NEGOTIATING TECHNOLOGY:
SUPPORT PERSONNEL IN HIGHER EDUCATION*

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ABSTRACT

This article examines 186 collective bargaining agreements for educational support personnel in colleges and universities. The analytical focus is on issues surrounding technology. We examined provisions regarding workplace conditions, workforce protection, workplace change, and work product ownership. For each type of provision we explored the extent to which: there are provisions; provisions speak to the workforce as well as to current bargaining unit members; and provisions afford employees a measure of involvement in the issues at hand. We found relatively limited provisions, with well less than half of the contracts having provisions regarding the four issues surrounding technology. At the same time, we found some useful examples of contractual language that speaks in important ways to emerging issues that should be negotiated by educational support personnel units.

From the time of the Industrial Revolution, new technologies have affected workers, who have attempted to negotiate the effects of change on their workplace and workforce. Much scholarship has focused on the impact of technology on workers [1, 2]. For the most part, this research has concentrated on blue- and

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2000, Baywood Publishing Co., Inc.
pink-collar employees in private sector enterprises [3, 4, 5]. Less scholarship has focused on employees in the public sector generally and higher education in particular [6-10]. Even fewer researchers have addressed the efforts of these employees collectively to negotiate the effects of technology [11]. And, very little research has focused on blue-, pink-, and white-collar public sector employees other than professionals such as nurses, teachers, and faculty. In this article, we explore how support personnel in colleges and universities collectively have bargained the impact of technology on their work, workforce, workplace, and work products.

Educational support personnel (ESP) are a significant component of the higher education workforce, accounting for 60 percent of all employees on campus [12]. They include various types of employees, many of whom are found in the private sector. The largest category of support personnel is clerical and secretarial, followed by service/maintenance, technical/paraprofessional, and skilled crafts. In higher education these employees are represented by over fifty unions. Over three-quarters of these units are distributed evenly among those that represent blue collar (26%), clerical (25%), and white/blue-collar mixed (24%) units. Professional/technical (16%) and white-collar mixed (9%) units account for the remainder of the represented employees. The union that represents by far the largest number of employees is the American Federation of State, County, and Municipal Employees (AFSCME), which accounts for 48 percent of all unionized support personnel in higher education [13]. Only one other union accounts for more than 6 percent of support personnel in higher education: Service Employees International Union (SEIU), with 15 percent. Among the higher education unions, the American Federation of Teachers accounts for 6 percent of the staff bargaining units, and the National Education Association (NEA) accounts for 4 percent.

The use of technology has implications for various aspects of the workplace and workforce. Health and safety issues have long been vital issues for employees in the private sector. They have also been raised as issues in educational settings [14]. In addition, layoff and subcontracting issues are becoming increasingly important, not just in the private but, also in the public sector [15, 16]. Further, some research has addressed the impact of technology on workplace practices such as training and surveillance [17, 18]. Finally, new technology enhances the possibility for employees to develop products with commercial potential. In recent years, that potential has been increasingly emphasized in higher education [19].

In this article, we address such issues in the context of higher education support personnel. New technologies are being rapidly introduced into college and university settings, with profound implications for the support workforce. The most obvious of these changes are found in the area of new information
technologies. Thus, as most faculty in higher education are aware, the lives of clerical personnel (and faculty) have been transformed by the use of personal computers, e-mail, and online service delivery and purchasing systems. However, the effects of technological change are widespread among higher education support personnel. For example, a 1998 telephone survey of NEA membership found that 72 percent of maintenance employees now utilize personal computers in their workplaces. In addition, growing numbers of technical personnel interact with and use new technologies in various ways.

In this article we seek to draw attention to the higher education workforce as a segment of employees worthy of study. We see support personnel as including employee categories that are rapidly expanding as well as some that are being downsized and outsourced in significant ways. A systematic analysis of the collective bargaining agreements covering these employees promises to yield important insights into the effects of technology on an important not-for-profit sector—higher education.

**METHOD**

Our study examines the collective bargaining agreements of educational support personnel, focusing on provisions regarding technology. Our sample of contracts consists of 186 agreements collected by the National Education Association on a CD-ROM that includes contracts negotiated by all the major unions representing staff. This Higher Education Contract Analysis System (HECAS) was originally developed in the mid-1990s and is updated each year with additional contracts. For this article, we utilized the 1999-2000 version of HECAS.

The HECAS facilitates searches on various key words, taking the researcher to every place in every contract in which certain terms are found. We ran searches in four general domains that might involve technology. First, we concentrated on workplace conditions, on the health and safety of workers. We ran searches on health, safety, VDT (video display terminal), and ergonomics to capture this language. Second, we examined workforce protection—that is, the protection of current employees’ jobs and of bargaining unit positions. We ran searches on layoff, reduction in force, subcontracting, and privatization. Third, we considered workplace changes, affected by the introduction of new technologies. We ran searches on training, evaluation, and keystroke monitoring. In addition, in reading through the contract we came across a couple of cases of “off-site” and “on-call” assignments that related to the use of electronic communication, so we ran searches on these terms. Finally, we studied an emerging area of interest, control over work products related to the use of technology. We ran searches on products, property, materials, ownership, patents and copyright, inventions, royalties, and commercial.
In each of the above searches, our analytical focus was threefold. We were interested in the extent to which there were provisions in the contracts. We were also interested in the extent to which the provisions offered protections for individual employees as well as in regard to the workforce as a whole—for example, the number of bargaining unit positions. Finally, we were interested in the extent to which the contracts afforded employees some measure of involvement in or control over the issue at hand—for example, over the purchase of new technology.

WORKPLACE PROTECTION

The nature of the health/safety provisions found in the contracts is obviously a function of the types of employees covered by the agreement. For example, a few contracts covering health-related positions address “blood-borne pathogens” exposure. Similarly, a few contracts specify required training, protective equipment, and pay differentials for asbestos removal.

The most common health/safety provision states that the institution is responsible for providing safe and healthy working conditions. Found in thirty-six contracts, the particular language and the amount of detail varies considerably, as do the specific health and safety conditions identified. In some contracts, the clause is merely a general statement about employees not having to work in unsafe conditions, or about the responsibility of the employer to meet state/federal OSHA standards. In others, there are paragraphs and pages of detail about the particular conditions and responsibilities. With a few exceptions, these provisions make no mention of new technologies. The exception is suggestive as to the significance and simplicity of inserting such a clause.

The Provost shall establish a New Technology Committee with equal representation appointed by the UCPEA and the University. The committee shall study the impact of technological change and other new technology issues such as computer safety and computer use by pregnant operators. This committee shall issue a report making recommendations for the safe use of new technology. (University of Connecticut)

Another relatively common provision is for a safety committee on which the union has significant representation. Such language is found in twenty-three contracts. Typically, such committees review policies, procedures, and working conditions. In some cases, they hear employee complaints.

Relatively few provisions about health and safety speak specifically to technology. Most common are the thirteen provisions regarding video display terminals (VDTs). For the most part, these speak to workplace regulations about the equipment and about time spent in front of the terminal. Some contracts offer
pregnant (and in a couple of cases, nursing) women the option of some relief from the VDT work or job.

Operating units that use video display terminals will use them in such a manner as to provide a safe and healthful working environment. Accordingly, all employees except for Police Telecommunicators will not be required to view an operating VDT screen for more than two consecutive uninterrupted hours. Pregnant employees and employees who are nursing and who regularly operate VDTs may upon request be permitted to adjust or otherwise change assignments if such changes or adjustments can be reasonably made based on operational needs. The employee may, upon request, be granted appropriate leave. . . . (University of Illinois, Chicago)

The above type of provision identifies protections for employees. Some others take an additional step, affording employees some control over the health/safety of their workplaces, either as individuals or collectively. For example, a few provisions indicate that employees who report health/safety violations will be free from retaliation.

No bargaining unit member shall suffer any recrimination and/or reprisals as a result of reporting any condition believed to be a violation of Section 17.1 [Safety Compliance] of this Agreement. (Victor Valley Community College District)

Some others provide for a union steward to perform occasional walk-arounds to ensure the health/safety of the workplace. Most common are provisions that establish committees to oversee the health/safety of the workplace.

A Safety Committee shall be formed composed of two members appointed by the District and two members appointed by CSEA which Committee shall review health, safety, sanitation and working conditions. (San Diego Community College District).

Such committees typically include members from the bargaining unit/association.

**WORKFORCE PROTECTION**

The most common protection for employees’ jobs is language prohibiting subcontracting. However, of the 186 contracts, only sixty-one have provisions that speak to subcontracting or privatization. Of these, eleven establish subcontracting as a management right, often as a justification or rationale for reductions in force. Only twenty-four contracts have language prohibiting layoff of employees. One example goes beyond protecting jobs to include the protection of employees’ wages.
However, there will be no subcontracting of bargaining unit work that results in the layoff or reduction in regular hours of a bargaining unit member. (Gateway Technical College).

Another provision underscores the larger threat that subcontracting poses, not simply to the jobs or wages of current employees, but to future bargaining unit positions.

The Employer shall not subcontract work of bargaining unit employees to the extent that it will result in the layoff or reduction in pay of present bargaining unit employees. As bargaining unit positions become open due to attrition or retirement of present bargaining unit employees, it is mutually agreed that open positions may be filled by subcontract employees at the sole discretion of the employer. (Lansing Community College)

However, subcontracting clauses are not specific to the effects of technology. In the 186 ESP contracts, only fourteen deal with layoff specifically in the context of technology. Of these, seven establish the introduction of new technology as a management right.

The parties mutually recognize the Employer’s right to introduce new technology and techniques into the workplace. Any displacement or layoff of personnel caused by same shall be handled pursuant to the layoff and recall provisions of this agreement. (Jackson Community College)

By contrast, seven others provide protections for current employees, generally in the form of ensuring that current bargaining unit members will be trained by the college to enable them to perform the new jobs.

When changes in operations due to technological innovations occur, the Board shall give first consideration to the utilization of affected employees. The current practices of offering training to affected employees shall remain in effect during the term of the agreement. (Oakton Community College)

Yet such provisions do not protect bargaining unit positions.

The universities will consider the effect on current employees when contemplating changing technology or equipment. The universities will make reasonable efforts to provide training to current employees in the use of new technology or equipment when such changes are made. Nothing herein obligates the university to maintain current classifications, positions, or employees. (State University System of Florida)

Moreover, as the following provision makes clear, new technologies can represent a threat to future bargaining unit positions. The clear and present potential is for institutions to subcontract out work that involves the use of new technologies.
The Board for the duration of the agreement, . . . agrees not to outsource any existing service which will in and of itself result in the layoff of union employees. The Board retains the right to outsource any work or service which involves new technologies and/or knowledge which is deemed by the Board to be in the best interest of the College. Any such action would not result in the layoff of union employees. (Prairie State College)

Existing employees are protected, but future bargaining unit positions are not.

**WORKPLACE CHANGE**

Apart from provisions related to layoffs that result from technological change, relatively few provisions speak specifically to technological changes and the changes in the workplace that attach to them. For example, only eleven provisions speak specifically to training that relates to new technologies.

The Board will, at its expense and on its time, train bargaining unit employees in technological advances which the Board requires them to use in their employment. (Community College of Philadelphia)

Where new equipment or modified existing equipment, necessary for the employee to perform her/his current job, requires that additional skills and/or knowledge be learned by an employee, the District shall provide the employee training in the new knowledge or skill without cost to the employee involved. (Western Wisconsin Technical College)

Yet there are many more provisions in the contracts regarding training in general. Of the 186 agreements, eighty-four have some general training provision. Such provisions range from basic health and safety training, to leaves and tuition reimbursements for professional development, to general statements regarding the importance of encouraging additional training and growth for employees. Fewer than five of these provisions afford employees some sort of salary increment for the new skills that they develop.

Perhaps the most powerful general training provision is one that gives employees equal involvement in developing the training program.

The District shall establish a job training program for bargaining unit employees. A committee shall administer this program. Membership shall be as follows: Three members appointed by the District, including a representation of the Office of Human Resources; Four members appointed by the Federation . . . Procedures and guidelines shall be formulated by this committee for recommendation to the District and Federation. The District shall fund the program at $15,000 per year. Funds budgeted but not expended in one fiscal year will be carried over for use in the following fiscal year. (Coast Community College)
The two particular strengths of this provision are that it enables bargaining unit members to shape the training program, and it includes a budget to ensure material support for the program. However, as strong as it is, as with other general provisions on training, it does not speak to technological change in the workplace and its effects on bargaining unit members.

A few contract provisions offer insight into potential uses and impacts of new technology on bargaining unit members. The topics they address suggest areas and issues crucial to the quality of employees’ lives. One example of such a provision speaks to “keystroke monitoring.”

The University reserves the right to monitor the quantity and quality of an employee’s work. Prior to the implementation of any new automatic keystroke monitoring program, the University agrees to meet with the Union to negotiate the matter. (University of Cincinnati)

New technology affords employers new means by which to essentially reestablish piece-rate work, to engineer and monitor jobs in ways that represent a substantial increase in their control over employee’s time and autonomy.

Technology also affords employers new means by which to evaluate and surveil employees. One contract provides employees with a basic protection against such technological intrusion and control over bargaining unit members.

Under no circumstances shall electronic devices of any kind be used in evaluation of an employee without his or her agreement. (Spoon River College)

Finally, technology poses the possibility of blurring the boundaries between work and leisure, making it possible for employees’ private domain to be redefined as part of the workplace or subject to the demands of the workplace.

Unit employees contacted at home or other offsite location, either by or at the direction of a supervisor or other authorized administrator, shall be eligible for overtime compensation in fifteen minute increments at a minimum of thirty minutes, if required to perform services for the District over the telephone, via computer, or other forms of electronic communication. This section is not intended to confer eligibility for overtime to employees who are contacted via telephone for minor or routine questions. (Rancho Santiago Community College)

“Oncall” assignment shall be defined as any time when an employee is instructed by management to remain available to work during an offduty period. An employee who is so instructed shall be required to leave word where the employee may be reached by telephone or other electronic signaling device in order to be available to return to a work location on short notice to perform assigned duties. Oncall time is not compensable for purposes
of computing overtime; however, travel time to and from work when called back is compensable time. An employee may be instructed verbally to be oncall for up to twenty-four consecutive hours; however, no employee shall be required to be oncall for more than twenty-four consecutive hours unless such instructions are in writing. (State University System of Florida)

Both provisions make clear that the boundaries between home and work have long been permeable due to “old” technology such as the telephone. However, new technologies serve only to increase the potential for permeability, and for employers to intrude on employees’ space and time outside the workplace.

**WORK PRODUCT OWNERSHIP**

A particularly interesting, emergent area of negotiations for support personnel is the relationship of employees to work products. For some time, intellectual property issues have been significant points of negotiation for faculty; however, there has been virtually no discussion of support personnel as producers of output that has commercial value. The increased use of various information and instructional technologies, in addition to the increased emphasis in colleges and universities on revenue generation, has heightened the significance of intellectual property provisions for faculty. There is some evidence that these same trends have led to provisions about intellectual property and support personnel.

Of the 186 ESP contracts in HECAS, only ten speak to issues of ownership. The significance of these provisions lies not in their number, but in what they foreshadow in terms of what is at stake for support staff. In colleges and universities more oriented to revenue generation and more involved in commercial activities (especially in various auxiliary units), support staff should be aware of property interests that are at stake.

Over half the provisions establish the commercial prerogatives and interests of the institution. Two establish managerial rights in commercial activity. Two others speak to the responsibility of bargaining unit members to promote the sale of the institution’s products and services. One indicates that employees cannot use institutional facilities for commercial purposes. And one provision enables employees to take “educational leaves” to develop products “which are believed to be of value or to advance the interests of reputation of the University.” (University of Connecticut)

However, four provisions speak directly to ownership issues. In this regard, they read much like faculty provisions. The issue of ownership depends on whether the property was created on the employee’s own time, whether institutional resources were used, and whether it was a “work for hire.” Thus, as the following provisions indicate:
Any research documents, computer programs, and other work products produced during employee’s working hours shall become the property of the College. Any such products produced by the employee solely on his/her own time become the sole property of the employee. (Spoon River College)

When an Employee, while employed at Reading Area Community College, develops materials or devices to support instruction and/or services on Employee’s own time without compensation by Reading Area Community College, Employee is entitled to exclusive rights to copyrights, patents, and royalties. (Reading Area Community College)

However, for Reading, when there is some compensation from the employer to the employee, the college has the right to “reproduce and sell to Reading Area Community College students any copies, at any time, of these materials and devices,” and the inventors “may not require royalty payment from the College or its students for any of these reproductions.”

A similar sort of provision is found in Connecticut State University’s contract. However, if the “computer software products” are “created by an employee specially assigned to that task,” they “shall be the property of the University and the State of Connecticut.” Other products created in other circumstances remain the property of the employee, although they “shall be available at no cost to the University for instructional and administrative use.” The strength of the contract is that in case of disputes, the grievance procedure is to be followed.

CONCLUSION

It has been said that we are living in a postindustrial society. Yet, as in the industrial era, technology is profoundly affecting the terms and conditions of employment. And as with various categories of blue-, pink-, and white-collar employees in the private sector, so these employees in postsecondary institutions are being affected by technologies. For this article, we examined 186 collective bargaining agreements of support units, focusing on provisions that address workplace conditions, workforce protection, workplace changes, and work products. We were particularly interested in the extent to which provisions addressed such issues, offered protections for employees as individuals and collectively, and ensured employee involvement in decisions related to technology and its impact on work and workers.

Although a significant proportion of support staff’s collective bargaining agreements address health and safety issues, these agreements represent a minority of the contracts (57 of the 186 agreements in HECAS). Only thirteen contracts speak to the effects of a technology (VDTs) almost universally utilized by support staff—not only clerical, but technical and maintenance staff as well. Finally, a
considerable number of contracts afford bargaining units and their members direct input into oversight of health and safety issues. Again, however, they represent a substantial minority of the contracts in the database, and few speak specifically to technology in this regard.

The protections for existing and future support staff as a workforce are also relatively limited. Nearly one-third of the contracts have subcontracting provisions, However, only twenty-four of these prohibit the layoff of employees, and such provisions do not speak to the effects of technology. Moreover, only a couple of subcontracting provisions protect future positions in the bargaining unit. Fewer than ten of the ESP contracts have provisions that protect current employees who might be adversely affected by the use of new technologies. None of these protect future positions. In addition to limitations in terms of the extent of the provisions, contracts give employees virtually no direct input into the decision-making process regarding these issues.

Provisions regarding workplace changes point to various challenging issues that arise with new technology. Although eighty-four of the contracts addressing training, only eleven do so in the specific context of new technologies. Only one or two provide for employee involvement in shaping the training program. In areas such as the use of technology to set and monitor productivity, conduct electronic surveillance, and blur the boundaries between the workplace and leisure, the protections afforded support employees are virtually nonexistent.

Finally, the use of new technologies in higher education and the increasing focus on revenue generation in higher education point to a new area in which support staff are negotiating provisions—the involvement of staff in promoting and developing commercial products. Intellectual property has for some time been a focus of collective bargaining for faculty in higher education. With the restructuring of work in colleges and universities and the use of new information and instructional technologies in which support staff are very much involved, property rights are now an issue of considerable relevance to many support employees.

There are many differences between employees in the private and public sectors. Some of these have to do with the strategic focus of negotiations. Public sector employees, by virtue of their relationship to the state, may need to be more focused on public interest and broader political issues [20]. Perhaps as a result, and as a result of the more recent history of unions for public sector employees, much of the research on them addresses issues surrounding the legitimation and adjudication of collective bargaining in the public sector.

At the same time, many similarities exist between employees in the public and private sectors. Indeed, public sector organizations are profoundly influenced by personnel practices and policies of private sector enterprises. In recent years, as colleges and universities have become increasingly focused on revenue generation
and entrepreneurial activity, and as the boundaries between public and private organizations have become increasingly blurred, public employee unions must recognize that their members face some of the same challenges faced by private sector employees. In our view, technology is one of those challenges.

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REFERENCES


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