



# Developer Satisfaction Survey

2021

## Report on the Impact of COVID-19

18 July 2021

## Author

### **Johanna Weststar**

Associate Professor, DAN Department of Management and Organizational Studies

Western University, Ontario, Canada

## Acknowledgements

The International Game Developers Association (IGDA) would like to thank the tremendous support of our actively engaged volunteer community for their many contributions to this report. From all the survey respondents to our many Chapter and Special Interest Group leaders who helped distribute the survey, as well as our studio affiliates and media partners – we appreciate your help in making this research possible.

The data used for this report was collected through an industry and university partnership between the International Game Developers Association (IGDA) and Western University. The author acknowledges the research assistance of John R. J. Thompson and Ezgi Inceefe. This work was supported by Facebook Gaming and through the Undergraduate Student Research Internship program at Western University.

# Contents

<b>Introduction</b> .....	4
<b>Background</b> .....	5
<b>Survey Overview</b> .....	5
<b>Work Experiences Related to COVID-19</b> .....	10
<b>Shift to homeworking</b> .....	10
<b>Employment and Income Security</b> .....	12
<b>Project Development Pipeline</b> .....	16
<b>New/Future Work</b> .....	20
<b>Work-Life Balance</b> .....	22
<b>Conclusion</b> .....	25
<b>Linked Articles</b> .....	26

## Introduction

The mission of the International Game Developers Association (IGDA) is to support and empower game developers around the world in their pursuit of fulfilling and sustainable careers. Part of the core set of tools that the IGDA uses to achieve this mission and to empower game developers is knowledge and information. The Developer Satisfaction Survey (DSS) conducted in partnership with Western University is a valuable source of information about the well-being and opinions of developers and of the game industry as a whole.

This report contains a portion of the findings of the seventh DSS, conducted in the first quarter of 2021. It focuses on the impact of the COVID-19 global pandemic on game workers.

While the game industry was less affected on average than other industries, about half of game developers experienced a negative impact to their work and half experienced a project delay due to COVID-19.

Most notably, these negative impacts were strongly correlated to the demographic characteristics of the respondents. For instance, women were more likely to report an impact compared to men and women were more likely to consider the impact as large. While the game industry was generally less impacted with job loss (11% compared to the 30% loss in creative occupations in the US), 72% of freelancers found their ability to acquire future work negatively impacted, significantly more than any other type of developer.

These categories of developers more affected by disruption in our industry show that the burden of negative impacts is not equally shared. We must better support all within our industry so that we may withstand these storms and stand stronger together.

All are welcome and encouraged to share this report and these findings with others to encourage change and long-term solutions that will improve our industry and its accessibility for all developers.

If you would like to assist with translating this report into other languages or helping us reach a wider audience for our next survey in the first quarter of 2023, please reach out to us at [staff@igda.org](mailto:staff@igda.org).

Renee Gittins, Executive Director, IGDA

## Background

Sales and engagement numbers show that the [game industry thrived](#) during the pandemic as more people turned to games as a means of entertainment. However, the industry has not been immune to disruption.

How have game workers fared?

The IGDA took advantage of the timing of the 2021 Developer Satisfaction Survey (DSS) to check-in with game workers about some of their experiences one year into the COVID-19 pandemic. The findings complement those reported by the GDC in the [State of the Industry 2020: Working from Home Edition](#) which surveyed developers in early August, 2020.

### Survey Overview

The DSS 2021 was open for responses from February 15 to April 12, 2021. The survey produced a final valid sample of 803 responses.

Everyone working in connection to the game industry can complete the DSS. As a result, this report reflects the experiences of those in core development roles as well as people who work in auxiliary game-making roles or are part of the larger game industry community (Table 1).

Most respondents were directly involved in game development (84%). Many (63%) reported that their primary work was to make games in a core creation or development role (including QA). A further 7% said that a portion of their primary work was to make games, 3% said they made games for commercialization in their off-time, 3% were academics who made games as a core part of their job and 8% supported the development of games in administrative or ancillary roles. Of the game development group, 33% held managerial, project manager or team lead roles and 65% held core development roles (e.g., tech, art, audio, design, QA).

There are many forms of working arrangement in the game industry. Throughout the report, we will often present the data for portions of the survey sample to highlight the responses of game workers by job type, employment type and company type. These sub-samples are defined in Table 2.

On occasion data is also separated according to gender and whether the respondent identified as an ethnic minority in their workplace.

**Table 1: How you would best describe your connection to the game industry?**

<b>Connection to the Game Industry</b>	<b>% of respondents</b>
My primary work is to make games in a core creation or development role (including QA)	63
A portion of my primary work is games-related or to make games	7
Work is to support the development of games in administrative, support, or ancillary roles not involved in game creation	8
Work is not to make games, but I work on games for pay or with the intent of commercialization in my off-time	3
Academic or educator who studies/teaches about games/ the game industry and makes games as a core part of my job	3
I am currently unemployed in the game industry	5
I am looking for my first job in the game industry	1
I am an academic or educator who studies/teaches about games/ the game industry	3
I am a fine artist working in the game medium and display my games as art pieces	1.5
I am involved in the production of game related events, but I do not make games	1.5
I make games as a hobbyist with no intention to make money from games	2
I am a game journalist or critic	1
I am an external investor to the industry	0.5
I am a professional or hobbyist streamer or influencer	0.5
I am a professional or hobbyist eSports player	0.2
<b>Total</b>	<b>100</b>
Student studying to make games or about games/game industry*	13
Source: IGDA DSS 2021	
*Students counted separately; those working on games for pay or goal of pay are included in main figures	
Totals may not add to 100% due to rounding	

**Table 2: Sub-sample Descriptions**

Sample	Inclusion Criteria
Whole	<ul style="list-style-type: none"> <li>• all survey respondents</li> <li>• includes those in the broad game community such as: students, academics, game journalists, event workers, hobbyists, streamers, eSports players, investors, the currently unemployed and those seeking a first job</li> </ul>
Employment Type	<ul style="list-style-type: none"> <li>• includes only people working to make games for pay, in whole or in part, and in core development or support roles</li> <li>• <b>Employee</b> of a game company – permanent or temporary</li> <li>• <b>Freelance</b> or independent contractor (i.e., paid through contracts with 1 or more companies/clients)</li> <li>• <b>Self-employed</b> (i.e., owns a company/studio and is paid by self)</li> </ul>
Job Type	<ul style="list-style-type: none"> <li>• only includes people working to make games for pay, in whole or in part, and in core development or support roles</li> <li>• <b>Manager</b> – role of founder owner, senior manager, middle manager, producer/project manager, team lead</li> <li>• <b>Developer</b> – non-managerial role in core development areas: tech, art, audio, design, writing, localization, UX</li> <li>• <b>QA</b> – QA or testing role</li> </ul>
Company Type	<ul style="list-style-type: none"> <li>• only includes people working to make games for pay, in whole or in part, and in core development or support roles</li> <li>• excludes: work-for-hire (training, branding), tools and developer services, support services (QA, localization, translation), transmedia companies, public and non-profit sectors (14% of sample)</li> <li>• <b>Indie</b> – Developer who is not owned by or dependent on a single publisher and engages primarily in self-publishing (31% of sample)</li> <li>• <b>AAA</b> – Developer who is fully owned by or tied through contract or partial ownership to a platform manufacturer or publisher (55% of sample)</li> </ul>

Source: IGDA DSS 2021

Across the whole sample, 13% of respondents were full- or part-time students and 5% were unemployed at the time of the survey. Among those who were employed, 87% worked full-time while the remainder worked part-time. These individuals could be salaried or hourly employees of a company, work freelance or on contract, or be self-employed (Table 3).

**Table 3: How would you label the status of your employment?**

Employment Status	% of respondents
Permanent employee (part-time or full-time)	67
Temporary employee (part-time or full-time)	5
Independent contractor or freelancer	13
Self-employed	14

Source: IGDS DSS 2021

With respect to **gender**, 61% of respondents identified as men, 30% as women, and 8% as nonbinary, gender fluid, genderqueer or two-spirited. In an additional question, 7% identified as transgender. Throughout this report respondents who identified as non-binary and/or transgender are grouped together into one category when data is presented by gender.

The **age** range of respondents was quite large (15-70 years). Though the average age was 37 years, the median age was 33 years and the greatest proportion of respondents (52%) were between the ages of 26 and 35.

Most of the respondents did not have **children** (75%).

Regarding **ethnicity**, respondents were able to select up to 3 options that best fit their identity. Two-thirds (66%) of the respondents identified solely as White, Caucasian, or European and three-quarters (75%) identified as White and selected one or two additional options. The category Hispanic or Latino/Latina/Latinx was selected next frequently at 9%, followed by East Asian at 7% (includes Chinese, Japanese and Korean). This was followed by

those who identified as Black, African American, African or Afro-Caribbean and those who identified as Aboriginal or Indigenous - each at 4%.

When asked whether they identified as a member of a **racial or ethnic minority** in their workplace, 19% of respondents said yes.

The largest share of respondents **worked in** the US (39%) followed by Canada (12%), Finland (8%), Sweden (6%), the UK and Australia (both at 5%), and Germany (4%). Thirty-two additional countries were represented.

English was the dominant response **language**, but responses were gathered in seven of the eight languages offered: English (90%), French (1.5%), Traditional Chinese (2.5%), Japanese (2%), Spanish (1.5%), German (1.5%) and Italian (0.5%). No one answered the survey in Simplified Chinese.

# Work Experiences Related to COVID-19

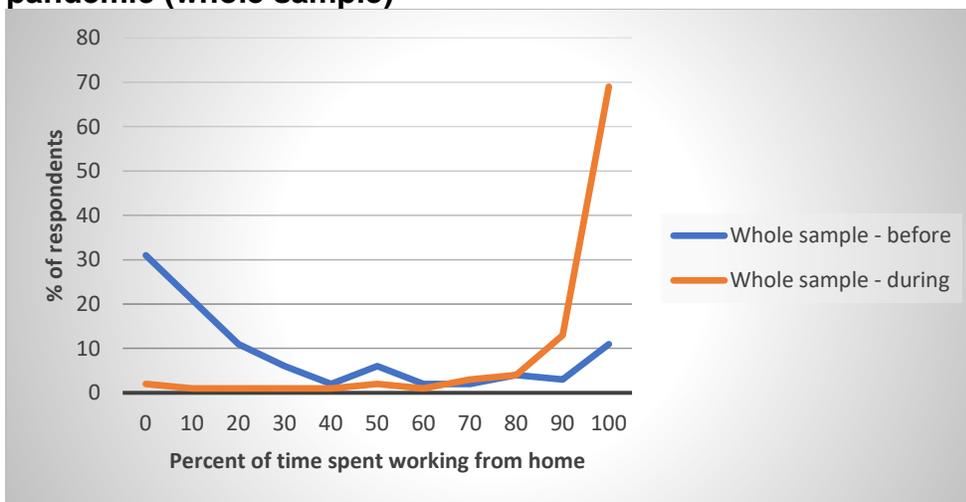
## Shift to homeworking

Like many others around the world most game workers shifted to working from home during the pandemic (Figure 1).

- On average **before** the pandemic, respondents worked from home 28% of the time and 31% never worked from home.
- On average **during** the pandemic, respondents worked from home 91% of the time and 69% worked from home all the time.

There were some regional differences in the data. In Canada, the USA, and Mexico and Latin America, 77% of game workers worked exclusively from home during the pandemic. Working from home was even more common in Europe (95%) and high in Oceanic countries (71%). There was more variation in the degree of working from home among respondents from Asian countries and fewer respondents worked exclusively from home during the pandemic (43% in West Asia, 57% in South-East Asia, 67% in South Asia and 27% in East Asia).

**Figure 1: Percent of time spent working from home before and during the pandemic (whole sample)**

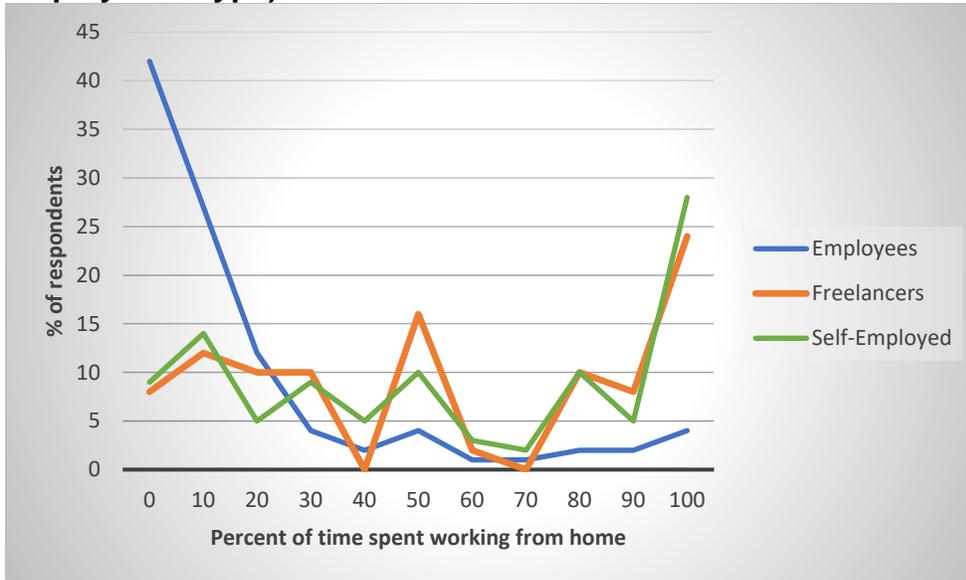


Source: IGDA DSS 2021

Freelancers and the self-employed reported a less dramatic shift since more of these respondents worked from home prior to the pandemic. For instance, 9% of employees worked exclusively from home before the pandemic compared to 24% of freelancers and 28% of the self-employed (Figure 2). During the pandemic 71% of employees worked exclusively from home (a

difference of 62%) compared to 80% of freelancers and 81% of the self-employed (differences of 56% and 53%, respectively).

**Figure 2: Percent of time spent working from home before the pandemic (by employment type)**



Source: IGDA DSS 2021

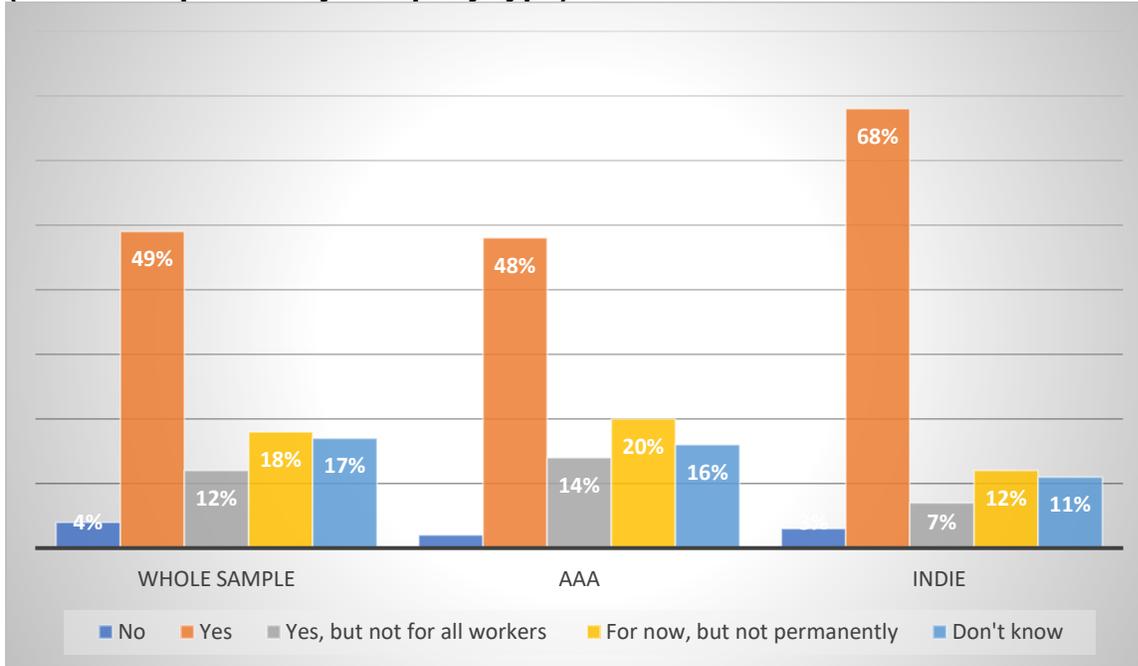
Many respondents thought that working from home would remain a viable option after the pandemic (Figure 3).

- 50% said that they felt that their company would continue to offer work from home options
- 12% felt that working from home would not be available for all workers
- 18% felt it would remain an option for now, but not permanently

Workers at independent studios were more likely to think that home working would remain an option than those at AAA studios. Smaller studios bear a greater burden from office overhead costs like commercial rent and may be more likely to forgo these if their working from home experiences have been positive.

A good proportion of game workers did not know their company's intentions on this front which might signal a greater need for worker participation and managerial transparency regarding return to work and remote working expectations and preferences.

**Figure 3: Does your company plan to continue offering work from home options? (whole sample and by company type)**



Source: IGDA DSS 2021

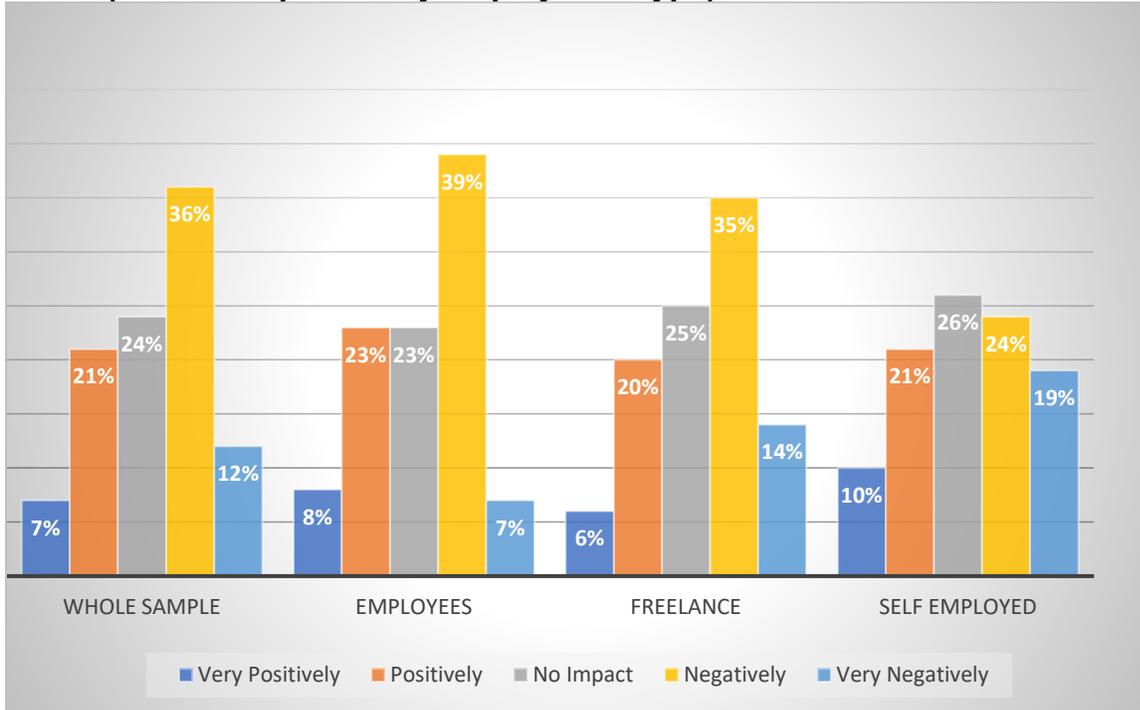
## Employment and Income Security

Respondents were asked a general question about how COVID-19 impacted their work. Just under half (48%) of the whole sample reported a negative or very negative impact, while 24% said that there was no impact and 28% reported a positive or very positive impact (Figure 4). These figures are slightly more negative than game workers’ reflections on how the pandemic had affected their *overall business*, as reported from the [GDC State of the Industry survey](#) conducted in August 2020.

One year out, game workers may be seeing some of the long-term impacts such as production delays or reduced networking and business promotion opportunities. Notably, freelancers and the self-employed were more likely than employees to report a very negative impact.

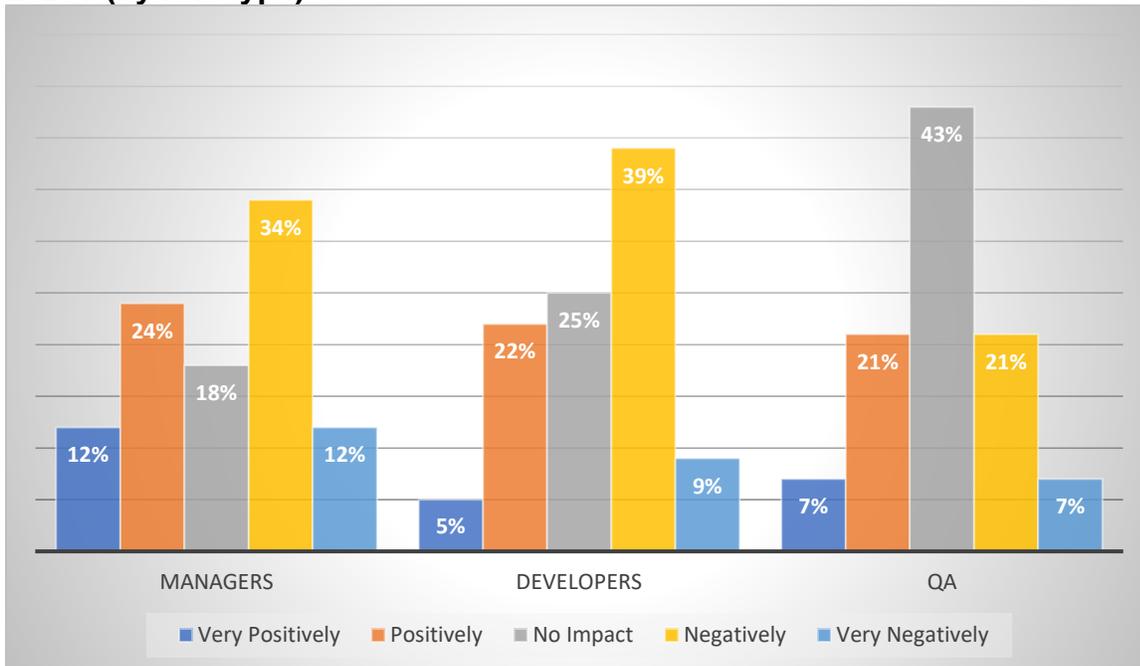
Interestingly those working in QA roles were the least likely to report an impact while managers were the most likely (Figure 5). However, managers were the most polarized about their experiences – 12% each reported very positive and very negative impacts. Workers in non-managerial development roles were more negative about their experiences overall, while QA workers were equivalent in terms of positive and negative experiences.

**Figure 4: To what extent did events related to COVID-19 impact your work in 2020? (whole sample and by employment type)**



Source: IGDA DSS 2021

**Figure 5: To what extent did events related to COVID-19 impact your work in 2020? (by role type)**



Source: IGDA DSS 2021

Most game workers seemed to weather the pandemic well, at least by objective employment metrics and particularly when compared to the creative and cultural sector. Among the whole sample, 11% said they lost their job, 6% were laid off, 7% experienced reduced hours and 6% experienced reduced pay (Figure 6). These response options were not mutually exclusive so some respondents could be double counted (i.e., lost job, laid off or reduced hours and therefore also reduced pay).

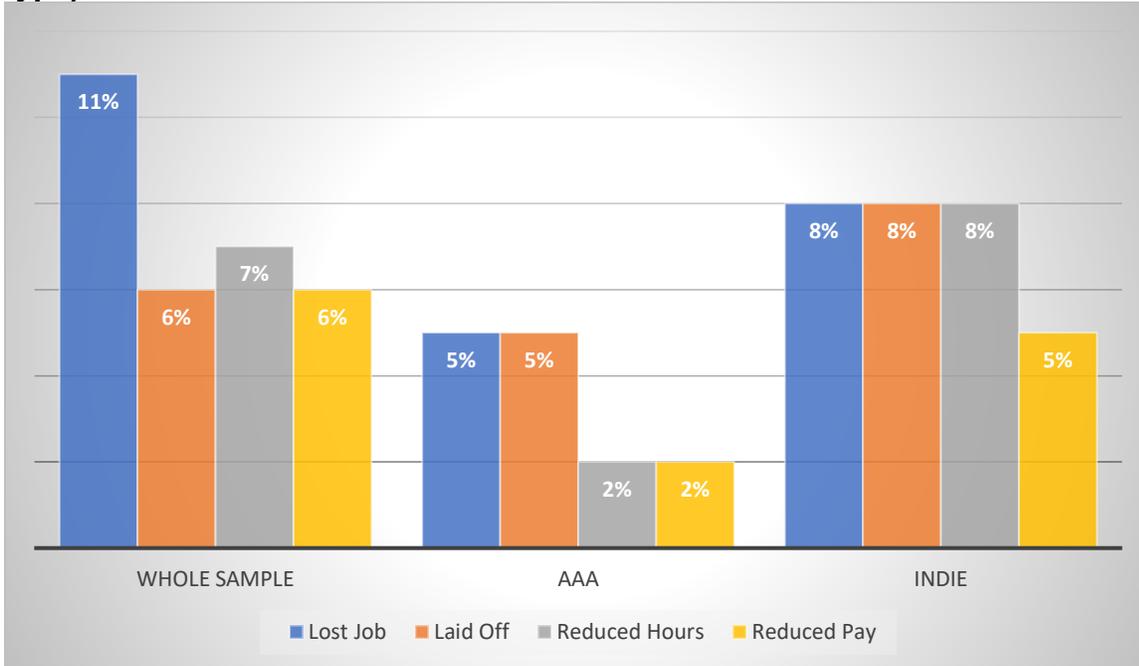
These reported job losses are slightly higher than the 8% [reported by GDC](#) in August 2020. Pay figures suggest that the drop in household income reported by 25% of the GDC survey respondents may have been driven by lost income from other household members.

By comparison, [estimates for the US](#) in 2020 projected a loss of 30% of all jobs in creative occupations and 50% of all jobs in the creative industries. Similar job loss figures and evidence of reduced working hours have been [reported for the UK](#). In both cases music, performing and visual arts bore the brunt with less impact on occupations and industries such as IT and computer services, media and communications, and design.

However, workers in more precarious employment situations seem to have experienced greater hardship. For instance, Figure 6 shows that those at independent studios were more likely to report all four negative job outcomes than those at AAA studios and were also more likely than the whole sample to experience everything except job loss.

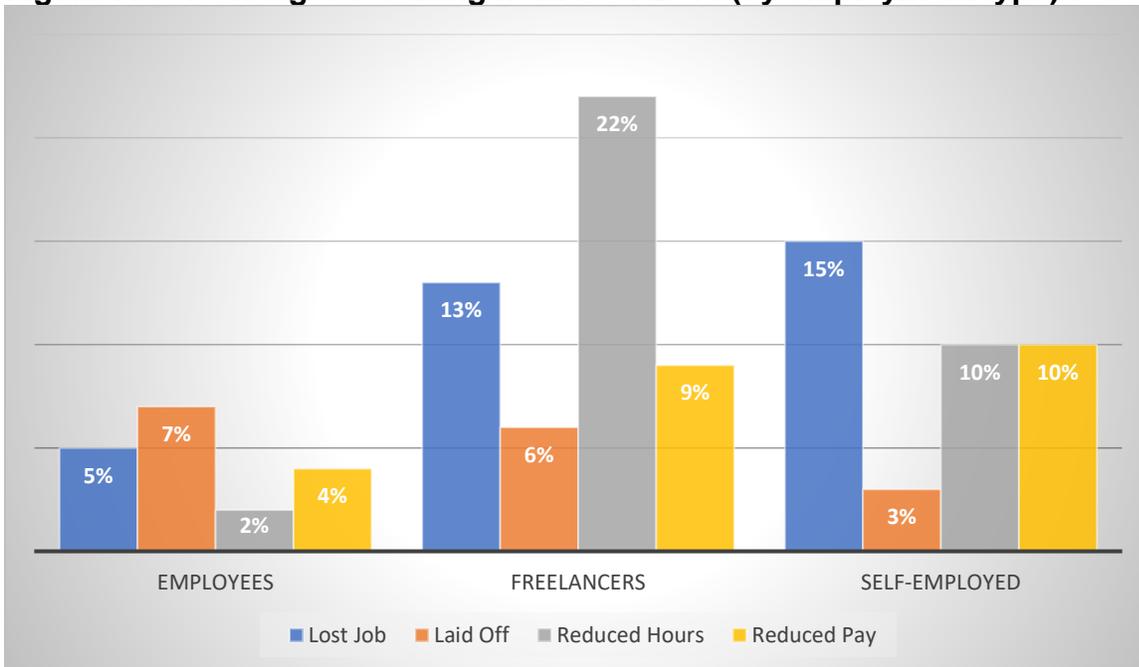
As well, Figure 7 shows that the self-employed were the most likely to report job loss (which for them would entail shutting down their businesses) and freelancers were the most likely to face reduced hours. More respondents from both these groups saw their pay reduced compared to the whole sample or to employees. For the self-employed this is often due to forgoing personal salary to retain staff or cover overhead.

**Figure 6: Job changes resulting from COVID-19 (whole sample and by company type)**



Source: IGDA DSS 2021

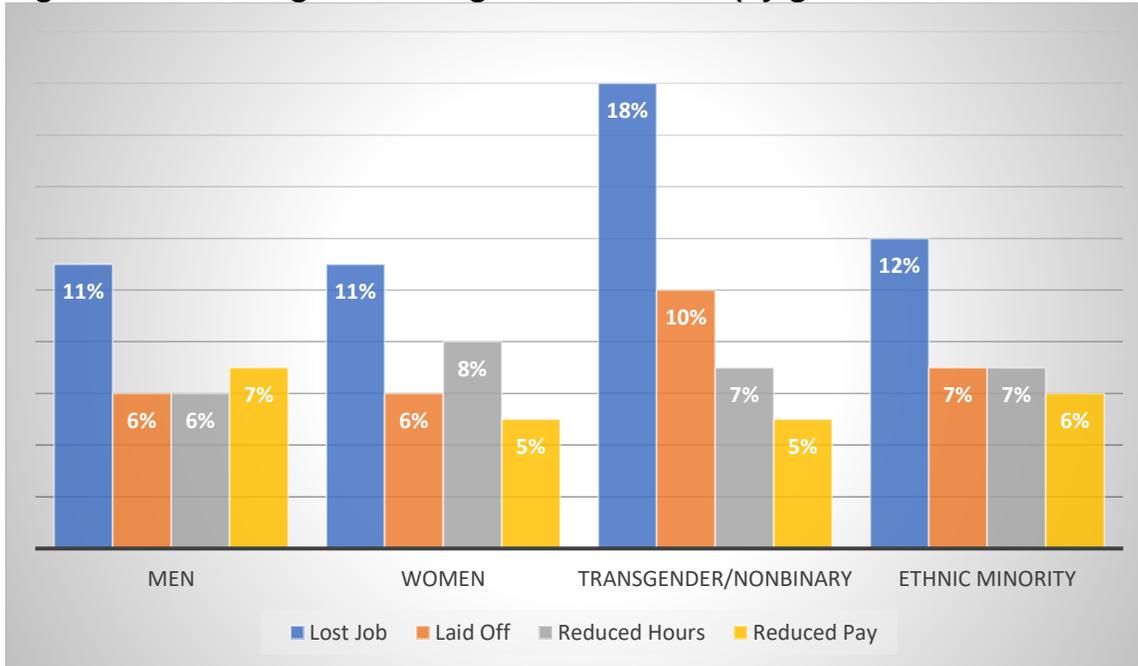
**Figure 7: Job changes resulting from COVID-19 (by employment type)**



Source: IGDA DSS 2021

There was little variation in the experiences of respondents identifying with gender and ethnic minority groups (Figure 8). The most striking finding is that respondents identifying as transgender and/or non-binary gender were more likely to report permanent and temporary job loss. Note that this is based on a sample size of less than 100 people.

**Figure 8: Job changes resulting from COVID-19 (by gender and racialization)**



Source: IGDA DSS 2021

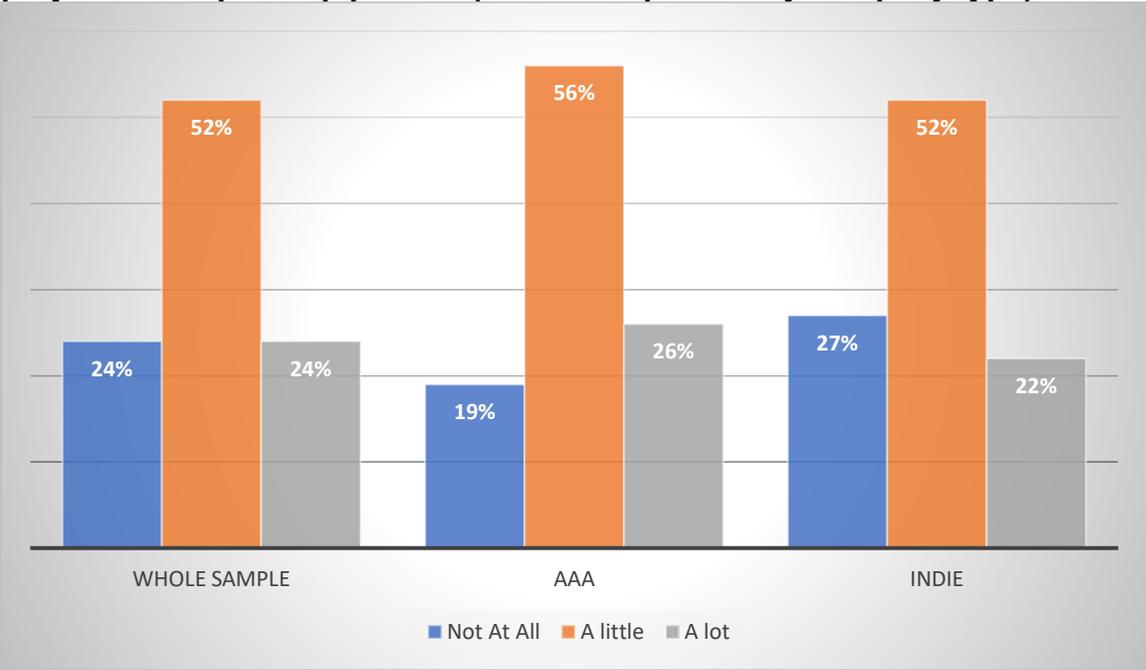
## Project Development Pipeline

Three-quarters (75%) of respondents reported at least some negative impact of the pandemic on their project development pipeline (Figure 9).

There were some differences across employment type, company type, job type and gender and ethnic minority identity.

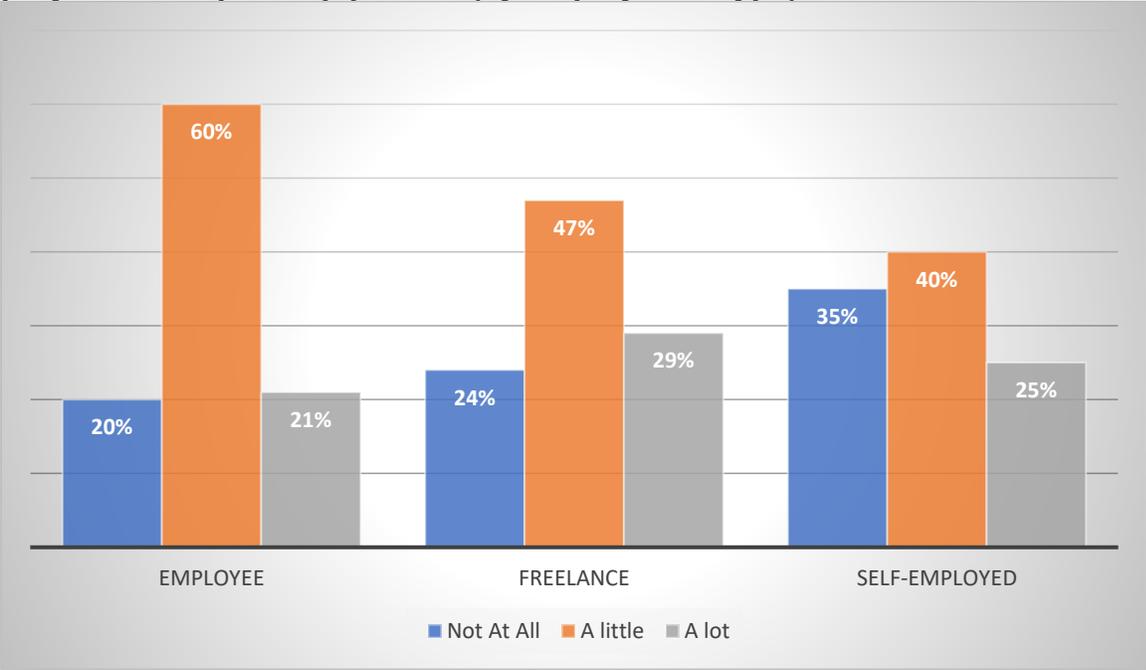
- Indie respondents were less likely to report a negative impact compared to AAA respondents (Figure 9)
- Self-employed respondents were less likely to report a negative impact compared to freelancers and employees (Figure 10)
- QA respondents were less likely to report a negative impact compared to developers or managers; managers reported greater impacts (Figure 11)
- Women were more likely to report an impact compared to men or those identified as transgender and/or non-binary gender and women were more likely to consider the impact as large (Figure 12)

**Figure 9: To what extent did events related to COVID-19 negatively impact your project development pipeline? (whole sample and by company type)**



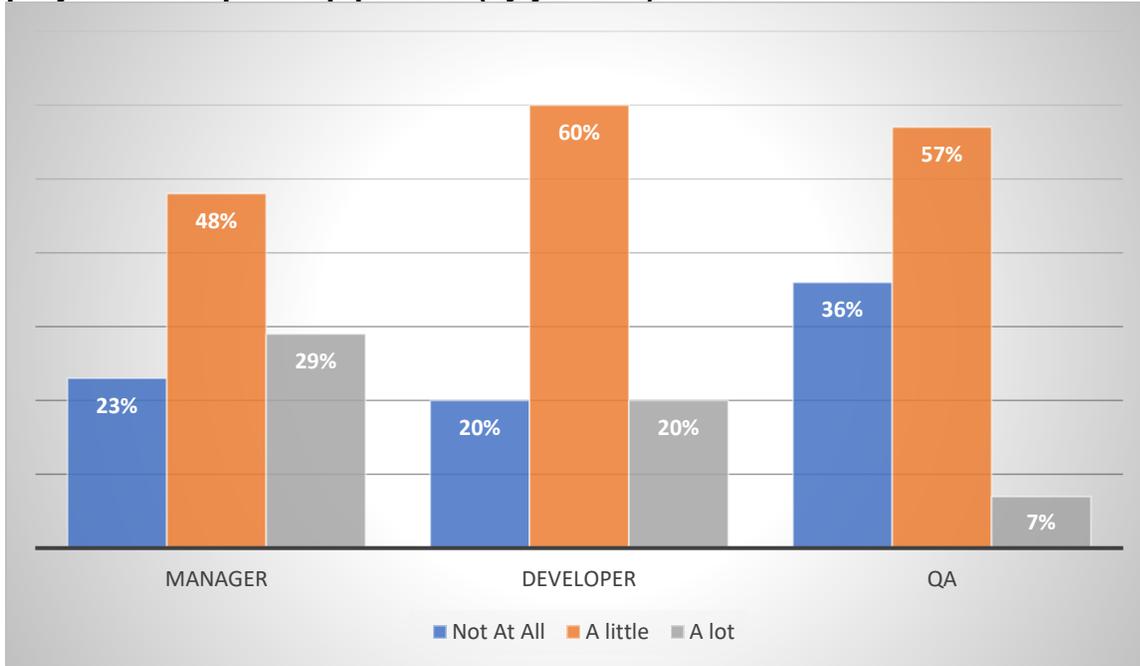
Source: IGDA DSS 2021

**Figure 10: To what extent did events related to COVID-19 negatively impact your project development pipeline? (by employment type)**



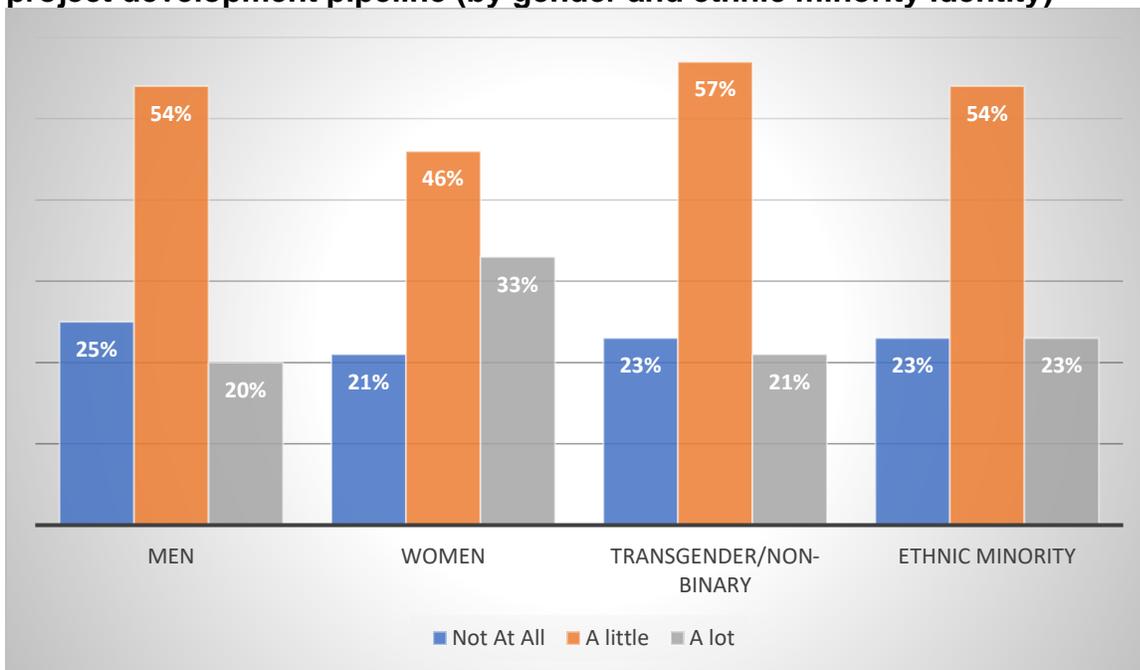
Source: IGDA DSS 2021

**Figure 11: To what extent did events related to COVID-19 negatively impact your project development pipeline? (by job role)**



Source: IGDA DSS 2021

**Figure 12: To what extent did events related to COVID-19 negatively impact your project development pipeline (by gender and ethnic minority identity)**



Source: IGDA DSS 2021

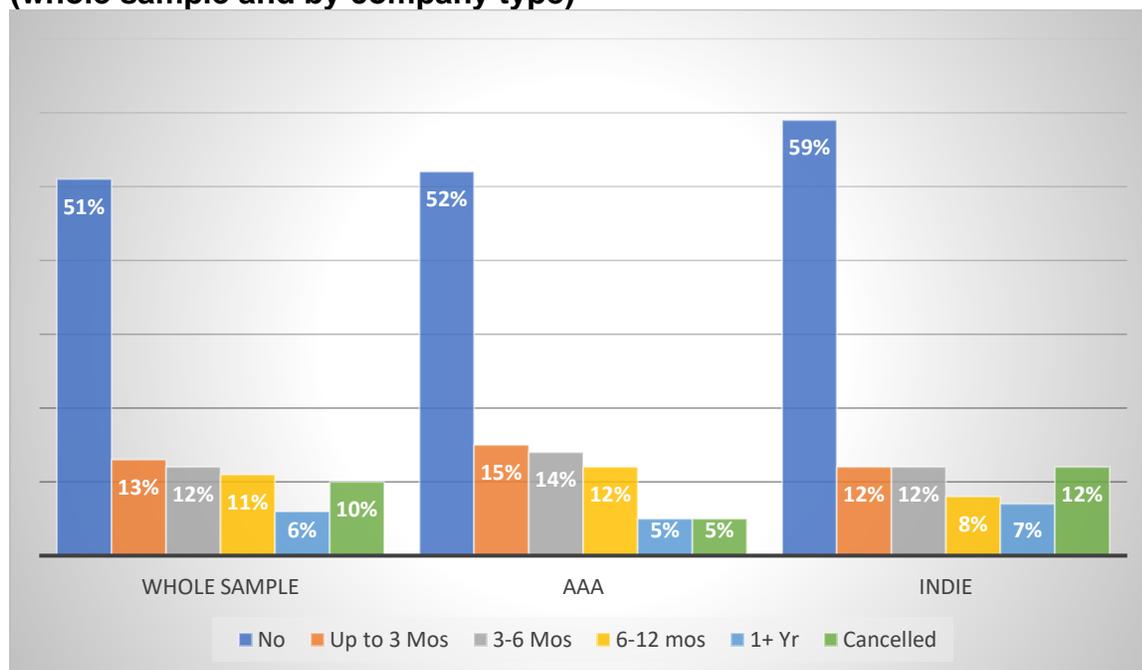
Fitting with the data presented above, about half of the respondents experienced a project delay due to COVID-19 (Figure 13). Again, this is higher than the 33% [reported by the GDC](#) in August 2020 and may reflect on-going or longer-term impacts.

Shorter-term delays (up to 6 months) were more common than longer-term delays (more than 6 months) and 10% said their project had been permanently cancelled.

Game workers at AAA studios had slightly different experiences regarding project delays than those at indie studios (Figure 13). Interestingly those at indie studios were both more likely to see no delay (59%) and to see a project permanently cancelled (12%) relative to respondents from AAA studios. These opposing options might reflect a more constrained environment for indies due to cash flow, burn rates, staffing levels, project backlogs, funding parameters, etc. where the only option is to keep on or cancel entirely.

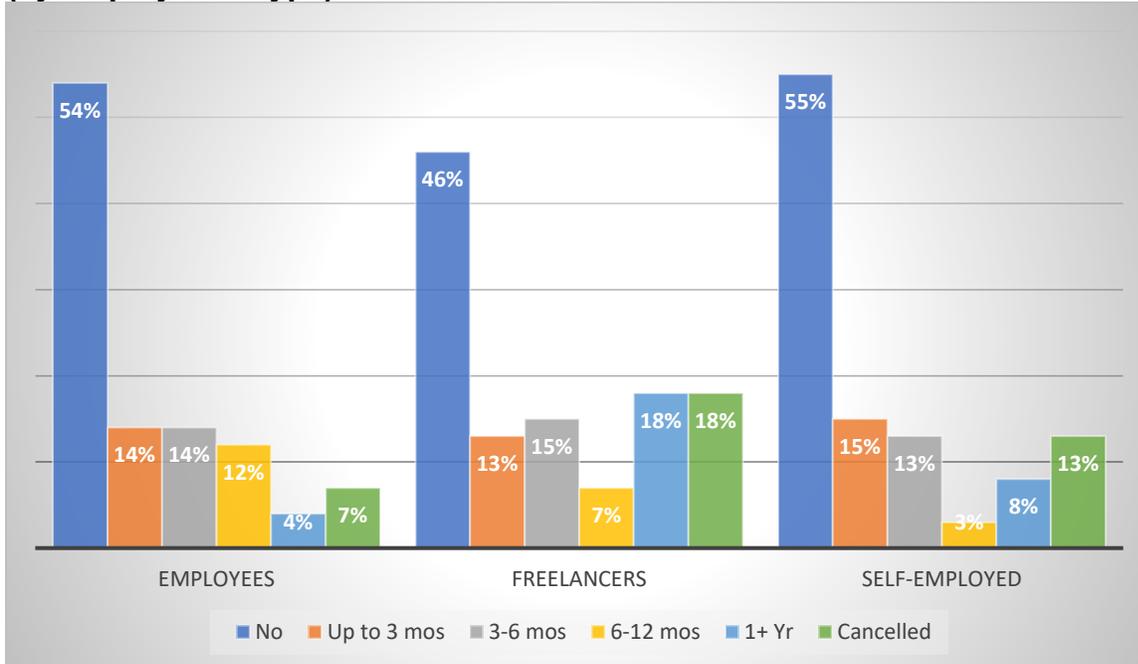
There are also some differences across employment type (Figure 14). Freelancers were much more likely to report longer delays (18%) and project cancellation (18%) than employees or the self-employed.

**Figure 13: Did you have a project that was delayed by the COVID-19 pandemic? (whole sample and by company type)**



Source: IGDA DSS 2021

**Figure 14: Did you have a project that was delayed by the COVID-19 pandemic? (by employment type)**



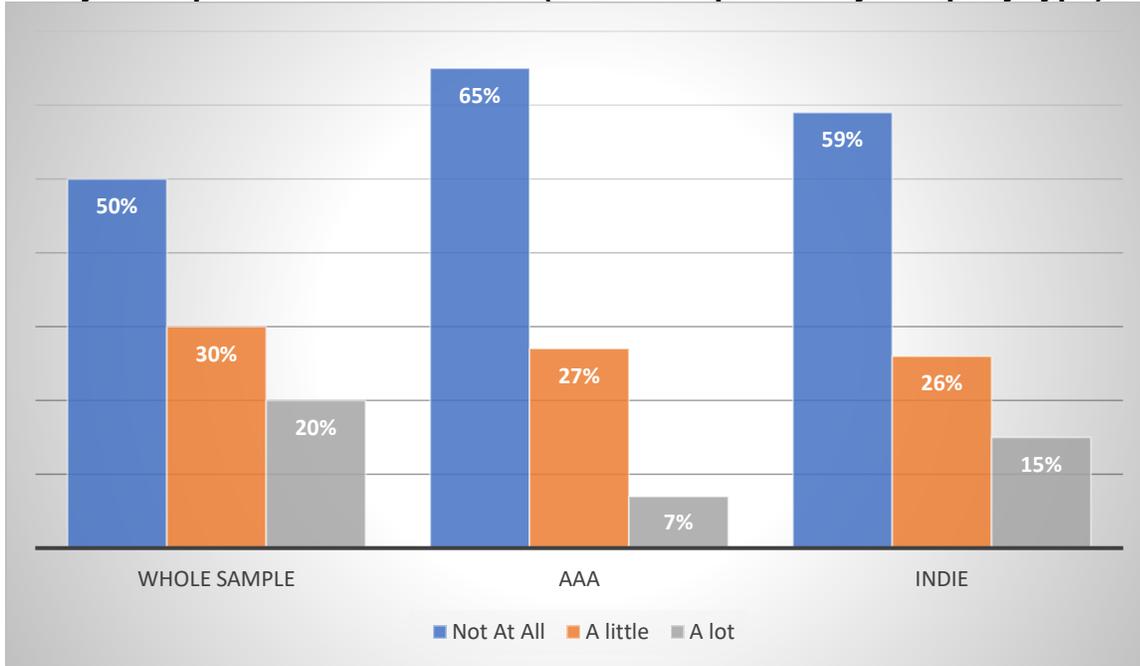
Source: IGDA DSS 2021

## New/Future Work

The pandemic negatively impacted the ability of about half the sample to acquire new/future work (Figure 15). There were differences in the impact on acquiring new/future work by company type, employment type and job role, but no substantive differences by gender and ethnic minority identity:

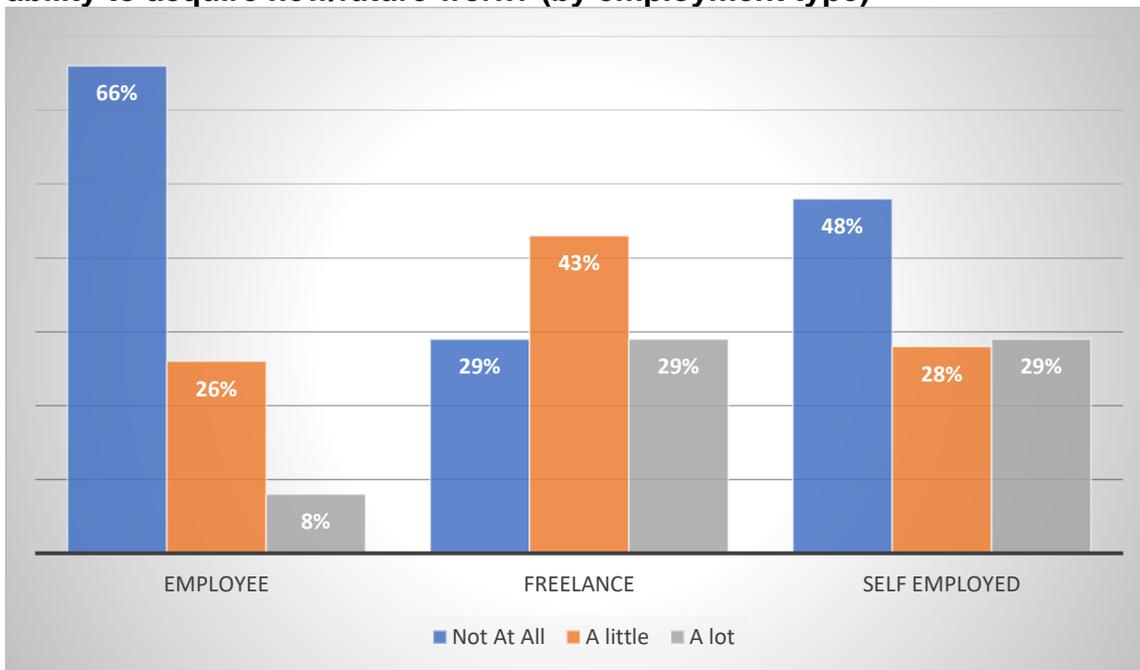
- 41% of indie respondents reported negative impact versus 35% of AAA respondents (Figure 15).
- Employees were the least likely to report a negative impact (44%) compared to freelancers (72%) and the self-employed (52%) (Figure 16).
- 62% of QA respondents reported negative impact versus 40% of managers and 43% of developers (Figure 17)

**Figure 15: To what extent did events related to COVID-19 negatively impact your ability to acquire new/future work? (whole sample and by company type)**



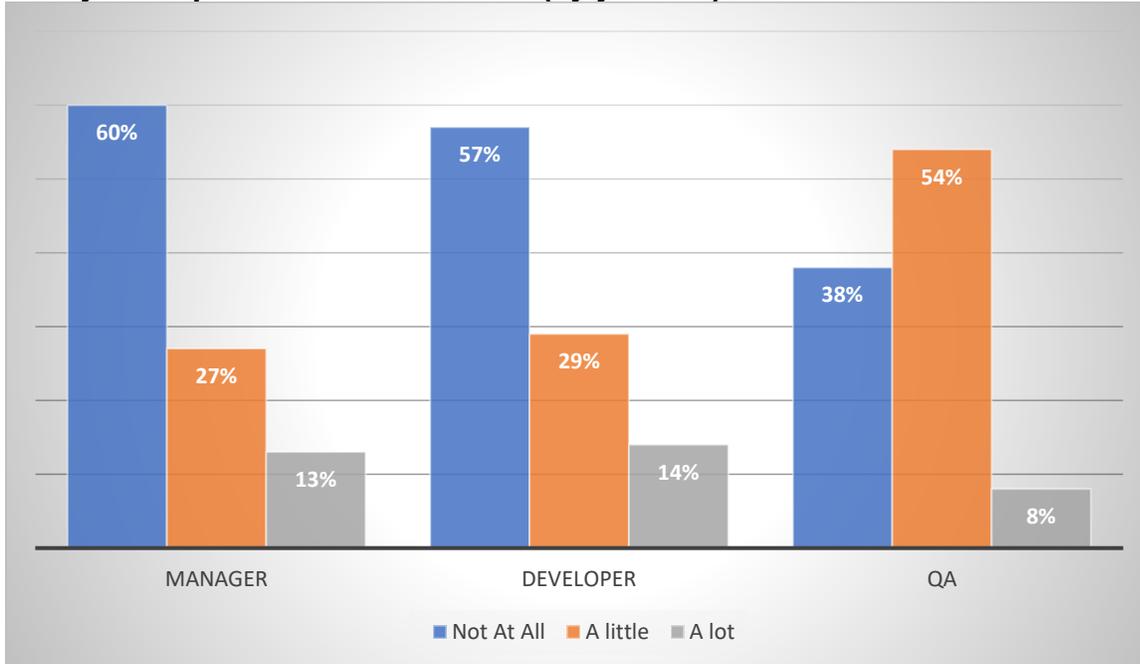
Source: IGDA DSS 2021

**Figure 16: To what extent did events related to COVID-19 negatively impact your ability to acquire new/future work? (by employment type)**



Source: IGDA DSS 2021

**Figure 17: To what extent did events related to COVID-19 negatively impact your ability to acquire new/future work? (by job role)**



Source: IGDA DSS 2021

## Work-Life Balance

At regular intervals, the DSS asks respondents about their work-life balance (i.e., 2009, 2014, 2019). This year, respondents were asked to complete these questions while thinking about the year 2020. The results for the whole sample show a diverse range of experiences (Table 4).

Across both negatively and positively worded questions, about 40-50% of respondents reported positive work-life balance; however, 30-40% reported negative work-life balance and the remainder fell somewhere in between.

Of note, 43% agreed or strongly agreed that their work-life balance had become easier in 2020 while 37% disagreed or strongly disagreed with that statement.

**Table 4: Work-life balance indicators (whole sample)**

	% of respondents		
	(Strongly) Agree	Neither Agree nor Disagree	(Strongly) Disagree
People close to me complain that I am preoccupied with work whenever I am at home/not working	39	21	40
Because my work is so demanding, I am often irritable at home/outside of work	38	25	37
My work interferes with my ability to spend time with my family and friends	38	22	40
The tension of trying to balance my work and home life leave me feeling emotionally drained	31	20	49
I feel pressure to stay at work (or to be at work/working)	31	19	50
My work-life balance has become easier	43	20	37
I have the best of both worlds and feel my work/life balance is ideal	43	27	30
After work I am too tired to do some of the things I'd like to do	19	17	64
I need more time for myself	14	17	70
Source: IGDA DSS 2021			

Note: totals may not equal 100% due to rounding

Digging deeper into the general work-life balance question showed variation by respondent type (Table 5).

- Women, for whom caring and domestic responsibilities remain a greater responsibility, were most likely to report that their work-life balance had improved particularly in comparison to men.
- Employees, for whom the home-working shift was most pronounced, were more equivocal, but also more polarized than freelancers or the self-employed.
- QA workers were both the most unsure and the most negative

**Table 5: Thinking about the year 2020, my work-life balance has become easier (by gender, ethnic minority, employment type and job type)**

	% of respondents		
	(Strongly) Agree	Neither Agree nor Disagree	(Strongly) Disagree
Whole sample	43	20	37
Men	40	22	38
Women	48	17	34
Transgender and/or non-binary	45	19	36
Ethnic minority at workplace	45	18	37
Employees	43	17	40
Freelancers	38	25	38
Self-employed	41	28	31
QA	23	31	46
Developers	43	19	38
Managers	43	18	39

Source: IGDA DSS 2021

Note: totals may not equal 100% due to rounding

## Conclusion

This report summarized the data from the 2021 IGDA Developer Satisfaction Survey (DSS) about work-related changes experienced due to the COVID-19 pandemic. It provides a glimpse into game worker experiences one year into the pandemic and is an important extension to August 2020 data presented in the [GDC State of the Industry Report 2020: Working from Home Edition](#).

The pandemic caused massive upheaval to work and working conditions around the globe. Yet the game industry was well-placed to pivot to a home working environment and take advantage of people's need for safe entertainment options. Overall, sales and engagement numbers have soared, and game workers have not experienced the degree of job and income insecurities born by others in the creative and cultural industries.

However, disruption did occur. Many reported negative impacts generally, in project development pipelines and in the ability to acquire new work. A small percentage reported employment and income insecurity through job loss or reduced hours or pay. Some expressed new work-life balance challenges.

Importantly, the degree of negative impact is at least somewhat related to one's position in the industry (by company type, employment status and job role), key socio-demographic characteristics such as gender and parental status, and regional and national differences in the nature and degree of the health crisis and political response. These represent important fault lines and suggest that certain game workers are more vulnerable to a disruption of this nature while others can benefit from changes such as increased working from home.

To this effect, recovery responses will need to vary based on localized conditions and both the individual and collective needs of game workers. Within workplaces, equity should remain top of mind to ensure that workers are not systemically disadvantaged from pandemic-related changes and disruptions or resulting policy and process changes. Employers are urged to engage in transparent and participatory management approaches when planning return to work procedures and in implementing or sustaining new policies and processes such as homeworking. Taking the time to understand the experiences and preferences of your workers will facilitate a smoother transition. Across the industry, attention must be paid to prevent long-term impacts on indies, the self-employed and freelance workers who have missed important business development opportunities, have less flexibility and cushion to pivot and were more likely to have been left out of state-sponsored relief efforts.

## Linked Articles

Florida, Richard and Michael Seman (2020) Lost Art: Measuring COVID-19's Devastating Impact on America's Creative Economy. Metropolitan Policy Program. Brookings Institute. Retrieved from [https://www.brookings.edu/wp-content/uploads/2020/08/20200810\\_Brookingsmetro\\_Covid19-and-creative-economy\\_Final.pdf](https://www.brookings.edu/wp-content/uploads/2020/08/20200810_Brookingsmetro_Covid19-and-creative-economy_Final.pdf)

GDC (2020) State of the Game Industry 2020: Working from Home Edition. Game Developers Conference, August 4-6. Retrieved from [https://reg.gdconf.com/soti-wfh-2020?kcode=BLG\\_GDC](https://reg.gdconf.com/soti-wfh-2020?kcode=BLG_GDC)

O'Brien, Dave, Mark Taylor and Gwilym Owen (2020) The impact of Covid-19 on jobs in the cultural sector – part 1. Centre for Cultural Value. University of Leeds. Retrieved from <https://www.culturehive.co.uk/CVIresources/the-impact-of-covid-19-on-jobs-in-the-creative-and-cultural-sectors/>

Smith, Noah (2020). The giants of the video game industry have thrived in the pandemic. Can the success continue? *Washington Post*, May 12. Retrieved from <https://www.washingtonpost.com/video-games/2020/05/12/video-game-industry-coronavirus/>