

# Working Conditions of Crowdworkers: How Working Conditions of Crowdworkers Vary by Job Content

Itaru NISHIMURA

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## I. Introduction

This article presents an overview of the form of employment known as “crowdwork,” based on existing data. Eurofound (2015) lists 11 work styles, and positions them along the two axes of “employment / self-employment” and “traditional employment relationships / new work styles.” Among the 11 types is “crowd employment” described as a new type of work style that departs from traditional employment characteristics such as working in a predetermined place or for a predetermined time.<sup>1</sup>

Some argue that this new work style cannot be classified as either employment or self-employment. Harris and Krueger (2015) point out that workers in the gig economy have aspects of both independent contractors and employees. They state that while such workers have qualities of independent contractors in that they are free to work when, and as much as, they want to work on their own initiative, but also those of employees in that the mediation of certain internet-based apps is integral to both securing orders and managing their work. In addition, they propose establishment of a new legally recognized category of “independent workers” as an intermediate form of work between employee and independent contractor.

Much remains to be ascertained about the work styles of crowdworkers (referred to below as “CW”), who are said to have the characteristics of both independent contractors (referred to below as “IC”) and employees. RENGO-RIALS (2017b) points out that part-time CWs have lower income and lower job satisfaction than full-time CWs. In addition, RENGO-RIALS (2017a) and Yamamoto (2018) describe the circumstances of CWs in Germany, and point out that many are workers or students engaged in crowdwork as side jobs. The Japan Institute for Labor Policy and Training (JILPT) (2019) points out that many female CWs are engaged in side jobs, and many are classified as “clerical workers.”

However, many realities of the CWs work style remain unclear. For this reason, this article draws on surveys conducted by JILPT in discussing relationships between the job characteristics and the work styles of CWs. The article focuses on typical features of CWs’ job content, and describe how the work styles of CWs vary by job content. What kind of differences (or similarities) in work styles exist between CWs performing tasks considered very scarce, in markets where others are unlikely to be able to imitate them, and those performing common tasks in markets where many people can do the same work? Although this article only points out the features of the CW work style, even partial clarification of the work style of CWs, the reality of which is little understood, seems to be a significant endeavor.

1. In addition, “portfolio work,” “collaborative employment,” and “ICT-based mobile work” are described as work styles with similar characteristics.

The structure of this article is as follows. Section II gives a definition of “CW” as used in the article, and explains classifications of the features of job content. Section III verifies quantitative aspects of work style (amount of compensation and number of days worked). Section IV verifies qualitative aspects of work style (business relationships). Section V discusses where skills required to work as a CW are acquired. Section VI focuses on job satisfaction. Section VII summarizes the features of CWs elucidated by this article.

## II. The term “crowdworker” in this article

### (1) Definition of “crowdworker”

The data used herein is from “Questionnaire on Your Job” conducted by JILPT in 2017.<sup>2</sup> This was a web monitor survey, and the subjects were those who “worked and earned income as self-employed workers, freelance workers, independent contractors, or crowdworkers for one year during 2017.”<sup>3</sup> They were asked about matters including amount of compensation, working hours, number of business relationships, nature of these relationships, how they acquired necessary skills, etc.

Among the questions, respondents were asked to select only those that apply from the following (multiple answers possible): “1. I deal directly with business operators,” “2. I deal directly with general consumers,” “3. I do business through an intermediary company,” “4. I do business through a crowdsourcing company.”

For the purposes of this article, people who selected only “4. I do business through a crowdsourcing company” are considered CWs (n=1068). In other words, in this article people who receive orders for self-employed work only through crowdsourcing companies are CWs.

### (2) Job characteristics

This article focuses on the qualitative characteristics of work that CWs are engaged in, and divides the contents of crowdwork into the following two categories. One consists of tasks that other people can easily imitate, and the other of work that others cannot easily imitate. In this article, CWs engaged in work that other people cannot imitate are described as “CWs engaged in work with a high degree of scarcity (referred to below as ‘high-scarcity CWs’),” and those engaged in work that others can easily imitate are described as “CWs engaged in work with a low degree of scarcity (referred to below as ‘low-scarcity CWs’).”

The questionnaire contained a question asking respondents to choose on a gradation from “A. I did a lot of work that only I could do” to “B. I did a lot of work that other people could do,” with the options being “Closer to A,” “Closer to A than to B,” “Closer to B,” and “Closer to B than to A.” Based on this question, respondents closer to A (who chose “closer to A” or “closer to A than to B”) are considered CWs engaged in work with a high degree of scarcity (high-scarcity CWs.) Those who chose “Closer to B” or “Closer to B than to A” are considered CWs engaged in work with a low degree of scarcity (low-scarcity CWs).

Table 1 shows profiles of the respondents. First, regarding the characteristics of CWs among ICs who responded, many were female and many were young. Many were not primary wage earners in their households. Many were engaged in side jobs as well, and their primary jobs often consisted of office-related work. Examination of CWs by type reveals that “high-scarcity CWs” are more likely to be male than “low-scarcity CWs,” and many of the former are responsible for their livelihoods. There are also many for whom crowdwork is their primary job. In these cases primary job contents tended to be non-office work tasks such as “design / video production-related,” “IT-related,” “specialized work-related,” “life-related services / barbershops / hair-dressing and beauty salons,” or “tasks at manufacturing plants, construction work sites, etc.”

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2. The survey period was December 15–26, 2017.

3. However, this excludes (1) those engaged in agriculture and forestry, (2) those who employ other workers, and (3) individual shopkeepers.

Table 1. Respondent profiles

(%)

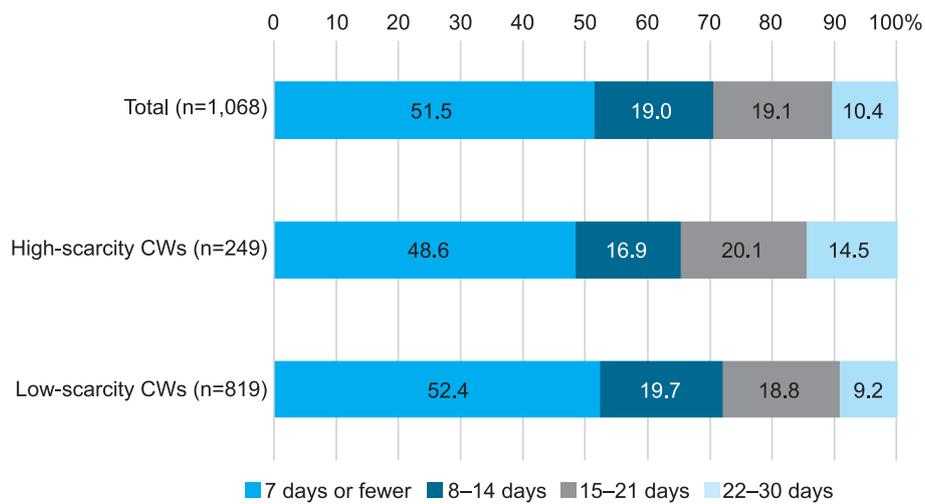
		Overall	All crowdworkers	High-scarcity CWs	Low-scarcity CWs
n		8,256	1,068	249	819
Gender	Male	62.9	43.7	58.6	39.2
	Female	37.1	56.3	41.4	60.8
Age	15–24 years old	1.1	2.7	3.2	2.6
	25–34 years old	15.2	31.8	23.3	34.4
	35–44 years old	26.0	34.1	38.6	32.7
	45–54 years old	28.0	21.0	20.1	21.2
	55–64 years old	18.0	7.7	10.4	6.8
	65 years old and over	11.6	2.7	4.4	2.2
Education	Junior high / high school diploma	21.0	20.2	19.8	20.2
	Vocational school / specialized training college diploma	10.6	11.2	10.5	11.4
	Junior college or technical college degree	13.6	13.8	13.0	14.1
	University degree	47.7	49.4	49.4	49.4
	Post-graduate degree	6.9	5.3	7.3	4.7
	Other	0.1	0.1	0.0	0.1
Marital status	Never married, divorced, or spouse has died	39.1	36.2	36.9	36.0
	Married	60.9	63.8	63.1	64.0
Primary wage earner	Self	54.8	40.1	50.2	37.0
	Self and other household member	23.7	22.6	26.1	21.5
	Other household member	20.7	37.0	23.3	41.1
	Other	0.9	0.4	0.4	0.4
Crowdwork as main job vs. side job	Main job	49.5	26.6	30.9	25.3
	Side job	50.5	73.4	69.1	74.7
Primary work contents	Office-related work	18.9	54.9	32.5	61.7
	Design / video production-related	8.9	6.0	11.2	4.4
	IT-related	8.5	6.8	9.6	6.0
	Specialized work-related	39.6	20.3	29.3	17.6
	Life-related services / barbershops / hair-dressing beauty salons	9.0	3.1	4.0	2.8
	Tasks at manufacturing plants, construction work sites, etc.	15.2	8.9	13.3	7.6

Source: Prepared by the author.

### III. Work style characteristics in quantitative terms

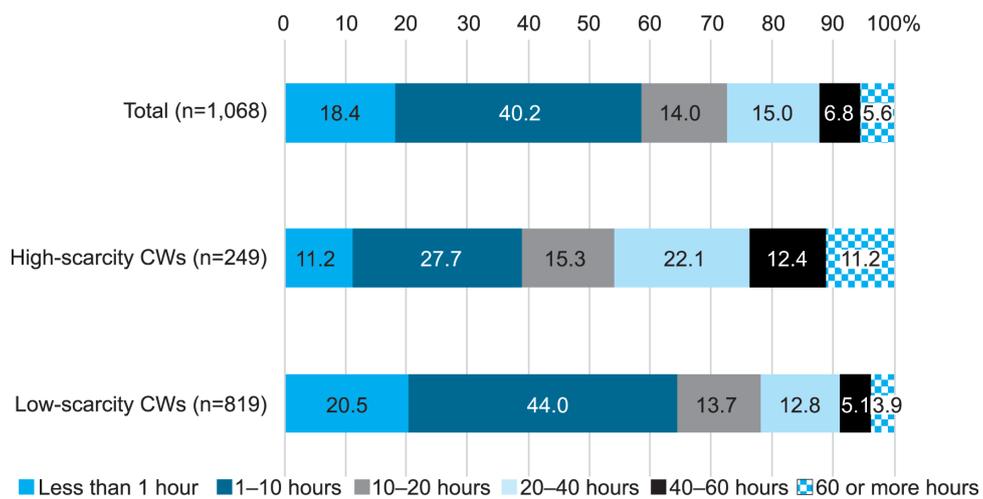
This section outlines the number of days worked by CWs, their hours worked, and their compensation received. First, Figure 1 shows the number of days worked. Here it can be seen that “high-scarcity CWs” work more days per month than “low-scarcity CWs.” Next, Figure 2 shows hours worked. Here it can be seen that “high-scarcity CWs” work more hours per week than “low-scarcity CWs.” From the above, it is evident that “high-scarcity CWs” work more.

Second, Table 2 shows compensation received during the year. Here it can be seen that “high-scarcity CWs” received higher compensation than “low-scarcity CWs.” 15.2% earned 4 million yen or more, and 8.0% earned 8 million yen or more. While it is not shown in the table, the percentage of all ICs including those other than CW who earned 8 million yen or more was 6.8%. This suggests that some of “high-scarcity CWs” earn relatively high compensation among ICs in general.



Source: Prepared by the author.

Figure 1. Crowdworkers' average number of days worked in one month



Source: Prepared by the author.

Figure 2. Crowdworkers' average number of hours worked in one week

Table 2. Crowdworkers' annual compensation amount

	n	Less than 500,000 yen	500,000-1 million yen	1-2 million yen	2-4 million yen	4-6 million yen	6-8 million yen	8 million yen or more	Total (%)
Total	1,068	82.1	6.5	3.6	2.9	1.8	0.7	2.4	100
High-scarcity CWs	249	58.2	11.2	6.4	8.8	5.2	2.0	8.0	100
Low-scarcity CWs	819	89.4	5.0	2.7	1.1	0.7	0.4	0.7	100

Source: Prepared by the author.

#### IV. Qualitative characteristics of work that CWs are engaged in

This section describes CWs' business relationships with requesters. The questionnaire contains a question asking about business relationships between CWs and requesters (i.e., those to whom CWs actually provide services). Here, this refers to "requester (client)" (shown in the right circle in Figure 3) for whom CWs provide services directly.

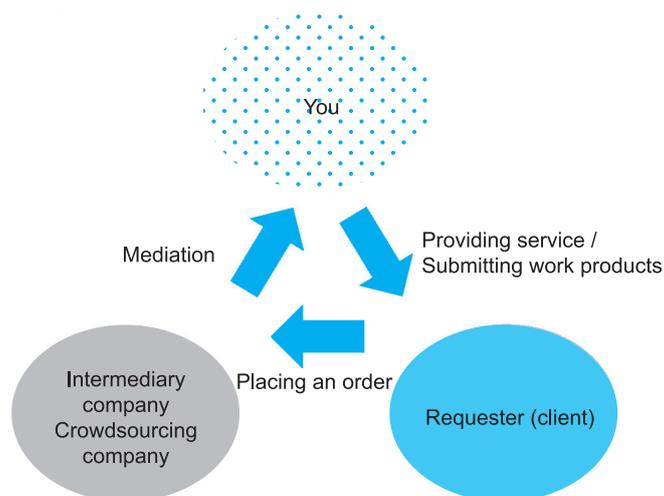
Figure 4 shows how details of contracts are determined. Here it can be seen that "high-scarcity CWs" communicate more with other parties with whom they have business relationships when deciding the contents of a contract than "low-scarcity CWs." Also, the percentage of decisions made in accordance with the rules of third parties (crowdsourcing companies or intermediaries) is low. It is evident that "high-scarcity CWs" tend to negotiate directly with requesters (clients) with whom they have business dealings when deciding contract details.

Then, after the contents of contracts are decided, what kind of business relationships are CWs involved in? Figure 5 to 7 show the frequency of instructions received from requesters (clients) with whom CWs have business dealings. Figure 5 shows the presence or absence of instructions regarding contents of jobs, Figure 6 shows the same regarding number of days and hours worked, and Figure 7 the same regarding where work is done.

First, among job contents, work days and hours, and work locations, instructions are least likely to be received regarding work locations, and most likely to be received regarding job contents. Next, more than half of both "high-scarcity CWs" and "low-scarcity CWs" work without receiving instructions. Regarding job contents, it seems that instructions are received at the same frequency regardless of the characteristics of the work. On the other hand, regarding days, hours, and locations of work performed, "high-scarcity CWs" are instructed by those with whom they have business dealings more often than "low-scarcity CWs." Compared to "low-scarcity CWs," "high-scarcity CWs" show a tendency to receive instructions regarding work days, hours worked, and work locations.

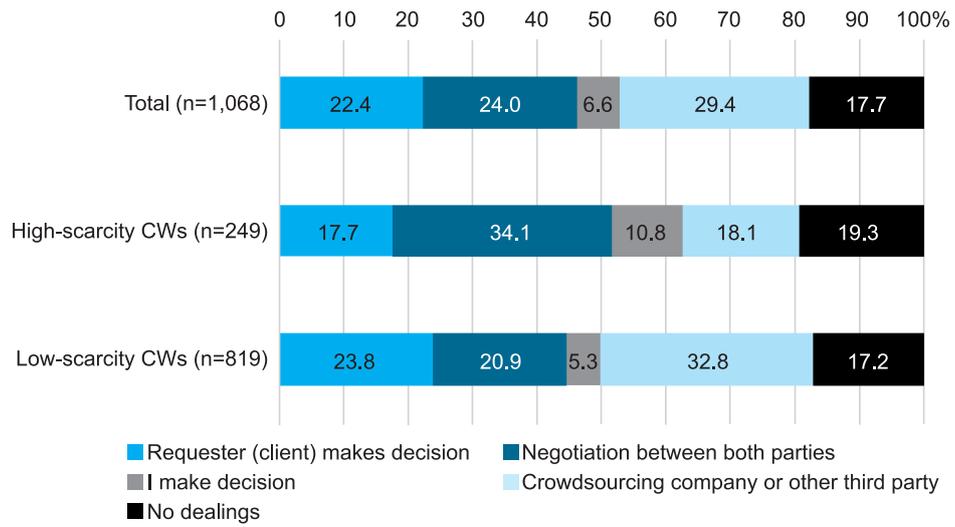
#### Example

"Please respond with regard to requesters (clients) indicated in the right circle below."



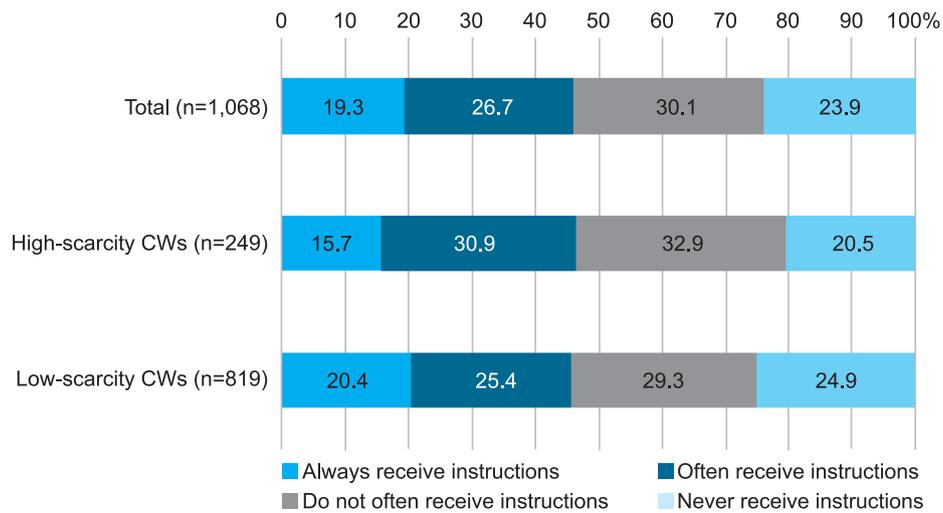
Source: Prepared by the author.

Figure 3. Business relationships with requesters (clients)



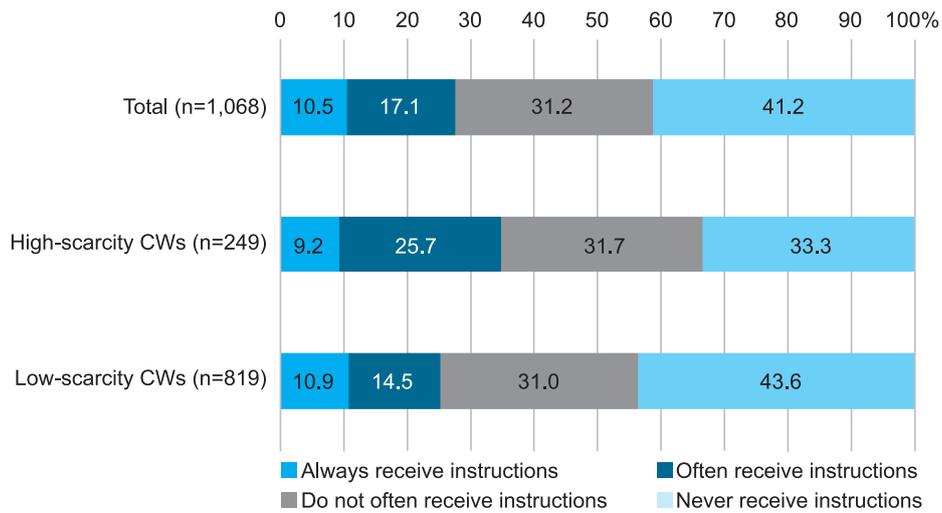
Source: Prepared by the author.

Figure 4. Business relationships and means of deciding contract details



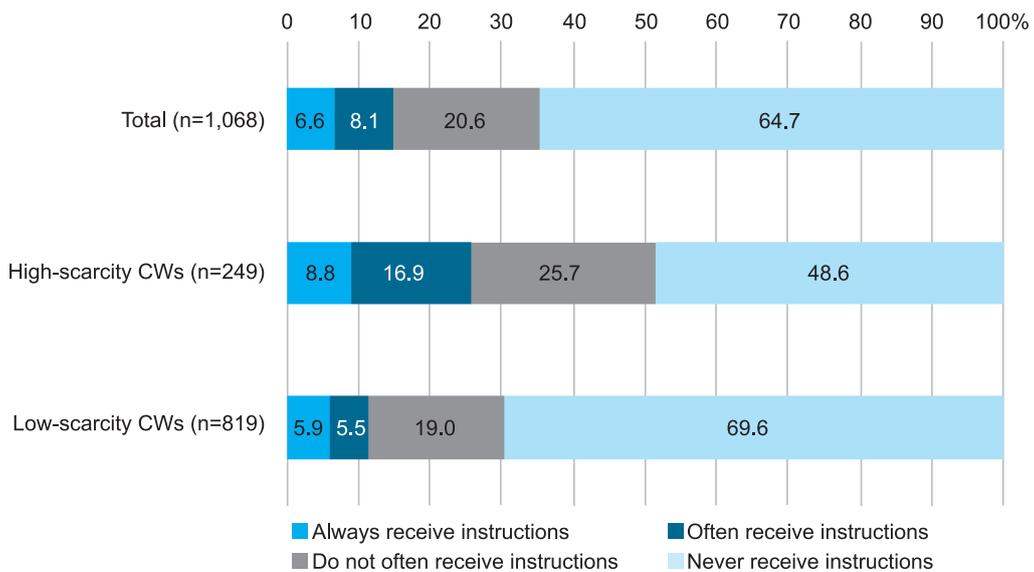
Source: Prepared by the author.

Figure 5. Presence or absence of instructions in business dealings (job contents)



Source: Prepared by the author.

Figure 6. Presence or absence of instructions in business dealings (work days and hours)

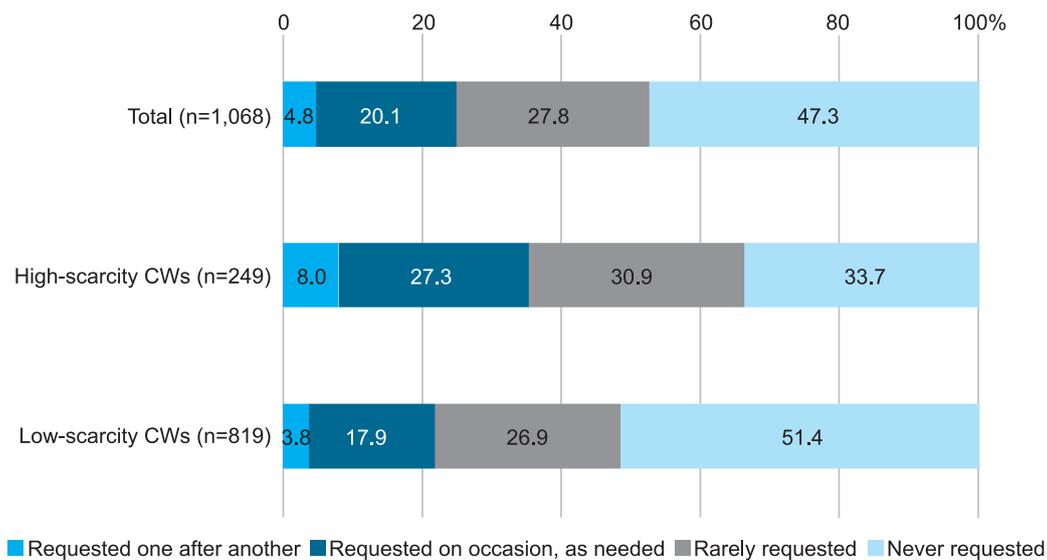


Source: Prepared by the author.

Figure 7. Presence or absence of instructions in business dealings (work location)

Next, how often were CWs asked for progress reports during work? Figure 8 shows that “high-scarcity CWs” are more frequently asked for progress reports in the course of business dealings than “low-scarcity CWs.”

From the above, it is evident that “high-scarcity CWs” are more likely than “low-scarcity CWs” to receive instructions or be requested to report on progress in performing tasks.



Source: Prepared by the author.

Figure 8. Frequency of requests for progress reports in the course of business dealings

## V. Where skills are acquired

In Sections III and IV, we examined the characteristics of CWs’ work styles. Then, how did they gain the skills needed to work as a CW? According to Table 3, 50% of CWs answered that they acquired skills “nowhere in particular.” Specific items that ranked highly were “experience, training or study sessions at a company” and “through related books and other materials.” By type, “high-scarcity CWs” were more likely to have acquired the necessary skills somewhere than “low-scarcity CWs,” and a lower percentage of “high-scarcity CWs” responded “nowhere in particular” than their low-scarcity counterparts. “High-scarcity CWs” tended to have acquired the necessary skills through “experience, training or study sessions at a company,” “through related books and other materials,” “correspondence courses or online courses,” “study sessions with peers, seminars, and other information exchange.”

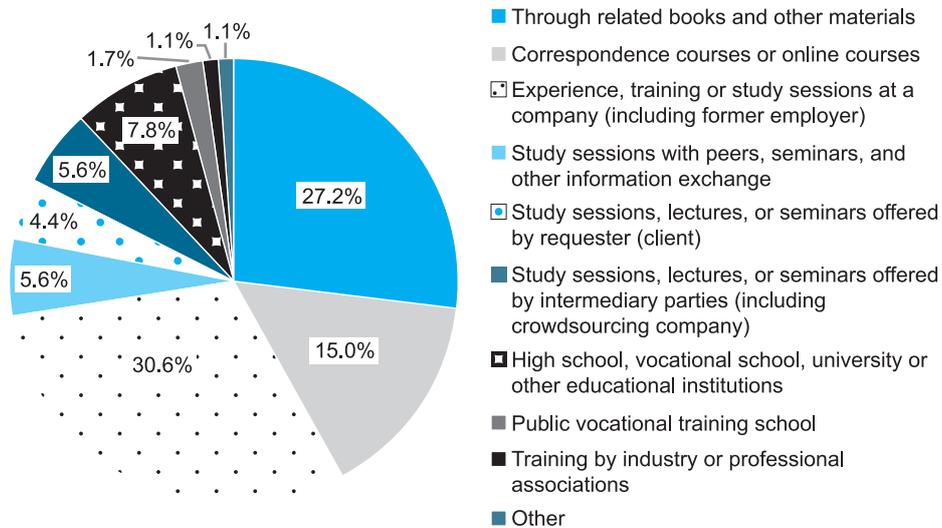
For “high-scarcity CWs” that acquired the necessary skills in some way, in terms of the most useful sources

Table 3. Where necessary skills are acquired (MA)

	(%)		
	Total	High-scarcity CWs	Low-scarcity CWs
n	[1,068]	[249]	[819]
Through related books and other materials	19.8	27.7	17.3
Correspondence courses or online courses	10.1	18.5	7.6
Experience, training or study sessions at a company (including former employer)	20.5	28.5	18.1
Study sessions with peers, seminars, and other information exchange	4.5	10.8	2.6
Study sessions, lectures, or seminars offered by requester (client)	2.2	4.8	1.5
Study sessions, lectures, or seminars offered by intermediary parties (including crowdsourcing company)	4.6	6.0	4.2
High school, vocational school, university or other educational institutions	6.3	9.2	5.4
Public vocational training school	1.7	1.6	1.7
Training by industry or professional associations	1.2	2.8	0.7
Other	0.7	0.8	0.6
Nowhere in particular	50.0	27.7	56.8

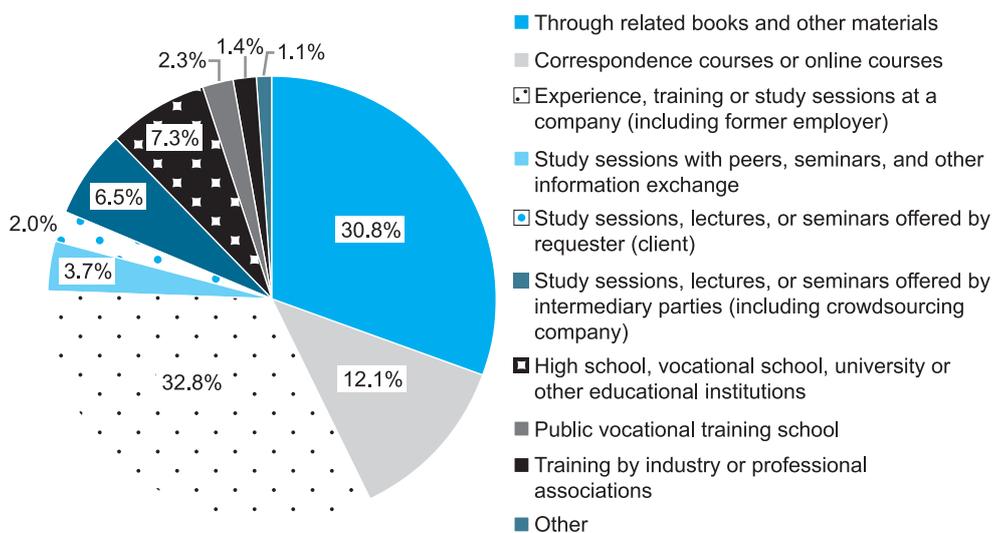
Source: Prepared by the author.

of skills, “experience, training or study sessions at a company” (30.6%) was highest, followed by “through related books and other materials” (27.2%) (Figure 9). Similarly, for “low-scarcity CWs” who acquired the necessary skills in some way, when asked where the most useful skills are acquired, the highest percentage responded “experience, training or study sessions at a company” (32.8%), followed by “through related books and other materials” (30.8%) (Figure 10). Based on these results, it is evident that companies are the most common places for CWs to acquire necessary skills in some way.



Source: Prepared by the author.

Figure 9. Most useful source of skill acquisition (high-scarcity CWs (n=180))



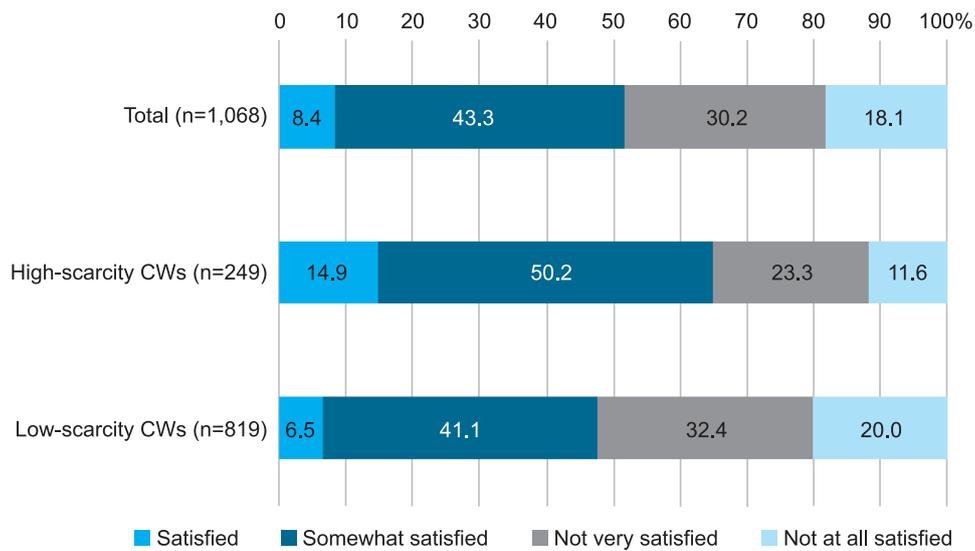
Source: Prepared by the author.

Figure 10. Most useful source of skill acquisition (low-scarcity CWs (n=354))

## VI. Job satisfaction

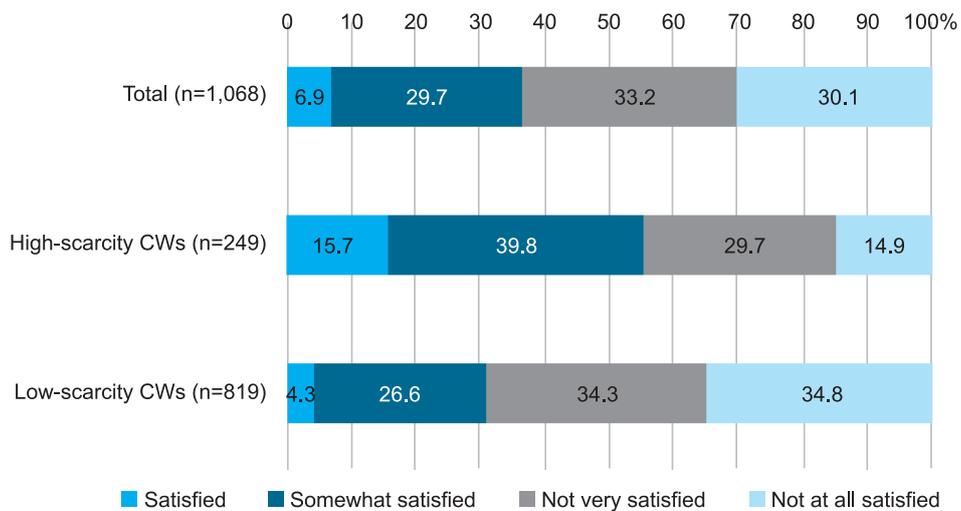
Thus far we have looked at CWs' work styles and where they acquired necessary skills. Next, how do CWs feel about their work styles? This article verifies level of satisfaction with "work overall," "income," "feeling work is worthwhile," and "ease of working."

First, examining responses regarding crowdwork overall (Figure 11), about half were satisfied with "work overall" (total of "satisfied" and "somewhat satisfied"). In terms of individual items, satisfaction with "income" (Figure 12) and "feeling work is worthwhile" (Figure 13) were lower than satisfaction with "ease of



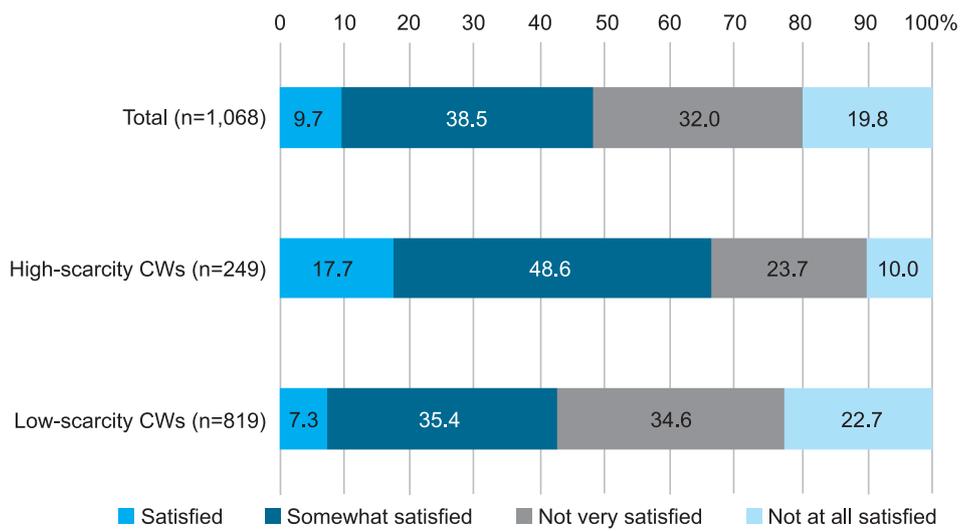
Source: Prepared by the author.

Figure 11. Degree of satisfaction with work overall



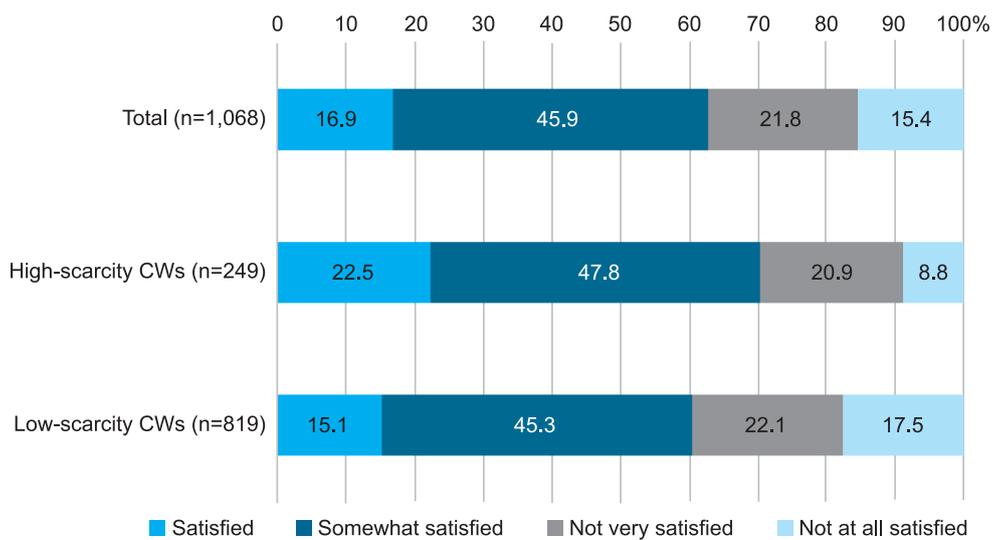
Source: Prepared by the author.

Figure 12. Degree of satisfaction with income



Source: Prepared by the author.

Figure 13. Degree of satisfaction in terms of feeling work is worthwhile



Source: Prepared by the author.

Figure 14. Degree of satisfaction with ease of working

working” (Figure 14). The work styles of CWs may tend to heighten “ease of working” more than “income” and “feeling work is worthwhile.”

When level of satisfaction by job characteristics is examined, we find that the figures are higher for “high-scarcity CWs” than for “low-scarcity CWs” across all types of satisfaction, and more than half of respondents in the former category answered that they were satisfied with “work overall,” “income,” “feeling work is worthwhile,” and “ease of working.” The largest differences between types (high-scarcity and low-scarcity) are in “income” and “feeling work is worthwhile.” Although not shown in the Figure 12, satisfaction with “income” is only 48.5% for all ICs including CW. Among all ICs, “high-scarcity CWs” seem to have the

highest satisfaction with income. In light of the above, it is evident that “high-scarcity CWs” tend to feel at least a certain degree of satisfaction with “income,” “feeling work is worthwhile,” and “ease of working.”

## VII. Conclusion

### (1) Characteristics of CWs

As this article has described, the following points can be cited as characteristics of CWs.

First, the overall trend among CWs is that many are female and not the primary wage earners in their households. Also, many are doing crowdwork as side jobs. From this, it is evident that women select the CW as a means of supplementing household finances. Most of this work is “office-related.”

Second, “high-scarcity CWs” (who perform tasks that are difficult for others to imitate) are mostly men and many of them are the primary wage earners. They are engaged in work other than “office-related,” such as “design / video production-related,” “specialized work-related,” or “tasks at manufacturing plants, construction work sites, etc.” Their amount of compensation is higher than that of “low-scarcity CWs.” Degree of satisfaction with work is also high. In terms of how skills are acquired, they tended to acquire the necessary skills for working as a CW in a certain place and in a certain way, with useful skills most often acquired at companies and in related books.

Third, many “low-scarcity CWs” are women and not the primary wage earners. Most of their work is “office-related,” and the majority earned less than 500,000 yen annually. Approximately 90% earned less than 1 million yen. Compared to “high-scarcity CWs,” degree of satisfaction with income and feeling that work is worthwhile are lower. They tend to be somewhat dissatisfied with work overall. It appears that acquiring the skills needed to perform work in a particular place is relatively rare.

The above findings suggest that CWs are a heterogeneous group, and that at least two types exist (Table 4). One can be categorized as “household income-supplementing CWs.” Many of them are women, and they are engaged in tasks that can be done with general capabilities. The amount of compensation tends to be low, and they tend to be somewhat dissatisfied with their work styles. The other can be categorized as “independent CWs.” This group consists mostly of men, and is engaged in work that requires specialized skills. Some of them earn relatively high compensation among ICs in general. They tend to be satisfied with the CW work style, and to be satisfied with their incomes to a certain extent.

From “household income-supplementing CWs” degree of satisfaction, it is evident that a certain number of CWs may have unwillingly selected this work style. However, this article does not address the status of family members such as spouses or future career prospects. Without taking these factors into account, it will not be clear whether these are “unwilling CWs” or not, and this is an issue for future study. In any case, it can be stated that some CWs are engaged in professional work and are relatively satisfied with their income and work styles, and others who are engaged in simple work and are somewhat dissatisfied with their income.

Table 4. Two types of crowdworkers

	Independent CWs	Household income-supplementing CWs
Gender	Predominantly male	Predominantly female
Characteristics of work undertaken	Work that requires a certain degree of training and/or preparation	Work that does not require a training and/or preparation
Where necessary skills were acquired	Experience at company	Nowhere in particular
Degree of satisfaction	Satisfied	Somewhat dissatisfied

Source: Prepared by the author.

## (2) Companies as sources of skills

This article examined the circumstances of “high-scarcity CWs,” and many respondents stated that skills that helped them to do their jobs were gained through experience at companies. In the case of “low-scarcity CWs” as well, among the limited contingent who had acquired the necessary skills in some way, the most common source of skills was experience at a company. These findings suggest the importance of companies as a source of skills required for working as a CW.

Even when self-employed and not working as an employee, skills and experience acquired at companies would be useful. However, this article does not cover exactly what skills were acquired at companies, and this is also an issue for the future.

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### AUTHOR

**Itaru NISHIMURA**

Vice Senior Researcher, The Japan Institute for Labour Policy and Training.