

# A Continuous Improvement Approach to Support Staff Workload Analysis: A Case Study

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*This is a case study of a continuous improvement (CI) process completed at a higher education institution in Pennsylvania. The CI team's mission was to determine the workload equity of department secretaries in academic affairs. Two important outcomes resulted from the continuous improvement process: core duties and responsibilities were determined for all department secretaries in academic affairs, and a secretarial workload analysis was benchmarked.*

Throughout this past decade, Total Quality Management (TQM) has become a principle focus of senior managers in organizations in both the public and private sectors. These organizations, to remain competitive in the global economy, have found it necessary to operate under new paradigms of management. Total Quality Management describes the philosophy and behavior of an organization dedicated to continuous quality improvement (CQI) throughout the organization. Continuous quality improvement is an integrated approach to management that emphasizes customer satisfaction and involves everyone in the organization in the scientific study and continuous improvement of all work processes. The CQI process involves a project-by-project approach systematically to improve quality, not just to stay the same (Friedli, 1994).

## **The Problem**

Colleges and universities, because of decreased financial support, new ways to deliver education, and stakeholder pressure for more accountability, have also begun to embrace the benefits of total quality management. During the 1997-98 academic year, Bloomsburg University, a state-supported university in Pennsylvania

implemented its first continuous improvement (CI) teams with the goal of improving specific university processes and services. These teams, composed of faculty, staff, administrators, and students, developed proactive strategies to accomplish this goal through an approach that

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emphasized empowerment and collaboration to solve problems. The teams examined various processes by collecting and analyzing data. Based on this information, the teams recommended solutions to improve these services during presentations to the University community.

This article focuses on the continuous improvement process of a team whose mission was to determine the workload equity of department secretaries. Two important outcomes resulted from this CI process: core duties and responsibilities were determined for all department secretaries in academic affairs, and a secretarial workload analysis was benchmarked.

## **The Investigation**

### *The site and Population*

Bloomsburg University is one of 14 regional state-supported universities in the Pennsylvania State System of Higher Education (PASSHE) with approximately 7,000 graduate and undergraduate students. The University is in a community of 12,000 with the nearest metropolitan area approximately 150 miles away. Bloomsburg University has three major colleges: Arts and Sciences, Business, and Professional Studies and employs 351 tenure-track faculty and 29 secretarial staff to support them. The faculty to staff ratios vary among the three colleges.

The population for this case study consisted of the 29 department secretaries in the Colleges of Arts & Sciences, Business, and Professional Studies employed at Bloomsburg University. The population job classifications included Clerk Typist/Steno II and Clerk Typist/Steno III.

### *Background to the Problem*

The Pennsylvania State System of Higher Education Presidents' Commission on the Status of Women has been studying the concerns of clerical support staff over the past three years. Their study has focused on difficulties, statewide, that these employees face in advancing their careers and achieving fair and equitable recognition and compensation for their job performance. Their findings and

recommendations were presented in a 1997 report to the Chancellor of the State System of Higher Education in Pennsylvania.

Having had an active role in this report, department secretaries in academic affairs on the Bloomsburg University campus met with the University President in the fall of 1997. The purpose of this meeting was to discuss their local concerns regarding workload, classification, training and the impact of technology on their jobs. As a first step in addressing the department secretarial concerns, the Provost and Vice President for Academic Affairs (VPAA) appointed a Continuous Improvement (CI) Team at the beginning of the 1998 spring semester.

### *The Continuous Improvement Process*

The CI team composite consisted of two staff representatives from each college, a representative from the office of Human Resources, a representative from the Provost's office and a faculty member for a total of nine individuals.

The university provided training for the CI team, the team leader, and the facilitator. The training included workshops on the continuous improvement process, team building, making presentations, and data collection and analysis. These workshops varied in time from one hour to a half-day. All team members were encouraged to participate.

The team met weekly during the eight-month process. The initial meetings dealt primarily with determining team name, team positions (leader, facilitator, timekeeper and minute taker), mission statement and setting ground rules for all meetings. These initial meetings were worthwhile in promoting the "team spirit" and reinforcing the CI process discussed in workshops.

The foundation of any CI process is the mission statement. The mission statement is the reason for the team's existence. The continuous quality improvement mission of the University is to create a proactive and enthusiastic culture of Continuous Improvement that promotes efficiency, productivity, and service excellence for internal and external stakeholders of the University. Reflecting upon the university mission

statement and after lengthy discussions, the team formulated its mission statement: *To determine workload of department secretaries within the Colleges of Arts and Sciences, Business, and Professional Studies.*

Workload included 29 core duties and responsibilities as determined through a review of job descriptions of the population. These core duties and responsibilities would be analyzed to determine if the workload was equitable. The team name would be SWAT (Secretarial Workload Analysis Team).

*Benchmarking.* Having established its mission and name, the team faced the challenge of benchmarking—an ongoing, systematic means for measuring and comparing the work processes of an organization. Through participation in the various CI workshops, the team had a good foundation from which to begin. To help the team further, the University hired a consultant to conduct a workshop on various aspects of the continuous improvement process. The team previewed *Common Metric Systems: The Job Analysis System* software used to assess workload. The team also contacted similar institutions within the state system to see if these institutions had completed any type of secretarial benchmarking. It appears this benchmarking was the first of its kind in the state system.

The team conducted a review of literature focusing on topics such as job analysis, workload analysis, job evaluation, secretarial duties and responsibilities and workplace technology. The review included research studies, journal articles, and textbooks. The team also reviewed job descriptions of the population.

*The questionnaire.* In designing the benchmark, the team decided the most logical method for data collection would be a questionnaire. The questionnaire contained two parts. The first part consisted of the twenty-nine core duties and responsibilities determined through an analysis of the population's job descriptions (Appendix A). The second part focused on areas outside the core that may have been unique to certain departments, i.e., student teaching, internships, and graduate programs. In addition, the benchmark included departmental data such as the number of tenure-track faculty,

the number of majors, number of minors and the credit hours generated.

The team spent more than three months in the development of the questionnaire. The team wanted to be sure all workload areas were addressed. Correct wording of every question was very important to insure data accuracy. The questionnaire was piloted to five non-departmental academic affairs secretaries. Pilot participants met with the team to discuss the questionnaire resulting in some minor changes.

The team felt a two-week period to gather data from the population was sufficient. A two-week period at the close of the spring semester (late April), which was considered a high workload time for the population, was chosen. During this time, the population would record various workload activities on tally sheets provided (Appendix B). The data from these tally sheets would be used to complete components of the questionnaire that the population would receive later.

Before the distribution of the revised questionnaire, the team and Provost met with the population to discuss the team's mission, the process, the importance of obtaining accurate data, and to lay aside "rumors" circulating campus. This meeting was very beneficial as it clarified the process and gave the population an opportunity to offer their comments and concerns.

In mid-May each of the potential participants received a coded survey packet containing the following items:

1. Cover memo describing the procedures to be followed in completing the questionnaire in the packet.
2. The questionnaire consisting of parts I and II.
3. An interoffice, self-addressed envelope.

Each mailed packet was assigned a code number used for follow-up purposes. Respondents were given two weeks to complete and return the questionnaire.

### Data Analysis

Statistical analyses were performed on all data collected using a variety of variables (Appendix C). The Statistical Package for the Social Sciences for Windows (SPSS+ microcomputer version, release 4.0) was used to analyze core responsibilities (mean, medium, and mode). Further analysis of the data provided quartile information to determine low, medium, average, and high workload groups.

### Findings, Conclusions, and Recommendations

This section presents the data received from department secretaries in academic affairs who participated in the study. The findings reported in this section were based on the responses from 29 department secretaries within academic affairs translating into a 100% participation rate.

As shown in Table 1, 58% (17) department secretaries were within the medium and average workload quartile. Seventeen percent (5) fell into the low workload quartile (two of which are half-time positions) and 24% (7) fell into the high quartile. It was concluded that workload was not equitable among the department secretaries within the Colleges of Arts and Sciences, Business, and Professional Studies.

#### Overall Recommendations

**Recommendation #1:** The Team recommended the University reinstitute one of the two secretarial floater positions previously approved by President's Cabinet. This position will be used exclusively within the three academic colleges and become effective by January 1999. The seven positions identified within the high quartile should receive priority when work assignments are determined.

**Recommendation #2:** The team recommended a copy of this continuous improvement study be furnished to the Office of Human Resources at the University for examination and consideration in the staff review process. It also recommended a copy of this study be provided to the Manager of Classification

and Compensation Systems at the State System of Higher Education, Office of Human Resources and Labor Relations.

**Recommendation #3:** The Team recommended the Provost and VPAA address the current 13 to 1 (Arts & Sciences = 14.3 to 1, Business 10.8 to 1, Professional Studies = 11.2 to 1) faculty to staff ratio, striving to achieve an overall university-wide 10-1 ratio. Based upon the data collected internally and externally, it was determined that the University's faculty to staff ratio was the highest when compared with those PASSHE institutions responding to the team's request for data (Table 2). When new tenure-track faculty are hired, attention should be given to the commitment of 10 to 1 faculty to staff ratio. To achieve the recommended 10 to 1 ratio, an additional 8 secretarial staff would be needed. Table 2 shows Bloomsburg University with the highest faculty to staff ratio of those PASSHE institutions responding.

**Recommendation #4:** The team identified a core of duties and responsibilities that apply to all department secretarial positions within academic affairs (Appendix A). The Team recommended

**Table 1: Secretarial Load (N=29)**

Quartile	Number	Percentage
Low	5	17.2
Medium	10	34.0
Average	7	24.1
High	7	24.1

**Table 2: Faculty to Staff Ratio**

UNIVERSITY	# Clerical	# Tenure Track	Ratio
Bloomsburg University	27	350.5	12.98 to 1
California University of PA	23	228	9.91 to 1
Millersville University of PA	28	289	10.32 to 1
Kutztown University of PA	30.5	318	10.42 to 1
Clarion University of PA	23.5	264	11.23 to 1

that the University Manager of Classification and Compensation review, update and inform departmental secretaries annually as changes are made to the core duties and responsibilities.

*Additional areas for Improvement*

Further data analysis revealed additional areas for improvement presented in the team’s final CI report. Selected conclusions and recommendations are presented.

Phone Interactions: Phone calls consume, on an average, 1 hour and 25 minutes per day of secretarial time, costing the University \$20.29 per secretary per day. The maximum number of calls per day was 87; the minimum was 12. The Team recommended a campus-wide voice mail system be adopted. (Cutting the number of phone calls per secretary per day in half by using a voice mail system, may save \$76,471.20 in the cost of secretarial time in the first year.)

Meetings: Secretaries are spending time attending, taking and transcribing minutes from written form to typed form. The Team recommended that Academic Affairs purchase four laptops for use by the secretarial staff in the College of Arts and Sciences. The Colleges of Business and Professional Studies currently provide laptops for secretarial use.

Software Packages:

Because of university policy, secretaries are using Word®. However, the findings show that over half the secretaries are proficient and comfortable using WordPerfect® and feel it offers more options than Word®. The Team recommended the University continue to support WordPerfect for those secretaries who wish to continue to use it and that a site license or stand alone software package be purchased.

Mail/Work Related Personal Contacts: These tasks, as shown in tables 3-5, decrease the availability of the secretary for other departmental duties. The Team recommended the establishment of student reception/work areas within all academic buildings. Students could work for more than one department and be paid from one central funding source. Additional state and federal student employment funds may be required to staff these areas. These areas should also be equipped with current technology.

Table 3 indicates the total number of personal contacts per day per college. The minimum was 7 and the maximum was 75. The College of Business has implemented a student reception/work area that may account for the overall low number of personal contacts.

Table 4 indicates the total number of mail received per week with an overall minimum of 10 and a maximum of 293. Periodically, student workers distribute mail in the College of Business relieving the secretaries of this daily task.

Table 5 indicates the total pieces of mail sent per week with an overall minimum of none and a maximum of 1522.

Forms: Secretaries are handwriting, typing, and processing paper forms. The Team recommended that Computer Services automate all paper forms to increase secretarial efficiency.

**Table 3: Personal Contacts Per Day**

AREA	Number	Mean	Median	Mode	Minimum	Max
All	29	30.75	26.0	13.0	7	75
Arts and Sciences	17	28.0	30.0	13.0	7	70
Business	5	20.2	26.0	20.0	14	26
Professional Studies	7	45.0	35.0	75.0	20	75

**Table 4: Mail Received/Distributed (# on and off campus) Per Week**

	Number	Mean	Median	Mode	Minimum	Max
All	29	69.13	50.0	30.0	10	293
Arts and Sciences	17	78.05	50.0	30.0	10	293
Business	5	45.60	30.0	30.0	18	96
Professional Studies	7	64.28	60.0	100.0	15	120

**Table 5: Mail Sent (# on and off campus) Per Week**

	Number	Mean	Median	Mode	Minimum	Max
All	29	154.41	52.0	50.0	0	1522
Arts and Sciences	17	166.23	57.0	50.0	0	1522
Business	5	48.0	52.0	26.0	26	70
Professional Studies	7	201.71	175.0	10.0	10	500

**Search & Screen:** Secretarial workload is increased dramatically during the Search & Screen process for new faculty. Arts and Sciences secretaries handle on the average (5) searches per year, Business (2) searches, and Professional Studies (6) searches per year. During the Search & Screen process, secretaries must attend search and screen meetings and process a vast amount of paperwork (advertisements, correspondence and mid-search and final reports). The Team recommended a Continuous Improvement team be created to streamline the Search & Screen process and determine the duties and responsibilities of the various offices involved.

**Exams/Advisement:** The Faculty Collective Bargaining Agreement, Article 4.B. and the University Academic Examination Policy make no provision for the proctoring of examinations or academic advisement of students by secretaries or other non-faculty members. The data revealed 41% of departmental secretaries advise students academically, and 48% advise in the absence of the advisor. Sixty-nine percent of secretaries are asked to proctor academic examinations and 3.4% indicated that they compile test scores and send results to students. The Team recommended that the Provost and VPAA send a memo to all faculty and department secretaries reminding them that under no circumstances should secretaries be required to proctor examinations or advise students academically. Having completed the CI process, the team presented their findings, conclusions and recommendations before the University-wide community eight months after the process began. The University CI Steering Committee gave the team high compliments on the process and findings. The Steering Committee endorsed and

sent all the team's recommendations to the University president.

### *Concluding Comments*

While many individuals in the academic community are

skeptical of the application of business processes to a university setting, the benefits of CI far outweigh the downside. During the eight-month process, the team listened to different perspectives on issues, broke down barriers, enhanced communication, created synergism and developed a true commitment to the mission resulting in two major outcomes. For the first time at the University, secretarial workload was assessed and analyzed and a list of core duties and responsibilities for all department secretaries was developed.

### Reference

Friedli, K. (1994, Jan-Feb). "Quality improvement processes that preclude information services are doomed to failure," *Industrial Management*, 36(1), 6.

### Appendix A: Core Duties & Responsibilities

- Serves as secretary to (i.e., department chairperson, assistant department chairperson, assistant dean, faculty within the department).
- Keeps chairperson informed of actions taken, impending deadlines, and situations requiring the chairperson's attention.
- Maintains the department chairperson's calendar, schedules meetings, luncheons, and special functions at the chairperson's request.
- Answers telephone and screens calls to the department; greets visitors and directs individuals to appropriate offices.
- Types, proofreads, and edits correspondence (i.e., letters, memos, student recommendations, faculty recommendations,

- examinations (ensuring confidentiality and security), reports, promotion, tenure and sabbatical applications, classroom materials, paper presentations, forms, syllabi, and vitae).
- Duplicates and arranges duplication of department materials.
- Drafts memos of routine correspondence for chairperson and/or faculty signature/approval.
- Opens, sorts, and reads mail for chairperson. Distributes departmental mail to faculty members.
- Prepares bulk and general mailings.
- Maintains departmental filing system.
- Authorized to release holds (academic) on student records.
- Authorized to do course overrides at the Chairperson's request.
- Submits forms (i.e., MWO, SRS, PR's, Quick Copy, Key Requests, travel approval, travel expense, etc.).
- Makes travel arrangements for department chairperson and faculty as requested.
- Responsible for inventory and ordering office supplies.
- Maintains departmental equipment inventory.
- Maintains office and/or building machines (i.e., fax machine, copier).
- Secretarial responsibilities for search and screen activities (i.e., travel arrangements, lodging and meals, minutes of search committee meetings, correspondence to applicants, maintaining faculty departmental temporary pool, etc.).
- Assists faculty with computer problems.
- Submits faculty absence reports.
- Attends departmental meetings, takes and transcribes minutes for chair's review and/or distribution.
- Maintains files and listings of majors and minors.
- Assists in preparation of 300 and 400 budget requests for yearly planning process.
- Maintains and monitors the departmental 300 E&G operating budget and 400 equipment budget.

- Enters faculty office hours on computerized system.
- Assigns advisees to faculty members, informs students and faculty of their respective advisor/advisee. Develops and maintains advisement files.
- Interviews, hires, trains and supervises (i.e., student employees, graduate assistants, Green Thumb Workers, etc.). Picks up and delivers student employees' checks.
- Prepares student transfer evaluations for review by the department chairperson.
- Reviews student records for graduation requirements.

### **Appendix B: Information Requested on Tally Sheets for a Two-Week Period**

- Number of phone interactions per day (incoming and outgoing)
- Number of personal contacts per day
- Electronic transactions per day
- Paper forms completed per day
- Number of pages typed per day
- Correspondence—number independently composed per day
- Proofreading—number of pages per day
- Mail—number of pieces per day received
- Mail—number of pieces per day sent
- Fax—number of faxes sent and received per day
- Copying—number of copies per day
- Errands—number per day

### **Appendix C: Variables Used to Determine Workload**

- Number of tenure-track faculty
- 300 area budget allocation
- Credit hours generated by department
- Number of majors
- Number of minors
- Telephone interaction—number per day—incoming and outgoing

- Word related personal contact—number per day
- Electronic transactions—number per week
- Paper forms—number per week
- Number of pages typed per week
- Number of pages proofread per week
- Number of pieces per week—regular mail on & off campus
- Number of bulk mailings per week
- Number of mail items processed per week
- Number of faxes sent per week
- Number of faxes received per week
- Number of copies made per day
- Number of errands made per week
- Number of independently composed correspondence per week
- Number of students scheduled per semester
- Number of searches supported per year
- Number of applicants per search
- Conferences, seminars, presentations, workshops coordinated per semester
- Training sessions attended per semester
- Number of files maintained: undergraduate students
- Number of files maintained: graduate students
- Number of files maintained: faculty
- Number of files maintained: staff
- Number of files maintained: student teachers
- Number of files maintained: office forms
- Number of files maintained: office files
- Number of files maintained: student employment—graduate and undergraduate
- Number of other files
- Transcript credit evaluation—evaluate only
- Transcript credit evaluation—process only
- Graduation approval assessment—evaluate
- Graduate approval assessment—process only
- Number of paper calendars coordinated
- Number of electronic calendars coordinated
- Payroll transactions per semester—number of leave slips
- Payroll transactions per semester—number of leave reports
- Payroll transactions per semester—number of leave records
- Number of students employed yearly
- Number of students personally supervised yearly
- Number of students personally hired yearly
- Reports completed requiring data collection per year
- Student holds placed per semester
- Student holds released per semester

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