

Developer Satisfaction Survey 2016

Summary Report

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Introduction

As the largest professional association for game developers worldwide, the International Game Developers Association is in a unique position to understand individual game developers on a level that most companies and organizations cannot. While we've always had a very good pulse on how developers anecdotally feel about their work and their industry, we always strive to improve how we both capture and convey that insight.

To that end, in 2014 we launched our annual research survey called the Developer Satisfaction Survey (DSS). The Developer Satisfaction Survey, open to anyone involved in the video game industry in a professional or academic capacity, is the evolution of our previous survey efforts.

The 2014 DSS was a great success for an inaugural effort, yielding over 2,000 responses worldwide. Besides my own presentations of the results at numerous events worldwide, the data from the DSS was quoted in many media sources, including the New York Times and Washington Post, and referenced by many in the academic research community. The effort also resulted in two follow-up reports on Industry Trends and Employment, both of which dove deeper into the data and revealed more insights about the current state of our industry. The results also provided an impetus for new IGDA initiatives, such as our 2014 declared goal to double the number of women working in the industry by 2025, and then our 2016 crunch initiative to improve awareness of the problem of excessive work hours.

For 2015, we expanded our reach by making localized versions of the DSS available in the following languages beyond English: Chinese, French, German, Italian, Japanese, and Spanish. The IGDA thanks Keyword's International as well as volunteers from IGDA Japan for their valuable contribution of the localized language versions, which we continue to leverage.

In 2016, the DSS suffered a bit from what we believe is survey fatigue in the developer community as well as some logistical issues with promoting the survey as far and as wide as we had hoped. Nonetheless, we still yielded a significant number of responses.

We continue to be appreciative for the industry's very positive reception to this research that serves as the IGDA's core method by which we inform ourselves and the industry about the critical questions around developers' satisfaction. For the sake of the long-term health of our industry, the IGDA will continue to strive to discern the demographic composition of game developers worldwide and tap into their knowledge, experiences and opinions on their wellbeing and on the state of the industry.

Thank you,

Kate Edwards, Executive Director

International Game Developers Association (IGDA)



Overview

The 2016 IGDA Developer Satisfaction Survey was live from March-April, 2016. It accrued 1,186 valid responses.

The survey was targeted broadly and captured responses from people with various connections to the industry (Table 1). Most of the survey respondents said that they make games in a core creation or development role. This is followed by a much smaller proportion who make games as a portion of their work (i.e., academics, individuals working in transmedia companies, students concurrently making games). A third group of respondents work in studios in supportive or ancillary roles to game creation. These three respondent groups were asked the most survey questions regarding the nature of their work and form the core of this report. Other respondents answered select question sub-sets (i.e., for students or the unemployed) and/or answered general questions about demographics, diversity and industry trends.

Table 1: What is your connection to the game industry?

	% of respondents
Makes games in a core development role (includes QA)	68.3
Portion of work is games-related or to make games (includes academics who make games); or makes games for commercialization on the side	13.1
Supports the development of games in administrative or ancillary roles that are not game creation (e.g., admin, HR, technical support)	5.8
Makes games as a hobbyist	2.9
Currently unemployed	2.9
Looking for first job in the industry	2.6
External investor	0.9
Game journalist or critic	0.2
Academic studies/teaches about the game industry	1.3
Involved in the production of game-related events	0.9
Fine artist using games as a medium	1.1
Total	100
Student studying to make games or about games/game industry	16.1 [*]
Source: IGDA DSS 2016;	

*Students counted separately; those working on games for pay or goal of pay are included in main figures here

Most answered the survey in English (88%). The remaining languages were represented as follows: German (5.5%), Spanish (3.5%), Japanese (1.5%), French (1%), Chinese (0.3%) and Italian (0.2%). Valid responses from all languages are included in this report.

A large proportion of respondents were working in the United States (46%) and participants from North America make up more than half the sample. While North America plays a large role in the global video game industry, developers in this part of the world are likely overrepresented



in the picture painted here while some important regional and national variation cannot be summarized accurately. The distribution of the sample on some additional key dimensions is included in Table 2.

Table 2: Key Sample Characteristics

Company Type 1 st Party 2 nd Party 3 rd Party Independent	10 23 17 39
Company Size ≤10 11-50 51-100 101+	35 21 7 36
Occupation Management Programming Design Art QA Admin	24 29 20 10 3 3
Employment Type Employee Self-employed Freelancer Source: IGDA DSS 2016	66 19 10

This report is a summary of the primary observations from the 2016 survey data and, outside of a few select occasions, does not attempt to compare this data to prior IGDA surveys. The first part of the report includes sections answered by all respondents: Demographics, Diversity, Education, and Business Trends and Future Outlook. The second part of the report paints a profile of the work experiences of particular groups of workers (employees, freelancers and the self-employed) as well as the currently unemployed and students.



Demographics

This data presents the prototypical game industry worker as being a 32 year old white male with a university degree who lives in North America and who does not have children. More demographic characteristics are discussed in the diversity section below.

Snapshot: Country of Origin & Country of Work

Many respondents were born in the United States. They made up 44% of the sample (Figure 1). Canada was second with 10% and with Mexico (0.5%) they bring the overall North American representation to 54.5%. Europe accounted for 27% of survey respondents, Australia and Oceania accounted for 6.5%, Latin America (including Mexico and Puerto Rico) made up 6%, Asia represented 6%, and Africa represented 1%.

Many respondents also worked in the United Stated (46%). This was followed distantly by those working in Canada (13.5%) and the United Kingdom (5.5%). Country of work is shown alongside country of origin in Figure 1 to give a rough indication of the international mobility of game developers. For the most part national labor markets seem to be serving their own populations. Only 16% of the respondents considered themselves to be immigrants. Some countries, such as the US and Canada seem to import game developer labor while others, such as the United Kingdom seem to export labor.

Snapshot: Marital Status

Slightly more respondents reported being married or partnered (51%) than single (41%). Another 3% selected separated/divorced, 4% declined to answer and the remaining 1% responded 'Other'.

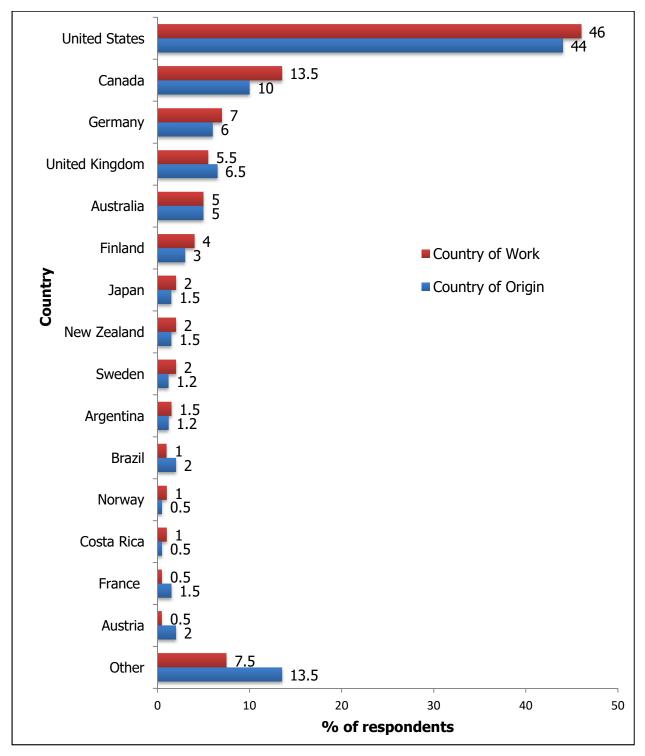
Snapshot: Children & Elder Care

Only 27% of respondents had children. Most said they had pre-school children (11%) or schoolage children (14%) while 4.5% said they had adult children. Note that these statistics included students. The rate of children among employed developers is higher (see employment type profiles below) and the statistics in general are higher than in the 2015 DSS.

Most were not responsible for elder care (86%). There was however a group of 11% that was responsible for their older family members who either lived with them or lived separately (3% declined to answer).



Figure 1: Countries of Origin and Work (rounded to nearest 0.5%)



Source: IGDA DSS 2016

Note: Country included if it represented 0.5% or more of the respondents for 'Country of Work'



Education

Snapshot: Educational Background

With the increase in formal academic programs targeted to game development and game studies, it is not surprising that people who work in the game industry are highly educated. A full 94% of respondents had some college/vocational/trade school or above (Figure 2) while the remaining 6% had a professional certification, an apprenticeship or less than college.

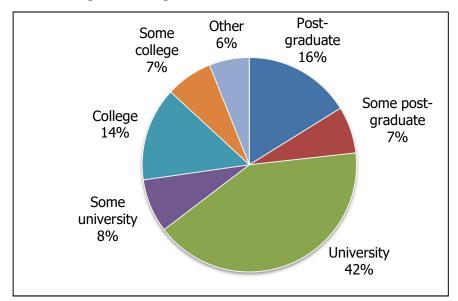


Figure 2: Highest Educational Attainment

Source: IGDA DSS 2016

Snapshot: Specialized Degree in a Game Related Discipline

More than one-third of survey respondents (36%) had a specialized degree that was somewhat relevant to game development and another third (32%) had a degree that was directly related to game development. The remaining either had educational backgrounds that they said were not relevant to game development (19%) or felt that the question was not applicable to them (13%). It is important to remember that a number of survey respondents did not work directly in game development, but rather worked in occupations related to the game industry more broadly.

Aside from a degree or diploma, half of the respondents had also taken supplemental training in game development, including high school (5%), college (9%), university (10%), and post-graduate (5%) courses, professional certifications (13%), internships (14%), as well as training by their employers (16%). Almost half of this group reported that this training was accredited in some way.



Diversity

Respondents were instructed when taking the survey to "consider diversity in terms of demographic characteristics such as sex, gender, race, ethnicity, sexual orientation, etc."

Throughout this section we occasionally make reference to US population statistics. People who were either born in the US (44%) or who worked in the US (46%) made up a large portion of the DSS 2016 sample. However, it is important to note that the population distributions in the other countries represented in this data will differ quite substantially and many who would be identified as minority groups in the North American or Western European context would not be so in their country of origin (recall only 16% identified as immigrants).

Snapshot: Age

Survey respondents ranged in age from 16 to 86 years and the mean age was 32%. The 25-29 year range made up 26% of the sample followed by 30-34 years (20%) and 35-39 years (18%). Only 15% of respondents identified as being in their 40s and less than 4% said they were older than 50 years. This is strikingly different from the general labor force in the US (mean age = 42) and other industrialized countries. Note that this statistic includes students, but they are a small proportion of the sample. See the employment type profiles below for the average age of employed developers.

Snapshot: Gender

Survey respondents were predominately male (72%). Only 23% identified as female, slightly fewer than 1.5% identified as male-to-female transgender and 0.3% identified as female-to-male transgender. An additional 3% selected "Other" as their response. This is in contrast to the biological sex distribution in the 2016 United States Census where 49% were reported male and 51% were reported female. The US Census only considered biological sex; however a recent study from the University of California estimated that 0.6% of adults in the US are transgender.

Snapshot: Race/Ethnicity/Ancestry

The majority identified as white/Caucasian/European at 81%. Respondents were able to select up to 3 options for this question. As such, when respondents who only selected white/Caucasian/European were calculated this statistic dropped to 75%. The next most frequently selected category was East/South East Asian (8%), followed by Hispanic/Latino (7%). People who identified as black/African/African American constituted 3% of respondents and those with Arab or West Asian ancestry constituted 2.5%. This is inconsistent with U.S. Census data from 2016 which reported that 61% of the US population was white, 12% was black, 18% was Hispanic and 6% was Asian.



Snapshot: Sexual Orientation

Regarding sexual orientation, 80% of respondents identified as heterosexual, 4% as homosexual, 10% as bisexual and 7% selected 'Other.' These numbers are slightly higher than reported statistics for the United States where estimates of the LGB population range from 2.2-3.0% of the total population.

Snapshot: Disability

In the 2016 DSS, 24% of respondents identified as having a disability; 3.5% declined to respond and 3% said they did not know. Among those who reported one or more disabilities, the most frequently selected category was 'psychiatric and mental illness', which represented 9% of respondents. The next two largest categories were 'visual impairment' and 'intellectual or learning disabilities'; each represented 4% of the sample. This is in line with a 2013 report which stated that 22% of adult Americans had some type of disability.

Snapshot: Attitudes toward Diversity

The number of respondents who felt that *diversity in the workplace* was very or somewhat important was at its highest in the history of the DSS; 78% of respondents felt it was 'very important' or 'somewhat important' compared to 63% in 2015 and 75% in 2014. Similarly, 80% of respondents felt that *diversity in the game industry* was important compared to 66% in 2015 and 79% in 2014. Just under half (47%) of developers surveyed felt the game industry had increased in diversity over the past two years. This is a 10% increase in this sentiment from the DSS 2015. Across the 2015 and 2016 survey years, the same number reported that diversity had stayed the same (31% and 30%, respectively) and the same number felt that the industry had become less diverse (2% and 3%, respectively). The change therefore came from the 'not sure' option. In 2016 only 19% of respondents were unsure about this question compared to 30% in 2015.

Diversity in game content was also deemed important; 82% of respondents indicated this was either 'somewhat' or 'very' important to the game industry compared to 71% in 2015. Indeed, 21% of respondents said the industry should focus on 'more diversity in game content' to ensure future growth and success. This was the second most selected option following 'advancement of game design' (23%).

Snapshot: Discrimination

Only 10% of respondents reported that their company had no policies whatsoever directed toward diversity or equality, though 9% felt that the question was not applicable. Among those who reported at least one policy, most said that their company had a 'general non-discrimination policy' (58%), an 'equal opportunity hiring policy' (48%), and/or a 'sexual harassment policy' (48%). Only 27% said that their company had a 'formal complaint procedure' and 24% reported



a 'formal disciplinary process' related to equality and diversity policies. These numbers are a marginal improvement from 2015.

Only half of the respondents felt that the policies that were in place were enforced, but 40% were not sure. The efficacy of these policies or other informal initiatives is also called into question by responses to the question, 'Do you feel there is equal treatment and opportunity for all in the game industry?' In the 2016 DSS, 58% of respondents answered 'no', 26% said 'yes' and 16% were not sure. Compared to the 2015 data, this was an increase in both the 'no' and 'don't know' responses (from 49% and 12.5%, respectively) and a decrease in 'yes' responses (from 39%).

Figure 3 shows the responses to two questions that asked, 'Have you perceived inequity towards *yourself* or towards *others* on the basis of gender, age, ethnicity, ability, or sexual persuasion in any of the following areas?' The majority of respondents (57% and 45%, respectively) answered 'none' to both questions. However, in both questions these 'no' groups were smaller than in 2015 by about 10% and the number of people reporting inequity rose in all categories.

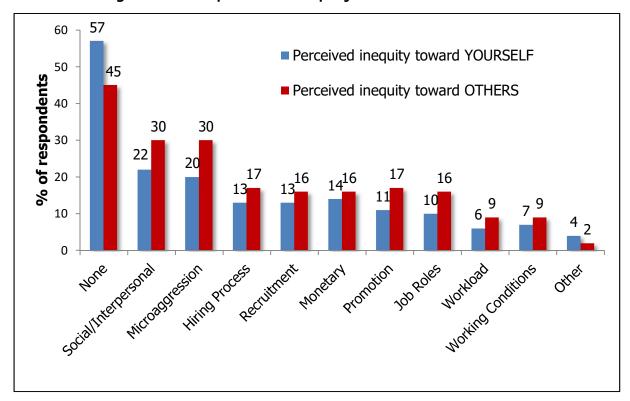


Figure 3: Perceptions of Inequity toward Self and Others

Source: IGDA DSS 2016



Trends and Outlook on the Game Industry

Snapshot: Game Genres

Action games was the genre being developed the most across those who identified as being employees (49%), self-employed (54%) and freelancers/contractors (47%) (Table 3). Casual games was the genre selected next often, but the percentage differed across employment groups; 46% of self-employed developers said they were working on casual games compared to 35% of employees and 39% of freelancers. There were also differences across employment types for adventure games, art games, and serious games.

Table 3: Game Genres Being Developed by Employment Type

	% Respondents by Employment Type		
	Employed	Self-Employed	Freelance/Contract
Action Game	49	54	47
Action Adventure	27	27	29
Adventure Game	14	30	36
Role Playing Game	29	30	32
Sports Game	12	10	17
Strategy Game	24	29	33
Simulation Game	16	25	29
Serious Game	10	27	27
Casual Game	35	46	39
Art Game	5	20	20
Party Game	6	6	6
Exercise Game	4	4	8
Other	7	12	4
Source: IGDA DSS 2016			



Snapshot: Important Platforms for the Future

When asked to rank the importance of a long list of development platforms to the future growth of the game industry, PC was selected as 'very important' by the most respondents; consoles and both iOS and Android mobile devices followed. The top 10 responses are listed in Table 4.

Table 4: Top 10 Platforms Deemed 'Very Important' for Future Growth

Platform	% of respondents
PC	75
Consoles	65
Android	50
iOS	50
Proprietary Platforms	41
Analog Games	27
Mac	25
Wearables	21
Social Network Games	20
Web-based Application	19
Source: IGDA DSS 2016	

Snapshot: Common Distribution Platforms

When asked to list the distribution methods used by their company Apple, Google Play and Steam were in the top three across all employment types (Table 5). The distribution platforms that rounded out the top six for each employment group showed some variety.

Snapshot: The Future of Game Development

'Advancement in game design' continued to top the list of topics that respondents felt were most important to the growth of the industry, though its percentage decreased from previous years (Table 6). 'Advancement in storytelling' was also selected less frequently than last year. Conversely 'diversity of game content' and the factors related to funding, monetization and discovery were selected more often by this year's respondents.



Table 5: Distribution Methods Used by Companies by Employment Type

Method	% employee	Method	% self- employed	Method	% freelance
Apple	53	Steam	56	Steam	59
Google Play	52	Google Play	51	Apple	49
Steam	44	Apple	49	Google Play	48
Retail Chains	36	Studio Website	38	Studio Website	26
PlayStation	33	Amazon	24	Playstation	19
Xbox & Amazon	29 (tie)	Windows	15	Xbox	15
Source: IGDA DSS 2016					

Table 6: Ranking of Future Growth Factors

Factors	% of respondents
Advancement of game design	64
More diversity in game content	59
Better discovery of games	47
Advancement of storytelling	46
More funding for game development	36
Better monetization of games	17
Source: IGDA DSS 2016	

Snapshot: Localized Versions of Games

This year, an overwhelming majority of survey respondents felt that having a localized version of a game is important to its success; 45% of respondents felt that it was 'very important' and 35% felt it was 'somewhat important'. This is up 10% from the DSS 2015.



Snapshot: Society's Negative Perceptions of Industry

Game developers were divided regarding how society views the industry; 38% felt society has a negative view, 37% felt society has a positive view and 25% felt there is a neutral view. From a provided list, respondents were asked to select factors that they thought contributed to a negative perception of the game industry (Table 7). When compared to the DSS 2015, all of the factors were selected more often in 2016, with some showing notable increases. Of the options provided by those who selected "Other" in 2016, Gamergate was frequently listed.

Table 7: Factors Influencing Negative Perception of the Game Industry

Provided Factors	% 2015	% 2016
Sexism among gamers	57	67
Working conditions	55	60
Sexism in games	52	60
Perceived link to violence	51	57
Perceived link to obesity	40	46
Sexism in the workforce	40	45
Racism among gamers	36	41
Lack of overall diversity	35	43
Racism in games	25	29
Racism in the workforce	19	20
Other	-	13
Source: IGDA DSS 2016		

Snapshot: Preferred Employer

Respondents were given the opportunity to give an open-ended answer to the question, "Which developer or publisher would you most like to work for?" For the third year running, Valve topped the list with 12% of the vote. This represented 50 votes. Blizzard came in second with 10% of the vote followed by a tie between BioWare and "my own studio" (both with 5%).



Employment Overview

Snapshot: Employment Status

Of the respondents who were involved in making games for pay, the majority worked in the industry as permanent (66%) or temporary (5%) employees. A further 19% reported being selfemployed and 10% reported that they were freelancers or independent contractors. The vast majority (87%) of this group worked in the industry on a full-time basis while the remainder worked part-time (13%). As the nature of their work can be guite different, the sections that follow this overview will provide details about the work experiences for each of these employment types: permanent and temporary employees; freelancers; and the self-employed.

Snapshot: Games as Primary Business

Most respondents worked at or operated companies wherein games and game-related products and services are the primary business. The majority (81%) reported that games made up 100% of the work at their company and 12% reported that games made up at least half of the work.

Snapshot: Employment Volatility

While 66% of respondents indicated being permanent employees, when asked about the number of employers they have had in the past 5 years, the response average among employees was 2.2. Surprisingly, this is not so different from freelancers/contractors for whom the average was 3.2. This indicates that employees are often hired and let go while freelancers seem to maintain stable relationships with a core set of clients. The average was lowest among the self-employed (1.1) who were asked how many employers they had had in the past five years not counting themselves. Coupled with the finding that 71% of self-employed respondents had worked for other game-related employers in the past, this suggests that many selfemployed developers start their own businesses after working in the industry as an employee. and that their employment mobility stabilizes once they become self-employed.

Snapshot: The Unemployed

Just fewer than 3% of the survey sample (23 respondents) indicated that they were currently unemployed in the game industry. Among this unemployed group, 41% ended a contract and had not found a new one, 35% were permanently laid off, 12% had guit their jobs, and 12% reported that they were self-employed but did not have any active projects.

A significant portion of this group had been unemployed in the industry for over a year (37%), 32% had been unemployed for 3-12 months and the remaining 31% had been unemployed for 2 months or less (most for 1-2 months; 21%). The majority wanted to find another job in the industry (89%).



A Profile of Employees

Snapshot: Demographics

The typical employee in this sample was 34 years old, identified as white or multi-racial with white (85%), was male (74%), and working in the United States (46%). He was heterosexual (83%) and was likely to be married or in a long term relationship (57%; 38% reported being single). He did not have children (70%) and did not report a disability (80%). He had a university degree (69%), probably in computer science/software engineering (20%) or game development/design (12%).

Snapshot: Experience and Job Security

The majority of employees in the industry were relatively inexperienced. Almost half of respondents (46%) indicated that they have between one and six years of experience while 35% had worked in the industry for 10 or more years. Almost three-quarters (72%) reported that they had had one or two employers in the past five years and only 15% reported being laid off in the past two years. However, 24% had had three to five employers in the past five years and some churn was reflected in the intentions of employees to stay with their current employer. Most seemed to expect high job mobility (Figure 4).

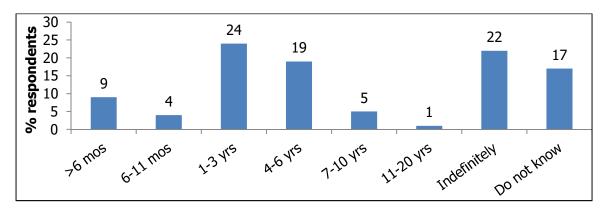


Figure 4: Years Expected to Remain with Current Employer

Source: IGDA DSS 2016

Snapshot: Company Type

The majority (90%) of the permanent and temporary employee respondents worked in typical game development studios. The top three company types were as follows:

1) Developer who is not owned by or dependent on a single publisher and engages primarily in self-publishing – *an independent studio* (32%);



- Developer who is fully owned by a company that publishes games for one or more platforms, but who is not directly tied to a primary consumer product or game platform a second-party developer (24%); and
- A developer who develops games under contract with one or more publishers for one or 3) more platforms, but is not directly tied to a primary consumer product or game platform a third-party developer (16%).

Snapshot: Job Role

Programming/software engineering was the most common job held by the employees in this sample with 30% indicating that this is their primary role. This role was followed in rank by game designer (19%), producer or project manager (10%) and visual artist (9%).

Snapshot: Company and Team Size

Employees were most likely to work at relatively large companies; 32% worked at companies with between 101 and 500 employees, and 17% work at companies with more than 500 people. However medium-sized studios (11-50 employees) were also well represented at 25%. Only 16% indicated that they worked at a company with less than 10 people. This maps to the reported size of development teams. Just over one-third (36%) said they worked on teams of between two and 10 people, 33% worked on teams of between 11 and 50 people and 29% worked on teams of 50 plus. Most only worked on a few projects at a time; 57% worked on one project at a time and another 38% worked on two to five projects at a time.

Snapshot: Salaries

Only 38% said that their income was comprised completely from their work in the game industry. This is surprising given their status as permanent and temporary employees; 17% reported that they earn less than 50% of their income from their game-related work. This is quite different from the DSS 2015 where most reported that games were the primary source of their income. Note that this may be a skewed reflection because this result is based on only 48 respondents. Many seem to have skipped this question.

Most employees (60%) made over \$50K USD per year, with the most common salary range being \$50K – 75K USD per year (21%).

Over three-quarters of employee respondents (77%) indicated that their company offered some type of raise as part of their compensation. Most often (35%) these raises were given based on a combination of factors including a fixed percentage allocation, a formula for merit, and the judgment of management, though 23% said this decision was based solely on the discretion of management. An additional 13% indicated that they did not get raises at all and another 10% were not sure.



Snapshot: Incentives and Overtime

Incentives and bonus payments were a popular method of compensation; 40% of respondents indicated that they received lump sum payments and 24% indicated that they received company equity. Only 15% received royalties tied to game success and almost one-third of employees (31%) did not receive incentives or bonus payments at all. When employees worked beyond normal office hours, 34% received no additional compensation. Of those who did, this additional compensation came mostly in the form of various perks like meals (44% of respondents) or future time off (29% of respondents). Only 11% reported receiving paid overtime.

Snapshot: Benefits and Time Off

Most employees (70%) were provided with health coverage by their employer, but fewer employers provided for life insurance (44%) or a retirement/pension program (50%). Almost 34% did not have any form of life insurance and 23% had no form of retirement plan. A number had purchased these services individually through private vendors (20% for life insurance, and 26% for retirement programs).

Many companies (43%) provided a packaged policy where time off for sick leave, vacation, personal days and holidays were treated as one. Among this group, most employees (62%) reported between two to four weeks of paid time off, 12% reported five weeks and 12% reported an open policy whereby they could take as much time as they needed or wanted. Among those whose companies treated days off separately (46%), the largest portion reported an open policy for sick days (47%) and three weeks of vacation time (22%). When an employee has a child, 25% of respondents said their company pays for pregnancy leave and 22% reported employerpaid parental leave (these numbers rose to 43% and 38% when combination governmentemployer programs were included). However, 37% did not know their company's policy on parental leave.

Snapshot: Hours of Work

Over half of the respondents (53%) indicated that they worked 40-44 hours per week during a regular schedule. This is a typical 'standard' workweek. Nineteen percent of respondents said they worked between 45 and 49 hours per week during regular schedule, and another 6% said they regularly worked 50 to 59 hours a week. However, crunch was still a problem: 65% indicated that their job involved crunch time; 52% said they were in crunch more than twice in the last two years; and 59% said that crunch time was expected at their workplace. In addition, 32% of those who did not report engaging in crunch said that their job did require periods of long hours, extended work hours or extended overtime that was just not called 'crunch.' During crunch, many employees reported working 50-59 hours per week (35%) and up to 60-69 hours per week (28%). A sizable minority (13%) reported working more than 70 hours a week in crunch.



Snapshot: Career Path and Advancement

Although 40% of respondents indicated that their company had either 'good' (27%) or 'excellent' (13%) potential for promotion or career advancement, 24% were 'neutral' toward this question and the remaining 36% said 'fair' or 'poor'. Respondents seemed relatively divided about whether their profession had a clear career path. Almost half said that their profession did have a clear career path (45%), the remaining 55% said that there was no clear career path (38%) or that they were not sure (17%).



A Profile of Freelancers/Contractors

Snapshot: Demographics

The typical freelancer in this sample was 33 years old, identified as white or multi-racial with white (80%), was male (67%), and working in the United States (43%). He was heterosexual (81%), equally likely to be single as partnered (47% each), but he probably did not have children (78%). He did not report a disability (83%). He had a university degree (57%), but the degree could be varied. The most common degrees were in computer science/software engineering (10%) or game development/design (10%).

Snapshot: Experience and Job Security

Most freelancers had not been working in the game industry for long and most respondents who indicated that they were freelancing had been doing so for only a few years (Figure 5). Developers seem to move into freelance roles later in their careers. This was supported by the finding that the majority (77%) had previously been a permanent or temporary employee of a game-related company and 34% of that group had also tried self-employment. Most freelancers felt that they would stay in the industry indefinitely (73%) and a further 20% did not know how long they would remain. Only 4% said they would move on within the next six years.

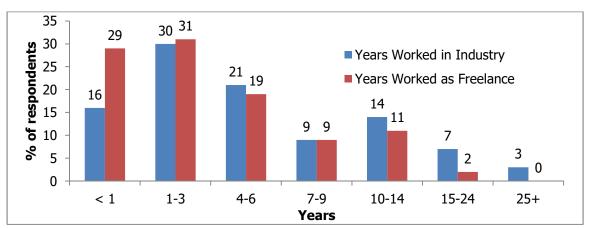


Figure 5: Years in Industry and as Freelance

Source: IGDA DSS 2016

The majority of freelancers seemed to concentrate their work with a handful of employers; more than half (55%) reported having only one or two employers/clients in the past five years and a further 34% reported having three to five employers. Similarly, most freelancers were only working on one project at a time (60%), but working on two to five projects at a time was also common (36%). For the freelancers working on multiple simultaneous projects, those contracts were most often with different employers (75%).



Depending on how many projects they were currently working on, freelancers reported the length of current or typical contracts. The data across these two questions point to short contracts with '3-6 months' and 'less than 3 months' as the most common responses (~30% and 22%, respectively), followed more distantly by '7-11 months' (11%). Surprisingly, a significant minority (~20%) reported that they did not know the length of their current or typical contract. These short contract lengths coupled with the data above regarding number of employers and number of simultaneous contracts suggest that freelancers often experience times without work.

Snapshot: Company Type

Freelancers were most likely to work for independent studios (44%) - those which are not owned by or dependent on a single publisher and engage primarily in self-publishing. This was followed distantly by third-party studios (11%) and each of first party studios (7%), companies that did not exclusively make games (7%) and work-for-hire studios (7%).

Snapshot: Job Role

Most freelancers in this sample were programmers/software engineers/technical designers (29%), followed by game designers (19%) and visual artists (13%).

Snapshot: Company Size and Composition

Freelancers were most likely to be found at small to mid-sized companies; 40% reported working at a company of two to five people while 21% each reported working at companies with six to ten or 11 to 50 people. In line with this, freelancers were most likely to work on small development teams of two to five (47%) or six to ten (19%) people. Freelancers overwhelming tended to work from home in dedicated (57%) or ad hoc spaces (22%). Some reported having space at their employer's studio (19%) or using a co-working space (18%).

Snapshot: Salaries

Overall, freelancers in this sample earned significantly less than their traditionally employed counterparts. Half of the sample reported making less than \$15K USD per year and only 22% made over \$50K USD per year. Many freelancers were paid an hourly wage (24%) or per deliverable (17%), but most freelancers arranged a combination of compensation practices (34%) that included these as well as day rates and on-going retainers.



Snapshot: Incentives and Overtime

Generally, freelancers did not negotiate incentives or bonuses as part of their compensation (70% had none), but 24% did say that they negotiated royalties or shares tied to the success of the game. Similarly, most freelancers (61%) did not negotiate extra compensation for overtime or hours worked beyond normal office hours. Some indicated that they did negotiate paid overtime (12%) or some perks like meals (10%). The majority of freelancers reported that they had not been expected to work unpaid hours on a contract in the past 2 years (62%), but that left 30% who were expected to work unpaid hours and 8% who were not sure.

Snapshot: Benefits and Time Off

Only a handful of freelancers reported contracts that included paid time off (4%) or accounted for time off as additional pay (7%). Indeed, most reported taking very little time off at all. Almost 30% reported taking no time for sickness and 36% typically took less than one week. The number of weeks for vacation varied with 15-19% of respondents selecting each of one, two, three, or four weeks; 17% reported taking no vacation.

Employer coverage for health care and life insurance was also rare (2% for health; 0% for life) Rather, freelancers in this sample reported relying on government provided health coverage (33%) and/or individual or private coverage (30%). Another 13% relied on parents or partners for their health coverage. Unlike health coverage, most freelancers (72%) did not have life insurance at all. If they did, it was a private plan obtained individually (17%). Similarly, most freelancers (46%) did not have a retirement or pension program. If they did have a plan, it was also likely to be a private individual plan (32%).

IP and Credit

Most freelancers (92%) worked for hire and their employer owned the IP. However, 81% said their name was included in the game credits in recognition of their contribution to the game. Only 9% reported that they received no credit for their contribution to a game - this is an improvement from the DSS 2015 data.

Hours of Work

Forty percent of freelance respondents worked 'standard' work weeks of 40-44 hours; however 27% reported working less than 30 hours per week in their regular work schedules. Freelance work did involve crunch time, with 56% of respondents indicating that they engaged in crunch, 61% indicating they had crunched more than twice in the past two years, and 51% feeling that long hours were expected as a normal part of their job. As well, of those who said they did not engage in 'crunch', 36% said their work required periods of long hours, extended work hours or extended overtime, but they just did not refer to it as crunch. One-quarter of freelancers reported working 50-59 hours per week per week during crunch while 21% reported working 45-49 hours per week. Though crunch was still prevalent, overall the hours of work data reported



by the respondents to the DSS 2016 shows an improvement from the responses collected in 2015 insofar as more are working 'standard' hours, fewer are working shorter hours and fewer are engaged in intensive crunch.

Snapshot: Why Freelance?

Sometimes people choose to work on a temporary or contract basis. Other times this is the only option given their unique circumstances and the realities of their regional or national labor markets. This survey captures both of these dimensions. Regarding the former, many respondents said they worked freelance for reasons related to personal control over their work and life (they could select more than one answer):

- To have more control over working conditions like hours (55%)
- To work on more varied projects (44%)
- To have more control over the content of the work (42%) and make the games you want to make (49%)
- To have more control over employment stability/risks (31%)

That said, 39% of freelancers said that they freelanced because they had not been able to find a permanent job at an established studio where they live. This shows that for some, this was not purely a personal choice.



A Profile of the Self-Employed

Snapshot: Demographics

The typical self-employed developer in this sample was 34 years old, identified as white or multi-racial with white (83%), was male (81%), and working in the United States (37%). He was heterosexual (88%) and married or in a long-term relationship (56%), and probably had no children (72%). He likely did not report having a disability (77%). He had a university degree (69%), probably in computer science/software engineering (26%) or game development/design (12%).

Snapshot: Experience and Job Security

The responses from self-employed developers reflected a slight polarization in terms of experience. While the largest group (28%) reported working in the industry for one to three years, a sizable portion also reported four to six years (20%), 10 to 14 years (15%) and 15 to 24 years (13%). Taken together, 32% had worked in the industry for more than 10 years. That said, it seems that the decision to become self-employed was a more recent one as 83% reported being self-employed for six years or less. Only 11% reported being self-employed for more than 10 years. Fitting this conclusion, most self-employed respondents had worked as permanent or temporary employees in the past (74%) and 4% had worked as freelancers. Most self-employed respondents saw themselves staying in the industry indefinitely (78%), and saw themselves remaining self-employed (62%).

Snapshot: Company Type

The majority (62%) of the self-employed respondents identified as independent developers who engaged primarily in self-publishing. The next largest groups were far behind: work-for hire developer (8%) and third-party developer (7%).

Snapshot: Job Role

In addition to their role as owner, many self-employed respondents identified as programmers/software engineers (27%), game designers (22%) or as generally part of senior management (20%). A number of self-employed respondents reported that they are engaged in jobs across the full spectrum of their company's operations, particularly those who owned a small company or were a one-person shop.

Snapshot: Company Size and Composition

The self-employed respondents in this sample typically owned small companies which are oneperson shops (27%) or they employed/contracted two to five people (43%), or six to ten people (21%). However, it was reported that the size of the team could fluctuate across the year. On



average the self-employed said their teams could get as small as three people and as large as nine people over the course of a year. In busy times the team size was never reported as larger than about 50 people and this was rare (2%).

When staffing their teams, the self-employed were just as likely to hire employees as deploy contractors. There was a 50/50 split on average regarding the percentage breakdown of employees versus contractors; 24% said that they deploy only contractors, 18% said they use 50% contractors and 50% employees, and 18% said they have 100% employees.

The small company size results in fewer projects running at one time: 42% said one project at a time is normal, while 54% said they have two to five projects running at one time.

Most self-employed respondents worked from a dedicated home office (61%) and their employees were likely to do the same in their own homes (69%). However, 34% worked from an external studio or office and, unsurprisingly, 35% also had employees that worked at the company studio or office.

Snapshot: Salaries

Seventy-three percent of self-employed respondents said their company is self-funded, and this created a number of financial barriers. Though they likely worked at their own company full time, with 77% reporting that 90-100% of their income comes from their work in the game industry, they were not making much money. More than half (51%) reported that their annual income in 2015 from game-related work was less than \$15K USD. Forty-three percent said that they always forego a salary or wage in order for their company to have what it needs. There was some polarization though as 24% said they never forgo their own salary/wage.

Despite its seeming popularity only 11% reported that their work was crowdfunded; this was similar to those who relied on public granting agencies (12%), arrangements with publishers (12%) or investors (10%) and was less than the reliance on family and friends (22%).

Snapshot: Incentives and Overtime

The responses to the 2016 DSS were somewhat different regarding raises. In 2015 40% of the self-employed sample said they did not provide raises while in 2016 only 26% did not provide raises. Rather 37% reported providing raises based on a combination of factors such as merit, fixed percentages, and managerial discretion. Similarly, in 2015 39% did not provide bonuses while only 24% said they did not provide bonuses in the 2016 sample. The most common bonus was royalties tied to the game (33%) followed by lump sum (25%). During periods of overtime and crunch, these employers offered some perks (23%), comp time (16%), paid overtime (6%), or a combination of money and comp time (10%) to their workers. The percentage who said they did not provide any compensation for overtime was much less in this sample than in 2015 (16% versus 37%).



Snapshot: Benefits and Time Off

Self-employed respondents took few sick days, with 27% reporting that they took none and 40% reporting that they took less than a week. More took some vacation time; 62% took between one to four weeks, though one-quarter took less than a week or none.

Most self-employed respondents did have a form of health coverage, though 25% said that they did not. Rather than a company plan, most self-employed developers relied on government plans (26%), individual insurance (21%), and/or spousal/parental plans (18%). A greater percentage of the self-employed had neither life insurance (61%) nor a retirement program (48%). In both cases, the largest percentage who did have these benefits relied on individual private plans (21% for life, 24% for retirement).

Snapshot: Benefits and Time Off for Employees

The self-employed respondents in this sample seemed to offer more time off than the respondents in 2015. Only 21% said they offered no time off except statutory days (compared to 51% in 2015); 25% said they have a packaged time off policy, 21% said they allocated sick and vacation time and 32% said they did something other. A small minority of self-employed respondents offered health insurance (14%), life insurance (1%) or a pension plan (10%) to their employees.

Common perks the self-employed offered to employees included conference travel (38%), coffee/espresso (22%), and other drinks (47%), a game lounge (22%). The majority allowed flex hours (76%) and telecommuting (63%).

Hours of Work

The typical work week for self-employed respondents was roughly concentrated around the standard 40-44 hours/week; 28% did report 40-44 hours, but 11% reported 35-39 hours, 16% reported 45-49 hours and 13% reported 50-59 hours. Long hours were also common for the self-employed; 50% indicated that they did crunch, 58% said they crunched more than twice in the past two years, and 40% said their job required long hours that they would not necessarily call "crunch." Forty-three percent felt that these long hours were necessary for their job, but 34% said it is not required and another 22% said they were not sure. The hours in crunch that were reported by the self-employed were higher than for employees or freelancers; 24% reported working 50-59 hours, but 49% reported working more than 60 hours and this included 20% who worked more than 80 hours per week in crunch.



Student Profile

An important sub-sample (16%) of our respondents identified as being either full (12%) or parttime (4%) students. Of these 75% were studying to work in the game industry while 25% were studying about games or the game industry.

Snapshot: Demographics

The demographics of the student sample in the DSS 2016 may show a glimmer of hope for the future from a diversity perspective. Though the majority identified as being male (62%) this was lower than the sample overall (72%) and lower than each of the employment type sub-groups (freelancers = 67%; employee = 74%; self-employed =81%). The story is similar regarding ethnic diversity. Among students, 78% identified as white or multi-racial with white while the overall sample was 81% white and the employment sub-groups were also higher (freelance = 80%; employees = 85%; self-employed = 83%). The majority said that they did not have a disability (80%).

Students were also asked about the demographic make-up of their class. One-third reported that their class was less than 10% women and 79% reported that women made up less than half the class. Similarly, 83% said that their class was 75% "white" (an additional 13% said they did not know). Taken together these figures may represent a marginal improvement from a gender and ethnic diversity perspective; however, the difference is not drastic. As formal schooling is increasingly the dominant pathway into games, these figures suggest that a more balanced representation along gender and ethnic lines will be slow to come.

Just over half of the students felt that there was equal treatment and opportunity for all in gamerelated educational programs; that left 26% who were not sure and 22% who felt there were not equal opportunities.

Snapshot: Desired Job

Respondents identifying as students were asked to specify the type of job they are pursuing. (25%) indicated that game designer was their primary Programmer/software engineer/technical designer was the second most popular discipline at 24%. Visual artist ranked third at 11% and to be a writer in the industry captured 7% of the sample. A number of students (5%) said they wanted to start their own companies, work in QA (5%) or be project managers (6%). Smaller numbers said they were interested in community management (4%) or UX/UI research and design (3%).

Snapshot: Desired Company

Few students reported wanting to work for first-party developers or their subsidiaries (9%). More desired to work for second-party developers or their subsidiaries (23%) or be self-employed (10%). Perhaps not surprising given their current popularity, 22% wanted to work for an independent game studio. Smaller numbers of respondents wanted to work for a third-party



developer (7%), freelance (4%), in the non-profit sector (3%) or for a company that does not exclusively make games (3%); 14% did not know.

Snapshot: Priorities in a Job

Table 7 below shows the features for which students are looking when they are considering a job in the industry. Respondents were asked to check all the options that applied. Note that 50% said that learning new skills was their top priority. Location was number two (46%). Autonomy/creative freedom, salary and potential for advancement were virtually tied for the number three spot at 33-35%. Next was diversity in the workplace which showed a 10% gain from 2015.

Table 8: Priorities When Considering a Job in the Industry

	% of respondents
Learning new skills	50
Location	46
Salary	35
Autonomy/creative freedom	34
Potential for advancement	33
Diversity in the workplace	22
Amount of crunch expected	15
A family friendly environment	15
Flexibility/mobility	14
Insurance/retirement benefits	13
Build a start-up/studio	7
Stock options/ownership	2
Source: IGDA DSS 2016	

Snapshot: Finding a Job

While completing their studies, 48% of students were already working on games for pay or with the goal of commercialization. While only 16% of students were very confident in their ability to get their first job after graduation, 40% were somewhat confident. That left 44% who were not too confident or not confident at all. More than half anticipated that they would need to relocate to find their first job. As an aid to employability, over one-third (38%) of students said that their school had a co-op or internship program, but 43% did not know.



Conclusion

The Developer Satisfaction Survey is an important source of actionable information for the entire game development community. These data points also provide the IGDA with a better indication of whom the association represents and their concerns, interests and issues.

Developers are still young, male, white and most of them do not have children or elder care responsibilities. They are highly educated and two-thirds have been trained in specialized programs relevant to game design or game development. The lack of gender and ethnic diversity remains mirrored among students who are studying to enter the game industry, though the numbers are slightly better. As such, important representational challenges remain. These include immediate negative outcomes such as inequity and discrimination for women, ethnic minorities and older workers, but also have implications for the maturation of the industry, innovation in game content, art and design, perpetuating negative occupational identities and norms, and working conditions such as hours and overtime. As evidence of this, a growing number (58%) of respondents did not feel that there was equal treatment and opportunity for all in the industry.

In juxtaposition, the reported value placed on diversity by the 2016 respondents was the highest ever across the DSS; diversity in the game industry, diversity in the workplace and diversity in game content were rated as important by 72-82% of respondents.

The videogame industry is still "no country for part timers" as the vast majority of respondents work in the industry on a full-time basis. That said, it does not mean that developers are stable in employment. Employees are often "hired and let go" while freelancers seem to maintain stable-but-rotating relationships with a small set of clients. Employees as well as freelancers may switch employers close to once a year (2.2 switches on average during the past 5 years for employees, 3.2 for freelancers/contractors). This comparison raises some questions about whether companies are skirting the definitions of freelance or independent contractor to hire de facto employees while avoiding regulatory regimes and payroll costs. This issue, under the tagline 'false' or dependent self-employment seems to be growing and has attracted the attention of policy-makers at least in European circles. The freelance population was small in this sample, but this issue could be further investigated.

The average career path does not typically rely on in-house promotion. Of course, some developers get promoted in their studio, but many will advance under the "spiral staircase" model of project management, switching jobs, projects and studios to enhance their reputation and get hired on more prestigious projects. They gain informal but highly valued status along the way, without looking for any line position up the hierarchy. This environment of precarity places a large burden on workers even as many accept or work the system to their benefit.

Interestingly, though half of the respondents only work on one project at a time, the other half works on two to five projects. This is the case for employees, the self-employed and freelancers. These multiple assignments are an important issue in project management and could present a challenge for team building and individual work organization, work pace, work intensity, stress and health.



Salaries are still individually negotiated or established, and are part of a multi-layered compensation system where some components are universal and minimal and others are variable, uncertain and meritocratic. Studios rarely have a clear policy and criteria for the salary level. As well, unlimited and unpaid overtime remains a concern even as some studios seem to be improving both in terms of crunch hours and its compensation.

Freelancers in this sample make significantly less than their traditionally employed counterparts. Most do not have any incentives or bonuses as part of their compensation (70%), while a quarter negotiate royalties or shares tied to the success of the game. Similarly, most freelancers (61%) do not negotiate extra compensation for overtime or hours worked beyond normal office hours.

Self-employed respondents likely work full-time at their own indie company. Despite some highprofile successes in recent years, the life of a self-employed indie developer is not easy; half reported less than \$15K USD as an annual income in 2015. Nearly half may forego a salary or wage in order for their company to have what it needs. That said, when compared to the 2015 DSS, the self-employed respondents in this sample reported providing raises and bonuses to their employees more frequently.

While there is a general decrease in regular and crunch hours of work in the industry over the past 15 years, crunch time is still part and parcel of the trade. The frequency and intensity of crunch may vary slightly across employment groups, but over half of the respondents across the board from each of freelancers, employees and the self-employed said they crunch. This is often more than once per year and they put in at least 50% more hours during crunch than the standard work week of 40 hours.

Therefore, the issue of crunch remains a significant challenge as do the following:

- The demands on employees' contributions versus fair compensation for their time spent at work (i.e., compensation for "crunch" time).
- The continued underrepresentation of women, ethnic minorities and older workers and the associated challenges of equity and discrimination. There may be particular challenges with the fact that out of the three employment sub-groups, women seem most likely to be freelancers and least likely to be self-employed.
- A strong desire by employees to give their time and passion to an employer, sharply contrasted by high rates of job changes over short periods of time.
- The diverse experiences and challenges of different workers in the industry (i.e., salaried employees, freelancers and the self-employed) and the need to devise suitable approaches to support each group.



Limitations and Next Steps

This Summary Report addressed only the most salient points and engaged in limited comparison among questions or to past surveys. Look for past reports on the IGDA website or the authors' website. You can also sign up to receive future surveys at gamegol.org.

The number of developers who took the DSS 2016 was significantly fewer than in 2015 or 2014 and there continues to be considerable drop-out across the survey (i.e., people start, but do not finish). We continue to tweak the survey to provide for a better experience and to find a balance between comprehensive questioning and survey length. We will continue in our attempts to reach a broader international audience and to achieve a large representative sampling of the game community. Sign up now to receive alerts about future surveys and please help us spread the word!