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## Job quality and work engagement in the cruise industry

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### ABSTRACT

This study reviews the working conditions in the emerging cruise industry by using a holistic and systematic approach, as well as the effects on work engagement of two groups of clearly differentiated employees, namely, officers and nonofficer employees. Our sample comprised 353 cruise workers. Regression analysis confirmed the research purposes of this study, that is, seafarers work under poor conditions (especially among nonofficer employees) and that this precarity determines the engagement of both groups. This study contributes to identifying the job quality dimensions that needs an improvement by human resource managers of cruise lines.

### KEYWORDS

Job quality; work engagement; cruise tourism industry; decent work; working condition

### Cruise tourism: a business with the wind in its sails

Cruise tourism has continuously grown for years, making the industry one of the fastest-growing tourism segments today (Fan & Hsu, 2014; Kang et al., 2016; Lee et al., 2017; Mehran et al., 2020; Papathanassis, 2017; Park et al., 2016; Yayá et al., 2018). In 2018, the ocean cruise industry moved 26 million passengers worldwide, which meant a turnover of \$45.6 billion (FCCA, 2018). The top three cruise companies are Carnival, Royal Caribbean, and Norwegian. The most recent forecasts pointed to a promising future. For example, before the Covid-19 crisis, the Cruise Lines International Association-CLIA anticipated 32 million passengers around the world in 2020. All of these predictions are affected by the coronavirus pandemic and the suspension of worldwide cruise operations. The crisis has shocked the travel industry, but perhaps no sector has been extremely hit as the cruise industry.

Today, the future of the cruise sector is highly uncertain, but everyone agrees that it will bring about substantial changes in the industry. On the one hand, it must consider recovering consumer

confidence. On the other hand, it will involve remarkable changes in the operating procedures, with special emphasis on safety, security, and health of passengers and crew, such as screening protocols, enhanced sanitation measures, modification of meal services to facilitate social distancing, or availability of onboard medical care and treatment 24/7.

This new scenario will necessarily shake the working conditions and job quality of cruise ship employees. Despite the success and glamor of the industry, Dennett et al. (2014) highlight that the working conditions of this subsector are worse than those of others in the tourism and hospitality industry. A cruise ship is a special work environment, where one to two thousand employees share work and leisure time 24 h a day in a closed, moving, and isolated area on the high seas. Various authors have referred to this labor context as unusual (Gibson & Swift, 2011; Sehkanan & Sevcikova, 2011); artificial and “abnormal” (Matuszewski & Blenkinsopp, 2011); isolated and confined (Sampson, 2003); physically isolated and encapsulated (Dennett et al., 2013, 2014); transient, encapsulated, and fast-paced (Dennett, 2018); a different world (Matuszewski & Blenkinsopp,

2011); with a high degree of social (Antonsen, 2009), hierarchical, and disciplinary environment (Gibson, 2006; Mathisen, 2018); and even a pronounced hierarchy based on a paramilitary system (Dickinson & Vladimir, 2008; Radic, 2017). These features fit with the “total institution” concept, which is based on the control of employees’ time and space. For this reason, researchers refer to cruise ships as a “floating piece of space” (Foucault & Miskowicz, 1986), a contained floating society (Dennett et al., 2014), “total institutions,” or “environmental bubbles” (Tracy, 2000). These facts have motivated authors to talk of captivity among workers, indicating their acceptance of strict rules and a fixed role within a work context (Matuszewski & Blenkinsopp, 2011), considering that working and living onboard is like being confined in prison (Dennett, 2018).

The aforementioned descriptions suggest that cruises are unique research laboratories, and thus, classical theories should not be assumed in extrapolating this industry mimetically. Regardless of this opportunity for science, academic research is lacking on the working conditions that the sector offers its workers. As Dennett (2018) notes, despite growing interest, little is known about cruise ship labor. Gibson and Swift (2011) note the scarcity of literature on cruise tourism, in general, and on human resource practices, in particular. This lack of information is due, among other factors, to the hermeticism that surrounds the industry, safeguarded by the use of the so-called “flags of convenience,” which allow many cruise ships from developed nations to circumvent their labor laws in preference to countries with laws affording little worker protection (Douglas & Douglas, 2004). Cruise lines avoid the restrictive laws that regulate wages, working hours, taxes, and criminal and environmental laws by registering ships in countries, such as Malta, Panama, Cyprus, or Liberia (Chin, 2008). Hence, the cruise lines can offer suitable positions to handle compensation packages in a worldwide free-market environment (Dickinson & Vladimir, 2008).

Some researchers point out (e.g. Brida & Zapata, 2010; Terry, 2017), that the use (or abuse) of flags of convenience to offer working conditions that are representative of other epochs is not sustainable in the twenty-first century. Different international organizations, such as the International Labor Organization (ILO) or the European Union, have given warnings, which are clearly reflected in the Sustainable Development Goals (SDG) proposed by the United Nations.

Goal 8 of the SDG reflects the eagerness to obtain an improved and sustainable future for all and highlights the need to promote decent work. The use of flags of convenience is a legal trap that directly clashes with the strategy that should be managed by an industry, where service quality depends on employees’ attitudes to a large degree. The quality of experience onboard a cruise ship is directly related to pleasant interactions between cruise staff and passengers (Papathanassis, 2017). The work engagement of employees on cruise ships is of great importance for the success of this relationship. Nonetheless, work engagement does not emerge from nowhere. From the viewpoint of rational choice theory, the working conditions that cruise lines offer their employees play a large role in developing these feelings of connection with the work.

The main claim of this study is that cruise ship employees experience poor working conditions in general terms, particularly among crew/staff members. In other words, the sector offers fewer decent jobs than the rest of the tourism and hospitality industry. On this basis, analyzing the job quality of the cruise industry is necessary because work plays a key role in employees’ work engagement. Such analysis is the main objective of this article, which is to review the working conditions in the sector with a holistic and systematic approach, as well as its effects on the work engagement of two groups of clearly differentiated employees, namely, officers and nonofficer employees (crew and staff members). Gibson (2006) reported three groups of employees in contemporary cruising, namely, officers, crew, and staff. As a general rule, officers (e.g. captain, chief engineer, hotel director, or cruise director) and crew (e.g. motormen, waiters, deck men or cooks) are grouped into four departments, namely, deck, engineering, radio, and hotel services. Moreover, typical staff employees include photographers, shop managers, hairdressers, aerobics instructors, entertainers, and tour guides.

The present work addresses a major research gap, given that former studies have commonly partially and disjointedly addressed this topic. Previous studies have identified (typically through interviews with a small group of employees) certain interesting isolated working conditions. However, they provide no complete overview of the job quality and its relationship with the work engagement of cruise ship workers. This research offers a comprehensive empirical endeavor that is helpful for cruise

researchers and proprietors' improved understanding of job quality and work engagement of cruise ship seafarers.

## Job quality and work engagement in the cruise industry

### *Job quality, a diffused and multidimensional concept*

Various approaches and disciplines have examined job quality. Following Díaz-Chao et al. (2014), two different stages can be considered. According to these authors, the neo-classical view job quality was linked with income level. Subsequently, human capital theory introduces other additional indicators of the quality of employment, such as education and training. Added to this measure is the need to recognize the diversity of jobs and workers (Becker, 1964), which leads to the first studies from a sociological and psychological view. The sociotechnical approach proposes to leave the Taylorist models, introducing job quality as a core factor of work organization. In this early stage, job quality is related to job satisfaction and the physical and mental health of employees.

In later literature, the issue of job quality has been approached from a double perspective (Díaz-Chao et al., 2014). On the one hand, the subjective perspective focuses on the individual, linking job quality to certain personal variables of the workers such as job satisfaction, organizational commitment, motivation, or loyalty, among others (Sirgy, 2001). On the other hand, the objective perspective attempts to analyze the working environment (ergonomic, safety and health aspects, environmental risks, organizational processes, etc.), regardless of the workers' individualities and expectations (Muñoz de Bustillo et al., 2011).

Nevertheless, academic and economic debate about job quality continues to be open because no standard is universally accepted. Scientific literature has not managed to agree on a common definition, thereby resulting in multiple interpretations of the concept. Muñoz de Bustillo et al. (2011) warn that although a large variety of proposals is available, these proposals often contradict one another in their underlying assumptions, concepts, measures, and results. Certainly, we are faced with a multidimensional (attributes to be considered are many and heterogeneous) and elusive concept, given the difficulty to specify what each worker understands about this

phenomenon (Clark, 2015; Leschke et al., 2008; Leschke & Watt, 2014). This fact suggests the need for a holistic approach in analysis, given the interaction that necessarily appears among various dimensions (Charlesworth et al., 2014). In addition to this problem, we must bear in mind that the concept has evolved over time. In 1970s more attention was paid to intrinsic facets (e.g. physical and psychological stress); however, other dimensions were later incorporated, such as skills development, flexibility, and security of employment; more recently, issues, such as reconciliation of employment and family tasks, have been included (Leschke & Watt, 2014).

Then, what should be understood by job quality? For many authors, the concept is simple; job quality is the set of work features that foster the well-being of workers (Green, 2006). From this perspective, a good job comprises several dimensions valued by an individual (Clark, 2015). In this point lies the issue, in the subjectivity that marks its personal nature because the significance of each of these dimensions varies among individuals and may even change for the same subject over time. This complexity of limiting the concept has made measuring job quality difficult. At present, two main approaches are used. The European Union agenda, which were inaugurated at the beginning of the twenty-first century, aimed at creating not only more employment but also "better jobs." Meanwhile, the International Labor Organization (ILO) refers to decent work as a counterpoint to the proliferation of more unstable labor relations (with new contractual patterns that change the classic ties between employees and employers and new models of subcontracting and outsourcing) that result in poor working conditions. The ILO approach considers the personal circumstances of the employees and their working environment, such as unemployment rate. For its part, the EU proposal attempts to obtain a job quality index (JQI) that independently considers personal circumstances and the conjunctural situations of the labor market. Thus, it attempts to detect the objective working conditions that meet the workers' needs.

This study assumes the strategy encouraged by the European Union, among other reasons because Europe offers considerable data and reliability (Grimshaw et al., 2017). The EU proposes a systematic methodology of indicators, namely, JQIs, to measure job quality with data that come from harmonized surveys elaborated by Eurofound, the EU Agency for the improvement of living and working conditions.

Eurofound provides knowledge to assist in the development of social, employment, and work-related policies to help improve the lives of European citizens. Specifically, the European Working Conditions Survey (EWCS) is the best statistical information available on this matter. Therefore, Europe is better equipped than other regions in the world mainly because the EWCS offers the best source of data (Muñoz de Bustillo et al., 2011).

The origin of the JQI lies in the research by Green and Mostafa (2012), who draw upon literature in different academic disciplines, including psychology, sociology, and economics. At present, the EWCS's proposal incorporates a wide range of work characteristics, summarizing them in seven dimensions, namely, (1) physical environment, (2) work intensity, (3) working time quality, (4) social environment, (5) skills and discretion, (6) prospects, and (7) earnings. Therefore, as Piasna (2017) claims, the results can be used to provide a synthetic measure of overall job quality, broken down not only by the different dimensions of the index but also beyond that into single items making up each dimension. As suggested by Leschke and Watt (2014), these indexes are useful tool with which to compare job quality among different jobs and among different countries or to explore trends over time. This multidimensional and synthetic measure offers a general and comprehensive overview of the various dimensions of job quality. To construct the indexes, each respondent answered a set of items where higher scores indicated better job quality. Hence, each of these seven dimensions consists of many single indicators. Appendix 1 displays an exhaustive register of the questions used to estimate the distinct dimensions of job quality.

### *Working conditions in the cruise industry*

Job quality in the tourism and hospitality context constitutes a broad research topic. Most published studies highlight the more precarious working conditions of this industry (Walmsley et al., 2019). The quality of employment offered by the sector is a problematic issue due to special features that render it highly unattractive. Such features include low job security and stability (Ariza-Montes et al., 2019); long working hours (OSHA, 2008); uncomfortable work schedules, including holidays, weekends, and evening shifts (Exceltur, 2004); high proportion of

seasonal, part-time, and on-call workforce (Kusluvan et al., 2010); poor-paying environment and uncompetitive wages (Deery & Jago, 2015); and limited public recognition and low social prestige (Murray-Gibbons & Gibbons, 2007).

The aforementioned issues lead to serious consequences on employees. Some of the most outstanding issues are the following: high levels of stress (Chiang et al., 2010), low occupational well-being (Lee et al., 2016), turnover intentions (Jung & Yoon, 2014), deleterious health effects (O'Neill & Davis, 2011), work-life conflict (Lin et al., 2014), and high prevalence of presenteeism (Arjona-Fuentes et al., 2019).

Only a few studies have focused on the job quality of the cruise industry. Thus, the empirical studies exploring this peculiar subsector remain limited, although working and living onboard a cruise involve certain peculiarities that suggest working conditions even more precarious than those of the tourism and hospitality sector.

The reasons why an individual embarks for months to work on a cruise ship are mixed. For the majority, especially for those from developing countries, the main reason is the money-saving opportunity (Radic, 2019). In addition to this potential, other researchers have highlighted more sublime considerations, such as the opportunity to travel and see the world (Matuszewski & Blenkinsopp, 2011); the luxury environment, acculturation, learning new skills, and building knowledge (Dragin et al., 2014); or the chance to work in a cosmopolitan environment with people who share different values (Brownell, 2008). All these factors make a cruise ship a socially rich environment (Sehkarán & Sevcikova, 2011).

Personal motivations must compensate for working conditions that, as noted in the Introduction section, are unusual, complex, and difficult. The physical and social isolation for long periods of time (Dennett et al., 2014), as well as the relaxed labor laws through the flag of convenience system, indicates that labor practices may conflict with those recognized as ethical or "normal" on land (Dennett, 2018). Lee-Ross (2005) indicates that the cruise ship industry has been accused of holding an uncaring attitude toward their employees, manifested as poor onboard working conditions. This contingency is repeatedly denounced by the International Transport Workers Federation, which accuses the industry of exploiting most employees by offering poor labor conditions, scarce leisure time, and deficient onboard living conditions.

The issue underlying the previous statement is that the lack of support coming from systematic studies conducted with accepted methodologies and comparable with other industries, sectors, or occupations. To the best of our knowledge, no studies have holistically analyzed the working conditions and human resource practices developed onboard a cruise ship. The limited studies within this area tend to use small samples, and perhaps, because of this practice, methodologies of a qualitative nature are frequent. In addition, previous studies have focused on specific matters of a ship's onboard work environment, such as cruise training and professional development (Gibson, 2008); organizational socialization (Matuszewski & Blenkinsopp, 2011); policies and effectiveness of crew recruitment (Gibson & Swift, 2011; Raub & Streit, 2006); organizational commitment and job satisfaction (Larsen et al., 2012); employee behavior (Dennett et al., 2014); employee engagement (Gibson & Perkins, 2015); work-related injuries (Hystad & Eid, 2016); sustainable cruise ship employment (Adams, 2017); psychological stress, health, and crew accidents (Radic, 2019); and emotion management (Dennett, 2018). Nevertheless, the most recurring topics are, without any doubt, the salaries of employees and their working time. These matters, as well as the rest of shipboard working arrangements, are included in the so-called "Maltese contract," "Cyprus contract," or "Swiss contract." These contracts include duration, wage and salaries, working time and hours of rest, accommodation and maintenance conditions, medical care onboard ship, rules and regulations, training and qualification, inoculations, and repatriation conditions.

When discussing earnings among cruise ship workers, establishing a double gap is an imperative. First, we differentiate the wages and salaries of officers from the rest of the seafarers. For example, according to the webpage [www.marinersgalaxy.com](http://www.marinersgalaxy.com), cruise lines pay captains a range from \$8,000 to \$11,000 per month. Secondly, among nonofficer employees, we should distinguish between tipping positions (with a small base salary plus tips) and nontipped personnel, who receive a fixed salary. In certain cases, the undue dependence on tips makes the range of salaries in this class of employees broad. According to [www.cruiselinesjobs.com](http://www.cruiselinesjobs.com), one of the most popular web sites dedicated to cruise ship employment, tipping jobs have a small base salary

(approximately \$200). Including tips, positions in contact with passengers may earn from \$2,500 to \$4,000 per month (waiters) or from \$1,500 to \$3,000 (bartender). Nevertheless, nontipped employees (e.g. personnel who usually serve the crew in the lower positions in the passenger area) receive a fixed salary, with earnings ranging from \$1,750 to \$2,500 per month. Although authors have found that many jobs are underpaid (e.g. Klein, 2002) and depend on tips to supplement their income to an acceptable level (Sletvold, 2006), Sehkaran and Sevcikova (2011) note that most employees are satisfied with the money-saving possibilities aboard ship.

With regard to cash remuneration, employees' personal expenses are minimized because accommodation and food are free onboard (Sehkaran & Sevcikova, 2011), which augments money-saving opportunities. Dragin et al. (2014) note that in addition to a specific salary, bonuses, and health insurance, some cruise ship employees also receive rewards in kind with a certain economic value or that which facilitates crew socialization (e.g. birthday parties for crew members [e.g. dinner on the shore and barbecue on the ship]).

Researchers of cruise ship worker schedules highlight the long, intense working hours and challenging schedules (Douglas & Douglas, 2004) without a day off (Klein, 2002; Raub & Streit, 2006; Sehkaran & Sevcikova, 2011). This circumstance occurs due to the obligation to be available to passengers nearly 24 h a day, 7 days a week (Brownell, 2008). Although the working hours vary from company to company, Nevins (2008) highlights that cruise ship employees often work up to 100 h a week, whereas Dennett (2018) declares categorically that seafarers work 70 h a week minimum. Sehkaran and Sevcikova (2011) underline that this intense schedule is distributed in the range of 5–17 h daily, with an average of 11 h per day (Radic, 2017), working on a shift-based system, as evidenced by Dennett's research (2018).

### *Work engagement onboard cruise ships*

In accordance with the new trends toward a positive psychological perspective, work engagement should be understood as a positive, fulfilling, work-related state of mind (Schaufeli & Bakker, 2004; Tastan, 2014); it could also be regarded as a positive and persistent emotional affective state in employees, which is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Human resource managers

should attend to work engagement for its positive effects on individual (e.g. job satisfaction, organizational commitment, lower absenteeism, and turnover [Salanova et al., 2003]) and organizational outcomes (e.g. competitive advantages [Smith, 2013]). This state of connection to work is doubtlessly influenced by the working conditions that organizations offer their employees. However, few studies have analyzed work engagement among cruise ship employees, although this circumstance is a critical success factor for the industry. This factor is significant because cruise ship workers provide high-quality services that can influence the quality of tourist experience and the competitiveness of the organization (Sehkaran & Sevcikova, 2011).

Despite unequivocal value, research on seafarers' engagement is limited (Bhattacharya, 2015), and research that analyzes work engagement in the cruise tourism industry has rarely been published. We have found only few studies that reference employee engagement. Manuel (2011) analyze the factors that influence employee engagement and the potential to predict organizational learning. This author concludes that the development of work engagement among seafarers demands a leadership style and an organizational culture that empowers these employees. Furthermore, Manuel (2011) notes that pay is an important, albeit not the most determinant, driver in the development of work engagement. Moreover, Gibson and Perkins (2015) analyze distinctive aspects of the crew onboard cruise ships and conclude that social interactions have a largely favorable impact on workplace engagement. Bhattacharya (2015) focuses on the occupational group of officers. This author highlights seven key factors of seafarers' engagement, namely, organizational support, work and co-workers, work environment, career advancement, pay, work autonomy, and job demands and pressure at work. In a similar vein, Radic (2017) examines and measures the main factors that influence employee engagement on cruise ships. This author identifies the components of work engagement that require attention, that is, communication and progress, capacity to engage and trust, and feeling of freedom.

Previous research has addressed highly specific issues of working conditions. For example, using the Job demands–Job resources (JD-R) model, the recent study of Radic et al. (2020) does not reach to support a significant relationship between job demands work engagement in the cruise ship

industry. Besides, none has conducted a systematic and wide-ranging inquiry into job quality in the cruise tourism industry or its influence on the work engagement of two occupational groups, such as officers and the rest of the ship's crew. This analysis constitutes the main value of the present work, which will be verified during the development of the empirical study.

### *Research purposes*

The review of the literature leads us to consider a key research question: Is there a positive relationship between employees' work engagement and the different measures of job quality when analyzed together, even after controlling certain sociodemographic factors? The empirical study designed to answer this question establishes two essential research purposes.

- (1) A comparative study is conducted to obtain a complete and systematic overview of job quality offered by the cruise tourism industry. This analysis determines the working conditions of the officers, compared with those of nonofficer employees, and establishes the level of workers' work engagement.
- (2) Second, a multiple regression analysis is conducted, to identify the job quality dimensions that determine the work engagement of officers and nonofficer employees.

### *Methodology*

#### *Data collection and sample peculiarity*

The questionnaire used in this research has been adjusted from the European Working Condition Survey. The survey captures working experience of workers across Europe.

We surveyed a sample of cruise ship employees in Miami. We selected the Port of Miami due to its leadership in cruise tourism. One of the authors (employed by a contemporary cruise company with 11 years of onboard cruise industry experience) collected data each Saturday from 28 June 2018 to 22 December 2018. The author approached crew members as they were disembarking from various cruise ships. Before starting the survey, an in-depth explanation of the study and the main goal of the research were provided. The survey is relatively

detailed with many various questions; thus, the survey was administered to onboard workers who could return it onsite to enhance the response rate. On average, completing a questionnaire took 28 min, and 353 questionnaires were collected (51.6% were officers and 48.4% were other workers of the cruise ship).

In view of the full sample, [Table 1](#) exhibits the main descriptive statistics and the correlation coefficients of the pivotal variables of this study, that is, seven JQIs and the level of work engagement. First, as evidenced, strong social relations are a job quality dimension that is most valued by the respondents (76.8 out of 100), followed by the physical environment index (72.5), and the skills and discretion index (65.9). By contrast, the dimension least valued by seafarers is the one that considers working time (31.2). These workers also do not seem satisfied with work intensity (41.7) and with the limited possibilities in their professional career (41.9). Second, the average level of work engagement of cruise ship employees is not high (61.7). [Table 1](#) also shows that all JQIs correlate significantly with one another. Likewise, the seven dimensions of job quality are positively and significantly associated with work engagement, especially skills and discretion (0.627), social environment (0.596), prospect (0.473), work intensity (0.461), and working time quality (0.424) indexes.

### Measures

The dependent variable of the present study is a work engagement index built with six items incorporated in the European Working Conditions Survey (i.e. "Time flies when I am working"). Reliability of this scale in our research reached 0.784 (Cronbach's  $\alpha$ ). The last two items were recoded, such that a higher score meant greater engagement. Subsequently, an index between 0 and 24 points was obtained, which was then recoded on a scale of 0–100 points.

The seven dimensions of the JQI are the essential independent variables of this study. Each of these scales encompasses a set of work characteristics that define the content and quality of different jobs. The dimensions are the following (the subdimensions and items from different scales are presented in [Appendix 1](#)):

- (1) The physical environment index considers the physical risks that officers, crew, and staff

members must face in their respective jobs (13 items that measure ergonomic, ambient and biological, and chemical risks).

- (2) The work intensity index evaluates the labor demands that workers bear in their job (13 questions referring to quantitative and emotional demands, pace determinants and interdependence).
- (3) The working time quality index measures the distribution and length of the work schedule, which evaluates the fit (or lack thereof) of working time with personal time (13 items and 4 factors aggregate this index).
- (4) The social environment index refers to the extent to which employees sense social support from managers and/or colleagues or adverse social behaviors (22 items measure adverse social behavior and 8 questions measure social support).
- (5) The skills and discretion index include two aspects, that is, skills that workers need to perform their job and autonomy and influence of employees in the development of their job (14 items and 4 dimensions integrate this index).
- (6) The prospects index incorporates five questions that measure two components: job security and possibilities of career advancement.
- (7) The earnings index quantifies with a single item the net monthly earnings of officers, crew, and staff members in their jobs.

### Data analysis

The data analysis of this study was performed in two steps. In the first phase, a mean difference test was developed with the aim of identifying differences in the labor context and work engagement between officers and the rest of crew. In the second phase, three multivariate regression models were estimated, that is, one global and two others for each of the groups explored. The formulation of the proposed model is as follows:

$$WE = \beta_0 + \beta_1 Wtq + \beta_2 Wi + \beta_3 Pr + \beta_4 Sd + \beta_5 Pe + \beta_6 Se + \beta_7 Ear + \varepsilon$$

where *WE*, *Wtq*, *Wi*, *Pr*, *Sd*, *Pe*, *Se*, and *Ear* denote work engagement, working time quality, work intensity, prospects, skills and discretion, physical environment, social environment, and earnings, respectively.



**Table 1.** Descriptive statistics and inter-correlations for the variables.

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Physical environment	72.5	16.9	1							
2. Work intensity	41.7	20.7	0.539**	1						
3. Working time quality	31.2	15.4	0.460**	0.613**	1					
4. Social environment	76.8	20.5	0.388**	0.558**	0.465**	1				
5. Skills and discretion	65.9	19.8	0.304**	0.373**	0.339**	0.555**	1			
6. Prospects	41.9	15.9	0.223**	0.257**	0.346**	0.508**	0.366**	1		
7. Earnings	4,677	4,005	0.178**	0.149**	0.107*	0.233**	0.304**	0.135*	1	
8. Work engagement	61.7	14.6	0.276**	0.461**	0.424**	0.596**	0.627**	0.473**	0.182**	1

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

## Results and findings

### *Panoramic view of job quality in the cruise ship industry*

Table 2 introduces a global overview of the main variables of this study for officers and the rest of the crew. Overall, working conditions of both groups are bad, especially conditions that refer to the working time quality, work intensity, and career prospects. In contrast, the best scores come from social environment, physical conditions (especially among officers), and net monthly earnings. The comparison of both groups shows that nonofficer employees have more precarious working conditions in all indexes. The gaps are particularly significant in the index that refers to the workers' ability to understand and influence their work (i.e. skills and discretion index, 18 percentage points of difference) or the one that determines the quality of the physical conditions of work (13 points). Furthermore, the wage discrimination between the groups amounts to \$4,894. On average, an officer earns \$7,047 per month, whereas a crew/staff member earns \$2,153 per month (\$2,070 for crew members and \$2,206 for staff members).

Presumably, the poor working conditions influences the low level of work engagement by both groups, mainly in the case of crew/staff members. This group scarcely exceeds half of the total possible score (52.4 points on average; 51.1 for crew members and 53.1 for staff members), although officers' work engagement is also not extremely high (62.6 points).

This finding on the working conditions on cruise ships seems to support the thesis of precariousness and the differences between occupational groups. Next, we will elucidate the distinct features that make up each of these indexes. Appendix 1 shows the results and analyzes whether significant differences exist between the two groups.

The singular nature of working on a cruise ship results in the working time quality index displaying the worst results (34.7 out of 100 in officers and 27.6 in crew/staff members). This index is built on three basic pillars. First, regarding the duration of working day, both officers and seafarers spend more than 72 h a week on work. Second, atypical working time is another essential feature of work onboard a cruise with 100% of employees work shifts, and they all work on weekends. Furthermore, 69.6% of crew/staff members and 51.1% of officers work at night. The conflict between personal time and professional time is also conditioned by job control. The working time of most nonofficer employees are determined by the cruises managers, and there is no option of modifying them (87.1% versus 46.2%). Moreover, only 7.6% can easily take a few hours off, a rate that stands up 15.9% among officers. A greater balance between the two groups is observed in relation to having to work at some time during free time to meet labor demands (55.0% versus 50.5%).

The work intensity index includes three basic dimensions, namely, quantitative demands, pace determinants, and interdependency and emotional demands of work. Officers' work is considerably less

**Table 2.** Job quality dimensions and work engagement (officers vs. nonofficer employees).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Work engagement
Officers	34.7	46.9	45.8	74.6	78.9	82.1	7,047	62.6
Crew/staff members	27.6	35.9	37.7	56.6	65.9	71.2	2,153	52.4
Gap	7,1	11	8,1	18	13	10,9	4,894	10,2

Note: (1) Working time quality, (2) Work intensity, (3) Prospects, (4) Skills and discretion, (5) Physical environment, (6) Social environment, and (7) Earnings.

intense. For crew/staff members, the most precarious conditions include the continuous and exigent requests of travelers (91.2% acknowledge this fact), work with tight deadlines (76.6%), work depends on the direct control of their bosses (75.4%), day-to-day work occurs in situations that are emotionally disturbing (72.5%), forced to hide their feelings at work (71.3%), or working at a fast-paced environment (67.3%). By contrast, officers are constrained by direct demands from passengers, although in a percentage considerably lower than the other group (75.8%). However, they also note that their work depends on what their colleagues do (70.3%) and their work is under the direct control of their bosses (60.4%).

The prospects index assesses workers' labor expectations. This indicator reflects the worst results for officers (45.8 out of 100) and crew/staff members (37.7). In this case, the employment status of both groups fully coincides because 100% of respondents are working in paid employment with a temporary contract, which is a logical fact given the seasonality that characterizes cruise tourism. In addition, only 38.0% of nonofficer seafarers believe that the cruise industry is a good place for professional growth and development, a ratio that rises to 59.3% among officers. Another factor emphasizes job security. This index verifies that uncertainty affects crew/staff members to a greater extent because 26.9% are concerned because they may lose their job in the next months, a rate significantly higher than in the other group (18.7%).

As expected, a prominent gap is evident between both groups regarding the skills and discretion index (74.6 points in officers versus 56.6 points in the rest of cruise workers). First, 97.3% of officers have to sort out unpredicted issues in their jobs (83.6% in crew/staff members), which justifies the 82.4% who state that they are allowed to adopt their own ideas in the development of the work (66.7% in nonofficer employees). Among officers, 90.1% are required to learn new skills on the job (77.2% in nonofficer employees) or perform complex tasks (89.4%, compared with 73.8% for the other group). Second, regarding the latitude for decision making, officers have more room for maneuvering in their choice of task order (82.4% vs. a considerably lower 38.6%), rate of work (80.8% vs. 50.9%), method of work (78.6% vs. 46.2%), and possibilities for select their co-workers (35.2% versus 20.5%). Third, participation conditions the quality of

employment. Officers participate more in the upturn of the processes and tasks that directly affect them (67.6% vs. 48.5%). They can also influence decisions that are important for their work (58.8% vs. 32.2%) and they are asked about the goals that condition their job (54.4% vs. 38.6%). Finally, access to training is another issue with clear divergences between both groups. While officers receive more training paid by the cruise line (70.9% vs. 53.8%), crew/staff members receive mostly on-the-job training (83.6% vs. 72.5%).

The physical environment index scores 78.9 points among officers and falls to 65.9 points among crew/staff members. This index reviews three sets of physical hazards, namely, ergonomic, ambient and biological, and chemical risks (see Appendix 1). From an ergonomic perspective, the working conditions of nonofficer employees are quite worrying, particularly with respect to maintaining tiring or painful positions (81.9%), performing repetitive hand or arm movements (79.5%), and carrying or moving heavy loads (71.3%); these risks are notably reduced among officers (46.7%, 61.5%, and 22.0%, respectively). A significant gap exists regarding the exposure to chemical risks (e.g. while one in two crew/staff members declares that they are in skin contact with chemical products or substances, this percentage is reduced to only 16.5% among officers). Finally, both groups show a rather more similar level of exposure to ambient and biological risks. The most common risks in this category are having to withstand extremely loud noises (62.0% of nonofficer employees and 53.3% of officers) and having to tolerate low temperatures (56.1% and 33.0%) or high temperatures (47.4% and 46.2%).

Social environment is the JQI with the highest score. Despite this outcome, the result remains low among crew/staff members (71.2 points out of 100 compared with 82.1 of officers). This index is composed of two key dimensions. First is management quality and social support. Appendix 1 shows that seafarers generally do not have a positive concept of their bosses. In the case of crew/staff members, practically one out of every two workers do not consider that their immediate boss is good promoting the teamwork, nor do they see the boss as providing useful feedback or encouraging and supporting worker development. Appreciation slightly changes when asked if their bosses respect them as a person (66.7% agree with this statement). Officers' judgments improve notably with respect to the

other group of employees because approximately two out of three positively comment about their immediate bosses. This score rises to 78.6% when asked if their bosses respect them as people. Moreover, with regard to social support, only 59.1% of crew/staff members consider that they can count on the support of their colleagues (67.6% among officers), a percentage that falls to 49.7% about the support of managers (62.1% among officers). By contrast, the second dimension of this index focuses on adverse social behaviors. Abuses in the cruise industry are worrying. These cases include someone withholding information that affects their performance (71.9% of nonofficer employees and 65.4% of officers), being ordered to work below their level of competence (74.9% and 52.7%), having their opinions ignored (67.3% and 66.5%), having key areas of responsibility removed or replaced with trivial or unpleasant tasks (66.1% and 42.9%), or being shouted at or being the target of spontaneous anger (65.5% and 32.4%).

Finally, the earnings index reveals that an officer earns up to \$7,047 on average per month, which is nearly \$5,000 more than a crew/staff member (\$2,153). These figures motivate a greater degree of dissatisfaction with the compensation for this occupational group. Only 38.0% of crew/staff members think that they are being paid appropriately, a percentage that rises to 54.4% among officers.

### *Job quality and work engagement*

Precariousness in certain working conditions (principally among crew/staff members) can influence the mood that employees develop toward their work. [Table 3](#) shows the results of three regression models conducted to investigate the potential relationship between work engagement and each of the job quality dimensions considered jointly. The first model explores the full sample and includes a variable to analyze the effect exerted on the work engagement of one of the groups considered in this study. The other two models aim to investigate which variables determine the work engagement of officers and crew/staff members.

The global model shows that work engagement increases among officers ( $\beta = 4.113$ ), and this item determines the work engagement of cruise ship workers to a greater extent. This circumstance justifies and suggests the need to analyze the officers and the rest of seafarers. Job quality

contributes to increased work engagement, such that this factor is high because skills and discretion are accessible in the work context ( $\beta = 0.311$ ), employees have expectations of their professional career ( $\beta = 0.215$ ), good social environment exists ( $\beta = 0.121$ ), and work intensity is low ( $\beta = 0.120$ ). In addition, being married or having a partner ( $\beta = -2.495$ ) and having been born outside Europe ( $\beta = -3.715$ ) significantly reduce the work engagement of employees who provide their services onboard a cruise.

When estimating the individual models for officers and nonofficer employees, some variables are common and others are unique to each model observed. The work engagement of crew/staff members was thereby established by a sociodemographic factor and by five of the seven job quality dimensions. The work engagement of nonofficer employees escalates with age ( $\beta = 0.344$ ) and as job quality improves with respect to work intensity ( $\beta = 0.324$ ), skills and discretion ( $\beta = 0.282$ ), physical environment ( $\beta = 0.272$ ), prospects ( $\beta = 0.166$ ), and social environment ( $\beta = 0.105$ ).

By contrast, officers' work engagement is influenced by three sociodemographic variables and three JQIs. Officers' work engagement increases with age ( $\beta = 0.194$ ), significantly reduced among officers who are married or have a partner ( $\beta = -4.144$ ), and/or who come from non-European countries ( $\beta = -5.360$ ). In addition, work engagement is reinforced when officers can implement their skills and discretion ( $\beta = 0.308$ ), if they note a positive physical environment ( $\beta = 0.262$ ), and if they perceive opportunities for their professional career in the industry ( $\beta = 0.212$ ). All the results are statistically significant at the 5% level. For this level, the regression models indicate that the rest of the variables are not linked (either positively or negatively) to cruise workers' work engagement.

### *Discussion and implications*

From the point of view of positive psychology, work engagement reflects an active state of pleasure and dedication to work (Bakker, 2011), which is an emotional link characterized by employees' high degree of energy devoted to achieving business objectives (Schaufeli & Salanova, 2007). This sense of commitment to the workplace not only contributes to employees' health and well-being but also promotes the involvement with work, thus increasing the firm's profits (Bakker et al., 2011).

**Table 3.** Work engagement regression models (officers vs. nonofficer employees).

	Global model		Officers model		Nonofficers model	
	Beta	Sig.	Beta	Sig.	Beta	Sig.
Physical environment	-0.017	0.686	0.262	0.000	0.272	0.000
Work intensity	0.120	0.001	0.036	0.426	0.324	0.000
Working time quality	0.016	0.727	0.090	0.123	-0.076	0.268
Social environment	0.121	0.002	0.106	0.083	0.105	0.028
Skills and discretion	0.311	0.000	0.308	0.000	0.282	0.000
Prospects	0.215	0.000	0.212	0.000	0.166	0.001
Earnings	0.000	0.572	0.000	0.325	0.000	0.862
Male	-2.457	0.066	-3.383	0.094	-1.280	0.444
Age	0.108	0.800	0.184	0.039	0.344	0.002
Marital status (married or has a partner)	-2.495	0.041	-4.144	0.022	3.028	0.062
Education	0.108	0.800	0.550	0.429	0.143	0.782
Race (Caucasian)	2.273	0.209	0.900	0.734	3.008	0.192
Country (European)	-3.715	0.017	-5.360	0.017	0.358	0.858
Officer	4.113	0.009	-	-	-	-
Constant	8.081	0.148	-8.103	0.328	21.091	0.002
R <sup>2</sup>	0.599		0.618		0.688	

In this sense, work engagement acquires a remarkable relevance for the cruise industry because work engagement onboard cruises is a key issue for providing high-quality services. Before spending a large amount of money, passengers plan by analyzing various alternatives offered by the market and carefully consulting the judgments and criticisms of other travelers who have made the same trip. In this context, a happy crew emerges as an indispensable requirement for happy guests (Mathisen, 2018). Accordingly, passengers' satisfaction ratings rely on interactions with seafarers. Officers, crew, and staff set the tone and the atmosphere aboard. Passengers' onboard experience pivots on the interaction with waiters, bartenders, or cabin stewards. These people are whom passengers interact with regularly and will remember when they go home.

However, engagement does not grow on sterile ground. Rational choice theory explains that the resources an organization puts at its employees' disposal constitute the compost for its growth and development. Among all such resources, working conditions offered by the industry occupy a major role. Sehkaran and Sevcikova (2011) note that in a highly regulated and disciplined environment, such as a cruise ships, working conditions are an essential pillar that influences seafarers' engagement. Despite this importance, Dennett (2018) warns that, to date, research regarding the work and life of cruise workers is still limited. The appearance of an international labor market in the cruise industry demands trustworthy and accurate information about the working conditions of seafarers worldwide.

Specifically, this study aims to investigate the working conditions in the cruise tourism industry and their relationship with the work engagement of seafarers. This study is valuable because it addresses job quality in a holistic and systematic manner using a methodology accepted as the most reliable by the scientific community and analyzing its effects on the work engagement of two occupational groups, namely, officers and crew/staff members. Moreover, a cruise ship constitutes a unique research laboratory for science, which is an exceptional work context where thinking that what is known about the functioning of classical management theories can be applied directly to the cruise ship industry.

The results of the empirical study conducted with a sample of 353 confirm the two research questions of this study. With regard to the first research question, we obtain a full overview of job quality among officers and nonofficer employees. This division in social class structure is indispensable because the position within the structure can determine many living arrangements, such as living quarters, dining access, and visitation to guest areas (Dennett, 2018). The large number and variety of individual indicators that make up each of the seven dimensions allow us to obtain a global overview of job quality in a specific activity sector, thereby providing a simple and effective diagnostic tool (Piasna, 2017). This brief information of the sector highlights the poor working conditions associated with most of the indicators proposed by the European Union, especially among the crew and staff members. The employees are subjected to severe labor demands, such as

work schedules more typical of other areas and with few or no expectations of a professional career. The last result contrasts with the bucolic scene described by Mathisen (2018), in which not only are decent pay and benefits promised but also promotions and lifelong careers.

Working time emerges as the main source of problem in the job quality of cruise ship workers, which is natural because this factor directly affects the quality of life of seafarers. Officers and the rest of the crew work 72 h a week on average, although some crew/staff members mention dedicating 90 h (e.g. 2 youth activities counselors or 3 spa therapists), and some officers claim 100 h (e.g. 4 hotel directors and 2 human resource managers). The tourism and hospitality industry is usually characterized by long hours and unsocial schedules (Brown et al., 2015). Furthermore, the value that employees place on free time onboard is different because they are confined in a closed and isolated space, far from their family and social environment. Moreover, a compressed schedule is added in annual computation because the average contract length of crew members commonly ranges between 4 and 7 months per year. Despite these nuances that relativize the problem of disproportionate working hours on cruises, the results are still quite far from the 55.2 h worked by managers in the tourism and hospitality sector on land or from the 48.2 h of other employees, according to the data of the latest edition of EWCS (Eurofound, 2017). In addition, these very long work hours disobey the suggestions of the Maritime Labor Convention (2006) because this norm expressly states that the normal working hours' standard shall be based on an eight-hour day with one day of rest per week. The maximum hours of work shall not exceed 14 h in any 24-hour period and 72 h in any 7-day period.

Social relationship has the least negative results among JQIs. This outcome is in agreement with investigations that note social life as the high point onboard (Gibson, 2006), highly complex social environment (Papathanassis, 2017), or the onboard interactions and friendships as the best part of the job (Mathisen, 2018). Therefore, cruise ship employment is not only a job but a lifestyle.

Salary deserves a special mention because authors, such as Sehkaran and Sevcikova (2011), stress that the money saved during the onboard season motivates seafarers to be relatively satisfied with their wages and salaries. This sentiment is not reflected in our study, where more than 60% of crew/staff members

and nearly half of officers believe that they are not rewarded properly. This result may be conditioned by the wide range of salaries seen in both groups. Officers earn an average of \$7,000 a month, although some captains are paid up to \$24,000. By contrast, the lowest salaries are \$1,000 a month for positions such as assistant waiters, buffet servers, fitness instructors, and hotel housekeeping attendants. Dissatisfaction with the salary and the excessive dependence on tips generally influence the hospitality sector (Boella & Goss-Turner, 2013; Dogru et al., 2019); however, this effect is accentuated for the hotel section employees on cruise ships because they are in direct contact with cruise passengers.

The present study also shows the low emotional attachment of both groups to their work, which is considerably lower among crew/staff members (barely exceeding half the maximum score) than among officers (62.6 points out of 100). In contrast to Eurofound (2017), these results reflect that the work engagement of cruise ship employees is considerably lower than the average for the entire tourism and hospitality sector in Europe, whether managers are compared with officers (73.8 vs. 62.6) or whether the comparison is for operational positions with crew/staff members (68.7 vs. 52.4).

With the first of the research questions confirmed, the second focuses on the relationship between job quality and work engagement. Regression analysis confirms the approach of our second research purpose, that is, that working conditions of seafarers are bad (especially among nonofficer employees) and that this precariousness and uncertainty determine the engagement of both groups. The global model confirms that the occupational group is the variable with the greatest influence on work engagement, which is more likely among officers than among crew/staff members. These results are in line with Manuel (2011), who used only a sample of officers and concludes that work engagement increases as one moves up in the chain of command.

Moreover, the analysis of each of the regression models separately allows us to identify the working conditions with the greatest influence on the link between cruise ship employees and their work. Officers' work engagement is determined by several sociodemographic variables (e.g. age, marital status, and country of origin) and three dimensions of job quality (i.e. skills and discretion, physical environment, and prospects). Meanwhile, nonofficer employees' emotional attachment to work hinges on age and

some factors of job quality, all except those referring to earnings and working time.

Remarkably, neither of the two dimensions that have traditionally been more studied in the literature are decisive for increasing the engagement of cruise ship employees. One explanation may be because the two dimensions are hygienic factors and not motivational on the basis of Herzberg's motivation-hygiene theory. From this approach, salary and work schedule act as prophylactic or preventive factors in the appearance of negative feelings toward work. Consequently, different from what happens with motivational factors (related to intrinsic conditions of the occupation, such as personal development, recognition, or achievement), neither earnings nor working time will improve seafarers' level of work engagement.

Major implications arise from this investigation at the theoretical level and in the practical field. The human resource management in the cruise industry requires reliable, accurate, and comparable data. With this premise, the present study provides renewed theoretical knowledge in an under-investigated environment; it examines the job quality of cruise ship employees and its effects on the emotional link of seafarers. Thus, this investigation is among the first to thoroughly survey the specific working conditions on cruise lines.

From a practical point of view, this study supplies useful information for the enhancement of human resource practices onboard cruise ships. Managers must admit the uniqueness of this industry and the significance of this fact to workers' engagement. This study identifies the job quality dimensions that should be improved not only at the level of basic principles but also at the level of concrete actions. Working on a cruise ship implies accepting a new lifestyle at sea. A principal challenge is to create a friendly working environment that softens the hardships involved in working in this industry. This challenge is a defiance of current states and an act of social responsibility for the best cruise ship companies. Some suggestions in this regard are the following. (a) Regarding compensation packages and other material living conditions onboard, cruise lines should provide competitive salaries, benefit packages, medical coverage for workers and their families, retirement saving plans, and decent accommodation onboard. (b) With regard to working time and social conditions, human resource managers should offer shorter contracts; less stressful and more rational

working hours (e.g. scheduling the working time of couples together); more free time; and one day of rest per week that allows, for example, to visit some of the destination ports or having recreation facilities for the crew onboard. Given the limited outside contact of seafarers, a key issue is connectivity with family via the Internet, which should not be limited to officers. Seafarers' ancestral loneliness would thus be alleviated through access to high-speed, free-of-charge Internet for all shipboard crew.

### Limitations and future research directions

A potential limitation of this study is the impossibility of establishing a causal relationship among the variables of the study due to the transversal nature of the data. Another problem is social desirability because some questions (e.g. earnings; adverse social behaviors; working time arrangements; and relationship with passengers, colleagues, or officers) may be subject to biases. Furthermore, earnings are not relativized depending on the seafarers' country. Onboard, wage differences lose meaning because food and accommodation are included in the so-called "Maltese contract." However, when the worker returns to land, the money saved can be a great fortune or only a living wage, depending on the standard of living in the workers' country of residence. To overcome the aforementioned data availability restrictions, we will use online big data mining (mainly from social media) in further research. This methodology will be useful in cruise industry research given the opportunity to collect a large amount of data, thereby enhancing the pertinence, scope, accuracy, and representativeness of the study.

In closing, the present research centered on job quality employing a holistic and systematic approach unlike previous studies focused on job demands/resources. In addition, in order to obtain our research objectives, this study utilized novel multivariate regression models along with a mean difference test as data analysis techniques rather than employing a structural equation modeling or partial least squares path modeling, which is commonly used in many existing studies. Without a doubt, job quality becomes an essential issue in the contemporary cruise industry across the globe. This research contributes to extend the existing literature and goes beyond earlier research by dealing with such a crucial issue and applying a new analytic approach in a successful manner.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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## Appendix 1. Overview of JQIs

### Physical environment index: proportion of workers

	Officers	Crew/staff members
<b>Ergonomic risks</b>		
Tiring or painful positions (a quarter of the time or more)	46.7	81.9
Lifting or moving people (a quarter of the time or more)	14.3	32.2
Carrying or moving heavy loads (a quarter of the time or more)	22.0	71.3
Repetitive hand or arm movements (a quarter of the time or more)	61.5	79.5
<b>Ambient and biological risks</b>		
Vibrations from hand tools, machinery (a quarter of the time or more)	36.3	27.5
Noise so loud that you would have to raise your voice to talk to people (a quarter of the time or more)	53.3	62.0
High temperatures which make you perspire even when not working (a quarter of the time or more)	46.2	47.4
Low temperatures whether indoors or outdoors (a quarter of the time or more)	33.0	56.1
Breathing in smoke, fumes (such as welding or exhaust fumes), powder or dust (such as wood dust or mineral dust) (a quarter of the time or more)	20.9	25.1
Breathing in vapors, such as solvents and thinners (a quarter of the time or more)	20.9	19.9
<b>Chemical risks</b>		
Handling or being in skin contact with chemical products or substances (a quarter of the time or more)	16.5	50.9
Tobacco smoke from other people (a quarter of the time or more)	13.3	29.2
Handling or being in direct contact with materials which could be infectious, such as waste, bodily fluids, laboratory materials, etc. (a quarter of the time or more)	18.7	27.5

### Work intensity index: proportion of workers

	Officers	Crew/staff members
<b>Quantitative demands</b>		
Working at very high speed (three-quarters of the time or more)	40.7	67.3
Working to tight deadlines (three-quarters of the time or more)	53.3	76.6
Enough time to get the job done (never or rarely)	2.7	23.4
Frequent disruptive interruptions	52.2	52.6
<b>Pace determinants and interdependency</b>		
Interdependency: three or more pace determinants	35.7	39.2
Work pace dependent on: the work done by colleagues	70.3	64.9
Work pace dependent on: direct demands from people such as customers, passengers, pupils, patients, etc.	75.8	91.2
Work pace dependent on: numerical production targets or performance targets	58.8	61.4
Work pace dependent on: automatic speed of a machine or movement of a product	23.6	29.2
Work pace dependent on: the direct control of your boss	60.4	75.4
<b>Emotional demands</b>		
Hiding your feelings at work (most of the time or always)	52.7	71.3
Handling angry clients, customers, patients, pupils, etc. (three-quarters of the time or more)	28.0	60.7
Being in situations that are emotionally disturbing (a quarter of the time or more)	59.9	72.5

### Working time quality index: proportion of workers

	Officers	Crew/staff members
<b>Duration</b>		
Working hours per week	72.8	72.7
Long working hours (48 h or more a week)	94.0	97.7
No recovery period (less than 11 h between two working days)	71.4	70.8
Long working days (10 h or more a day)	86.8	78.9
<b>Atypical working time</b>		
Night work	51.1	69.6
Saturday work	100	100
Sunday work	100	100
Shift work	100	100
<b>Working time arrangements</b>		
<i>Control over working time arrangements</i>		
Set by the company	46.2	87.1
Can choose between different schedules	7.7	4.1
Can adapt working hours	33.5	8.2
Entirely determined by self	12.6	0.6
<i>Change in working time arrangements</i>		
No regular change	39.6	29.8
Change the same day	29.1	40.9

(Continued)

Continued.

Duration	Officers	Crew/staff members
Change the day before	15.9	19.4
Change several days in advance	13.2	7.0
Change several weeks in advance	2.2	2.9
<i>Requested to come to work at short notice (at least several times a month)</i>	45.6	45.6
<b>Flexibility</b>		
Very easy to arrange to take an hour off during working hours to take care of personal or family matters	15.9	7.6
Work in free time to meet work demands (several times a month or more)	50.5	55.0

**Social environment index: proportion of workers**

	Officers	Crew/staff members
<b>Adverse social behavior</b>		
Someone withholding information that affects your performance	65.4	71.9
Being humiliated or ridiculed in connection with your work	40.7	60.2
Being ordered to do work below your level of competence	52.7	74.9
Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	42.9	66.1
Spreading of gossip and rumors about you	45.6	58.5
Being ignored or excluded	55.5	59.6
Having insulting or offensive remarks made about your person, your attitudes, or your private life	35.2	48.5
Being shouted at or being the target of spontaneous anger	32.4	65.5
Intimidating behaviors such as finger-pointing, invasion of personal space, shoving, blocking your way	24.2	35.7
Hints or signals from others that you should quit your job	19.2	40.9
Repeated reminders of your errors or mistakes	36.8	60.8
Being ignored or facing a hostile reaction when you approach	34.1	43.9
Persistent criticism of your errors or mistakes	31.3	49.1
Having your opinions ignored	66.5	67.3
Practical jokes carried out by people you don't get along with	28.0	45.6
Being given tasks with unreasonable deadlines	38.5	48.5
Having allegations made against you	33.0	42.1
Excessive monitoring of your work	48.0	63.2
Pressure not to claim something to which by right you are entitled	34.1	58.5
Being the subject of excessive teasing and sarcasm	23.1	36.8
Being exposed to an unmanageable workload	34.6	57.9
Threats of violence or physical abuse or actual abuse	10.4	22.2
<b>Social support</b>		
Your immediate boss respects you as a person (strongly agree and tend to agree)	78.6	66.7
Your immediate boss gives you praise and recognition when you do a good job (strongly agree and tend to agree)	68.1	58.5
Your immediate boss is successful in getting people to work together (strongly agree and tend to agree)	61.5	55.0
Your immediate boss is helpful in getting the job done (strongly agree and tend to agree)	68.1	53.2
Your immediate boss provides useful feedback in your work (strongly agree and tend to agree)	61.0	52.6
Your immediate boss encourages and supports your development (strongly agree and tend to agree)	68.3	51.5
Help and support from colleagues (most of the time/always)	67.6	59.1
Help and support from your manager (most of the time/always)	62.1	49.7

**Skills and discretion index: proportion of workers**

	Officers	Crew/staff members
<b>Cognitive dimension</b>		
Solving unforeseen problems	97.3	83.6
Carrying out complex tasks	89.4	73.8
Learning new things	90.1	77.2
Working with computers, smartphones and laptops, etc. (at least a quarter of the time)	95.6	57.3
Ability to apply your own ideas in work ("sometimes", "most of the time" and "always")	82.4	66.7
<b>Decision latitude</b>		
Ability to choose or change order of tasks	82.4	38.6
Ability to choose or change speed or rate of work	80.8	50.9
Ability to choose or change methods of work	78.6	46.2
Having a say in choice of work colleagues ("always" or "most of the time")	35.2	20.5
<b>Organizational participation</b>		
Consulted before objectives are set for own work (always or most of the time)	54.4	38.6
Involved in improving the work organization or work processes of own department or organization (always or most of the time)	67.6	48.5

(Continued)

Continued.

Cognitive dimension	Officers	Crew/staff members
Ability to influence decisions that are important for your work (always or most of the time)	58.8	32.2
<b>Training</b>		
Training paid for or provided by employer over the past 12 months (or paid by oneself if self-employed; %)	70.9	53.8
On-the-job training over the past 12 months (%)	72.5	83.6
<b>Prospects index: proportion of workers</b>		
Employment status	Officers	Crew/staff members
<i>Employment status</i>		
Self-employed	0	0
Employee	100	100
<i>What kind of employment contract do you have in your main job?</i>		
Employee, indefinite contract	0	0
Employee, fixed-term and temporary employment agency contract	100	100
Employee, other or no contract	0	0
<b>Career prospects</b>		
My job offers good prospects for career advancement (strongly agree and tend to agree)	59.3	38.0
<b>Job security</b>		
I might lose my job in the next six months (strongly agree and tend to agree)	18.7	26.9
<b>Downsizing</b>		
<i>During the last three years (or last year according to seniority in the company), has the number of employees at your workplace increased, stayed the same or decreased: decrease in employment</i>		
Decreased	13.2	24.6
Increased	25.3	9.4
<b>Earning index (dollars)</b>		
Cognitive dimension	Officers	Crew/staff members
Net monthly earnings	7,047	2,153
I feel I get paid appropriately (strongly agree and tend to agree)	54.4	38.0