

Making call center jobs better:
The relationship between management practices and
worker stress
A Report for the CWA



Professor Virginia Doellgast and Dr. Sean O’Brady

ILR School, Cornell University and DeGroote School of Business, McMaster
University

June 2020

Acknowledgements: We wish to acknowledge Michael Hall (Cornell) for his invaluable research assistance in carrying out interviews, designing and administering the survey, and cleaning the data, and Erik Sagmoen (McMaster) his detailed editing of the final report.

1. Introduction

The work of a call center agent has been described as one of the ten most stressful jobs in the global economy (Holdsworth and Cartwright 2003). Call centers are known for their heavy use of electronic monitoring, tightly controlled schedules and break times, and intense performance pressure. Past research has shown that these practices contribute to high levels of employee stress, anxiety, and burnout (Holman and Fernie 2000; Deery et al. 2002; Holman 2002). Worker stress also creates problems for companies and their customers. Managers are affected by staffing challenges associated with employee turnover and absenteeism. Customers are routinely routed between employees who have been narrowly trained to answer specialized questions.

This report summarizes research findings from a survey administered to 2100 call center workers represented by the Communications Workers of America (CWA), with the aim of investigating the causes and consequences of well-being and stress in these workplaces. We ask the following questions:

- What kinds of stress are experienced by call center workers, and how high are stress rates across different measures?
- What management practices and workplace factors are associated with lower rates of worker stress?
- How does worker stress relate to job satisfaction, absenteeism, and turnover intentions?
- What explains differences in the practices and outcomes associated with high rates of worker stress across call centers?

The call center workers we surveyed report high levels of stress across a range of measures, including emotional strain, sleep difficulties, use of anxiety medication, and repetitive stress injuries. Workers experiencing higher stress were also more likely to be absent, were less satisfied with their jobs, and more likely to want to quit. However, call centers do not have to be stressful workplaces that damage workers' health. Good management practices that invest in skills, give workers more control over how they talk with customers, and use monitoring information to develop rather than discipline workers all can improve the workplace climate and reduce stress and burnout. Experience with outsourcing and fears of future outsourcing were also correlated with stress: suggesting that commitments to job security and in-sourcing work may also contribute to improved worker well-being.

Below, we first summarize the key findings from the survey. We then describe our methods and review past research on the causes of and outcomes from worker stress and burnout. In the main body of the report, we present more detailed statistics, including comparisons across employers and collective bargaining unit. We conclude with a summary of best practices for improving call center worker well-being.

1.1. Summary of findings

1. Stress, job satisfaction, absenteeism, and turnover intentions

Stress levels were high across surveyed workers, based on measures of general stress, emotional strain, sleep difficulties, use of anxiety medication, and repetitive stress injuries.

- 87% of workers surveyed reported high or very high stress levels at their call centers; and 77% reported high or very high personal levels of stress.
- We found similar patterns for questions on burnout and emotional strain: over 50% of workers reported that they feel emotionally drained from their work; used up at the end of the day; and burned out from their work on a daily basis. Over 50% report that they often to always experience sleep problems, including difficulty falling asleep, waking up several times during the night, and feeling tired and worn out after their usual nights' sleep.
- Only around 4-8% of respondents reported very low or low stress levels; that they never or only a few times a year experienced emotional strain; and that they never experienced sleep problems.
- Remarkably, over 50% of workers reported having been prescribed a medication to treat a stress- or anxiety-related illness or condition; with 24% reporting constant use of these medications. These are high rates, considering that anxiety disorders have been estimated to affect 19% of US adults (National Institute of Mental Health, 2019).
- 43% of workers surveyed had suffered a repetitive stress injury, with 10% suffering from these injuries on an ongoing basis.

Stress levels were highly correlated with other job quality outcomes, such as absenteeism, job satisfaction, turnover intentions, and perceived opportunities for advancement.

- High absenteeism and low job satisfaction were most prevalent among workers reporting high stress levels. For example, workers reporting very high stress levels had on average a 10% absenteeism rate compared to 4% absenteeism among those experiencing low stress.
- Respondents reporting very high stress levels also expressed higher turnover intentions and lower perceived opportunities for advancement compared to those reporting low stress: they were more likely to plan to look for a new job (44% vs. 8%); to see their job as temporary (30% vs. 9%); and to find it 'very unlikely' that they would be promoted in the next 1-2 years (82% vs. 49%)
- Responses across these measures of outcomes are highly correlated with each other, suggesting that workers experiencing poor outcomes in one area also typically experienced poor outcomes across the others.

2. Management practices and work climate

A majority of workers experienced intensive monitoring and discipline-focused performance management, and viewed performance management and scheduling practices as unfair and inflexible. Relationships with supervisors were viewed more positively, as generally supportive and respectful.

- Workers reported heavy use of electronic monitoring and felt that the data gathered in this way was primarily used to discipline them. Around 30% of respondents agreed that the information from performance monitoring was used to help develop their skills and abilities while 70% felt that it was used primarily for disciplinary purposes.
- Over 70% of workers surveyed felt that performance metrics were unreasonable, that there was not enough time between calls, and that scheduling was inflexible -- while close to 50% felt that compensation was unfair.
- At the same time, supervisor relationships were viewed more positively. 54% of respondents agreed that their supervisor gave them helpful feedback about their performance while 68% reported that their supervisor treated them with respect.

Workers experienced heavy use of company-provided scripts and moderate to low discretion in customer interactions. They also reported frequent negative interactions with customers.

- 25% of workers surveyed stated that they were required to use company-provided scripts word-for-word, and a further 39% were only able to modify these scripts slightly during calls.
- 34% reported having little or no discretion in making customer-related decisions, such as adjusting prices or issuing credit. Only 14% felt they had significant or complete discretion in this area.
- Around 80% reported that customers often or frequently blamed them for something beyond their control and expressed frustration at being transferred between departments or agents.

A majority of workers experienced multiple problems with workplace technologies and reported negative experiences with call center vendors. They also expressed strong layoff fears linked to outsourcing and downsizing threats.

- Problems with workplace technologies were widespread. 86% of workers reported experiencing technology that was too slow; 80% reported frequent system crashes or malfunctions; and 52% felt that information in their systems was inadequate.
- 56% reported interacting several times a week to daily with call center vendor employees. A remarkable 81% reported dealing with errors or misconduct by vendors at least several times a week.
- Close to 80% felt that it was likely that there would be layoffs at their call centers associated with outsourcing, offshoring, and company downsizing or restructuring. Around 50% of workers felt layoffs were likely to result from new technology and from poor performance.
- 67% of workers surveyed (and up to 80% at some employers) reported that the possibility of layoffs had been used to justify changes in management practices.

3. The relationship between management practices, stress, and related outcomes:

Training investments and job discretion were associated with lower reported stress and burnout and higher job satisfaction.

- Workers who reported more training hours experienced lower stress levels; and this relationship was stronger for in-person training than for computer training. Close to 60% of respondents experiencing very high stress reported that they often received calls that their training was not adequate to answer, compared to 36% of those experiencing low stress.
- Workers with higher discretion over how they interacted with customers experienced lower stress. For example, 70% of those reporting high personal stress levels stated that they must use company-provided scripts 'word for word' or with only slight modification; compared to 47% of those reporting low stress.
- High job satisfaction was correlated with reports of higher training quality, more frequent updates on products or services, higher discretion in customer interactions, and lower script use.

Intensive and discipline-focused forms of performance management and monitoring was associated with increased stress, lower job satisfaction, higher absenteeism, and higher turnover intentions.

- The total number of monitoring methods and number of problems with technology workers experienced on the job were associated with higher stress levels.
- Stress was greatest among workers reporting high electronic monitoring, high frequency of formal discipline, unreasonable performance metrics, and unfair compensation practices.
- Workers experienced more stress where breaks between calls were shorter, scheduling was less flexible, and support from supervisors was weaker.
- More frequent experiences with customer abuse and perceptions of weak ethical norms in the workplace also were correlated with worker stress. For example, 73% of those reporting very high personal stress often or frequently experienced customer abuse; compared to 27% of those reporting low stress.
- Reported stress was higher among workers eligible for variable pay based on individual performance; and lower among those with team-based forms of variable pay.
- Intensive and discipline-focused performance management practices and problems with technology were also correlated with lower job satisfaction and employer satisfaction, as well as higher turnover intentions and absenteeism.

Outsourcing of call center work appears to be associated with increased worker stress, decreased job satisfaction, and turnover intentions. This occurs via both workers' direct experiences interacting with vendors and fears of future layoffs linked to outsourcing.

- Workers who more frequently interacted with vendors' employees and dealt with vendor errors or misconduct experienced higher stress.
- Layoff fears associated with outsourcing, offshoring, new technology, and company downsizing or restructuring were all highly correlated with worker stress. Workers

reporting that the threat of layoffs had been used to justify changes in management practices also experienced much higher stress rates. 69% of workers reporting very high stress felt that offshoring of calls to vendors outside of the US was very likely lead to layoffs; compared to 37% of workers reporting low stress.

- Outsourcing and layoff fears were correlated with lower job satisfaction and higher turnover intentions.

4. Differences by employer and bargaining unit

Patterns of outcomes varied by company and bargaining unit.

- There was considerable variation across employers, ranging from 32-34% of workers reporting 'very high' stress in the two lowest companies to over 60% of respondents from most other companies. Respondents from the companies reporting lower rates of stress were also more satisfied with their jobs and employers and reported fewer absences.
- Reported stress levels also varied considerably across bargaining units within companies. One bargaining unit had exceptionally high rates of stress across different measures (e.g. personal and workplace stress, burnout, sleep difficulties, and repetitive stress injuries). Workers from the three bargaining units associated with the highest stress levels also reported low job satisfaction and high absenteeism rates.

'Lower stress' employers and bargaining units provided workers with more training, used performance management for developmental purposes (rather than being discipline-focused), and had lower rates of layoff fears linked to restructuring or outsourcing.

- Two companies represented the opposite poles for stress outcomes. Workers in the company associated with the lowest stress demonstrated a consistent pattern of above-average investments in quality training, less rigid and discipline-intensive performance management, and lower reported outsourcing or layoff fears. In contrast, workers in the company associated with the highest stress reported significantly lower quality training, intensive and discipline-oriented performance management, low job discretion, and high layoff fears -- especially those related to offshoring.
- Variations across bargaining units follow similar patterns. Above average stress rates in two bargaining units (relative to other bargaining units in these companies) accompany weaker investments in training, higher rates of discipline-focused performance management, and greater layoff fears linked to outsourcing and organizational restructuring.

1.2. Methods

This study was carried out between 2017-2018, directed by Professor Virginia Doellgast at Cornell University's ILR School. To assist with survey design, the research team conducted interviews with seven CWA officials and shop stewards representing call center workers at different companies, located in different US regions. We then asked union representatives to administer a draft version of the survey to their members in call centers and incorporated their suggestions into a revised survey. A first round of surveys was administered electronically via Qualtrics between July and November 2017 to a subset of approximately 3,000 members across 8 employers. Union officials at these locals sent links to the surveys to email lists of their members. This survey had a 10% response rate, with 288 completed surveys. We then received further feedback on the survey from the locals involved in this first round, and drafted a shorter, revised version of the survey.

The final survey was administered in December 2017, again via email to member lists. CWA officials sent the survey link to local union representatives, who encouraged their members via email to participate. We received 2,199 usable surveys from call center employees, and were able to match 2,100 to CWA-represented employers and collective agreements. In our analysis below, we use this full sample for the overall averages; and report results by employer for 2,066 individuals at the 8 employers with at least 50 respondents. CWA estimates that it represents 37,615 workers across these employers: and thus, survey responses represent close to 5% of this workforce. However, this varies by collective agreement: ranging from a 16% response rate from workers under the Company 3 Unit 2 agreement to a 3% response rate for Company 3 Unit 4.

1.3. Past research and questions

We reviewed past research carried out in call centers on the relationship between management practices, employee stress, and outcomes such as absenteeism and turnover (see Doellgast and Sezer 2012). Findings show the following:

First, call center employees are at high risk of psychological strain. Research shows that customer service representatives suffer from high rates of stress, anxiety, and burnout (Holdsworth and Cartwright 2003; Singh et al. 1994).

Second, narrow job design, high use of scripts, and intensive performance monitoring are associated with increased levels of stress, anxiety, and burnout. Some examples of research include:

- Several studies found that greater use of scripts was associated with higher levels of anxiety and depression (Sprigg and Jackson 2006), as well as overall lower mental health and job satisfaction (Holman and Fernie 2000; Holman 2002).
- In a simulation experiment, Wegge et al. (2007) found an increased presence of immunoglobulin A (an immunological protein present in saliva that indicates chronic strain) where employees were required to serve customers quickly while keeping to a script.

- Deery et al. (2002) found that call center employees reported higher levels of emotional exhaustion when management required them to speak in a scripted manner; focused on the quantity of calls taken, rather than the quality of service; and put pressure on them to minimize their wrap-up time. Emotional exhaustion was also higher when employees viewed their job as repetitive and the workload as excessive.
- More intensive performance monitoring in call centers was found to contribute to higher levels of strain, increasing rates of stress (Topcic et al., 2016), emotional exhaustion (Deery et al. 2002; Castanheira and Chambel 2010), and depression and anxiety (Holman 2002; Sprigg and Jackson 2006).

Third, research has shown that these practices increase employee stress and burnout because they reduce autonomy and discretion at work. Monitoring and scripts reduce employees' control over their work, their ability to develop and use skills, and their ability to deal with the emotional work required to interact with customers – which, in turn, lower their capacity to cope with the high demands they face in their jobs.

- Holman (2002; 2003) found lower levels of anxiety and depression in call centers where employees reported having more control over work methods, procedures and communications with customers.
- Holman and Fernie (2000) found higher levels of strain where employees had low control over the timing and handling of calls; and Rose and Wright (2005) found higher strain where they had low overall discretion in their work.
- Research in call centers has found higher rates of emotional exhaustion when employees felt that they lacked the necessary skills to deal with job requirements (Deery et al. 2002); and less anxiety and depression while where they had more opportunities to use their skills (Sprigg and Jackson 2006).
- A study by Holman and Wall (2002) found that call center employees with greater control over their jobs developed and used a wider range of skills. Wider skill use helped them to cope with job demands more effectively; and this coping ability reduced rates of job-related anxiety and depression.
- Several studies in call centers have looked at the role of 'emotional dissonance', which occurs when an employee has to display emotions to the customer (such as friendliness or cheerfulness) that may differ from emotions he or she might actually feel (such as anger or boredom). Emotional dissonance is higher where there is work standardization through dialogue scripting, high workloads with a strong focus on call volumes, and intensive monitoring – as these reduce call center employees' flexibility and control in negotiating their interactions with customers (Castanheira and Chambel, 2010; Lewig and Dollard 2003; Wharton 1996). Research also shows that emotional dissonance leads to higher levels of anxiety and depression (Holman et al. 2002), as well as irritation, psychosomatic complaints (Grebner et al. 2002), emotional exhaustion, and depersonalization (Dormann et al. 2002).

Fourth, research has found that supportive management practices can reduce stress associated with performance monitoring. Designing targets that are appropriate and achievable and supporting employees with training and feedback rather than threatened dismissal are particularly important. Findings here include:

- Research has found higher stress levels where task monitoring is viewed as inappropriate or badly designed (Holman et al. 2002); where employees feel they cannot meet performance targets because of lack of training or excessive workload (Nebeker and Tatum 1993; Deery et al. 2002); or where management practices and rewards systems are simply viewed as unfair (Brotheridge, 2003; Cloutier et al. 2017; Matta et al., 2017).
- Chalykoff and Kochan (1989) showed that clear rating criteria and constructive performance feedback resulting from the monitoring system increased both satisfaction with the system and job satisfaction in a call center setting.
- Nebeker and Tatum (1993) found higher stress levels where the consequences of poor performance ratings led to discipline rather than development or training. Hales et al. (1994) found an increased risk of musculoskeletal disorders where call center employees expressed uncertainty about job security, including fear of being replaced by a computer.
- Holman, Chissick, and Totterdell (2002) found that the clarity of performance criteria, the immediacy of feedback, and whether the feedback is positive were associated with lower levels of depression; while depression, anxiety, and emotional exhaustion were all lower when monitoring was used to develop rather than to discipline employees.
- Holman (2002) found reduced levels of psychological strain where employees viewed the payment system as fair, felt training and coaching were adequate, and found performance appraisals to be useful. Where supervisory support was higher, monitoring intensity had a weaker relationship with measures of strain. This finding is consistent with research on the role of supervisory support in alleviating psychological strain in other contexts (Tourigny et al., 2005; Cummins, 1990; Blanch, 2016; Tucker et al., 2018).

Fifth, these stress-inducing management practices increase quit and absenteeism rates, reduce customer service quality, and may reduce employee performance on sales and metrics like call handling time.

- Findings from a large number of studies in call centers show consistently that work standardization, script use, and intensive monitoring, are associated with increased quit rates (Batt 2002; Batt et al. 2002; Batt et al. 2006; Wood et al. 2006; Doellgast 2008; Holman et al. 2009) increased intentions to quit (Callaghan and Thompson 2001) and increased absenteeism (Deery et al. 2002).
- Visser and Rothman (2008) found that burnout had a direct effect on turnover intentions, while Deery et al. (2002) show that absenteeism was higher among employees suffering from emotional exhaustion. In a qualitative study, Callaghan and Thompson (2001) found that call center employees often coped with stress through quitting, which they describe as a form of 'externalising' dissatisfaction.

- Studies have found higher sales growth in call centers adopting practices that relied on high employee skills, employee participation and control, and limits on monitoring intensity (Batt 2002; Chicu et al. 2016); and lower levels of customer satisfaction where dismissal rates were high (Batt and Colvin 2011). An analysis of variation in employee performance across the call centers of one large company showed that average call handling time was lower where supervisors emphasized group assignments and group incentives (Liu and Batt 2010); and that service quality and revenues per call were higher where human resource practices emphasized employee training, discretion, and rewards (Batt and Moynihan 2006).

The above research findings are the starting point for the analysis in this report. They suggest that certain management practices are associated with higher levels of employee stress and burnout, such as intensive performance management, scripting, and standardization of work, and use of performance information to discipline rather than develop employees. These negative effects can be moderated or reduced by supportive management practices. However, we would expect the best outcomes, in terms of improved employee well-being, where alternative models of performance management and work organization are put in place that help give employees more control over their work, invest in training, use monitoring to develop rather than discipline workers, and improve job security.

Report of survey findings

In section 2 below, we summarize the characteristics of the workers we surveyed, across the sample and broken down by employer and collective agreement.

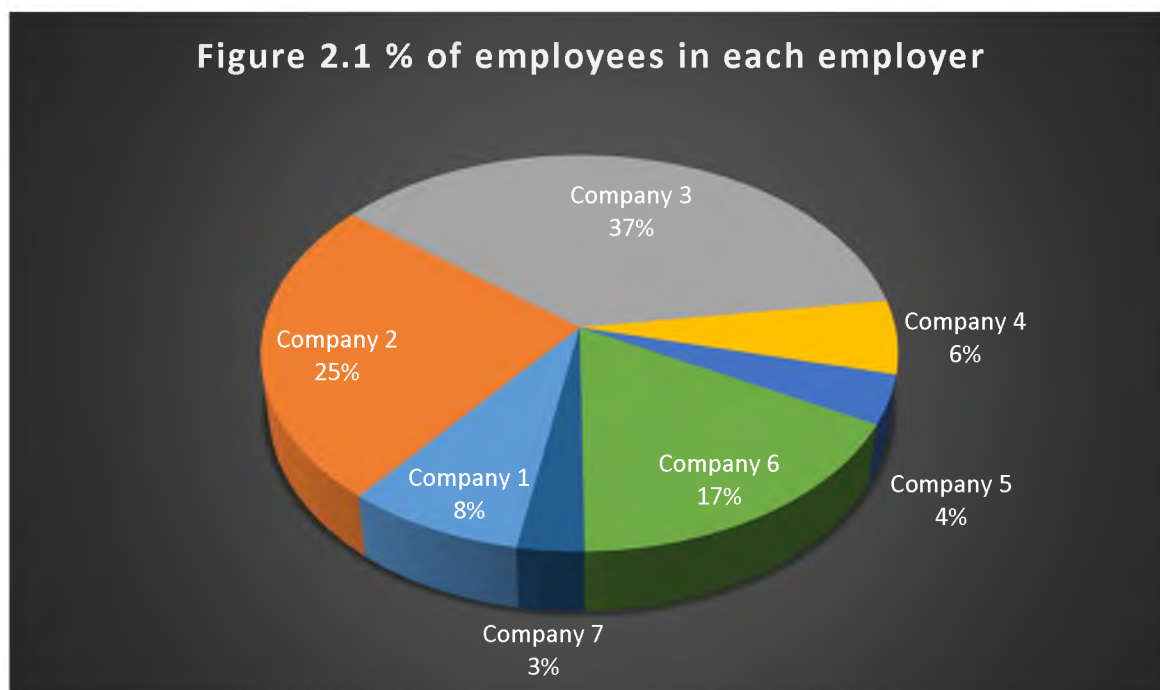
In section 3, we compare overall patterns of employee responses across employers and by major collective agreements. Our findings fall into five groups: Training and skills; Customer interactions; Performance monitoring, feedback, and pay; Technology, outsourcing and layoffs; and Outcomes: stress, absenteeism, turnover intentions.

In section 4, we ask what factors are associated with higher or lower rates of employee stress, at both the individual (employee) level as well as across employers – based on mean comparisons and correlations. We also ask how stress relates to other outcomes, including job satisfaction, absenteeism, and turnover intentions.

In section 5, we summarize our conclusions.

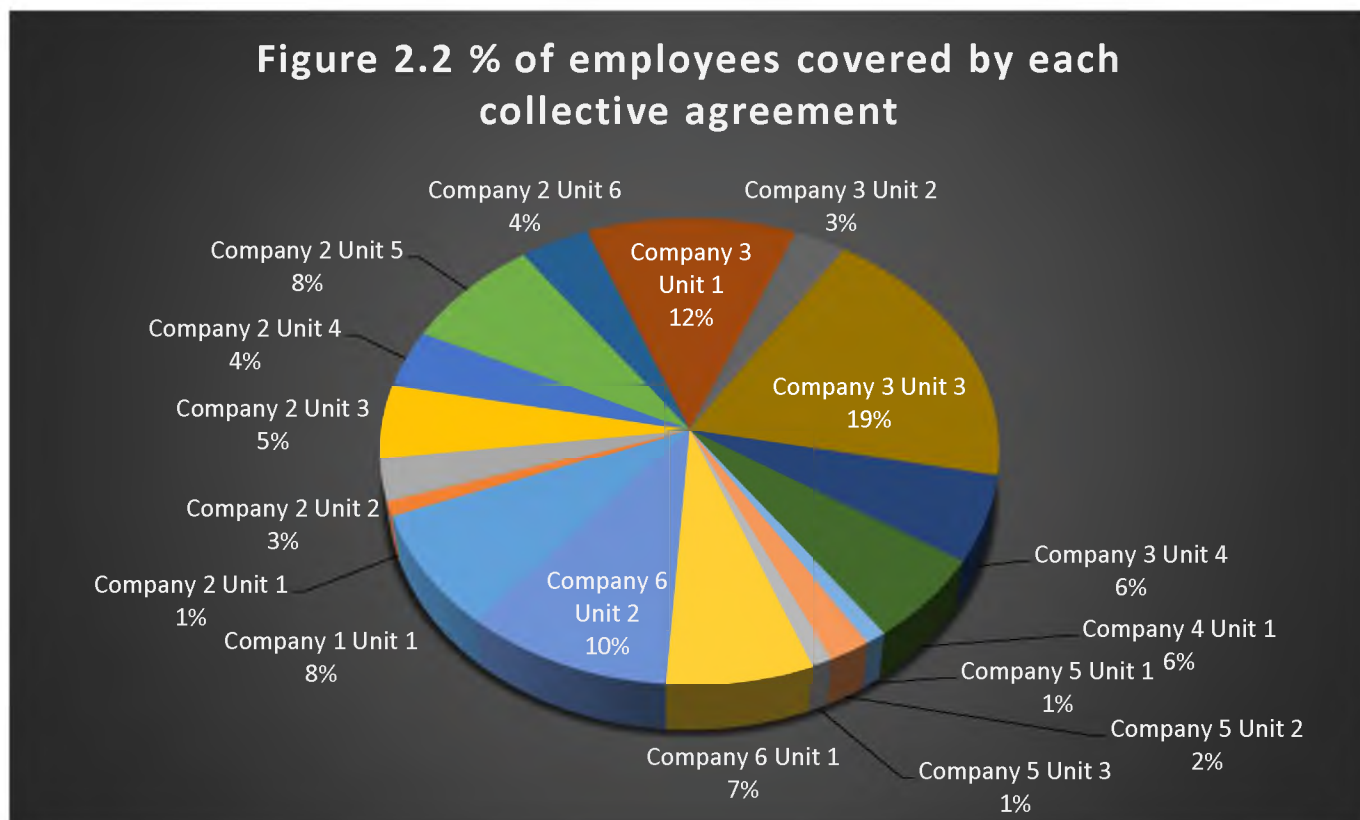
2.1. Background

After restricting the sample to those individuals who we could match with collective agreements, the full sample of the survey included 2,066 individuals across 7 employers (Figure 2.1). The largest group was from Company 3¹, representing 37%, (758 respondents), with Company 2 as a close second at 25% (512 respondents).



¹ Company names and their bargaining units have been anonymized. Company 7 is analyzed at the company level and has no associated CBAs or bargaining units.

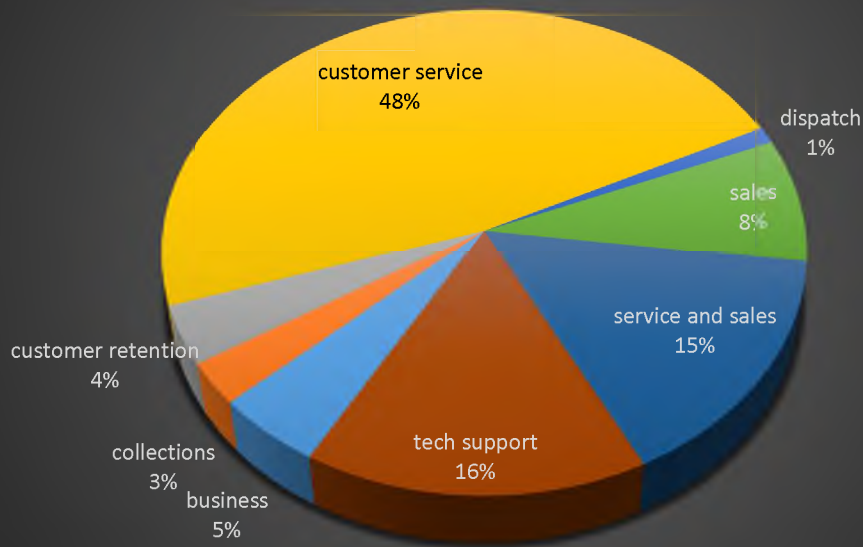
We also matched respondents by collective agreement. Figure 2.2 below summarizes the percentage of workers in the sample falling under each major collective agreement. Members covered by the Company 3 Unit 1 and Company 3 Unit 3 agreements made up the largest percentage of respondents; followed by Company 6 Unit 2, Company 1 Unit 1, and Company 6 Unit 2.



2.2. Job titles and call types

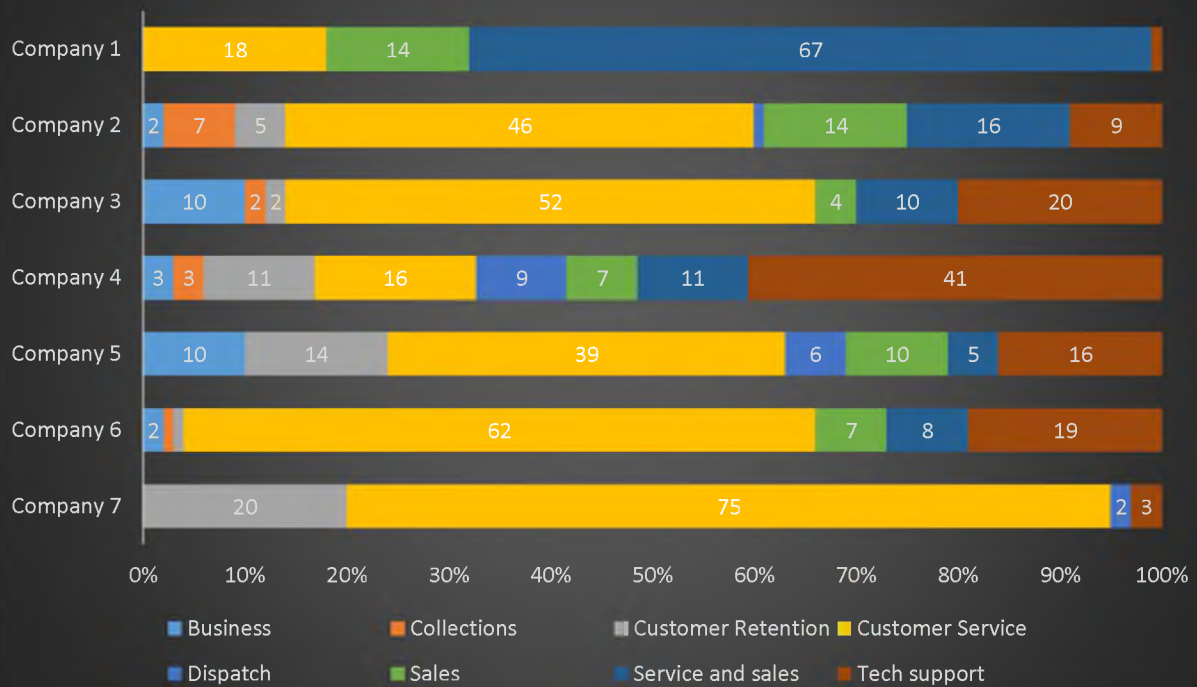
We coded the job titles respondents entered in the survey under eight major job title groups (Figure 2.4). The largest, or 48%, had titles focusing on customer service – for example, Customer Service Representative or Customer Support Specialist. 15% had titles emphasizing both sales and service (e.g. Sales and Service Representative; Sales and Customer Service Associate) and 8% were primarily sale-focused (e.g. Sales Associate, Sales Representative); while 16% specialized in technical support. A smaller number had titles that emphasized business, collections, customer retention, and dispatch roles.

Figure 2.4 % employees in each job title group



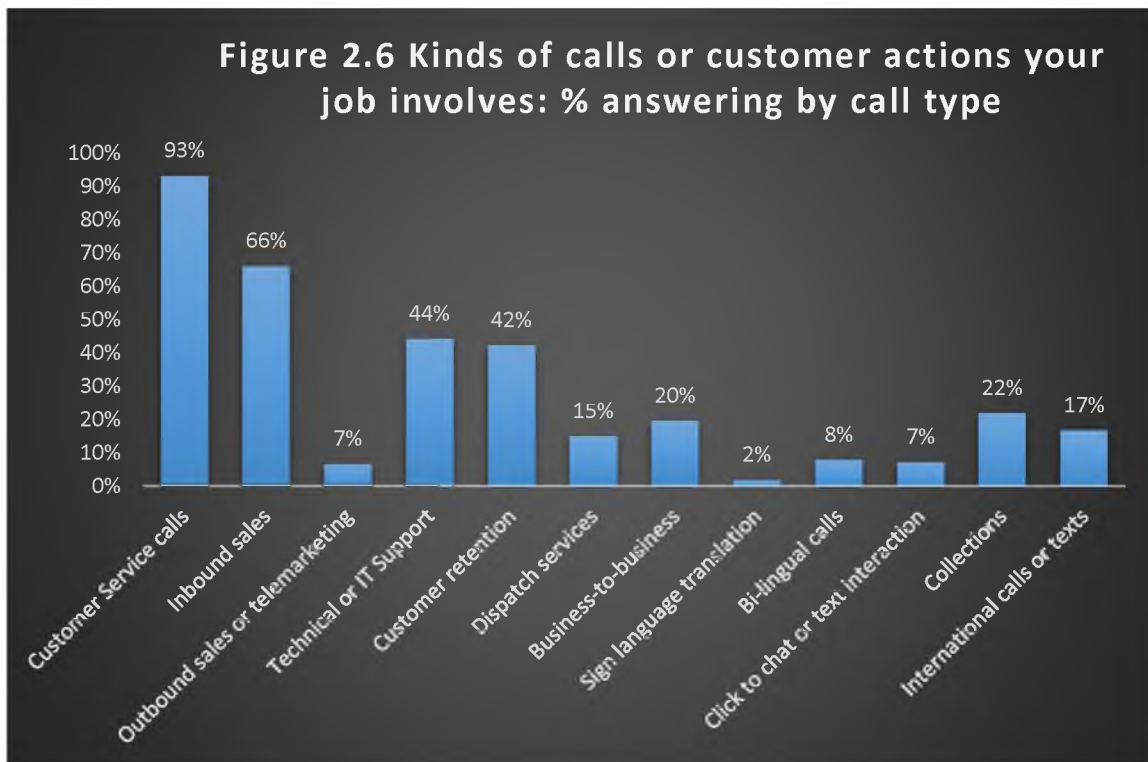
The breakdown of % of workers in each job title varies by employer, as shown in Figure 2.5 below. Company 4 had the largest proportion of respondents in technical support roles (41%); while most job titles in the Company 1 group emphasize service and sales (67%).

Figure 2.5 % in each job title (by employer)

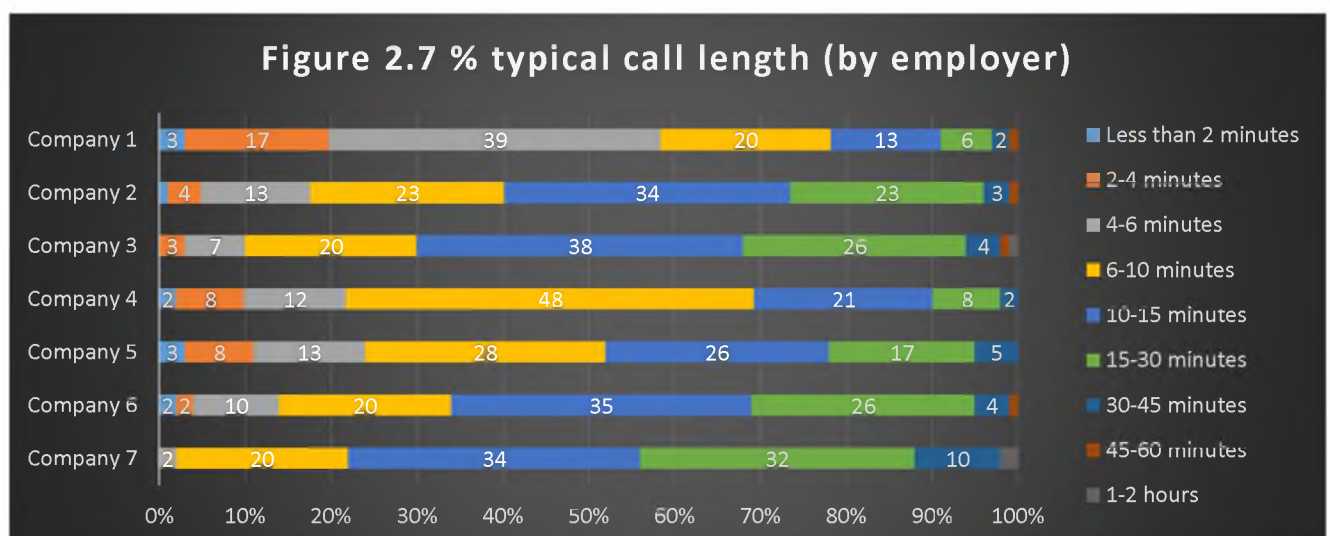


We also asked workers to describe the kinds of calls or customer actions their job involves. Here 93% of all respondents reported that their job involved customer service calls; 66% inbound sales; 44% technical or IT support; and 42% customer retention (Figure 2.6). On

average, their jobs involved 3.5 different kinds of customer interactions. This number was similar across employers, with the highest rate at Company 6, where the median was close to 4. Around 65% reported that their job involved BOTH customer service and sales calls. In addition, close to 98% of respondents were in full time positions, with nearly all of the part time workers at Company 1 (representing 21% of total respondents).

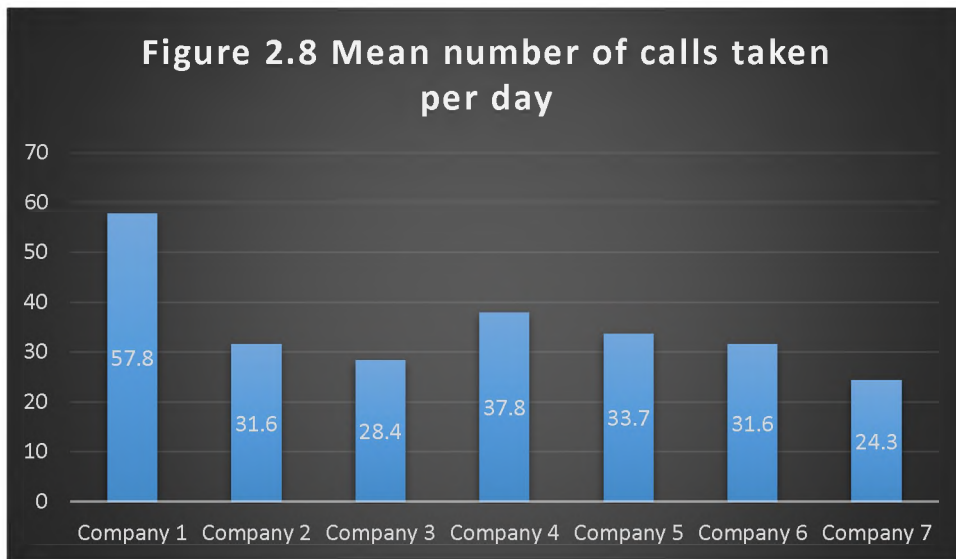


Almost 80% of respondents reported a typical call length of between 6 and 30 minutes (with the largest group in the 10-15 minute range). However, this varied across employers. Company 3 and Company 7 had the largest percentage of calls over 10 minutes in length – with 26% of Company 3’s calls lasting 15-30 minutes (Figure 2.7). Company 1 and Company 4 had the largest percentage under 10 minutes.



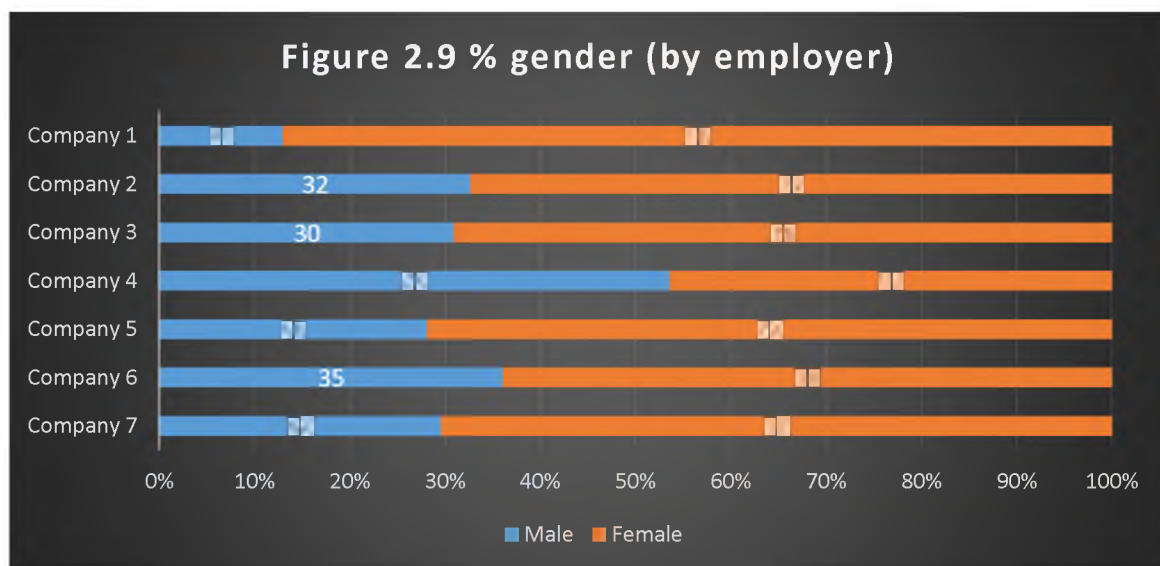
The above patterns are consistent with the mean number of calls taken per day. Here, call volumes were comparable across most companies (Figure 2.8), with an average of 33 calls per

day. However, Company 1 was an obvious outlier, with 58 calls daily, more than double the rate at other companies, such as Company 7 where workers typically answer 24 calls a day. This reflects the large number of calls resolved in under 6 minutes.



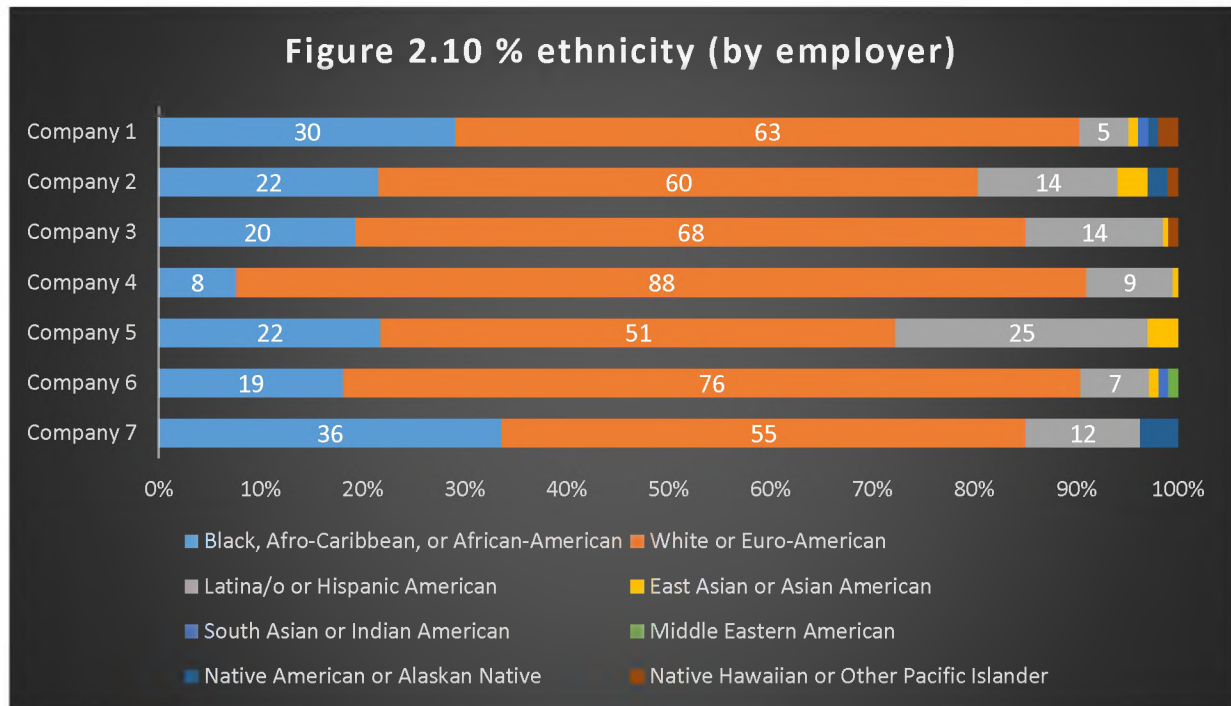
2.3. Demographic characteristics

Overall, 66% of the sample reported that they were female (31% were male, and 3% preferred not to say; see Figure 2.9). Close to 1% reported that they identified as transgender. The below graph shows that the proportion of women was highest among respondents from Company 1 (87%) and lowest at Company 4 (45%).

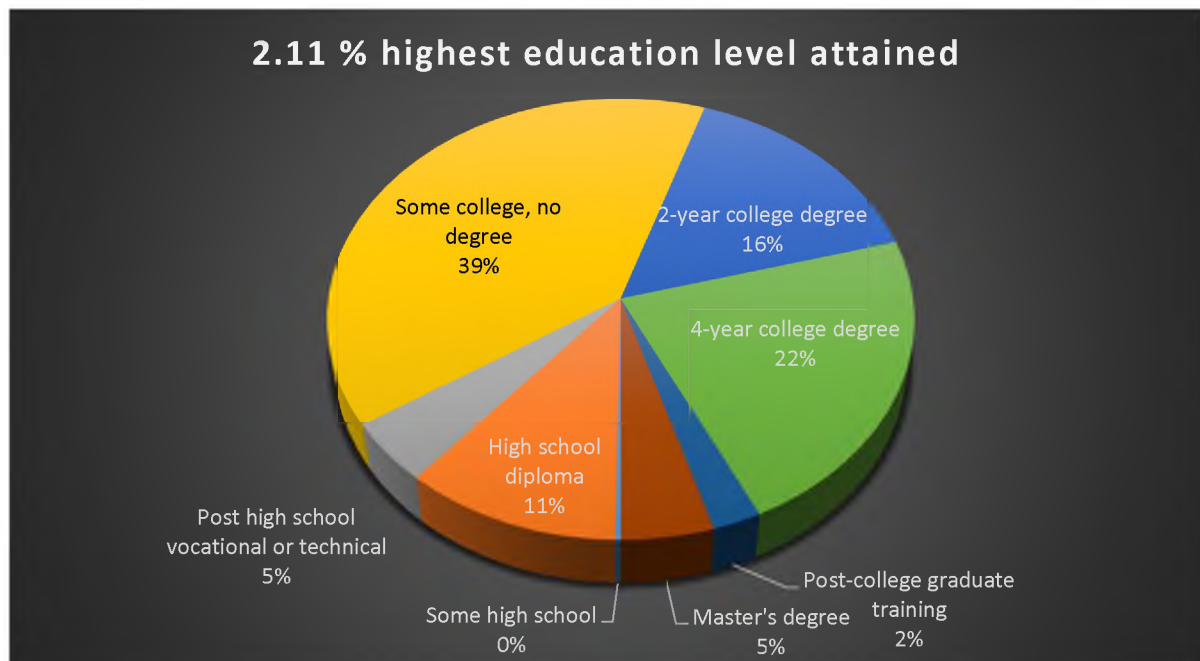


The mean age of respondents was 44. This was similar across employers; with the highest mean age at Company 1 (49) and lowest at Company 7 (38). The mean tenure at the respondent's current employer overall was 9.6 years. Tenure was highest at Company 2 (12.9), Company 6 (12.3), Company 1 (12), and Company 5 (11.6); and was lowest at Company 4 (7.6), Company 3 (6.2), and Company 7 (5). The patterns are similar for the length of time workers worked in call centers; with an overall average of 12.3 years and highest average total years at Company 5 (15.7).

The overwhelming majority (96%) of respondents reported that their country of origin was the USA. Across the sample, 21% reported their ethnicity as Black, Afro-Caribbean, or African-American; 68% White or Euro-American; and 12% Latina/o or Hispanic American. This breakdown varies by employer, as can be seen in Figure 2.10 below.

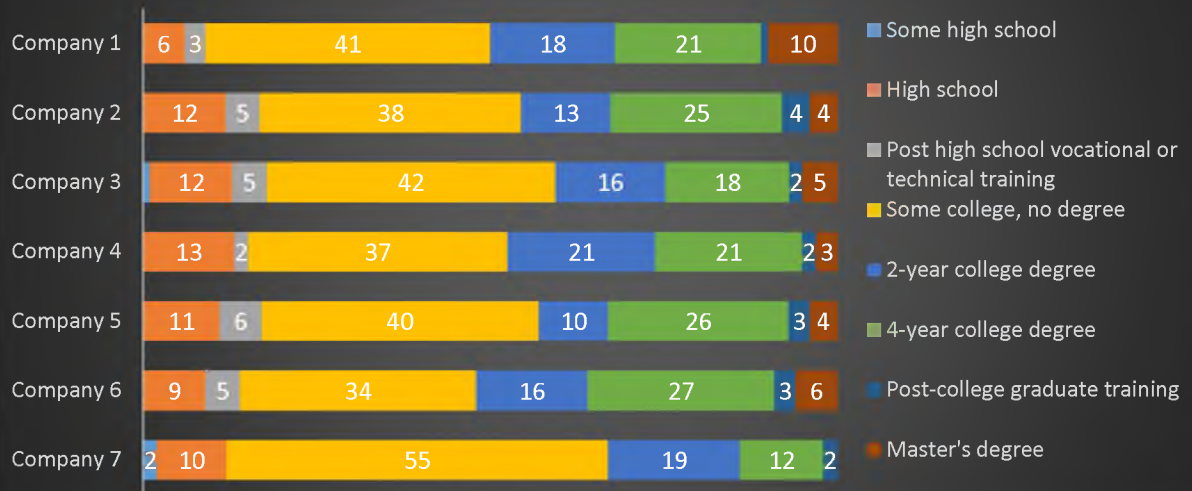


The education level of respondents is high overall. The most common answer for the highest education level attained was 'some college, no degree' (39%); while 22% had a 4-year college degree and 16% a 2-year college degree (Figure 2.11). Only 4 respondents did not have at least a high school diploma.



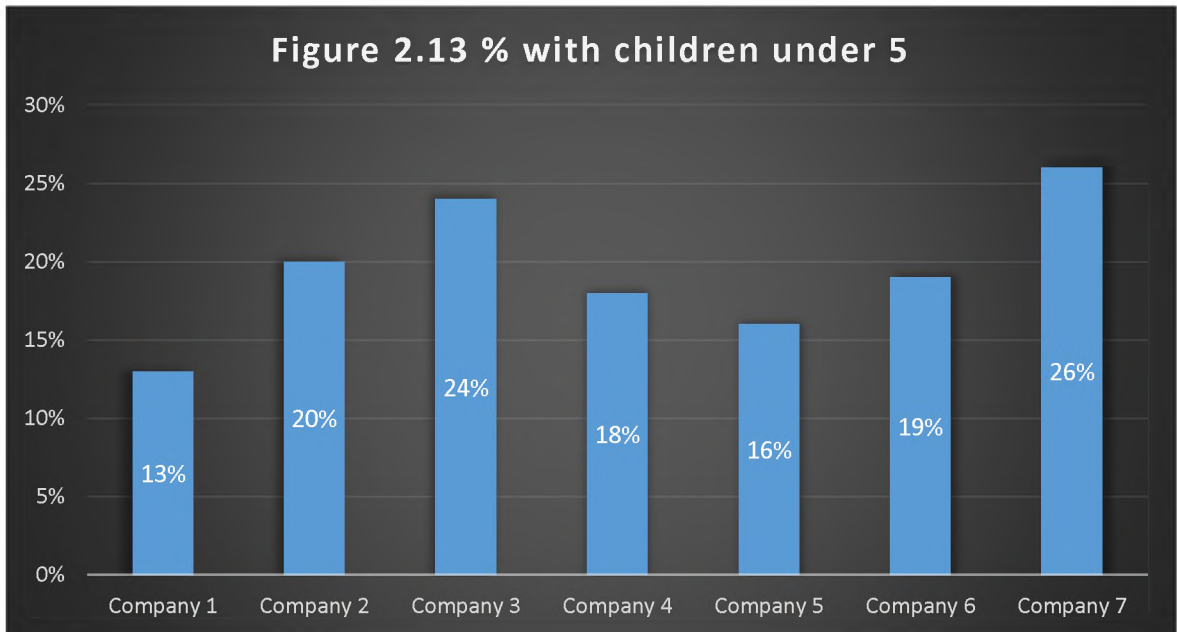
Education levels are similar across employers, with some variation – as shown in Figure 2.12 below. Company 7 has the lowest proportion of respondents who obtained a two-year college degree or higher; while Company 1 has the highest.

Figure 2.12 % highest education level attained (by employer)



Close to 20% of the workers had at least one child under 5 years of age (Figure 2.13). The proportion of workers in each group varied, representing close to a quarter of respondents at Company 3 and Company 7; and 13% at Company 1. Based on a breakdown across collective agreements, the highest proportion of respondents with children were under the Company 3 Unit 2 (30%) and Company 2 Unit 5 (28%) agreements.

Figure 2.13 % with children under 5



3. Management Practices, Customer Interactions, and Outcomes

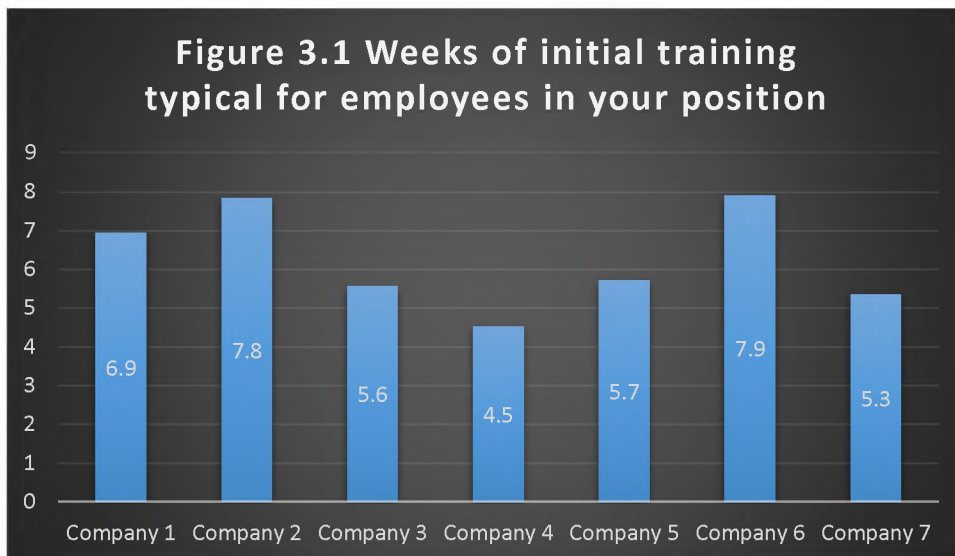
In this section, we summarize descriptive findings on management practices, customer interactions, and outcomes, including stress, turnover, and absenteeism. We present results primarily by employer, summarizing overall figures and different patterns across collective agreements with the same company.

Findings show some consistent patterns. First, Company 1 workers appear to have the most favorable perceptions of their work climate. They were more likely to view their training as effective, dealt with less abusive customers, were monitored less intensively, and enjoyed more favorable working conditions overall. These workers were also the least stressed, experienced fewer sleeping difficulties, and were least likely to look for another job. Company 4's workers run a close second in many (but not all) of these outcomes. The rest of the companies fared much worse across the board. None of these poor performing companies consistently fared worse or better than one another across the range of outcomes. Second, work outcomes often varied by agreement. For example, workers under Company 3's Unit 2 and Unit 4 agreements reported lower stress levels than those at other bargaining units within the company.

3.1. Training and Skills

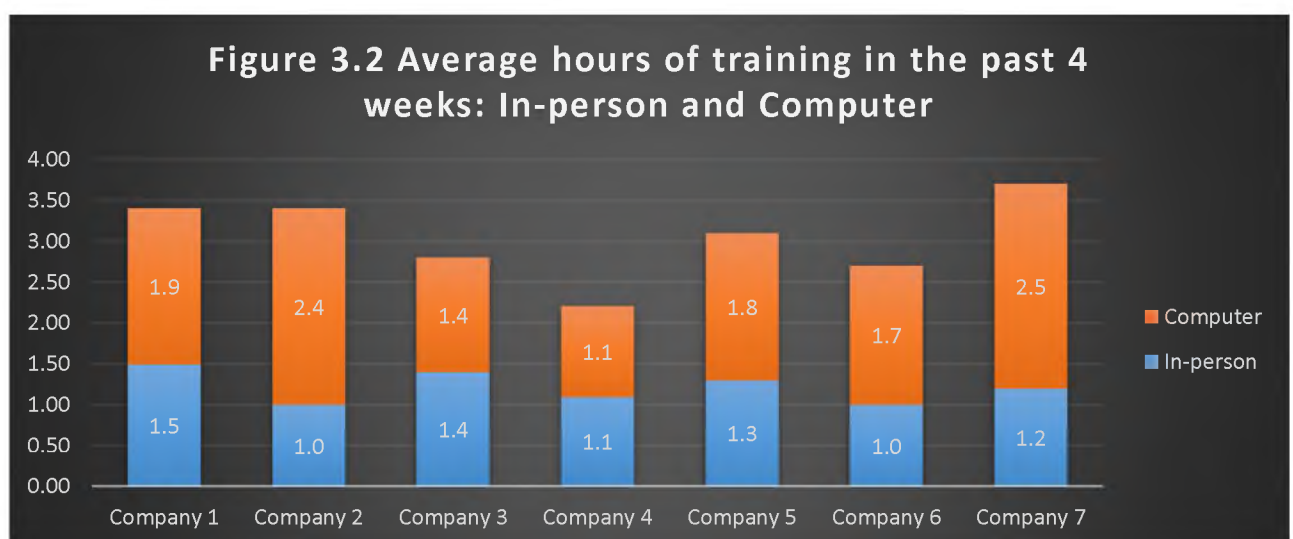
Call center workers require considerable knowledge and experience to perform their daily tasks. They are often trained in customer service, in the details of company products, and in using digital interfaces to process calls in a timely manner. A company's investment in worker training is often an indication of their commitment to service quality.

Call center workers in each company reported that they typically received several weeks of initial training. Figure 3.1 shows the average number of weeks provided to workers at the point of hire. The average was 6.5 weeks, but this varied by employer and collective agreement. The two extremes are Company 4 providing the least training (4.5 weeks) and Company 6 providing the most (8 weeks). Workers with Company 1 and Company 2 received around 7 or more weeks of initial training; while fewer than 6 weeks were provided by Company 5, Company 3, and Company 7. Across collective agreements, respondents from the Company 2 Unit 5 agreement reported on average 8.8 weeks of training, while those from the Company 4 Unit 1 agreement reported 4.5. Other bargaining units fell within this range.



We also asked workers about the amount of training they received in the past four weeks. We restricted the sample to workers who had over 1 year of tenure, so that we did not capture initial training in the figure. We also excluded 3 individuals who reported over 200 hours of training. On average, workers in this sample received 3 hours of ongoing training over the 4 weeks prior to completing the survey. Consistent with the results on initial training, Company 4 was the lowest provider of ongoing training, with workers receiving 2.2 hours of training over the four-week period. Company 7 invested in the greatest number of training hours (3.7), followed by Company 2 (3.4).

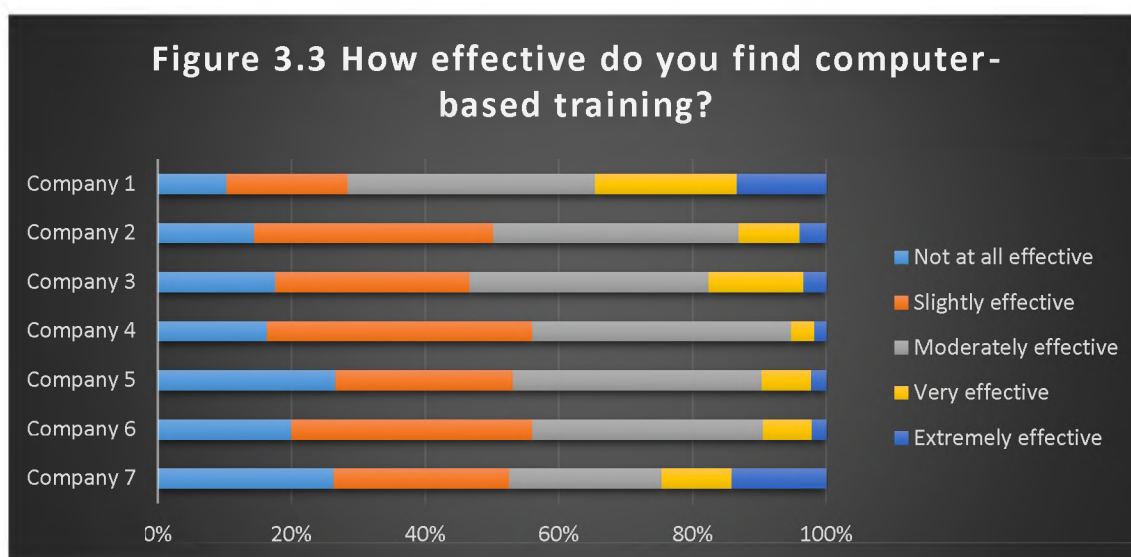
Figure 3.2 shows how much training workers reported based on in-person or computer-based training – with the sample again restricted as described above. Most training across companies was computer-based: representing on average close to 60% of training hours. Company 7 workers reported the highest proportion of computer-based training (68%) while Company 4 reported the lowest (49%).



Levels of training are a blunt way to examine a company's commitment to worker skills. Some workplaces may provide several hours of training, but the training may not match worker

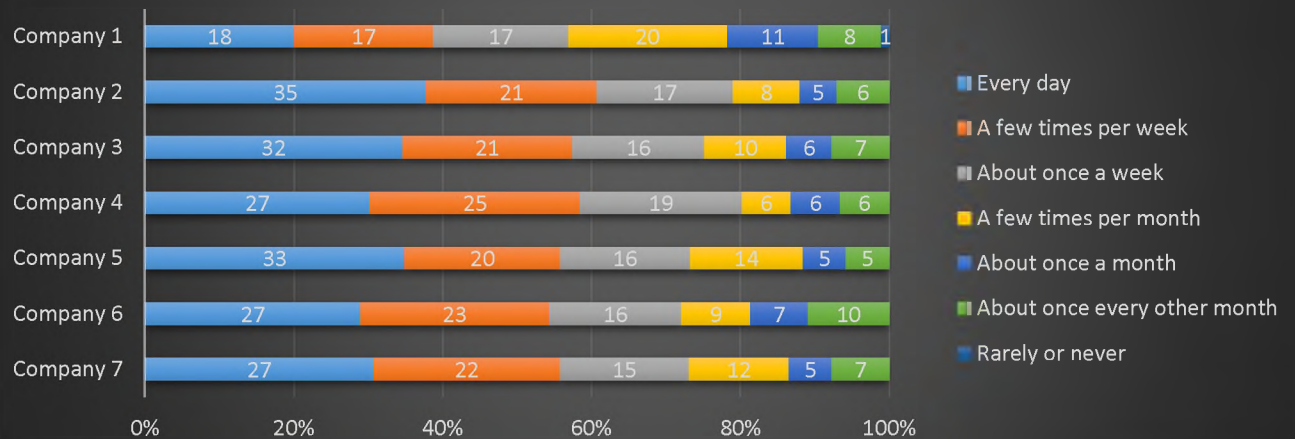
needs. For this reason, we also asked workers to report on the effectiveness of the training they received from their employer.

First, respondents found in-person training to be more effective than computer-based training. 51% reported that in-person training was very or extremely effective (and 78% at least moderately effective); compared to 15% reporting that computer-based training was very or extremely effective (51% at least moderately effective). These responses vary across employers (Figure 3.3). Over 71% of Company 1 workers found this training to be moderately to extremely effective, compared to 44% at Company 4 and Company 6. However, within Company 6, workers are most negative about computer-based training in Unit 2, with only 35% reporting at least moderate effectiveness.



Other questions from the survey addressed the quality of employer-provided training. In addition to being most satisfied with the effectiveness of different training methods, Company 1 workers were also the least likely to receive calls that their training did not prepare them to answer (Figure 3.4). Only 52% of their workers felt this happened at least once a week, compared to an average of 68% for workers across all companies. Company 2 (72%) and Company 4 (71%) workers experienced this problem most frequently. We also asked workers to provide concrete examples of such training. Most telling are the results on the extent that companies provide workers with updated information on company products and services. 27% of Company 1 workers received information on their products and services on a daily basis, far above the average of 13% for all surveyed workers. Only 9-14% of workers in the other companies reported this result.

Figure 3.4 How often do you receive calls that your training is not adequate to answer?



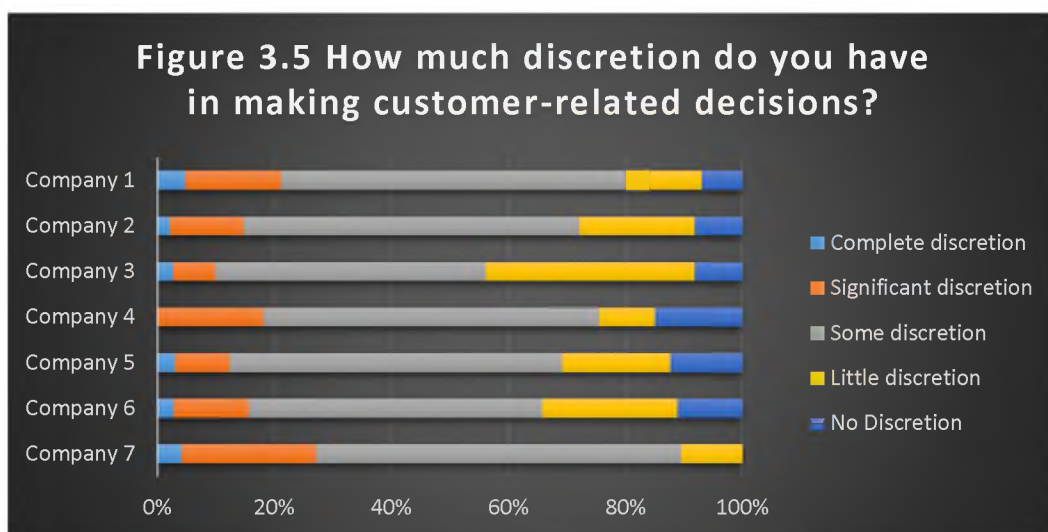
In sum, training practices vary across employers. Company 4 provides the lowest number of training hours, both initial and ongoing. Computer-based training was of high importance. Some companies match computer-based training to in-person training methods, while others provide significantly greater investments in computer-based training (in some case cases more than doubling in-person training hours). We also find variations in worker perceptions towards training effectiveness. Company 1 workers reported the most favorable views of company-provided training, based on assessments of its different components. Given that calls are shorter and call volumes are high in this company, reported rates of effectiveness may be linked to efficient task arrangements and customer query processes. While the other companies performed considerably worse, Company 2 and Company 4 consistently scored on the bottom-end for training effectiveness. Finally, we also found some intra-company variations. For instance, Company 6 Unit 2 shared drastically more negative views of training effectiveness relative to other workers within the company.

3.2. Customer Interactions: Discretion and Customer Abuse

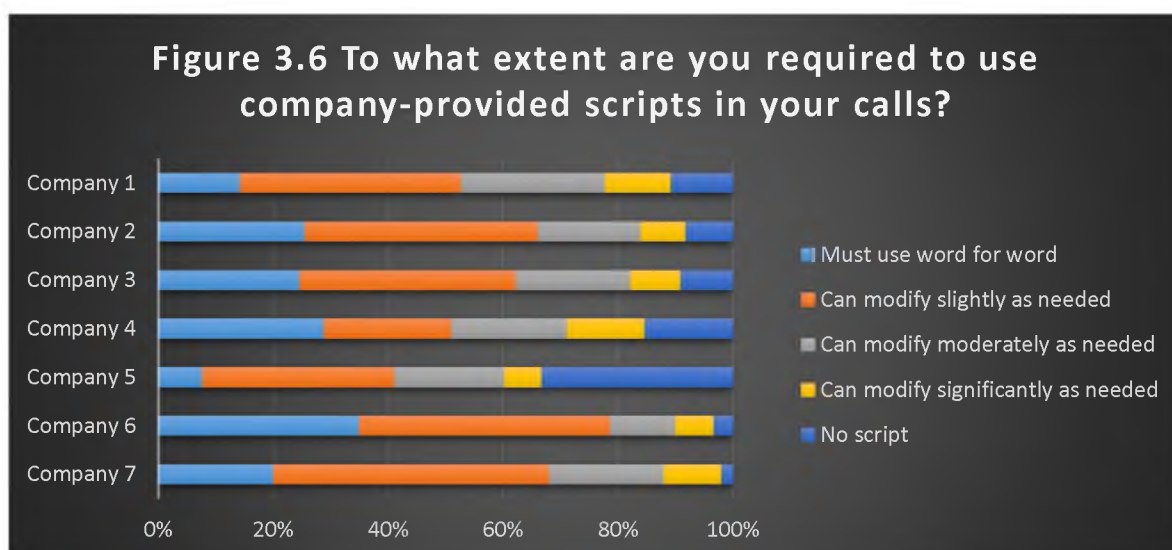
Customer interactions can be a significant source of stress for workers (Dormann and Zapf, 2004). We focused on two components of customer interactions: employee discretion over calls and their exposure to challenging or abusive customer behaviors. We discovered considerable diversity in outcomes across employers and bargaining units.

We asked workers to report on how much discretion they had in different areas of their work. Workers with high discretion can problem-solve to meet performance goals and adjust their work habits to meet needs for personal comfort. One question asked about workers' discretion in making customer-related decisions, including adjusting prices, waiving penalties, extending deadlines, or issuing credits (Figure 3.5). On average, 14% reported having complete or significant discretion; while 34% had little or no discretion. Discretion was highest in Company 7, where nearly 27% of workers felt they had significant or complete discretion; and lowest in Company 3 with only 10% indicating similarly high discretion rates. Across collective agreements, the highest discretion rates were reported for the Company 6

Unit 1, Company 1 Unit 1, and Company 2 Unit 5 agreements; and the lowest for the Company 5 Unit 1, Company 3 Unit 1, and Company 2 Unit 1 agreements.



The survey also asked workers to report on the use of company-provided scripts (Figure 3.6). A minority of workers across employers reported that they could modify scripts significantly or that they had no script; and on average 25% reported that they were required to use a script word-for-word. Workers with Company 5 had the most discretion, as less than 8% were required to follow scripts word-for-word and over 33% of workers used no scripts. Company 1 was a distant second, with 14% of its workers using word-for-word scripting. Company 6 workers were most affected by script-use, with 35% having to follow word-for-word scripts and another 44% percent having only slight discretion over the use of scripts. Only 21% of Company 6’s workers reported at least moderate levels of freedom in their ability to adjust scripts.



The results on job discretion also vary across collective agreements. For example, while Company 2 provides its workers with little discretion overall, workers under its Unit 1 agreement had considerably more discretion over script-use than those in other agreements. As word-for-word scripting applied to only 13% of workers, discretion over script-use by workers under this agreement is in some ways superior to that of Company 1. Discretion over

script-use overall is low in the Company 5 agreements. Yet discretion over script-use is significantly higher in Company 5 Unit 2 compared to Company 5 Unit 1, where 5% of workers reported using word-for-word scripts, and surprisingly, 41% used no scripts at all (the average for all companies is 9.5%). In Company 5 Unit 1, 14% of workers used word-for-word scripts and 23% had no scripts at all.

Another key area of concern in our questionnaire was customer incivility or abuse. This form of incivility occurs when customers violate norms of behavior in business interactions taking place in service settings (Kern and Grandey, 2009). It can include outright aggressive behavior, such as yelling, or mild forms of impoliteness, such as giving call agents silent treatment or questioning their capabilities. Customer incivility often manifests itself after long-wait times or when there are extraordinary problems with an employers' products or services. HR practices also matter to incivility, such as insufficient investments in training, poor scripting, or inadequate supports from managers on the ground-floor (Sliter and Jones, 2016). It can have detrimental effects for employee performance and service quality, in that customer incivility can trigger forms of stress and incivility on the part of workers, leading to the degradation of customer relations (Groth and Grandey, 2012; Jaarsveld et al., 2010; Walker et al. 2017; Bedi and Schat, 2017).

We asked workers five questions relating to customer incivility or abuse. These show that on average, a majority of workers report that customers frequently or often: blamed them for events outside of their control (80%); demeaned them or used condescending language (66%); and expressed frustration at being transferred across departments and agents (82%). Customers insisted on speaking with a supervisor less frequently, but still 70% reported having this experience at least a few times over the past four weeks.

We show below two of these measures below that are indicative of differences in patterns across employers (Figure 3.7a and 3.7b). Again, Company 1 stands out as having lower rates of incivility, with particularly low customer frustration associated with transfer between departments or agents. Across companies, 61% of workers reported that their customers were frequently frustrated by such transfers, yet only 19% of Company 1 workers experienced this. In stark contrast, 80% of workers with Company 7 faced customers frustrated by high numbers of transfers on a frequent basis.

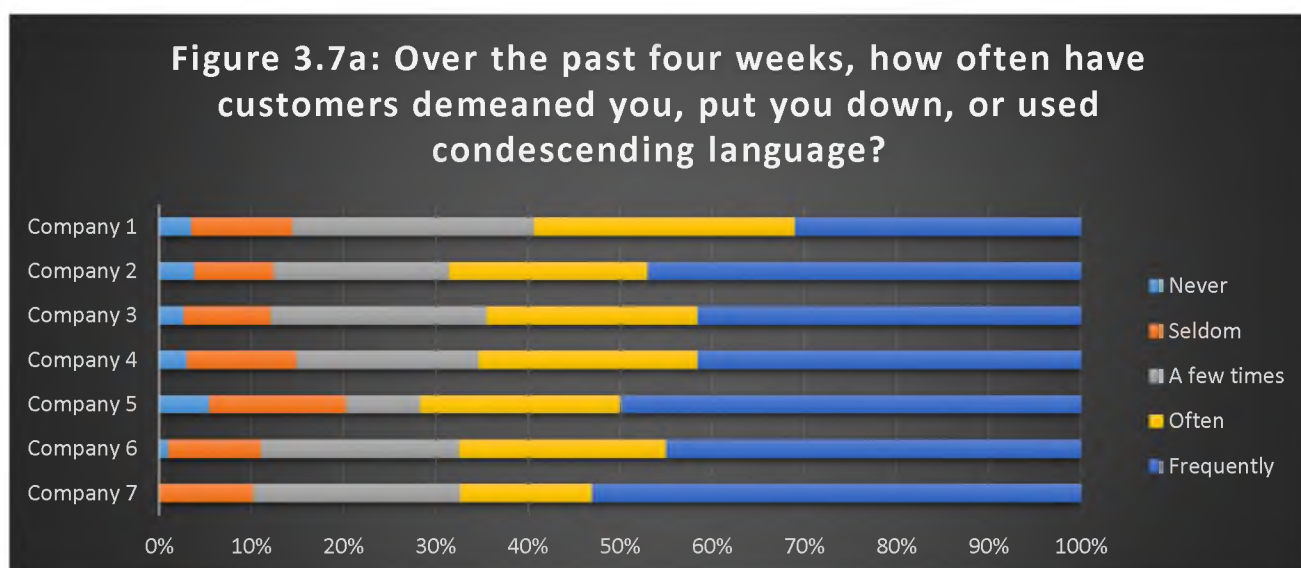
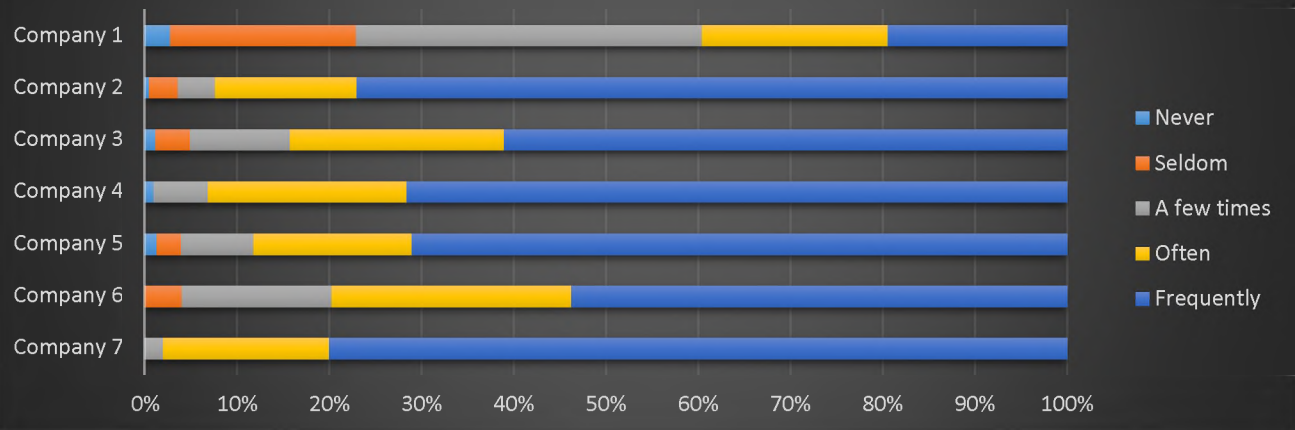


Figure 3.7b: Over the past four weeks, how often have customers expressed frustration at being transferred between different departments or agents?



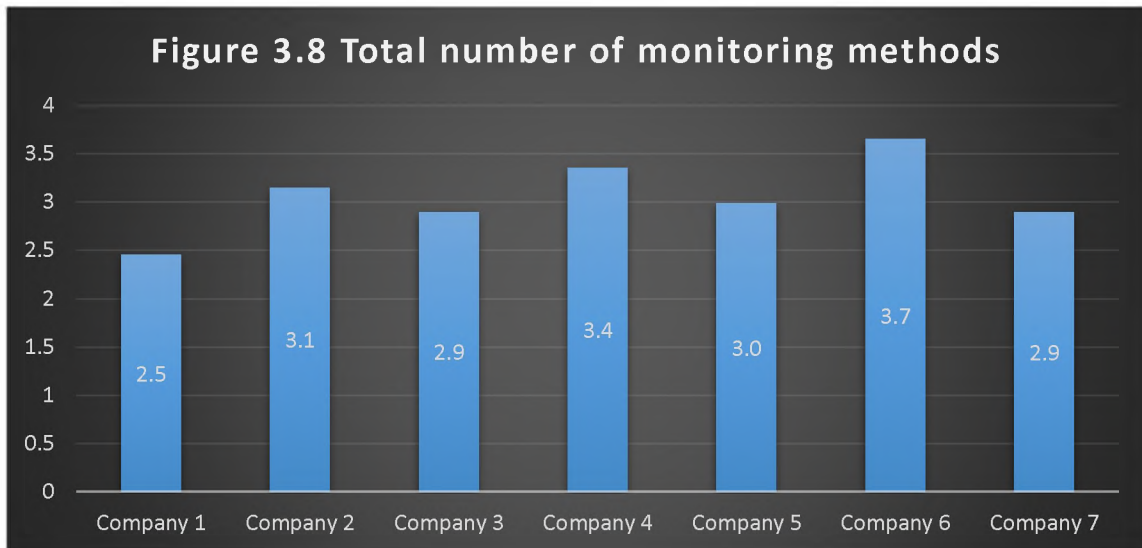
In sum, workers with Company 2, Company 3, Company 4, and Company 6 reported less job discretion overall. Workers with Company 5 had high discretion in some areas (script-use), but low discretion in others (making customer-related decisions). Meanwhile, Company 7 workers had considerably higher job discretion, followed by those with Company 1. We also found some variation between bargaining units within companies. For example, workers within Company 2 Unit 1 or Company 5 Unit 2 had more discretion over script-use relative to other workers in their companies. Finally, Company 1 Unit 1 employees were far less likely to experience forms customer incivility, such as being put down or facing customers frustrated by transfers, than workers in the other companies.

3.3. Performance monitoring, feedback, and working conditions

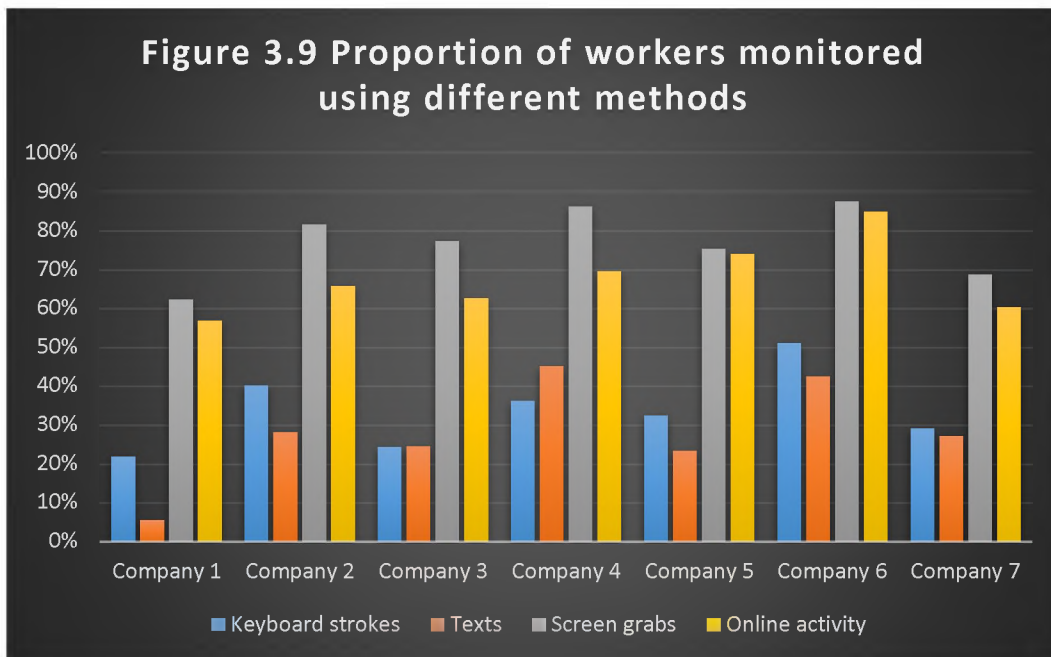
Our survey also asked workers to report on their companies' performance management practices. Performance management refers to the activities taken by companies to ensure that their workers meet the goals assigned to them. We examined three sets of activities. First, we considered how employee behavior is monitored by management. Second, we analyzed how managers provide feedback to workers concerning the quality of their work. Third, we examined compensation, including pay levels and variable pay practices.

Workers were asked to report on their experiences with monitoring. Call center workers reported being monitored most frequently through voice recordings (98%), screen grabs and shots (79%), and monitoring online activity (68%); with a significant minority reporting that their employers tracked their keyboard strokes (34%) and monitored text interactions (28%). We created a new variable for remote live listening, which was reported as an 'other' category of monitoring by around 2% of respondents.

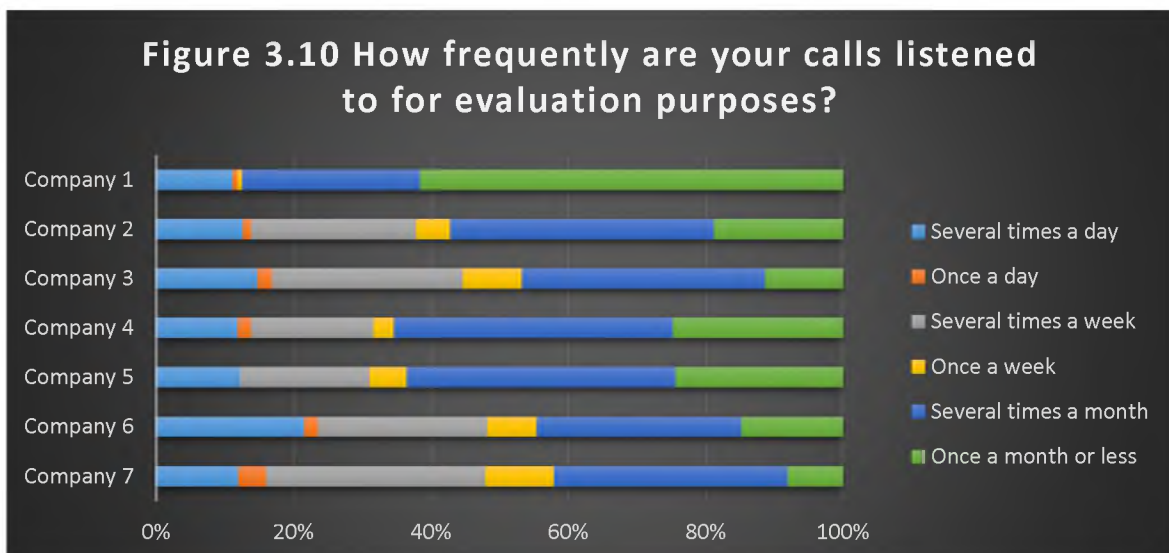
We compared the average number of total monitoring methods reported by employer (Figure 3.8). Across the sample, the average was 3, yet this varied across firms. For example, Company 1 workers reported just under 2.5 forms of monitoring, while Company 6 workers reported the highest rate of use, with on average 3.7 monitoring methods.



Most workers were monitored through voice recordings (94%-98% across companies), however there was considerable variation in the use of other monitoring methods (Figure 3.9). Company 1 workers were subject to fewer monitoring methods than other companies across categories. For example, only 5% of Company 1 workers reported having their text interactions monitored, compared to an average of 28% for all firms. Company 4 (45%) and Company 6 (42%) workers were most likely to have their text interactions tracked. Company 1 (22%) workers were also least likely to have their keyboard strokes tracked, followed by Company 3 (24%). Company 6 workers (51%) were more than twice as likely to have their keyboard strokes tracked and were far above the average of 34%. Finally, Company 1 workers (62%) were least likely report tracking through screen grabs and shots, followed by Company 7 (69%). This form of tracking was highest in Company 6 (88%) and Company 4 (86%). These figures also vary across collective agreements. Within Company 2, workers under Unit 3 reported particularly high rates of keyboard stroke tracking (57%) and screen grabs (92%), as well as an above average total number of monitoring methods (3.6).

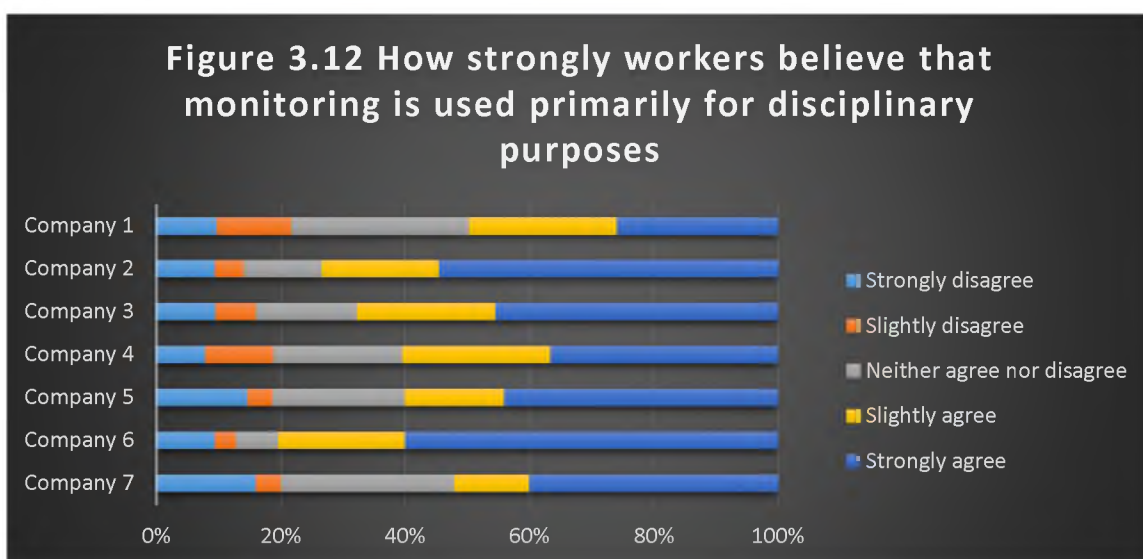
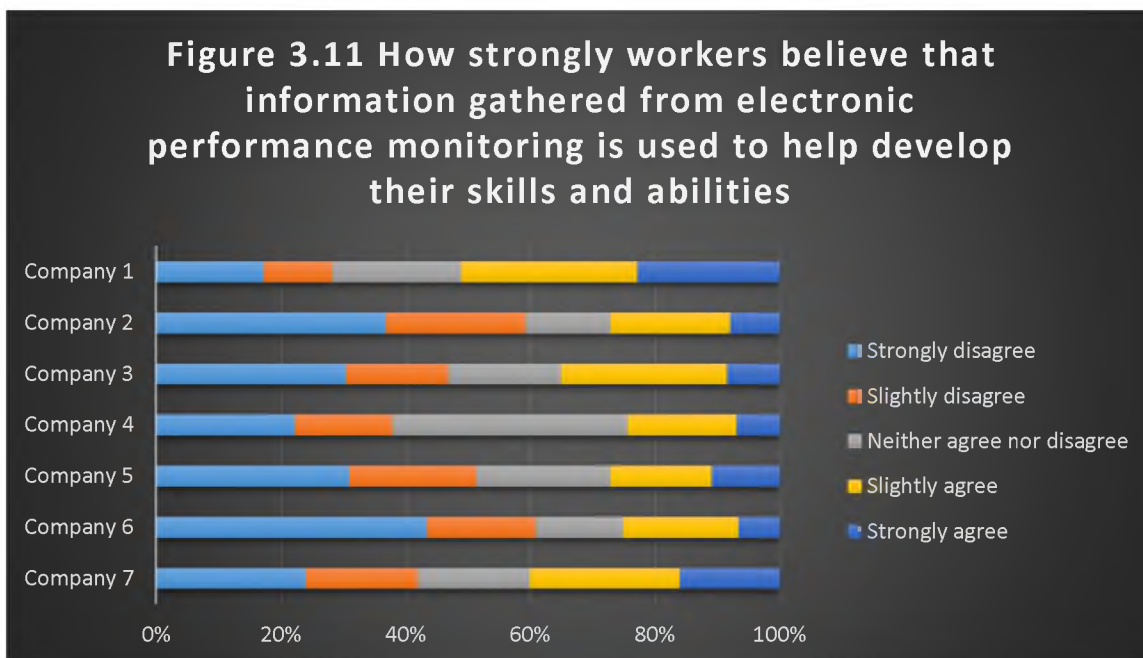


The information acquired by managers through monitoring is used to provide some form of employee feedback. Workers in all firms are subjected to some form of feedback based on information acquired by their managers, including information retrieved from monitoring calls. However, the frequency with which calls are monitored for evaluation purposes differs significantly across employers (Figure 3.10). On average, 40% of workers across the sample reported having their calls listened to at least once per week, with Company 6 topping out at 48%. In contrast, only 12% of Company 1 workers reported that their calls were listened to at least once a week. Company 1 workers also reported having calls listened to for evaluation purposes less frequently than workers at other call centers, with 62% of respondents reporting that their calls were listened to for this purpose once a month or less. The range was 8% to 25% across the other employers (with an average of 19% for all workers).



Workers differed in their views on whether call monitoring was used primarily for employee development or for disciplinary measures. Based on Figure 3.11, Company 1 workers (51%) were far more likely to agree that performance monitoring is used to help workers develop their skills and abilities, followed by Company 7 (40%). The average was 32%. Company 6

workers were least likely to agree that electronic performance monitoring was constructive, with 25% of workers agreeing and 61% disagreeing with the statement. In contrast, over 80% of workers with Company 6 agreed that monitoring was used for disciplinary purposes (Figure 3.12). Less than 50% of Company 1 workers shared this view. The average for all companies was 69%.



There were also considerable variations within companies. For example, only 57% of workers under the Company 3 Unit 4 agreement believed that monitoring was used primarily for discipline, compared to 69% across the company. Within Company 2, 65% of respondents under the Unit 1 agreement agreed that monitoring was used to justify disciplinary action, compared to 79% for Unit 3 and 85% for Unit 2.

Rates of employee discipline associated with performance monitoring diverge considerably across companies. Across the sample, 25% of workers reported having been formally disciplined in the past 12 months; while 13% had been disciplined only 1 time. These were concentrated in a few employers: Around 30% of Company 2 and Company 3 workers and

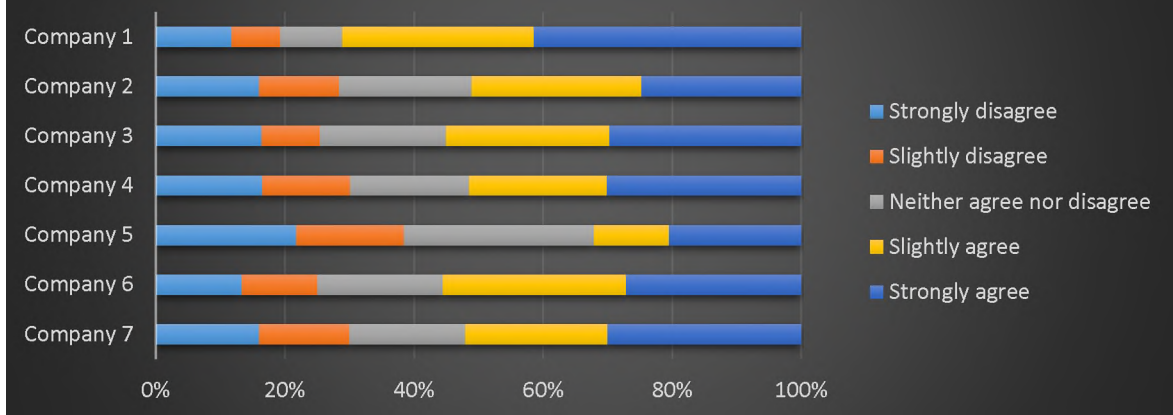
20% of Company 6 workers had been disciplined once or more; while only 10% of Company 1 workers had been formally disciplined.

Because of the low rates of formal discipline, we focus here on informal discipline, such as discussions or other management actions that go off record (Figure 3.13). Company 1 workers were the only ones who reported being informally disciplined less than 0.8 times per month (the average was 1.9). Company 7 workers were close behind, being disciplined once per month on average. Workers with Company 3 and Company 2 represent the other end of the spectrum: workers with both companies reported that informal discipline occurred on average around twice per year.



Workers were also asked questions concerning the quality of the feedback provided by their managers. Compared to an average of 54% for all employers, Company 1 (71%) workers were most likely to agree that their supervisors provided them with helpful feedback on their performance (Figure 3.14). Company 5 workers were least likely to appreciate the feedback provided by their supervisors (32%). Workers with the other employers fell within this range. There was also a range in the extent that workers felt respected by their supervisors. Workers with Company 1 (77%), Company 3 (71%), Company 7 (70%), and Company 4 (70%) were all above the average (68%) in terms of how much they felt respected by their supervisors. Company 5 (55%) was farthest below the average, followed by Company 2 (63%) and Company 6 (68%).

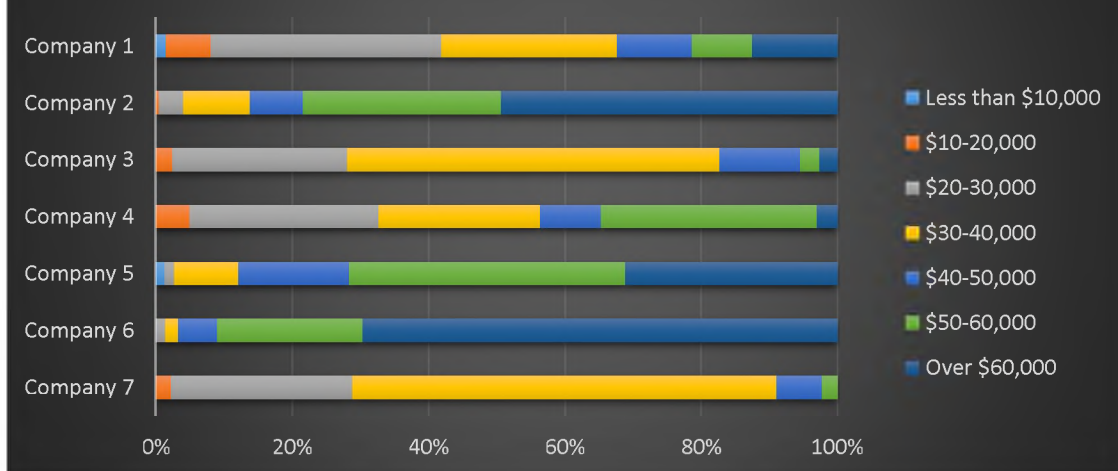
Figure 3.14 My supervisor gives me helpful feedback about my performance



Employee attitudes towards feedback quality also diverged within companies. For example, workers under the Company 5 Unit 1 agreement (14%) were less likely to agree that their supervisors provided helpful feedback compared to Company 5 altogether (42%). Similarly, Company 3 Unit 2 workers (46%) were less likely to find their supervisor’s feedback helpful compared to Company 3 in general (55%), while Company 2 Unit 3 workers (50%) were less satisfied than those under that company’s Unit 2 agreement (63%).

Respondents’ pay levels by employer are summarized in Figure 3.15. On average 54% of respondents reported earning over \$40,000 per year; however, a minority of workers with Company 7 (9%), Company 3 (17%), Company 1 (32%), and Company 4 (44%) earned this much. In contrast, most workers with Company 6 (97%), Company 5 (88%), and Company 2 (86%) exceeded this income threshold. Company 6 workers were by far the highest paid, with 91% of their workers earning over \$50,000 and 70% earning over \$60,000. These differences can be attributed to different histories of collective bargaining, regional variation of contracts, and the tenure profile of workers in each sample.

Figure 3.15 What is your annual pay at this call center, before taxes?

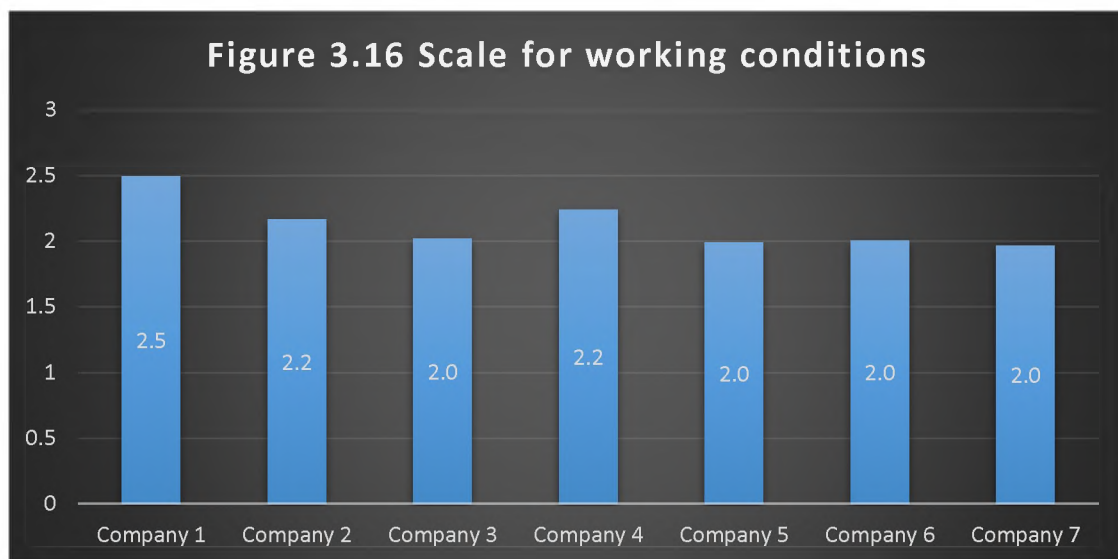


Pay practices were also not uniform across the companies. The most obvious difference is in the use of individual or team-based performance pay. Workers with Company 4 (29%) and

Company 1 (30%) were significantly less likely to have been eligible for either form of performance pay. The range was 66% to 91% for the other companies, with Company 7 being at the top end of the scale. The average was 68% for all respondents. Overall, 47% of respondents reported that less than 1% of their total pay came from individual commission or performance-based pay; 21% reported that this represented 1-5%; and 11% reported 5-10%. The highest rates of workers with 10% or above of their pay performance-based were at Company 2 (37%), Company 5 (33%), and Company 7 (23%).

In addition, we asked about the importance of different performance measures for determining variable pay. Overall, the number of products and services sold and customer satisfaction were viewed as most important, with over 70% reporting that these measures were very or extremely important. Only 41-45% ranked script resolution and transfer rate as very or extremely important.

We created a scale incorporating four questions concerning employee perceptions of their working conditions, including: 1) the reasonableness of performance metrics; 2) the fairness of compensation; 3) the sufficiency of time between calls; and 4) flexibility in scheduling (Figure 3.16). The range of 2 to 2.5 across the companies was narrow, with marginally better results at Company 1 compared to the other companies. For individual questions, the highest rates of disagreement were with the statements 'We have enough time between calls', 'Scheduling is flexible', and 'Metrics are reasonable' – with around 70% strongly or slightly disagreeing with each. Around 50% disagreed that compensation was fair.



We asked a further question concerning whether respondents agreed that workers at their call center generally conformed to ethical standards; and here around 30% disagreed, with answers evenly split between those who strongly and slightly disagreed. The greatest concerns about unethical behavior were at Company 5 and Company 2.

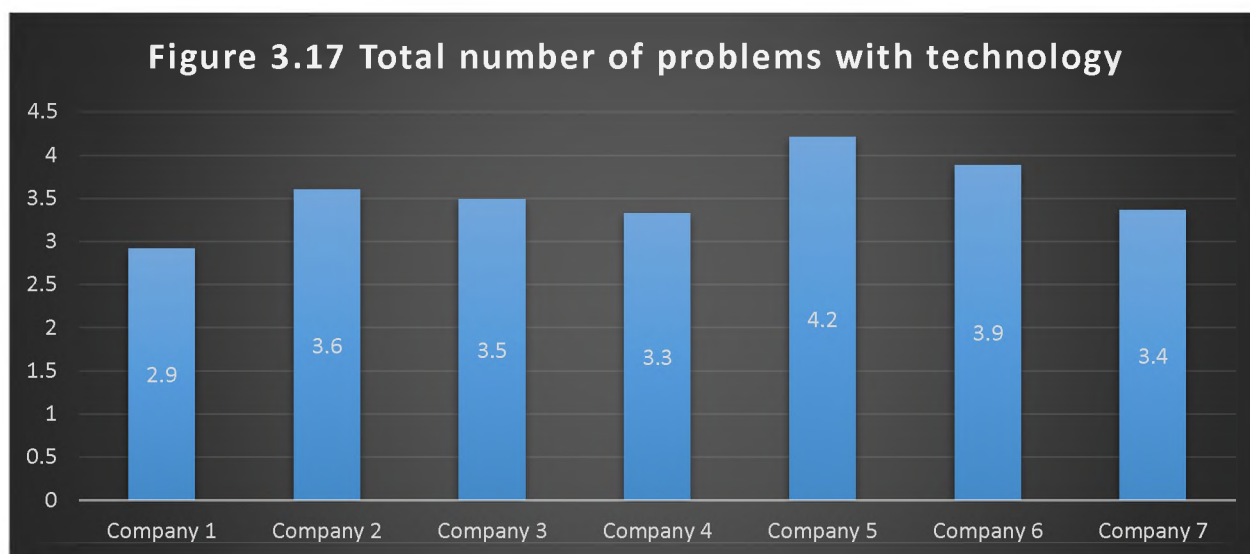
In sum, we examined performance monitoring, employee feedback, and working conditions across different call centers. The trends are relatively consistent. Company 1 and Company 7 workers were less rigidly managed than those in other companies. Their workers were less exposed to intensive performance monitoring, had greater job discretion, benefitted from higher quality managerial feedback, and were less likely to have performance-based pay.

However, workers in these two companies received on average lower rates of pay. Furthermore, Company 1 workers also stand out for having relatively favorable views towards their company’s performance metrics, compensation practices, time between calls, and scheduling practices. Finally, we also noted some important within-company differences. For instance, workers with Company 5 Unit 1 had less favorable experiences with managerial feedback than other union locals associated with Company 5.

3.4. Technology, outsourcing, and layoffs

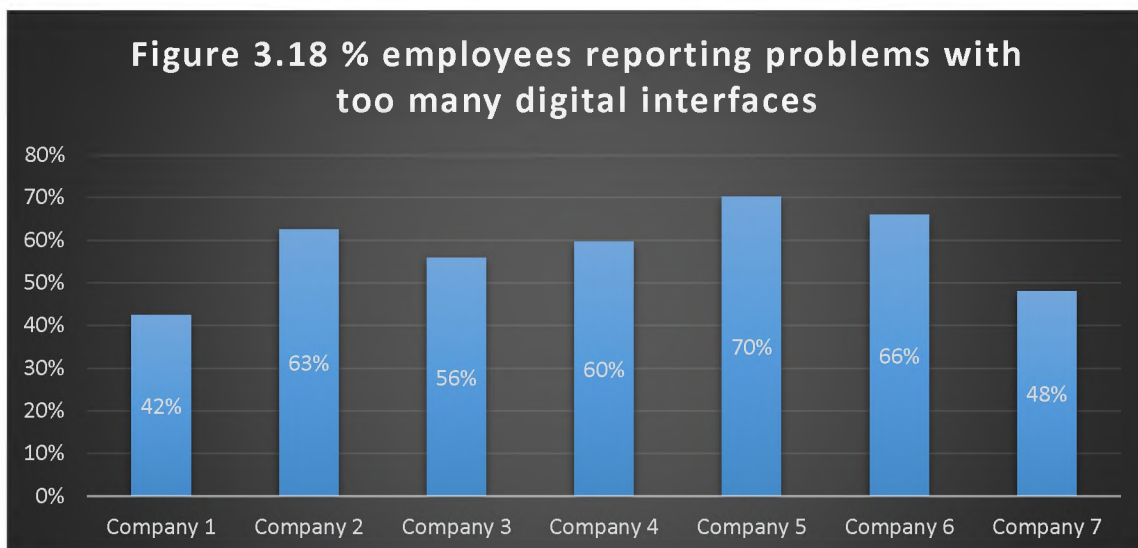
Technology, outsourcing, and layoffs have been linked to much uncertainty in the workplace. First, we focus on the problems workers experience with technology and in interacting with call center vendors. Second, we look at employee views towards the potential for layoffs and the factors that affect it, with a focus on outsourcing.

We identified some differences in problems workers experience with technology (Figure 3.17). We asked respondents to indicate whether they had experienced any of 6 different problems, including technology being too slow; not up to date; too many digital interfaces; too complex; information in the computer system is not adequate; and frequent system crashes or malfunctions. While the average number of these problems reported was 3.6 for all companies, Company 1 workers only experienced 2.9 problems, remarkably fewer than workers in other companies. With an average of 4.2, Company 5 workers reported being exposed to the highest number of problems with technology in the workplace.

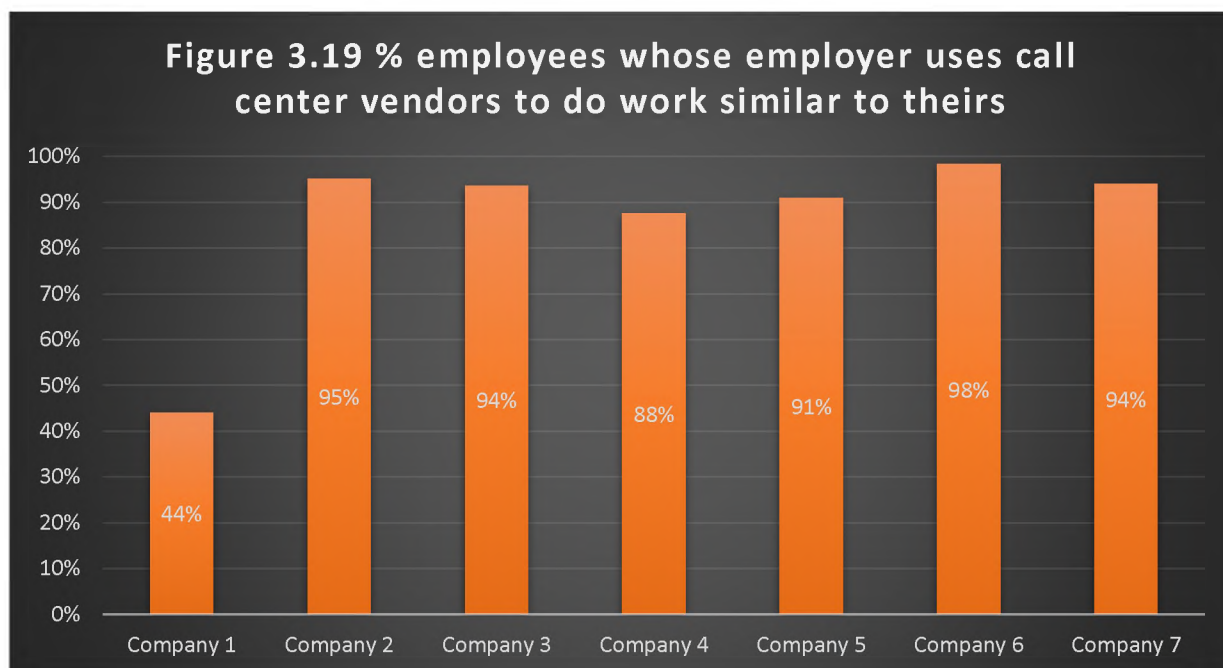


Patterns differed somewhat across the categories of technological problems. One such category was the speed of call handling technology. For example, 69% of Company 1 workers responding to the survey reported that the technology used to process calls was too slow, compared to an average of 86% for all workers. Company 3 workers were most likely to deal with slow technology, as 91% of them reported this problem. Across the sample, 80% of respondents reported frequent system crashes or malfunctions; and 52% felt that information in their systems was inadequate.

Another category indicated problems workers experienced interacting with a large number of digital interfaces. Company 1 workers were also least likely to answer that they dealt with too many interfaces in digital technology (42%), followed by Company 7 at 48% (Figure 3.18). Company 5 workers dealt with this problem most often (70%), while the average for all workers was 59%.



We also examined employee experiences with outsourcing. Most respondents reported that their employer used vendors to conduct work similar to theirs (Figure 3.19). The notable exception is Company 1, where less than half of respondents (44%) indicated that their employer used vendors, compared to an average of 90% across surveyed call centers. The range was 88%-98% across the other employers, with little differentiation across collective agreements within employers.



We asked workers who reported that their employers used vendors whether they had direct experience with those vendors or their workers. Across the sample, 56% reported interacting several times a week to daily with call center vendor employees, while 23% never interacted

with them. Company 2 and Company 3 had the highest rate of vendor interaction; while Company 7 and Company 1 had the lowest.

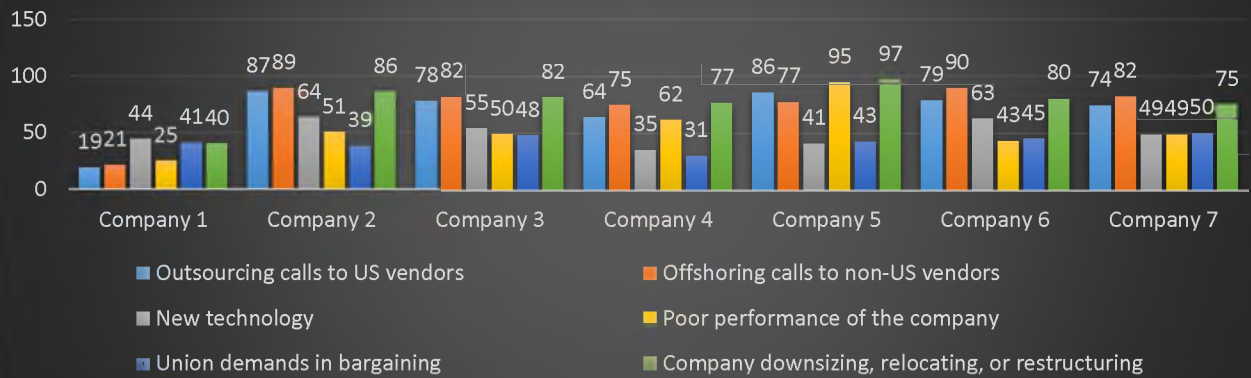
A further question asked about workers' experiences dealing with errors or misconduct of vendors or their employees. A remarkable 81% reported dealing with these kinds of problems at least several times a week. Around 80% of Company 5 and Company 7 respondents had this negative experience with vendors on a daily basis; compared to 11% at Company 1 and around 55-65% of workers at the other employers.

Outsourcing not only affects workers' direct experiences at work, but also can affect their perception of job security – particularly when a large number of call center jobs have been moved to vendors in the past. Layoff fears can also be triggered by perceptions that other changes in organizational strategy or labor-replacing technology (for example, AI and Robotic Process Automation) may lead to downsizing or relocation of jobs. We asked workers to report on what factors they felt were likely to affect layoffs in their call centers (Figure 3.20). Categories included outsourcing calls to US vendors, offshoring calls to non-US vendors, new technologies, organizational performance, union bargaining demands, and company downsizing, relocation or restructuring.

Company 1 workers were far less concerned that these factors would provoke layoffs, compared to their counterparts in the other call centers. For example, in most of the companies, workers feared that outsourcing was a credible threat to job stability. Workers with Company 2 (87%), Company 5 (86%), and Company 3 (78%) were most fearful that outsourcing to US Vendors would lead to job loss. While less so, these fears were nonetheless very prevalent amongst workers with Company 6 (79%), Company 7 (74%) and Company 4 (64%). Company 1 was a critical outlier, with only 19% of its workers fearing that job loss would stem from outsourcing, compared to an average of 75% for all workers.

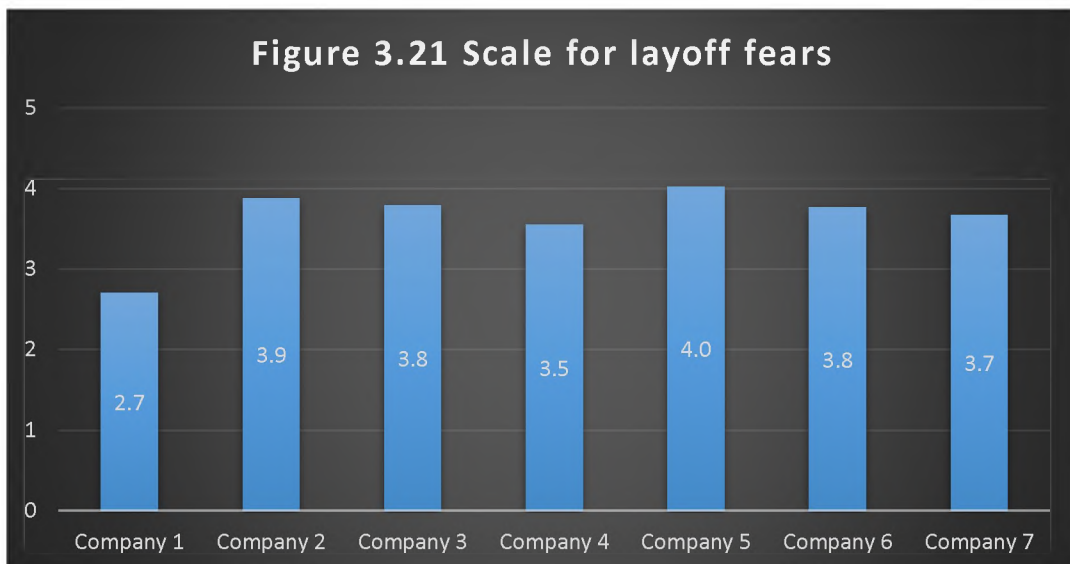
The results for fear of offshoring were comparable. Only 21% of Company 1 workers were fearful that offshoring could lead to layoffs. The range was 75%-90% across other employers, with an average of 79%. One last key difference was in terms of company downsizing, relocation, or restructuring. Only 40% of Company 1 workers said that these changes would likely lead to layoffs, compared to an average of 80% across all employers. In stark contrast, 80% of Company 6 workers believed that such changes would make layoffs very likely in the next two years.

Figure 3.20 % employees reporting these factors could lead to layoffs within the next 2 years



Finally, we created a scale to assess overall fears of layoffs based on various sources (Figure 3.21). This scale integrated employee responses on how outsourcing, offshoring, new technology, company performance, union bargaining demands, and work reorganization affect fears of layoffs. We found that overall layoff fears were significantly lower at Company 2 and relatively higher at Company 2, Company 3, and Company 5.

Figure 3.21 Scale for layoff fears



The above patterns are consistent with those in another question we asked: ‘to your knowledge, has the possibility of layoffs at your call center for any of these reasons been used to justify changes in management practices in your company or workplace?’ Only 33% of respondents from Company 1 answered ‘yes’, compared to over 80% at Company 2 and Company 7. Across the collective agreements, rates were highest at Company 2 Unit 1, Company 2 Unit 2, Company 2 Unit 3, and Company 2 Unit 6 agreements, which all had around 85% of respondents reporting that changes in management practices had been justified by the threat of layoffs.

In sum, the results point to variations in the incidence of technological problems and the factors workers associate with layoff threats across the call centers. We found that technological problems were present in all call centers. However, Company 5 and Company 6 workers reported higher rates of problems with technologies in the workplace, while

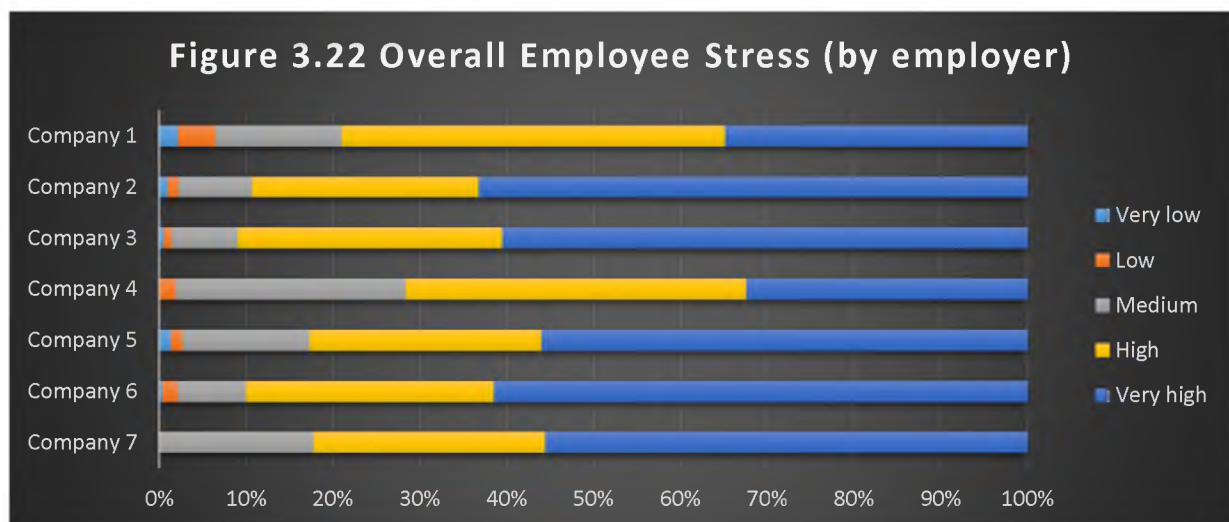
Company 1 workers faced fewer such problems. In addition, Company 1 workers were least fearful that organizational changes or performance pressures may lead to layoffs, while workers with Company 2, Company 3, and Company 5 are most fearful.

3.5. Worker stress, absenteeism, satisfaction, and turnover intentions

This section examines worker stress among respondents in different call centers and collective agreements. We used several questions to measure employee stress, as this was a central outcome of concern in our study. We also examined related measures of job quality, including absenteeism, job satisfaction, and turnover intentions. While call center functions bore many similarities across companies and workplaces, respondents identified critical variations in stress and related work outcomes. There were significant variations across companies and collective agreements within companies. Interestingly, many of these variations were consistent across the different measures of stress, absenteeism, job satisfaction, and turnover intentions.

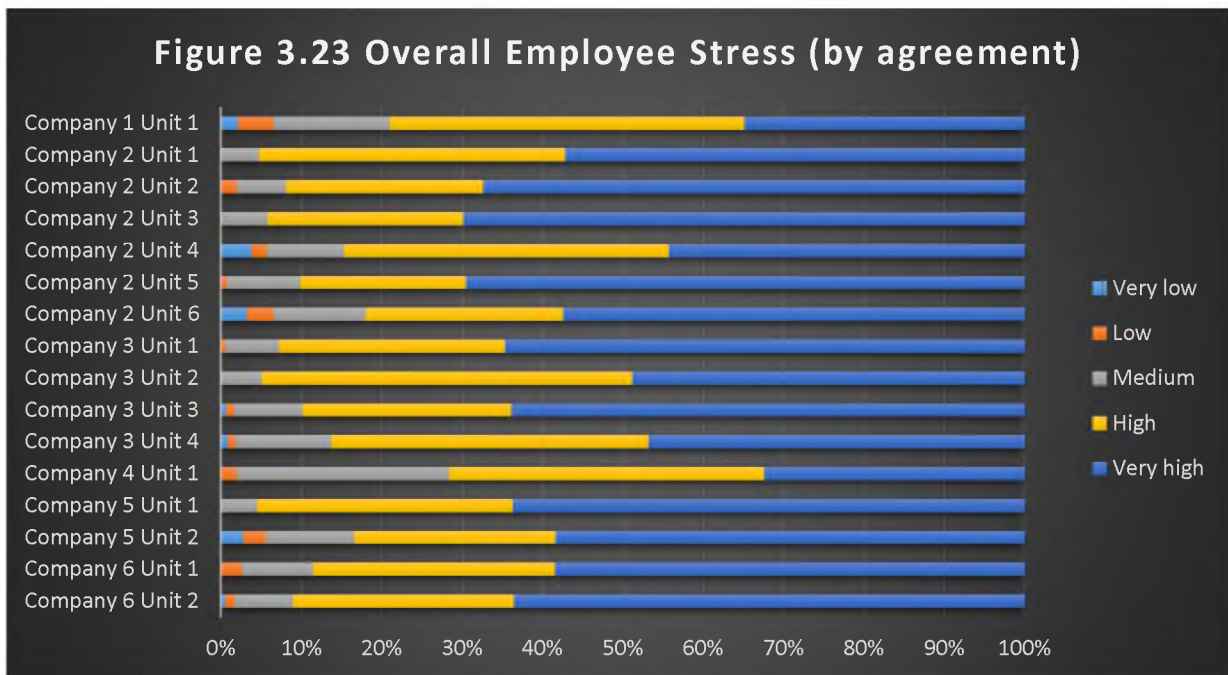
Stress

First, we asked workers to rate overall levels of stress in their call center. The framing of this question was deliberately broad. On average, 88% of respondents report high or very high levels of stress. Respondents with Company 4 reported the lowest levels, with 72% reporting high or very high levels of stress; followed closely by Company 1 (Figure 3.22). These high rates were reported by more than 80% of workers in the other call centers, with just over 90% at Company 3 and Company 6.



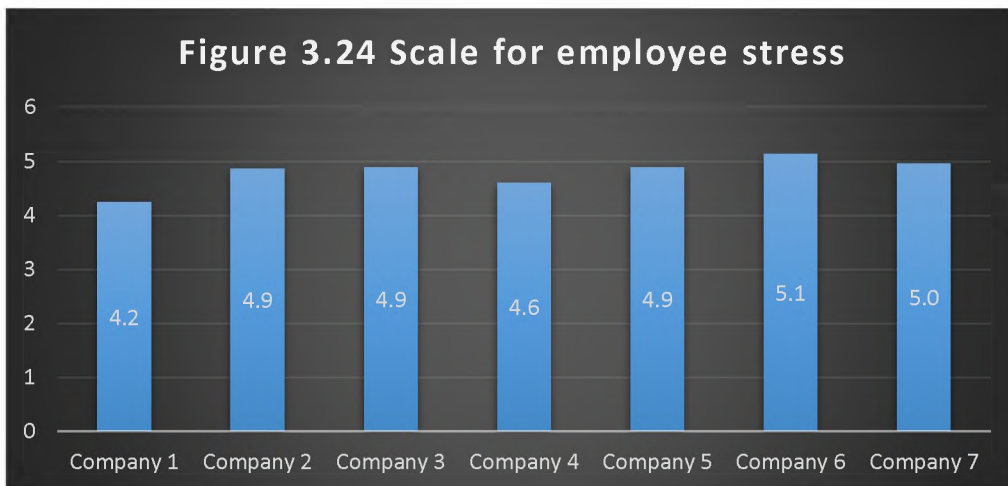
The variations across collective agreements were also telling (Figure 3.23), particularly within Company 2 and Company 3. While workers in both companies reported elevated levels of stress generally, workers under certain agreements reported levels of stress that were nearly as low as those in Company 1 and Company 4. Only 44% of workers under Company 2’s Unit 4 agreement reported very high levels of stress compared to 69% in Company 2 Unit 5. Similarly, 47%-49% of workers under Company 3’s Unit 2 and 4 agreements reported very high levels of stress, which is significantly lower than the 64% of workers under the Company 3 Unit 3 agreement.

Figure 3.23 Overall Employee Stress (by agreement)

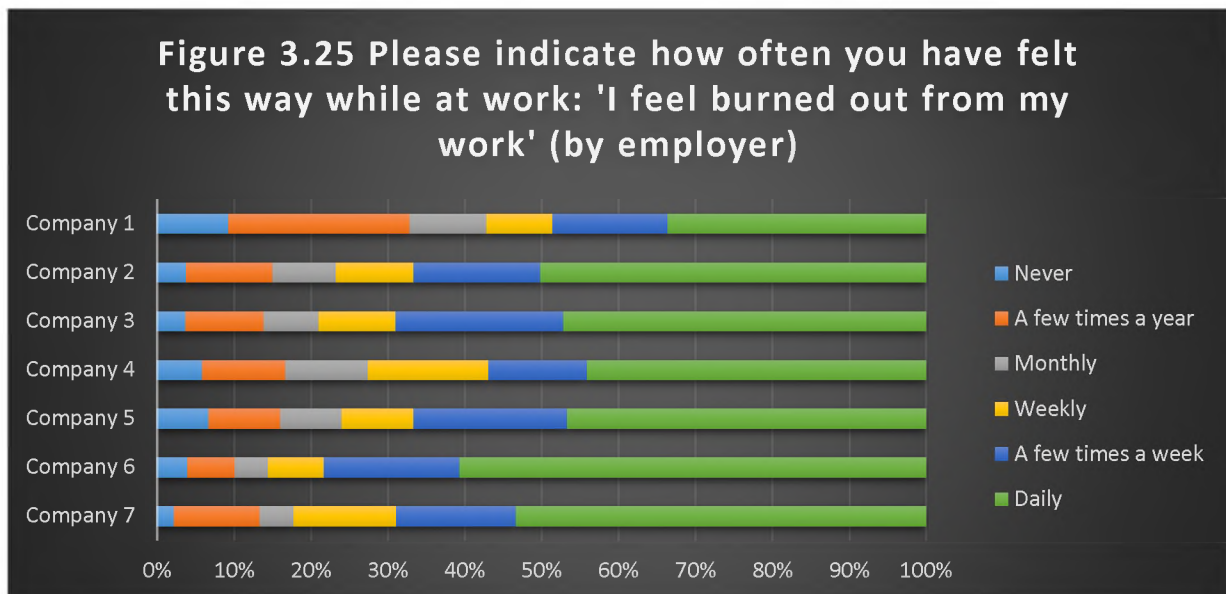


Patterns are similar for a second question asking respondents to indicate the level of stress they personally feel; but with lower average rates: while 88% of all respondents ranked overall stress as high or very high; only 77% of respondents said this was so for personal stress.

We asked 2 further groups of questions. The first included six questions commonly used to assess employee stress and burnout, asking respondents to indicate how often they have felt a certain way at work: emotionally drained from their work, used up at the end of the work day, dread getting up in the morning and having to face another day on the job, burned out from their work, frustrated by their job, and working too hard on their job. We incorporated employee responses to these questions into a single scale (Figure 3.24) – which had a high alpha of 0.9358, indicating the answers across the six questions were strongly correlated. Based on this measure, we found employee stress to be lowest in Company 1 (4.2), followed by Company 4 (4.6). Stress levels were comparable across Company 2, Company 3, and Company 5. Company 6 (5.1) workers had the most negative experiences with these aspects of stress, closely followed by Company 7 (5), yet levels were only marginally higher than the other companies. There were also some variations across bargaining units across companies. Most significantly, Company 3 workers under its Unit 4 agreement (4.4) experienced stress levels comparable to Company 1 and far lower than other bargaining units within Company 3.

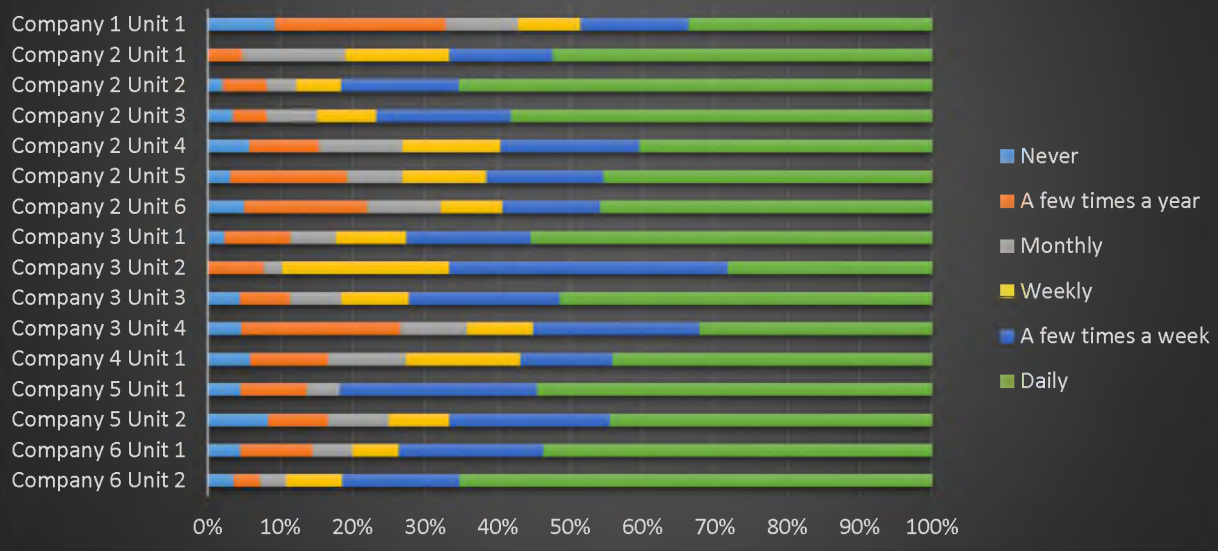


One of the questions incorporated into the above scale addressed how emotionally drained employees feel from their work. Most workers felt emotionally drained at least once per week, with the range being between 79%-92% of workers (averaging out at 88%). Consistent with the results on overall stress, Company 1 and Company 4's workers felt emotionally drained less often than did workers in other companies (Figure 3.25). Only 41% of workers at both Company 1 and Company 4 reported feeling emotionally drained on a daily basis. Over 50% of workers at the other companies felt emotionally drained daily (54% represents the average), with Company 6 topping out at just over 62%. Again, the pattern of answers is highly correlated across the different questions, so this is broadly representative. This illustrates vividly the high rates of stress and burnout at Company 6 and the much lower reported rates at Company 1.



Looking at the breakdown by collective agreement (Figure 3.26), Company 6 Unit 2 has higher reported burnout rates compared to Company 6 Unit 1; likewise, Company 5 Unit 1 was significantly higher than Company 5 Unit 2. Extremely high burnout (reports of feeling burned out 'daily') can also be seen in Company 2's Unit 2 and 3 agreements and under Company 3's Unit 1 agreement.

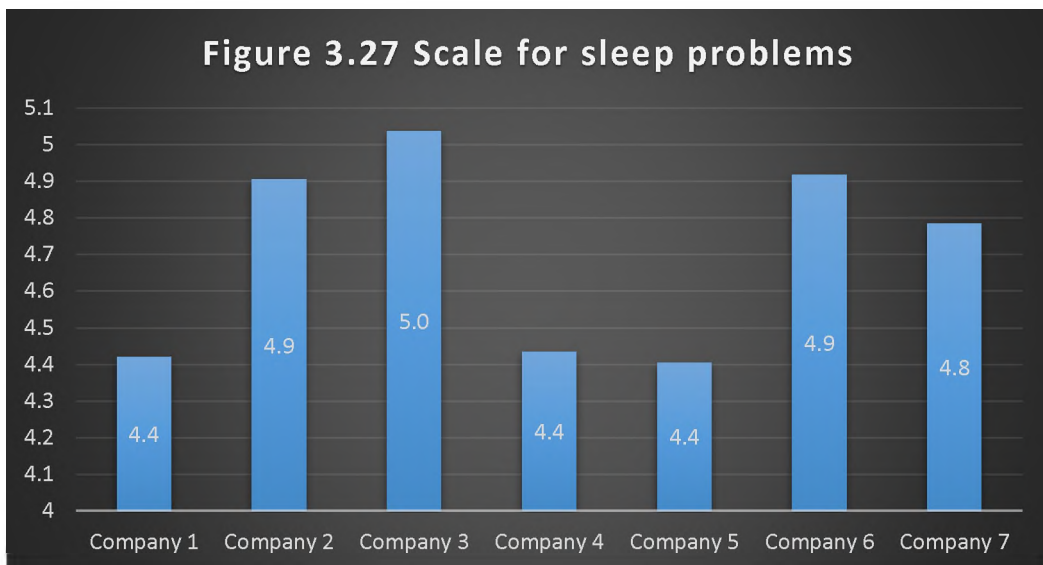
Figure 3.26 Please indicate how often you have felt this way while at work: 'I feel burned out from my work' (by agreement)



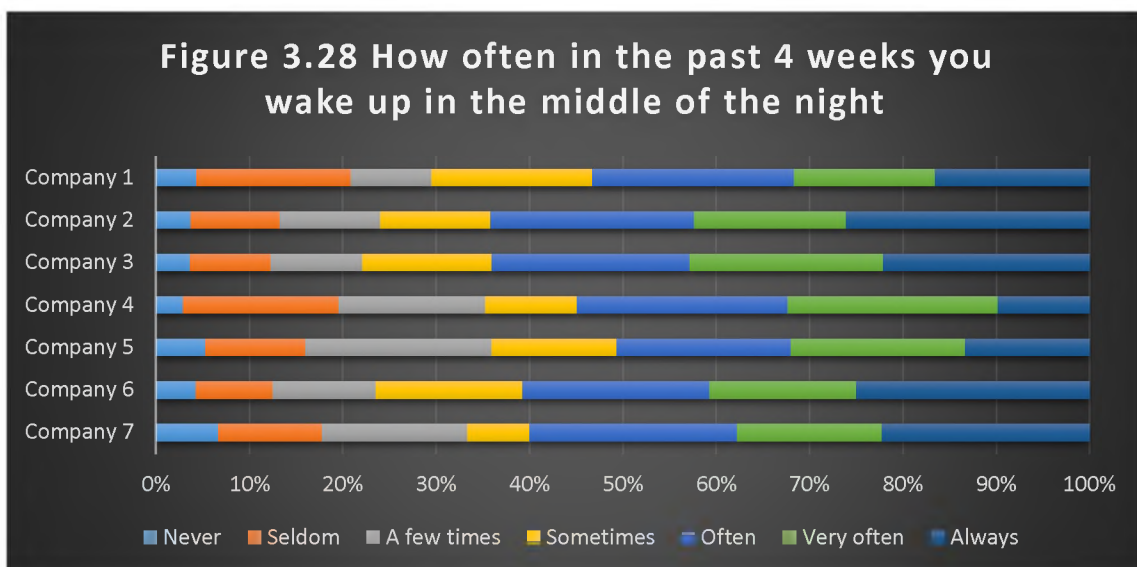
Difficulties with sleep

Our survey also asked workers to report on their experiences with sleep. Sleep has cyclical effects on stress, in that more stress causes less sleep, while less sleep leads to greater stress (Hülshager et al., 2014; Querstret & Cropley, 2012; Sonnentag et al., 2008). Chronic stress can even lead to complicated sleep disorders – causing problems with attention, life satisfaction, mood changes, and cognitive functioning (Diekelmann and Born, 2010; Lavidor et al., 2003; Pilcher et al., 1997; Scott and Judge, 2006). We examined employee difficulties with falling asleep, how often they wake up at night, and how often they feel exhausted after a typical night’s sleep. We created a scale that aggregates employee responses to these three questions (alpha: 0.84).

Differences across employers were larger than for the first stress scale discussed above, but the patterns were similar (Figure 3.27). First, Company 1 and Company 4 workers experienced lower levels of stress than those in most other companies. These results are consistent with the general outcomes for stress reported above. Second, Company 5 had surprisingly positive results for sleep problems. Contrary to outcomes for stress, where Company 5 performed as poorly as most companies, here we found that outcomes were virtually the same to that of Company 1 and Company 4. Third, the results for sleep in Company 2, Company 3, Company 6 and Company 7 were consistent with those for overall stress, in that the companies performed poorly on both measures.

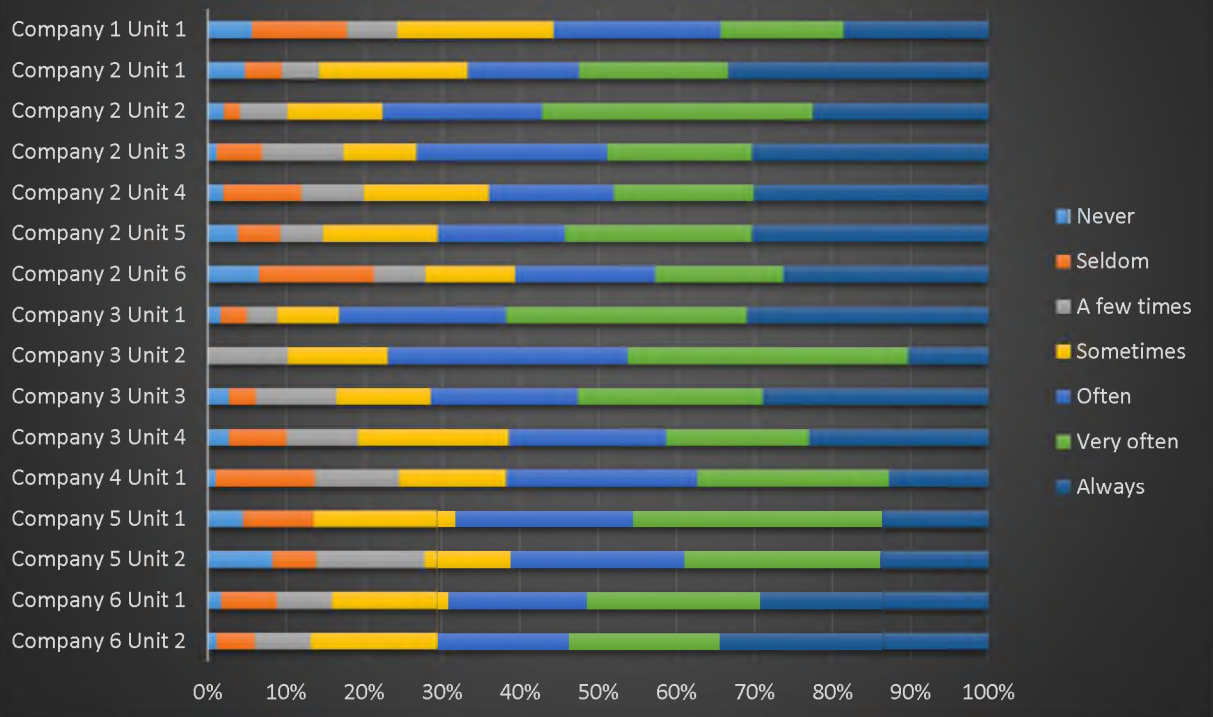


Again, we choose one of the measures included in the scale to illustrate patterns of answers across employers and collective agreements: ‘waking up feeling tired and worn out after a usual night’s sleep’ (3.28). 73% of respondents from Company 3 experienced this problem often to always; compared to 56% of those at Company 1 and 60% at Company 5.



When comparing collective agreements (Figure 3.29), it appears again that Company 3 Unit 1 has the highest stress rates for this measure among the Company 3 agreements (83% answering ‘Often’ to ‘Always’); while Company 2 Unit 2 (78%) and Company 2 Unit 3 (73%) have particularly high rates of reported sleep problems.

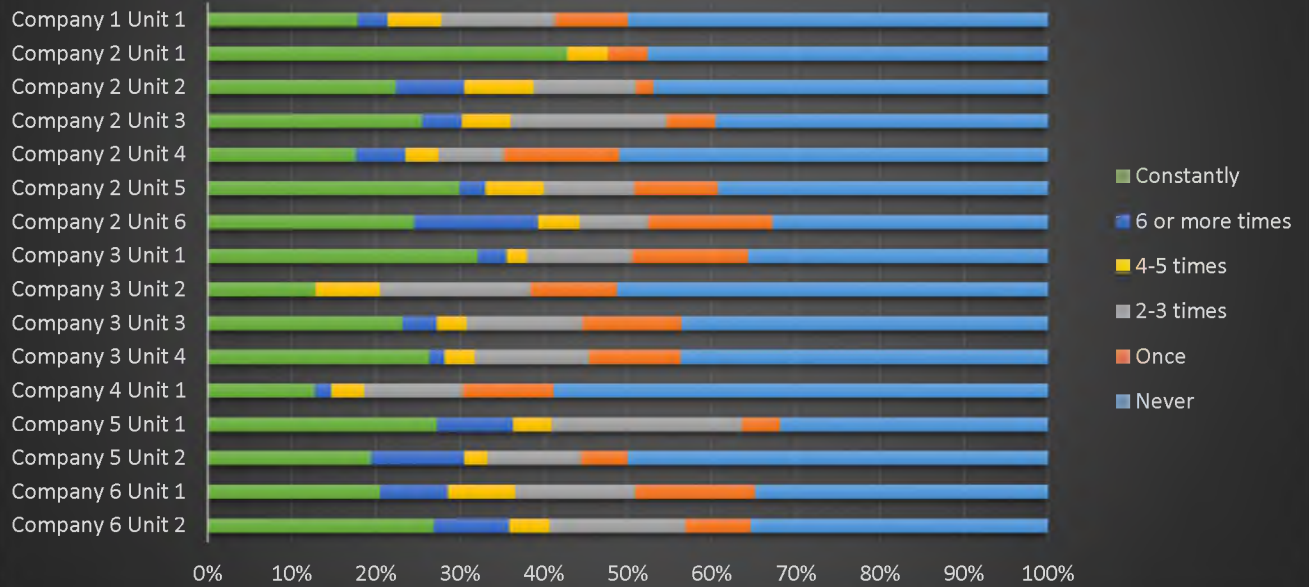
Figure 3.29 How often in the past 4 weeks: you wake up feeling tired and worn out after your usual night's sleep



Physical injuries related to stress

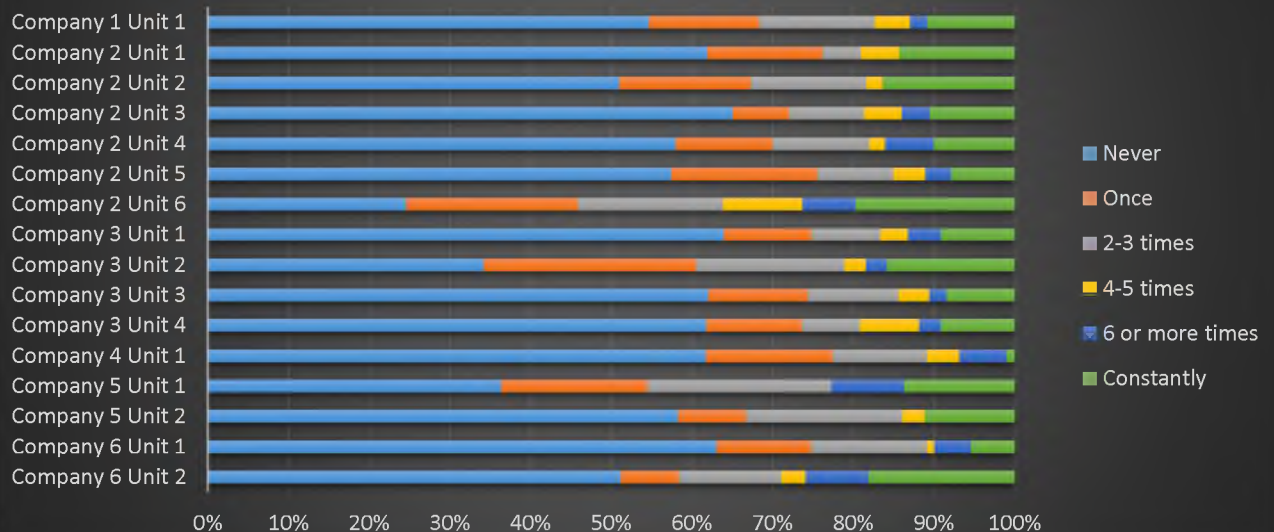
We asked further questions concerning the frequency with which respondents had been prescribed a medication to treat a stress- or anxiety-related illness; and how often they had suffered a repetitive stress injury. Over half (58%) of respondents reported having been prescribed a medication, with 24% constantly using such a medication and around 43% having suffered an injury. A comparison by collective agreement shows that Company 2 Unit 1 has the highest rate of constant medication use (43%) (Figure 3.30).

Figure 3.30 How often in the time that you have worked in this call center: you have been prescribed a medication to treat a stress or anxiety-related illness or condition



Patterns for repetitive stress injuries are even more varied across agreements. The highest rates were under the Company 2 Unit 6, Company 3 Unit 2, and Company 5 Unit 1 agreements (Figure 3.31). The proportion of workers having suffered repetitive stress injuries within these agreements ranges from 64% to 75%, with Company 2 Unit 6 faring most poorly. These differences may be related to the average age and tenure of the workforce: for example, respondents with Company 3 Unit 1 have the lowest tenure (5.8 years) and among the lowest incidence of repetitive stress injuries.

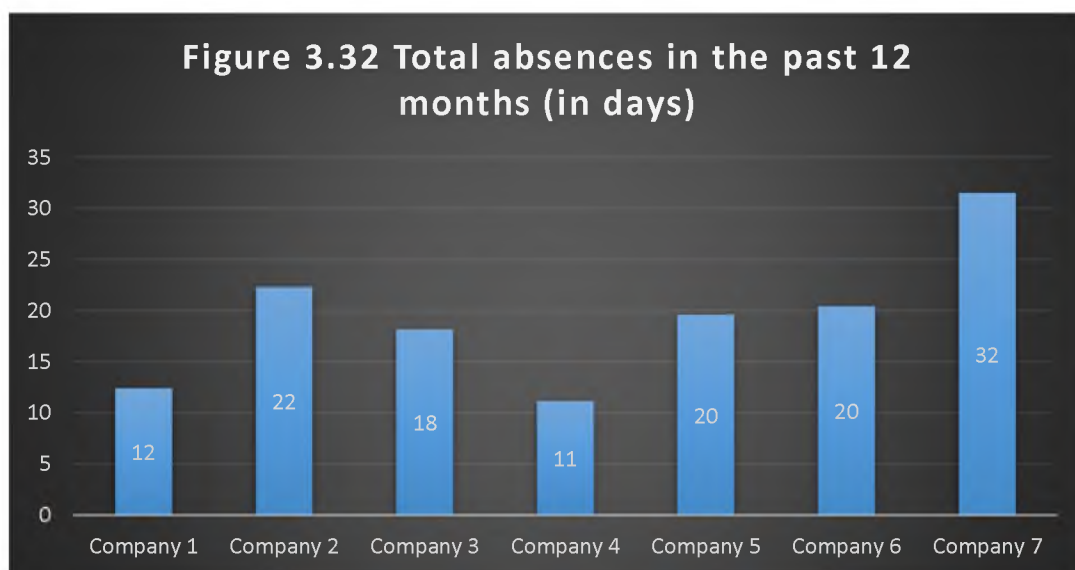
Figure 3.31 How often in the time that you have worked in this call center: You have suffered a repetitive stress injury



Overall, our assessments of different work outcomes – general stress, sleep difficulties, and repetitive stress injuries – lead to some broader conclusions about stress. First, there were some similarities by employer. Company 1, followed by Company 4, had the lowest levels of stress and sleep difficulties. However, while repetitive stress injuries were also low within Company 4, as Company 1 was a poor performer in this outcome. The other companies performed consistently poorly across the three areas, with a few exceptions: fewer sleep difficulties within Company 5 and fewer repetitive stress injuries within Company 7. Second, the outcomes across bargaining units were largely inconsistent across the three areas, with one notable exception. Company 5 Unit 1 has had poorer outcomes than most bargaining units in each outcome and has been consistently outperformed by Company 5 Unit 2.

Absenteeism

Absenteeism is an important sign of distress amongst workers. Workers that face low levels of job satisfaction, high rates of illness or injury, or high levels of stress are more inclined to be absent from the workplace. We identified variation in patterns of absenteeism across companies. Figure 3.32 illustrates total absences over the 12 months before workers responded to the survey. Several observations are notable. First, Company 4 had the least number of total absences (11 or 4% absenteeism rate)², with Company 1 close behind. Second, total absences in Company 7 (32 or 12% absenteeism rate) were remarkably higher than the rest of the companies. The cross-company average was 19 absences over this period, or a 7% absenteeism rate.



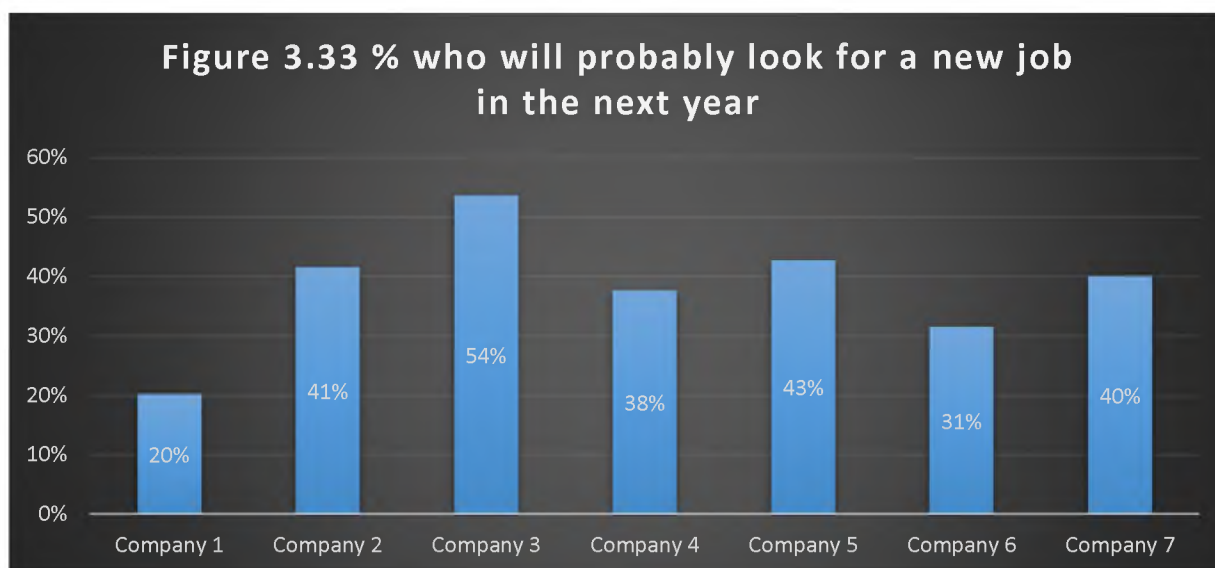
Interestingly, the patterns of absences due to injury or illness reflect the broader results for absenteeism across companies. Company 4 and Company 1 workers were least likely to be absent for these reasons, averaging 2 and 3 days lost over a 12-month period respectively (far below the 8-day average). Company 3 (6 days) and Company 7 (7 days) were slightly below the average. Company 5 (12 days), Company 2 (12 days), and Company 6 (9 days) had the highest number of absences linked to physical injury and illness. There are also some important deviations across bargaining units. For example, days lost from physical injury or illness in Company 5 Unit 1 (20) were nearly double that of Company 5 Unit 2 (11). Moreover,

² Absenteeism rates are calculated based on an average of 260 work days per year

there was a significant spread between agreements within Company 2. Workers under the Company 2 Unit 6 agreement (16) lost double the number of days lost by those under Company 2's Unit 4 agreement (8), with Unit 5 (12) being in the middle.

Turnover intentions and promotions

Turnover intentions are an important indicator of job quality, and also may indicate that workers are withdrawing from their jobs or have low commitment to their employers. Company 1 workers (20%), followed by those with Company 6 (31%), were far less likely to report that they would probably look for another job in the next year than their counterparts in other companies (Figure 3.33). Company 3 workers (54%) were significantly more likely to plan to quit; while the average across all companies was 42%. At the same time, a minority of workers in all the companies indicated that they see their job as temporary and plan to pursue different work in the near future. Company 1 workers were significantly below the average, with only 20% of workers sharing this view. The range was 27%-35% for the other companies. The average was 30% for all companies.



Turnover intentions in some bargaining units bucked the trends of their companies. Company 3's Unit 4 (37%) and Unit 1 (45%) lowered the company average. There was a significant split between workers with Company 5's Unit 2 (31%) and Unit 1 (50%) agreements.

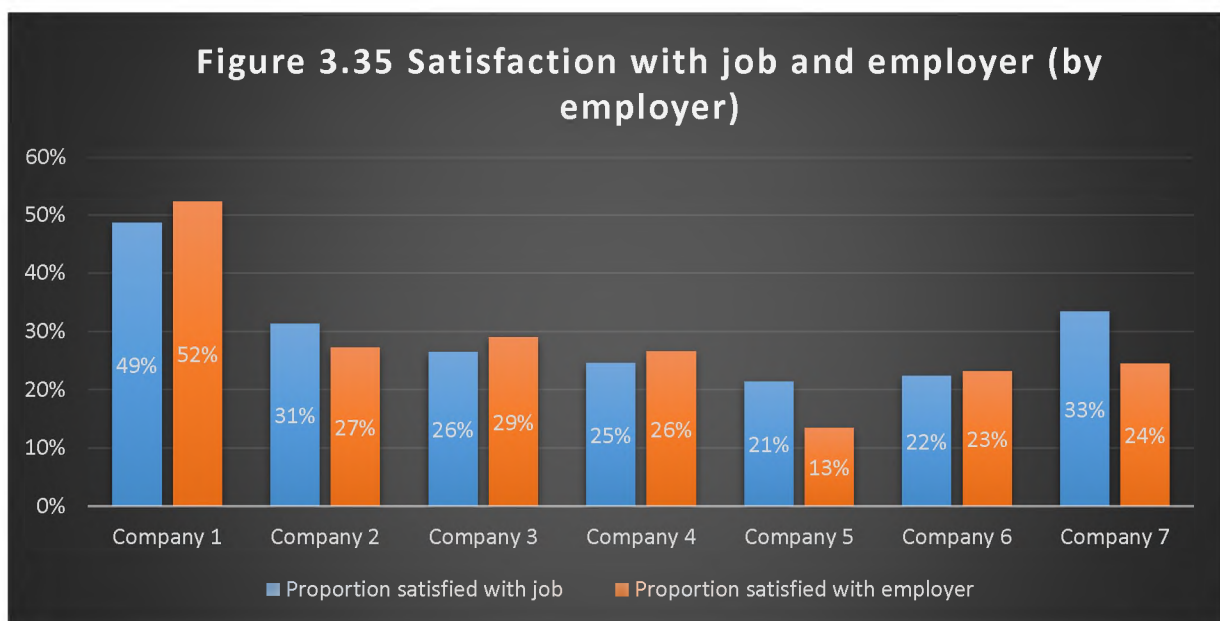
Furthermore, we examined expectations concerning promotions. Workers who expect to advance within the company are less inclined to leave as doing so would forego the potential gains to be made internally. We focused on the proportion of workers who believe that they are unlikely to be promoted to a more desirable job over the next 1-2 years (Figure 3.34). Workers with Company 1 (47%) and Company 7 (56%) were least pessimistic about promotion opportunities. Company 4 (67%) and Company 3 (69%) were in the middle-range, while workers with Company 5 (76%), Company 2 (77%) and Company 6 (80%) were most pessimistic. Promotions expectations also varied across bargaining units. Results from Company 3 Unit 2 (48%) and Company 3 Unit 4 (58%) were more consistent with Company 1 and Company 7, while workers in other bargaining units within their companies were more pessimistic. While they represent the mid-range for optimism, it is nonetheless significant

that workers under Company 6 Unit 1 (66%) were far less pessimistic than their counterparts in Company 6 Unit 2 (89%).

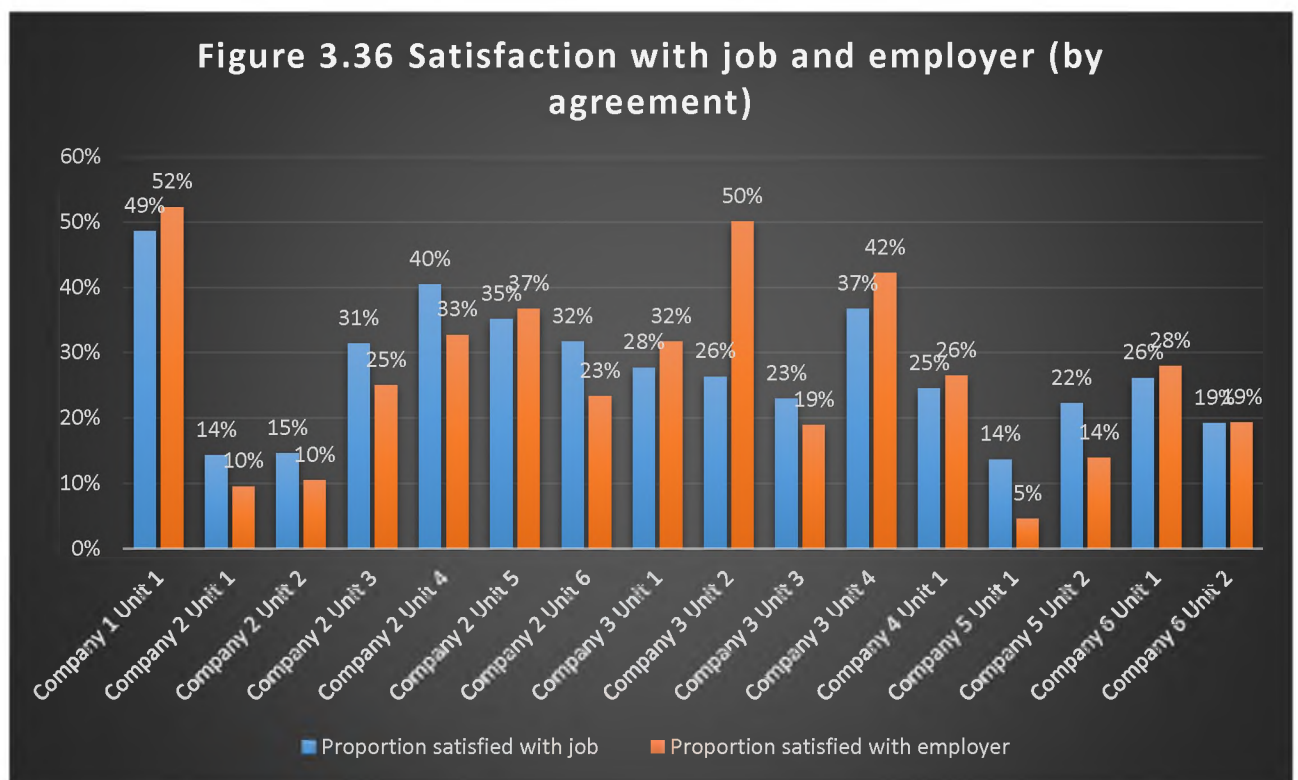


Satisfaction with jobs and employers

Finally, we compared rates of job and employer satisfaction (Figure 3.35). Satisfaction with both was significantly higher within Company 1 than at any other employer. Workers with Company 5 and Company 6 were the least satisfied. Some workers were clearly less satisfied with their employer compared to their job. Job satisfaction was 62% higher than employer satisfaction in Company 5 and 38% higher in Company 7. This is most telling for Company 5, as its workers were by far the least satisfied with their employer (they also held the second highest turnover intentions, as alluded to earlier).



The differentiation within companies is indicative of where high levels of discontent stem from (Figure 3.36). The particularly low levels of employer satisfaction in Company 5 Unit 1 (14%), Company 2 Unit 1 (14%), and Company 2 Unit 2 (15%) brought down their company averages. Meanwhile, Company 2 Unit 4 (40%) and Company 3 Unit 4 (37%) improved their company averages. Similar tendencies were evident in job satisfaction outcomes. Consistent with trends in employer satisfaction, Company 5 Unit 1 (5%), Company 2 Unit 1 (10%), and Company 2 Unit 2's (10%) low rates of job satisfaction brought down their company averages. Job satisfaction was notably high in Company 3 Unit 2 (50%) and Company 3 Unit 4 (42%), as well as Company 2 Unit 5 (37%). Finally, we identified significant discrepancies between job and employer satisfaction in a number of bargaining units. Employer satisfaction nearly doubled job satisfaction in Company 3 Unit 2; employer satisfaction was a third that of job satisfaction in Company 5 Unit 1. These distinctions highlight how discontent can stem from the nature of the job, technological change, financial strain across sectors, and the overall business strategies of employers (including mergers and acquisitions).



Summary

In sum, across the workers surveyed we found high levels of employee stress, absenteeism, and turnover intentions, with low rates of job and employer satisfaction and low expectations of future promotions. Company 1 employees fared more positively with respect to these outcomes, followed by Company 4 under most categories. While the other cases vary considerable across different indicators, Company 6 workers seem to have experienced some of the worst outcomes under more categories than those with other firms. They were most likely to report high levels of stress and had among the poorest outcomes related to sleep and opportunities for advancement. Finally, there were some important variations across collective agreements. Most notably, stress levels at Company 3's Unit 2 and 4 agreements, as

well as Company 2's Unit 4 agreement, were more comparable to Company 1 than other bargaining units within their company. Stress was notably highest in Company 2 Unit 2, Company 6 Unit 2, and Company 5 Unit 1.

4. Analysis: Management practices and outcomes

In this section, we summarize findings concerning the relationship between management practices and outcomes of concern for workers and management: employee stress, job satisfaction, absenteeism, and turnover intentions. We also look at how stress relates to the other outcomes: are high stress levels associated with higher rates of absenteeism and turnover?

We use two different techniques to analyze these relationships. First, we summarize pairwise correlations between variables. This provides a good first view of patterns of positive or negative associations. We only report correlations that are significant at the .01 level – meaning that there is a 99% chance that the two variables are related to each other. Second, we compare cross-tabulations between variables. This is based on estimating means or percentages across different categorical outcomes for the stress, satisfaction, and turnover variables. Together, these findings provide an overall picture of which groups of workers experience highest stress and burnout, and the role of management practices in reducing or exacerbating this risk.

4.1. Employee background and outcomes

A first question we ask is whether outcomes like stress, absenteeism, and turnover intentions are more common among certain groups of workers. Here we look at: 1) individual characteristics of the workers responding to the survey: education level, country of origin, ethnicity, having children under 5 at home, age, tenure at this center, and total years working in call centers; and 2) call type and complexity: inbound sales, average number of calls, and call length.

Correlations show that most demographic and individual variables are not significantly associated or only very weakly associated with most measures of stress, absenteeism, job satisfaction, and turnover intentions.

The exceptions are the following. First, repetitive stress injuries were lower among respondents who reported that their ethnicity was White or Euro-American and with children under 5 at home. Those reporting that their ethnicity was Latina/o or Hispanic, women, older workers, those with higher tenure and more total years working at call centers had significantly higher rates of these injuries. Second, prescriptions for stress medications were higher among women, older workers, and those with higher tenure (both at their current employer and based on total years working in call centers). In addition, women reported significantly higher stress across measures.

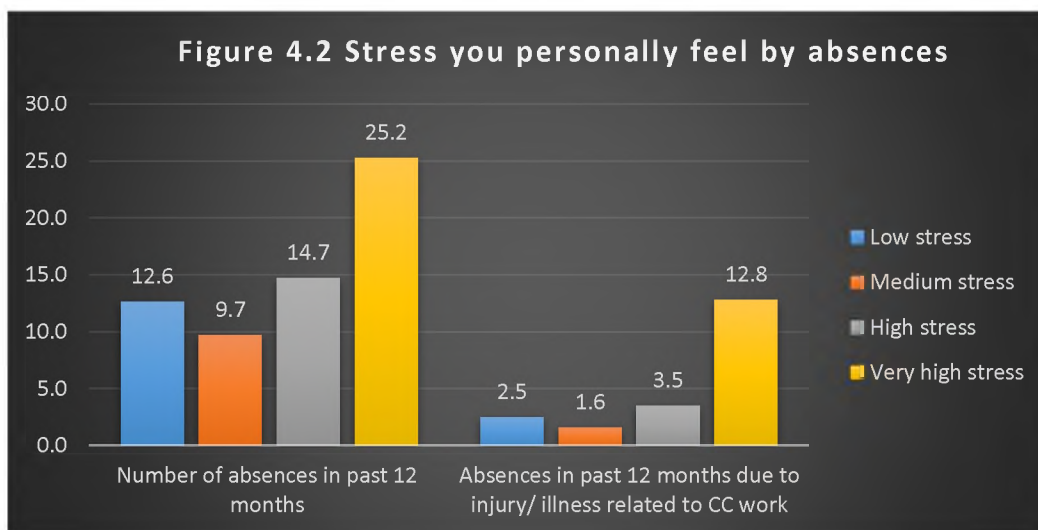
Third, individual measures of turnover intentions and the turnover intention scale was significantly lower among women, older workers, those with higher tenure at the center and those with more total years working in call centers. Notably, employer satisfaction was also lower among those with high tenure at this center and higher total years working in call centers – although job satisfaction was not associated with tenure.

We find some significant correlations between the characteristics of calls and outcomes. Respondents reporting that their job involved inbound sales reported significantly higher stress across measures. The length of a worker’s typical call and number of call types he or she handled were both positively correlated with all stress measures; however, the number of calls per day were not. Satisfaction with both a worker’s job and his or her employer were lower with longer calls and a larger number of call types; while turnover intentions were significantly higher.

4.2. Relationship among outcomes: Stress, absenteeism, job satisfaction, turnover intentions

The different outcomes of interest in our study, including most measures of stress, absenteeism, job satisfaction, and turnover intentions, are highly correlated (<.001). One exception is repetitive stress injuries and absences over the past 12 months, which are not significantly correlated with some individual measures of turnover intentions. Because these measures are so highly correlated, the patterns we find in cross-tabs with management practices are also roughly in the same direction and magnitude.

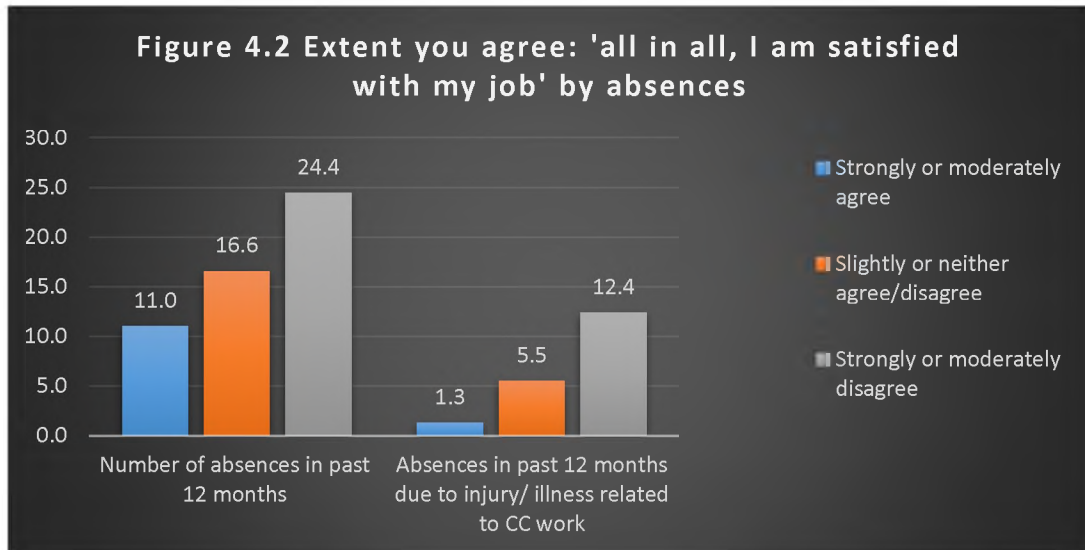
To illustrate the relationship between variables, we include several figures showing cross-tabs between categorical and continuous variables, based on a comparison of the average or mean responses regarding practices across categories of employee responses, e.g. regarding different stress levels or job satisfaction. Figure 4.2 below reports on the average number of absences in the past 12 months among respondents reporting that the levels of stress they personally feel at this call center are ‘low’ (combining ‘low’ and ‘very low’), ‘medium’, ‘high’, or ‘very high’. **Absenteeism is higher where stress is highest:** among those answering that stress levels were ‘very high’, the average number of absences was 25.2 (10% absenteeism rate); while those reporting low stress average 12.5 absences (4% absenteeism rate). This also shows that those reporting very high stress levels have on average lost 12.8 days to injury or illnesses related to their call center work – representing around half of the total absenteeism figures for this group.



The patterns and levels shown in Figure 4.1 (and for most other measures in this section) are nearly identical across the different stress measures: including a question on their perception

of the overall level of stress in their call center and questions concerning psychological strain and burnout (e.g. the frequency with which respondents feel burned out in their work); sleep problems (e.g. the frequency with which they wake up feeling tired).

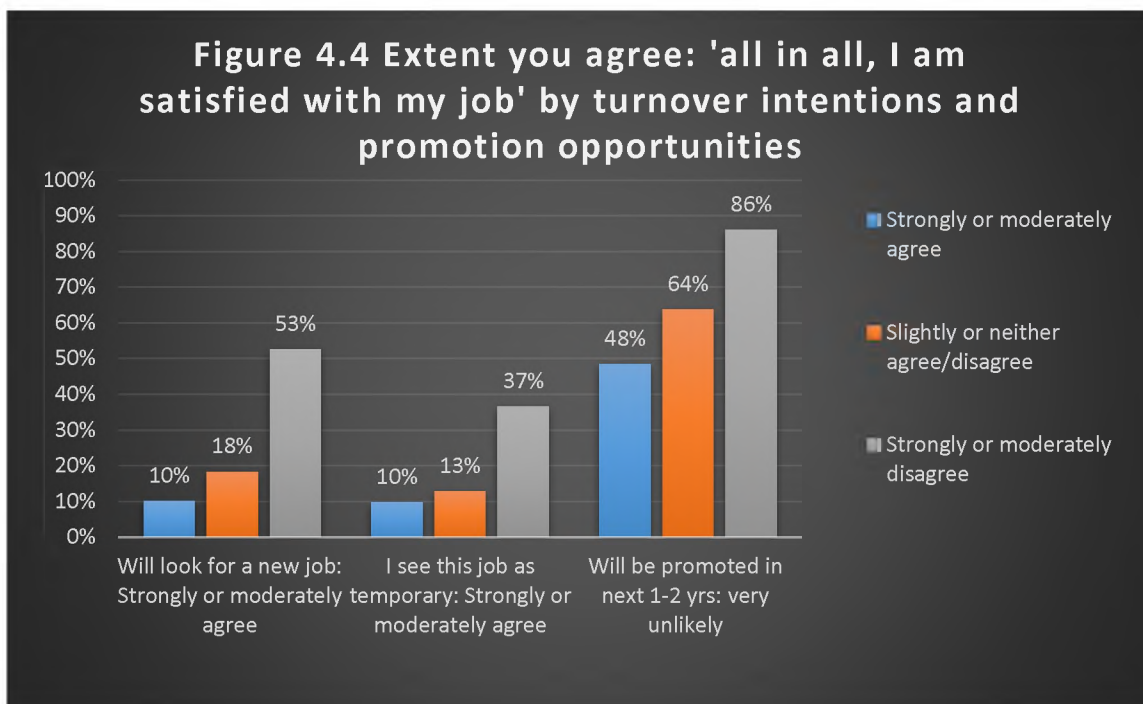
Figure 4.2 below shows that **the rate of absenteeism is higher among respondents with low job satisfaction:** or who state that they strongly or moderately disagree that they are satisfied with their job. These figures are nearly identical for the question concerning satisfaction with their employer.



High stress levels are also associated with lower job satisfaction and employer satisfaction, higher turnover intentions, and lower expectations of promotion. The measures below show that among those reporting very high personal stress, 63% report that they strongly or moderately disagree that they are satisfied with their job; compared to 11% of those reporting low stress (Figure 4.3). Respondents reporting very high stress levels also plan to look for a new job at higher rates; to see their job as temporary; and to find it 'very unlikely' that they will be promoted in the next 1-2 years. Again, patterns are similar across the stress measures.



Finally, we look at the association between job satisfaction, turnover intentions, and promotion opportunities (Figure 4.4). Those respondents with low job satisfaction report that they plan to look for a new job at a higher rate and are more likely to see their job as temporary and promotion to a more desirable job as unlikely. 86% of those with low job satisfaction find it ‘very unlikely’ that they will be promoted in the next 1-2 years; compared to 48% of those with high job satisfaction.



4.3. Training, discretion, and outcomes

We now turn to different groups of management practices, and their association with worker stress, job and employer satisfaction, and turnover intentions. Again, we included four different measures of stress in our analysis, but because percentages and means across the results were similar (and measures of stress highly correlated), we typically show graphs for the question concerning the level of stress workers personally feel at their call center. The same holds for our other outcome measures. We report on (and present graphs on) cross-tabs that show different patterns.

First, we find that **higher hours of in-person training is associated with lower levels of employee stress and higher employer satisfaction; while hours of computer training have less significant effects.**

Looking at employee answers concerning the ‘level of stress you personally feel’ (Figure 4.5), we see that **workers experiencing low stress had higher training hours:** those with low stress reported on average receiving 2.3 hours of in-person training; while those reporting ‘very high stress’ reported on average receiving 1 hour of in-person training. However, interestingly, results in the middle are in different directions: with those reporting ‘medium’ stress rates having 0.8 hours of training on average. Hours of computer-based training were not significantly correlated with lower personal stress or lower reported overall stress at the call

center. These somewhat ambiguous findings suggests that the relationship between stress and training intensity may depend on the quality and content of the training.



Comparing outcomes from measures of training quality and discretion, we find different patterns. 59% of workers experiencing high personal stress reported that they **frequently receive calls that training is inadequate to answer** (a few times per week to every day) – while among those reporting that stress was low or very low, 36% reported a high frequency of these challenging calls (Figure 4.6). The patterns are reversed for the question concerning product updates, with 39% of those experiencing low stress reporting that they **frequently receive updated information on products and services** compared to 25% of those with high stress.



Figure 4.6 above also includes a comparison of personal stress across workers who report having low levels of discretion in making decisions and based on tight script use. This shows that among respondents with very high stress levels, 38% report having little or no discretion in decision-making; while 20% of those with low stress answered that their discretion is low. More dramatically, 70% of those reporting high stress stated that they must use company-

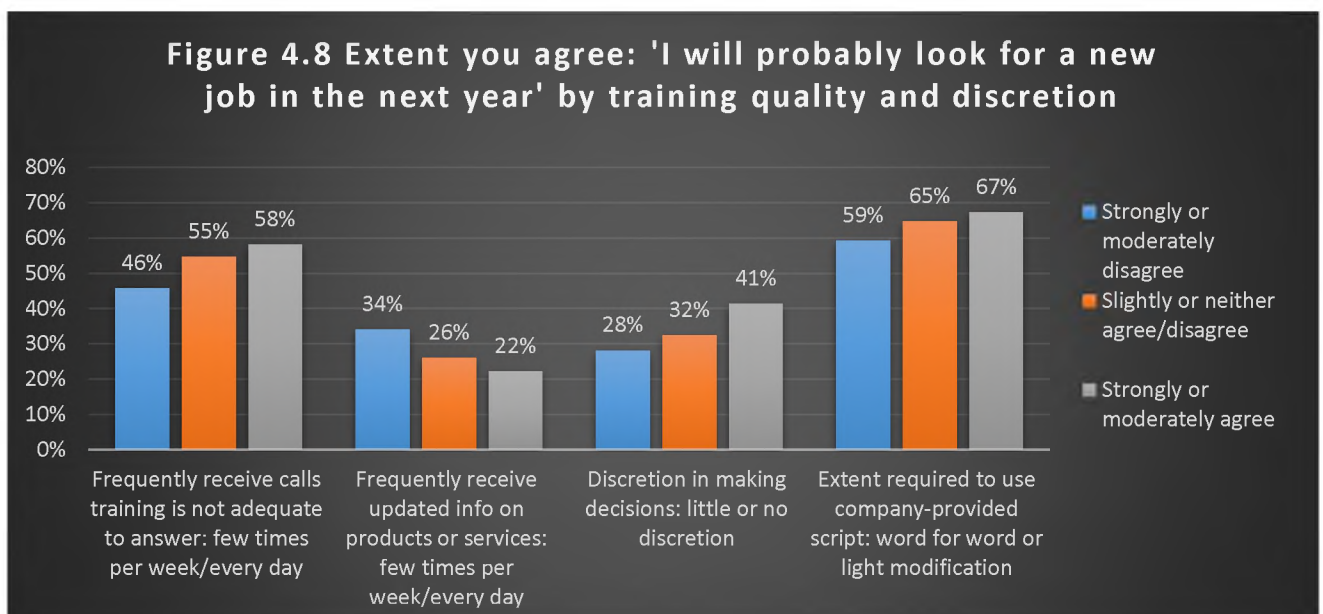
provided scripts 'word for word' or with only light modification (compared to 47% of those reporting low stress).

Pairwise correlations between both discretion questions and the personal and center stress questions and the burnout and sleep problem scales are positive and significant. In addition, high script use is significantly and positively associated with the frequency of stress medication prescriptions and repetitive stress injuries.

Patterns are similar across the other outcomes. By way of illustration, we include them below (Figures 4.7 and 4.8). They show that **respondents with low job satisfaction more often receive calls their training is not adequate to answer and receive fewer updates on products or services; and report lower discretion rates and higher script use.**



Not surprisingly, turnover intentions follow similar patterns, though differences are less dramatic. Those who intend to look for a new job in the next year reported lower training quality, less frequent updates, low discretion in decision-making, and high use of company scripts (Figure 4.8).



4.4. Performance management and technology

A central concern in this study is with how outcomes such as stress and turnover intentions relate to different performance management practices – including monitoring, use of discipline, and supervisor support. Stress associated with high performance expectations can also be exacerbated by problems with technology, which reduce worker control over the pace and quality of their work.

We find that **the total number of monitoring methods and number of problems with technology experienced on the job are positively associated with higher stress levels.**

Among those reporting very high stress levels in their call centers, the average number of monitoring methods was 3.2 and the number of technology problems was 3.9 – compared to 2.6 and 2.3 (respectively) for those reporting low stress. Patterns were less dramatic but similar for reported personal feelings of stress (Figure 4.9).

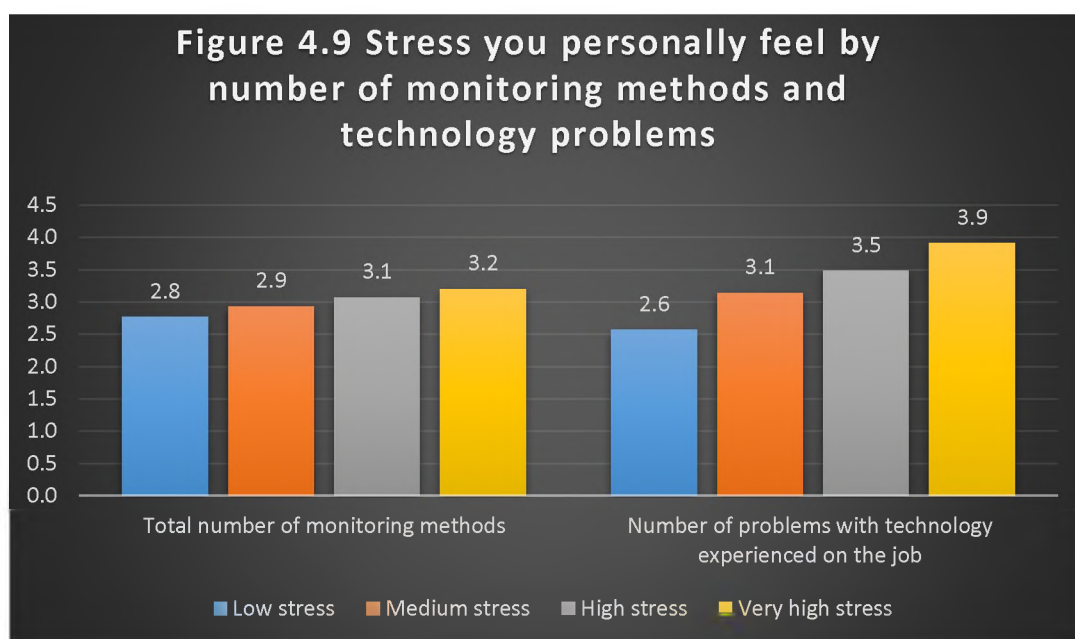
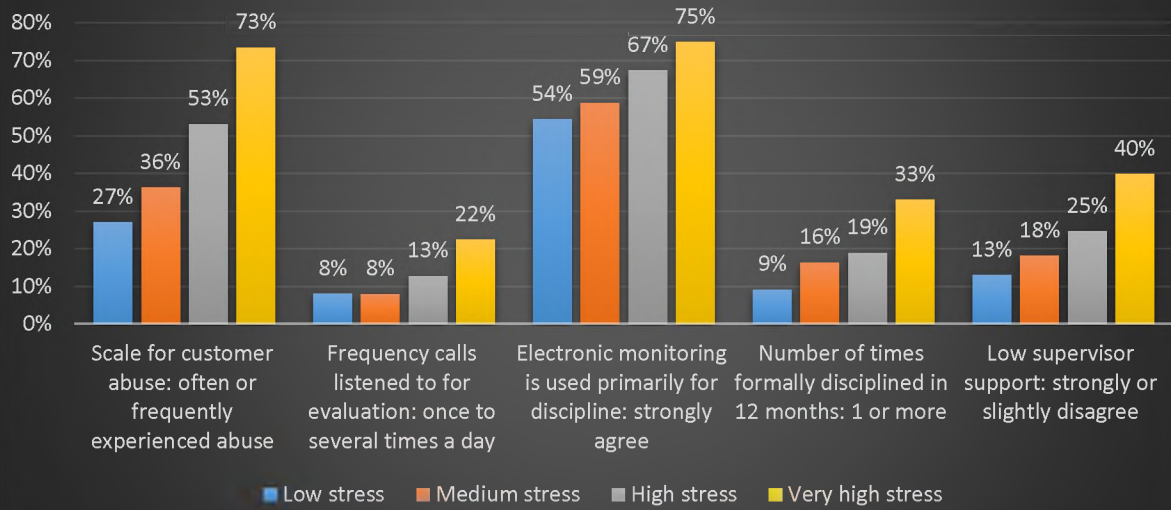


Figure 4.10 illustrates **consistent patterns across questions regarding customer abuse, performance management, and supervisor support** – in the direction we would expect based on past research. Among those reporting high personal stress levels, significantly higher percentages (compared to those reporting low stress levels) reported that they often or frequently experienced customer abuse; that their calls were listened to once to several times a day; that they strongly agreed that electronic monitoring was primarily used for discipline; that they had been formally disciplined in the past 12 months; and that they strongly or slightly disagree that their immediate supervisor gives them helpful performance feedback, treats them with respect, and takes their input seriously.

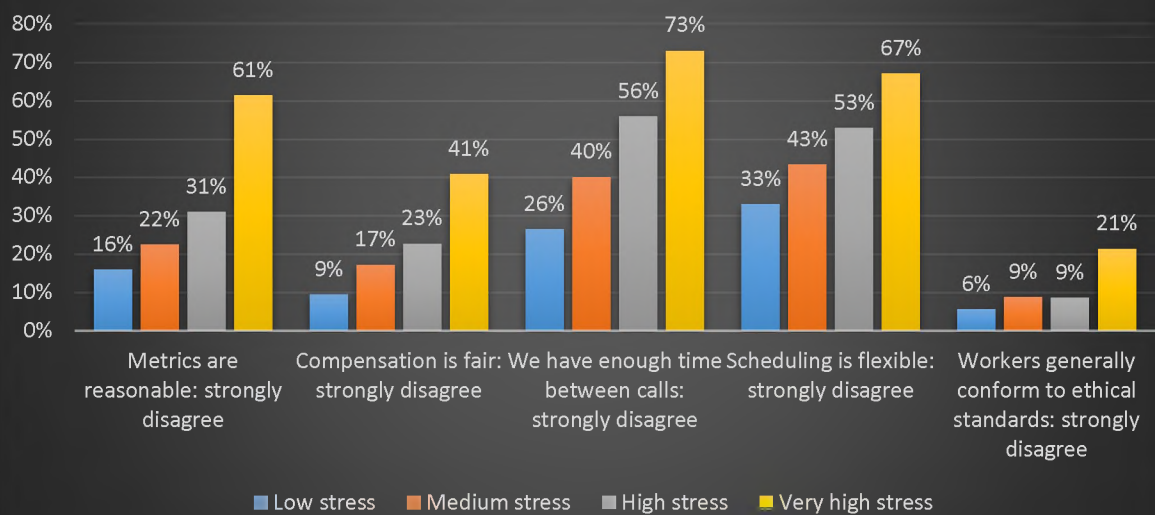
Correlations show that all five variables are significantly associated with higher stress levels across our measures; as well as with lower job satisfaction, higher absenteeism, and higher turnover intentions.

4.10 Stress you personally feel by customer abuse, performance management, supervisor support



Finally, we compare questions concerning the work environment. **Workers reporting very high stress levels also tend to strongly disagree that metrics are reasonable, compensation is fair, there is enough time between calls, scheduling is flexible, and workers generally conform to ethical standards (Figure 4.11).**

Figure 4.11 Stress you personally feel by work environment questions



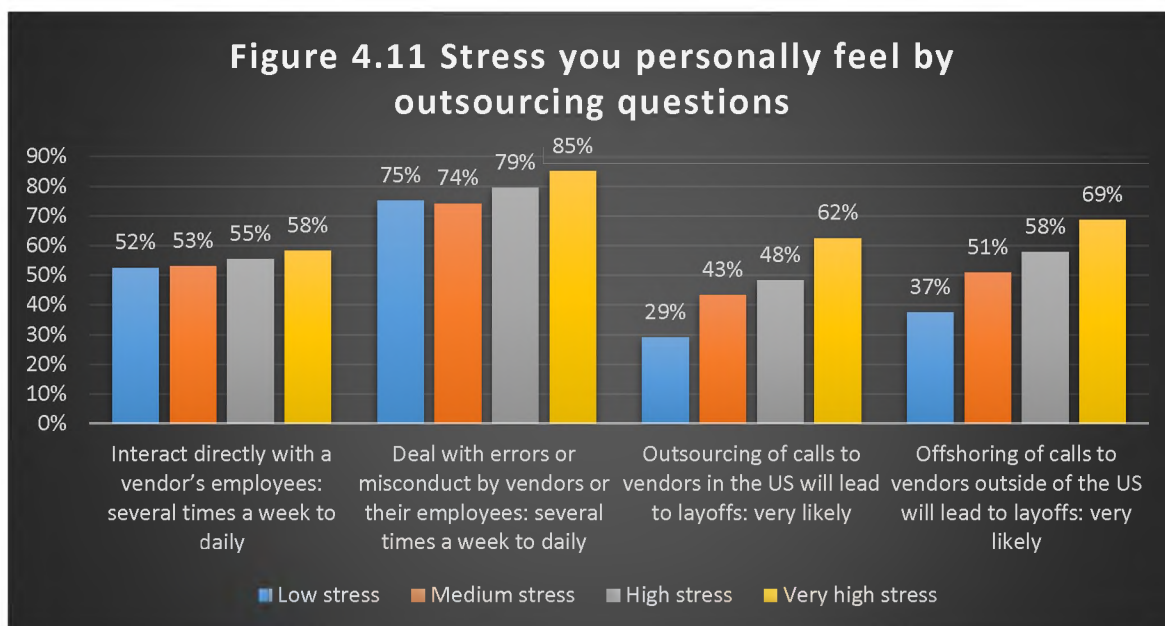
Patterns for the other outcomes are consistent with those reported above. High experience of customer abuse, problems with technology, and more intensive performance monitoring and discipline across the measures reported here are significantly correlated with lower job satisfaction and employer satisfaction, as well as higher turnover intentions and absenteeism. Negative perceptions of the work environment are generally correlated with the same outcomes; with the exception of absenteeism – where the relationship is weaker (but still positive).

4.5. Outsourcing and layoff fears

Outsourcing is pervasive across call centers: as reported above, a majority of workers report that their employer uses call center vendors to do work similar to theirs. Stress may be increased where their workload is increased without compensation via interactions with vendor workers, or the need to correct problems created by vendors. In addition, fears that outsourcing and offshoring may lead to layoffs could increase employee stress through feelings of job insecurity.

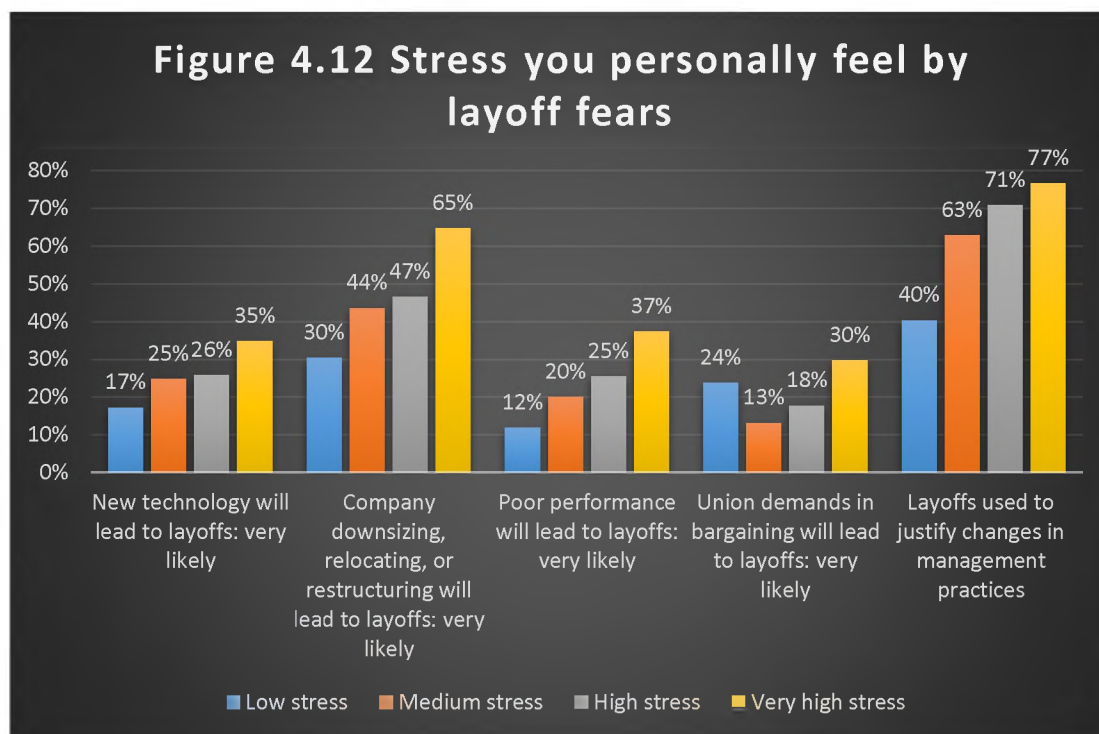
Figure 4.11 below show that **workers reporting very high stress interact with vendor workers at only a marginally higher rate than those reporting low stress**. There is around a 10% difference in the percentage of low and high stress workers responding that they deal frequently with errors or misconduct by vendors or their workers. Much larger differences can be seen in responses to questions concerning layoff fears associated with outsourcing.

Correlations also show that interacting with a vendor’s workers is not significantly associated with personal feelings of stress; though it is associated with reports of high overall stress levels at the call center and most other measures of stress. **Dealing with vendor errors and outsourcing fears are significantly positively correlated with all stress measures**. Comparing other outcome measures, job satisfaction is negatively correlated, and turnover intentions are positively correlated with all outsourcing questions below; while absenteeism is only correlated with the first two.



Fears of layoffs due to other causes are also associated with higher stress, as shown in Figure 4.12 below. Interestingly, the differences are lowest for the question concerning union demands in bargaining: with more similar percentages of ‘very high’ and ‘low’ stress respondents (24-30%) finding it very likely that layoffs will follow from union demands. There is a 37-point gap in the % responding that layoffs had been used to justify changes in management practices between the high and low stress group. Here all stress measures are strongly correlated with these layoff fears, as well as the perception that layoffs had been used to justify changes in management practices.

Correlations show that these patterns hold across the stress questions, with the exception of suffering from a repetitive stress injury. Again, satisfaction is negatively, while turnover intentions are positively, associated with layoff fears; absenteeism is not significantly correlated.



4.6. Pay, variable pay, and union support

Pay levels and practices may also be associated with different patterns of worker stress, absenteeism, satisfaction, and turnover. **While we might expect workers with lower pay to report higher stress levels, that is not the case.** Figure 4.12 shows that the % of workers reporting pay below \$30,000; as well as those reporting pay of \$50,000 or more, were roughly similar among those with very high and low stress levels. Measures of stress and pay level are also not significantly correlated.

We find larger differences for performance-based pay. **Workers who are eligible for variable pay based on individual performance were more likely to have high stress levels** – and here this relationship holds with significant positive correlations. In contrast, workers eligible for variable pay based on their team’s performance were less likely to have high stress levels. More surprisingly, workers reporting that a high percentage of their total pay is based on performance (10% and above) reported lower stress.

Here patterns for some of the other outcomes are different. Interestingly, job satisfaction is significantly higher among those reporting low pay. Workers with individual variable pay also report significantly lower job satisfaction and higher turnover intentions.

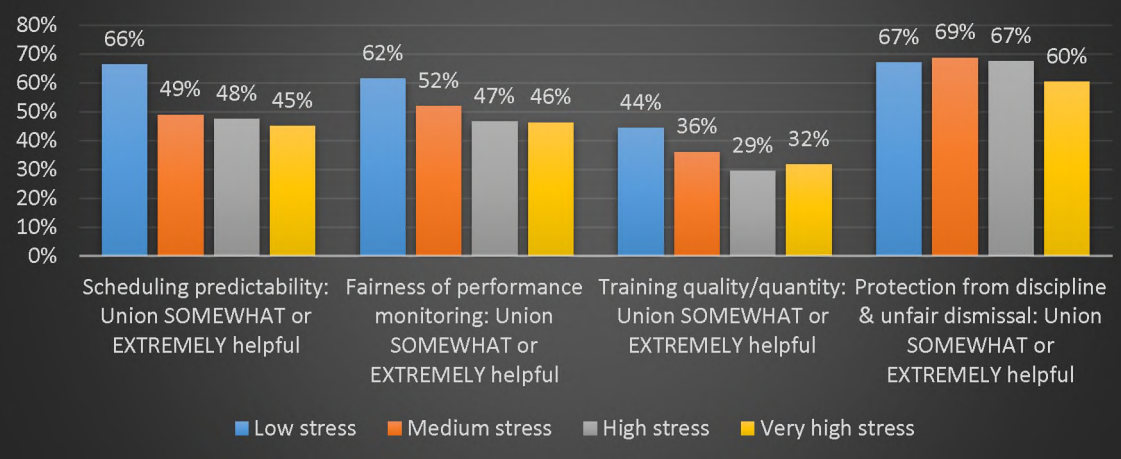
Figure 4.12 Stress you personally feel by pay level and variable pay



Of course, we cannot conclude that pay is driving stress rates up and job satisfaction down: it is more likely that in call centers with higher pay, management relies more heavily on monitoring and discipline to reduce labor costs. The majority of employees with pay of \$50,000 and above were based at Company 6 and Company 2; with particularly high rates at Company 6 Unit 2, Company 2 Unit 6, Company 2 Unit 3, and Company 2 Unit 2. These bargaining units all had high proportions of workers reporting that monitoring was used primarily for disciplinary purposes. We tested correlations of pay with stress within employers, and did not find a relationship. However, it is noteworthy that pay does not appear to reduce worker stress, other things being equal. This suggests that increasing pay rates will be ineffective without addressing other areas of management – e.g. monitoring, training, discretion, and layoff threats.

There is evidence in the survey that **union activities in supporting workers can help to reduce stress**. Figure 4.13 below shows that among respondents reporting low stress levels, a higher percentage find their union somewhat or extremely helpful in addressing scheduling predictability, fairness of performance monitoring, and training quality and quantity.

Figure 4.13 Stress you personally feel by perceptions of union support



5. Conclusions and Recommendations

Call centers are stressful places to work. Our findings show that call center workers are under often intense pressure to satisfy a wide range of performance metrics, while facing high rates of abuse from customers. A majority feel that these performance metrics are unreasonable, that they do not have enough time between calls, and that scheduling is inflexible. They are intensively monitored using multiple electronic tools; and this monitoring information is more often used to discipline them than to develop their skills. They are required to closely follow company scripts, with limited discretion in how they talk with customers. These negative experiences at work are exacerbated by job insecurity, with workers expressing strong fears that outsourcing, offshoring, and company restructuring will lead to layoffs in the near future. Consistent with a large body of past research, we find that these management practices and worker experiences are associated with higher rates of stress and burnout, absenteeism, and intentions to quit.

This report shows that while stress-inducing management practices are common, they are not universal. Some employers and bargaining units appear to have put in place practices that are more consistent with promoting worker well-being and reducing burnout. Based on both our findings from this survey and past research, we can recommend the following practices:

- 1. Invest in worker skills through higher quality training:** Stress rates were lower where training hours were higher; with the relationship stronger for in-person than computer training. Stress was also lower where workers felt training prepared them adequately to answer customer calls.
- 2. Give workers more discretion over how they handle customer interactions:** Workers who were able to deviate from company scripts and who had higher discretion in customer interactions reported lower stress rates.
- 3. Adopt a developmental approach to monitoring:** Stress was lower where employers monitored workers less frequently and where they used monitoring information to develop skills rather than to discipline employees.
- 4. Provide workers with functional technology:** Frequent problems with technology at work appeared to generate significant stress among workers seeking to meet their performance goals under already strict time constraints.
- 5. Provide closer oversight of vendor performance and improve job security guarantees:** Workers reported dealing with vendor errors or misconduct at high rates; and expressed strong fears that they would lose their jobs as a direct result of outsourcing or offshoring. Where reported fears associated with outsourcing were lower, stress rates were also lower.

The findings from the survey provide insights into the broad range of factors and practices associated with worker stress and well-being. However, these five stand out as the most significant areas that could substantially improve the quality of call center jobs and the working experience of call center workers through reducing stress and burnout.

Bibliography

- Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of Management Journal*, 45: 587–597.
- Batt, R. & Colvin, A.J.S. (2011). An employment systems approach to turnover: Human resources practices, quits, dismissals, and performance. *Academy of Management Journal*, 54: 695–717.
- Batt, R., Colvin, A. J. S., & Keefe, J. (2002). Employee voice, human resource practices, and quit rates: Evidence from the telecommunications industry. *Industrial and Labor Relations Review*, 55: 573–594.
- Batt, R., Doellgast, V., & Kwon, H. (2006). Service management and employment systems in US and Indian call centers. In: Collins, Susan Margaret and Brainard, Lael, (eds.) *Brookings trade forum 2005: Offshoring white-collar work*. Brookings Institution Press, Washington, D.C., pp. 335-372.
- Batt, R. & Moynihan, L.M. (2006) Human Resource Management, Service Quality, and Economic Performance in Call Centers. *Center for Advanced Human Resource Studies (CAHRS) Working Paper #06-01*.
- Bedi, A., & Schat, A. C. (2017). Employee revenge against uncivil customers. *Journal of Services Marketing*.
- Blanch, A. (2016). Social support as a mediator between job control and psychological strain. *Social Science & Medicine*, 157, 148-155.
- Brotheridge, C. M. (2003). The Role of Fairness in Mediating the Effects of Voice and Justification on Stress and Other Outcomes in a Climate of Organizational Change. *International Journal of Stress Management*, 10(3), 253.
- Callaghan, G., & Thompson, P. (2001). Edwards revisited: technical control and call centres. *Economic and Industrial Democracy*, 22(1), 13-37.
- Castanheira, F., & Chambel, M. J. (2010). Reducing burnout in call centers through HR practices. *Human Resource Management*, 49(6), 1047-1065.
- Chalykoff, J., & Kochan, T. A. (1989). Computer-aided monitoring: Its influence on employee job satisfaction and turnover. *Personnel Psychology*, 42(4), 807-834.
- Cummins, R. C. (1990). Job stress and the buffering effect of supervisory support. *Group & Organization Studies*, 15(1), 92-104.
- Dorina C., M. Valverde, G. Ryan, R. Batt. (2016). The Service-profit Chain in Call Centre Services. *Journal of Service Theory and Practice*. 26(5):616-641.
- Cloutier, J., Vilhuber, L., Harrisson, D., & Béland-Ouellette, V. (2018). Understanding the effect of procedural justice on psychological distress. *International Journal of Stress Management*, 25(3), 283-300.

Deery, S., Iverson, R., & Walsh, J. (2002). Work relationships in telephone call centres: Understanding emotional exhaustion and employee withdrawal. *Journal of Management studies*, 39(4), 471-496.

Diekelmann, S., & Born, J. (2010). The memory function of sleep. *Nature Reviews Neuroscience*, 11(2), 114.

Doellgast, V., & Sezer, L. 2012. *Making the right call: redesigning call centres from the bottom up*. A research report for UNI Global Union.

Doellgast, V. (2008). Collective Bargaining and High-Involvement Management in Comparative Perspective: Evidence from US and German Call Centers. *Industrial relations: a journal of economy and society*, 47 (2). pp. 284-319.

Dormann, C., & Zapf, D. (2004). Customer-related social stressors and burnout. *Journal of occupational health psychology*, 9(1), 61.

Dormann, C., Zapf, D., & Isic, A. (2002). Emotionale Arbeitsanforderungen und ihre Konsequenzen bei Call Center-Arbeitsplätzen. *Zeitschrift für Arbeitsund Organisationspsychologie A&O*, 46(4), 201-215.

Grebner, S., Semmer, N., Faso, L. L., Gut, S., Kälin, W., & Elfering, A. (2003). Working conditions, well-being, and job-related attitudes among call centre agents. *European Journal of Work and Organizational Psychology*, 12(4), 341-365.

Groth, M., & Grandey, A. (2012). From bad to worse: Negative exchange spirals in employee–customer service interactions. *Organizational Psychology Review*, 2(3), 208-233.

Hales, T. R., Sauter, S. L., Peterson, M. R., Fine, L. J., Putzanderson, V., Schleifer, L. R., et al. (1994). Musculoskeletal disorders among visual-display terminal users in a telecommunications company. *Ergonomics*, 37(10), 1603-1621.

Holdsworth, L., & Cartwright, S. (2003). Empowerment, stress and satisfaction: an exploratory study of a call centre. *Leadership & Organization Development Journal*, 24(3), 131-140.

Holman, D., & Fernie, S. (2000). Can I help you? Call centres and job satisfaction. *Centrepiece. The Magazine of Economic Performance*, 5(1), 2-5.

Holman, D. (2002). Employee wellbeing in call centres. *Human Resource Management Journal*, 12(4), 35-50.

Holman, D. (2003). Phoning in sick? An overview of employee stress in call centres. *Leadership & Organization Development Journal*, 24(3), 123-130.

Holman, D., Chissick, C., & Totterdell, P. (2002). The effects of performance monitoring on emotional labor and well-being in call centers. *Motivation and Emotion*, 26(1), 57-81.

Holman, D. J., & Wall, T. D. (2002). Work characteristics, learning-related outcomes, and strain: A test of competing direct effects, mediated, and moderated models. *Journal of occupational health psychology*, 7(4), 283.

Holman, D., Frenkel, S., Sørensen, O. and Wood, S. (2009) Work Design Variation and Outcomes in Call Centers: Strategic Choice and Institutional Explanations. *Industrial and Labor Relations Review*, 62(4), 510-532.

Hülshager, U. R., Lang, J. W., Depenbrock, F., Fehrmann, C., Zijlstra, F. R., & Alberts, H. J. (2014). The power of presence: The role of mindfulness at work for daily levels and change trajectories of psychological detachment and sleep quality. *Journal of Applied Psychology*, 99(6), 1113.

Kern, J. H., & Grandey, A. A. (2009). Customer incivility as a social stressor: the role of race and racial identity for service employees. *Journal of Occupational Health Psychology*, 14(1), 46.

Lavidor, M., Weller, A., & Babkoff, H. (2003). How sleep is related to fatigue. *British Journal of Health Psychology*, 8(1), 95-105.

Lewig, K. A., & Dollard, M. F. (2003). Emotional dissonance, emotional exhaustion and job satisfaction in call centre workers. *European journal of work and organizational psychology*, 12(4), 366-392.

Liu, X. & Batt, R. (2010). How Supervisors Influence Performance: A Multilevel Study of Coaching and Group Management in Technology-Mediated Services. *Personnel Psychology*. 63: 265-298.

Matta, F. K., Scott, B. A., Colquitt, J. A., Koopman, J., & Passantino, L. G. (2017). Is consistently unfair better than sporadically fair? An investigation of justice variability and stress. *Academy of Management Journal*, 60(2), 743-770.

National Institute of Mental Health (2019) Prevalence of Any Anxiety Disorder Among Adults. <https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder.shtml> Consulted March 1, 2019.

Nebeker, D. M., & Tatum, B. C. (1993). The Effects of Computer Monitoring, Standards, and Rewards on Work Performance, Job Satisfaction, and Stress. *Journal of Applied Social Psychology*, 23(7), 508-536.

Pilcher, J. J., Ginter, D. R., & Sadowsky, B. (1997). Sleep quality versus sleep quantity: relationships between sleep and measures of health, well-being and sleepiness in college students. *Journal of psychosomatic research*, 42(6), 583-596.

Querstret, D., & Cropley, M. (2012). Exploring the relationship between work-related rumination, sleep quality, and work-related fatigue. *Journal of Occupational Health Psychology*, 17(3), 341.

Rose, E., & Wright, G. (2005). Satisfaction and dimensions of control among call centre customer service representatives. *The International Journal of Human Resource Management*, 16(1), 136-160.

Scott, B. A., & Judge, T. A. (2006). Insomnia, emotions, and job satisfaction: A multilevel study. *Journal of Management*, 32(5), 622-645.

- Singh, J., Goolsby, J. R., & Rhoads, G. K. (1994). Behavioral and psychological consequences of boundary spanning burnout for customer service representatives. *Journal of Marketing Research*, 558-569.
- Sliter, M., & Jones, M. (2016). A qualitative and quantitative examination of the antecedents of customer incivility. *Journal of occupational health psychology*, 21(2), 208.
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2008). "Did you have a nice evening?" A day-level study on recovery experiences, sleep, and affect. *Journal of Applied Psychology*, 93(3), 674.
- Sprigg, C. A., & Jackson, P. R. (2006). Call centers as lean service environments: Job-related strain and the mediating role of work design. *Journal of occupational health psychology*, 11(2), 197.
- Topcic, M., Baum, M., & Kabst, R. (2016). Are high-performance work practices related to individually perceived stress? A job demands-resources perspective. *The International Journal of Human Resource Management*, 27(1), 45-66.
- Tourigny, L., Baba, V. V., & Lituchy, T. R. (2005). Job burnout among airline employees in Japan: A study of the buffering effects of absence and supervisory support. *International Journal of Cross Cultural Management*, 5(1), 67-85.
- Tucker, M. K., Jimmieson, N. L., & Bordia, P. (2018). Supervisor support as a double-edged sword: Supervisor emotion management accounts for the buffering and reverse-buffering effects of supervisor support. *International Journal of Stress Management*, 25(1), 14.
- Van Jaarsveld, D. D., Walker, D. D., & Skarlicki, D. P. (2010). The role of job demands and emotional exhaustion in the relationship between customer and employee incivility. *Journal of Management*, 36(6), 1486-1504.
- Visser, W. A., & Rothmann, S. (2008). Exploring antecedents and consequences of burnout in a call centre. *SA Journal of Industrial Psychology*, 34(2), 79-87.
- Walker, D. D., van Jaarsveld, D. D., & Skarlicki, D. P. (2017). Sticks and stones can break my bones but words can also hurt me: The relationship between customer verbal aggression and employee incivility. *Journal of applied psychology*, 102(2), 163.
- Wegge, J., Vogt, J., & Wecking, C. (2007). Customer-induced stress in call centre work: A comparison of audio-and videoconference. *Journal of occupational and organizational psychology*, 80(4), 693-712.
- Wharton, A. S. (1996). Service with a smile: understanding the consequences of emotional labor. In C. L. Macdonald & C. Sirianni (Eds.), *Working in the service society*. Philadelphia: Temple University Press.
- Wood, S., Holman, D., & Stride, C. (2006). Human resource management and performance in UK call centres. *British Journal of Industrial Relations*, 44: 99-124.