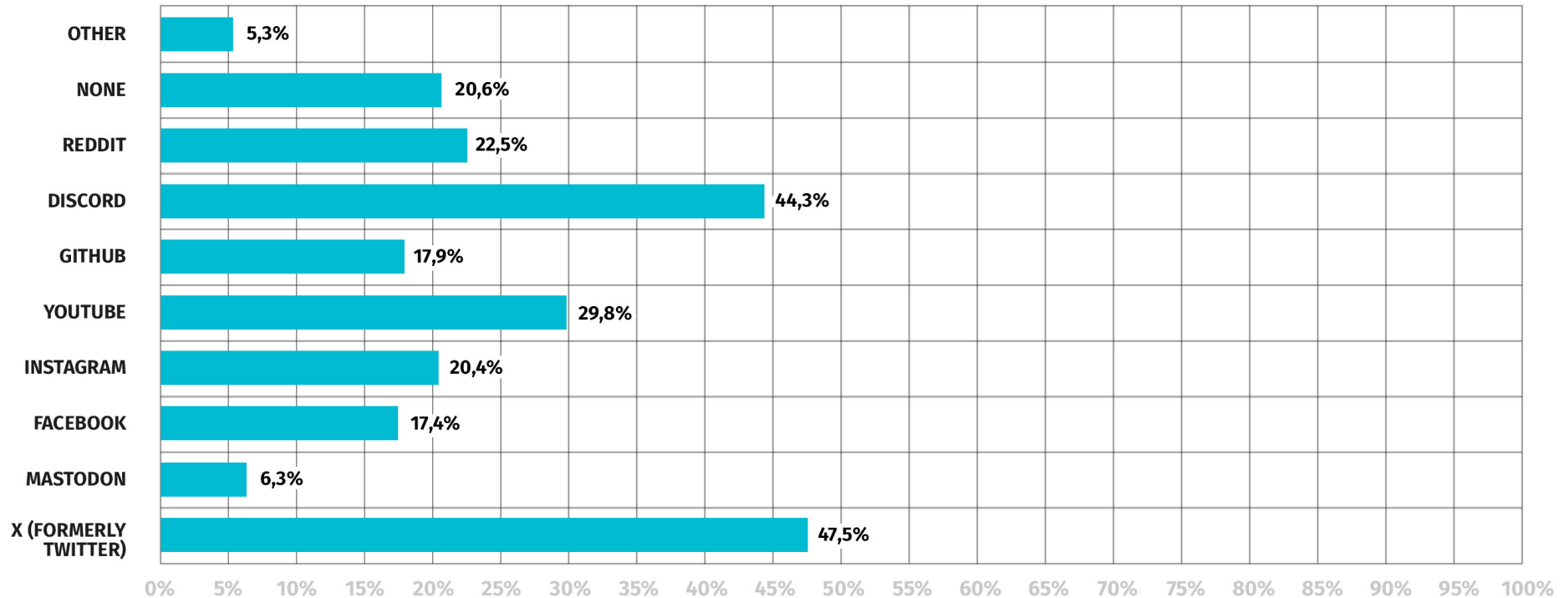
 GAMEDEV.JS
gamedevjs.com/survey/2023/

More than half out of 479 answers are publishing on Itch.io and similar (57,4%), with own website taking the second (42,6%), and Google Play in third (16,5%). Nothing published is fourth with 14,6%, while other answers include GitHub (Pages), Roblox, or even the js13kGames competition website.

BACK TO MENU

TESTING AND PUBLISHING

27. WHICH PLATFORMS DO YOU USE TO PROMOTE YOUR ACTIVITIES? MULTIPLE CHOICE



476 ANSWERS

 GAMEDEV.JS
gamedevjs.com/survey/2023/

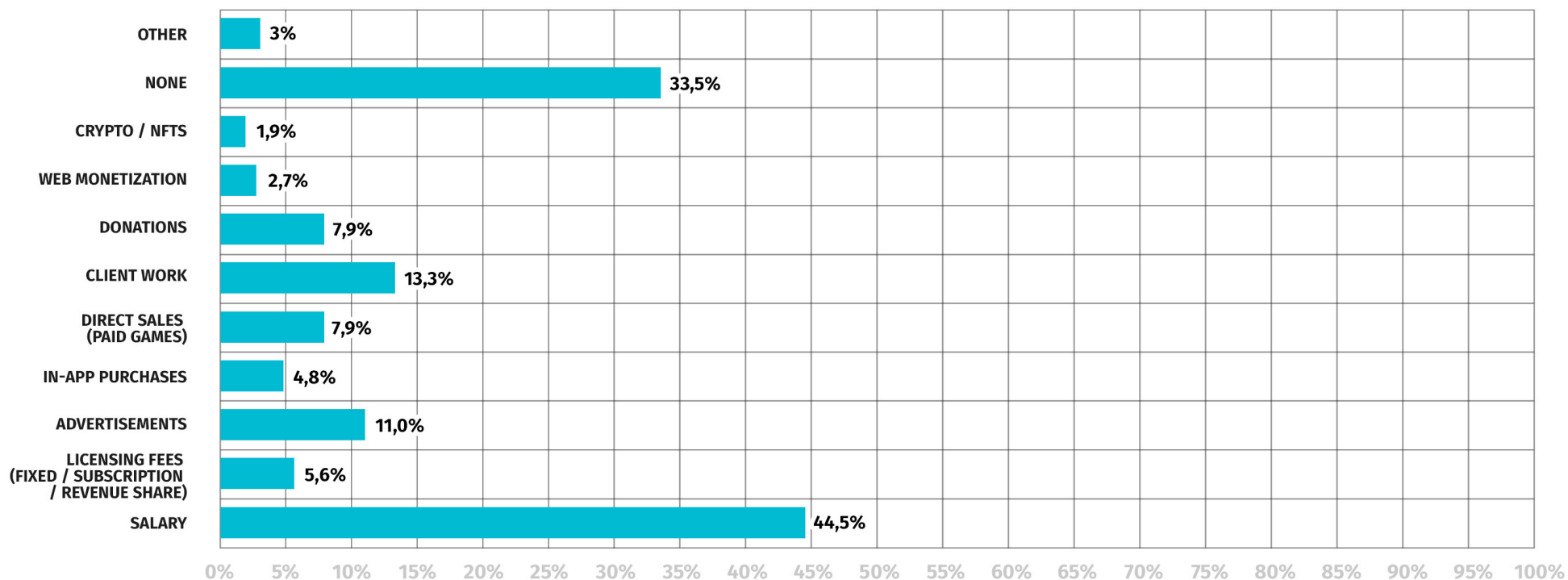
Twitter is still the most popular platform with almost half of the answers (47,5%), followed by Discord (44,3%), YouTube (29,8%), and Reddit (22,5%), while “none” took the 5th place with 20,6%. Popular options include Instagram, Facebook, or even GitHub. Long tail include LinkedIn, TikTok, Threads, BlueSky, and even Imgur.

BACK TO MENU

MONETIZATION

28. WHAT IS YOUR SOURCE OF INCOME?

MULTIPLE CHOICE



483 ANSWERS

 GAMEDEV.JS

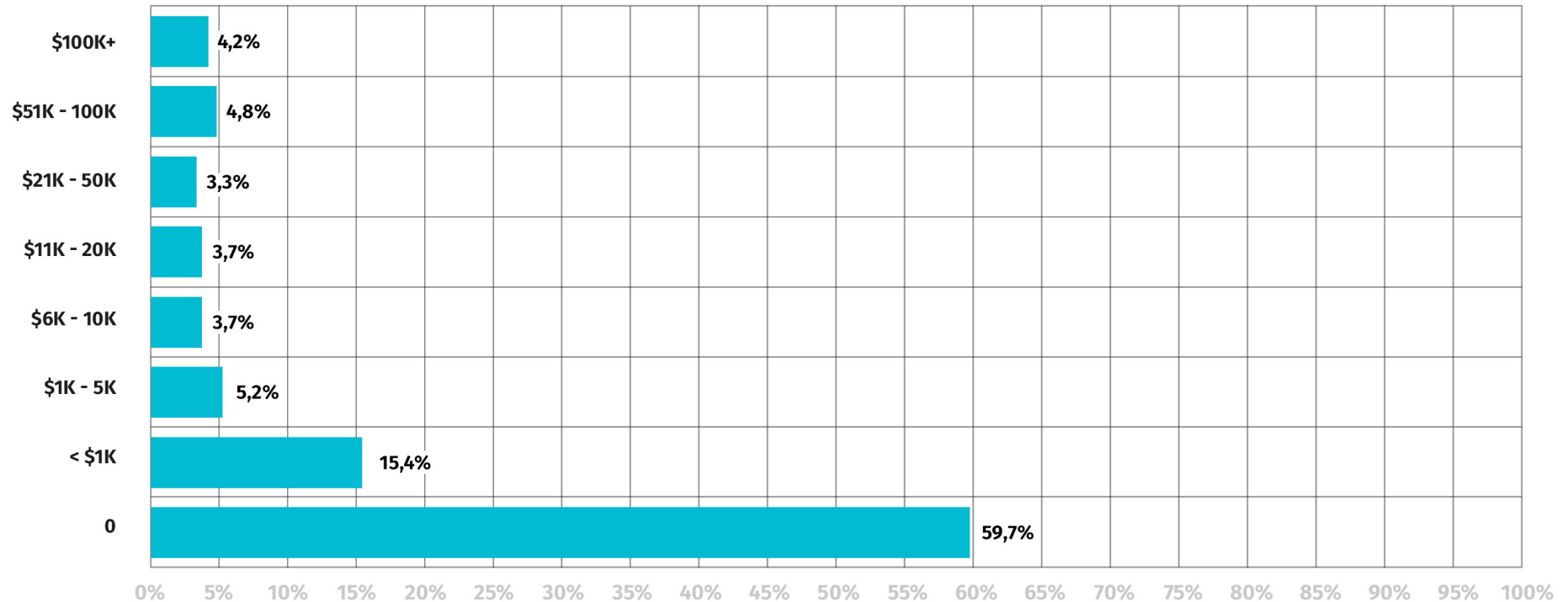
gamedevjs.com/survey/2023/

In this question we've received a total of 483 answers, out of which almost half is earning money off of their salary (44,5%), while "none" was second (33,5%), followed by client work in third (13,3%) and advertisements in fourth (11%). Crypto/NFTs ended up on the 10th place with only 1,9%. Other options include real estate, savings, training others, or even game jam prizes.

[BACK TO MENU](#)

MONETIZATION

29. HOW MUCH MONEY ARE YOU EARNING FROM GAME DEVELOPMENT (YEARLY ESTIMATE)?



481 ANSWERS

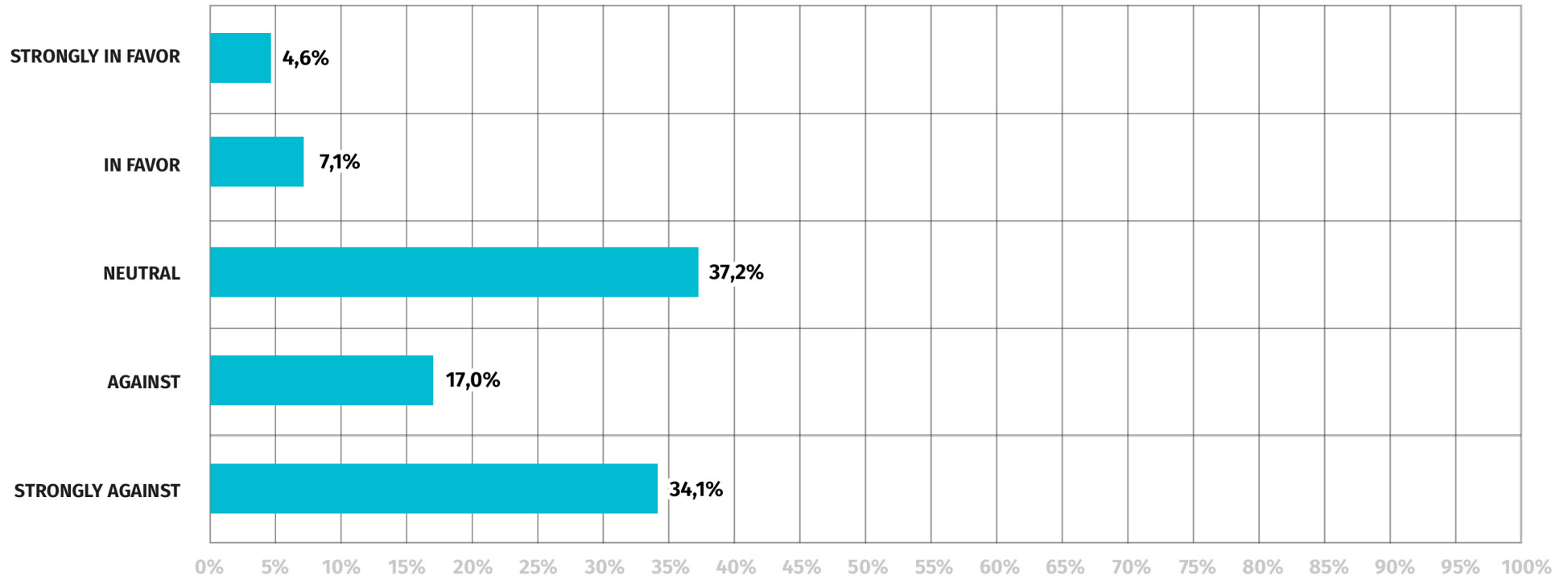
 GAMEDEV.JS
gamedevjs.com/survey/2023/

Extracting “0” from last year’s “<\$1k” was a good decision, although with rather sad outcome - majority of people (59,7%) are not earning anything out of game development at all, with only 15,4% earning less than \$1000 a year (both add up to ~75%). The rest of the answers were spread more or less evenly, \$100k+ taking fifth place with 4,2%.

BACK TO MENU

BLOCKCHAIN

30. HOW DO YOU FEEL ABOUT BLOCKCHAIN / CRYPTO / NFTS COMING INTO GAMEDEV SPACE?



481 ANSWERS

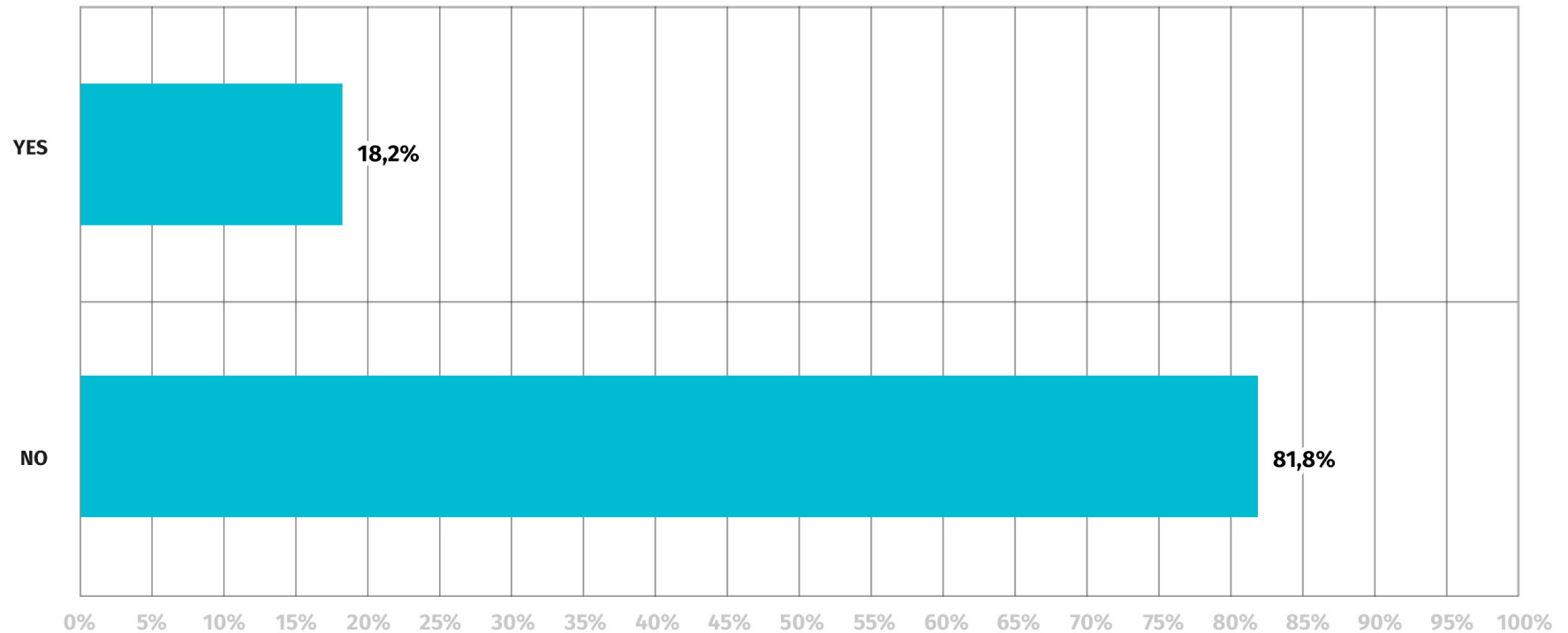
 GAMEDEV.JS
gamedevjs.com/survey/2023/

Out of 481 answers, the most popular answer was neutral (37,2%), one third (34,1%) is strongly against though, where both in favor options are adding up to only 11,7%. The sentiment from last year went down, probably because of the bear market.

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BLOCKCHAIN

31. ARE YOU INVOLVED IN ANY BLOCKCHAIN / CRYPTO / NFT RELATED GAME DEVELOPMENT PROJECT?



198 ANSWERS

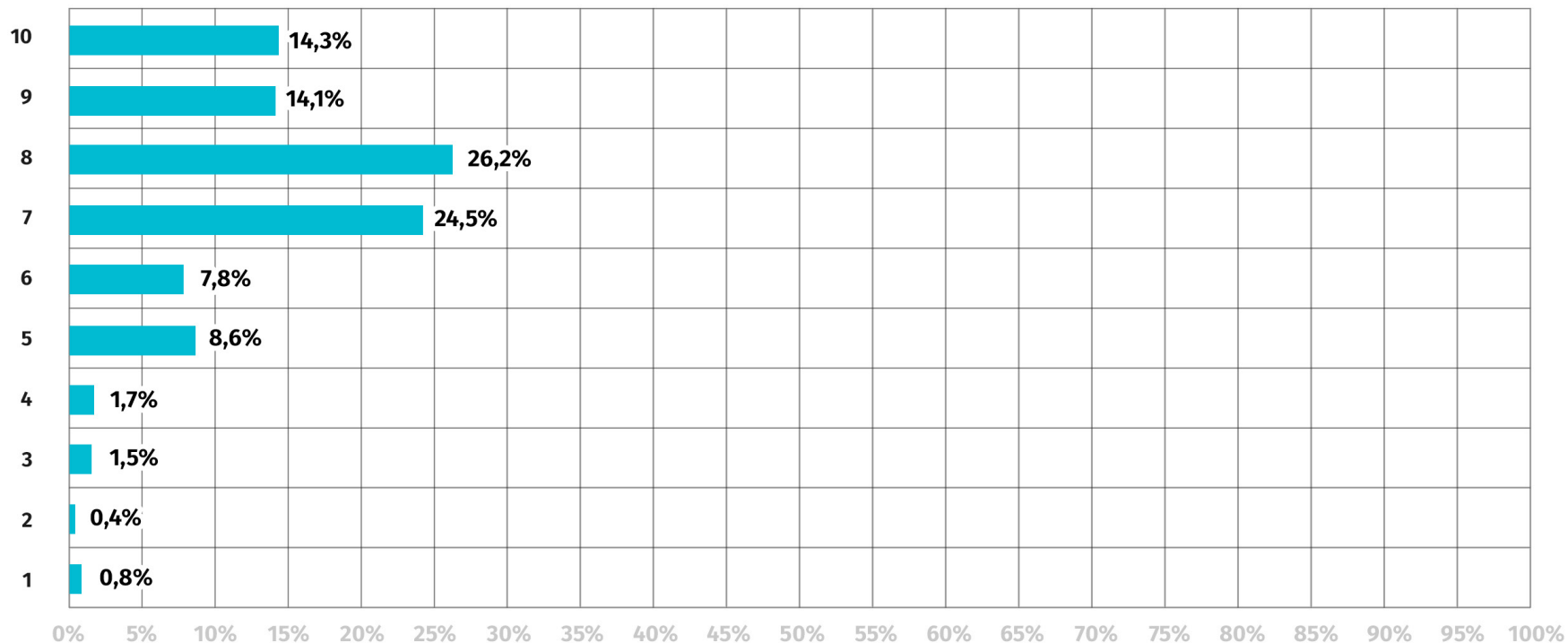
 **GAMEDEV.JS**
gamedevjs.com/survey/2023/

The overwhelming majority (81,8%) out of 198 answers is not involved in any crypto related game development project, but almost one fifth (18,2%) is. Blockchains developers are using include NEAR, Solana, Ethereum, Polygon, Algorand, Avalanche, and even Reef or Dogecoin. Some answers went along the lines of “not a chance”, “absolutely not”, “NFT is a scam”, and “f*ck no lol”, so there’s still plenty of room to regain lost reputation.

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HAPPINESS

32. WHAT'S YOUR OVERALL HAPPINESS OF WHAT YOU DO AS A GAME DEVELOPER (10 - THE HAPPIEST)?



474 ANSWERS

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It's great to see 87% of all the 474 answers being positive about their happiness and answering between 6 and 10, with almost half aiming at 8-10. The happiest are 68 people (15,8%), while the most popular answer was 8 (26,2%), and only 4 people (0,8%) answered with 1 (if you did, please get in touch - we'd like to help!).

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HAPPINESS

Question #33: Are there any specific issues or struggles you're having when developing games?

Out of the 309 answers to this open question, many mentioned lack of free time, proper marketing to reach players, monetizing the project, missing motivation, finding work-life balance, reliable tools, and much more. Those answers have to be studied more to help developers with their problems.

CLOSING REMARKS

Question #34: In your opinion, what are the biggest challenges facing web game development community in 2023?

This question received 277 answers ranging from monetization, AI, through saturation, performance on mobile devices, to distribution and discoverability.

CLOSING REMARKS

Question #35: Anything else you'd like to add?

This was set up to receive anything related to the survey, and it was usually used to send good vibes our way, for which we're really thankful! Out of the 132 answers, some reiterated their struggles from the previous question, others said they enjoy making games already, or are going to quit their day job to focus on game development. Not all comments were enthusiastic, but the overall feel was mostly positive.

Also, exactly 350 people out of those 491 left their email addresses to be notified about the results, which is cool!



GAMEDEV.JS JAM 2024

LET'S BUILD WEB GAMES!

Join [Gamedev.js Jam 2024](#) for Web Game Developers happening online between April 13th and 26th 2024, [hosted on Itch.io](#). There are prizes!

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**SIGN UP TO THE
GAMEDEV.JS WEEKLY NEWSLETTER!**

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SUMMARY

Thank you again for being involved! If you have any questions, feedback about the survey itself, or any other inquiries, please [get in touch via email](#). You can also follow [@Gamedevjs on Twitter](#), or join our [Discord](#) server.

Don't forget to take part in the [Gamedev.js Jam 2024](#) and subscribe to the [Gamedev.js Weekly](#) newsletter as well, or even buy some cool swag at our [Gamedev.js Shop](#)!

This Survey in 2023 was supported by [Poki](#).