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U.S. Call Center Industry Report 2004 National Benchmarking Report Strategy, HR Practices & Performance

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WORKING PAPER SERIES

U.S. Call Center Industry Report 2004
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Working Paper 05 – 06

The U.S. Call Center Industry 2004: National Benchmarking Report

Strategy, HR Practices, & Performance

The Global Call Center Industry Project

Rosemary Batt, Virginia Doellgast, and Hyunji Kwon
Cornell University

Highlights:
U.S. Call Center Industry Report 2004

This national benchmarking report represents the first large scale survey of management practices and outcomes in the U.S. call center industry. This industry has grown dramatically over the last decade, employing an estimated 3 percent of the country's workforce. This U.S. study is part of a larger global call center industry project. It is the first in a series of national reports on the call center industry in over 15 countries worldwide.

In this analysis, we present important benchmarking data for managers in the over 50,000 call centers in the United States. We analyze data for centers in a wide range of industries -- financial services, telecommunications, retail, IT and technical support services, hospitality, manufacturing, print and media, and public and non-profit sectors. In addition, we compare management and employment practices in centers serving different customer segments – from those in the mass market to those serving large business clients.

We also discuss similarities and differences between 'in-house' centers – those that serve a company's own customers – and subcontractors or 'outsourced' centers – those serving the customers of other companies. In-house centers comprise 86 percent of the call centers in this study, while outsourced centers comprise 14 percent. While off-shoring of service work has received considerable media attention and public debate, overseas call centers currently represent only a fraction of the worksites serving U.S. customers.

In this study we examine such questions as:

- How do call center management practices differ across industries and sectors?
- What employment practices contribute to lower turnover and absenteeism?
- What types of new technologies and innovative work practices are being adopted?
- What are the pay levels and compensation strategies for employees and managers?
- To what extent do economic development agencies, employer networks, and training institutions provide support for call centers?

We also present findings on what management practices lead to better performance. Achieving competitive success in call centers is a difficult task. Managers attempt to achieve quality and customer service while also keeping costs under control. While call center technologies create efficient methods for handling service interactions, customers often become frustrated by overly standardized menus and procedures. Similarly, many employees find call center jobs to be routinized and boring, leading to high levels of employee dissatisfaction, absenteeism, and turnover. Employee dissatisfaction, in turn, can lead to lower service quality and customer dissatisfaction. With turnover rates at 30 to 50 percent a year, managers find themselves in a vicious circle – just as employees become proficient in the job, they quit. Managing the workforce is a constant cycle of recruitment, selection, training, and retention strategies.

We would like to thank the Alfred P. Sloan Foundation, especially Gail Pesyna, for generous funding and support for this study. The survey was ably administered by the Survey Research Institute at the Industrial and Labor Relations School, Cornell University. The executive director, Yasamin Miller, along with Erik Nisbet and Jose Delgado gave countless hours to ensure the accuracy of the data. Thanks to *Call Center Magazine* for its support and to Eileen Parzek of SOHO It Goes! (turtle@sohoitgoes.com) for graphic design and report publication. Thanks also to the managers in the industry who gave generously of their time to complete the survey. To obtain copies of this report, contact Rosemary Batt, rb41@cornell.edu.

In addition, while call center jobs are often portrayed as ‘low-skilled’ or ‘clerical’ in nature, they in fact require considerable knowledge and skills. Frontline employees confront on-going changes in product and service offerings, pricing and packaging, legal regulations, work methods, and technical processes. Thus, they need to regularly upgrade their knowledge and skills in order to serve customers well.

This report addresses these and other issues of concern to managers and employees in the call center industry. It grows out of a multi-year study of organizational change in the industry, and is based on extensive field study, site visits, interviews, and surveys conducted by the research team at Cornell University. Managers at 472 worksites across the country gave generously of their time during a lengthy telephone survey.

While this report is based on data collected among workplaces in the U.S., it has implications for the global call center industry. The U.S. has been a leader in the development and diffusion of call center technologies and management models. Thus, at least some of the patterns we find here are likely to be found in other countries that are shifting service and sales operations into remote, technology-mediated centers.

What's in this report?

In this rapidly growing industry, managers have experimented with a wide range of practices. In this report, we examine:

- Selection and staffing strategies
- The skills of the workforce and investments in training
- Adoption of new technologies
- Adoption of "high involvement work practices" such as quality improvement and self-directed work teams
- Use of performance-based pay
- Wages, benefits, and total compensation
- Institutional supports, such as local government and training programs, and employer networks
- Union and non-union work practices

We compare call centers in:

- Different industries
- Different customer segments
- In-house and out-sourced locations
- Distinct work functions, from telemarketing to IT help desks.

What we found...

Industry & organizational characteristics

❖ *In-house and outsourced centers*: In-house call centers constitute 86% of the market while outsourced centers comprise 14%.

❖ *Scope of call center markets*: The typical call center in this study serves the national market, rather than a local, regional, or international one. The exception is the telecommunications industry, where centers remain primarily local or regional in scope.

❖ *Business strategy*: The most popular business strategy reported by managers is service differentiation, followed by one-stop shopping, and customer loyalty.

❖ *Management hierarchy*: Call centers are flat organizations, with management averaging only 16% of the workforce.

❖ *Customer segmentation*: Segmentation strategies have continued to grow as the predominant approach to organizing call center distribution channels. Eighty percent of call centers in this study target a particular customer segment. The remainder takes a universal approach of serving multiple segments through the same channel.

❖ *Organizational size*: Call centers have been consolidating in recent years into larger and larger operations. The average size of call centers in this study is 289 employees. However, the size of the typical center in this study (that is, half are larger and half are smaller) is much smaller – 120 employees.

Management strategies & practices...

❖ *Selection*: Call center jobs are often viewed as low skilled and clerical, and the workforce is portrayed as young and unattached to the labor force. According to our survey, however, the age and education profile of call center workers is considerably higher. The typical call center worker in this survey is 30 years old and has one and a half years of college education.

❖ *Training*: Call centers provide an average of 4.2 weeks of training for new hires, with a range of 6 weeks in financial services and 2.4 weeks in outsourced and retail centers. In addition, call centers provide about 2 weeks of on-going training for experienced employees each year.

❖ *New technologies*: Call centers are moving from voice-only channels to multi-channel centers. Eighty-five percent of centers in this study use fax and email; 56% use web-enablement; 50% use computer-telephony integration; 37% use electronic customer relationship management; and 21% use voice over IP.

❖ *Customers per employee per day*: Call center workers average about 75 customers per day, with a call handling time of 6.1 minutes per customer. The call load is higher than this average in outsourced and retail centers, and lower than this average in large business and IT service centers.

❖ *Work organization and teams*: Call center employees have quite low levels of discretion over daily tasks and the pace of work. The use of problem-solving groups and teams is also infrequent. On average, 36 percent of employees have some involvement in off-line problem-solving groups; 17 percent participate in self-direct work groups.

❖ *Pay levels*: The annual pay of the typical call center worker averages $33,794, with a high of $45,075 in centers serving large business customers and a low of $25,529 in outsourced centers and $25,021 in retail centers. Total compensation, including overtime pay and the cost of benefits, averages $44,529, with a high of $61,339 in large business centers and a low of $30,447 in outsourced centers.

❖ *Pay for performance*: Individual commissions account for 10% of call center workers' pay, on average. Total variable pay, including individual and group incentives and profit sharing, makes up an average of 16% of annual pay – with a range of zero to 100%.

❖ *Investment in human resources*: Providing quality professional service can be accomplished through the adoption of 'high involvement' work practices in call centers. These practices include investing in skills and training, designing work that provides employees with discretion to meet customer needs, using problem-solving groups and self-directed teams, and adopting incentives such as high relative pay and employment security through permanent full-time staffing strategies.

We found that in-house centers targeting higher value added business customers and those providing business and IT services are most likely to take this high involvement approach. Outsourced centers and those in the retail industry are the least likely to take a high involvement approach.

What affects turnover & absenteeism?

❖ *Turnover rates*: Total annual turnover (including quits, layoffs, dismissals, and retirements) averages 33% among call centers in this study. Outsourced call centers have the highest turnover rates (averaging 51%), followed by retail call centers (47%). Call centers serving large business or the telecommunications industry have the lowest total turnover, with 28% and 26% respectively.

❖ *Quit rates*: Annual employee quit rates average 14.3% among centers in this study, with the highest rates found in outsourced centers (27.8%) and retail centers (23.5%), and the lowest found in telecommunications centers (10.4%) and large business centers (12.1%).

❖ *Absenteeism rates*: Call centers average 6% absenteeism on a typical day, with the highest in outsourced (10%) and retail centers (9.3%) and the lowest in telecommunications call centers (4.8%).

❖ *Teams and quit rates*: Call centers with at least 30 percent of the workforce in problem-solving groups have about 50% lower quit rates than those with less than 30 percent of workers in these teams (quit rates of 16.3% vs. 11.1%).

Centers with at least 30 percent of employees in self-directed work groups have 38% lower quit rates than those with less than 30 percent of workers in these teams (quit rates of 15.1% vs. 10.9%).

❖ *High involvement practices and turnover*: Those centers that use high involvement practices have significantly lower turnover, employee quit rates, and absenteeism than centers that take a more standardized, production line approach to services.

Total annual turnover averages 45 percent in centers that use a production line approach to service compared to 25 percent in centers taking a high involvement approach. Employee quit rates average 23 percent in the production-line centers versus 9 percent in the high involvement centers. The comparable figures for daily absenteeism are 9 percent and 5 percent respectively.

Thus, despite the fact that high involvement practices are more likely to be adopted in centers serving business or high valued customers, we found that these practices lead to better organizational performance in centers serving the mass market as well.

These findings suggest that the production line approach to customer service doesn't fit the complexities of today's markets – with constantly changing products, features, pricing, and service options. Firms that compete on the basis of mass customization or service bundling appear to need a skilled and trained workforce with the discretion and motivation to provide quality service.

❖ *Unions, turnover, & absenteeism*: Non-union call centers have twice the turnover rates of union centers in comparable markets: 33% compared to 17%. Non-union centers have over 2.5 times the quit rates of union centers: 16 % compared to 5.9%. There are no significant differences in absenteeism between union and non-union centers.

❖ *Factors predicting wage levels in call centers*: We analyzed factors associated with higher median annual pay for call center employees, taking into account the industry and customer segment served, the education level of the workforce, and human resource practices used.

After taking all of these factors into account, we found that employees in large business centers earned an average of 23% more than those in residential service centers, and 17.8% more than those in small business centers. Small business center service agents enjoyed a 5.5% premium over those working in mass market service centers. Union workers earned 17.8% more than their non-union counterparts. In telecommunications services, workers in the wireline industry segment earned 14.6% more than their counterparts in the cable TV industry segment.

Turning to human resource practices, we found that every additional year of education was associated with 6 percent higher wages. Call centers with a higher percent of women in the workforce paid significantly lower wages. Those centers that made greater use of self-directed work teams and hired permanent full-time workers (rather than part-time and contingent) also paid higher annual wages.

Regarding managerial employees…

❖ *Supervisor's pay*: Supervisors average $48,462 in annual pay, including performance based pay. Their salary ranges from a low of $36,159 in outsourced centers to a high of $58,849 in centers serving large business.

❖ *Managerial pay*: The typical call center manager receives an average salary of $61,763 per year, with a low of $49,884 in outsourced centers and a high of $69,543 in centers serving large business.

❖ *Unions and managerial pay*: Supervisors and managers in union call centers make considerably more than their non-union counterparts in comparable centers. For supervisors, the union wage premium is 30% ($57,688 versus $44,271), while for managers, the wage premium is 15% ($67,769 versus $58,893).

Regarding the institutional environment…

❖ *Local economic development agencies*: Call centers make an important contribution to the economies of the cities or towns where they are located. Local and state governments often offer incentives to firms seeking to locate call center operations. These incentives include site location assistance, tax incentives, loans, and incentives for locating in targeted zones. Forty-two percent of call centers in our study have received at least one of these incentives, and 18 percent have received two or more.

❖ *Recruitment and training support*: Call centers often find support for their staffing and training needs from public and non-profit organizations in the regions where they are located. Economic development organizations coordinate placement and recruitment services. Local training providers and community colleges are also sources of new recruits, screening and training residents for call center jobs. On average, 68% of managers in our survey reported that they use public job recruitment and placement services. Similarly, 63% of managers report that they use public training resources or programs.

Across the industries included in our survey, 45 percent of managers cited the skills of the local workforce as the most important reason for choosing their current site, while 27 percent cited low labor or real estate costs.

❖ *Employer associations and networks*: Local call center networking organizations are also active in most cities. These groups range from advisory committees to informal groups that allow managers to exchange best practices and pool training resources. Among managers surveyed, 33% participate in a local networking group, 93% of whom report that the primary benefit of these groups is the opportunity to exchange business experience and advice with other firms.

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1.0 Call Center Industry Overview

Introduction

This study is the first large-scale national benchmarking survey of work and human resource practices in the US call center industry. It is based on a survey of general managers in a nationally representative sample of 470 establishments. General managers at each workplace provided information on the types of customers and industries they serve and the competitive conditions they face. They also provided detailed information on such management practices as the type of call center technology used, skill requirements of jobs, organization of work, training and development policies, staffing and compensation strategies, pay levels, and performance outcomes such as turnover and sales growth. (See Appendix E, Technical Notes, for details on the sampling and survey methods used).

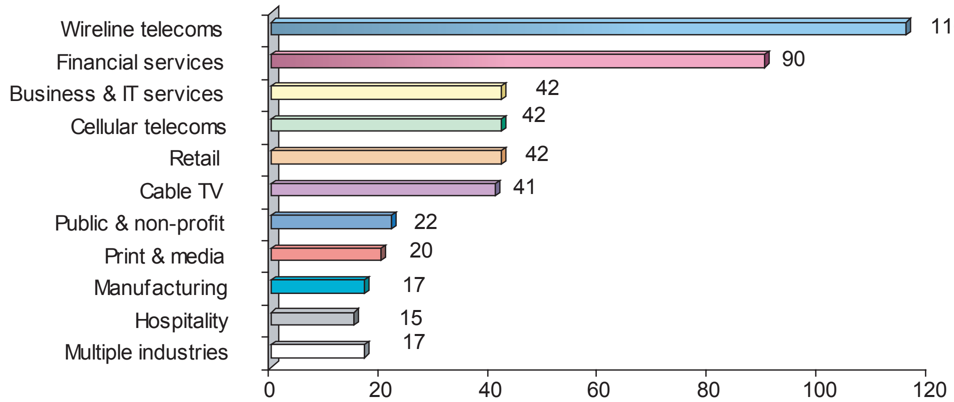
The call centers in this report have a total workforce of 206,725. As call centers often serve multiple customer segments or industries, most questions were directed to a center's "core employees" -- defined as the largest group of employees who carry out the primary work activity for the center's customers. The centers in this study include 110,241 core employees. The overwhelming majority of centers (86 percent) are in-house centers – that is, call centers that serve the customers of the parent company. Fourteen percent of centers are outsourced – that is, operated by subcontractors to serve the customers of one or several companies.

Markets and Industry Segments

Our survey includes call centers in a wide range of industries. As shown in Figure 1.1, the industries with the largest representation in this study are wireline telecommunications services (116 centers or 25 percent of the total) and financial services (90 centers or 19 percent). Financial services includes retail banking, insurance, and other financial services (such as financial advising and brokerages); and these sub-segments are about equally represented in the survey. Industries with about 40 centers each (9 percent of the sample) include business and IT services, cellular telecommunications, retail outlets, and cable TV.

Another four industries have between 15 and 25 centers in the study, each representing 3 to 5 percent of the sample. These include the public and non-profit sector, print and media, manufacturing, and hospitality. Another 5 percent of the sample includes centers that serve multiple industries. Telecommunications services is overrepresented in the sample because this survey was conducted in tandem with a broader survey of telecommunications establishments.

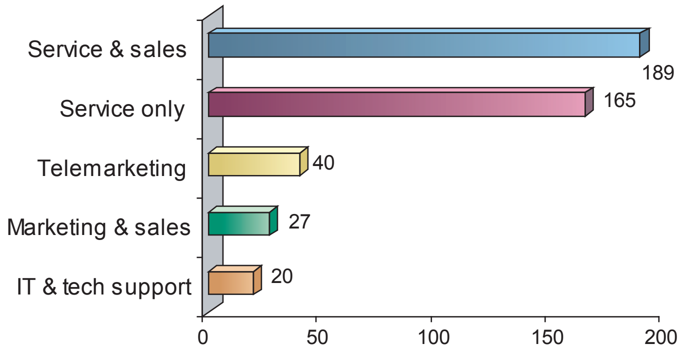
Figure 1.1: Call Centers by Industry



In this report, we also cover call centers providing a range of different types of services. These differences have important implications for the types of business and human resource strategies adopted. The centers range from outbound telemarketing to in-bound service, or sales, and technical support. As reported in Figure 1.2, 189 centers (43 percent of the total) provide both in-bound service and sales. This means that service agents handle billing or service inquiries as well as process orders for new purchases or upgrades of existing services. Service and sales centers have unique skill requirements. Employees need good listening and social interaction skills so that they can handle customer inquiries effectively. They also need sales skills and the ability to close a sale without resorting to hard selling that may alienate customers.

The second largest group of centers in this study offers service activities alone – providing information and answers to inquiries, but not handling sales (37 percent of the centers). Service centers are cost centers rather than revenue generators, and have a focus entirely on providing customer service. Other centers in this study are more specialized, including outbound telemarketing (9 percent of the total), sales and marketing centers (6 percent), and technical support or IT help desks (5 percent). Throughout this report, we will note how these distinct types of centers utilize different management and employment strategies. For a detailed listing of these differences, see Appendix B of this report.

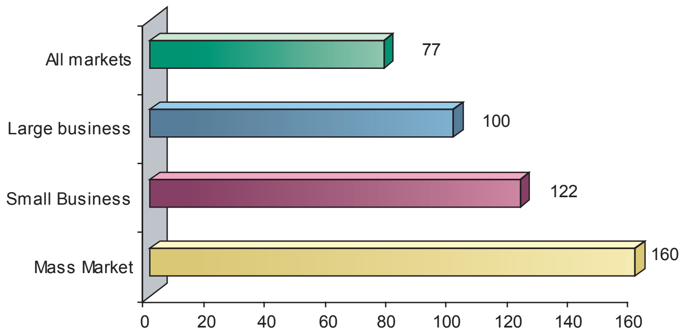
Figure 1.2: Number of Call Centers by Work Function



Another basis for differentiating call centers is by the customer segment served. Historically, companies served all customers in a given geographic area, providing 'universal' service. Local banks, or insurance, utility, and telephone companies located offices to serve customers in particular geographic areas across the country. Once service operations move to remote locations, however, companies can segment their service delivery by particular customer groups, rather than geographic location. Customer segments are typically defined by the value of their accounts. In the telecommunications industry, for example, customer segmentation strategies are well-developed, and each call center is designed to serve a particular group – for example, residential consumers (the mass market), small business customers, or large business customers. Some have developed more refined approaches to segmentation as well.

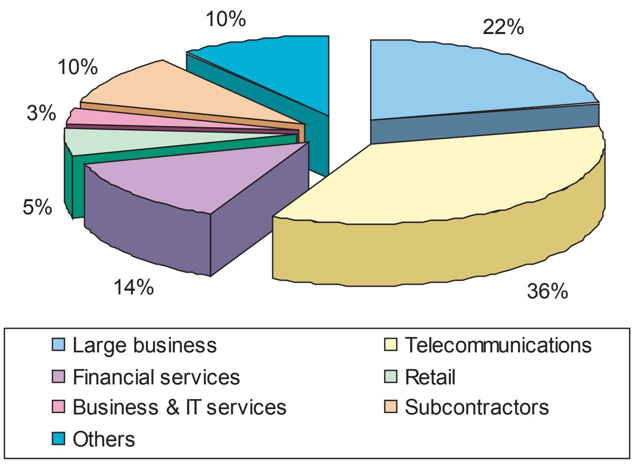
In this study, we found that over 80 percent of call centers target a particular customer segment: 35 percent of centers target the mass market, 27 percent target small businesses, 22 percent target large businesses, and 17 percent serve all customer segments. These distinctions are important, as we show below, because companies create unique business and human resource strategies to fit the targeted market.

Figure 1.3: Number of Call Centers by Customer Segment Served



In order to capture this variation in call centers, we report the findings of this study using the most salient categories, as shown in Figure 1.4. Our analyses show that in-house centers serving large business have much in common, even if they are located in different industry sectors. Thus we report the findings for large business centers as a group, and they represent 22 percent of all centers in this study. We then analyze in-house call centers that serve mass market and small business consumers in our largest industry categories. These include telecommunications services (36 percent), financial services (14 percent), retail (5 percent), and business and IT services (3 percent). Finally, we analyze subcontractors who serve these industries (10 percent of the total). Note that the percentages in this chart differ somewhat from those in Figure 1.1 because we have created separate categories for in-house large business centers and outsourced (subcontracting centers) across all industries. For more detailed analyses of the survey data, please refer to the appendices.

Figure 1.4: Call Center Categories in this Report

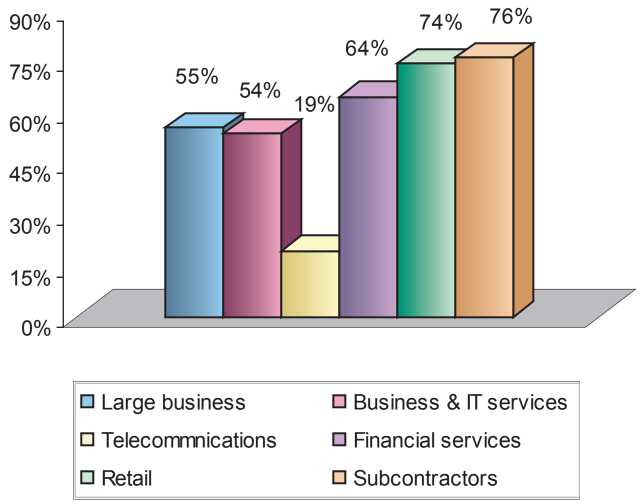


These different types of centers show consistent differences in management and employment practices, as the charts in section 2 of this report demonstrate. On a general level, the centers serving large business or providing business and IT services may be classified as 'high end' centers. They serve business customers, compete on service quality and customization, are smaller in size, hire more educated employees, organize work in a professional manner, and offer higher pay and benefits. At the other end of the scale, subcontractors appear to be the most cost-driven, with centers that are relatively large in size, have high levels of standardization, scripting, and electronic monitoring, and low levels of pay. Management strategies and practices for in-house retail call centers resemble those found in subcontracted or outsourced centers. In between these two extremes, are in-house centers in telecommunications and financial services. These industries offer relatively complex products and services, with opportunities for value-added sales based on customization. Centers are likely to see a performance pay-off if they rely less on standardized work practices and offer their employees more opportunities and incentives to use their discretion to meet customer needs.

The majority of these call centers have a geographic market that is national in scope. That is, their customer base is defined as national, rather than local, regional, or international. This is particularly true for the financial services, retail, and subcontractor segments, as shown in Figure 1.5. For centers serving large business and the IT sectors, slightly more than half of their market is national and the remainder is regional.

The exception to the pattern of national market orientation is the telecommunications services industry, which remains primarily local and regional in scope. This difference probably reflects that fact that the former Bell telecommunications companies, which continue to have the largest market share in the industry, continue to be regionally-based, even though they are slowly expanding beyond their regions. If the telecommunications industry is excluded, then we find that 60 percent of the call centers in our study serve a national market. Less than 5 percent serve an international market; and 35 percent serve a local or regional market. This pattern of national reach in scope reflects the fact that the industry is in the process of on-going consolidation into larger centers with capabilities of serving broader geographic constituencies.

Figure 1.5: National Scope of Call Center Market

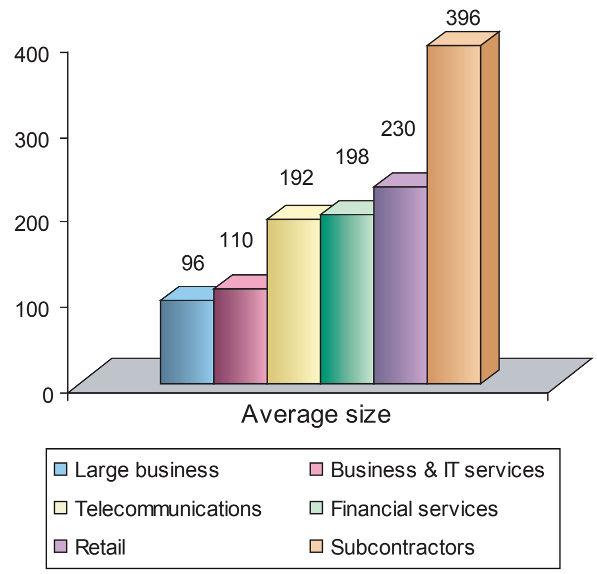


Organizational Characteristics of Call Centers

Our survey includes a wide range of call centers in terms of their size, structure, age, and market scope. While call centers are often assumed to be large, factory-like operations, we found that most are relatively small organizations. In this study, 44 percent of call centers have fewer than 100 employees; 33 percent have between 100 and 300 employees; and 23 percent have over 300.

Figure 1.6, however, shows that the size of call centers varies substantially by industry, customer segment, and whether they are in-house our subcontracted. 'High end' centers serving large business or offering business and IT services are the smallest in size, averaging under 100 employees at a worksite. This small office environment allows for close relationships among employees and managers and limits the extent to which scale economies offered by call center technologies can be realized. In-house centers serving telecommunications and financial services have just under 200 employees, while those in retail average 230. Centers of this size can realize some economies of scale in the allocation of labor, while retaining some level of interpersonal relationships between and among managers and employees. Subcontractors, by contrast, average almost 400 employees per center, or twice the level of in-house centers. This difference in size suggests that outsourced centers, on average, can make greater use of standardized call center technologies. These patterns are more evident in Section 2 of this report, when we turn to the adoption of technology, work design, and human resource practices.

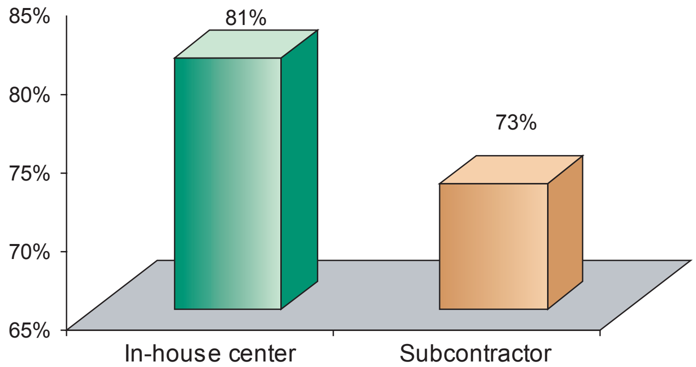
Figure 1.6: Average Size of Call Centers



The size of call centers is not a reflection of the age of the establishment. The older centers are typically found in the telecommunications and retail sectors, and this pattern reflects the early development of advanced engineering systems in telecommunications and catalogue sales in the retail sector. While the average center in this study is about 15 years old, those in telecommunications and retail sectors are 20 years old, on average. Subcontractors and call centers in banking and IT services are much younger, with an average age of 10 years; and this pattern also reflects the dramatic growth in the 1990s of call centers in new sectors, as well as the emergence of subcontractors serving multiple clients.

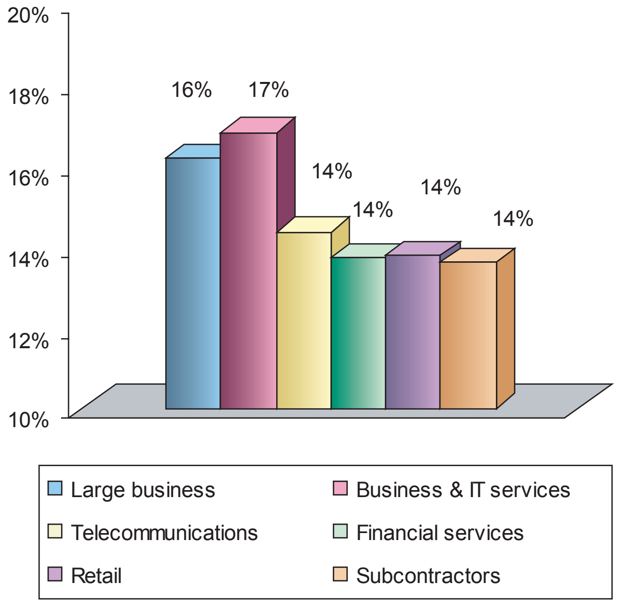
Most call centers are also part of larger corporations -- on average 80 percent of the call centers in this study. As shown in Figure 1.7, the percentages are higher for in-house centers than for subcontractors. However, almost three-quarters of subcontractors are also part of larger corporations, suggesting that independent operators of call centers are a relatively small part of the industry.

Figure 1.7: Call Centers as Part of Larger Corporations



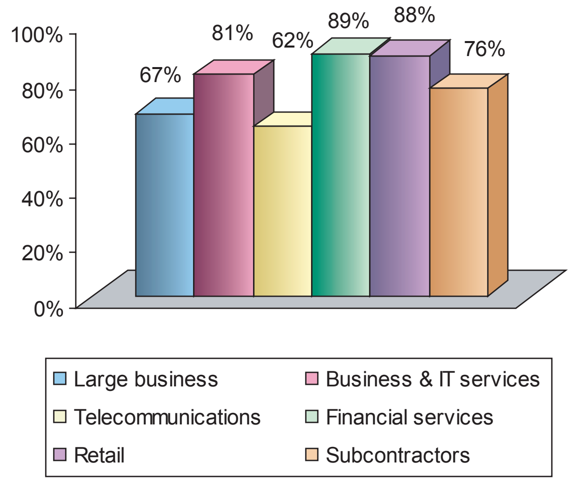
Most call centers are relatively lean organizations, with a low ratio of managers to workers. The worksites in this study are representative of this general pattern. As shown in Figure 1.8, the percent of the workforce in management ranges from 16 and 17 percent in centers serving business clients or providing IT services to 14 percent in all of the other segments. These figures suggest that call centers in all sectors have a very lean organizational structure. We also asked managers how many managerial layers exist between the first line supervisor and the general manager. Managers reported an average of 2.2 layers between the supervisor and the top manager, with little variation across industries or market segments.

Figure 1.8: Percent of the Workforce in Management



Despite the fact that call centers are relatively small organizations with flat managerial hierarchies, it is somewhat surprising that almost three-quarters of managers reported having a human resource department on site. This pattern does not vary substantially across the distinct customer and industry segments, as shown in Figure 1.9. This pattern is somewhat at odds with the idea that call centers are lean organizations that are able to minimize managerial bureaucracy. However, it is in keeping with other evidence, which we provide later in this report, that call centers have unusually high rates of absenteeism and turnover. As a result, call centers need a human resource department on site to handle the on-going demands of recruitment, screening, and training of new employees. The high rates of HR departments on site may reflect the challenges that centers face in maintaining a stable and motivated workforce.

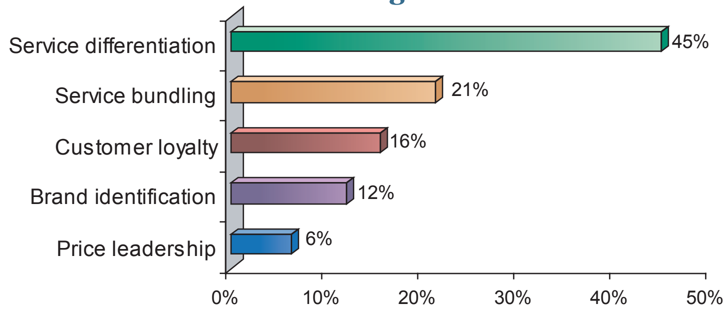
Figure 1.9: Percent of Centers with Human Resource Departments



Business Strategy

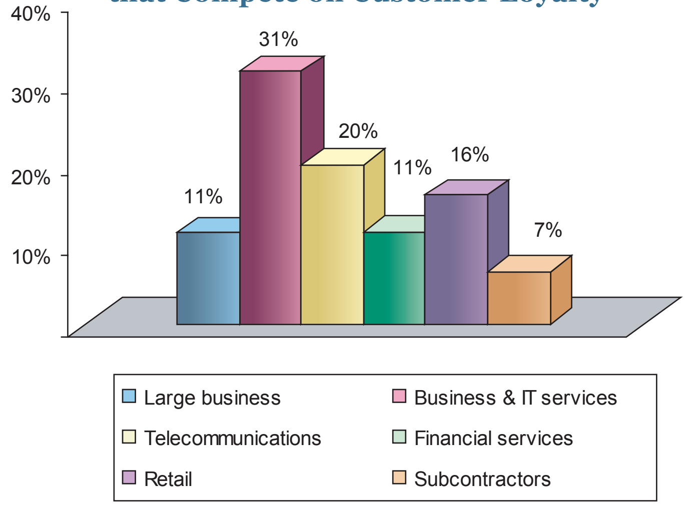
There are a variety of ways that firms can position themselves to compete in the context of volatile markets and the proliferation of service offerings. While some may choose to emphasize quality, variety, or service, others may compete through price leadership. We asked respondents to select their most important competitive strategy. As shown in Figure 1.10, the largest group of respondents (45%) gave the highest priority to service differentiation. By designing call centers dedicated to a particular customer base or a particular service, managers believe they can provide a unique or customized service to that market. Another 21% focus on one-stop shopping or service bundling, whereby customers are able to get all of their services met through one point of contact. A surprisingly small percentage of managers – 16 percent – say they compete by building customer loyalty, even though there is a large management literature suggesting that loyal customers are more profitable (Heskett et al. 1997). Finally, price leadership was the least popular strategy, with only 7% of managers reporting it as their main business strategy. This finding is also surprising, given that the call center industry more generally is under on-going pressure to minimize costs.

Figure 1.10: Relative Importance of Business Strategies



When these results are compared by industry, similar patterns can be found. However, there are some differences by sector. Service bundling is relatively more important in telecommunications services and IT services. Brand strategies are more important in retail services, with 40 percent of centers citing this as their primary strategy. Sixty percent of call centers in financial services and among subcontractors cite service differentiation as their most important strategy, suggesting that specialized services in these sectors are particularly important. Finally, managers of the business and IT services centers pay more attention to customer loyalty than do those in other sectors, as shown in Figure 1.11.

Figure 1.11: Percent of Centers that Compete on Customer Loyalty



2.0 Call Center Operations: Technology, Work Organization & Human Resource Practices

Customer Segmentation & Human Resource Systems

The use of call centers dedicated to unique market segments allows managers to design human resource systems to match the demands of customers. The service management literature identifies two broad approaches to managing the frontline service workforce. The first is referred to as the "production line" approach, and draws on principles of industrial engineering to standardize and automate work processes in a manner parallel to that found in mass production manufacturing. This approach seeks to solve the problem of low productivity growth in services. Better performance is measured by labor efficiency: for example, maximizing the number of calls handled per employee per day and minimizing the length of each call, or 'call handling time.' Automation helps eliminate low skilled work, and standardization of job tasks allows the organization to recruit relatively less skilled workers who require limited training. This approach usually entails high levels of electronic monitoring and little use of commitment-enhancing incentives such as performance-based pay, promotional job ladders, or employment security.

While the benefits of this approach are heightened productivity, call centers run the risk of irritating customers, who often react negatively to impersonal automated voice systems, self-service standardized menus, limited options, and lower service quality. Estimates of customer satisfaction in call centers hover at roughly 50 percent (Purdue University 1999). An alternative approach is to compete on quality service and customer loyalty by adopting a professional model of service management. Often referred to as a 'high involvement' model, this approach includes hiring higher skilled employees, providing them with the tools and discretion to respond to customer demands, and creating incentives that reward good service. Information technology is used less for electronic monitoring, and more as a rich resource of information that helps employees in their service and sales interactions with customers. This strategy views good service as a "bridge to sales." Research by the Harvard Service Management group has shown that loyal customers buy more, so that profitability per customer is multiplicative (Reichheld, 1996; Heskett et. al., 1997).

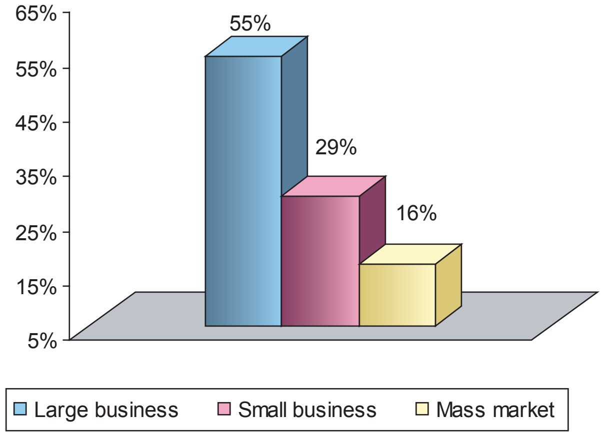
Clearly, most call centers attempt to reach some balance between costs and quality. However, our survey shows that the production line approach is more typical of centers serving mass market consumers, while the professional approach characterizes centers serving large business. Small business centers take an intermediate approach between the two.

In the charts below, we show how human resource practices vary systematically across the centers serving these different customer segments. We provide a more detailed analysis in the appendices.

In call centers serving mass market consumers, service agents typically handle inquiries that include taking new orders, upgrading existing services, handling billing issues and providing other kinds of information. The level of complexity of transactions may vary from quite simple to relatively complex. Customer-provider relationships, however, are still quite transactional in this segment. Small business agents have more opportunity to develop relationships with their customers and customize or 'bundle' service offerings. Large business agents, however, are much more likely to engage in what is referred to as 'customer relationship management' – the strategy of building personalized and long term relations with customers.

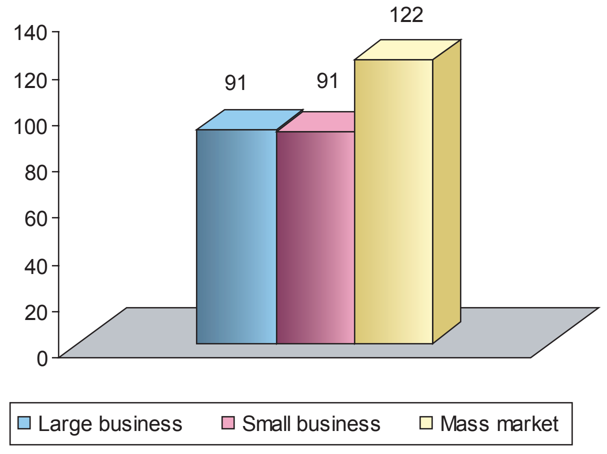
One indicator that demonstrates the differences in approach across the three customer segments is whether call centers use 'dedicated service representatives' – that is, agents who are dedicated or personally responsible for a given set of customers. As shown in Figure 2.1, 55 percent of large business centers in our survey relied on dedicated reps, compared to 29 percent of small business centers, and only 16 percent of centers serving mass market customers.

Figure 2.1: Use of Dedicated Service Reps, by Customer Segment



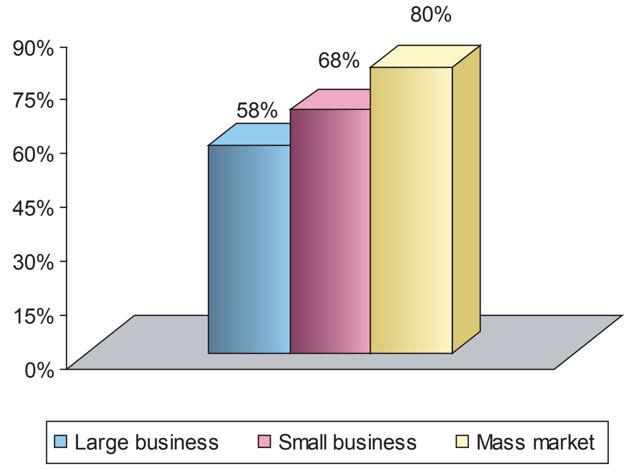
These differences in human resource management systems are evident in other indicators of work practices. As shown in Figure 2.2, employees serving the mass market handle an average of 120 calls per day, over 30 percent more than those serving large and small business customers. Nonetheless, service representatives serving business markets average 91 customers per day – a sizeable workload given that business customers demand high levels of customization.

Figure 2.2: Customers Per Employee Per Day, by Customer Segment



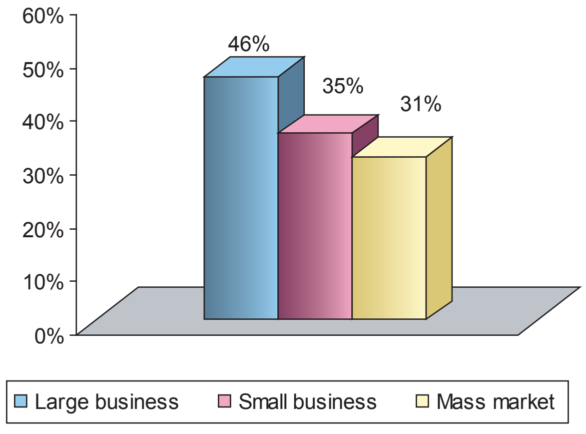
Similarly, employees serving the mass market are much more likely than those serving business customers to complete their transactions while the customer is on-line. As shown in Figure 2.3, in mass market centers, 80 percent of transactions were completed while the customer is on-line, in comparison with 68 percent in small business centers, and 58 percent in large business centers.

Figure 2.3: Percent of Calls Completed on Line, by Customer Segment



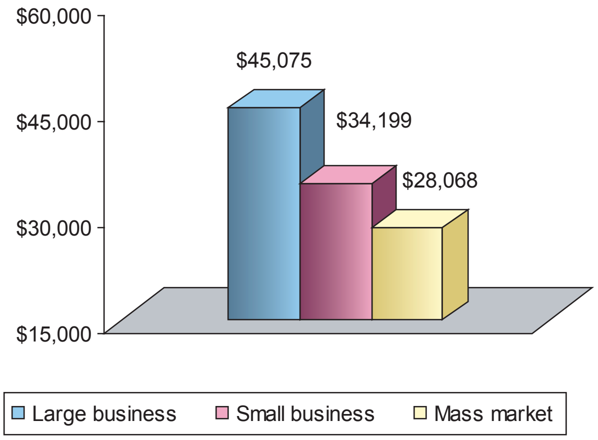
Call centers serving business customers are also much more likely to engage in innovative work practices such as the use of problem-solving groups or self-directed work teams. These innovations provide opportunities for employees to solve problems and learn from each other on the job. In this study, 46 percent of large business agents were involved in problem-solving groups at work, while only 31 percent of employees in mass market centers were participants (see Figure 2.4).

Figure 2.4: Percent of Employees in Problem-solving Groups, by Customer Segment



These differences in the nature of work and job requirements are reflected in the levels of pay that service agents receive. Employees serving large business customers average $45,075 in annual pay, almost 60 percent more than employees serving mass market customers, who receive $28,068, on average. Small business agents earn $34,199 annually (see Figure 2.5). When the costs of benefits are included, total yearly compensation averages $61,400 for agents serving large business customers, $44,345 for those serving small business customers, and $35,599 for those serving the mass market.

Figure 2.5: Average Annual Pay, by Customer Segment



Selection and Staffing Strategies

In this section we examine the selection and staffing practices of call centers. We examine these practices among in-house centers serving large business clients, among those serving different industries, and among subcontractors or outsourced centers. There are several general patterns that emerge. Centers serving large business customers and those providing business and IT services tend to hire people with more formal education. Their workforce has a larger proportion of male workers, more full-time as opposed to part-time or contingent employees, and they are more selective than others in their hiring practices. At the opposite end of the spectrum are outsourced and retail centers, which hire fewer college educated workers, use more part-time and contingent staffing, and hire higher proportions of women to staff their centers. In between these two extremes are in-house centers in telecommunications and financial services.

Selection and staffing practices reflect the explicit strategies and locational decisions of managers, but are also influenced by local labor market conditions and the demographic characteristics of the local labor force. Here, we review such demographic characteristics as age, education, and gender of the workforce, as well as the use of alternative patterns for use of full-time, part-time, and temporary workers.

Our findings show that the workforce is more varied than expected, with higher age and education profiles, and higher levels of male workforce participation, than is commonly assumed for call center workers. The characteristics of the workforce in call centers also exhibit considerable variation across the distinct sectors in our study.

The average age of the typical worker across all sectors is 30 years old. The range is from 22 to 50 years old. Sub-contractors report having the youngest workforce, with an average of 27 years old, while financial service centers report an average age of 28. Centers serving the telecommunications industry and large business, by contrast, report an average age of 31 years old, while retail centers also report an average age of 30 (see Figure 2.6). Subcontractors and call centers in financial services are relatively new entrants into the industry, while those in retail and telecommunications have much longer tenure. This age distribution of the workforce is consistent with the relative age of the establishments in these sectors, as reported in Figure 2.6.

Figure 2.6: Age of the Typical Call Center Worker

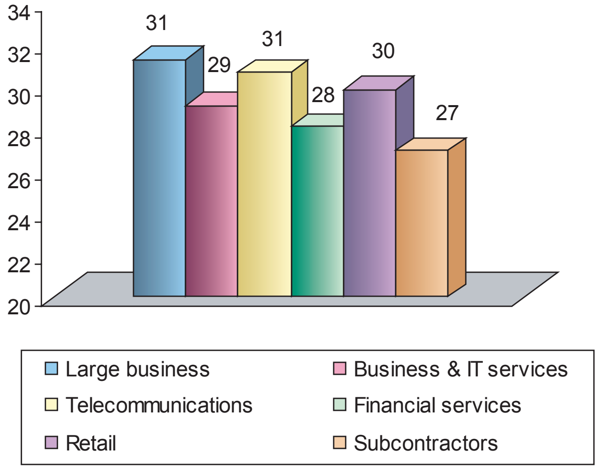
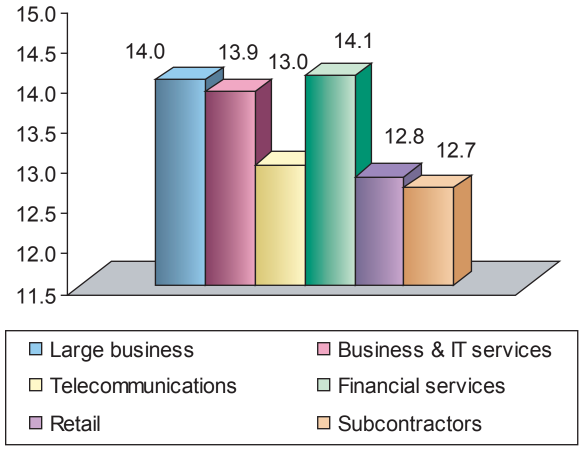


Figure 2.7: Years of Education of the Typical Call Center Worker

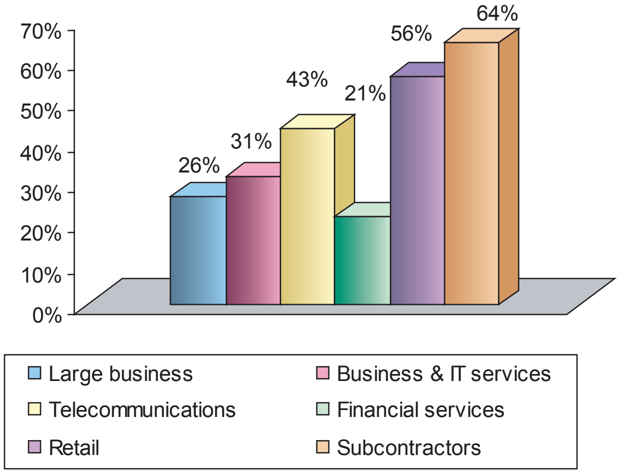


While call center jobs are often viewed as low skilled or 'clerical' jobs, in fact they typically require employees to be able to absorb changing product knowledge, manipulate databases, and have good communication skills. Thus, the education level of call center workers is higher than is often portrayed in the popular press.

In this study, we asked managers to provide the education level of the 'typical' call center employee, defined as 'half the workforce has a higher level and half has a lower level'. Managers reported that the typical worker had about one and a-half years of college education beyond a high school degree. The lowest educational profiles are found among outsourced and retail centers (an average of 12.7 and 12.8 years of education), while the highest levels of education are found in centers serving the financial services industry, business and IT clients, and large business customers (14 years on average, or two years of college beyond high school).

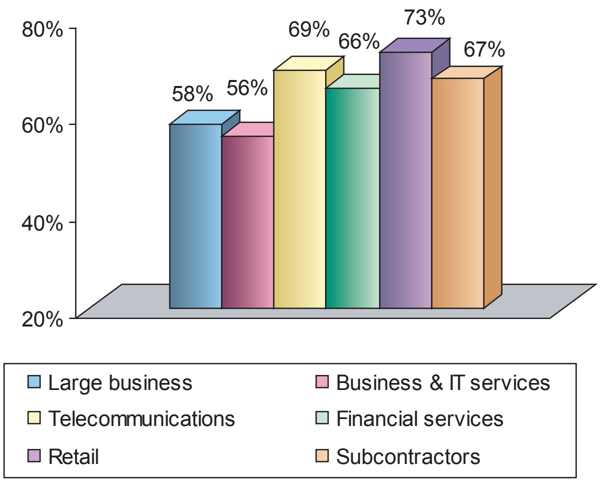
These patterns become clearer when we examine the percent of managers who say they hire primarily high school educated workers. Sixty-four percent of subcontractors and 56 percent of retail centers rely primarily on high school educated workers. By contrast, the percentages are less than half that amount for centers in financial services, business and IT services, and large business markets (see Figure 2.8). The telecommunications industry represents an intermediate case. While the level of complexity of work is considerable, the former Bell companies have a long history of hiring high school educated workers and training them through internal job ladders. Relatively high rates of unionization also reinforce this pattern of upward mobility for high school educated workers in this industry.

Figure 2.8: Percent of Centers That Hire Primarily High School Educated Workers



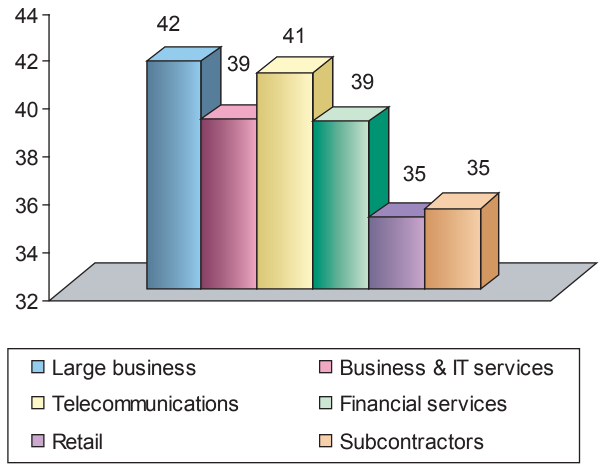
Women constitute 66 percent of the workforce in the call centers in this study, while men make up 34 percent. As might be anticipated, the gender composition varies with the type of work performed, with women making up a lower percentage of workers in centers serving large business and business and IT services (58 percent and 56 percent respectively). Thus, men represent over 40 percent of the workforce in these higher end call centers. By contrast, women make up a disproportionate percentage of workers in the lower-paying jobs in the other industry sectors and in outsourced centers (between 67 percent and 73 percent of the workforce). Women constitute the highest proportion of the workforce in retail centers.

Figure 2.9: Percent of the Workforce That is Female



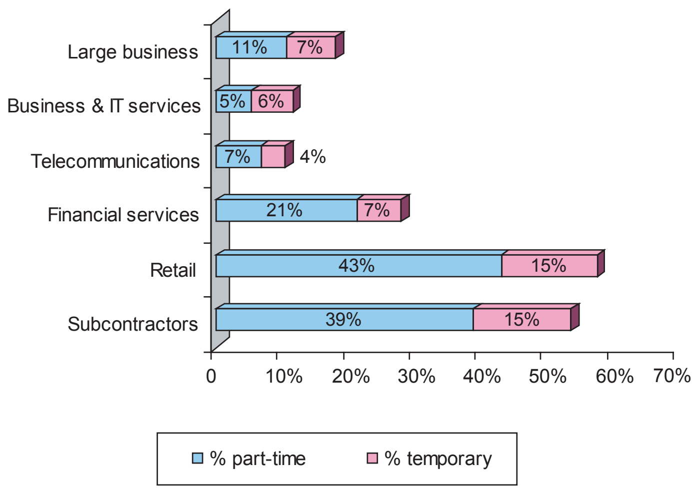
The work schedules of call center employees also vary across these different sectors. On average, call center employees work 40 hours per week, with a range of 35 hours per week in retail and outsourced centers and over 40 hours in large business and IT service centers. In-house centers in telecommunications and financial services average 39 hours per week (see Figure 2.10).

Figure 2.10: Average Weekly Work Hours of Typical Full-time Employees



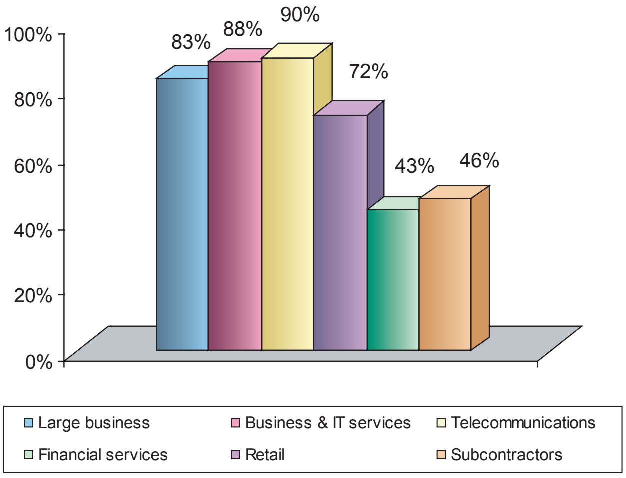
The use of part-time and temporary workers has expanded considerably in the last decade. On average, part-time workers comprise 16 percent of the call center workforce in this study and temporary workers comprise 7.1 percent. In-house telecommunications centers and Business and IT providers make the least use of part-time and contingent workers (11 percent in total), while subcontractors and retail centers make the greatest use (54 percent and 58 percent of the total respectively). In large business centers, 23 percent of the workforce is part-time or temporary, while in financial services centers, 28 percent is part-time or contingent.

Figure 2.11: Average Use of Part-time and Temporary Workers



Another way to view staffing practices is to focus on the percent of the workforce that is permanent and full-time. This represents the more traditional approach to staffing, and provides a stronger indicator to employees that their employment is secure. On average, 77 percent of call center workers in this study hold permanent full-time jobs. Figure 2.12 shows that the majority of employees hold permanent, full-time positions, except for those in retail and outsourced centers.

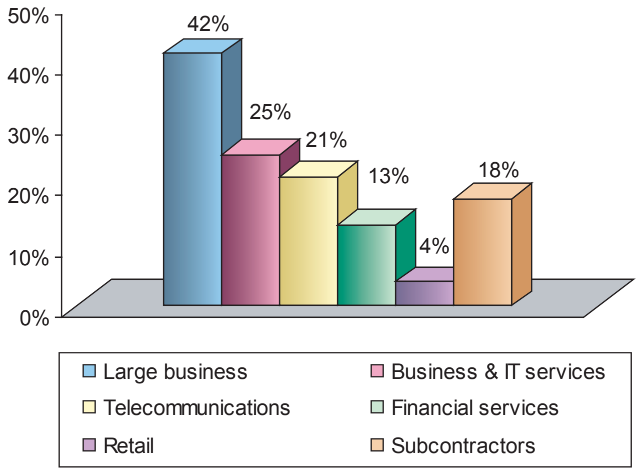
Figure 2.12: Percent of Call Center Workforce That is Permanent and Full-time



The range of variation in these staffing practices, however, is large. On the one hand, a third of centers make no use of part-time employees at all, and 70 percent make no use of temporary workers. On the other hand, those centers that do use part-time and contingent workers often have them comprise over 50 percent of the workforce. Thus, the averages reflect this wide variation in practices.

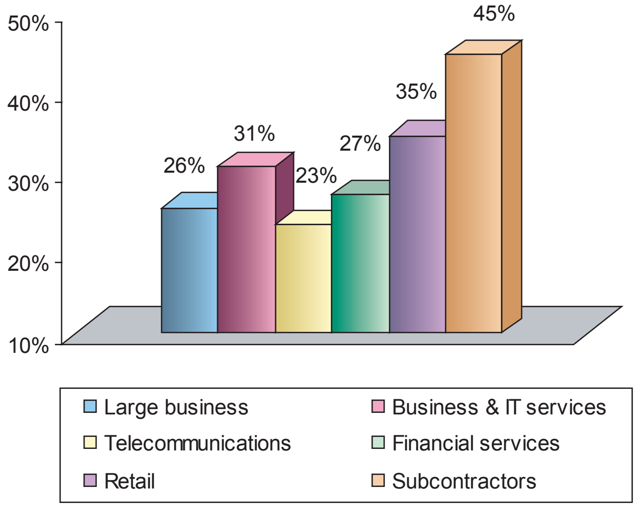
Another decision with respect to staffing is whether to define work as professional, and therefore exempt from US wage and hour laws, or to define it as non-professional, in which case employees are eligible for overtime pay. On average, 23 percent of centers in this study define call center jobs as exempt from overtime provisions of labor law. As might be expected, a higher percentage of centers serving large business (45 percent) or providing IT services (25 percent) define their work as professional, compared to centers in other sectors.

Figure 2.13: Percent of Centers Defining Work as Exempt from Wage and Hour Laws



How selective employers are in their hiring practices may be one indicator of whether they are attempting to compete on the basis of quality service. The 'select rate' is the percentage of employees who are actually hired compared to the total pool of applicants. The lower the select rate, the more selective the employer is in hiring new applicants. In this study, we found that the average select rate for call centers is 28 percent, about 1 worker for every 3.5 applicants. Surprisingly, telecommunications centers have the lowest select rates (23 percent), followed by large business centers (26 percent), and financial services centers (27 percent). By contrast, subcontractors hire about 1 in every 2 workers and retail centers hire 1 in every 3 workers (see Figure 2.14).

Figure 2.14: Select Rate: Percent of Job Applicants Hired

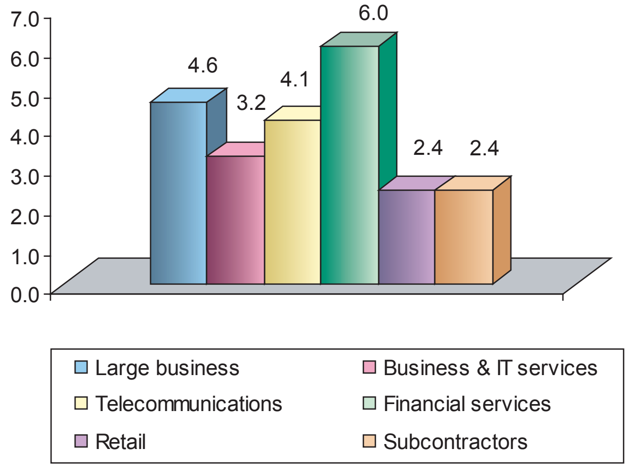


Skills, Training, and Technology

As indicated above, the majority of call center workers in this study have at least some college education. However, beyond a general education, call center workers need to develop specific knowledge of the firm's products, customers, and work processes – what is often referred to as 'firm-specific human capital.' Firm-specific human capital is important because call center employees manage the boundary between the firm and the customer, and they shape the customer's buying behavior. In order to persuade customers to buy a firm's products and services, employees need a clear understanding of specific product features, service agreements, pricing, packaging, promotions for particular customer segments, and legal regulations. They need customer-specific knowledge regarding the demand characteristics of particular individuals or segments and how to use that knowledge to negotiate customized offerings. Employees also require specific knowledge of the structure and content of the firm's information systems, the work flow from point of sales to delivery, and how the company's processing capabilities affect each customer and product offering.

We asked managers to report the number of weeks of initial training the typical new hire receives. On average, call centers provide 4.2 weeks of initial training to new employees. Financial service organizations make the largest investments in initial training, at six weeks. Insurance, in particular, has very high training rates (7.5 weeks), while banking is similar in training levels to telecommunications centers at 3.9 weeks. This pattern may be due to the high hurdle of learning different products and legal regulations, particularly insurance plans. At the other end of the spectrum, retail and outsourced centers provide only two and one-half weeks of initial training (see Figure 2.15).

Figure 2.15: Weeks of Initial Training

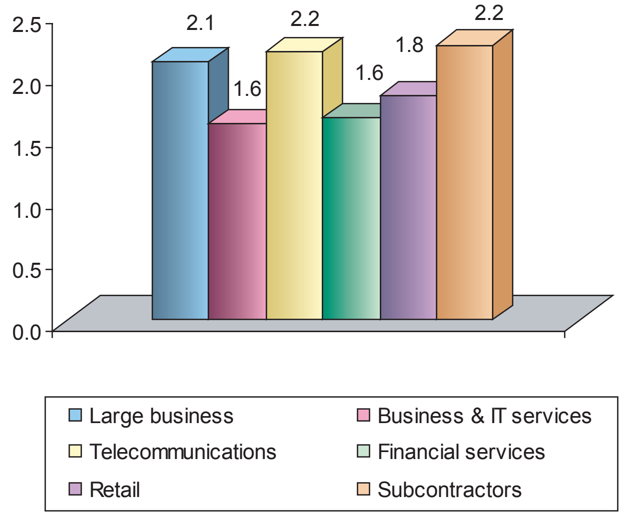


We expected that on-going training would be an important part of call center management practices because the products, technologies, and services that employees handle are often changing at a rapid pace. With on-going deregulation across industries, for example, legal regulations are an ever moving target. Advances in information systems require employees to continually learn new software programs and databases. New technologies have also reduced product life cycles so that the features, packaging, and marketing of products and services are constantly changing. Thus, employees who provide service and sell these products should need continuous learning and upgrading of their knowledge and skills.

Our survey shows that on-going training is an important part of workplace practices. On average, call centers provide about 2 weeks of on-going training each year (Figure 2.16). That represents 3.8% of an employee's annual work time – a considerable investment. However, it is not clear whether this level of investment is sufficient, given the high demand for new skills and information-processing entailed in these knowledge-intensive jobs.

This provision of on-going training does not vary dramatically across the industries and sectors in the study. In contrast to the range of variation in education levels across sectors, we did not find higher rates of initial or on-going training in centers serving large business or providing IT services. This suggests that formal training outside of the workplace is a more important differentiating factor for the "human capital" of employees in these segments than training on the job.

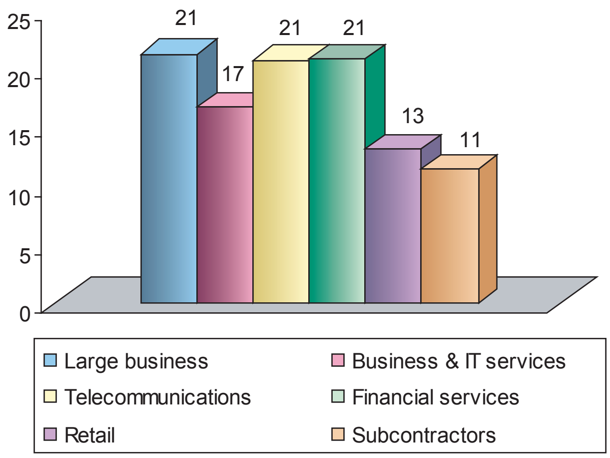
Figure 2.16: Weeks of On-Going Training



How long does it take a newly hired employee to become proficient on the job? Here, also, we find that large business and IT service centers are similar to those in telecommunications and financial services. Managers estimate that it takes about 20 weeks to become proficient in these jobs. However, among retail and outsourced centers, the estimates are only 13 and 11 weeks respectively.

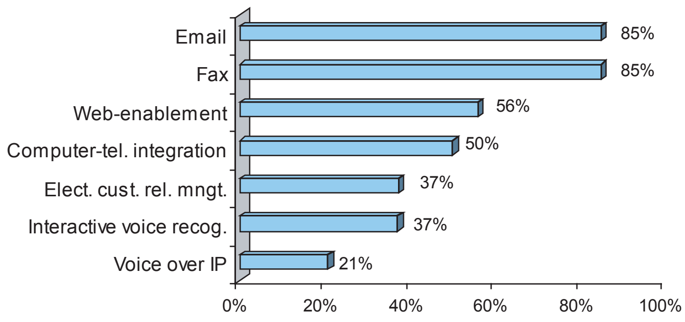
This issue is important in call centers because they typically have high turnover rates. The longer it takes for employees to become proficient, the greater the cost of lost productivity associated with high turnover. We return to these issues in later sections of this report.

Figure 2.17: Weeks to Become Proficient on the Job



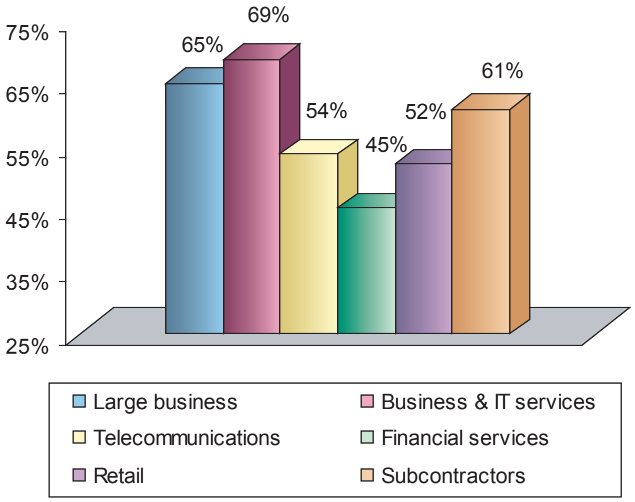
An important reason for call center workers to continually learn on the job is that information technology is constantly changing. Recent advances in call center technologies are creating opportunities for customer interactions to move from voice-only channels (telephones) to multiple channels – email, fax, internet, and voice over internet protocols. These technologies are complements to the skills of the workforce in that they allow employees to serve customers through a variety of means. They enhance the jobs of employees by demanding a broader range of skills. They similarly enhance customer service by providing a variety of options for service and sales. We found that 85 percent of the centers in this study used email and fax as well as voice for customer communications. In addition, 56 percent used web-enablement, 37 percent used electronic customer relationship management and 37 percent interactive voice recognition, and 21 percent used voice over internet protocol (VoIP) (see Figure 2.18). As call centers adopt multiple channels, the demand for a wider range of skills and technical proficiencies increases, and hence the need for additional training.

Figure 2.18: Adoption of Technologies



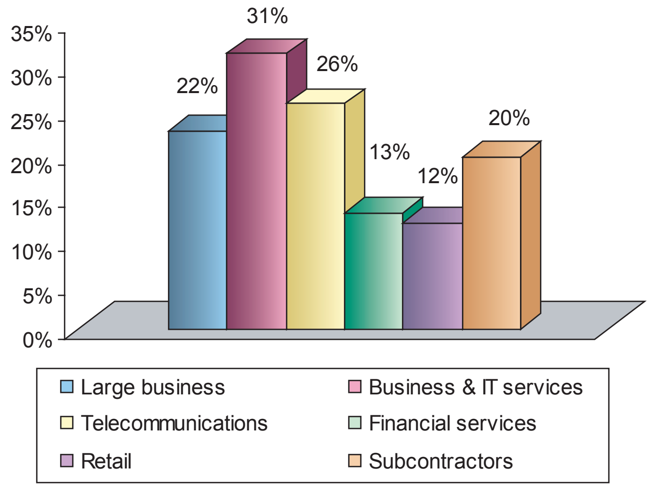
Investments in new technologies tend to follow the pattern we have described above, with investments higher in centers serving large business and providing IT services, compared to those serving small business and mass market customers in other industries. The difference here is that subcontractors appear to be investing more in technologies such as web-enablement, perhaps because they are newer centers (see Figure 2.19). Thus, while over 65 percent of centers serving large business and providing IT services have web-enablement capacity, the comparable figure is 61 percent among subcontractors, but less than 55 percent for in-house centers in retail financial services, and telecommunications.

Figure 2.19: Percent of Centers Using Web-Enablement



Only a minority of call centers have invested in Voice over IP technology. Centers more likely to adopt VoIP are those serving large business, providing IT services, or those serving the telecommunications industry (see Figure 2.20)

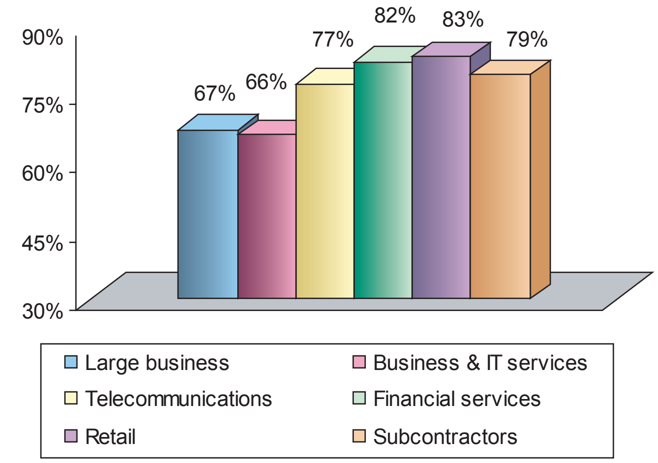
Figure 2.20: Percent of Centers Using Voice over IP



While these advances in technology tend to enhance the skills of workers and the variety in their jobs, other call center technologies do the opposite. Automatic call distribution systems create unrelenting demands for employees to answer telephone calls and simultaneously manipulate databases on the computer without a break.

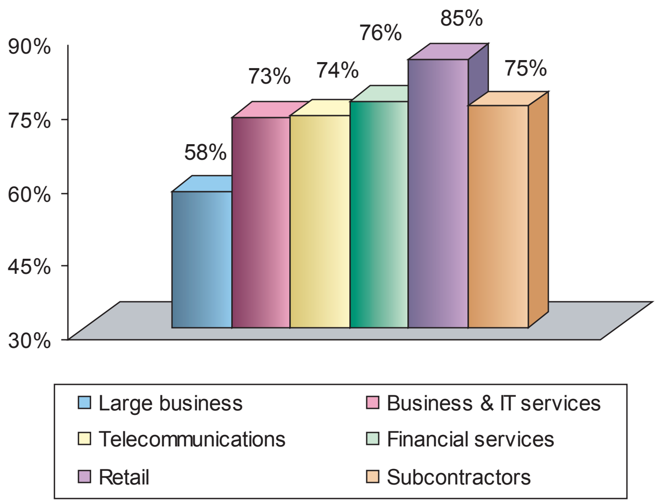
In this study, managers reported that workers spend an average of 75 percent of their day simultaneously on the telephone and on the computer. As shown in Figure 2.21, this indicator of work intensity is lower in centers serving large businesses or providing IT services (66 percent) and considerably higher in financial services, retail, and outsourced centers (hovering at 80 percent).

Figure 2.21: Percent of Work Time on the Telephone and On-line



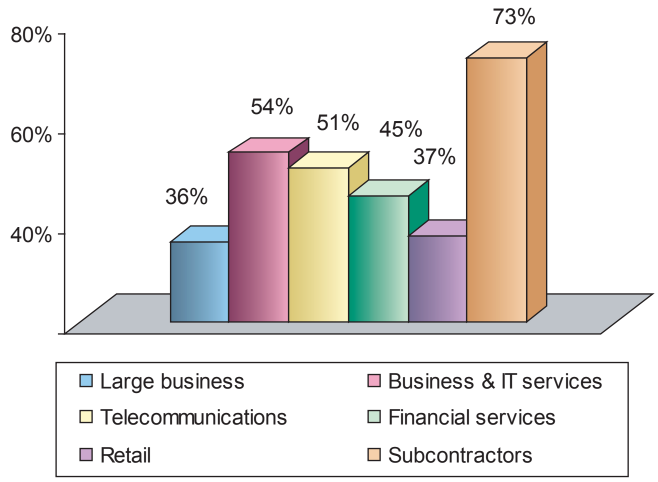
Advances in software systems also make more information available to employees while they are on the phone with customers, allowing them to complete more transactions. These efficiencies often improve customer service, but they also intensify the work of employees because as soon as one call is finished another one enters the workers' earphone. Managers in this study reported that 72 percent of calls, on average, are completed while the customer is on-line. These completion rates are substantially higher in retail centers (85 percent) and substantially lower in centers serving business clients (58 percent) (see Figure 2.22).

Figure 2.22: Percent of Calls Completed While On-line



Finally, electronic monitoring of employees at work is a common feature of call center operations. Used for quality control, it often elicits strong negative reactions from employees because they feel they are not trusted by management. They feel they are continually exposed at work and lack any privacy normally found in work settings. A substantial body of research has shown that continuous electronic monitoring increases job-related stress (Carayon 1993). Use of electronic monitoring varies widely across centers serving distinct customer segments and industries – from a high of 73 percent of the workday in outsourced centers to a low of 36 percent in centers serving large business customers (Figure 2.23).

Figure 2.23: Percent of Time Electronically Monitored



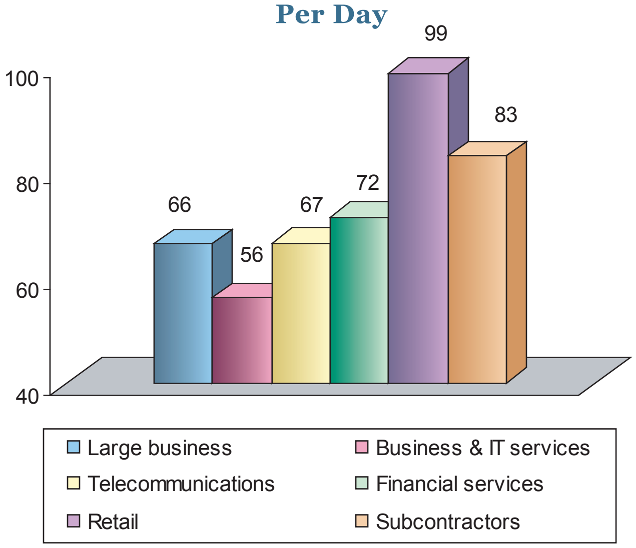
The Organization of Work: Discretion, Participation, Teamwork

The organization of work in call centers typically focuses on the individual employee as the unit of analysis. Efficiency is measured by individual call handling time or the number of customers served per employee per day. The common use of these metrics is designed to maximize individual efficiency, and by doing so, revenues per call.

The call centers in this study reported serving an average of 75 customers per employee per day. The average call handling time was 6.1

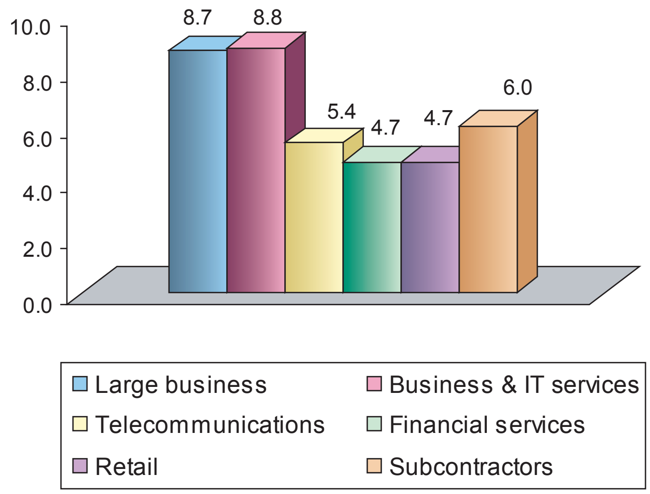
minutes. However, as noted throughout this report, these metrics were quite different across centers serving distinct customers and industries. The number of customers per employee per day ranged from 56 in IT service centers and 66 in business centers to 83 in outsourced centers and 99 in retail centers (see Figure 2.24)

Figure 2.24: Customers Per Employee Per Day



The average call handling time for customers showed a similar pattern. It averaged almost 9 minutes in call centers serving large business or providing IT services. It averaged 4.7 minutes in retail and financial services centers (Figure 2.25).

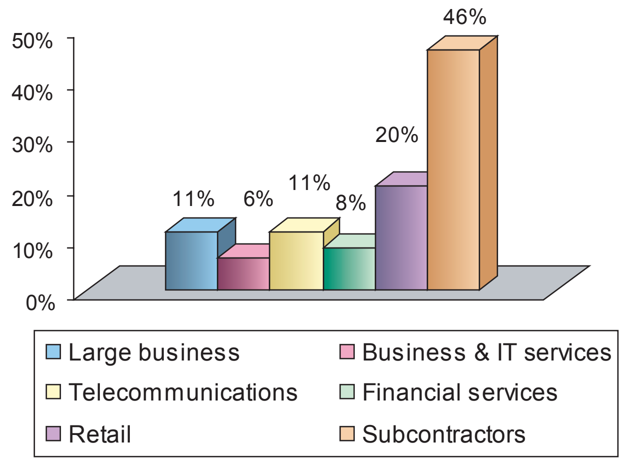
Figure 2.25: Average Call Handling Time Per Customer



With new technologies such as electronic customer relationship management and web-enablement, employees have greater need for discretion – to utilize the information in databases and to react quickly to customer preferences. However, our survey suggests that most call centers continue to place substantial limits on employees' ability to use their discretion or solve problems on-the-job.

One indicator of discretion at work is the extent to which employees are required to use scripted texts. Software systems may be designed so that a scripted text appears on the computer screen when the employee is talking to a customer. Some companies rely heavily on scripted texts while others allow employees to use their own words to answer customer inquiries. The decision to use predetermined scripts in call center operations is based on a number of considerations, including how easy it is to standardize a certain kind of call and the ability to rely on other forms of performance management. In our study, only 15 percent of call centers made substantial use of scripted texts. However, there were substantial differences across centers, with 20 percent of retail centers relying on them and 46 percent of outsourced centers relying heavily on these scripts (Figure 2.26).

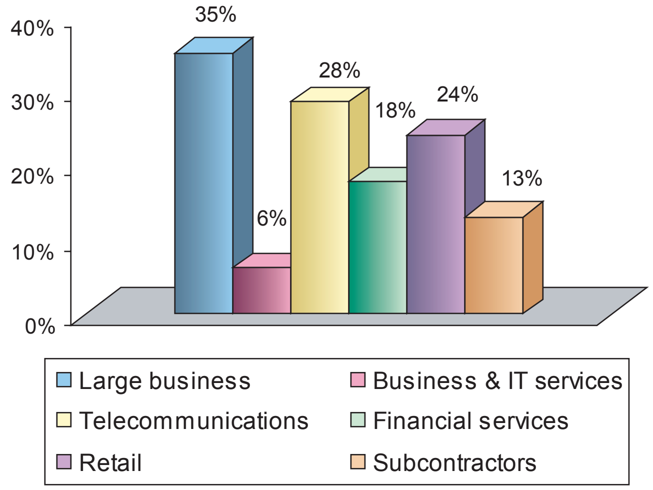
Figure 2.26: Use of Scripted Texts



Relatively low use of scripts, however, does not necessarily translate into high levels of discretion for employees. We asked managers a series of questions about how much discretion employees have over particular aspects of their work, including their daily tasks, work methods, and interactions with customers. We asked them to rate the discretion of their employees on a scale of 1 to 5, where 1 is very low and 5 is complete. We then took the average of managers who responded 4 or 5 on the scale. We found that call center workers generally had very low levels of discretion at work. For example, on average, only 25 percent of managers said that their employees had discretion over the daily tasks they do; only 18 percent said they had discretion over the tools they use; only 23 percent had discretion over when they can take their lunch breaks; and only 29 percent said they had discretion over the pace of their work. These metrics are suggestive of the overall high levels of standardization in call centers – even in those serving large businesses and high end clients.

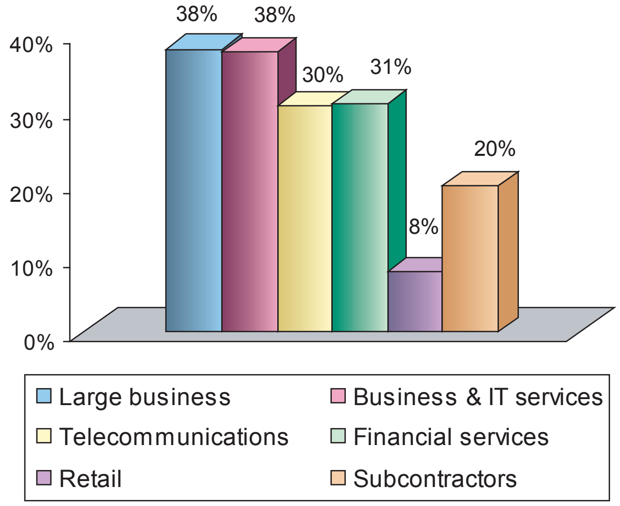
As evident in Figure 2.27, call centers serving business clients create jobs with the highest level of discretion, but even here, only 35 percent of managers said that their employees had discretion over daily tasks. By contrast, only 13 percent of outsourced centers and 6 percent of those providing IT services reported jobs with relative discretion over daily tasks.

Figure 2.27: Percent of Employees With Discretion Over Daily Tasks



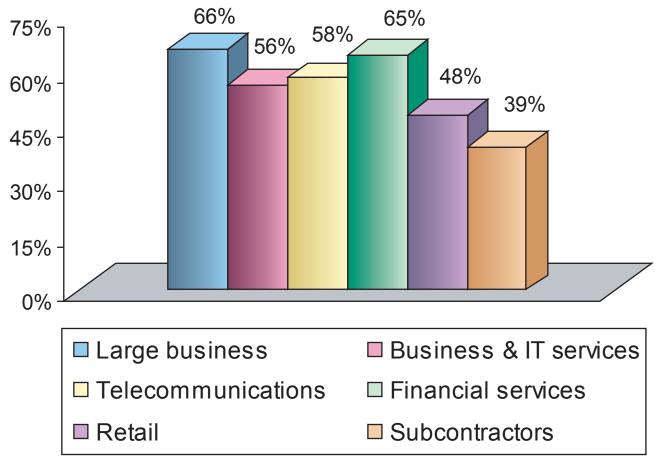
We found a similar pattern in considering the amount of discretion that employees have over their pace of work. Thirty-eight percent of centers serving business customers or providing IT services said employees had some or a lot of control over their pace of work. The comparable figure for outsourced centers was 20 percent, and for retail centers, 8 percent (Figure 2.28).

Figure 2.28: Percent of Employees With Discretion Over Pace of Work



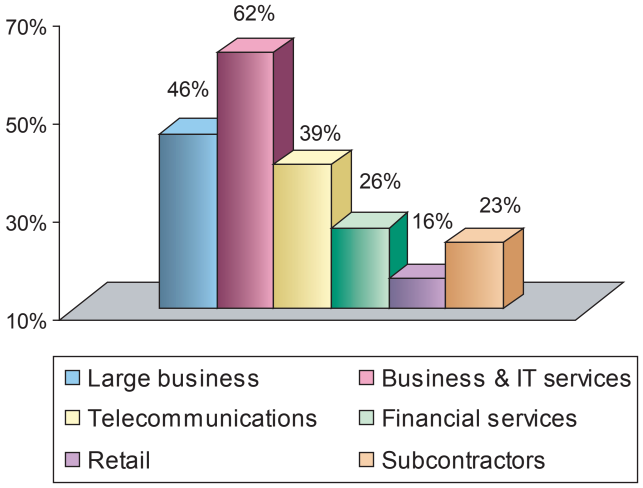
Considerably higher percentages of managers report that they provide employees with discretion to handle unexpected requests from customers – on average 58 percent. This pattern is similar for in-house centers providing services to large businesses, and in IT, telecommunications, and financial services industries. By contrast, only 39 percent of subcontractors reported providing discretion to employees to handle unexpected customer requests (Figure 2.29).

Figure 2.29: Percent of Employees with Discretion to Handle Unexpected Requests



Employee participation in management decisions and problem-solving groups has long been viewed as important to improving employee morale and performance. Offline problem-solving teams – such as quality improvement teams that meet on a regular basis to solve problems – have become widespread in American industry. Consistent with this widespread pattern, over 90 percent of the managers in our survey said that they made some use of problem-solving groups. However, the extent of employee participation in these groups was relatively low, with less than 40 percent of employees actually participating. The penetration rate of problem-solving teams – that is, the actual percentage of the workforce that participates in these meetings – varies across worksites from 1% to 100%. As shown in Figure 2.30, the largest proportion of employees participating in these teams is in IT services (62 percent), followed by large business, at 46%. The centers least likely to use problem-solving groups are subcontractors (23 percent) or centers in the retail sector (16 percent).

Figure 2.30: Percent of Employees in Problem Solving Groups

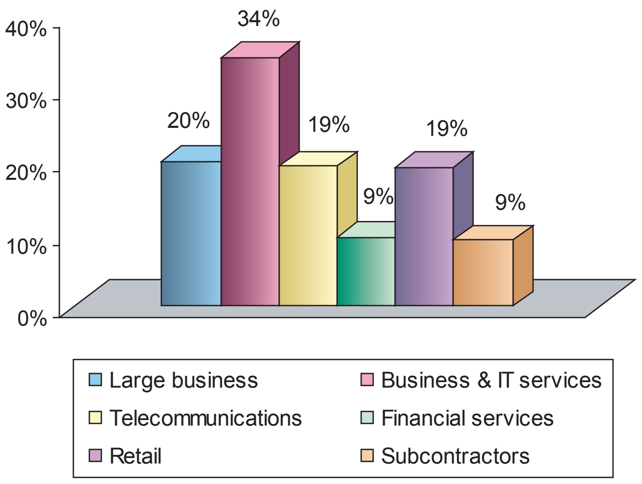


These meetings provide employees with the opportunity to solve specific problems as well as to discuss and learn about the on-going changes in products, technologies, procedures, regulations, and customers they serve. They also provide employees with some relief from the tedium of continuous phone work. Recent research has shown that the use of teams in call centers is associated with lower quit rates and higher sales growth (Batt 2003). Analysis of our data similarly indicates that these investments help to reduce turnover, directly affecting the bottom line. In workplaces where more than 30% of workers are involved in problem solving teams, the average quit rate is 11% compared to 16% in workplaces without these teams.

The adoption of self-directed work teams in call centers is even less than the use of offline problem-solving groups. Self-directed work groups assume responsibility of solving problems as they arise in the course of their daily work. Substantial research has shown that they allow employees to share knowledge, learn from one another, and achieve higher levels of performance. For example, in a study of matched pairs of self-directed and traditionally-supervised groups of workers in call centers, one study found that the self-directed groups had 9 percent higher monthly sales than the traditionally supervised groups. The self-directed teams also learned how to use new technology faster, resulting in an additional 17 percent higher sales (Batt 1999).

Nonetheless, only a minority (30%) of the managers in this survey reported making any use of self-directed work teams. The penetration rate for employee participation in these teams was even lower, at 17 percent. As shown in Figure 2.31, centers providing IT services were the most likely to use self-directed work groups (34 percent) while subcontractors and centers in financial services were least likely (9 percent).

Figure 2.31: Percent of Employees in Self-directed Teams



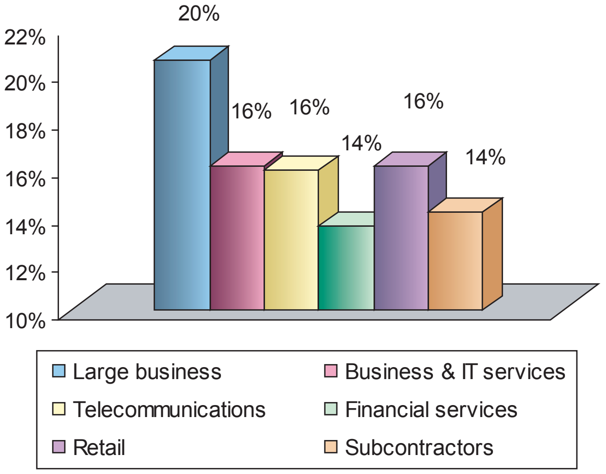
Our analysis of the current survey data shows that in call centers in which at least 30 percent of the workforce is in self-directed work teams, the quit rate is 11 percent. In centers in which less than 30 percent of the workforce is in self-directed teams, the quit rates is 15 percent, or 38 percent higher.

Pay Levels and Total Compensation

The differences in patterns of skill and work organization across centers serving different industries and customer segments are also reflected in compensation strategies and pay differentials.

Consistent with the patterns we have discussed above, we found that there was greater use of performance-based pay in centers serving large business clients than in those serving small business or mass market customers, regardless of industry. While twenty percent of pay is performance-based in large business centers, the comparable figure is about 15 percent in all other centers (Figure 2.32)

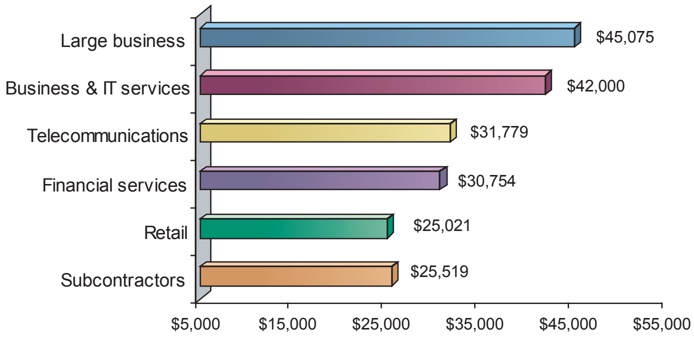
Figure 2.32: Percent of Pay that is Performance-based



To measure pay levels, we asked managers to report the annual pay of the 'typical' or median employee in the call center – meaning that about half were paid more and about half were paid less. Annual pay was defined to include base pay plus all pay for performance, such as individual commissions, group bonuses, and profit sharing, but excluded any overtime pay.

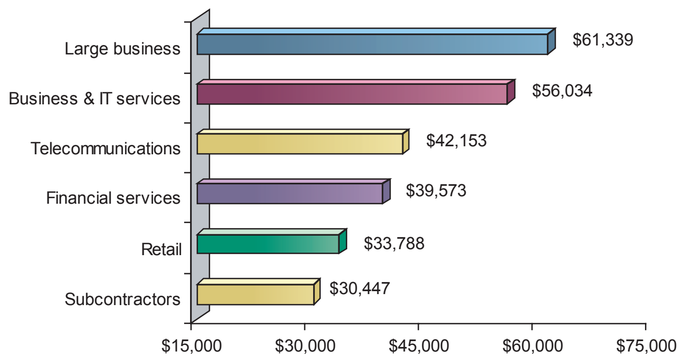
On average, managers reported that the typical service rep earned $33, 400 in 2003. Pay levels varied considerably, however, by customer and industry segment, and in-house versus outsourced center. As shown in Figure 2.33, employees serving large business customers averaged $45, 075, while those providing IT services averaged $42,000. By contrast, those in outsourced or retail call centers earned only $25,000, or 80 percent less. In-house centers in telecommunications and financial services paid an average of $31,000 or 15 percent more than outsourced or retail centers (Figure 2.33).

Figure 2.33: Average Annual Pay of the Typical Call Center Employee



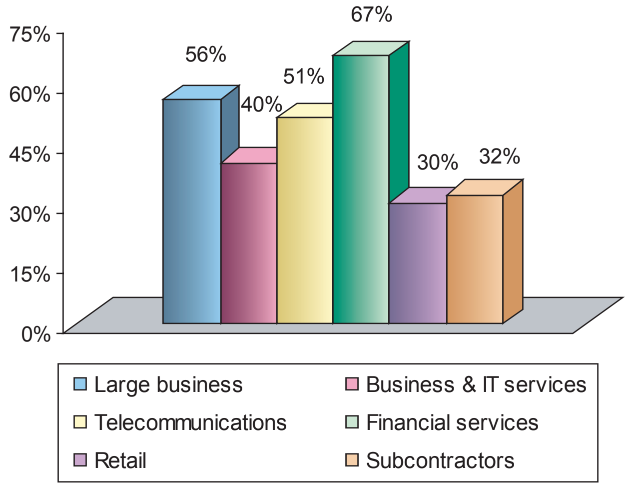
We also calculated the total compensation for the typical worker by adding median pay, overtime pay, and the cost of benefits. Total compensation averaged $44,529 in 2003. The differences in total compensation are higher than those found in Figure 2.33 for average pay. At the low end, the typical employee in outsourced centers received total compensation of $30,447, while the typical employee serving large business received twice that amount -- a total of $61,399 (Figure 2.34).

Figure 2.34: Total Annual Compensation of the Typical Call Center Employee



In addition to these differences in total compensation, there are also differences among call centers in the probability of offering pensions to their employees. Only 30 percent of retail centers and 32 percent of outsourced centers offer any pension coverage to their employees. By contrast, over 50 percent of centers in telecommunications, financial services, and large business services offer pensions to their workers.

Figure 2.35: Percent of Centers that Offer Pensions to Employees



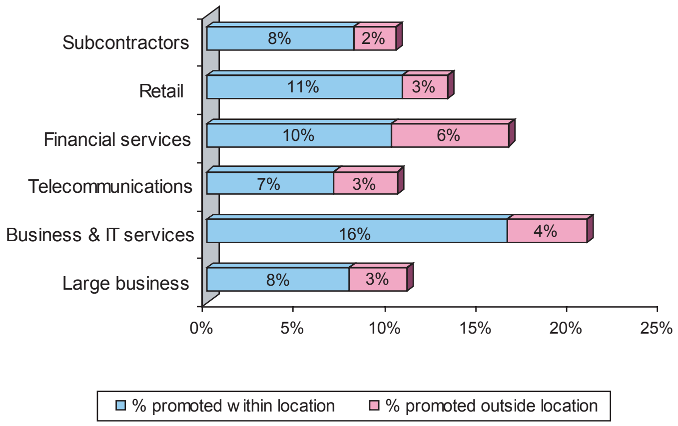
Turnover and Absenteeism

Turnover is a major problem for call center managers. Industry analysts estimate that turnover averages between 30 and 50 percent per year in the typical call center, although it can be higher. This level of turnover imposes high costs of recruitment, screening, and training on call centers; and managers find themselves in a perpetual search for additional workers. In this study, managers estimated that the costs to recruit, screen, and train each new employee averaged $4,300. It ranged from $3,000 in outsourced and retail call centers to $6,000 in IT and large business centers. These costs do not take into account the lost productivity of new employees.

One way to improve employment stability and benefit from the skills of experienced employees is to offer promotional opportunities to employees. Because call centers are flat organizations with few levels of management, opportunities for better jobs are often limited. However, some call centers have found creative ways of keeping experienced employees and using their skills more effectively. One approach is to have them handle more complex calls or complaints from irate customers. Another is to designate them as coaches or on-the-job trainers, pairing them with new employees. A third is to use skill-based routing systems to create tiers of jobs, with increasing levels of complexity. A fourth is to offer them opportunities for promotions outside of the center but inside the larger organization – in exchange for serving a minimum period of time as a frontline customer service rep.

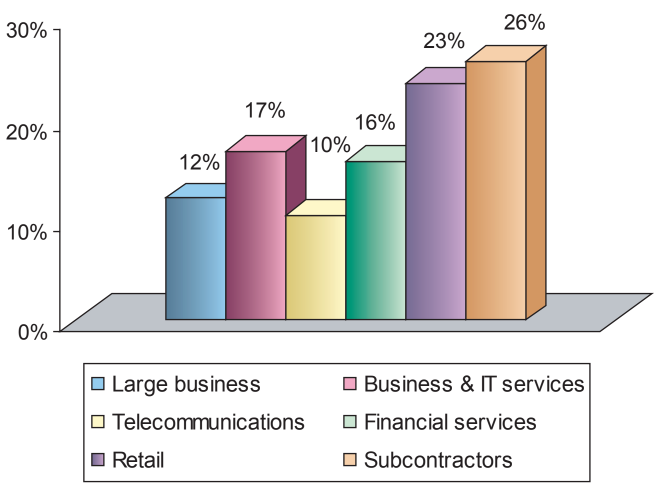
Managers in our survey report that they promote about 8 percent of their employees to higher positions in the organization and 3.6 percent of employees to higher positions in other parts of the company. Business and IT services centers have the highest rates of internal promotion (20 percent), and this probably reflects the fact that there are more levels of complexity in technical services that can be translated into job ladders. In-house financial services centers also promote higher percentages of employees (16 percent) compared to the average in this study (see Figure 2.36).

Figure 2.36: Percent of Call Center Employees Promoted to Higher Positions



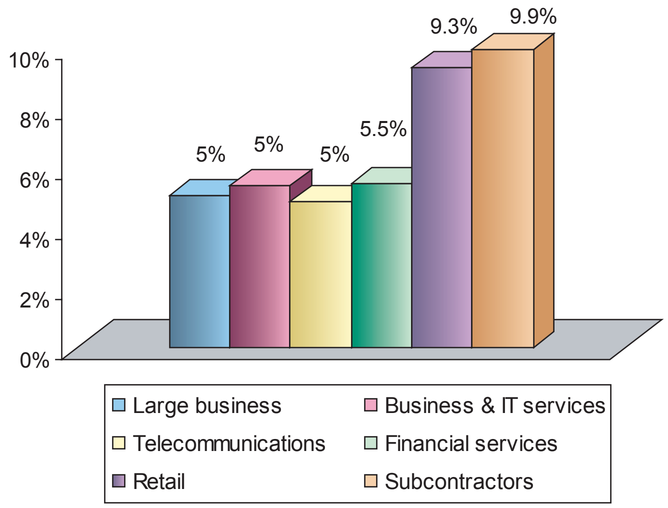
When workers become bored or dissatisfied with their jobs, they often choose to quit, particularly when they don't see prospects for better opportunities in their current organizations. The average annual quit rate reported by managers in this survey was 15 percent annually. Similar to the other patterns we have found in this study, outsourced centers experienced the highest quit rates (26 percent), followed by retail call centers (23 percent) (see Figure 2.37). At the low end, 12 percent of workers large business centers quit, while only 10 percent in the telecommunications industry quit. The latter figure is influenced by the relatively high rates of unionization in the telecommunication industry, as union workers are significantly less likely to quit than non-union workers (see Section 3 for more detail).

Figure 2.37: Employee Quit Rates



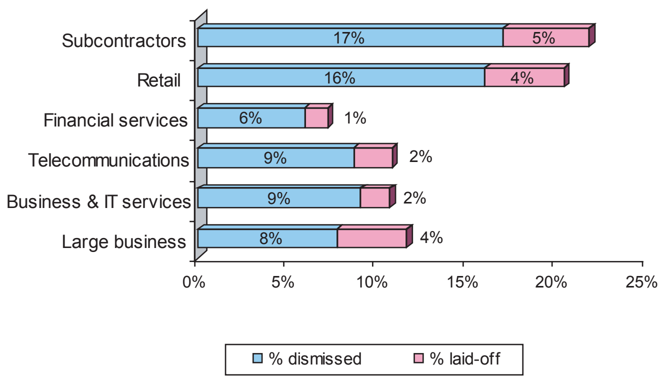
Another indicator of worker dissatisfaction is absenteeism rates. In this survey, we asked managers to report the percent of the workforce absent on a 'typical work day'. Again, we found that the rates for retail and outsourced call centers were twice as high as those for in-house centers serving the other segments and industries in the study. Retail and outsourced centers reported a daily absence rate of over 9 percent, while centers in the other sectors averaged 5 percent or less.

Figure 2.38: Percent of Employees Absent on a Typical Day



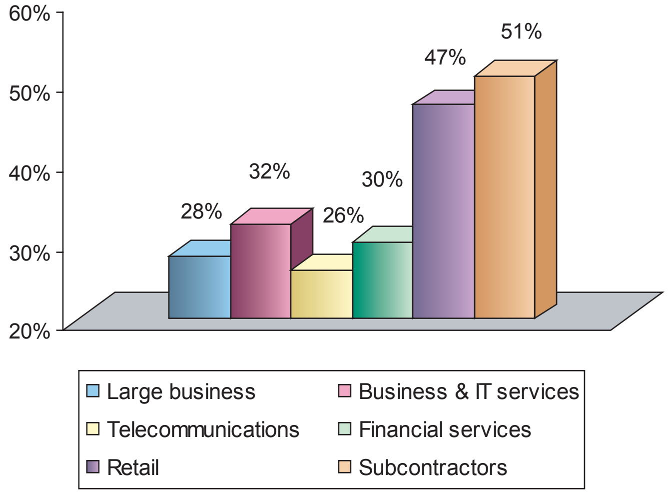
Outsourced and retail call centers also had almost two times as many dismissals and layoffs as did in-house centers serving other markets or industries. As shown in Figure 2.38, subcontractors dismissed or laid-off 23 percent of their workers in 2003, and retail centers dismissed or laid-off 20 percent. The average for all call centers in the study was 11.6 percent.

Figure 2.39: Percent of Employees Dismissed or Laid-off



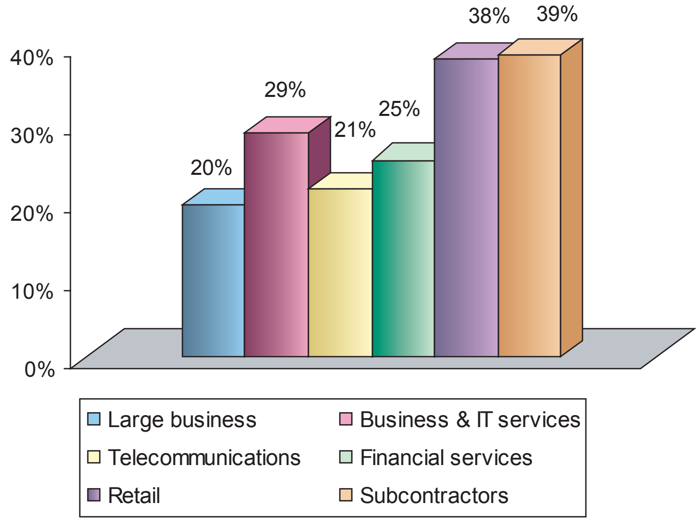
Total turnover, as measured in this study, includes employees that quit, left for better jobs in other parts of the company, were dismissed, laid-off, or retired. This captures the level of 'churn' that the call center must deal with – the percentage of the workforce that must be replaced for whatever reason. Total turnover in this study averaged 31 percent, with a low of 26 percent in the telecommunications industry and highs of 47 percent in retail centers and 51 percent among outsourced centers (see Figure 2.39). Said differently, retail and outsourced centers must replace about 50 percent of their workforce every year.

Figure 2.40: Total Annual Turnover



Turnover and quit rates translate directly into tenure rates. Those centers with high rates of churn have low rates of tenure. In this survey, almost 40 percent of the workers in retail and outsourced call centers had less than 1 year of experience on the job. By contrast, centers in telecommunications and those serving large business had half that rate, or about 20 percent of employees with less than 1 year of tenure (Figure 2.41).

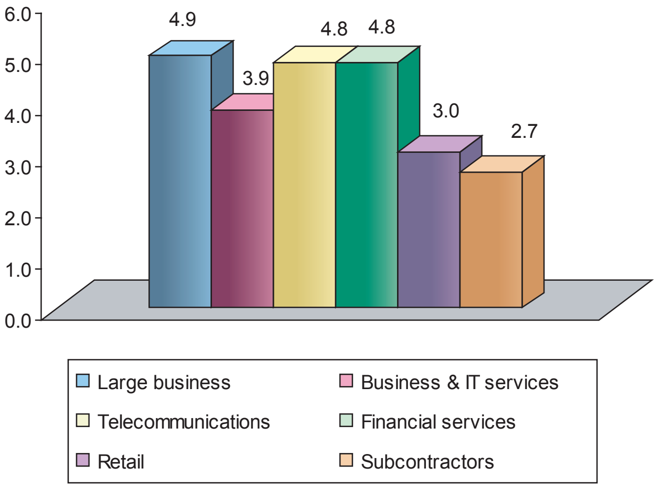
Figure 2.41: Percent of Employees with less than 1 Year of Tenure



How Management Practices Affect Turnover and Absenteeism

The high rates of turnover and absenteeism in the call center industry not only increase the costs of recruitment, screening, and training, but also reduce productivity. Managers in this study estimated that it took between three and six months for call center workers to become proficient in their jobs. As shown in Figure 2.42, it takes about 3 months for call center workers in retail and outsourced centers to become proficient in their jobs. In centers with more complex services, managers estimate that it takes almost five months to become proficient. Thus, with turnover rates of 30 to 50 percent, call centers find that they lose employees almost as quickly as they become proficient in their work.

Figure 2.42: Months to Become Proficient at Call Center Work



There are a number of ways that management can improve the quality of jobs and reduce turnover and absenteeism in call centers.

One way is to create jobs with greater discretion and less scripting so that employees can engage with customers and respond more directly to their requests. Another way is to make creative use of problem-solving groups or self-directed work groups. In our analysis of this national survey data, we found that call centers with at least 30 percent of the workforce in problem-solving groups had about 50% lower quit rates than those with less than 30 percent of workers in these teams (quit rates of 16.3% vs. 11.1%). Centers with at least 30 percent of employees in self-directed work groups have 38% lower quit rates than those with less than 30 percent of workers in these teams (quit rates of 15.1% vs. 10.9%).

These strategies not only reduce boredom and turnover at work, but also provide opportunities for learning – employees share strategies for improving service quality, handling difficult customers, or achieving higher sales rates.

A more systematic approach to reducing turnover and absenteeism is to adopt a series of coherent work and human resource practices that, taken together, create a high involvement work system that improves the quality of jobs as well as the quality of service.

To estimate how much centers invested in the skills and abilities of the workforce, we measured call center investment in the following areas:

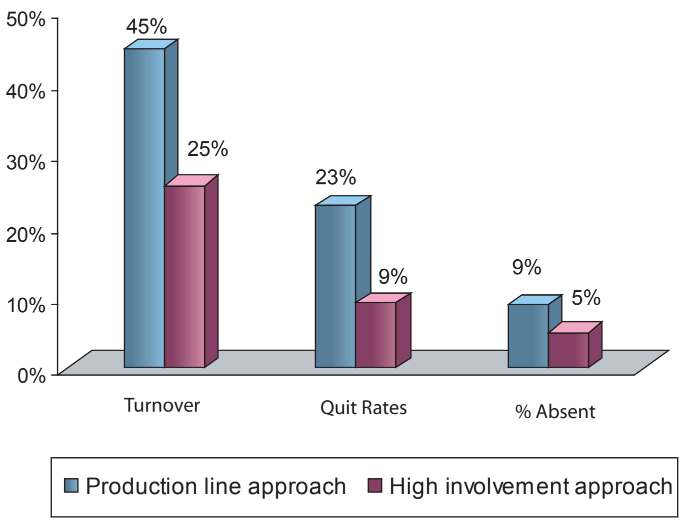
- Skills and training: the education level of the workforce and weeks of initial training provided by the call center.
- Work design: the amount of discretion provided to employees and the percent of the workforce in problem-solving groups and in self-directed work teams.
- Incentives: the pay level and the percent of employees in full-time permanent jobs.

We created an additive index of 0-to-100, where '0' represents a very low investment in the human resource system – a production line approach to service – and '100' represents high investment – or a high involvement approach. We then divided call centers into 4 groups: those scoring 0-to-25, 25-to-50, 50-to-75, and 75-to-100.

We found that those centers with high involvement systems have significantly lower turnover, employee quit rates, and absenteeism than centers that take a more standardized, production line approach.

For example, we compared centers with HR index scores in the lowest quartile (those taking a production line approach) with those in the highest quartile (those taking a high involvement approach). Total annual turnover averaged 45 percent in the production line centers versus 25 percent in the high involvement centers. Employee quit rates averaged 23 percent in the production-line centers versus 9 percent in the high involvement centers. The comparable figures for daily absenteeism were 9 percent and 5 percent respectively.

Figure 2.43: Turnover, Quit Rates, and Absenteeism, by Type of HR System



Moreover, the positive effects of the high involvement approach were more significant in the mass market centers than in those serving business or high valued customers. Presumably this is because the use of high involvement practices in the mass market is valuable, but rare, and therefore provides a unique competitive advantage.

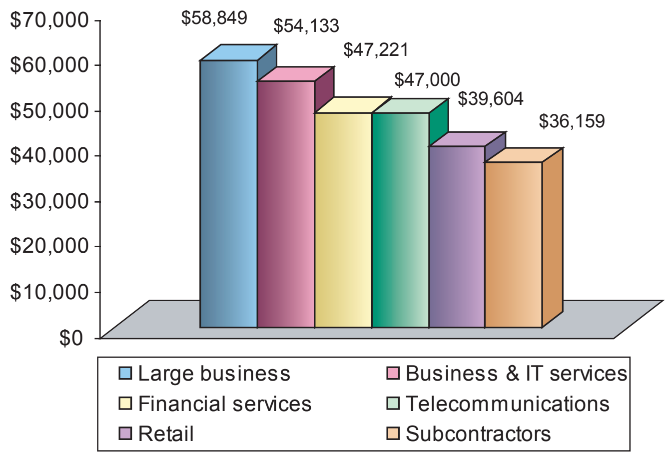
One important question is whether the benefits of investing in high involvement systems outweigh the costs. A number of empirical studies of call centers have shown that they do. One study examined the performance effects of organizing work in self-directed groups in call centers. It found that sales productivity was 25 percent higher in the self-directed groups compared to traditionally-supervised groups (Batt 1999). A more recent study examined 64 call centers serving the mass market in one company. Those centers with higher investments in training, more discretion at work, and greater use of sales incentives had significantly higher service quality, and in turn, substantially higher net revenues (Batt and Moynihan 2004). Both of these studies controlled for all labor and operational costs, so that the findings of positive effects of the human resource system were net of costs.

Overall, these findings suggest that the production line approach to customer service doesn't fit the complexities of today's markets – with constantly changing products, features, pricing, and service options. Firms that compete on the basis of mass customization or service bundling appear to need a skilled and trained workforce with the discretion and motivation to provide quality service.

Managers and Supervisors

The performance of call centers depends importantly on the skills, abilities, and motivation not only of the frontline workforce, but also of supervisors and managers. The typical supervisor in this study averaged $48,462 in annual pay in 2003. This pay level includes base pay plus performance-based pay. Supervisors in centers serving large businesses earned $58,849 and those in IT services centers earned $54,133. Those in retail centers earned $39,604 and those in outsourced centers, $36,159 (See Figure 2.44).

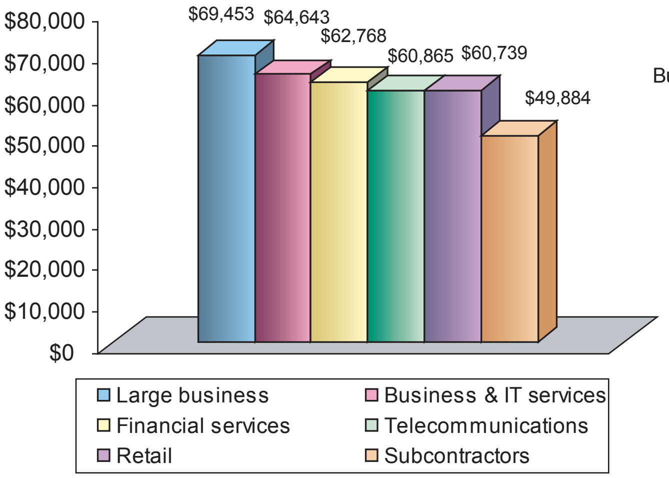
Fig 2.44: Average Annual Pay of Supervisors



The managers of call centers in this study – those in positions above firstline supervisors -- have relatively high levels of formal education and experience in the industry. Over two-thirds of the managers in this study reported having a post-graduate college degree. Almost one-third of the managers have more than ten years of tenure with the same company, while another 62 percent have between one and ten years of service. Only six of managers have less than one year of tenure.

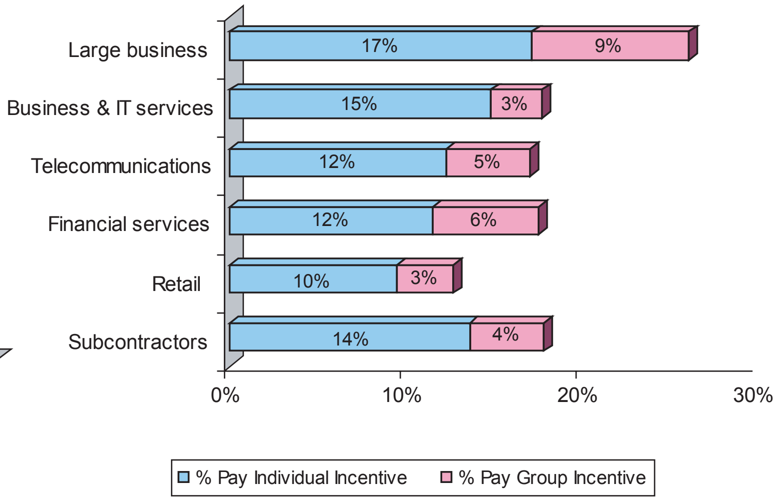
Turning to managerial pay, we found that call center managers earned an average of $61,763 in 2003. The pay ranged from a high of $69,453 in centers serving large business customers and $64,643 in those providing IT services, to a low of $49,884 in outsourced centers. Managers in telecommunications and financial services centers averaged $47,000 (See Figure 2.45).

Fig 2.45: Average Annual Pay of Managers



As part of their annual pay, managers received on average 19 percent of their pay as performance based pay. This included an average of 13.2 percent of pay based on individual incentives and 5.7% of pay based on group incentives, such as group bonuses or profit-sharing (See Figure 2.46).

Fig 2.46: Percent of Managerial Pay That is Performance-Based



3.0 The Institutional Environment: Public Support, Employer Networks, and Union Effects

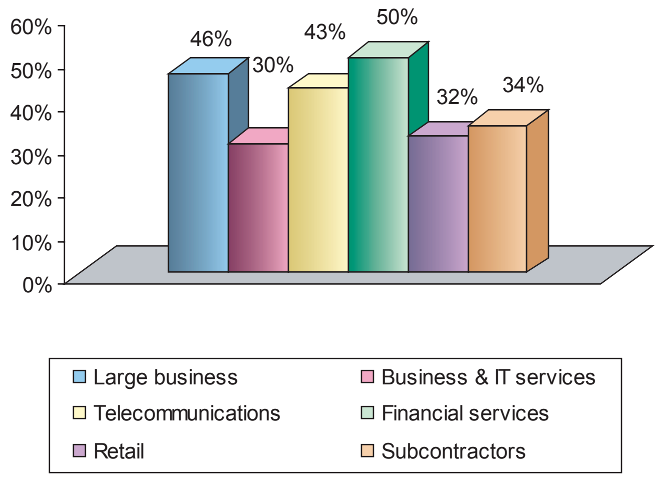
Public Sector Support for Call Centers

Advances in call center technology and dramatic declines in transmission costs have allowed call centers to have considerable latitude in where they choose to locate their operations. As location options become more varied, decisions concerning where to establish new operations have grown more complex. Surprisingly, however, call centers continue to cluster in certain regions, apparently because they can meet their infrastructure and labor force needs at a reasonable cost. A study by Deloitte and Touche (2001) found that while firms are increasingly opting for smaller non-metropolitan cities or suburban areas, major metropolitan areas still account for most new call center investments.

The majority of centers in our study are located in large or medium-sized cities, with a median population of 684,900. Forty percent are in cities with a population of greater than one million, and only 2 percent are in cities with fewer than 50,000 residents.

Call centers make an important contribution to the economies of the cities or towns where they are located. Local and state governments often offer incentives to firms seeking to locate call center operations. These include site location assistance, tax incentives, loans, and incentives for locating in targeted zones. Forty-two percent of establishments in our study have received at least one of these incentives, and 18 percent have received two or more. Large business and financial services centers are more likely to receive assistance than those in retail, IT and business services, or outsourced centers (see Figure 3.1). However, the averages are similar, indicating that these forms of support are broadly available and typically not targeted to one industry segment.

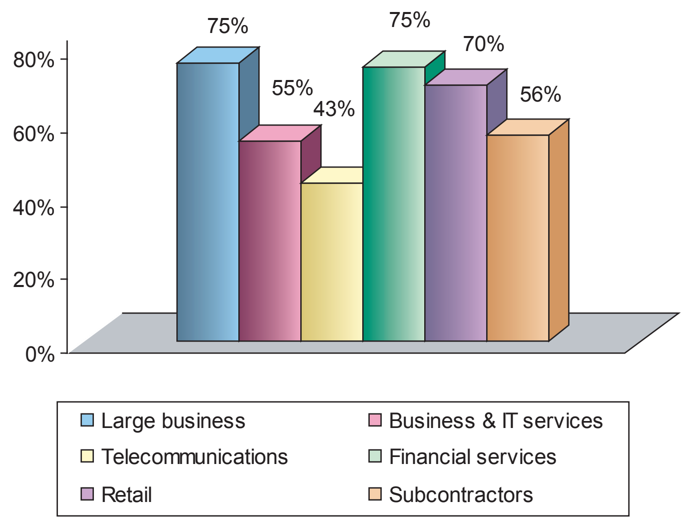
Figure 3.1: Percent of Centers Using Local Government Incentives & Subsidies



Call centers often find support for their staffing and training needs from public and non-profit organizations in the regions where they are located. Economic development organizations coordinate placement and recruitment services. Local training providers and community colleges are also sources of new recruits, screening and training residents for call center jobs. Call center managers often help to establish these programs and continue to serve on advisory boards, assisting with curriculum development and job fairs. Temporary agencies, local non-profit training organizations, welfare to work programs, and other smaller community-based workforce development organizations partner with individual call centers to train and screen potential recruits. Training grants are also provided directly to employers, and can be used to support additional in-house instruction.

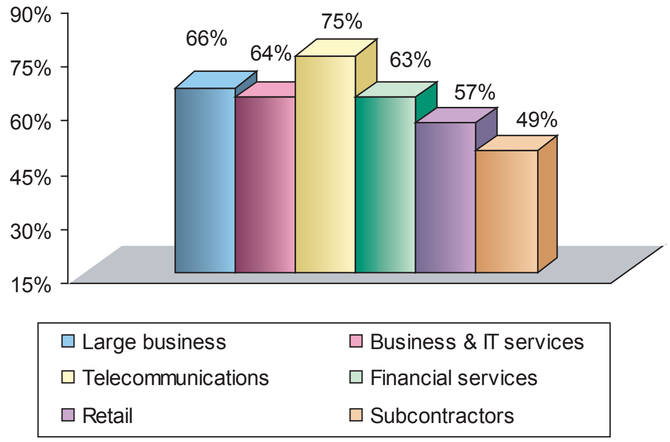
While these resources are available in most communities, there is variation in the extent of their use. On average, 68 percent of managers in our survey reported that they use public job recruitment and placement services. Call centers in the financial services industry and those serving large business customers are most likely to receive recruitment and placement assistance, while telecommunications centers are least likely to use these services (see Figure 3.2).

Figure 3.2: Use of Public Job Recruitment and Placement Services



Similarly, 63 percent of managers report that they use public training resources or programs. However, only 16 percent report that their employees have participated in a public training program, suggesting that training support comes primarily in the form of grants to the call center itself. This allows call centers to supplement their budget or offer special training to help agents move into supervisor positions. Many of these funds are targeted towards skill upgrading and employee development. Call centers in telecommunications are most likely to use public training resources, while subcontractors and retail centers are least likely to use them (see Figure 3.3).

Figure 3.3: Use of Public Training Resources or Programs

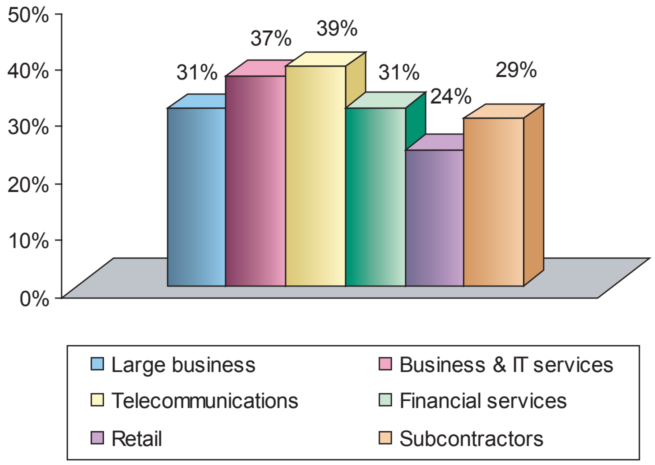


Employer Networks: Recruitment, Selection, and Training

The availability of a qualified workforce is an important consideration in location decisions, particularly in labor-intensive call center operations. Across the industries included in our survey, 45 percent of managers cited the skills of the local workforce as the most important reason for choosing their current site, while 27 percent cited low labor or real estate costs. Turnover and labor scarcity often contribute to these costs. The labor market in popular locations can become "tapped out" or "saturated" as centers compete for a shrinking pool of potential employees.

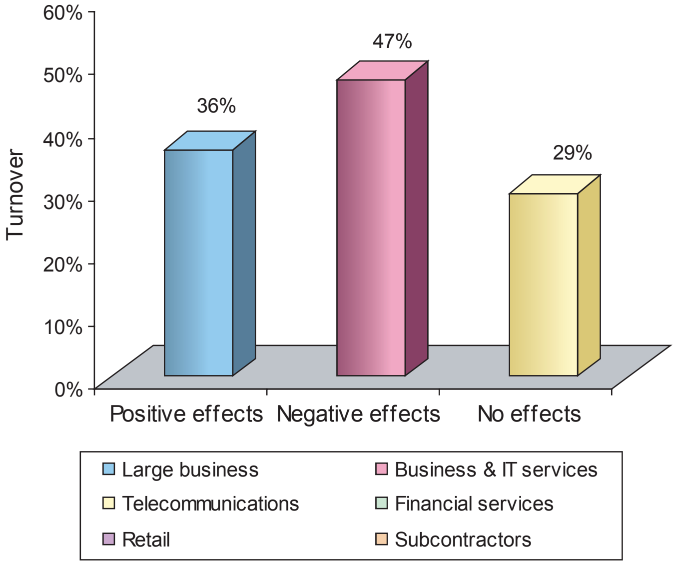
Managers report that on average, 31 percent of their employees have worked in another call center in their region. This percentage is positively correlated with both the population of the metropolitan area and turnover rates, suggesting that centers in larger urban regions draw on a more mobile workforce that moves between different call center jobs (Figure 3.4).

Figure 3.4: Percent of Employees Who Have Worked at Another Call Center



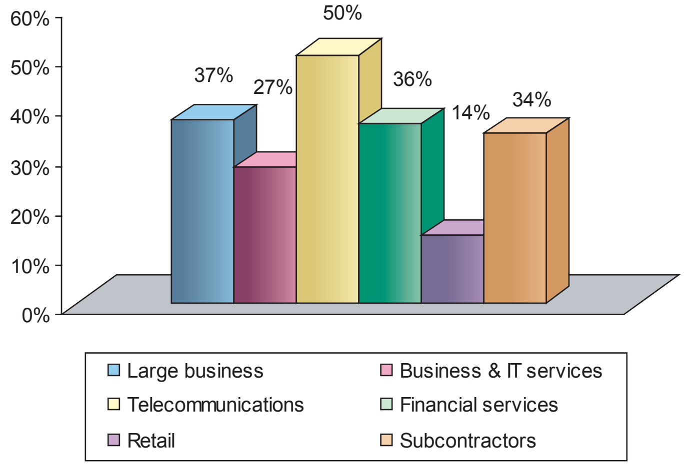
Managers hold differing views on the benefits and costs of locating close to their competitors. Thirty-five percent of respondents report that the presence of other call centers in their region is a valuable resource for recruiting qualified employees, while 18 percent report that it makes it more difficult for them to recruit and retain employees. As shown in Figure 3.5, those with this more negative view have a higher average turnover rate (47 percent) than those reporting a positive recruitment effect (36 percent) and those experiencing no effect (29 percent).

Figure 3.5: Turnover & the Effects of Other Call Centers on Recruitment & Retention



Local call center networking organizations are also active in most cities. These groups range from advisory committees to informal groups that allow managers to exchange best practices and pool training resources. Among managers surveyed, 33 percent participate in a local networking group, 93 percent of whom report that the primary benefit of these groups is the opportunity to exchange business experience and advice with other firms. Participation is positively correlated with the size of the establishment, and 90 percent of those centers that participate are branch locations of larger organizations. Therefore, these local networks are not primarily serving small establishments with few relationships outside of the region. They appear to be important resources for establishments with a broader organizational base, helping local managers to develop strategies that draw on the strengths of a local labor market. Telecommunications has the largest proportion of centers participating in these groups at 50 percent, while only 14 percent of retail centers participate (see Figure 3.6).

Figure 3.6: Percent of Managers Who Participate in a Networking Group

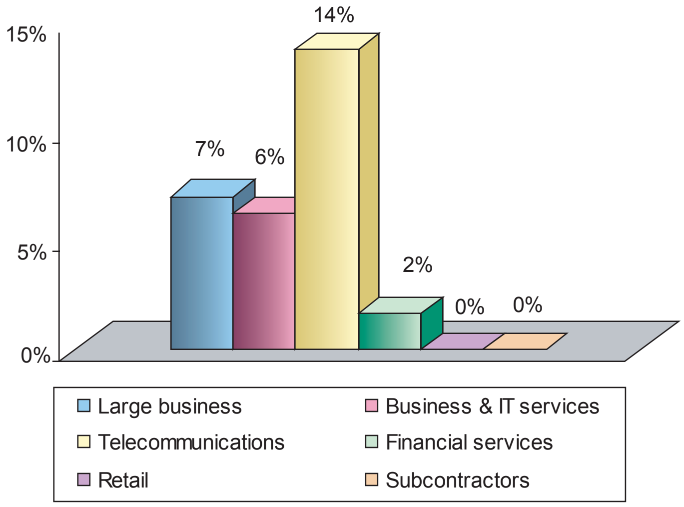


In summary, we find that call centers across industry settings draw on a variety of institutional relationships and resources. Many of these occur within the regions where call centers are concentrated, including participation in networking groups and support from economic development, training, and placement organizations. The broad use of these forms of external support indicate that call center managers are actively engaged in their communities, seeking jointly to develop a skilled local workforce and exchange best practices across establishments. Such joint efforts will be valuable resources as the industry continues to develop in the future.

Union Effects on Call Center Practices and Outcomes

Collective bargaining agreements in US call centers primarily cover workers in the formerly regulated telecommunications industry, where unions retained employee support and institutional influence following divestiture of AT&T. Union density among service and sales workers in telecommunications services has declined substantially over the last few decades, falling from an estimated 63 percent in 1983 to 26 percent in 2001 (Current Population Survey 2002). In this study, 14 percent of establishments and 32 percent of workers in the telecommunications sample are unionized. The percentage of workers who are unionized is higher than the percent of establishments because union call centers are, on average, considerably larger than non-union centers. In the call center sample as a whole, 9 percent of establishments are unionized, and these cover 15 percent of the employees in the study. There is no union representation among subcontractors or retail centers (see Figure 3.7).

Figure 3.7: Percent of Unionized Establishments by Industry

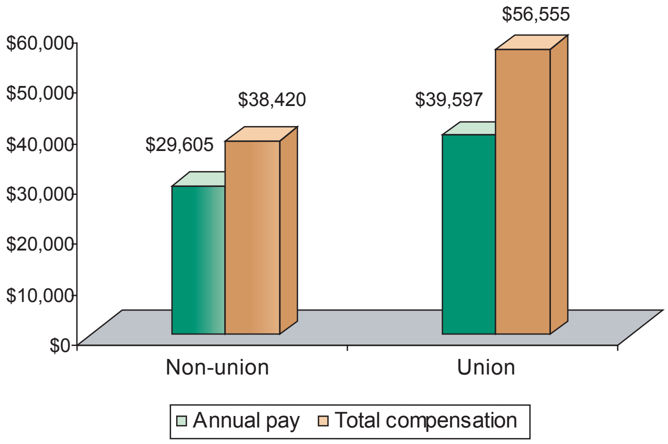


Unions influence a number of management practices in call centers. For this analysis, we compared union and non-union centers serving the same customer markets: small business and mass market centers. We examined the pay levels and benefits, as well as outcomes such as turnover and absenteeism in these worksites. On average, median annual pay in centers with a union contract is 34 percent higher than that in non-union centers ($38,420 versus $29,605). Total compensation is 47 percent higher in union than non-union centers (Figure 3.8).

These simple comparisons, however, fail to take into account the complexity of jobs across industries. If union and non-union centers in the same industry segment are compared, we find that the union wage premium is considerably lower because the level of complexity of the jobs is similar. Thus, for example, in the wireline segment of the telecommunications industry, annual pay is 20 percent higher in union compared to non-union worksites.

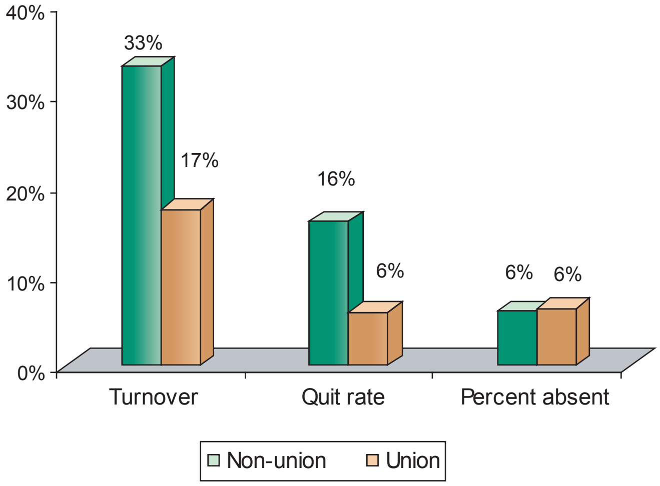
In further analyses, we considered other factors that might affect wage levels, including the local unemployment rate, the industry and work function performed, the customer segment served, the human capital of the workforce, and the use of innovative management practices that may affect employee productivity. Taking these factors into account, we found that the union pay differential is 15 percent over comparable non-union worksites across all industries. The union pay differential is 16 percent in the telecommunications industry only.

Figure 3.8: Annual Pay and Total Compensation in Union and Non-union Establishments



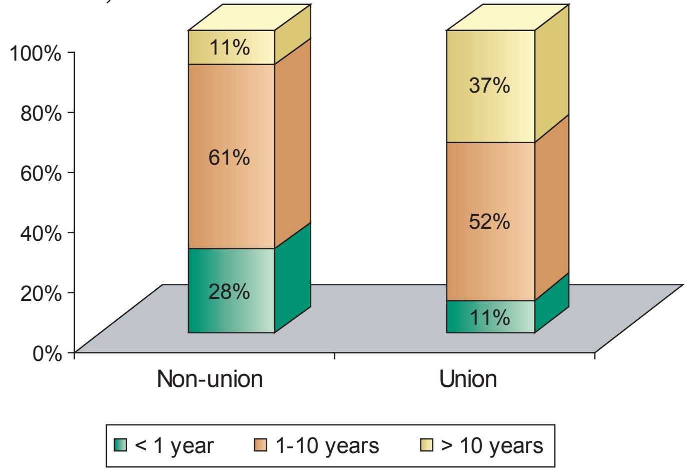
These union-non-union pay differences may be offset by the lower turnover and more experienced workforce found in union call centers, which contribute to substantial savings in selection, recruitment, and training. Overall turnover is twice as high in non-union compared to union worksites; and quit rates are over two-and-a-half times higher in non-union centers. Absenteeism rates are not higher in union sites, contrary to the common perception that union workers are able to be absent more often because they are protected by union contracts (see Figure 3.9).

Figure 3.9: Turnover, Quit Rates, and Absenteeism, by Union Status



These lower turnover rates translate into a more stable workforce in union workplaces. The percent of the workforce with less than 1 year of experience is two-and-a-half time higher in non-union call centers compared to union centers -- 28 percent versus 11 percent.

Figure 3.10: Employee Tenure by Union Status



In sum, union call centers differ from non-union centers along a number of expected dimensions, including their level of pay and benefits, quit rates, total turnover, and tenure of the workforce.

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Appendices

Appendix A:
Dimensions of Work: In-house Centers & Sub-contractors Compared

Dimensions of Work	Inhouse		Sub-contractors	
	Mass Market & Sm. Business	Large Business	Mass Market & Sm. Business	Large Business
Customer-Employee Interaction				
Customers per employee per day	75.2	64.0	83.0	75.9
Avg. length of call per customer	5.4	9.7	6.0	5.0
% completed transactions on-line	75.4	55.0	75.3	71.7
% dedicated service reps	22.4	53.1	19.6	61.1
Technology Use				
% calls completed by VRU	11.1	7.2	10.8	12.4
% time electronically monitored	48.3	32.8	72.8	49.6
% time on computer & phone	77.0	64.1	79.9	79.0
# of computer systems learned by employee	3.6	4.4	2.7	2.7
% call centers using fax	90.4	95.1	82.6	100.0
% call centers using e-mail	85.6	92.7	65.2	88.9
% call centers using web-enablement	52.4	69.5	60.9	44.4
% call centers using computer-telephony integration	46.8	48.1	69.6	61.1
% call centers using Elect. Cust. Rel. Mgmt.	34.7	40.5	44.4	37.5
% call center using interactive voice recognition	37.4	32.9	39.1	44.4
% call centers using voice over IP	20.3	23.2	19.6	18.8
Customer Characteristics				
Customer base	1,374,139	437,608	1,360,811	181,351
# of customers per employee	9,989	7,829	10,603	770
% whose market is national	36.9	52.0	75.9	69.4
% whose market is international	3.5	8.8	2.1	6.7

Dimensions of Work	Inhouse		Sub-contractors	
	Mass Market & Sm. Business	Large Business	Mass Market & Sm. Business	Large Business
Selection and Staffing				
% that use systematic selection	40.5	34.2	52.6	52.2
% of applicants who are hired	26.2	23.4	44.5	33.8
% of workforce: female	68.0	54.1	67.5	75.8
% of centers with 'exempt staffing'	17.7	50.0	17.8	5.6
% of workforce: 4 yr. degree	17.9	42.0	11.1	5.6
% of workforce: some college	42.9	33.3	24.4	61.1
% of workforce: high school diploma	39.1	24.7	64.4	33.3
% of workforce: part-time	17.2	10.3	39.9	26.9
% of workforce: temporary	6.6	8.4	15.8	15.7
% of workforce: permanent & fulltime	76.4	81.8	45.0	58.4
Training				
Weeks of initial training	4.4	4.8	2.4	3.4
Weeks to become qualified	20.2	23.0	11.5	12.7
Weeks of on-going training/year	2.0	1.8	2.2	3.3
Work Design				
% with flex working arrangements	30.9	42.2	38.5	21.8
% with flex job descriptions	14.9	10.0	10.7	18.4
Discretion Over Work Methods (%)				
Daily tasks & assignments*	24.6	36.6	13.0	27.8
Tools & procedures*	18.9	23.2	8.7	22.2
Pace & speed at work*	28.2	42.7	19.6	16.7
Setting lunch & rest breaks*	21.5	41.5	15.2	0
Discretion in Handling Customers (%)				
Handling additional requests*	58.8	70.7	39.1	44.4
Settling customer complaints*	59.3	59.3	50.0	33.3
How many customers to serve*	26.3	37.5	8.7	22.2
Use of scripts to answer calls	11.8	7.4	45.7	27.8

Dimensions of Work	Inhouse		Sub-contractors	
	Mass Market & Sm. Business	Large Business	Mass Market & Sm. Business	Large Business
Participation in Teams				
% who use "offline" problem-solving	91.8	96.3	89.1	100.0
% penetration in offline teams	33.9	50.0	23.4	26.8
% who use self-managed teams	27.8	34.1	28.3	38.9
% penetration of self-managed teams	17.1	20.9	9.0	15.8
Average Compensation of Typical (Median) Worker**				
Annual pay	$31,240	$48,748	$25,519	$28,750
Annual overtime pay	1,520	1,129	968	2,399
Benefits as a % of annual pay	26.8	30.1	19.6	20.1
Total Compensation (pay & benefits)	$41,141	$64,539	$31,477	$36,919
% of pay that is commission	10.5	13.2	6.1	12.9
% of pay that is performance-based	15.2	21.3	14.1	16.7
% who receive a pension plan	52.9	59.8	32.6	35.3
Ratio of pay: 90th/10th percentile	1.6	1.9	1.6	1.8
Promotion, Tenure, and Turnover				
% absent in a typical day	5.5	5.2	9.9	4.8
% promoted from within	8.3	8.4	8.1	5.1
% with < 1 year of tenure	24.4	16.6	38.6	32.8
% with 1-10 years of tenure	60.8	60.5	55.0	59.2
% with > 10 years of tenure	14.8	22.9	6.4	8.0
% annual quits	13.4	12.1	25.8	12.3
% promoted outside location	4.0	3.1	2.3	3.9
% dismissed	8.6	7.4	17.0	9.6
% retired/ voluntary buy-out	0.9	1.0	1.0	1.0
% laid-off	1.9	3.6	4.8	5.8
% total turnover	28.8	27.1	50.5	32.4

Dimensions of Work	Inhouse		Sub-contractors	
	Mass Market & Sm. Business	Large Business	Mass Market & Sm. Business	Large Business
Managers of call centers				
Managers as % of workforce	13.8	16.9	13.6	13.2
Managers annual pay	$61,133	$73,243	$49,884	$54,294
% manager pay that is performance-based	16.8	24.3	17.6	34.8
Frontline supervisors annual pay	$46,855	$63,160	$36,159	$40,889
Sample	313	82	46	18

* % of workers with discretion: 4 or 5 on 5-point scale

** Compensation definitions: Annual pay is the average for all workplaces of the gross annual pay for the typical, or median, worker. By typical or median worker, we mean that 50% of workers at a work-site are paid more and 50% are paid less. Annual pay excludes overtime pay but includes commissions and bonuses. Total compensation includes median pay, overtime pay, and the costs of benefits.

Appendix B:
Dimensions of Work, by Job Function

Dimensions of Work	Inbound			Outbound	
	Service & Sales	Service Only	IT Help, Tech support	Tele-marketing, Research, Collections	Marketing & Sales
Customer-Employee Interaction					
Customers per employee per day	60.7	72.7	41.6	119.5	25.3
Avg. length of call per customer	5.3	5.7	13.6	6.7	12.0
% completed transactions on-line	75.2	74.1	70.2	71.6	27.8
% dedicated service reps	31.9	18.9	30.0	30.0	74.1
Technology Use					
% calls completed by VRU	9.4	12.9	12.3	7.2	2.3
% time electronically monitored	44.7	50.5	32.5	59.9	43.2
% time on computer & phone	77.3	76.9	76.7	82.1	33.7
# of computer systems learned by employee	3.4	3.9	5.6	2.8	4.3
% call centers using fax	92.6	91.5	85.0	82.5	96.3
% call centers using e-mail	85.7	88.5	95.0	50.0	96.3
% call centers using web-enablement	52.4	58.8	70.0	35.0	70.4
% call centers using computer-telephony Integration	45.7	53.7	50.0	59.0	48.1
% call centers using Elect. Cust. Rel. Mgmt.	36.0	35.2	35.0	35.0	60.0
% call center using interactive voice recognition	34.4	42.4	50.0	25.0	25.9
% call centers using voice over IP	18.0	17.4	35.0	17.5	48.1
Customer Characteristics					
Customer base	1,173,142	1,285,410	458,228	995,226	43,763
# of customers per employee	10,209	11,188	1,552	6,235	1,168
% whose market is national	38.5	48.7	68.6	62.0	24.2
% whose market is international	3.0	4.4	9.9	2.8	8.5

Dimensions of Work	Inbound			Outbound	
	Service & Sales	Service Only	IT Help, Tech support	Tele-marketing, Research, Collections	Marketing& Sales
Selection and Staffing					
% that use systematic selection	39.6	44.2	25.0	50.6	36.5
% of applicants who are hired	25.3	28.8	25.9	37.3	21.9
% of workforce: female	68.4	69.0	30.3	67.8	38.8
% of centers with 'exempt staffing'	18.7	21.3	38.9	18.4	66.7
% of workforce: 4 yr. degree	15.0	22.6	45.0	12.5	59.3
% of workforce: some college	40.1	40.2	55.0	37.5	33.3
% of workforce: high school diploma	44.9	37.2	0	50.0	7.4
% of workforce: part-time	15.0	20.6	13.5	36.4	11.2
% of workforce: temporary	7.6	9.2	9.1	14.9	1.9
% of workforce: permanent & fulltime	77.7	70.5	77.4	50.6	86.8
Training					
Weeks of initial training	3.9	5.0	4.2	2.6	5.1
Weeks to become qualified	19.5	19.4	20.4	13.6	32.6
Weeks of on-going training/year	2.2	1.8	1.8	2.8	1.8
Work Design					
% with flex working arrangements	29.1	32.2	52.4	27.8	55.7
% with flex job descriptions	13.8	15.3	6.8	8.4	21.8
Discretion Over Work Methods (%)					
Daily tasks & assignments*	24.3	23.0	25.0	17.5	66.7
Tools & procedures*	16.9	17.6	35.0	10.0	40.7
Pace & speed at work*	30.7	23.0	45.0	22.5	66.7
Setting lunch & rest breaks*	21.3	15.2	25.0	30.0	85.2

Dimensions of Work	Inbound			Outbound	
	Service & Sales	Service Only	IT Help, Tech support	Tele-marketing, Research, Collections	Marketing& Sales
Discretion in Handling Customers (%)					
Handling additional requests*	58.2	58.2	75.0	47.5	74.1
Settling customer complaints*	59.6	63.4	55.0	35.9	61.5
How many customers to serve*	23.5	22.7	40.0	22.5	73.1
Use of scripts to answer calls	14.8	11.5	5.0	32.5	7.7
Participation in Teams					
% who use "offline" problem-solving	91.0	95.8	90.0	90.0	88.9
% penetration in offline teams	34.7	33.3	58.1	27.1	43.8
% who use self-managed teams	29.3	24.8	30.0	25.0	63.0
% penetration of self-managed teams	16.1	12.4	21.8	19.0	44.1
Average Compensation of Typical (Median) Worker**					
Annual pay	$32,332	$30,156	$51,574	$26,274	$72,600
Annual overtime pay	1,611	1,413	2,110	1,323	202
Benefits as a % of annual pay	26.7	28.7	18.9	21.5	20.7
Total Compensation (pay & benefits)	$42,584	$40,209	$63,443	$33,258	$87,796
% of pay that is commission	12.1	2.9	7.0	14.0	46.3
% of pay that is performance-based	18.0	8.0	17.0	20.4	49.8
% who receive a pension plan	50.3	54.7	65.0	38.5	59.3
Promotion, Tenure, and Turnover					
% absent in a typical day	5.2	5.7	6.7	10.3	4.5
% promoted from within	8.5	8.9	6.9	7.1	5.9
% with < 1 year of tenure	21.8	24.3	21.2	41.7	25.6
% with 1-10 years of tenure	61.7	62.0	57.3	49.9	53.9
% with > 10 years of tenure	16.6	13.7	21.6	8.2	20.5
% annual quits	12.7	14.0	5.2	23.4	16.4

Dimensions of Work	Inbound			Outbound	
	Service & Sales	Service Only	IT Help, Tech support	Tele-marketing, Research, Collections	Marketing& Sales
Promotion, Tenure, and Turnover					
% promoted outside location	3.2	5.0	3.9	2.3	1.0
% dismissed	9.2	8.2	5.1	15.8	9.7
% retired/ voluntary buy-out	1.2	0.6	0.4	0.9	1.3
% laid-off	2.5	2.5	2.6	5.1	1.8
% total turnover	28.7	30.0	17.0	48.5	30.2
Managers of call centers					
Managers as % of workforce	14.0	14.0	13.4	15.1	21.7
Managers annual pay	$62,450	$59,224	$78,875	$51,455	$86,136
% manager pay that is performance-based	19.4	16.4	19.7	19.4	38.3
Frontline supervisors annual pay	$46,138	$44,452	$70,088	$45,429	$90,292
Sample	189	165	20	40	27

* % of workers with discretion: 4 or 5 on 5-point scale

** Compensation definitions: Annual pay is the average for all workplaces of the gross annual pay for the typical, or median, worker. By typical or median worker, we mean that 50% of workers at a work-site are paid more and 50% are paid less. Annual pay excludes overtime pay but includes commissions and bonuses. Total compensation includes median pay, overtime pay, and the costs of benefits.

Appendix C:
Dimensions of Work in Telecommunications: Detailed Market Segments

Dimensions of Work	Large Business	Small Business & Mass Market			
		Union	Wireline	Wireless	Cable
Customer-Employee Interaction					
Customers per employee per day	71.5	70.5	68.1	67.5	74.9
Avg. length of call per customer	9.5	7.9	5.8	3.7	4.4
% completed transactions on-line	30.3	73.0	67.0	72.8	85.5
% dedicated service reps	80.0	17.4	25.4	47.4	2.5
Technology Use					
% calls completed by VRU	9.0	10.9	8.9	11.0	8.6
% time electronically monitored	34.0	54.8	48.9	45.0	55.9
% time on computer & phone	51.4	78.1	74.2	73.5	84.1
# of computer systems learned by employee	4.6	4.3	3.5	4.0	2.6
% call centers using fax	100.0	87.0	88.1	94.9	85.0
% call centers using e-mail	93.3	69.6	85.1	87.2	80.0
% call centers using web-enablement	63.3	42.9	49.3	53.8	65.0
% call centers using computer-telephony integration	43.3	54.5	43.3	43.2	56.4
% call centers using Elect. Cust. Rel. Mgmt.	50.0	13.6	38.1	47.4	42.1
% call center using interactive voice recognition	20.0	34.8	26.9	25.6	5.0
% call centers using voice over IP	46.7	21.7	34.3	24.3	12.5
Customer Characteristics					
Customer base	15,664	1,958,488	550,913	1,315,598	640,475
# of customers per employee	525	10,404	3,309	8,071	2,852
% whose market is national	38.0	10.8	24.6	24.1	13.0
% whose market is international	4.7	1.1	4.5	0.8	0.5

Dimensions of Work	Large Business	Small Business & Mass Market			
		Union	Wireline	Wireless	Cable
Selection and Staffing					
% that use systematic selection	37.8	79.3	30.6	31.8	40.5
% of applicants who are hired	20.5	30.3	24.9	23.0	18.0
% of workforce: female	50.7	79.7	67.2	62.2	74.9
% of centers with 'exempt staffing'	62.1	28.6	25.0	22.9	12.8
% of workforce: 4 yr. degree	66.7	8.7	11.9	17.9	5.0
% of workforce: some college	20.0	47.8	46.3	51.3	32.5
% of workforce: high school diploma	13.3	43.5	41.8	30.8	62.5
% of workforce: part-time	3.2	3.3	8.3	9.4	7.5
% of workforce: temporary	0.5	0.8	5.1	3.5	3.1
% of workforce: permanent & fulltime	96.2	95.8	86.5	86.9	89.3
Training					
Weeks of initial training	4.1	6.7	3.1	3.4	4.6
Weeks to become qualified	24.5	34.5	19.5	14.9	18.3
Weeks of on-going training/year	1.9	1.7	1.7	2.7	2.7
Work Design					
% with flex working arrangements	46.3	22.6	31.0	37.4	23.5
% with flex job descriptions	11.7	6.0	24.0	22.8	8.6
Discretion Over Work Methods (%)					
Daily tasks & assignments*	46.7	21.7	29.9	35.9	20.0
Tools & procedures*	26.7	4.3	28.4	35.9	17.5
Pace & speed at work*	60.0	17.4	29.9	36.8	30.0
Setting lunch & rest breaks*	60.0	4.3	35.8	34.2	12.5
Discretion in Handling Customers (%)					
Handling additional requests*	73.3	52.2	52.2	59.0	65.0
Settling customer complaints*	60.0	52.2	58.2	65.8	80.0
How many customers to serve*	56.7	22.7	28.4	31.6	25.6
Use of scripts to answer calls	10.0	17.4	11.9	12.8	10.0

Dimensions of Work	Large Business	Small Business & Mass Market			
		Union	Wireline	Wireless	Cable
Participation in Teams					
% who use "offline" problem-solving	96.7	91.3	89.6	89.7	95.0
% penetration in offline teams	48.8	34.0	40.2	48.4	33.6
% who use self-managed teams	43.3	13.0	32.8	38.5	25.6
% penetration of self-managed teams	25.7	9.1	20.9	27.7	15.9
Average Compensation of Typical (Median) Worker**					
Annual pay	$65,482	$40,000	$33,111	$30,186	$25,300
Annual overtime pay	966	2,287	1,278	2,084	2,176
Benefits as a % of annual pay	27.4	35.6	27.6	23.5	30.8
Total Compensation (pay & benefits)	$84,380	$56,546	$43,539	$39,360	$35,261
% of pay that is commission	30.2	8.5	8.8	18.5	10.4
% of pay that is performance-based	34.9	10.7	14.6	23.1	11.9
% who receive a pension plan	73.3	91.3	36.4	35.1	61.5
Ratio of pay: 90th/10th percentile	2.2	1.4	1.7	1.7	1.6
Promotion, Tenure, and Turnover					
% absent in a typical day	6.2	7.2	4.4	4.3	5.0
% promoted from within	5.1	2.4	4.6	8.7	11.9
% with < 1 year of tenure	19.9	6.6	23.7	23.3	24.3
% with 1-10 years of tenure	55.5	59.4	61.1	67.3	58.7
% with > 10 years of tenure	24.6	34.0	15.0	9.6	17.0
% annual quits	15.7	5.1	9.4	14.8	12.4
% promoted outside location	3.1	1.5	3.4	5.1	2.8
% dismissed	12.4	5.3	9.1	8.9	10.0
% retired/ voluntary buy-out	2.2	3.4	1.0	1.2	0.3
% laid-off	3.7	1.7	2.8	2.6	1.6
% total turnover	37.0	17.1	25.9	32.5	27.2

Dimensions of Work	Large Business	Small Business & Mass Market			
		Union	Wireline	Wireless	Cable
Managers of call centers					
Managers as % of workforce	20.0	12.7	16.0	11.4	13.9
Managers annual pay	$81,619	$73,632	$62,318	$54,919	$54,839
% of manager pay that is performance-based	23.6	20.1	15.3	22.5	16.6
Frontline supervisors annual pay	$78,080	$55,696	$48,540	$46,347	$39,882
Sample	30	23	67	39	40

* % of workers with discretion: 4 or 5 on 5-point scale

** Compensation definitions: Annual pay is the average for all workplaces of the gross annual pay for the typical, or median, worker. By typical or median worker, we mean that 50% of workers at a worksite are paid more and 50% are paid less. Annual pay excludes overtime pay but includes commissions and bonuses. Total compensation includes median pay, overtime pay, and the costs of benefits.

Appendix D:
Dimensions of Work in Financial Services: Detailed Market Segments

Dimensions of Work	Banking	Insurance	Other Fin. Services
Customer-Employee Interaction			
Customers per employee per day	78.6	60.9	76.6
Avg. length of call per customer	4.5	5.0	5.6
% completed transactions on-line	78.6	78.3	75.9
% dedicated service reps	13.8	21.9	24.1
Technology Use			
% calls completed by VRU	37.9	7.9	18.6
% time electronically monitored	45.6	53.9	46.0
% time on computer & phone	85.3	78.5	77.4
# of computer systems learned by employee	4.6	5.6	4.2
% call centers using fax	96.6	96.9	96.6
% call centers using e-mail	82.8	90.6	86.2
% call centers using web-enablement	51.7	56.3	41.4
% call centers using computer-telephony integration	72.4	62.5	44.8
% call centers using Elect. Cust. Rel. Mgmt.	50.0	26.7	27.6
% call center using interactive voice recognition	41.4	62.5	27.6
% call centers using voice over IP	14.3	16.1	13.8
Customer Characteristics			
Customer base	2,413,545	2,121,192	806,344
# of customers per employee	21,136	10,485	9,894
% whose market is national	63.0	60.5	69.0
% whose market is international	3.0	4.1	4.0
Selection and Staffing			
% that use systematic selection	33.4	52.1	32.3
% of applicants who are hired	22.7	32.4	24.4
% of workforce: female	61.0	72.9	62.1

Dimensions of Work	Banking	Insurance	Other Fin. Services
% of centers with 'exempt staffing'	17.2	12.9	21.4
% of workforce: 4 yr. degree	35.7	21.9	35.7
% of workforce: some college	39.3	50.0	32.1
% of workforce: high school diploma	25.0	28.1	32.1
% of workforce: part-time	43.5	21.5	25.4
% of workforce: temporary	8.8	24.0	10.6
% of workforce: permanent & fulltime	49.5	56.5	64.5
Training			
Weeks of initial training	4.8	9.0	4.7
Weeks to become qualified	18.3	28.0	18.0
Weeks of on-going training/year	1.3	2.4	1.5
Work Design			
% with flex working arrangements	33.9	30.9	22.6
% with flex job descriptions	13.2	9.7	11.4
Discretion Over Work Methods (%)			
Daily tasks & assignments*	17.2	12.5	20.7
Tools & procedures*	13.8	6.3	3.4
Pace & speed at work*	27.6	21.9	27.6
Setting lunch & rest breaks*	6.9	3.1	17.2
Discretion in Handling Customers (%)			
Handling additional requests*	58.6	53.1	62.1
Settling customer complaints*	44.8	56.3	62.1
How many customers to serve*	24.1	22.6	27.6
Use scripts often	17.2	3.1	10.3
Participation in Teams			
% who use "offline" problem-solving	96.6	96.9	100.0
% penetration in offline teams	29.3	25.2	35.3
% who use self-managed teams	6.9	6.3	44.8
% penetration of self-managed teams	3.8	5.5	25.4

Dimensions of Work	Banking	Insurance	Other Fin. Services
Average Compensation of Typical (Median) Worker**			
Annual pay	$30,232	$30,591	$33,395
Annual overtime pay	839	1,066	1,455
Benefits as a % of annual pay	23.9	25.9	28.8
Total Compensation (pay & benefits)	$38,293	$39,565	$44,458
% of pay that is commission	4.3	7.1	10.9
% of pay that is performance-based	13.7	12.3	19.5
% who receive a pension plan	65.5	61.3	46.4
Ratio of pay: 90th/10th percentile	1.4	1.6	1.5
Promotion, Tenure, and Turnover			
% absent in a typical day	4.9	6.6	6.1
% promoted from within	9.9	9.3	11.2
% with < 1 year of tenure	22.1	32.1	31.5
% with 1-10 years of tenure	70.1	57.5	58.1
% with > 10 years of tenure	8.2	10.4	10.4
% annual quits	16.6	19.4	17.0
% promoted outside location	7.9	3.7	5.4
% dismissed	6.0	7.0	10.5
% retired/ voluntary buy-out	0.2	0.2	0.9
% laid-off	1.3	0.6	3.3
% total turnover	32.8	30.9	36.2
Managers of call centers			
Managers as % of workforce	11.3	15.2	14.5
Managers annual pay	$63,357	$62,862	$64,423
% manager pay that is performance-based	17.5	18.9	26.7
Frontline supervisors annual pay	$44,607	$46,100	$49,852
Sample	29	32	29

* % of workers with discretion: 4 or 5 on 5-point scale

** Compensation definitions: Annual pay is the average for all workplaces of the gross annual pay for the typical, or median, worker. By typical or median worker, we mean that 50% of workers at a work-site are paid more and 50% are paid less. Annual pay excludes overtime pay but includes commissions and bonuses. Total compensation includes median pay, overtime pay, and the costs of benefits.

Appendix E:
Technical Notes

The sample of 472 call centers is a stratified random sample drawn from two sources: the subscriber lists of *Call Center Magazine* and the Dun and Bradstreet listing of establishments in the telecommunications industry. Roughly 60 percent of the call centers came from the *Call Center Magazine* list, which allowed us to identify call centers across a wide range of industries and sectors. The remainder of the sample came from the Dun and Bradstreet listing.

The telephone survey was administered in mid-2003 by the Survey Research Institute at the Industrial and Labor Relations School, Cornell University. The telephone interview averaged 40 minutes, and yielded a 62% response rate. Respondents were asked to answer questions as they pertain to the "core" workforce in their establishment -- the largest group of employees who carry out the primary work activity at that location. In call centers, the customer contact employees typically have job titles such as customer service rep, sales agent, or sales rep.

To identify customer segmentation strategies, respondents were asked whether they targeted a particular customer segment or not. Establishments were then categorized into four groups: mass market target, small business target, large business target, or universal centers (those serving multiple segments).

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