Developer Satisfaction Survey 2015 & 2016

Employment Report

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AUTHORS

Johanna Weststar

Associate Professor, DAN Department of Management and Organizational Studies

Western University, Ontario, Canada

Victoria O'Meara

PhD Candidate, Faculty of Information and Media Studies, Western University, Ontario, Canada

Marie-Josée Legault

Professor, École des sciences de l'administration

TÉLUQ, Québec, Canada

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ABOUT THIS REPORT

This report continues the work of the IGDA in benchmarking employment conditions in the game industry. In particular, it updates the 2014 Employment Report from the Developer Satisfaction Survey (DSS) data by profiling the DSS data from 2015 and 2016, which was specifically geared to examine questions about employment conditions in the game industry. Like the 2014 report, this report includes data about key employment issues such as working time, compensation and benefits, and job security. However, new in the 2015 and 2016 DSS is a primary focus on understanding the employment conditions of game developers in different employment relationships. We present separate 'employment profiles' for developers who are: 1) in employee relationships (full- and part-time), 2) self-employed; and 3) working as freelancers or contractors. As the data allows, the report also includes information about the features of the contemporary workplace and industry job market and its evolution.

Before this, however, we will provide a short socio-demographic profile of our respondents, to aid the reader in interpreting some results. Due to sampling effects, we cannot assert that our sample of respondents is a complete reflection of the industry population as a whole, particularly on the international scene. The sample may be completely generalizable, but we cannot be sure of it. Thus, data about the sample sheds light on the results and can help to explain or understand them.

An **Executive Summary** is provided as a Conclusion at the end of this report.

Survey Background and Sample Overview

Although the IGDA has conducted Developer Satisfaction Surveys frequently in its history, this report specifically references the Developer Satisfaction Surveys administered in 2015 and 2016.

The IGDA administered the Developer Satisfaction Survey (DSS) through March and April in both 2015 and 2016. The DSS 2015 survey accrued a valid sample of 2,928 responses, and the DSS 2016 accrued 1,186 valid responses.

As the DSS 2015 contains a larger sample, we will use it as the primary benchmark in this report and indicate similarities and/or differences in the DSS 2016 data, as applicable.

A note about the sub-samples used in this report

The DSS casts a wide net to capture the experiences of a broad range of people who work in the games industry. Not all of these are developers or working with the primary function to make games. This report focuses on the employment experiences of those working for game studios or in roles directly related to making games. Table 1 summarizes the survey sub-samples that we will use when relevant. As an improvement to the DSS 2014 and to recognize that working experience differ depending on the nature of the work and employment type, the DSS 2015 and 2016 asked respondents to self-identify as the following with the accompanying description: a) employees (full-time or part-time; permanent or temporary), b) independent contractor or freelancer (i.e., paid through contracts with 1 or more clients/companies); or c) self-employed (i.e., owns a company/studio/business and paid by self).

In this report we prioritize the experiences of non-managerial developers from all employment types. Throughout, the reader will notice that we sometimes compare the responses of employee developers, against those of employee managers, or the whole sample of employee respondents. This is done to understand employment conditions that are unique to developers.

We do not, however, make this distinction for freelancers or the self-employed respondents. In the case of freelancers, this is because the vast majority of freelance respondents are non-managerial developers (Table 1). Comparing these experiences against those of managers, would overstate the experiences of a small group of freelance managers.

In the case of self-employed respondents we do not make comparisons between those who indicate their primary role is ‘manager’ versus ‘developer’ because self-employed workers are always managers of their own studios, even for those who reported that they do the work of a developer. Comparing those who identify as developers against managers in this instance would create a false distinction.

Please note that the developer sub-sample and the manager sub-sample in Table 1 do not sum to their respective total samples (whole sample, employee sample, freelance sample and self-employed sample) because some respondents did not hold primary roles in management or core development and some respondents dropped out of the survey after answering the ‘employment type’ question, but before answering the ‘primary role’ question, which was used to create the developer and manager sub-samples.

Table 1

Survey Sub-Samples Used in Report

	Description	2015	2016
Whole Sample	All respondents including those in non-development jobs (i.e., administration, students, academics, journalists).	2928	1186
Developers Sample	All non-managerial respondents in core development roles (i.e., programming, design, art, audio, UI/UX). QA not included.	715	514
Managers Sample	All respondents in managerial roles including producers, project managers, team leads and administration. Peripheral industries like journalism, academia, etc. not included.	556	189
Employee Sample	All respondents who identified as an hourly or salaried employee, full-time or part-time, temporary or permanent.	952	524
Employee Developers	All employee respondents in core development roles.	552	351
Employee Managers	All employee respondents in a managerial role (not an owner).	274	128
Freelance Sample	All respondents who identified as a freelance or independent contract worker.	171	72
Freelance Developers	All freelance or contract respondents in core development roles.	124	57
Freelance Managers	All freelance or contract respondents in a managerial role.	15	8
Self-Employed Sample	All respondents who identified as self-employed (i.e., owning or operating their own company with or without staff and exclusive of freelancers above)	263	142
Self-Employed Developers	All self-employed respondents who listed a core development role as a primary role in addition to their ownership role.	167	92
Self-Employed Managers	All self-employed respondents who listed a managerial role as a primary role in addition to their ownership role.	71	48

INTRODUCING OUR RESPONDENTS

Socio-demographic profile

Overall, the demographic data suggests that the game industry remains young (58% were between 25 and 35 years old), white (79%), heterosexual (77%), and male (76%). These numbers were roughly consistent between the 2015 and 2016 data sets. While 10% more of the 2016 sample respondents reported being married than single, the majority of the respondents remained without children (about three-quarters in both years). Note that this likely reflects the unique composition of the sample who replied to the survey rather than a dramatic change in marital practices from year to year.

Age

In 2015, the age range across the whole sample was quite large, between 16 and 81 years of age. We did not restrict this sample based on age as the survey was open to hobbyists, students and those who work in all manner of jobs related to the industry (e.g., in retail). Among developers, the range was smaller, between 19 and 59 years. The majority of developers were young; 58% were between 25 and 34 years, and only 16% reported being over 40 years old. Among managers the average age was slightly older and 29% reported that they were 40 years of age or older. However, similar to developers, the most common age range was 25 and 34 years old (48%). Similar patterns were visible in 2016 (see Table 2 below for breakdown and Figure 1).

Overall, this is quite young in comparison with the general workforce in North America, wherein the average age of an American worker is 42.4 (Bureau of Labor Statistics, 2014) and the average age of a Canadian worker is between 45 and 54 (Statistics Canada, 2015). The North American labor market is a reasonable comparator as the majority of the survey sample reported working in the US or Canada (see below).

Table 2

Age of respondents, DSS 2015 and 2016

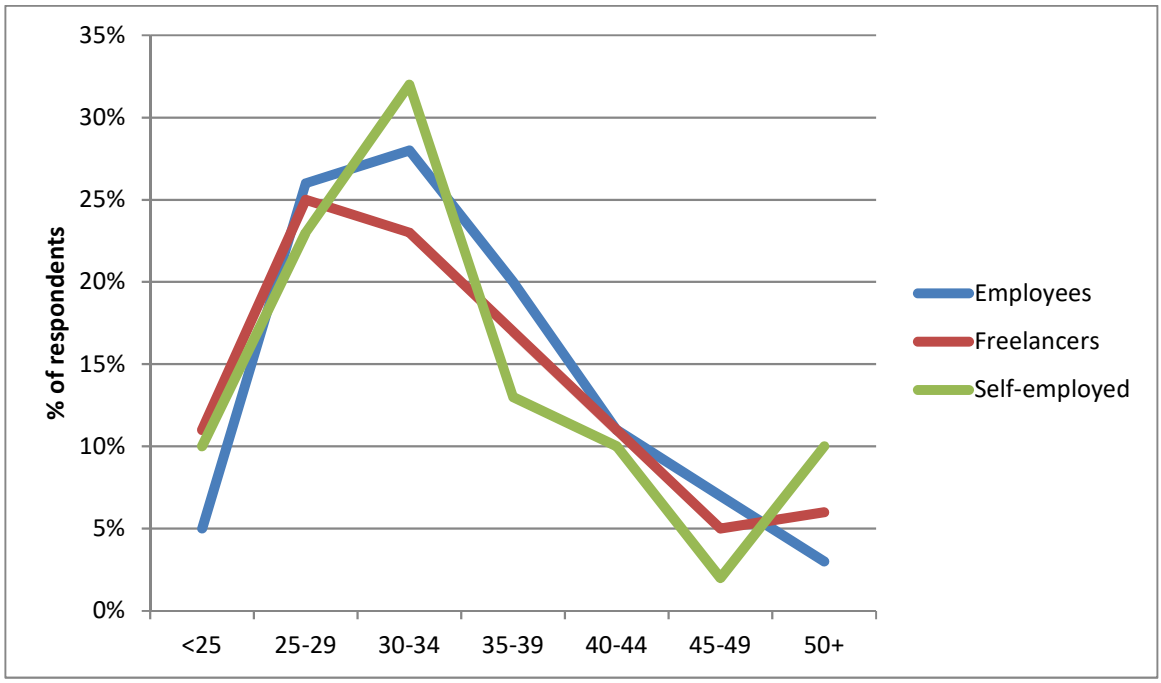
Age	Developers		Managers	
	2015	2016	2015	2016
Under 24	8%	9%	5%	10%
25-29	28%	26%	20%	17%
30-34	30%	25%	28%	17%
35-39	19%	20%	19%	25%
40-44	10%	11%	12%	19%
45-49	5%	5%	9%	9%
50+	1%	4%	8%	5%

In both 2015 and 2016, the most common age range (25-34 years) was the same across respondents from different employment types: employees, freelancers and self-employed respondents. That said there are two noteworthy distinctions. First, both freelancers and self-employed workers reported being 24 or younger more frequently than employees. In 2015, 11% of freelancers and 10% of the self-employed were younger than 25, compared to 5% of employees; in 2016, these figures were 7% and 12% compared to 5%. Second, self-employed respondents reported being over 50 years of age at higher frequencies than both employees and freelancers (in 2015, 10% compared to 3% and 6%; in 2016, 6% compared to 4% and 2%).

This could suggest that in the early stages of their career in the industry more workers may have to engage in entrepreneurial ventures or unstable employment contracts to gain the experience and contacts that might eventually lead to full employment at a games studio. On the other end of the pole, the advanced age of some self-employed respondents indicates that entrepreneurial ventures become more likely in the later stages of a videogames career, as industry veterans break

off on their own. In both cases the rise in self-employment also reflects the general industry trend toward self-employment and independent production enabled by digital distribution and greater access to mainstream console development permissions.

Figure 1: Age of respondents, DSS 2015



Gender

According to the data across both years, developers are overwhelmingly male (79% in 2015 and 74% in 2016). This is true across the whole sample as well, although slightly more managers were women when compared with developers in the 2015 sample (22% compared to 19%).

The category of 'female' or 'women' includes those who identify as women, transgender, or who selected 'other'. The writers of this report would first like to point out our dissatisfaction in relying on language that reinforces a traditional gender binary. We recognize gender plurality and the importance of giving voice to transgender and non-gender binary workers. However, because the survey sample of those workers was very small, it is difficult to draw substantive conclusions about their experiences without assuming a great deal and overstating the generalizability of these experiences. The full breakdown of gender identity for 2015 and 2016 is outlined in the Table 3 and Figure 2 below.

Future surveys will gather information about gender and sexuality in two separate questions: 1) asking for gender identity (described as male/female/non-binary); and 2) asking whether developers identify as LGBTQ+.

Table 3

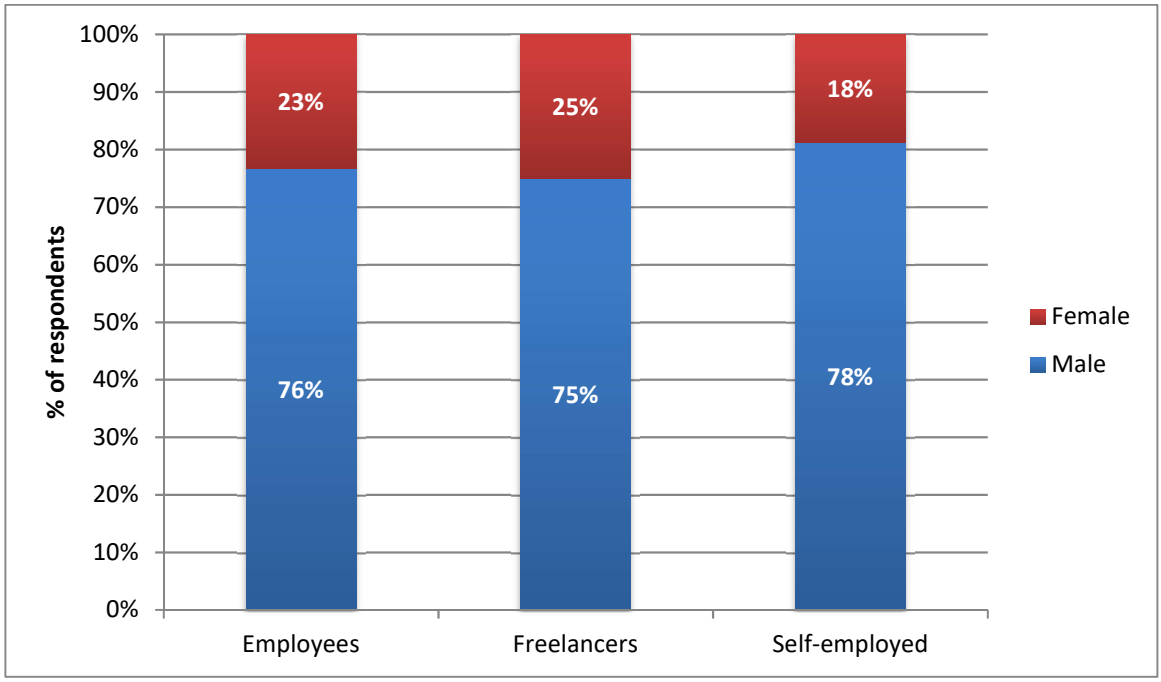
How do you identify your gender? DSS 2015 and 2016

	Developers		Managers	
	2015	**2016**	**2015**	**2016**
Male	79%	74%	76%	74%
Female	19%	20%	22%	22%
Male to female transgender	1%	2%	1%	1%
Female to male transgender	0.2%	3%	0%	1%
Other	1%	1%	1%	2%

Across employment type, women were particularly underrepresented among the self-employed, and slightly overrepresented among freelancers. When we consider that freelancers were slightly younger than average, and the self-employed slightly older, this may suggest a positive trend toward increased gender diversity as more young women are pursuing careers in the field. That said, we should maintain vigilance of the gender distribution across employment type so as to ensure that women are not disproportionately burdened with precarious and inconsistent labour contracts that often characterize freelance work. Also, if self-employment and the indie model continue to rise in the industry, it should be a concern if women remain as underrepresented in the 'new models' of game development as in the old.

Figure 2

How do you identify your gender? DSS 2015



Ethnicity

Overwhelmingly, the sample was white/Caucasian. In 2015, 79% of all respondents identified as white. This increased to 85% in 2016. This dominance is further exemplified among developers, 83% of whom identified as white in 2015, and 87% of whom identified as white in 2016. The next two most commonly selected ethnicities, although distantly, were East/South-East Asian and Hispanic (Table 4).

Table 4

Which of the following best describes your race/ethnicity/ethnic origin? DSS 2015 and 2016

	Whole sample		Developers		Managers	
	2015	2016	2015	2016	2015	2016
Arabian/West Asian	1%	3%	2%	3%	1%	1%
East Asian/South-East Asian	9%	8%	8%	7%	9%	7%
South Asian	1%	1%	1%	1%	2%	1%
Black	2%	3%	2%	2%	3%	1%
White	79%	85%	83%	87%	80%	87%
Hispanic	6%	7%	5%	8%	6%	8%
Aboriginal	2%	1%	2%	1%	1%	2%
Pacific	1%	0%	1%	0%	0%	0%
Other	1%	3%	1%	2%	2%	2%

The over-representation of white workers is largely consistent across employment type, however one interesting point emerges. In both years, employees more frequently reported being white than did freelancers or self-employed workers. Among employees, 83% identified as white in 2015, and 88% identified as white in 2016. Comparatively, 77% of freelance workers in 2015 identified as white, and 82% in 2016. Among self-employed workers, 79% identified as white in 2015 and 84% in 2016. This is particularly interesting when we consider that more freelancers reported being Hispanic or East/South-East Asian than did employees (Table 5). This finding suggests that, although precarious employment is a concern across the industry, it may have intensified effects across race and geographical location.

Table 5

Which of the following best describes your race/ethnicity/ethnic origin? DSS 2015 and 2016, Employment type comparison

	Employee		Freelance		Self-Employed	
	2015	2016	2015	2016	2015	2016
White	83%	88%	77%	82%	79%	84%
East Asian/South-East Asian	10%	8%	12%	11%	6%	5%
Hispanic	4%	7%	6%	7%	10%	10%

Corporate headquarters and country of work

The prevalence of white respondents can partially be explained by the fact that the sample is primarily based in North America, and particularly in the United States (Tables 6, 7, and 8 below). Respondents were asked to report their country of work and the country where their employer's head office was located. Tables 6, 7 and 8 below provide a broad comparison of the location of corporate headquarter and the location of employee, freelance and self-employed respondents. These tables list the countries that represented a minimum of 2% of the survey sample in either category.

Globalized production processes have had a clear impact on the games industry. In 2015 only 26% of developer employees (and 29% of all employees) reported working in the same country as the corporate headquarters of their company. While a significant number of these respondents reported that their employer's corporate headquarters was based in the United States (55%), a smaller number reported working in the United States themselves (46%). A similar trend is visible in the context of France and Japan (Table 6). These patterns reflect the globalized business practices of large multinational games companies such as Electronic Arts (based in the United States), Ubisoft and Vivendi (based in France), and Nintendo and Sony (based in Japan).

In Canada we see the opposite trend. Here more developers reported working

from Canada, than reported that their company's head office was in Canada. This is typical of the Canadian context wherein international corporations have a strong presence in the local industry. A smaller scale version of this is also visible in the context of the United Kingdom. These trends were reproduced in 2016, although there was a slight increase in the number of games companies headquartered in Canada (10% in 2016 compared to 7% in 2015). This was paralleled by a decrease in the proportion of game companies reported to be in the United States (49% in 2016 versus 55% in 2015).

Table 6

Location of company headquarters and country of work, Employees, DSS 2015

	Developers (employees)		Whole sample (employees)	
	Location: Head Office	**Location: Employee Respondent**	**Location: Head Office**	**Location: Employee Respondent**
United States	55%	46%	60%	50%
Canada	7%	18%	6%	14%
France	7%	1%	6%	2%
Japan	6%	4%	5%	3%
United Kingdom	4%	5%	3%	5%
Germany	3%	4%	2%	3%
Australia	2%	3%	2%	3%
Austria	2%	2%	2%	3%
Sweden	2%	3%	2%	3%
Finland	2%	3%	1%	2%
Norway	1%	1%	2%	1%

Many of these patterns are similar among freelancers. Only 29% of freelance developers and 27% of all freelancers, reported working in the same country as their employer's head office. In the context of the United States and Japan, fewer reported working in these countries than reported that their employer's head office was there (Table 7).

One notable difference between freelancer and employee developers in 2015 was that the number of Canadian freelancers working for Canadian studios is more

balanced than in the employee context. In the context of France, there are so few freelancers they do not make the cut-off for inclusion on Table 7 (less than 2%). These findings may be attributable to the fact that freelancers more frequently reported working for independent studios than did employees, who were more highly concentrated among international AAA development studios. Unlike AAA studios with large and complex organizational structures, independent studios have smaller teams and budgets, and as such may be more likely to contract locally, through established networks. In the case of France, the industry is dominated by large corporate headquarters with even few employee developers reporting that they work in France.

Table 7

Location of corporate headquarters and country of work, Freelancers, DSS 2015

	Developers (freelance)		Whole sample (freelance)	
	Location of Head Office	**Location of Respondent**	**Location of Head Office**	**Location of Respondent**
United States	55%	40%	56%	42%
Canada	10%	12%	8%	10%
United Kingdom	5%	7%	6%	8%
Australia	5%	11%	4%	12%
Japan	4%	2%	5%	3%
Germany	4%	4%	3%	4%
Sweden	3%	1%	2%	1%
Israel	2%	1%	1%	1%
Finland	2%	4%	1%	4%
Brazil	1%	6%	1%	5%

Malaysia	1%	0%	2%	2%

Among the self-employed in 2015, the country breakdown for corporate headquarters close mirrors the data for country of work. What differences exist in Table 8 are largely due to rounding This makes sense as one would expect people who are running their own companies or working for themselves to be collocated with their corporate head office.

Table 8

Location of corporate headquarters and country of work, Self-employed, DSS 2015

	Self-employed	
	Location of Head Office	**Location of Respondent**
United States	48%	46%
United Kingdom	8%	8%
Canada	8%	10%
Australia	5%	6%
Brazil	3%	5%
Japan	2%	1%
Finland	4%	4%
Germany	2%	1%

Sexual orientation, marital status, and children

The majority of developers (80%) identified as heterosexual, 11% identified as bisexual, and 3% identified as homosexual. These numbers were consistent in 2016 where 79% of respondents identified as heterosexual, 9% identified as

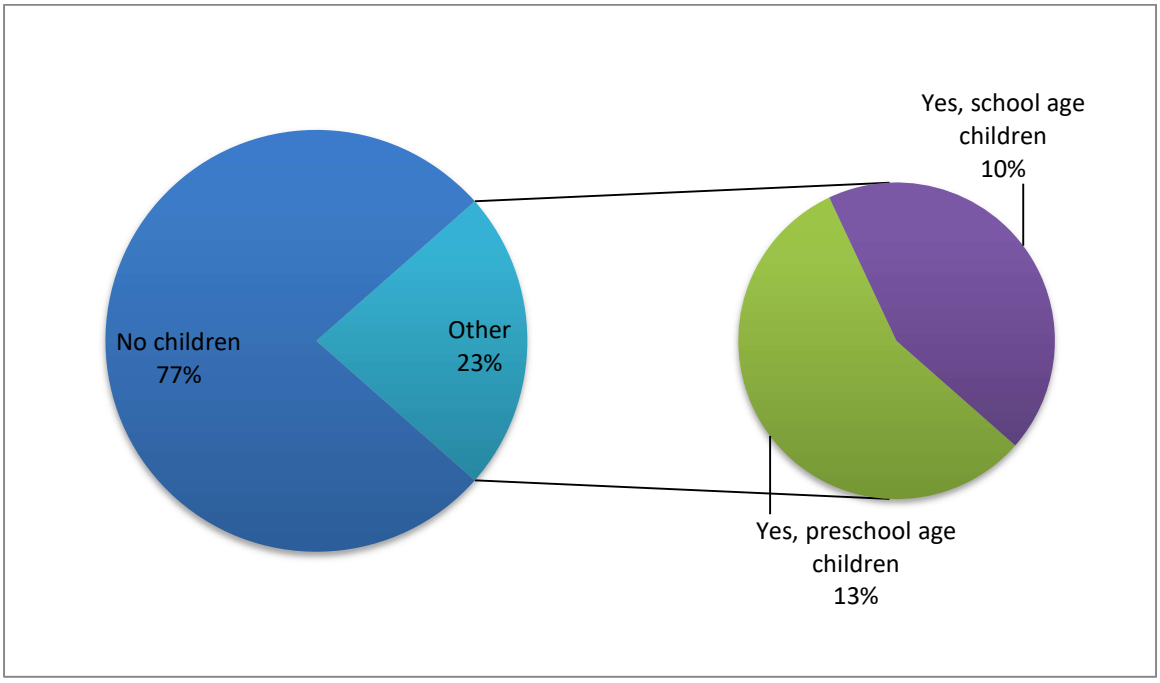
bisexual, and 4% identified as homosexual (Figure 3).

Developers more often reported being married than single by a margin of 12%. In 2015, 53% of developers were married and 41% were single. The remainder were divorced, separated, or selected 'other'. This distribution was consistent within the whole sample and there was no change in 2016.

Despite the fact that more developers reported being married than single, the majority did not have children (77%). Those that did reported young families. Thirteen percent of developers had preschool age children and 10% had school age children. This is understandable given the young age of many in the sample. These percentages remained roughly the same in 2016.

Figure 3

Do you have children? DSS 2015



Across employment type, freelancers reported being married less frequently than did both employees and self-employed workers by a margin of 10% (Table 9).

Table 9

What is your current marital/partner status? DSS 2015 & 2016

	Employee		Freelance		Self-Employed	
	2015	2016	2015	2016	2015	2016
Married/Partnered	58%	57%	40%	46%	51%	57%
Single	36%	38%	48%	46%	42%	37%
Divorced	3%	2%	5%	6%	1%	3%

They were also the group to least often report having children by a similar margin (Table 10). On average, freelance workers were younger, which may account for the comparatively low rates of marriage and children, but it could also indicate that the demands and instability of freelance work make planning for a family particularly difficult.

Table 10

Do you have children? DSS 2015 and 2016

	Employees		Freelance		Self-employed	
	2015	2016	2015	2016	2015	2016
Children	29%	29%	16%	20%	28%	26%
No children	71%	71%	84%	80%	72%	74%

EMPLOYMENT PROFILE

Employment status

Across both 2015 and 2016, the whole sample of respondents most commonly reported working as permanent employees (whether full- or part-time), followed by self-employed, freelance, and lastly, temporary employees (see Table 11 below for percentage breakdown).

Specifically among developers, in 2015, 77% reported working as permanent employees while only 18% reported working as freelancers, and 4% worked as temporary employees. However, in 2016 the percentage of developers who were permanent employees dropped by 12% to 65%. This is a large different and could merely reflect the composition of the 2016 sample, however this number should be tracked in future years to see if the norm of permanent employment is decreasing.

Managers in 2015 were fairly evenly split between working as permanent employees and being self-employed (49% and 47% respectively). Only 4% reported working as freelancers or in a temporary employee role (when combined). Contrary to the shift for developers above, for managers the percentage working in permanent employee positions rose in 2016 (by 17% to 66%) while the percentage working as self-employed decreased (by 21% to 26%). This again may be a feature of the sample at hand.

Table 11

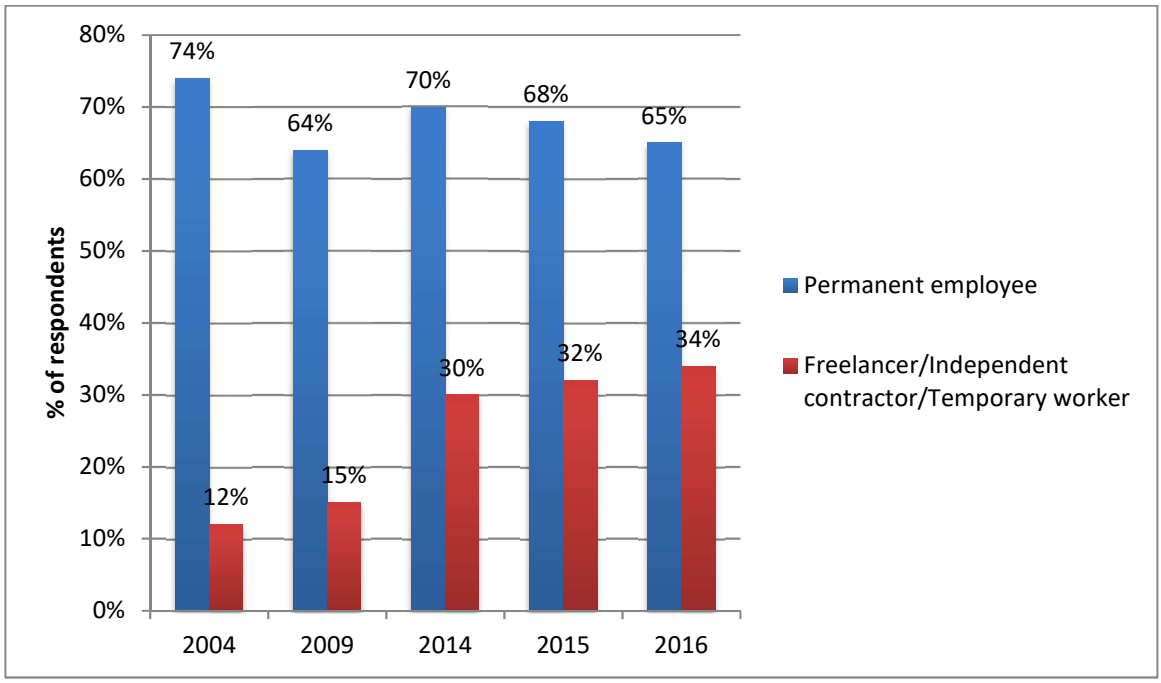
Status of employment, DSS 2015 and 2016

	Whole sample		Developers		Managers	
	2015	**2016**	**2015**	**2016**	**2015**	**2016**
Permanent employee	68%	65%	77%	65%	49%	66%
Temporary employee	3%	5%	4%	6%	1%	3%
Contract/ Independent (multiple clients)	12%	10%	18%	11%	3%	4%
Self-Employed	17%	19%	--	18%	47%	26%

In general, freelance, temporary, and self-employment in the video game industry seems to have risen since the IGDA started tracking these numbers in 2004. The data shows that those working in these employment situations has steadily increased from 12% in 2004 to 34% in 2016 (Figure 4).

Figure 4

What is your current status of employment? DSS 2004-2016



Note: The numbers do not total 100% across each year category because in 2004 and 2009 the questions were configured differently and included other options that are extraneous to this comparison. In 2004 and 2009, the self-employed group was lumped in with the freelance group, so we have to add these two groups for 2014-2016 to achieve a cross-year comparison.

Freelance by choice?

Given the notable increase in freelance employment over the years, the DSS 2015 and 2016 asked freelance respondents why they were working in these roles. Freelance developers commonly selected reasons related to control over the conditions of work. In 2015, the most popular response was to have more control over their working conditions (61%). In a similar vein, 40% said they freelance to have more control over their employment stability and/or risk. Other popular

reasons were related to the games they work on: 48% of developers freelance to be able to work on varied projects; 42% to make the games they want, and 40% to have control over the game content. These percentages remained roughly similar in 2016, although there was an 11% increase in those who did freelancing in order to make the games they want, while the percentage of those who freelanced to control their employment stability decreased by 10% (Table 12).

In 2015, a sizeable portion of respondents reported working freelance out of necessity, rather than by choice. Over one third worked as freelancers because they could not find a permanent job at a studio (36%), and another 23% did so because they did not live near a game studio.

The percentage of developers who worked freelance because they could not find permanent employment positions increased in 2016 to 42% from 36% in 2015. It will remain important to track these numbers given that freelance employment contracts have been steadily increasing among survey respondents since 2004.

Table 12

Which of these reasons captures why you are working as a freelancer/or contract? DSS 2015 and 2016

	Freelance developer	
	2015	**2016**
To make the games I want to make	42%	53%
To have more control over the content of my work	40%	42%
To have more control over working conditions (e.g. hours)	61%	54%
To work on a smaller team	25%	21%
To work on more varied projects/games	48%	42%
To have more control over my employment stability and/or risks	40%	30%
I do not live near established studios and did not want to move	23%	18%

Established studios closed or left the area and I did not want to move	11%	7%
Couldn't find a permanent job at an established studio	36%	42%
Other	9%	12%

Note: Totals do not equal 100% because participants were able to select more than one option.

Full- or part-time?

In 2015 the large majority of developers reported working full-time (87%). This distribution was similar within the whole sample (88%) and remained roughly the same in 2016 (85%).

Employees reported working in full-time positions more often than freelancers or the self-employed (Table 13). It is likely that this is partly due to the fact that freelance and self-employed workers occupy more precarious employment conditions, working contract to contract, and shoulder greater burdens of the cost of their game development. Therefore, they may need to supplement game development with other full- or part-time work. Follow-up inquiry should seek to understand whether or not those working part-time do so by choice, or because they lack other options.

Table 13

Is your employment in the industry full-time or part-time? DSS 2015 and 2016

	Developers		Managers	
	2015	**2016**	**2015**	**2016**
Full-time	87%	85%	82%	88%
Part-time	13%	13%	18%	11%

This is particularly true because there was a notable decrease (13%) in the percentage of freelancers who worked full-time between 2015 and 2016 (Table 14). Though this could be a feature of the unique sample, this is potentially concerning given the parallel increase in those who reported working freelance because they cannot find permanent employment. Conversely there was a slight increase (5%) in 2016 in the percentage of self-employed respondents who worked full-time, possibly suggesting a growing robustness in the indie scene. While these numbers suggest a positive change, developers working full-time for indies do not always see compensation for their work, particularly if projects are unexpectedly cancelled, or studios go bankrupt.

Table 14

Full- or part-time work? DSS 2015 and 2016

	Employee		Freelance		Self-Employed	
	2015	**2016**	**2015**	**2016**	**2015**	**2016**
Full-time	94%	95%	62%	49%	67%	72%
Part-time	6%	4%	38%	43%	33%	25%

Tenure

Most commonly in 2015, employee developers reported working in the industry for between 4 and 6 years (27%). Comparatively, freelance developers and the self-employed most often reported working in the industry for between 1 and 3 years (34% and 35% respectively) (Table 15).

This may indicate that entrance into the industry requires some independent or contract work, prior to being seriously considered for permanent employment by game studios. While both independent and freelance work seem to be entry points to the industry, freelance work is rare for those who have worked in the industry for 10 years or more, but self-employment is common.

Table 15

How long have you worked in the games industry? DSS 2015 Developers

	Employee developers	Freelance developers	Self-employed
Less than 1 year	6%	11%	9%
1-3 years	23%	34%	35%
4-6 years	28%	26%	23%
7-9 years	19%	16%	11%
10+ years	25%	7%	23%

Main discipline and role

Most commonly, respondents reported working as programmers, software engineers or technical designers. Other common responses included game designer, visual artist, and producer/project manager (Table 16).

Table 16

Primary discipline or role, Whole sample, DSS 2015 and 2016

	Employees		Freelance		Self-employed	
	2015	2016	2015	2016	2015	2016
Consultant	2%	0%	5%	1%	3%	1%
Senior Management (Founder, owner, senior executive)	7%	6%	1%	21%	16%	21%
Upper or middle management	5%	4%	0%	1%	1%	1%
Producer/ Project Manager	12%	11%	7%	6%	7%	6%
Team Lead	5%	4%	1%	6%	5%	6%
Programmer/ Software Engineer / Technical Designer	26%	30%	31%	27%	35%	27%
Hardware Engineer	0%	0%	1%	0%	0%	0%
Visual Artist (animator, modeler, texture, concept, 2D, 3D, etc.)	11%	10%	15%	9%	5%	9%
Fine Artist	0%	0%	0%	0%	1%	0%

Game Audio (composer, sound designer, engineer, tools developer, post-production, etc.)	1%	2%	6%	1%	1%	1%
Game Designer	15%	20%	12%	26%	19%	26%
Writer	2%	2%	8%	1%	1%	1%
Quality Assurance	4%	3%	5%	0%	0%	0%
Beta Tester/Play Tester	0%	0%	0%	0%	1%	0%
UX and UI research and design	2%	3%	1%	1%	0%	1%
Localization/ Translation	1%	0%	3%	0%	1%	0%
Community Management	1%	0%	2%	0%	0%	0%
Administrative support (accounting, legal, human resources, administrative assistant, office manager, etc.)	2%	1%	1%	0%	1%	0%
Marketing	1%	1%	1%	0%	0%	0%
Public Relations	0%	0%	1%	0%	1%	0%
Technical support (information technology networks, hardware, security, etc.)	1%	1%	1%	0%	0%	0%
Customer support	1%	1%	0%	0%	0%	0%

CAREER PATHS AND PROFILES

Multiple employment statuses over the course of a development career

We also asked freelance developers and the self-employed if they had ever worked under a different employment status in the game industry. Fifty-two percent of freelance developers and 70% of the self-employed reported that they had worked as employees in the industry at some point (Table 17).

This may reflect the rise of the indie scene in the past few years, where many developers have made the transition to independent development studios. It may also be an indication of the increasing prevalence of freelance contracts and

precarious work across the industry as a whole. We must recall that about one-third of freelancers reported doing so because they could not find permanent positions with studios (see Table 12 above). Additional research is required to determine why these shifts in employment occur and by what combination of choice and necessity they are carried out.

Table 17

Have you worked for other game-related employers in the past? DSS 2015

	Freelance developers	Self-employed
No,	25%	13%
Yes, I have been self-employed	3%	N/A
Yes, I have been a contractor/freelance	N/A	16%
Yes, I have been a permanent or temporary employee of a game-related employers	52%	70%
Yes, I have been both an employee and also been self-employed	20%	N/A

Not moving around too much

In 2015, 38% of employee developers reported working for one employer in the past five years. A slightly smaller group (30%) worked for two employers, and 19% worked for three employers in the past five years. These percentages were similar in 2016 (Table 18).

This is a downward shift from DSS data from 2014, wherein approximately half of the developer sample reported working for at least five employers in the past five years (Weststar & Legault, 2014).

Among freelancers, the most common responses were also one or two employers in the past five years; 26% had one employer, and 21% had two. Interestingly, this is only slightly fewer than employees and potentially indicates a model wherein employers repeatedly hire freelancers rather than hiring a worker on a permanent contract.

Table 18

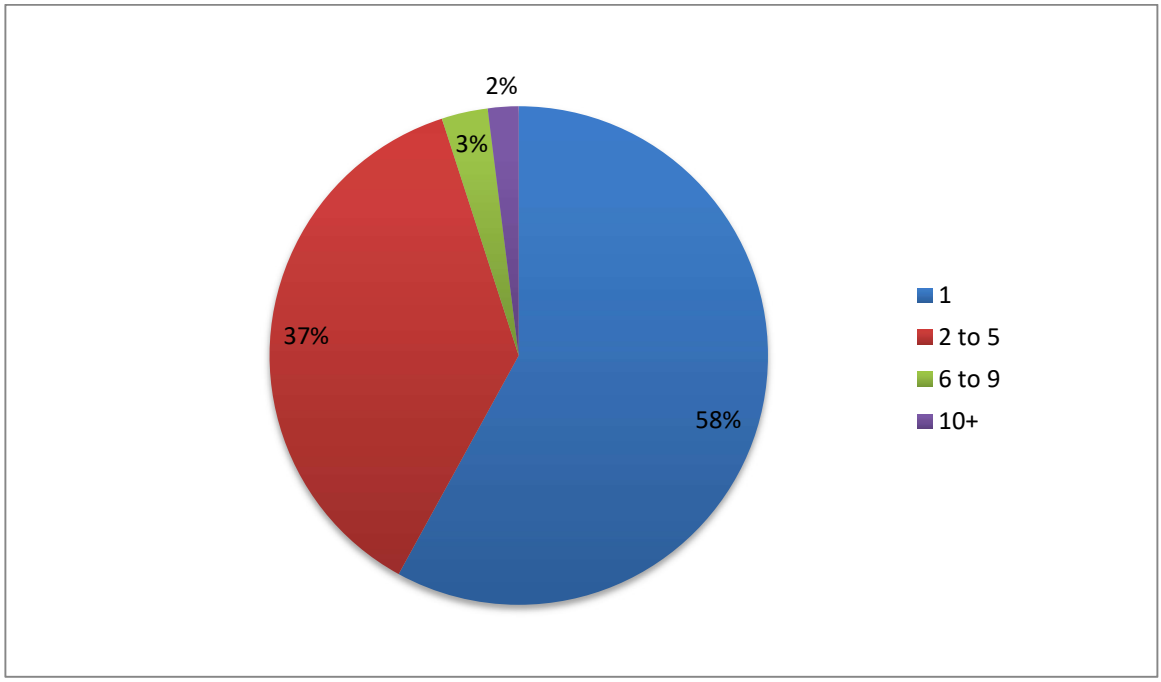
How many game-related employers have you had in the past five years? DSS 2015 and 2016, Developers

	Employee		Freelance	
Number of employers	**2015**	**2016**	**2015**	**2016**
1	38%	39%	26%	31%
2	31%	32%	21%	18%
3	19%	17%	18%	18%
4	6%	4%	11%	6%
5	3%	4%	4%	14%
6	1%	2%	4%	2%
7	0%	1%	5%	2%
8	1%	0%	0%	0%
9	0%	0%	1%	2%
10+	0%	1%	9%	6%

In keeping with the reported number of employers, freelance developers also reported holding a small number of contracts at one time. In 2015, over half of the freelance developers were working on one contract (58%). A slightly smaller, but still significant percentage were working on between two and five contracts (37%), and very few were working on more than five (5%) (Figure 5).

Figure 5

How many game-related contracts are you working on right now? DSS 2015, Freelance



Duration of freelance contracts

In 2015, just under half of freelance developers reported that their typical contracts were six months or less (47%). Only 6% reported that they had employment contracts that were two years or longer. In 2016, the data showed slightly longer contracts (Table 19). While the 2016 data may signal an improvement, short contracts still dominate and this has implications for workers' abilities to plan their futures. Also concerning is that about one quarter (26% in 2015 and 23% in 2016) reported that they did not know the length of their current contract. This could be additional evidence of the increasing use of freelancers in positions which require full-time employment. It also suggests a need to improve communication between employers and the freelancers they contract.

Table 19

How long is your typical contract? DSS 2015 and 2016

	2015	2016
Less than 3 months	22%	19%
3 - 6 months	25%	10%
7 - 11 months	8%	13%
1 year	13%	13%
2 years	3%	10%
3 or more years	3%	3%
Don't know	26%	23%

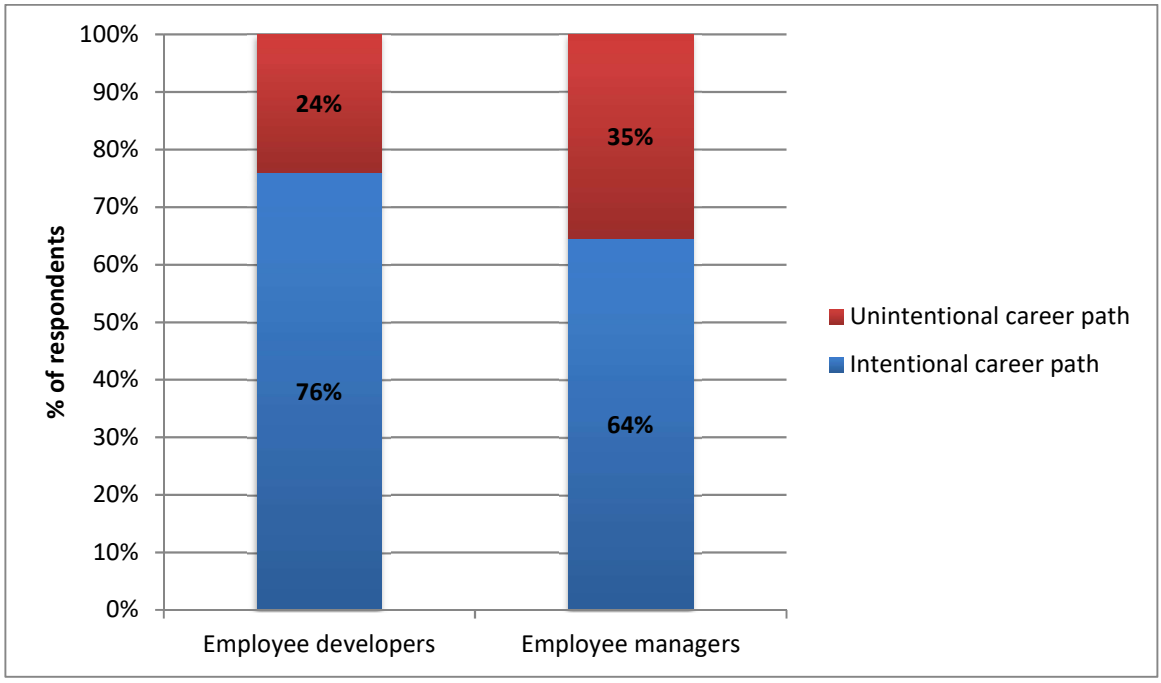
Games careers: never by happenstance!

According to respondents, a career in video game development is the result of concerted, conscious effort, strong will and determination. Overall, about three quarters of respondents followed an intentional career path to end up in the industry. This is particularly true within the developer sample. For example, 76% of employee developers followed an intentional career path to work in games, while only 64% of employee managers set out with this goal. This makes sense given the specific technical knowledge required for direct development, while management skills (such as communication and project management) are more transferable between industries (Figure 6).

This data also reflects the fact that pathways into the industry have become more visible and narrow via formal education.

Figure 6

How did you enter the video game industry? DSS 2015, employees



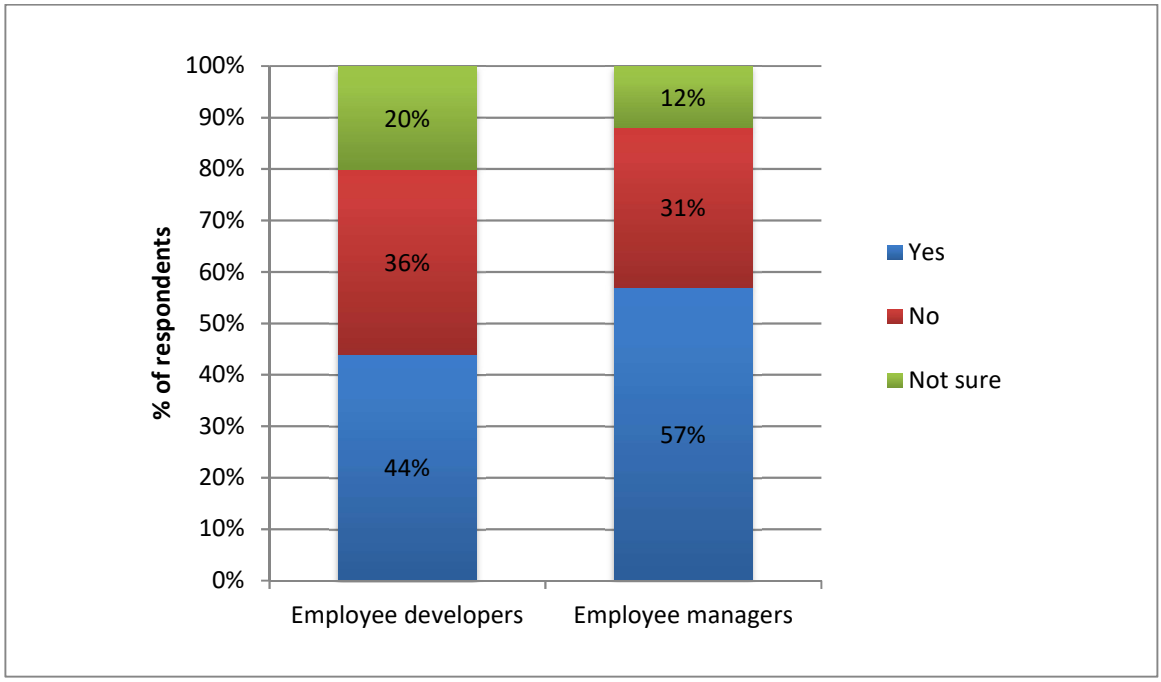
Job stability and promotions

Slightly more than half of employee developers (56%) reported that they do not have a clear career path at their current studio, or they were unsure. This fact might help to explain the finding (below) that while 58% of employee developers intended to stay in the industry indefinitely, only 21% intended to remain that long with their current employer (Figure 7). A clear career advancement trajectory is important for employee retention because it demonstrates to employees that their studio is confident in the future of their relationship and is invested in their growth and development.

Not having one may incentivize developers to seek other opportunities, and as such, contribute to an overall transitory workforce with short institutional memory and maturity. This lack of clarity in career direction was felt more strongly among developers than managers, but the numbers were still high. Slightly fewer than half (43%) of managers said they did not have a clear career path at their current studio, or felt unsure.

Figure 7

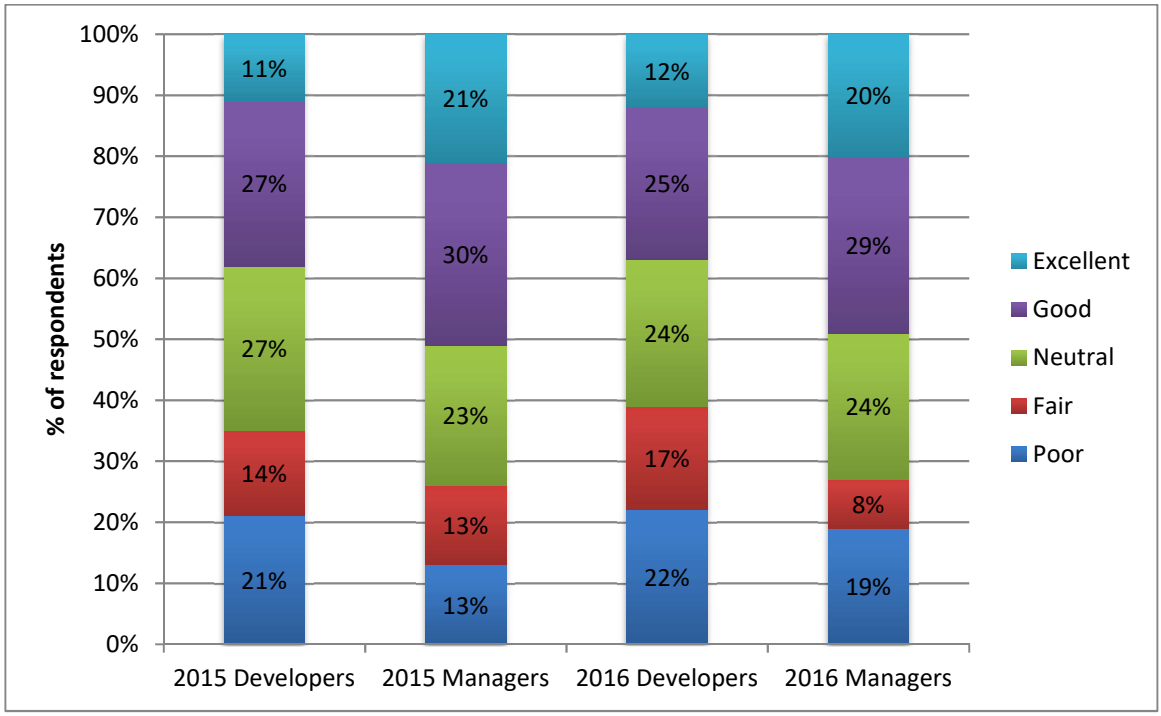
Does your profession/specialty/discipline have a clear career path within your company?
DSS 2015, employee developers and managers



Respondents were also asked how they would rate their studio on the potential for promotion or advancement. Almost two thirds of employee developers (62%) in 2015 responded 'poor', 'fair', or 'neutral', and a smaller portion (38%) said the potential was good or excellent. Comparatively, 51% of managers saw advancement potential as 'good' or 'excellent', and 49% reported that it was poor, fair, or neutral. This general lack of optimism about advancement potential among both developers and managers is concerning; it may point to a low commitment employment relationship and fuel the precarity of the work (Figure 8).

Figure 8

How would you rate your company on the potential for promotion or advancement in your career? DSS 2015 and 2016, Developers and Managers



Freelance developers were also not optimistic about the possibility of getting a permanent position with their most typical client; 59% responded that the odds of getting one were either 'poor', 'fair', or 'neutral' (data not shown).

Planning to stay (or not) in the industry

In 2015, few respondents, developer or otherwise, expressed an intention to leave the industry within the next 10 years (under 15%). The majority across employment type intended to stay indefinitely (Table 20). This is consistent with past IGDA data.

That said, a sizeable portion of developers were unsure about their future in the industry. This was also true for the whole sample which included workers in the peripheral jobs to game development (journalism, academia, event planning, etc.). About one quarter of all developers did not know how long they would stay in the industry. This was most pronounced among freelance developers (30%), which is

understandable when we consider that these workers occupy the most uncertain employment positions and confront the most precarity. This uncertainty was least pronounced among the self-employed (17%); it is likely that they have invested significant time, energy and capital into their businesses and thus intend to maintain them.

Table 20

How many years do you estimate that you will remain in the game industry? DSS 2015

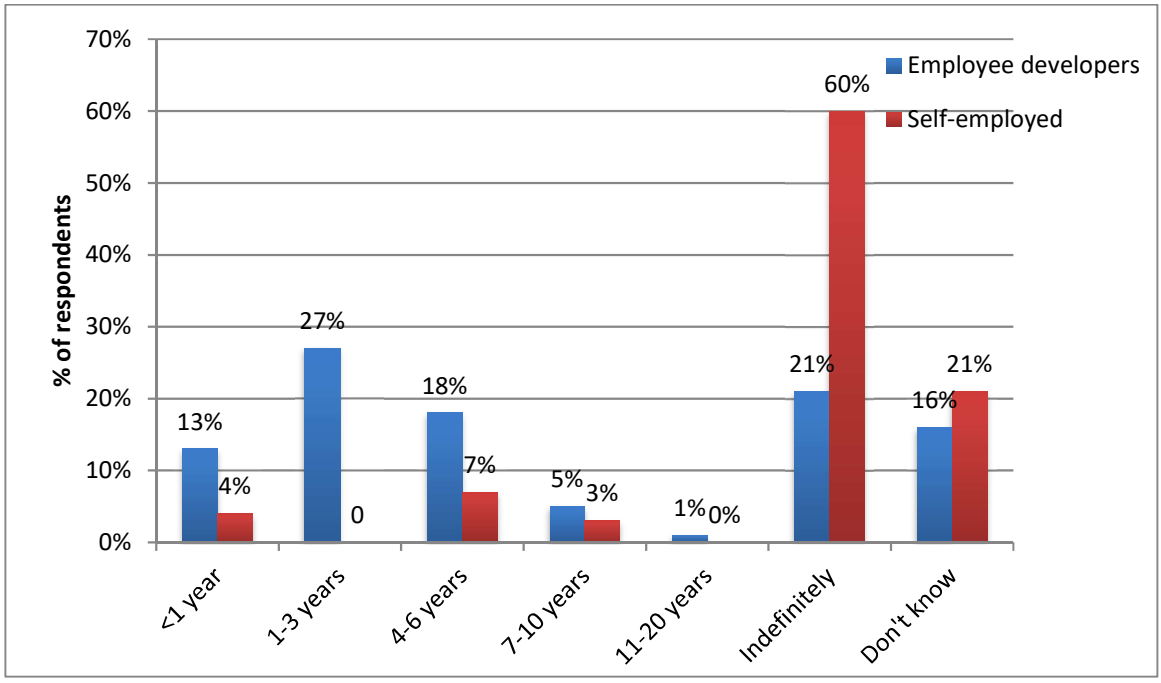
	Employee developers	Freelance developers	Self-employed
<1 year	1%	1%	1%
1-3 years	2%	2%	1%
4-6 years	4%	4%	0%
7-10 years	6%	5%	3%
11-20 years	5%	1%	3%
Indefinitely	58%	58%	76%
Don't know	24%	30%	17%

Employees and the self-employed were also asked how long they intended to stay with their current employer or intended to stay self-employed, as applicable. Far fewer employee developers (21%) expressed an intention to stay with a particular employer indefinitely than those that reported intending to stay in the industry. This reflects the practice of mobility among game studios that is not necessarily driven by the desires of the employee, as well as uncertainty among respondents about the stability of their employment into the future. By contrast, self-employed workers expressed a stronger intention to stay self-employed indefinitely (60%) (Figure 9).

These patterns remained the same in 2016 (not shown).

Figure 9

How many years do you expect you'll remain with your current employer, or self-employed? DSS 2015



STUDIO SPECIFICATIONS

Type of Studio

In 2015, just over half of all employee developers reported working for AAA studios (58%; defined as first, second or third-party studios; Figure 10a). On a more granular level (Figure 10b), developers working in AAA studios commonly reported working for second party (publisher-owned) studios (28%), or third party studios (21%). Fewer (9%) reported working for first party studios (those owned by a console manufacturer). Another 29% of employee developers reported working for independent game studios. These figures were roughly the same in 2016.

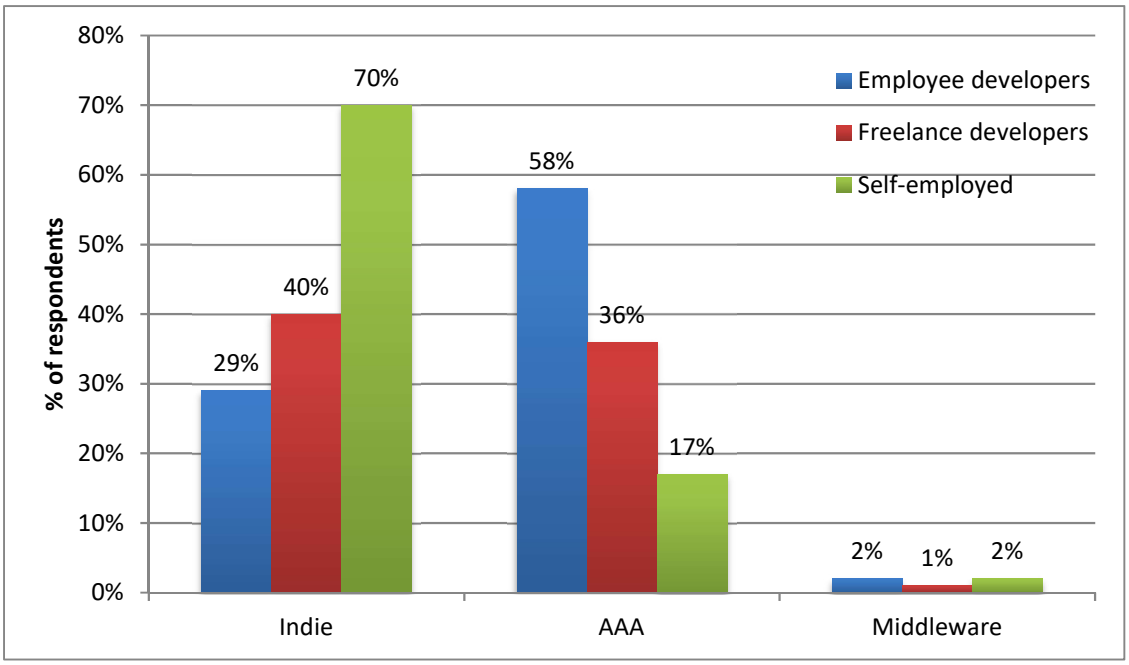
Among freelance developers, about one third reported working for AAA studios (36%) of which 6% worked for first party studios, 12% for second party, and 18% for third party (Figure 10a, 10b). Overall, and in contrast to employees, freelancers reported that they contracted for indie studios more frequently than for AAA studios.

There was a small but noteworthy increase in the percentage of employee and freelance developers working for independent studios between 2015 and 2016. Respondents working for indies increased by 2% for employees and 4% for freelancers (data not shown). This is consistent with findings from the 2014 Employment Report, which noted a possible increase in Indie studios on the scene (Weststar & Legault, 2014).

Unsurprisingly, about two thirds of self-employed respondents said their business was an independent development studio (70% in 2015, Figures 10a and 10b; 64% in 2016). A smaller percentage classified their business as a third party developer (11%; Figure 10b) and even fewer were owners of first and second party studios (4% and 2%, respectively). The self-employed more frequently reported owning studios that do not exclusively make games (7%), or a support services business (3%)(data not shown). There was no major change to this in the 2016 data.

Figure 10a

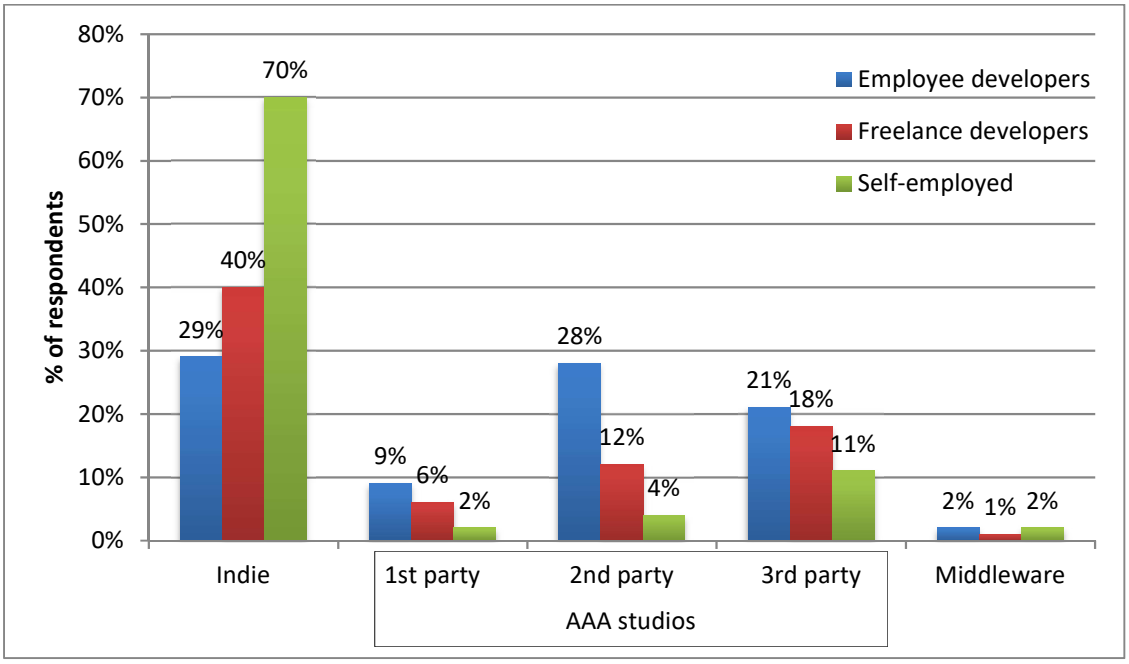
Which of the following best describes the company/business you work for? DSS 2015 (Diverse AAA studios aggregated)



Note: Totals do not equal 100% across each respondent group because the full list of 'company type' options is not shown (e.g., transmedia companies, companies that do not primarily make games)

Figure 10b

Which of the following best describes the company/business you work for? DSS 2015 (AAA studios detailed)



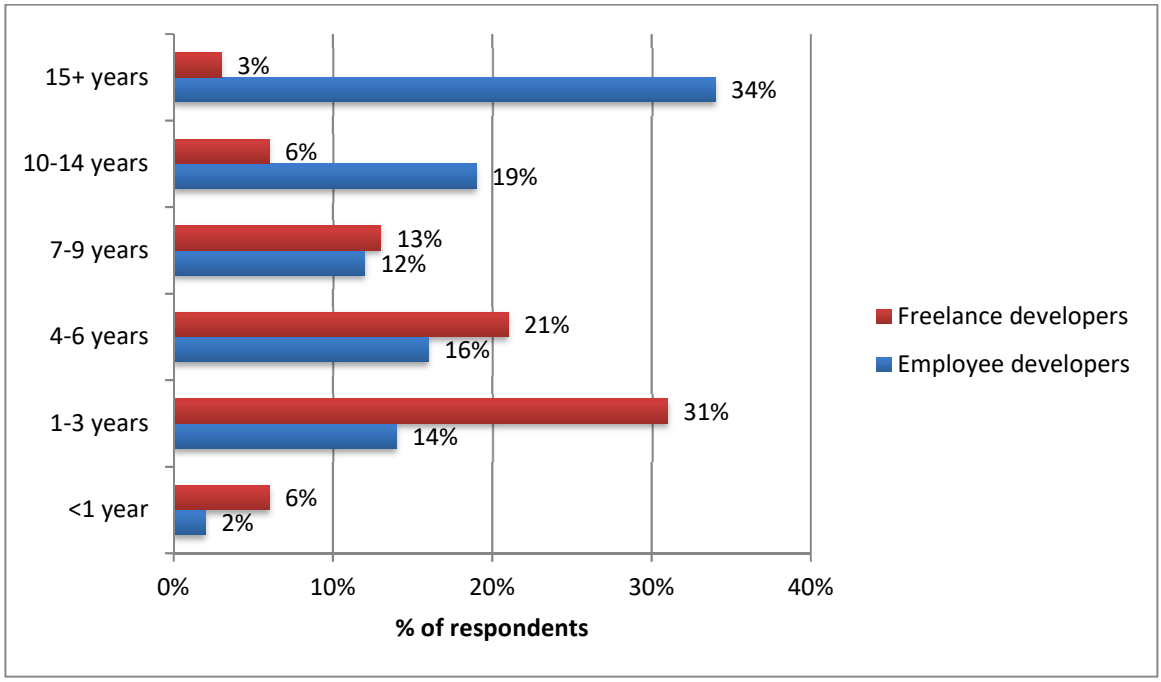
Note: Totals do not equal 100% across each respondent group because the full list of 'company type' options is not shown (e.g., transmedia companies, companies that do not primarily make games)

Studio Age and Size

About one third (34%) of employee developers reported that they worked for studios that have been in operation for 15 years or longer. Freelance developers, however, most often reported that their employer's studio was between one to three years old. This could be attributed to the fact that established legacy studios are in a stronger position to hire permanent employees than newer start-ups. These hiring norms emphasize the precarious position of freelance workers, who are often working for studios without proven solvency (Figure 11).

Figure 11

How many years has the studio you work for or most typically work for been in operation? DSS 2015, Employee and Freelance



Note: In the above chart we do not include self-employed workers because they were asked how many years they had been self-employed and not how many years their studio had been in operation.

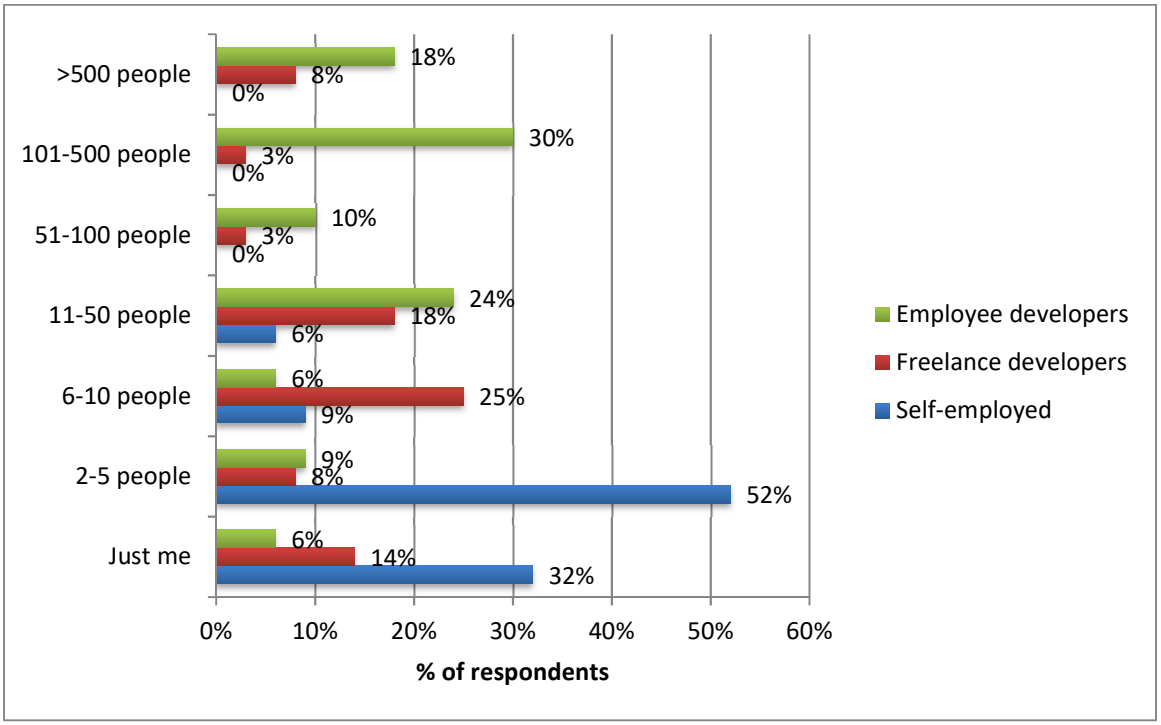
Employee developers were also the group that most commonly reported working for large studios. Almost one third (30%) worked at a studio with between 101 and 500 employees, and an additional 18% worked at a studio of over 500. This makes sense given that the majority of employees reported working for AAA studios. About one third (34%) reported working in mid-sized studios of between 11 and 100 people, and a smaller group (21%) worked at studios with 10 or fewer employees. These results were largely consistent in the 2016 data.

The majority of freelance developers reported working for smaller studios of less than 10 people (67% when combined). Freelancers more often worked at studios with between 2 and 5 people (28%) and this percentage increased by 10% in the 2016 data (38%, data not shown). This makes sense given that freelancers more often reported working for indie than AAA studios, and at younger studios than employees (Figure 10 above). Beyond the noted increase, the 2016 data remained similar.

Like freelancers, the self-employed reported small studios; 84% had less than 6 people. The remaining self-employed respondents (16%) had 6 or more employees/contractors, but no more than 50 (Figure 11).

Figure 11

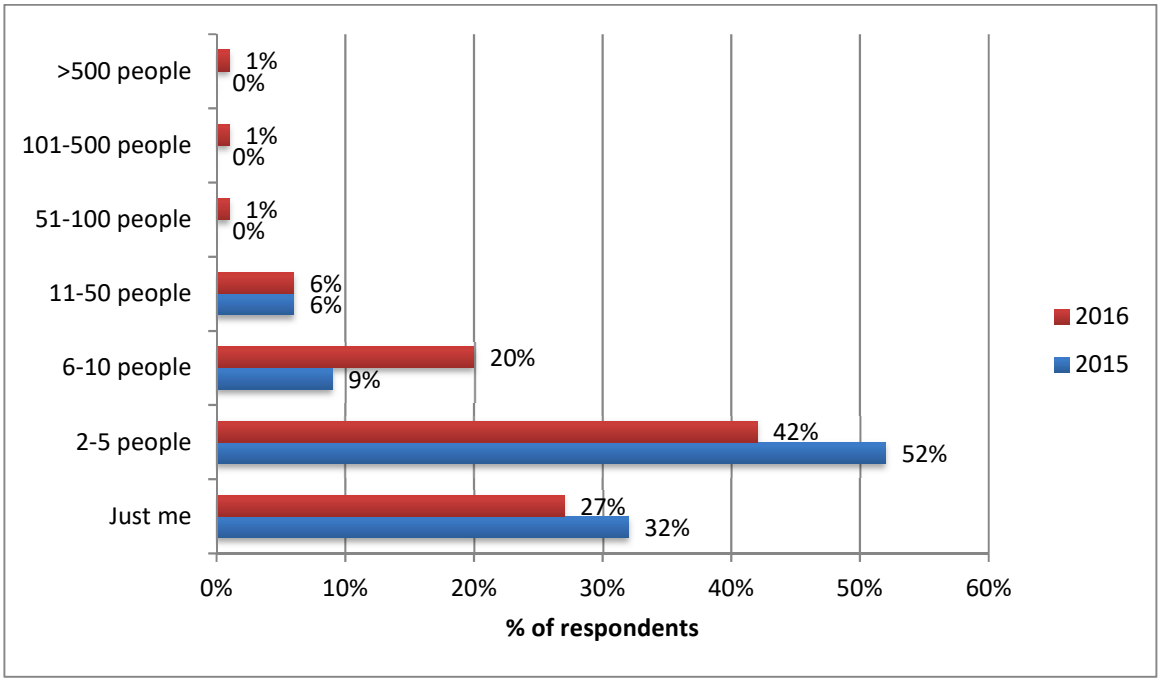
How many people work at your company or the company where you work? DSS 2015



The 2016 data, however, may indicate some business growth among self-employed developers, and thus indie studios. Within this group, the percentage of small studios of less than 6 dropped by 15% in 2016, and the percentage of studios with 6 or more correspondingly increased (Figure 12).

Figure 12

How many people work at your company? DSS 2015, 2016, self-employed

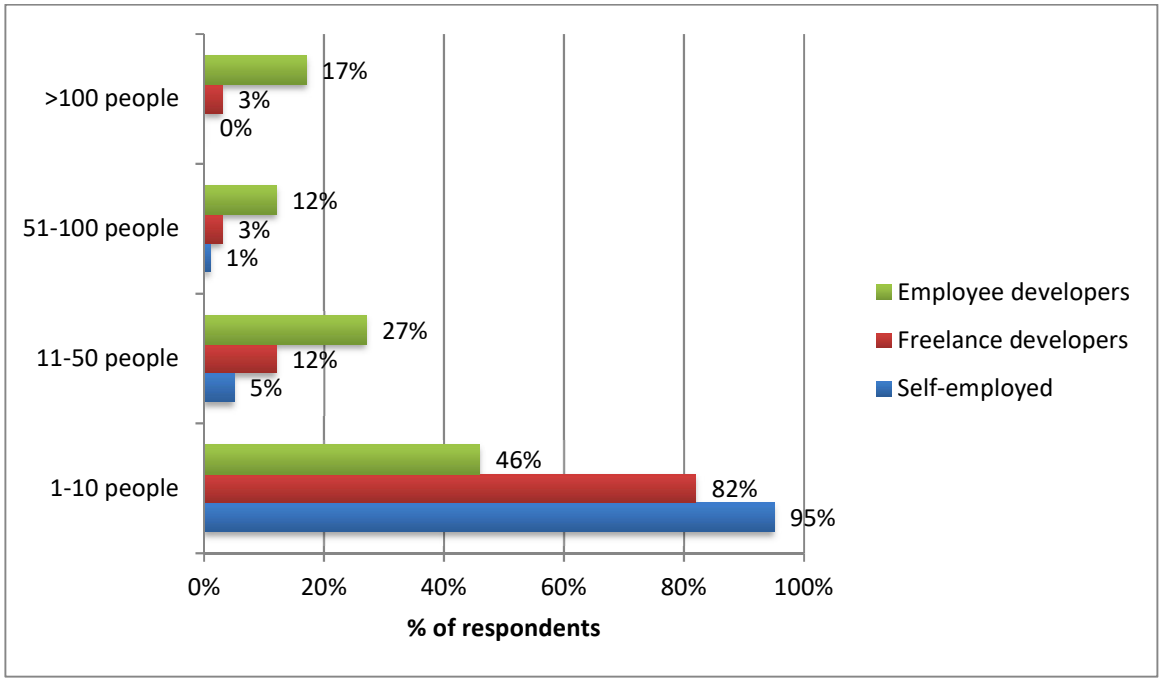


Development teams remain small, but may be growing

Respondents were also asked about the size of the development team at their place of work. The majority of developers worked on teams of between one and ten people (Figure 13). However, in line with the fact that employee developers are more likely to work at larger studios than freelancers and the self-employed, they also reported larger development teams. This reflects the large scale and complexity of development within large AAA studios, where the majority of employees work.

Figure 13

What is the size of the development team on your current (or most typical) project? DSS 2015



In 2016 we saw a slight increase in the average reported size of development teams, across employment type. There was a small but consistent decrease in the percentage of respondents who reported development teams of less than 10 and a small increase in reports of teams between 11 and 50 (Table 21).

Table 21

What is the size of the development team on your current (or most typical) project?

	Employee developers		Freelance developers		Self-employed	
	2015	2016	2015	2016	2015	2016
1-10	46%	38%	82%	77%	95%	94%
11-50	27%	33%	12%	16%	5%	6%
51-100	12%	12%	3%	4%	1%	0%
100+	17%	16%	3%	4%	0%	0%

Note: Totals do not equal 100% due to rounding.

Where the work gets done

Across all employment types it is most typical for video game workers to perform their work in a studio provided by their employer, or from their own home. The vast majority of employee developers (90%) do their game-related work at their employer's studio. Generally, freelance and self-employed developers reported working in a home office (72% and 61% respectively) or in ad hoc spaces around their own homes (16% for both groups) (Table 22).

These percentages were similar in 2016.

Table 22

Where do you typically do your game-related work? DSS 2015

	Employee developers	Freelance developers	Self employed
Employers Studio	90%	34%	34%
Home office	26%	72%	61%
Ad hoc home space	9%	16%	16%
Someone's place	1%	3%	7%
Public space	2%	7%	9%
Co-working space	2%	8%	9%
College/University space	2%	4%	5%
Incubator	1%	2%	3%
Other	0%	1%	1%

Note: Totals do not equal 100% because participants were able to select more than one option.

The employees/contractors of the self employed

Self-employed respondents reported that their employees/contractors typically work from their own homes (63%), in a studio owned by the self-employed respondent (36%), or in the home of the self-employed respondent (22%).

Between 2015 and 2016 there was a slight increase (7%) in reports of employees and/or contracts of the self-employed working in their own homes, and a slight decrease (5%) in reports of them working in the employer's home (Table 23).

Table 23

Where do your employees and/or contractors work? DSS self-employed

	2015	2016
My studio	36%	36%
A dedicated home office in my home	18%	13%
Various ad hoc spaces in my home	4%	3%
Employee's home	63%	70%
Someone's home	3%	2%
Public space	9%	7%
Co-working space	15%	20%
College/university lab	6%	3%
Incubator	2%	3%
Don't know	5%	5%
Other	1%	3%

A growing trend of co-working spaces?

There is evidence to suggest that co-working spaces may be increasingly popular among video game workers, particularly those who are self-employed or working under freelance contracts.

In the 2014 Employment Report it was noted that only 3% of those working in core development roles made use of co-working spaces and 7% of the whole sample (Weststar & Legault, 2014).

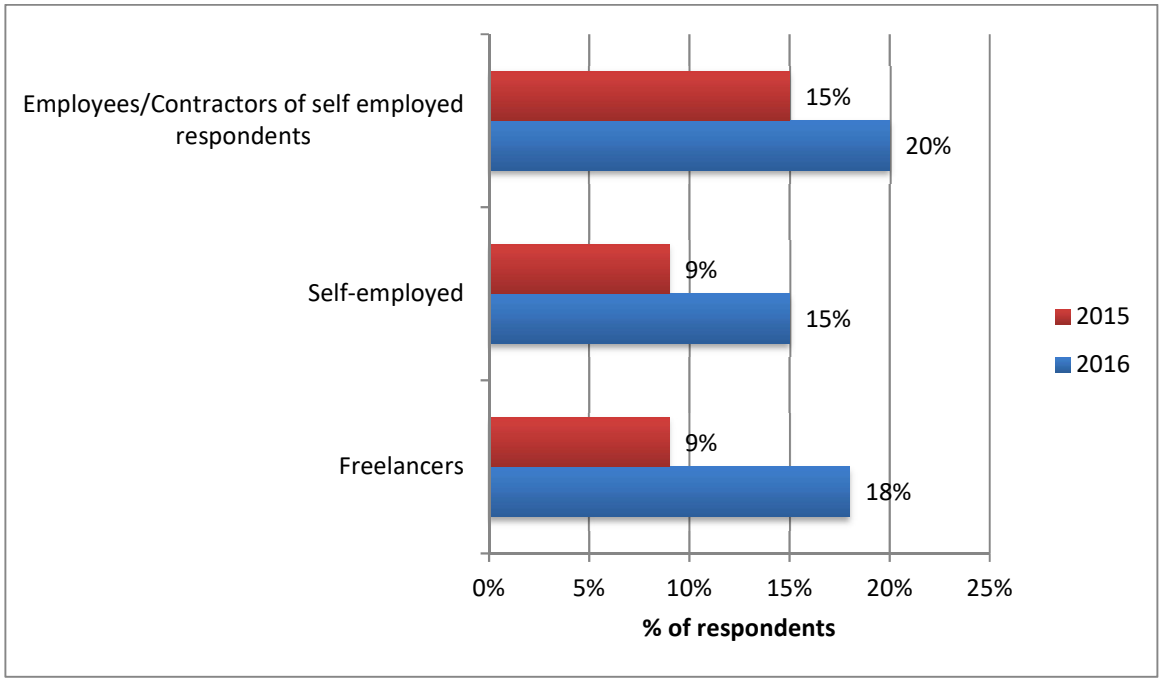
These statistics considered all employment types together and while these figures were consistent among employee developers in 2015 and 2016 (Figure 14), this did not hold true for freelance developers and the self-employed. Since 2014, the DSS has differentiated employee developers from freelance developers and self-employed developers. With these new details we can see the importance of these spaces and a potential growth in usage among the latter two groups.

Interestingly, the percentage of freelance developers who reported using co-working spaces more than doubled between 2015 and 2016. Among the self-employed, 'co-working space' was the third most prevalent option, after home or game studio, and there was a 6% increase in reports of co-working between 2015 and 2016. Furthermore, the percentage of self-employed respondents who reported that their employees/contractors use co-working spaces increased by 5% over the course of the year. These increases among the self-employed have been accompanied by decreases in the use of ad hoc home spaces (by a margin of 10%; see Figure 14 below). There was also a 6% drop in reports of employees/contractors working out of the homes of their self-employed bosses.

This rise mirrors the general trend in the availability of co-working spaces themselves, with many catering directly to the game development workforce. Such spaces serve the growing indie scene where greater numbers of respondents are working for small operators who cannot afford dedicated work spaces for their employees/contractors, but desire and require that their team members are not isolated in their own homes.

Figure 14

Increased use of co-working spaces, DSS 2015 and 2016



WORKING TIME

Regular hours

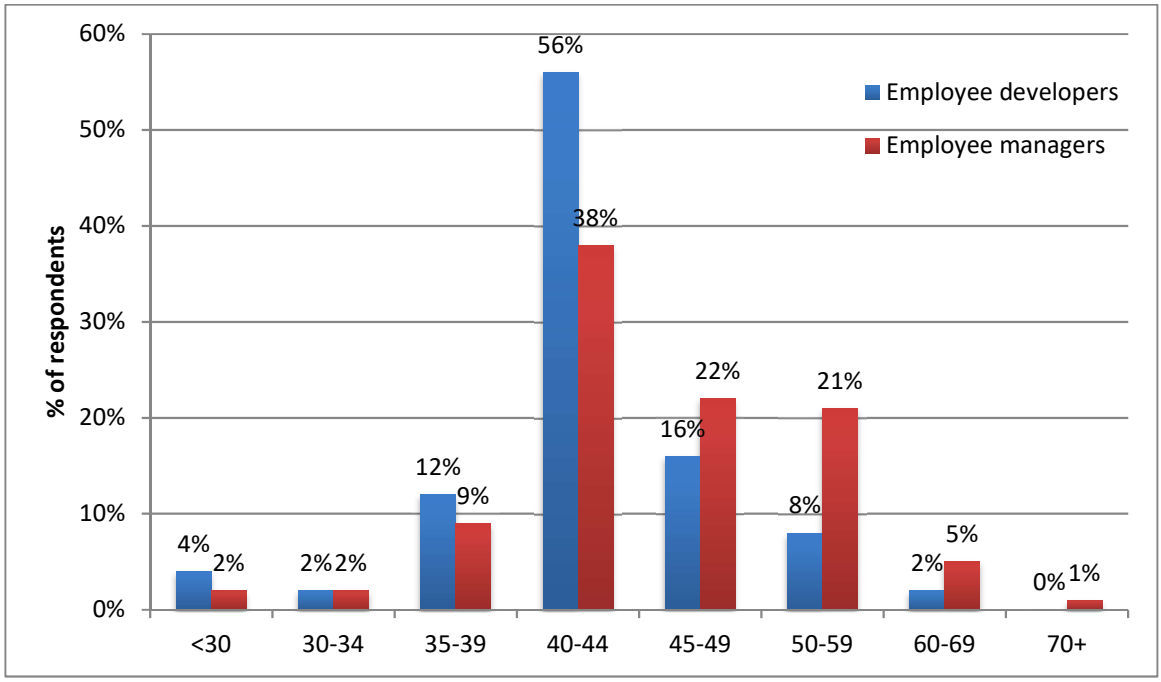
The survey asked respondents to report how many hours they worked in a regular schedule. Most developers are working between 35 to 59 hours a week; 92% of respondents reported working within this range in a regular work week. Developers most commonly worked between 40-44 hours per week in a regular schedule (56%) which is reflective of an average full-time schedule by North American standards (Figure 15). The next most commonly reported ranges were 45 to 49 (16%), 35 to 39 (12%), and 50 to 59 (8%). A much smaller number of employee developers reported working fewer than 35 hours (6%), or more than 60 hours a week (2%) in their regular schedule.

As a group, employee managers reported working longer hours than employee developers; 22% worked 45-49 hours per week while 21% worked 50 to 59 hours (Figure 15). This is indicative of longer average work hours at the management level, though the most common range was still 40-44 hours (38%). These norms

were repeated in the 2016 sample.

Figure 15

Regular hours, DSS 2015, Employees

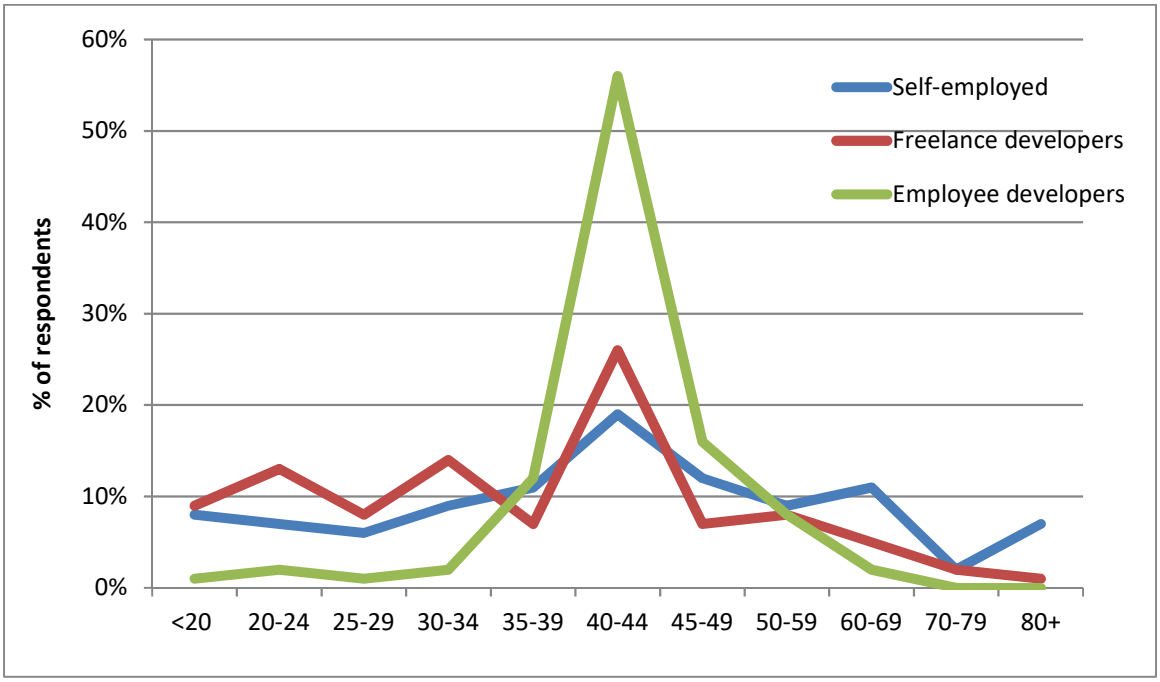


The regular hours of freelance developers were far more dispersed along the spectrum than those of employees. Although the most frequently reported regular work hours were still between 40 and 44 (26%), far more freelancer developers reported working fewer than 35 hours a week (37%), the common benchmark for part-time hours, and far more reported working more than 60 hours (9%) (Figure 16).

Similarly to freelancers, the self-employed reported schedules that ran the spectrum. Self-employed workers did report working 40 to 44 hours most frequently (19%); however, a large percentage reported working less than 35 hours a week (30%), and many more reported working over 60 hours than both employee and freelancer developers (20%). This could reflect an intensified level of work-related demand among self-employed game developers. There was a slight downward change in the 2016 data in this regard, where only 12% of self-employed developers reported working over 60 hours a week during their regular schedule.

Figure 16

Regular hours, DSS 2015



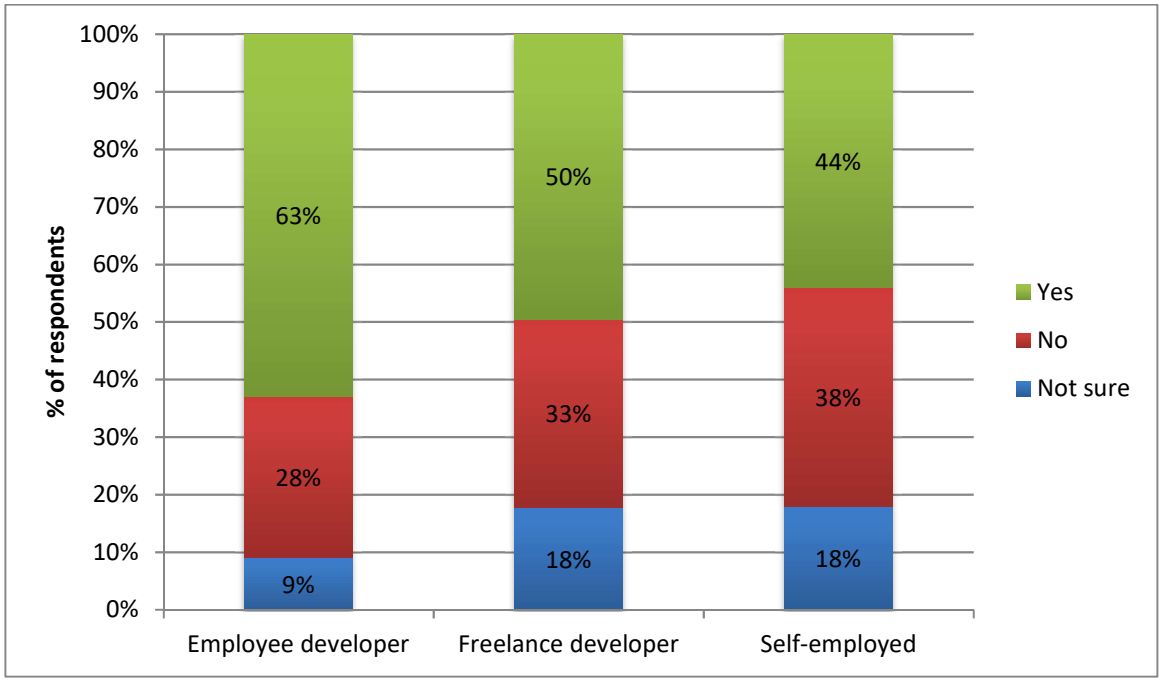
Crunch still common

Crunch time remains a common feature of work in the game industry (Legault & Weststar, 2015). In 2015, the majority of employees (68%), freelance (59%), and self-employed (53%) developers reported that their work involves crunch time. Across employment type, the overwhelming majority also reported that they had experienced crunch time within the past two years; 93% of employee developers; 100% of freelance developers, and 92% of the self-employed.

Developers also frequently reported that crunch time is a normal part of the job; 63% of employee developers, 50% of freelance developers, and 44% of the self-employed said this (Figure 17). The data was similar in 2016.

Figure 17

Do you feel that crunch time or long hours is necessary as a normal part of your job? DSS 2015



In addition to the questions about crunch, survey respondents who said they did not crunch were asked instead if they were required to work long or extended hours that were not considered 'crunch'. Among developers in this group, almost half were engaged in long hours (41% of employees, 41% of freelancers, and 44% of the self-employed). This indicates that the daily demands on developers' time may be even more intense than is reflected in the responses to crunch time questions alone. This was also particularly pronounced among employee managers; among those who said they did not work 'crunch', 50% said that they did work long or extended hours. Overall, this pattern was repeated in 2016.

Crunch time intensity: hours per week

During periods of crunch, 67% of employee developers reported working between 50 and 69 hours a week in 2015. This was also the most frequently reported range among freelance developers and the self-employed (38% and 35%, respectively). However, employees seemed to be the most insulated from the requirement to work very long hours. Only 13% of employee developers reported working over 70 hours a week during crunch, while 27% of freelance developers and 35% of self-

employed respondents reported these extreme hours. The high intensity of hours among the self-employed is most persistent as 30% reported working over 80 hours a week in crunch. These numbers uncover the intense demands of running your own game studio (Figure 18, Table 24).

The 2016 data was similar.

Figure 18

Crunch hours, DSS 2015

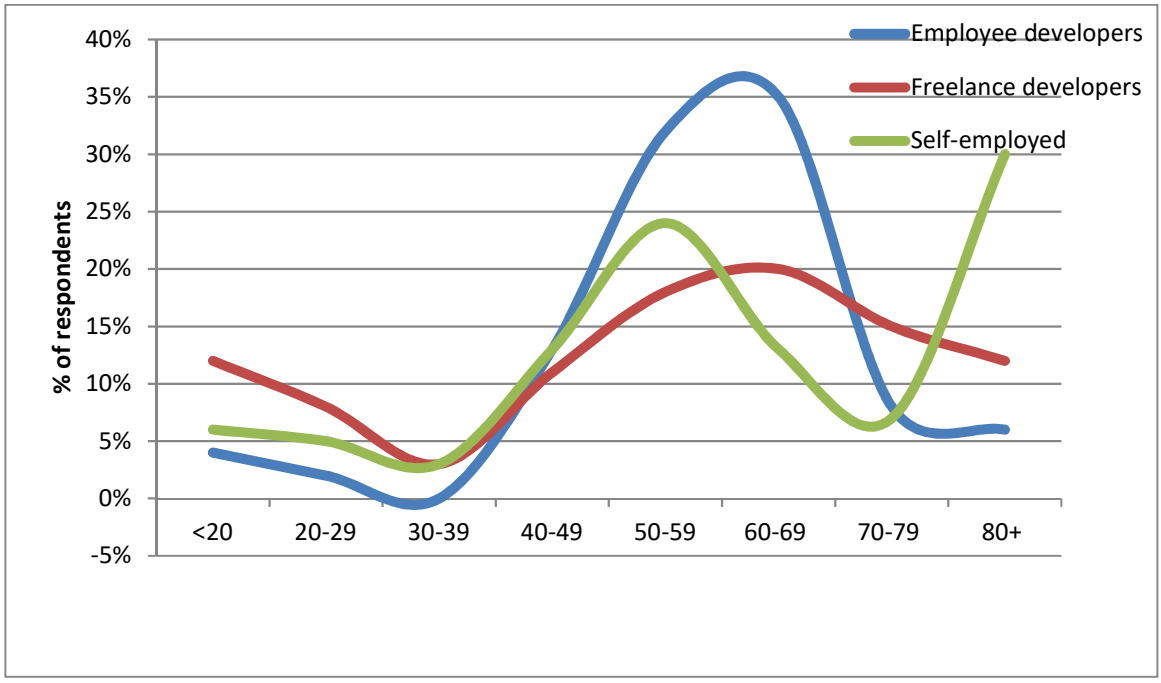


Table 24

Crunch hours, DSS 2015 and 2016

	Employee developers		Freelance developers		Self-employed	
Hours/ week	**2015**	**2016**	**2015**	**2016**	**2015**	**2016**
<20	4%	4%	12%	8%	6%	5%
20-24	1%	1%	5%	0%	3%	2%
25-29	1%	1%	3%	0%	2%	0%
30-34	0%	0%	3%	0%	1%	3%
35-39	0%	0%	0%	3%	2%	2%
40-44	2%	5%	3%	12%	5%	8%
45-49	11%	13%	8%	15%	8%	7%
50-59	32%	36%	18%	23%	24%	23%
60-69	35%	28%	20%	12%	13%	18%
70-79	8%	5%	15%	12%	7%	10%
80+	6%	2%	12%	4%	30%	20%

The effects of crunch on life outside of work

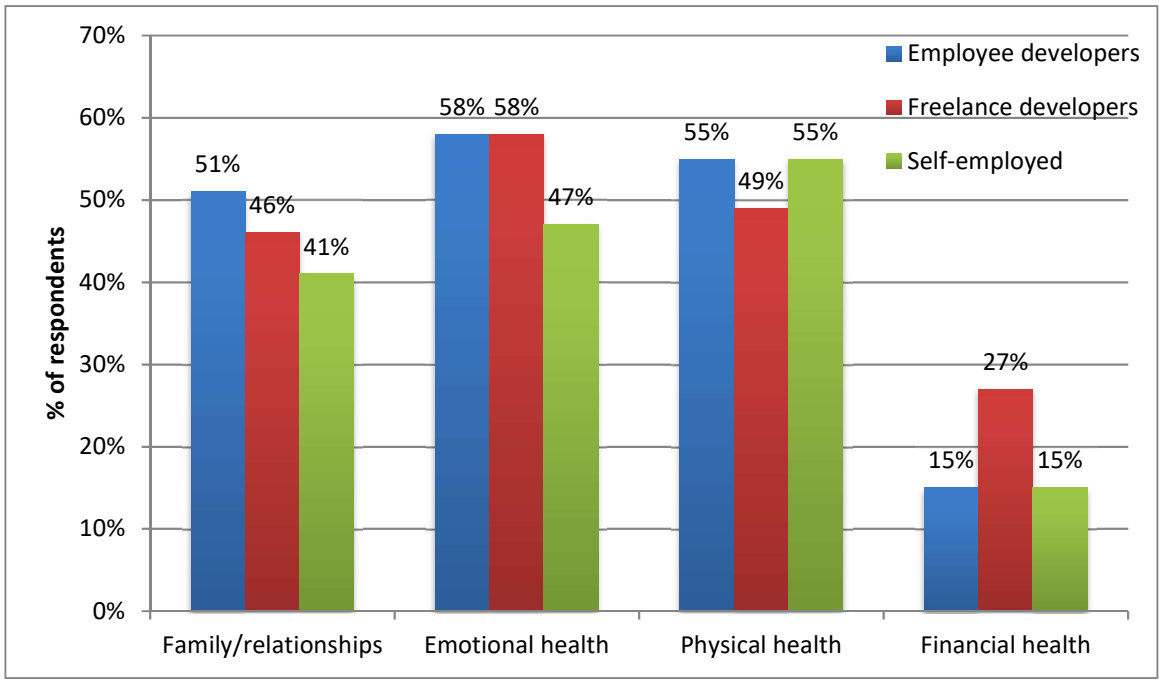
Crunch has implications for work-life balance and, as a result, the general quality of life of industry workers. Among all survey respondents in both years, approximately half reported that crunch has negatively affected their personal relationships, emotional health, and physical health (Figure 19). Least common, were reports that crunch negatively affected the financial health of respondents.

In both years employee developers most frequently reported that emotional

health was negatively affected by crunch (58% in 2015 and 61% in 2016). Physical health was a close second (55% in 2015 and 54% in 2016). For freelancers, emotional health was also the most often selected in 2015 (58%), and personal relationships in 2016 (54%). Among the self-employed, physical health was the most selected in 2015 (55%) and emotional health in 2016 (59%).

Figure 19

Crunch time or long hours at your job have negatively affected your life outside of work. DSS 2015



COMPENSATION

Games industry work is the main source of income for most employees, less for the self-employed

The majority of developers reported that their work in the game industry is their main source of income. Seventy eight percent of employee developers reported earning 100% of their income from their game industry work, and 91% reported earning at least 75% of their income from this work.

Comparatively, only 50% of self-employed respondents reported earning 100% of their income from game industry work and still only 59% reported that they earn 75% or more of their income from this work. The self-employed also reported earning less than 20% of their income from the game industry at much higher rates than employees (25% compared to 3%). This likely reflects entrepreneurial ventures that must be subsidized by full- or part-time, paid employment undertaken elsewhere.

Annual income

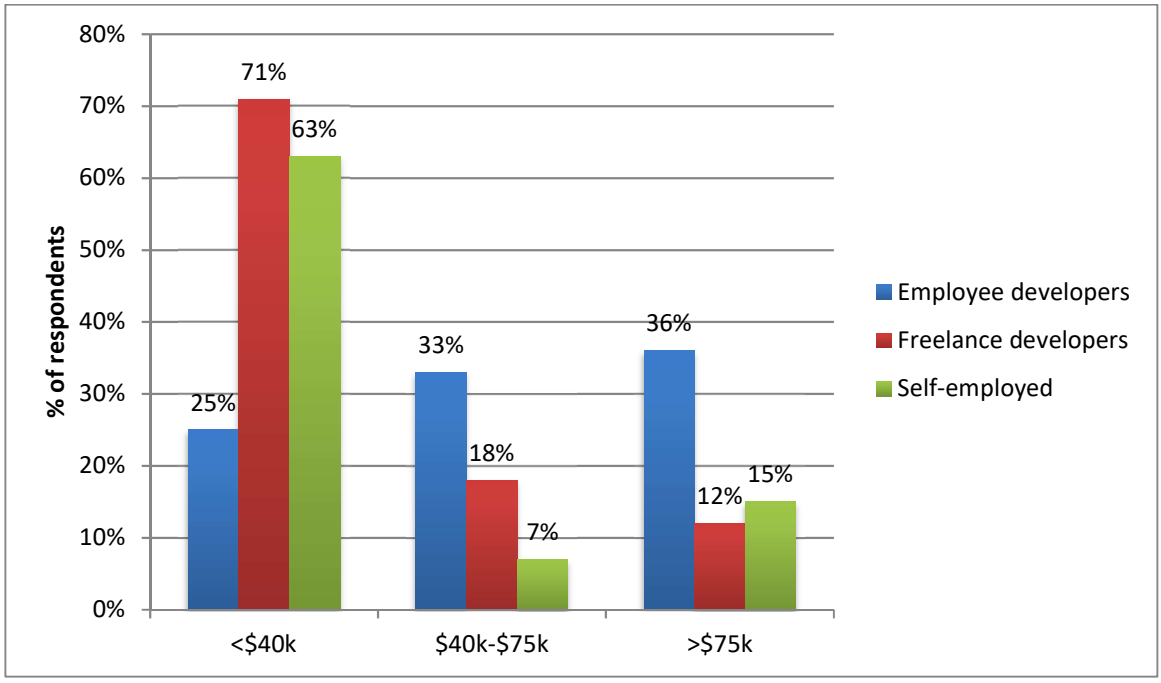
When asked about their yearly income, employee developers reported relatively high annual earnings; 36% reported earning more than $75,000 a year, one third (33%) earned between $40,000 and $75,000, and only one quarter (25%) earned less than $40,000 a year.

Freelancers reported lower incomes than employees, reflecting their marginal and precarious status in the industry. Almost three times as many freelance developers reported earning less than $40,000 (71%) than did employees. A much smaller percentage (18%) reported earnings in the median range of between $40,000 and $75,000, and a slightly smaller group (12%) reported earning more than $75,000 a year (Figure 20).

Similar to freelancers, only 15% of the self-employed reported earning over $75,000 a year, and 7% reported earning between $40,000 and $75,000 a year. The majority of self-employed workers reported earning less than $40,000 a year (63%). More striking among this latter group, 49% reported earning less than $15,000 a year from their games industry work.

Figure 20

What was your personal annual income from all sources related to the game industry in 2014? DSS 2015

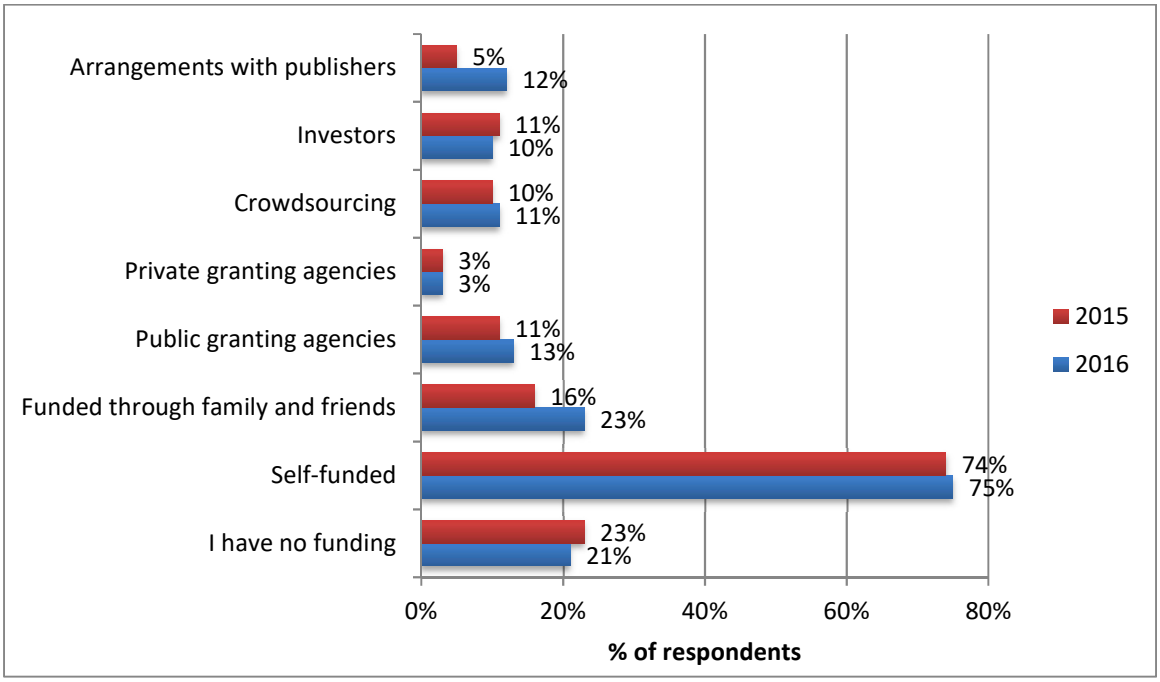


Furthermore, when asked if they forgo their own salary or wages for a studio need, 35% reported doing so at least twice a year. This corresponds with the above noted finding that many self-employed game industry workers do not earn 100% of their income from game-related work, and likely subsidize these ventures with other jobs. In fact, three quarters of self-employed respondents said that they self-fund their businesses (74% in 2015) (Figure 21).

This was also the case in 2016.

Figure 21

What is your source of capital for supporting your company? DSS 2015 and 2016, self-employed



Norms of freelancer pay

Freelance developers were also asked how they were paid for their work. It is typical for freelancers to be paid by the hour (27%), although a similarly large percentage reported being paid per deliverable (24%). Other options included ongoing retainer (7%), and by the day (5%). The majority reported being paid via a combination of these options (31%). The results indicate that compensation norms are not universal in the industry, and can vary dependent upon contract, employer, and project. The percentage of freelancers who selected 'other' nearly doubled between 2015 and 2016 (Table 25), suggesting a need for continued attention to the shifts in freelance compensation packages and their impact. 'Other' responses included revenue/profit sharing, per word, by the month plus future commissions, and gifts.

Table 25

How are you paid for your work? DSS 2015 and 2016, freelancers

	2015	2016
By the hour	27%	28%
By the day	5%	2%
Ongoing retainer	7%	10%
Per deliverable	24%	14%
A combination of the above	31%	32%
Other	6%	10%

Perceptions of compensation

Overall, roughly half of employee and freelance developers felt fairly compensated for the work they do (53% of employees; 45% of freelancers). This positive perception was least strongly felt among the self-employed (34%). In 2015, 23% of self-employed workers did not feel fairly compensated, and this increased to 33% in 2016. This negative perception seems reasonable when we consider the fact that the self-employed reported putting in the most hours, and often reported foregoing their personal salary to maintain their businesses, as discussed above.

Self-employed workers also selected the neutral option more frequently than employees or freelancers when asked if they were fairly compensated for their work (Table 26, Figure 22). Perhaps this indicates that self-employed workers perceive their compensation as an individual and personal responsibility as 'the boss' (i.e. the result of effective contract negotiation, building a client list, and fostering a professional reputation for their business) in a way that renders questions of 'fairness' incongruent. This may contrast with the experiences and perceptions of employee and freelance workers who understand compensation as their employer's or client's responsibility to ensure they secure quality work; therefore, questions of 'fair' compensation become relevant.

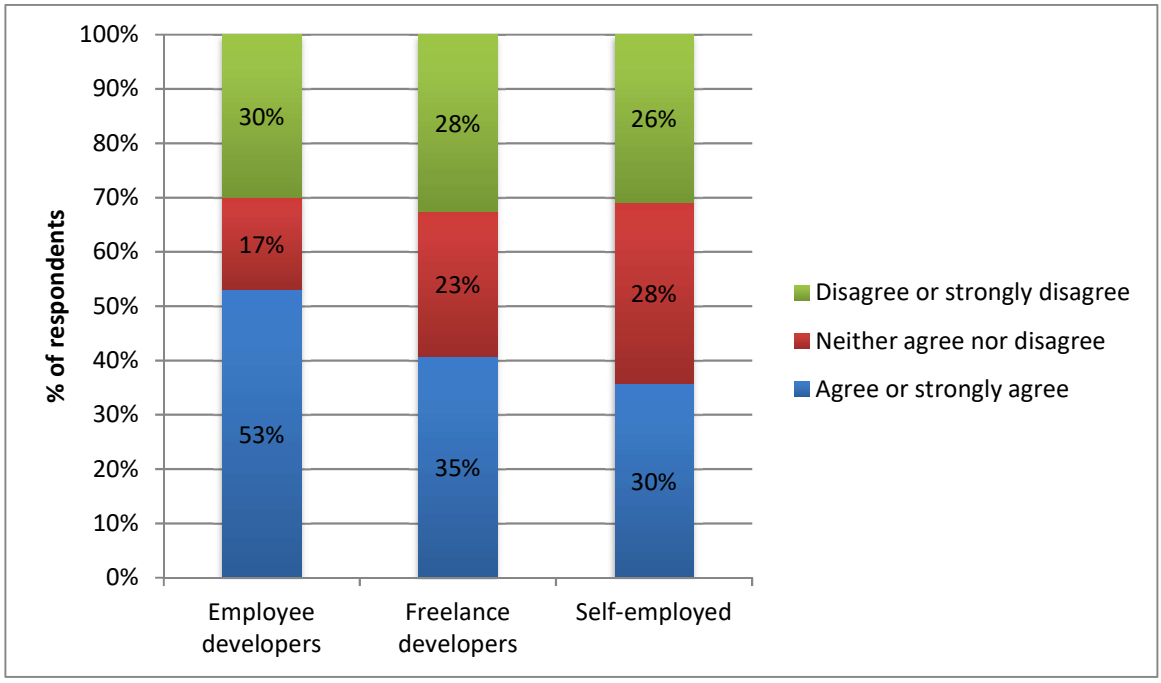
Table 26

Do you feel fairly compensated for the work that you do? DSS 2015 and 2016

	Employee developers		Freelancer developers		Self-employed	
	2015	2016	2015	2016	2015	2016
Strongly agree	15%	13%	8%	18%	15%	13%
Agree	38%	41%	37%	29%	19%	15%
Neither agree nor disagree	17%	16%	23%	25%	40%	24%
Disagree	20%	21%	22%	6%	12%	17%
Strongly disagree	10%	9%	6%	4%	13%	18%

Figure 22

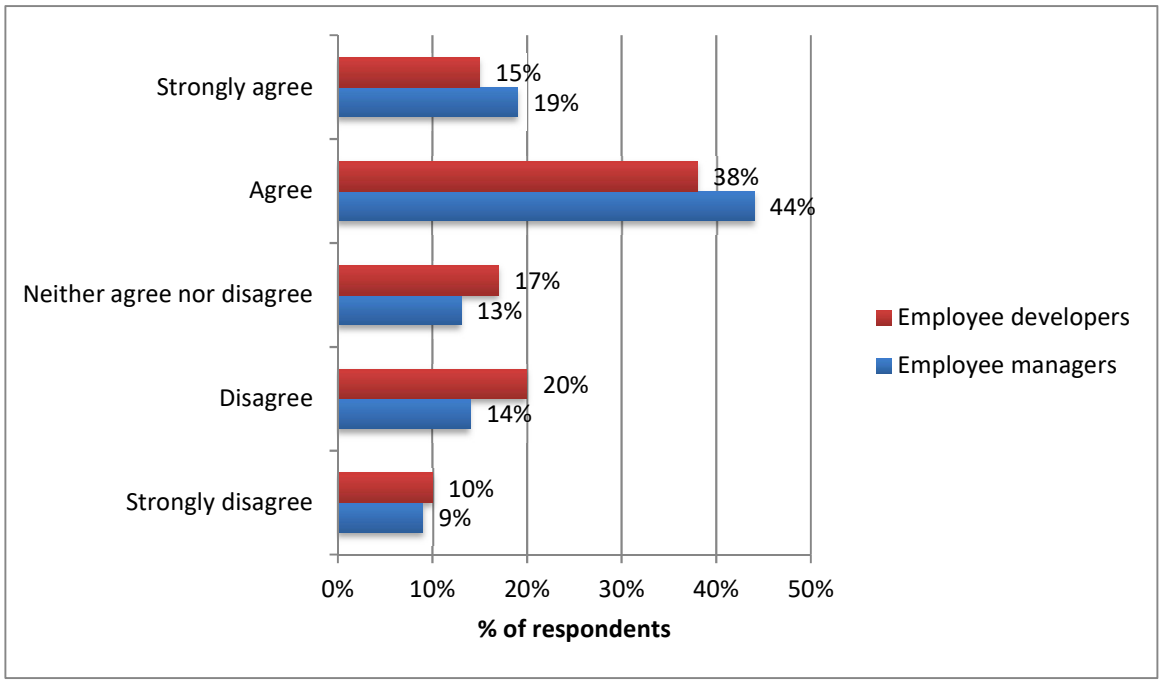
Do you feel fairly compensated for the work that you do? DSS 2015



Among employees, dissatisfaction with compensation is more prevalent among developers than managers (Figure 23).

Figure 23

Do you feel fairly compensated for the work that you do? DSS 2015, Employee developers vs. managers



Raises

In 2015, 17% of employee developers did not receive raises as part of their compensation, and a further 12% indicated that they were not sure if they did. Where raises are part of employee compensation, it was common for them to be awarded based on the judgments of management (21%), and less frequently based on a formula to calculate merit (10%).

These results were similar at the management level, although managers reported being unsure about the protocol for raises less often (5% of managers compared to 12% of developers). This may indicate issues with transparency and a lack of due process with developers being more subject to arbitrary processes (Table 27).

Where self-employed respondents had at least one employee or contractor, they

were asked about the compensation policies they provided. In reporting on these questions throughout the report below, self-employed respondents who have employees or contractors will be referred to as 'self-employed managers' to emphasize their role as decision makers with employees, and to differentiate them from self-employed workers who run a single person micro-business.

Slightly less than one third reported that they did not provide raises as part of their compensation for employees (31%). In the cases where raises were awarded, they were most typically allocated based on the judgments of management (37%). Considerably fewer were awarded on the basis of a formula to calculate merit (3%), or a fixed percentage (2%); this echoes the lack of standardized and systematized processes noted above which is worsened due to the informality typical of smaller organizations. These numbers remained reasonably consistent in 2016 with the one exception that the percentage of the self-employed who reported not giving raises dropped from 31% to 15%.

Table 27

Does your employer/do you provide raises as part of your compensation package? DSS 2015

	Employee		Self-employed
	Developers	**Managers**	**Managers**
No	17%	15%	40%
Yes, based on a formula for merit	10%	12%	6%
Yes, based on a fixed percentage	4%	4%	1%
Yes, based on the judgment of management	21%	22%	28%
Yes, based on a combination of the above factors	35%	42%	26%
Not sure	12%	5%	0%

Performance reviews

Performance reviews are important for worker development, and can result in raises or, at the least, clarify expectations, which might lead to raises or employment stability in the long term. Consistent feedback on performance is important to help developers improve their skills, to build efficiency into production processes, and foster strong teams. In the survey we asked about the consistency with which performance reviews were carried out because ongoing constructive feedback also signals an employer's commitment to their employees and contractors. It suggests an investment in developing workers' skills for future work.

Below we compare the experiences of employee and freelance developers separately from self-employed managers. This is because those who identified as self-employed are in a position to conduct performance reviews, and do not have a superior to conduct a review of their performance. The responses in this group reflect the consistency with which the self-employed *conduct* reviews rather than *receive* them.

For employee developers in 2015, performance reviews typically occurred on an annual (48%), bi-annual (14%), or quarterly (5%) basis. When combined, just over two thirds (67%) of employee developers received consistent performance reviews. Far fewer freelance developers received performance reviews on a predictable basis. Only 14% of freelancers requested or received performance reviews at the end of a contract, 4% received them at regular intervals throughout a contract, and 10% requested or received them a few times throughout the contract.

Among self-employed managers, 18% reported that they conducted annual performance reviews; 9% did so bi-annually, and 2% did so quarterly (Table 28).

The data across all three employment types suggests that more could be done to improve the consistency and frequency of performance reviews. When responses are combined, 32% of employee developers either: did not have performance reviews; had them on an ad hoc or inconsistent basis; or were unsure if reviews happened at all. This trend was even more pronounced among freelancers and the self-employed. Among freelance developers, 72% reported never receiving a performance review. Seventy-five percent of self-employed managers never carried out performance reviews, or did them on an ad hoc/inconsistent basis.

In 2016, there was a 12% decrease in self-employed managers who reported never

doing performance reviews, and a 4% increase in reports of conducting them annually. This may be an artefact of the 2016 sample, but future research should interrogate if smaller or indie studios are beginning to mature and implementing more formal human resource practices such as employee evaluations.

Table 28

How often do you receive/request/conduct performance reviews? DSS 2015 and 2016

Employee developers			Freelance developers			Self employed managers		
	2015	2016		2015	2016		2015	2016
Never	13%	11%	Never	57%	49%	Never	31%	19%
Annually	48%	40%	At the end of a contract	14%	14%	Annually	11%	15%
Bi-annually	14%	14%	A few times throughout the contract	10%	8%	Bi-annually	8%	7%
Quarterly	5%	9%	At regular intervals throughout the contract	4%	2%	Quarterly	5%	4%
Ad hoc or on an inconsistent basis	10%	13%	Ad hoc or on an inconsistent basis	8%	10%	Ad hoc or on an inconsistent basis	45%	25%
My company says they will, but they do not	3%	2%	The company said they would but they did not	2%	2%	--	--	--
Not sure	5%	10%	Not sure	5%	10%	--	--	--
Other	1%	0%	Other	--	2%	Other	1%	12%

Incentives, bonuses and stock options

In 2015, developers most commonly reported that they did not receive incentives, bonus payments or stock options as part of their compensation (39% of employees and 61% of freelancers). An additional 5% of employee developers and 7% of freelance developers did not know if their compensation involved these components. These figures were similar in 2016 (Table 24).

Among those developers who did report receiving incentives or bonuses, employees most often reported receiving a lump sum (31%) or company equity (27%). These types of compensation were more prevalent at the management level. Just under half of employee managers (42%) reported that they received company equity, and 37% received a lump sum. The percentage of employee developers who received a lump sum was 13% higher in 2016.

Table 24

Do you receive incentive/bonus payments or stock options as part of your compensation?
DSS 2015 and 2016

	Employees			
	2015		2016	
	Developer	Manager	Developer	Manager
No	39%	23%	33%	26%
Lump sum	31%	37%	43%	44%
Company equity	27%	42%	24%	30%
Royalties	18%	18%	15%	16%
Other	1%	2%	5%	6%
Don’t know	5%	3%	4%	3%

Note: Totals do not equal 100% because participants were able to select more than one option.

The most common incentive or bonus payments among freelancers were royalties (27% in 2015 and 25% in 2016), followed distantly by a lump sum (10% in 2015 and 8% in 2016) (Table 30).

Table 30

Do you negotiate incentive/bonus payments or stock options as part of your compensation? DSS 2015 and 2016

	Freelance developers	
	2015	**2016**
No	61%	73%
Lump sum	10%	8%
Company equity	9%	2%
Royalties	27%	25%
Other	0%	4%
Don't know	7%	6%

Note: Totals do not equal 100% because participants were able to select more than one option.

In 2015, it was common for self-employed respondents to report that they did not provide incentives, bonus payments or stock options (39%) to their employees or contractors. An equal percentage (39%), however, reported that they provided royalties, 20% provided company equity, and 17% offered a lump sum. In 2016, fewer self-employed managers reported that they provided zero incentives and more provided a lump sum (Table 31). Although this may be an artefact of the data, it may also indicate the maturation of indie games studios.

Table 31

Do you provide incentive/bonus payments or stock options as part of your compensation to your employees? DSS 2015 and 2016

	Self-employed	
	2015	2016
No	39%	29%
Lump sum	17%	30%
Company equity	20%	14%
Royalties	39%	39%
Other	1%	6%

Extra compensation for crunch?

Paying overtime is the most traditional way to compensate hours of work beyond the normal schedule. However, many developers did not receive any form of extra compensation for working overtime hours; 36% of employees and 60% of freelancers received nothing. Similarly, among the self-employed, 37% reported that they did not provide additional compensation to their employees or contractors. In many North American jurisdictions, game developers remain exempt from employment laws that mandate overtime compensation (Legault & Weststar, 2015).

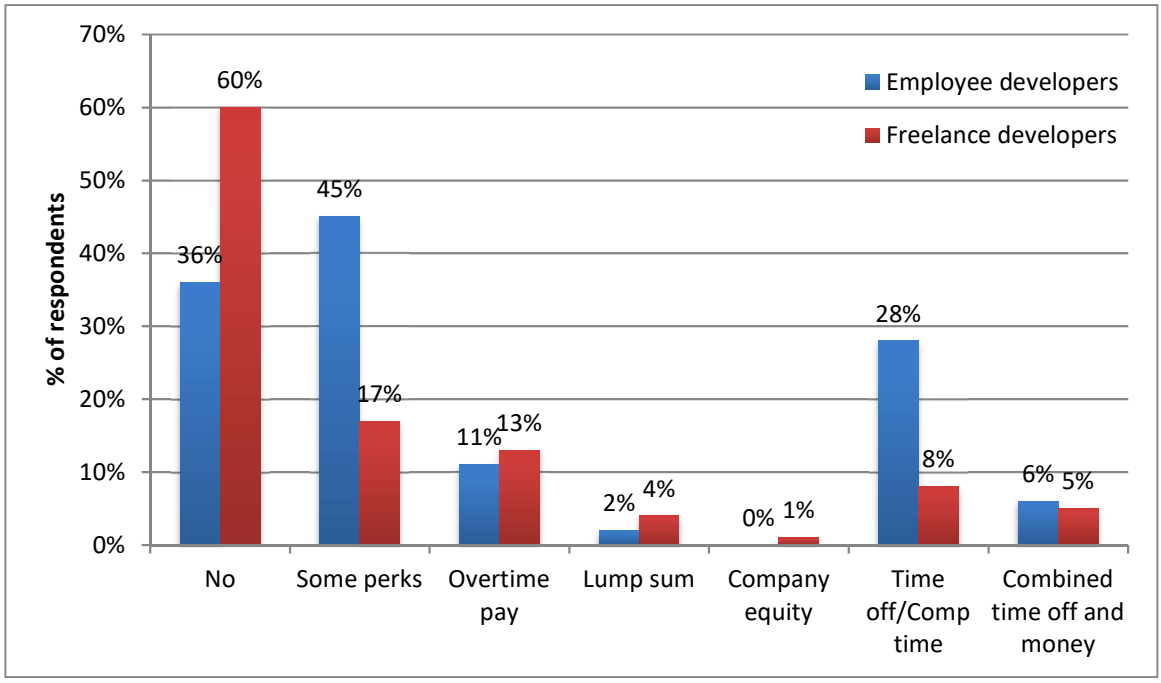
There is some further evidence to suggest that freelancers are particularly vulnerable to under-compensation or over-work. When asked if they had been expected to work unpaid hours on a contract in the past two years, 36% of freelancers said yes.

Among those developers who did report receiving overtime compensation, 'some perks' was the most popular answer across all employment types; 45% of employees and 17% of freelancers received some perks, and 28% of the self-employed managers provided this incentive. Perks on the job such as free meals, alcohol, or social activities are common fringe benefits of many creative industries and they contribute to the glamorous mystique of working within them (Legault & Weststar, 2015). However, it appears that these perks often stand in for real forms of compensation such as money or time off. Workplace perks are a particularly informal way to compensate workers, and it is very unlikely that the value of these

perks is congruent with the value of the labour for which they are exchanged (Figure 25).

Figure 25

Do you get/negotiate extra compensation for working beyond normal office hours/stated hours for your job (i.e. crunch)? DSS 2015



Some employees did receive compensatory time-off for working crunch hours (28%) and 18% of the self-employed managers said they provided time-off for crunch. This is not common among freelancers (8%). This discrepancy is reflective of the precarious experience of project-based freelance work, wherein contracts are temporary and terminated upon completion of the contracted task. 'Time off' is an expense the freelance worker shoulders, and is not paid by an employer with a permanent obligation (Table 32).

These percentages remained roughly the same in 2016 (not shown).

Table 32

Do you provide compensation to your employees for working beyond normal office hours/stated hours? DSS 2015, self-employed

	Self-employed managers
No	37%
Some perks	28%
Overtime pay	8%
Lump sum	2%
Company equity	3%
Time off/Comp time	18%
Combination of time off and money	12%

Comp time for crunch vulnerable to being taken away

Although time off or comp time was a popular form of compensation for crunch, it may be more vulnerable to being revoked than monetary compensation. If a studio becomes busy with a new project, they may not be able to grant the promised comp time for work on a previous project. In 2015, 19% of employee developers indicated that this was the case and 12% noted this issue in 2016. Furthermore, a large portion of the self-employed (55% in 2015 and 41% in 2016) indicated that they have had to cancel scheduled time off because of the demands of a project.

BENEFITS

Paid time off: vacation, sick days, and personal time

Among employees in 2015, 45% reported having a packaged policy concerning time off, wherein they receive a block of paid days off to allocate to absences as they wish. This number dropped slightly to 41% when we looked only at employee developers, suggesting that this flexible packaged policy was slightly more common for workers in management roles. A slightly smaller portion of employees (37%) reported having specifically allocated paid days off (i.e. for illness, vacation, or personal days). This was more common among the developer sample at 43%

than the management sample (31%) (Table 33). This pattern was consistent into 2016.

Table 33

Does your current or typical contract include paid time off? DSS 2015

	Employee			
	2015		2016	
	Developers	Managers	Developers	Managers
Packaged policy	41%	51%	42%	44%
Different reasons for time off are treated separately	43%	31%	45%	42%
I don't get/provide paid time off	5%	5%	4%	3%
Don't know	5%	2%	0%	2%
Other	6%	12%	1%	2%

It was far less common in 2015 for self-employed managers to offer packaged policies. Only 16% reported doing this, while 25% allocated time off separately for specific needs. Indeed, it was most common for self-employed managers to report that they only provided paid time off for legally required statutory holidays (51%). This number improved in the 2016 data as only 22% of self-employed managers provided nothing beyond statutory days (Table 34).

Table 34

Does your current or typical contract include paid time off? DSS 2015, Freelance developers

	2015	2016
No	80%	80%
No, this is included as additional pay (i.e. vacation)	5%	8%
Yes	10%	4%
Don't know	5%	2%

Unsurprisingly given the nature of contract work, the majority of freelance developers did not get paid time off (80%). Five percent did report receiving time off in the form of extra vacation pay, but an additional 5% were unsure if they received paid time off. This was consistent in 2016 (Table 35).

Table 35

Do you provide a package policy for paid time off to employees? 2015

	Self-employed managers	
	2015	2016
Packaged policy for paid time off	16%	24%
Paid time off is allocated separately for different reasons (i.e. sick, vacation)	25%	16%
I don't provide any paid time off beyond statutory days	51%	22%
Other	8%	10%

If respondents reported that their place of work had a packaged paid time off policy, they were also asked what it included. Sick days and vacation days were included most commonly, with employees and the self-employed having these policies almost universally. Personal days and statutory holidays were included

slightly less frequently (Table 36). Interestingly 42% of freelancers reported that they did not know what was included in the paid time off policies of the studios to which they are contracted; this is likely because these policies did not apply to them.

Table 36

What is included/what do you provide in the company's policy on paid time off? DSS 2015

	Employees developers	Freelance developers	Self-employed Managers (provide)
Sick days	93%	64%	95%
Vacation days	96%	64%	95%
Personal days	72%	46%	79%
Statutory holidays	67%	46%	74%
Don't know	3%	46%	5%

Quantity of time off

Among employee developers who had general/unspecified paid time off policies at their place of work, the majority (68%) reported receiving between two and four weeks of paid time off per year. Twelve percent reported receiving more than four weeks. Some employee developers reported an open number of days such that they could take what they needed or wanted (16%) This open policy was even more prevalent among employed managers (33%).

Policies with an unspecified number of days were also common among those employees who received paid time off for specific reasons. While 24% of developers said they were allowed one week of sick time, 36% said they could take as many days as they needed. Employee managers reported more time, with only 16% having one week and 51% saying they could take the days they needed.

Regarding vacation, the majority of employee developers received between two and four weeks of paid vacation time (63%), with two weeks as the most popular

response (28%). Here managers commonly received an open policy of taking the time they needed or wanted (33%).

Paid personal days were less common within both groups;37% of employee developers and 27% of employee managers reported that they did not receive any paid personal days. For those who did receive additional personal days, an open policy was most common for employee managers (40%), while employee developers most commonly received less than one week (20%) (Table 37).

While an open policy concerning paid time off may sound like an ideal situation, we should be cautious about celebrating this norm too enthusiastically. Having no institutionally designated paid time off for illness, vacation, or personal days could easily result in employees not taking needed time away from work for fear of falling behind, appearing uncommitted, or as a result of informal pressure from colleagues and bosses. Take what you need easily becomes a norm of taking none.

The responses for paid days off were roughly similar in 2016.

Table 37

Paid days off, DSS 2015, employees

	Allowed paid time off per year		Paid sick days per year		Paid vacation days per year		Paid personal days per year	
	Devs	Mang	Devs	Mang	Devs	Mang	Devs	Mang
None	--	--	6%	6%	3%	3%	37%	27%
Less than 1 week	1%	0%	8%	4%	1%	2%	20%	13%
1 week	2%	0%	23%	16%	3%	3%	7%	7%
2 weeks	24%	6%	12%	12%	28%	15%	3%	5%
3 weeks	24%	7%	1%	2%	17%	15%	2%	1%
4 weeks	19%	8%	2%	1%	18%	15%	0%	0%

5 weeks	9%	6%	0%	0%	9%	7%	0%	0%
More than 5 weeks	3%	4%	1%	1%	2%	4%	0%	1%
Open policy (as needed / wanted)	16%	15%	36%	51%	14%	33%	17%	40%
Don't know	2%	1%	13%	8%	4%	4%	14%	6%

Freelance developers reported far fewer days off in a regular year than their employee counterparts. Freelance developers rarely took time off work due to illness; 70% reported that they took either zero days or less than one week off for illness. One quarter of freelance developers also reported zero days or less than one week of vacation time and 68% took zero days or less than one week for personal days (Table 38).

Table 38

Paid days off, DSS 2015, Freelance developers

	Weeks of work missed for illness per year	Weeks taken for vacation per year	Weeks of work missed for personal reasons per year
None	24%	15%	30%
Less than 1 week	46%	10%	38%
1 week	13%	19%	19%
2 weeks	8%	22%	5%
3 weeks	3%	15%	2%

4 weeks	2%	8%	0%
5 weeks	1%	4%	0%
More than 5 weeks	1%	3%	2%
Don't know	3%	5%	5%

Similar to freelancers, it was common for self-employed workers to take limited time off; 64% took no time or less than one week for illness, 40% took only one to two weeks of vacation and 66% reported taking zero days or less than a week of additional paid days off.

The lack of time off among self-employed and freelance workers is striking. Rather than being progressive alternatives to traditional employment or employment in larger studios, these working environments appear to be more intense and more precarious (Figure 26, Table 39).

Figure 26

Time off, DSS 2015, self-employed

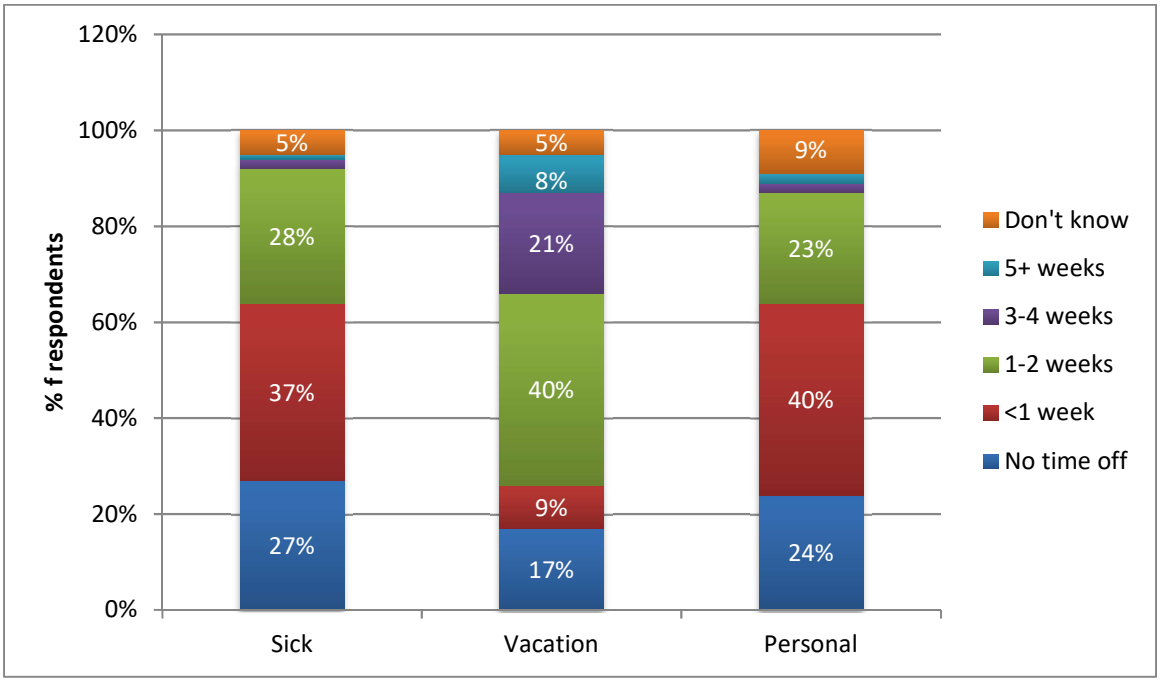


Table 39

Time off, DSS 2015, self-employed

	Weeks of work missed for illness per year	Weeks taken for vacation per year	Weeks of work missed for personal reasons per year
None	27%	17%	24%
<1 week	37%	9%	40%
1 week	16%	13%	18%
2 weeks	12%	27%	5%
3 weeks	1%	12%	1%
4 weeks	1%	9%	1%
5 weeks	0%	5%	1%
>5 weeks	1%	3%	1%
Don’t know	5%	5%	9%

Health coverage and life insurance

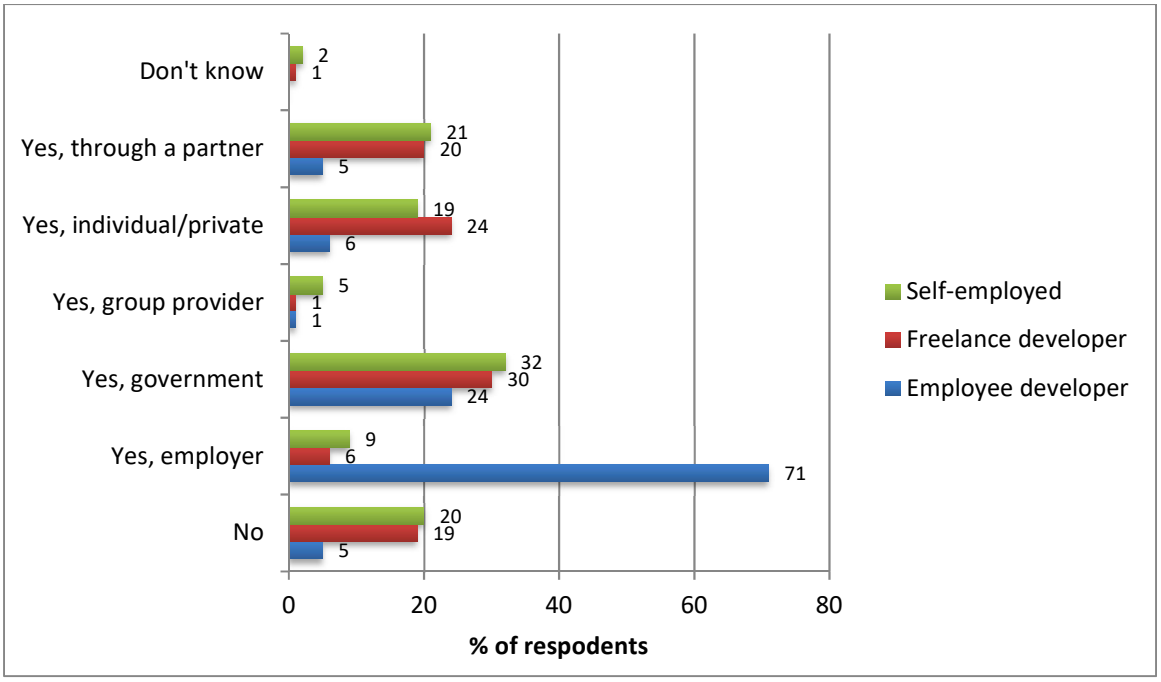
In 2015, most employee developers reported having health coverage through their employer (71%) and/or through the government (24%). A very small group did not have any health coverage (5%).

The responses from freelancers and the self-employed reflected a very different situation. Four times as many freelance developers (19%) and self-employed workers (20%) reported no health coverage. Of those who did have health coverage, it was far more common for these groups to receive health coverage from the government, private insurance, or through a partner or spouse than to have it provided by an employer or client (Figure 27).

In 2016 there was little change, with the exception of a 5% increase in self-employed respondents who did not have health coverage.

Figure 27

Do you currently have health coverage? DSS 2015



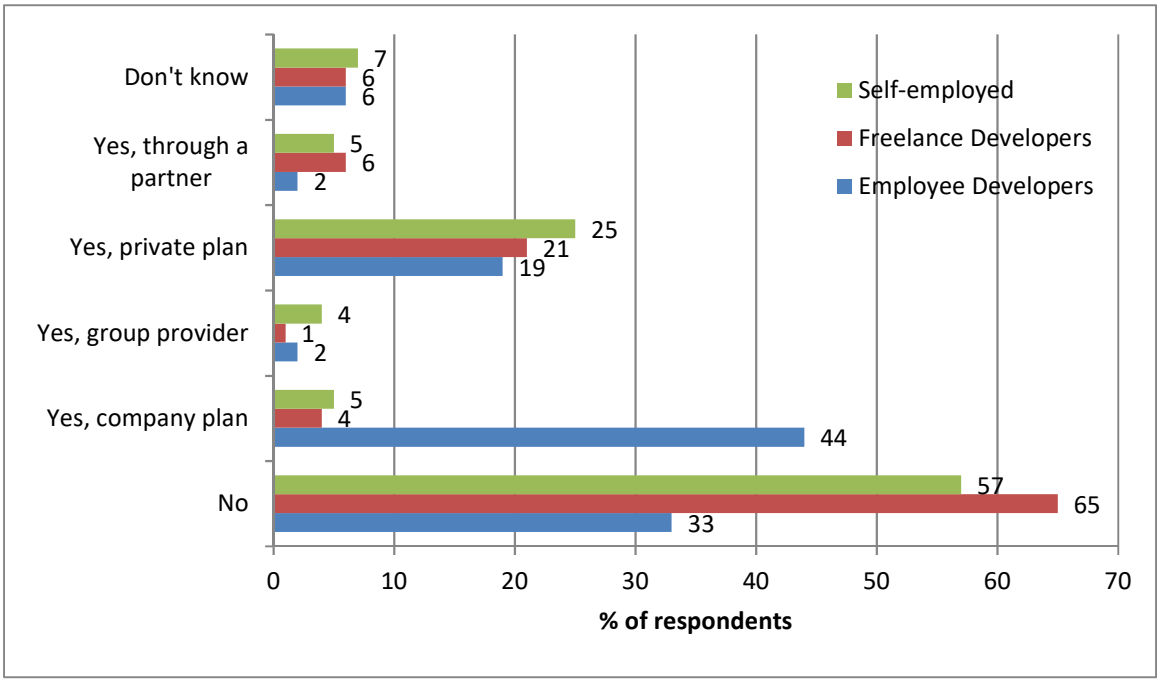
Note: Totals do not equal 100% because participants were able to select more than one option.

Life insurance was less common across all employment types. One third of employee developers, 65% of freelancers and 58% of the self-employed did not have life insurance. Among those who did have life insurance, the majority of employees received it through their employer (44%) or a private plan (19%), while freelancers and the self-employed were most likely to have a private plan (21% and 25%, respectively) (Figure 28).

This data was consistent in 2016.

Figure 28

Do you currently have life insurance? DSS 2015



Retirement and pension plan

Similarly to life insurance, about half of employee developers (52%) received a pension plan from their employer, 25% said that they contributed to a private plan and 21% did not have a retirement program at all. The reverse was true among freelancers and the self-employed where 53% and 54%, respectively, reported no retirement plan at all. Of those who did report having a retirement plan the most common response was through a private plan (34% of freelancers and 25% of the self-employed). These trends continued in 2016, with the one exception that 13%

more freelance developers reported receiving a pension plan through the government (Table 40).

Table 40

Do you currently have a retirement or pension program? DSS 2015

	Employee developers		Freelance developers		Self-employed	
	2015	2016	2015	2016	2015	2016
No	21%	21%	53%	40%	54%	49%
Yes, through employer	52%	51%	6%	4%	7%	10%
Yes, through group provider	2%	2%	3%	0%	4%	3%
Yes, through government	17%	23%	8%	21%	17%	16%
Yes, through private plan	25%	25%	34%	35%	25%	24%
Yes, through partner	1%	2%	1%	0%	5%	4%
Don't know	2%	2%	1%	2%	2%	1%

Pregnancy leave, parental leave, and childcare

Pregnancy leave, parental leave and childcare are low on the radar for most game studios. Just over one quarter of employee developers (27%) reported that their employer provided paid pregnancy leave, and 23% said paid parental leave is provided. Half as many reported that they received a combination of employer and government subsidized pregnancy leave (14%) or paternal leave (12%). Some reported that their employer does not provide any pregnancy (6%) or parental leave (11%), but the majority did not know one way or another (42% for both pregnancy, and parental leave) (Table 41).

The fact that few respondents were aware of these policies both reflects and

reproduces the norm of a disproportionately young and male workforce. Better communication about these policies and programs would help workers - and, in particular, women workers - make informed decisions when planning for their careers and lives outside of work.

Table 41

Does your employer provide pregnancy and/or parental leave? DSS 2015

	Maternity/Pregnancy leave		Paternal/Parental leave	
	2015	**2016**	**2015**	**2016**
No	6%	3%	11%	7%
Yes, unpaid	3%	3%	4%	3%
Yes, paid by employer	27%	22%	23%	19%
Yes, paid by government	9%	12%	8%	11%
Yes, paid by employer and government	14%	15%	12%	14%
Don't know	42%	36%	42%	38%

It was also not common for employers to provide daycare; 78% of employee developers do not have daycare provided by their work, and, again, reflecting the general lack of knowledge surrounding family planning issues, 18% did not know if daycare was offered. While the workforce is young, and few reported having children, limited access to employer-supported daycare does little to ease women's access to the industry (Table 42).

The figures were similar in 2016.

Table 42

Does your employer provide daycare? DSS 2015

	2015	2016
No	78%	79%
Yes, fully paid by employer and onsite	1%	0%
Yes, fully paid by employee and onsite	>1%	1%
Yes, cost shared with employer and onsite	1%	1%
Yes, fully paid by employer and off-site	>1%	>1%
Yes, cost shared with employer and off-site	2%	3%
Don't know	18%	13%

Miscellaneous benefits

As shown below, flex hours and telecommuting are very common perks of working in the game industry. Free drinks, fancy coffee, and a gaming lounge were also commonly cited. Arguably more important services, however, such as legal/financial services, an employee assistance program, health care spending account, or professional development funds, were less prevalent (Table 43). Employees most often reported access to these resources while freelancers least often reported receiving benefits in most categories.

Table 43

Does your employer provide / do you have access to / do you provide any of the following incentives or resources? DSS 2015

	Employee developers		Freelance developers		Self-employed	
	2015	2016	2015	2016	2015	2016
Flex hours	79%	70%	55%	54%	74%	76%
Telecommuting	48%	45%	65%	58%	78%	63%
Shuttle/transportation	9%	14%	7%	4%	8%	3%
Cafeteria (paid by workers)	27%	23%	9%	2%	5%	4%
Catering/meals (paid by company)	33%	27%	13%	8%	17%	13%
Free water/drinks	80%	81%	37%	27%	55%	47%
Fancy coffee/espresso	58%	60%	28%	8%	31%	22%
Gym/sports facility	32%	35%	7%	4%	3%	5%
Game/arcade lounge	54%	56%	21%	8%	23%	22%
Massage	20%	20%	4%	2%	4%	3%
Open pet policy	12%	19%	10%	8%	25%	15%
Employee assistance program	26%	24%	4%	4%	4%	5%
Health care spending account	41%	40%	2%	0%	2%	3%
Professional development funds	25%	23%	9%	2%	16%	18%

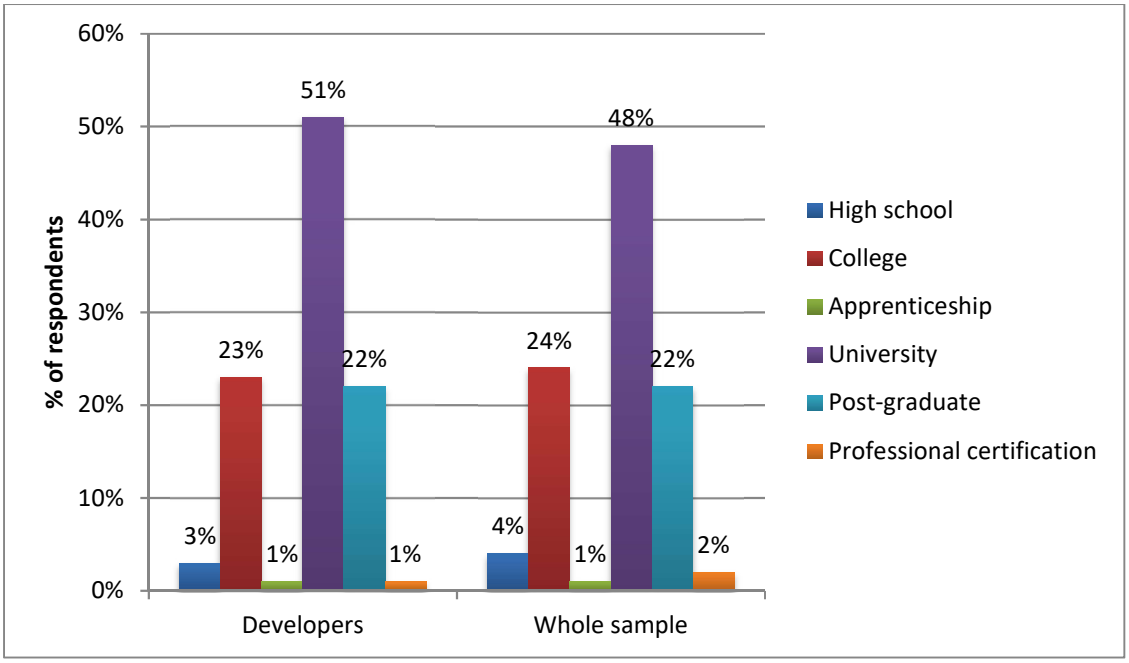
Conference travel	46%	46%	20%	15%	38%	38%
Wellness program/funds	26%	26%	7%	2%	4%	6%
Legal/financial services	21%	19%	5%	0%	8%	5%
On-site medical	37%	39%	4%	2%	3%	4%

EDUCATION

Similar to reports in previous years (Weststar & Legault, 2014), the most common avenue into the game industry was through completing a university degree. In both 2015 and 2016 almost half of developers reported that a university degree was their highest level of education (48% and 46%, respectively) (Figure 29).

Figure 29

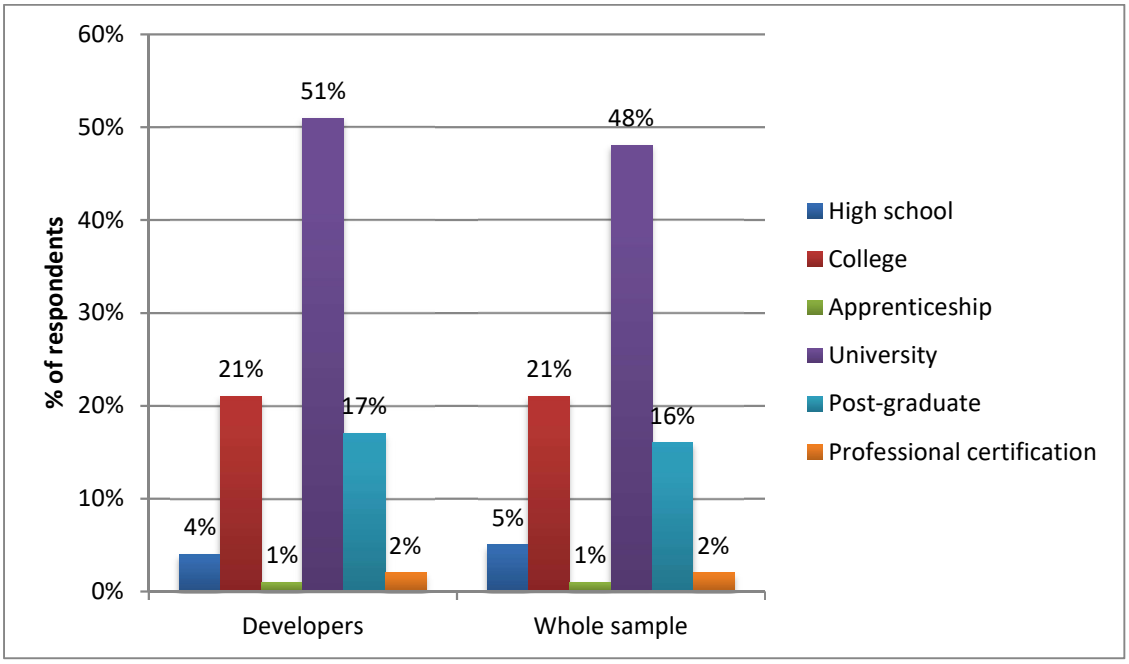
Highest level of education, DSS 2015



These numbers were only slightly higher compared to other jobs within the industry, with 44% of the 2015 whole sample and 40% of the 2016 whole sample reporting that a university degree was their highest level of education (Figure 30).

Figure 30

Highest level of education, DSS 2016



The education attained by the majority of developers was directly or somewhat related to game design or development (81% in 2015 and 68% in 2016). For respondents who worked outside of core development jobs, it was more commonly reported that their education was not related to game development or only somewhat relevant (Table 44).

Table 44

Degree and Diploma Specification, DSS 2015, 2016

	Developer 2015	Whole Sample 2015	Developer 2016	Whole Sample 2016
No, not at all relevant to game design/development	19%	28%	16%	19%
Yes, directly relevant to game design/development	35%	28%	33%	31%
Yes, somewhat relevant to game design/development	46%	43%	35%	36%

More than half of the whole sample of survey respondents (55% in 2015 and 52% in 2016) indicated that they did not complete any additional formal schooling or training related to their work in the games industry outside of the diploma or degree they had already received. For those who did continue with additional education, the most common form across the whole sample was through employer provided or sponsored training (15%-17%) or through internships (12-14%). Forty-two percent of the whole sample in 2015 and 45% in 2016 indicated that their additional education was accredited (Table 45).

The data are similar across the developer samples.

Table 45

Have you completed any additional schooling or training related to your work in the game industry?

	Developer 2015	Whole Sample 2015	Developer 2016	Whole Sample 2016
No	54%	55%	56%	52%
High school courses	4%	5%	3%	5%
College courses	9%	10%	9%	9%

University courses	11%	9%	9%	11%
Post graduate courses	6%	6%	6%	6%
Professional certifications/licenses	8%	11%	10%	13%
Employer provided/sponsored training	14%	15%	14%	17%
Internship	14%	12%	13%	14%

WORK/LIFE BALANCE

Quality of life

Overall, most respondents suggested that they were happy with their current quality of life. In 2015, 68% of developers and 73% of managers reported that their quality of life was either 'somewhat' or 'very' positive. This increased to 73% for developers and decreased to 69% among managers in 2016 (Table 46).

Table 46

What is your current quality of life? DSS 2015 and 2016

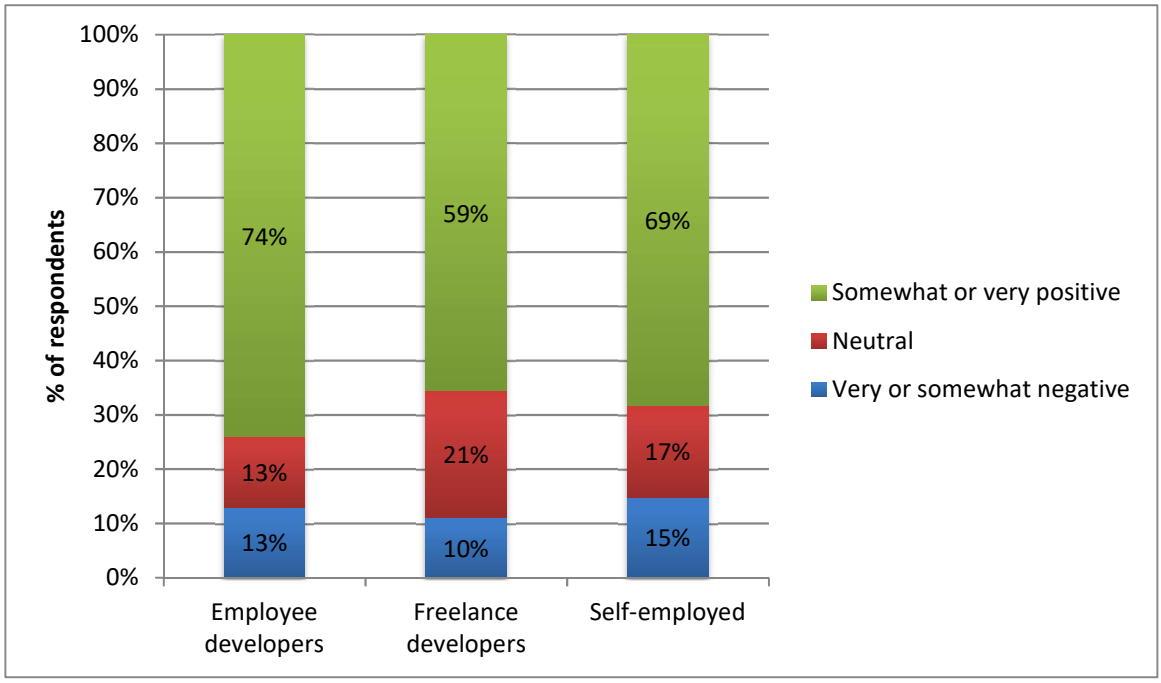
	Developers		Managers	
	2015	**2016**	**2015**	**2016**
Very negative	3%	2%	4%	3%
Somewhat negative	13%	11%	8%	16%
Neutral	17%	13%	15%	10%
Somewhat positive	38%	37%	38%	25%
Very positive	30%	36%	35%	44%

Comparatively, in 2015 freelancers were the group who felt least positive about their quality of life; they selected 'very positive' less frequently than both self-employed workers and employees by at least a 13% margin (Figure 31).

This difference was not present in the 2016 data, however.

Figure 31

What is your current quality of life? DSS 2015



Relocating

While industry workers were relatively positive about their job satisfaction and general quality of life, the survey also asked about other factors that can impact work-life balance and overall quality of life. Nearly one quarter of employee developers (22% in 2015 and 21% in 2016) reported that they have had to live apart from a partner or spouse because of work (Table 47).

This was also true among managers (data not shown). Among self-employed workers, 13% in 2015 and 21% in 2016 also reported living apart from a spouse due to work.

This was more pronounced among managers (18% in 2015 and 24% in 2016 (data

not shown).

Table 47

Have you ever had to live apart from a spouse or partner due to work? DSS 2015 and 2016

	Employee developers		Self-employed	
	2015	2016	2015	2016
Yes	22%	21%	13%	21%
No	78%	79%	87%	79%

Many developers have also had to relocate at least once in the past five years for work, reflecting the high mobility and globalized business activities of the industry. This was particularly true among those working as employees. In 2015, nearly half of employee developers (44%) and 30% of freelance developers reported relocating at least once in the past five years. Relocation was less common among the self-employed (22%)(Table 48).

The fact that employees are the most likely to uproot themselves may reflect the desirability of these stable permanent employee positions. Industry workers are willing to change locations to get or keep them.

Table 48

How often have you had to relocate for work in the past five years? DSS 2015, developers only

	Employee developers	Freelance developers	Self-employed
None	57%	70%	78%
Once	30%	21%	12%
Twice	9%	6%	6%
More than twice	4%	3%	4%

In 2016, fewer freelance respondents reported relocating, and more self-employed respondents did. As the whole sample includes managers, we can also notice that managers do not differ much from developers, which is a feature of this industry in many cases, although we must not assume that it is always the case.

Table 49

How often have you had to relocate for work in the past five years? DSS 2015 and 2016, whole sample

	Employee		Freelance		Self-employed	
	2015	2016	2015	2016	2015	2016
None	56%	58%	67%	81%	78%	64%
Once	30%	26%	23%	12%	12%	18%
Twice	10%	8%	8%	4%	6%	2%
More than twice	5%	5%	2%	4%	4%	5%

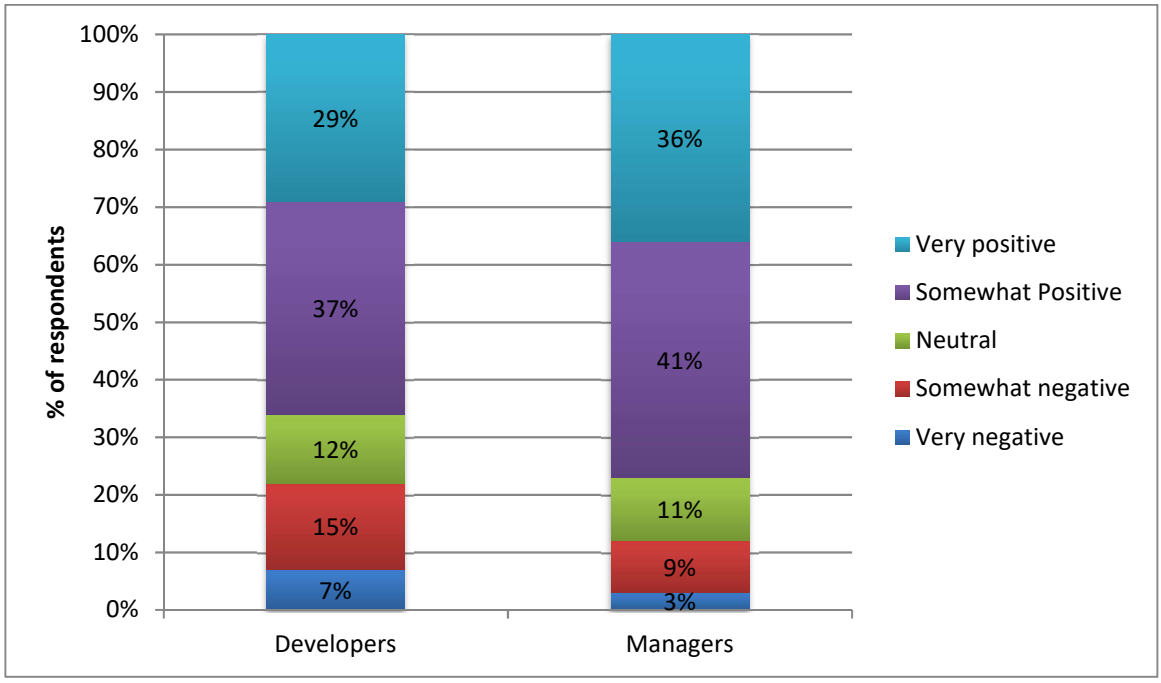
OVERALL JOB SATISFACTION

In 2015, overall job satisfaction was relatively high in 2015; 66% of developers and 77% of managers reported being 'somewhat' or 'very' satisfied with their job (Figure 32).

In 2016, these numbers increased slightly to 71% among developers, and 76% among managers (not shown).

Figure 32

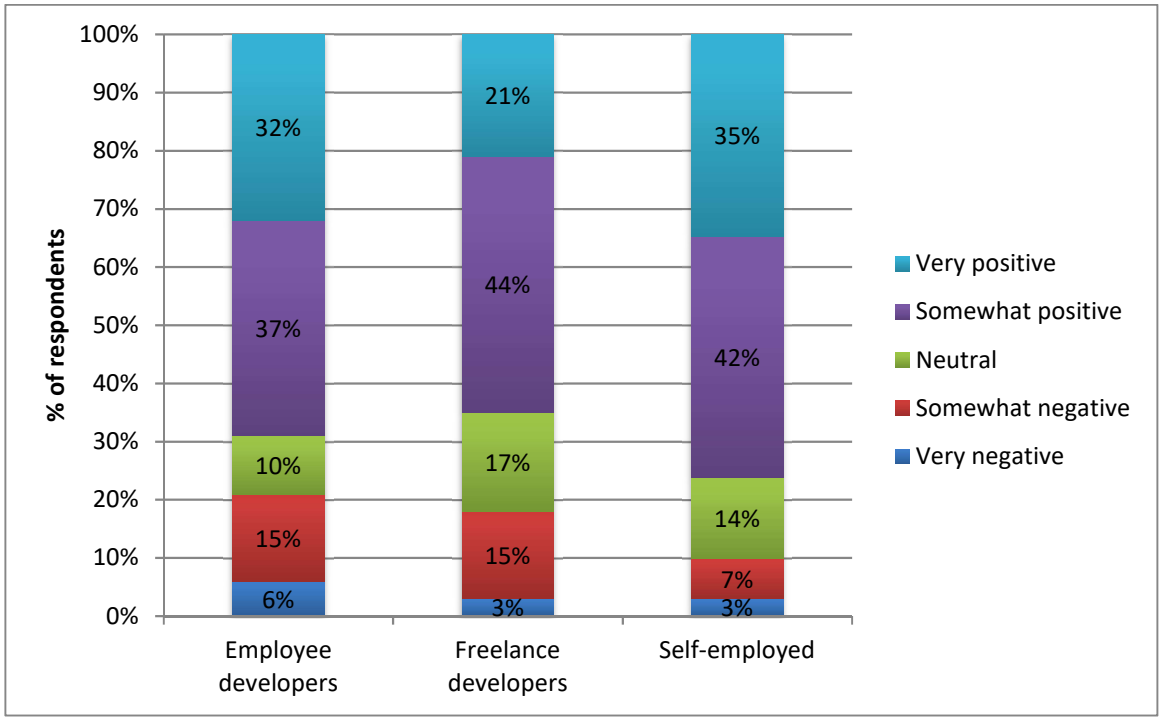
Please rate your overall job satisfaction, DSS 2015



Across employment type in 2015, 69% of employee developers, 65% of freelance developers, and 77% of the self-employed reported being somewhat or very satisfied with their job. Employee managers reported higher rates of job satisfaction than their developer counterparts by 11% in 2015 and 5% in 2016 (Figure 33).

Figure 33

Please rate your overall job satisfaction, DSS 2015



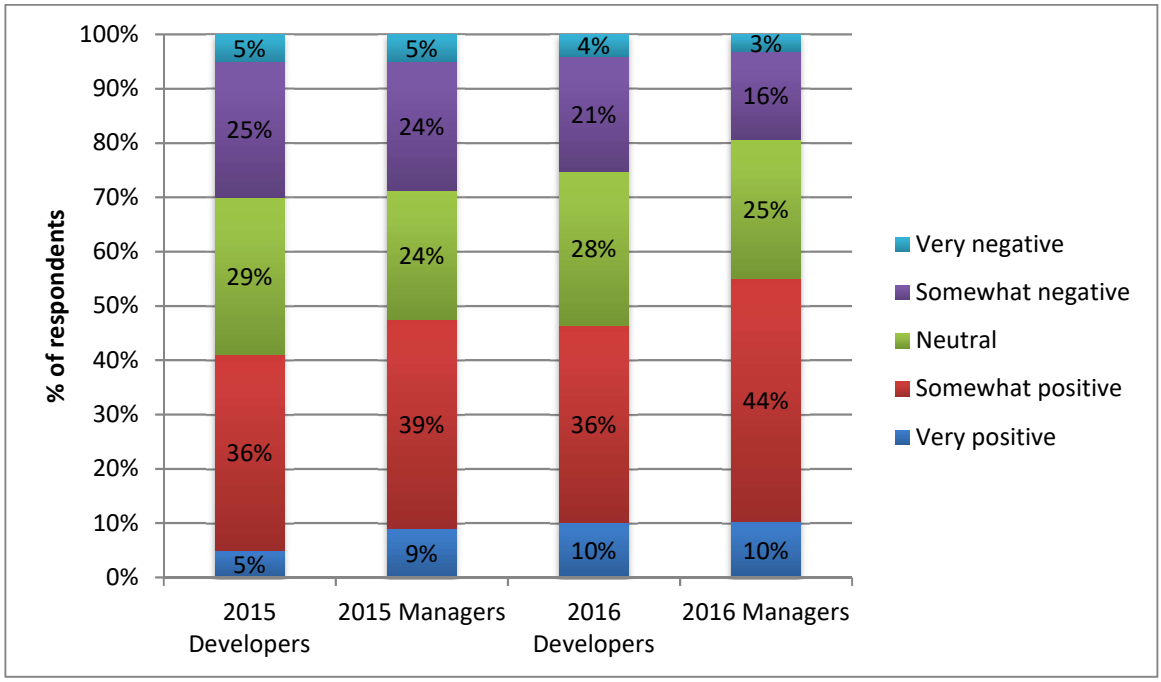
FUTURE OUTLOOK FOR GAMES INDUSTRY

The state of the games industry: Present and future

In all versions of the DSS since 2014 respondents were asked their opinion on the state of the industry (Figure 34). This general perception skewed slightly positive in 2015 and 2016 by a margin of about 10%. Overall, developers were less positive than their manager counterparts. In 2015, 41% of developers felt very or somewhat positive about the industry, while 48% of managers felt this way. That said, almost one third of developers viewed the current state of the industry negatively (30%).

Figure 34

What are your views on the current state of the game industry?

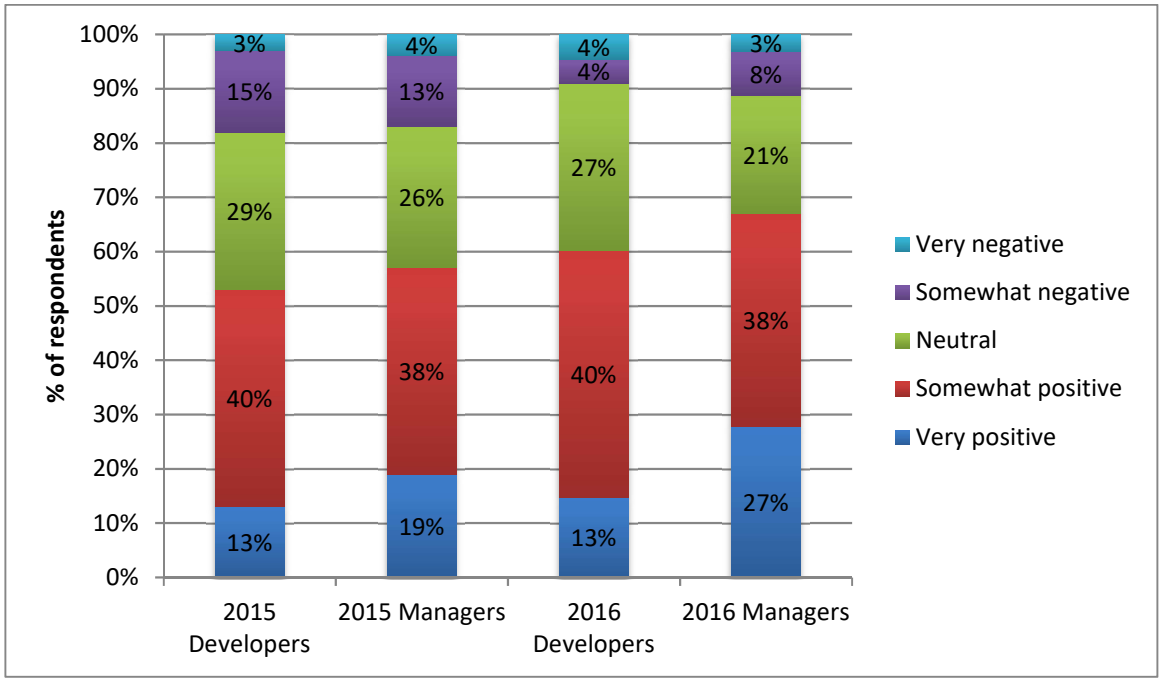


There was more optimism among the DSS respondents for the future of the industry. When ask about the outlook for the industry a year from now, only 18% viewed it negatively, and 53% viewed it positively (Figure 35).

This trend was repeated in 2016.

Figure 35

What is the outlook for the industry 1 year from now?



Current job opportunities in the industry

When asked to assess the job opportunities in the game industry, the responses of employee developers landed slightly on the positive side; 40% felt somewhat or very positively about job opportunities, and 31% felt somewhat or very negatively.

This optimism was not shared among freelancers. Just over half (52%) felt somewhat or very negatively about job opportunities in the industry, and only one quarter felt somewhat or very positively. This difference in opinion is likely indicative of the difference in employment status. Those who have struggled to secure a permanent employee position are less likely to be positive about the availability of these jobs, than those who have been able to do so (Figure 36).

The overall response of self-employed workers was also slightly negative, although not to the degree of freelancers. Thirty seven percent felt somewhat or very negatively about job opportunities and 33% felt somewhat or very positively. Just under one third (29%) felt neutral on the issue, perhaps reflecting their independent employment status and the greater degree of control they may perceive they have over their own job prospects.

For all employment types, these percentages were similar in 2016.

Figure 36

Please rate the job opportunities in the industry, DSS 2015

Confidence in industry growth

Despite the fact that on average about 40% of developers had a negative outlook for job opportunities in the industry, they were fairly confident in the current and future growth of the industry. Developers were asked how they would characterize the growth rate of their studio or the studio they worked for over the past three years. The majority reported studio growth rather than downsizing, and this was also true across the manager sample (Table 50).

Table 50

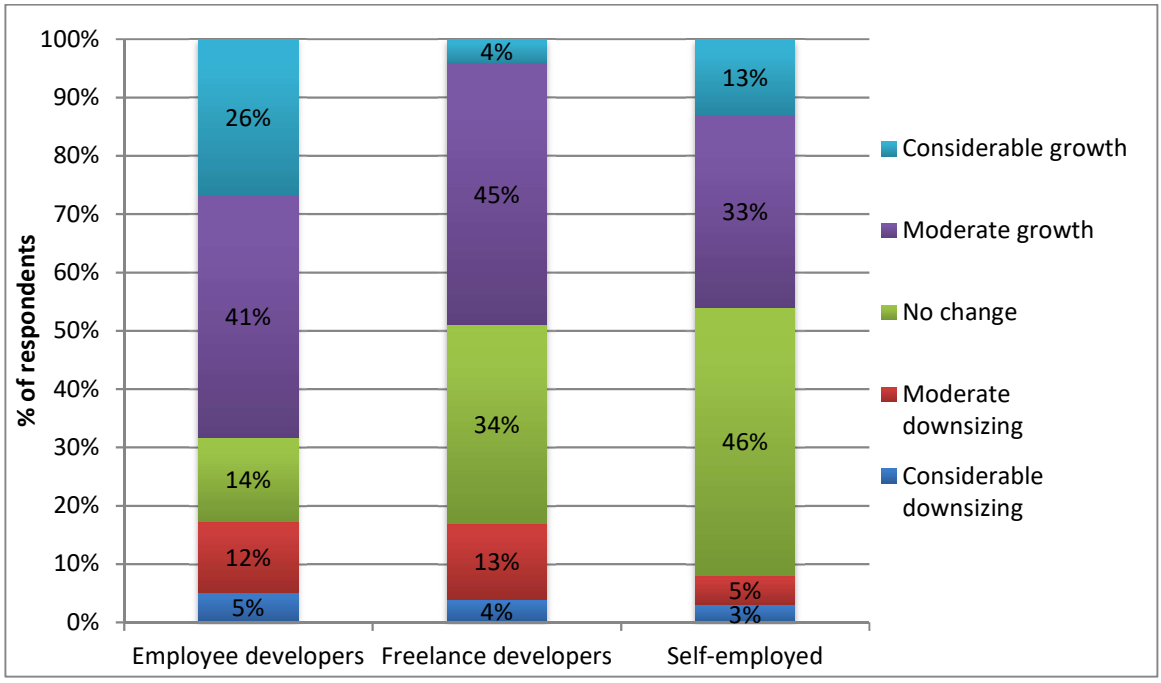
How would you characterize the growth rate of your company, or the company you work for? (Last 3 years)

	Developers		Managers	
	2015	**2016**	**2015**	**2016**
Considerable downsizing	7%	6%	4%	2%
Moderate downsizing	12%	8%	8%	10%
No change	18%	20%	30%	22%
Moderate growth	40%	34%	33%	31%
Considerable growth	23%	25%	25%	31%

Employees, once again, reported growth at higher rates then freelancers and the self-employed. Freelancers and the self-employed did, however, report moderate or considerable growth over the past three years more often than they reported downsizing (Figure 37).

Figure 37

How would you characterize the growth rate of your company, or the company you work for? (Last 3 years), DSS 2015



Across all employment types, developers also anticipated growth in the next three years (64%). In this instance, managers were more optimistic about growth than developers. Fewer managers predicted downsizing than developers, and more predicted growth (Table 51).

This remained similar in 2016.

Table 51

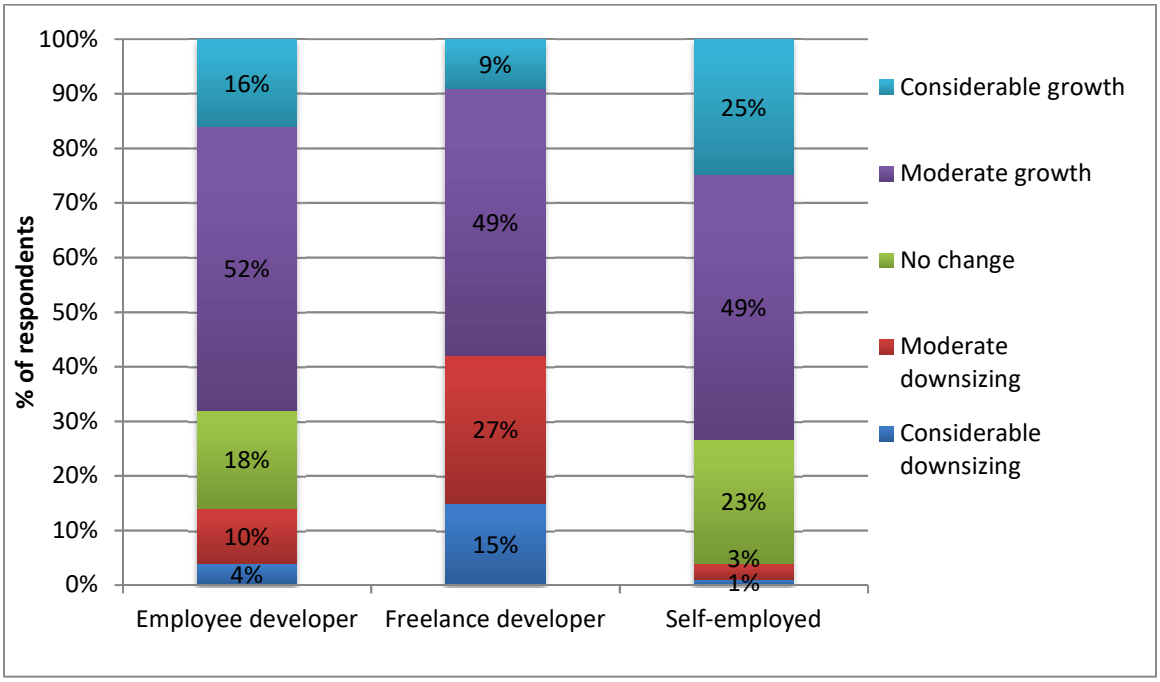
How would you characterize the growth rate of your company, or the company you work for\? (Next 3 years)

	Developers (overall)		Managers	
	2015	2016	2015	2016
Considerable downsizing	3%	4%	1%	1%
Moderate downsizing	12%	9%	5%	7%
No change	21%	16%	16%	14%
Moderate growth	50%	51%	51%	45%
Considerable growth	14%	13%	26%	29%

The self-employed were most optimistic about growth; 74% anticipated moderate or considerable growth in the next three years. Sixty eight percent of employee developers predicted growth, and 58% of freelancers did. Freelancers anticipated downsizing at higher rates (42%) than both employees and the self-employed (Figure 38).

Figure 38

How would you characterize the growth rate of your company, or the company you work for? (Next 3 years), DSS 2015



CONCLUSION/EXECUTIVE SUMMARY

This report presented a comprehensive summary of the 2015-16 IGDA Developer Satisfaction Survey (DSS). Specifically this report focused on questions related to employment practices: types of jobs and career paths, various employment statuses, environments and trades, relative importance of salaried work vs freelancing, types of studios and working environments, hours of work, compensation and benefits, education profiles, work-life balance, overall job satisfaction and perceptions of the industry and its future.

Where applicable the report presented data from the whole sample of respondents (which included those working in roles that are supportive or more tangential to the core work of game making) as well as a sub-sample of respondents who work in non-managerial developer roles related directly to game making. Also, where applicable this report compared data from the 2015 and 2016 DSS to the earlier IGDA surveys.

The following provides a general summary of the trends featured in our analysis above.

Industry and Occupational Profile

Developers and the general workforce in the game industry remained young in comparison with the general workforce in North America, white (though more among employed developers than among freelancers or self-employed workers), heterosexual, and male. The majority of them did not have children.

Developers most commonly worked as permanent employees (whether full- or part-time), followed by self-employed, freelance, and lastly, temporary employees. We observed a notable increase in freelance employment over the years, most often to have more control over one's working conditions, and over their employment stability and/or risk. In other words, many developers chose to work freelance, rather than being driven to do it out of necessity. Still, about one-third of freelancers reported doing so because they could not find permanent positions with studios. More than half of freelance developers and self-employed had worked as employees in the industry at some point. The large majority of developers reported working full-time.

Managers were fairly evenly split between permanent employees and self-employed. They rarely worked as freelancers or in a temporary role.

The most common **disciplines** reported were programmer, software engineer or technical designer. Less but still common responses included game designer, visual artist, and producer/project manager.

Approximately half of **all employees** worked for AAA studios. Of the AAA group, one quarter of **developers** reported working for second party (publisher-owned) studios or third party studios, respectively and fewer worked for first party studios. Another quarter of developers worked for independent game studios.

Among **freelance developers**, about one third worked for AAA studios with a tenth of those working for second party and a fifth for third party studios. Overall, and in contrast to employees, **freelancers** contracted for indie studios more frequently than for AAA studios. Between 2015 and 2016, there was a small but noteworthy increase in the percentage of both employee and freelance developers working for **indie** studios.

The majority of **developers** worked on small teams of between one and ten people. However, in line with the fact that **employee developers** were more likely to work at larger studios than freelancers and the self-employed, they also reported larger development teams. This reflects the scale and complexity of

development within large AAA studios, where the majority of employees work.

The vast majority of **employee developers** did their game-related work at their employer's studio. Generally, **freelance and self-employed developers** worked in a home office or in ad hoc spaces around their own homes. **Co-working** spaces may be increasingly popular among game workers; the percentage of freelance developers who use co-working spaces more than doubled just between 2015 and 2016. Among the **self-employed**, 'co-working space' is the third most prevalent option, after home or game studio. Such spaces serve the growing indie scene where greater numbers of respondents are working for small operators who cannot afford dedicated work spaces for their employees/contractors, but desire and require that their team members are not isolated in their own homes.

Employment Stability, Mobility and Career Progression

Regarding stability in employment, **employee developers** most commonly reported working in the industry for between 4 and 6 years. Comparatively, **freelance developers and the self-employed** most commonly reported working in the industry for between 1 and 3 years. This may indicate that entrance into the industry requires some independent or contract work, prior to being seriously considered for permanent employment by game studios. It may also reflect the rise in freelance work and self-employment within the industry in general. While both independent and freelance work seem to be entry points to the industry, freelance work is rare for those who have worked in the industry for 10 years or more, but self-employment is common.

Employment stability within studios may be on the rise. More than a third of **employee developers** reported working for one employer in the past five years, and a slightly smaller group worked for two employers, while a fifth of them worked for three employers in the past five years. This is a downward shift from DSS data from 2014, wherein approximately half of the developer sample reported working for at least five employers in the past five years.

In that same vein, half of **freelance developers** held one contract at a time, while very few were working on more than five at once. This may indicate stability for freelancers with a stable client base; however short contracts still dominated. In addition, one quarter of **freelance developers** reported that they do not know the length of their current contract. This has implications for workers' abilities to plan their futures. Taken together the limited number of clients and the unknown contract duration may point to a misuse of freelance labor in the place of

employees.

Still, mobility is a feature of the industry. Far fewer **employee developers** expressed an intention to stay with a particular employer indefinitely than those who reported intending to stay in the industry. This reflects the practice of mobility among game studios that is not necessarily driven by developers' desires, as well as uncertainty among respondents about the stability of their specific job into the future. By contrast, **self-employed** workers expressed a stronger intention to stay self-employed indefinitely.

Slightly more than half of **employee developers** did not have a clear career path at their current studio, or were unsure. This might help to explain why while more than half of employee developers intended to stay in the industry indefinitely, only a fifth intended to remain that long with their current employer. This is felt more strongly among developers than **managers**, as only slightly fewer than half of managers reported not having a clear career path at their current studio.

Almost two thirds of **employee developers** and half of **managers** rated the potential for promotion or advancement poorly (or neutrally) at their studio. **Freelance developers** were also pessimistic about the possibility of getting a permanent position with their most typical client.

A career in game development never blooms by pure happenstance; it is rather the result of concerted, conscious efforts, strong will and determination. Pathways into the industry have become narrow and related to formal education. The most common avenue into the game industry is now through completing a university degree. Almost half of **developers** reported that a university degree was their highest level of education, and these numbers were only slightly higher compared to other jobs within the industry. But among developers, the education attained by the majority of developers was directly or somewhat related to game design or development, whereas among respondents who worked outside of core development jobs, this is not as often the case.

Working Hours and Crunch

Most **employee developers** worked between 35 and 44 hours a week in a regular schedule, which is the average full-time schedule. More employee **managers** reported working 50 to 59 hours, which is indicative of longer average work hours at the management level. The regular hours of **freelance developers** varied far more.

Crunch time remains a common feature of work in the game industry (Legault & Weststar, 2015). Three quarters of **employees**, two thirds of **freelancers** and more than half of **self-employed** developers reported that their work involves crunch time. Across employment type, the overwhelming majority also experienced crunch time within the past two years.

During periods of crunch, two thirds of **employee developers** worked between 50 and 69 hours a week. This was also the most frequently reported range among **freelance developers** and the **self-employed**. However, **employees** seemed to be the most insulated from the requirement to work **very long** hours.

Crunch has many implications on work-life balance in this field. For half of the **whole sample**, it negatively affected their personal relationships, emotional health, and physical health.

Income and Benefits

The majority of developers reported that their work in the game industry is their main source of income. **Employee developers'** yearly income varied from $40,000 to $75,000 and above.

A third of **employee developers** and two thirds of **freelancers** did not get any form of extra compensation for working overtime hours. In many North American jurisdictions, game developers remain exempt from employment laws that mandate overtime compensation. **Freelancers** were particularly vulnerable to under-compensation or over-work. More than a third of them had been expected to work unpaid hours on a contract in the past two years. Among those developers who got overtime compensation, 'some perks' was the most popular answer across all employment types. Clearly, perks cannot be compared with formal compensation.

Freelancers and the self-employed earned lower incomes than **employees**, reflecting their marginal and precarious status in the industry. An object of high concern should be that a third of them had to forgo their own salary or wages for a studio need, at least twice a year. This corresponds with the finding that many **self-employed** workers did not earn 100% of their income from game-related work, and likely subsidize these ventures with other jobs.

Overall, roughly half of **employee and freelance developers** felt fairly compensated for the work they do. This positive perception was least strongly felt among the **self-employed**, and even more so in 2016 than it was in 2015.

Considering the fact that the self-employed reported putting in the most hours, and often had to forego their personal salary to maintain their businesses, we should not be surprised. Among employees in general, **developers** are more dissatisfied with compensation than **managers**.

Regarding incentive pay, the most common response for **employee developers** (one third) and **freelancers** (two thirds) was to not receive incentives, bonus payments or stock options as part of their compensation. Among those developers who got incentives or bonuses, **employees** most often got a lump sum or company equity (less than a third in both cases). **Employee managers** more likely received company equity (just less than one half), and more than a third got a lump sum. A quarter of **freelancers** received royalties.

Two models for paid time off for **employees** seemed to be equally prevalent across the industry. One model is a **packaged time off policy**, wherein employees received a block of paid days off to allocate to absences as they wish. This policy was slightly more common for workers in **management** roles. The second model is the more traditional where paid days off are specifically allocated to certain absences (i.e. for illness, vacation, or personal days).

It was relatively uncommon for the **self-employed** to offer paid time off to their employees (as applicable). Packaged policies were the least common compared to the one quarter who allocated time off separately for specific needs. Indeed, the most common incidence of self-employed managers providing paid time off was for legally required statutory holidays.

Unsurprisingly given the nature of contract work, the majority of **freelance developers** did not get paid time off. When they did it was in the form of extra vacation pay.

Only one in twenty of **employee developers** did not have **health coverage.** For most this was provided through their employer, the government or a combination of both. In comparison, a fifth of **freelancers and self-employed** did not have health coverage and when they did it was most likely from the government, private insurance, or through a partner or spouse rather than by an employer or client.

Life insurance was less common across all employment types. One third of **employee developers**, two thirds of **freelancers** and more than half of the **self-employed** did not have any. Among those who did have life insurance, half of **employees** received it through their employer and only a fifth had to get it from a

private plan, while a quarter of **freelancers and the self-employed** had to get a private plan.

Similarly to life insurance, about half of **employee developers, freelancers and self-employed** received a **retirement savings** vehicle in some form. About half of **employee developers** received these plans from their employer and only a quarter contributed to a private plan. A third of **freelancers** had a private plan, and a quarter of the **self-employed**.

Pregnancy leave, parental leave and children daycare are low on the radar for most game studios.

Quality of Life, Job Satisfaction and Industry Outlook

Overall, three quarters of **developers** and two thirds of **managers** were happy with their current quality of life.

All in all, three quarters of **developers and managers** enjoyed a relatively high overall job satisfaction. Across employment type, two thirds of **employee developers** and **freelance developers**, and three quarters of the **self-employed** were somewhat or very satisfied with their job. Employee **managers** enjoyed slightly higher rates of job satisfaction than their developer counterparts.

The general perception of the present **state of the industry** among **developers** was slightly less positive than their **manager** counterparts. One third of **developers** were pessimistic about the **current** state of the industry, but that said, more than half were optimistic about the **future** of the industry.

Nearly half of **employee developers** were optimistic about **job opportunities**, but this optimism was not shared among **freelancers and self-employed** workers. The two latter groups struggle to secure a permanent employee positions and are less likely to be positive about the availability of these jobs, than those who have been able to do so.

Developers reported **studio growth** rather than downsizing, and this was also true across the **manager** sample. They were generally optimistic about the current and future **growth of the industry**. **Employee developers** reported higher rates of growth than **freelancers and the self-employed**, though.

Across all employment types, managers were more optimistic about **growth in the next three years** than developers generally were. Among all groups, freelancers were the least optimistic.

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