Fitchburg State College (Massachusetts), a comprehensive public college, initiated restructuring using Total Quality Management (TQM) techniques in December 1992. The effort's mission was to increase communication, to identify barriers to defined goals and service to students, and to find ways to overcome those barriers. Two surveys followed the establishment of the mission: (1) a survey of graduate school alumni that found that inadequate communications and choice were major problems of the college; and (2) a marketing study that sampled students, alumni, prospective students, guidance counselors, employers, regional community members, and local community members to evaluate how the school's clientele perceived Fitchburg. Overall this study showed that Fitchburg enjoyed a solid reputation but that improvement was called for in communications, feedback, student choice, services, marketing and operations. Improvement actions were initiated in each area. Outcomes of these efforts show graduate student enrollment in 1994 was up by 14 percent over 1993 and up 22 percent over benchmark 1992 figures. Graduate division revenue in 1994 had risen by 30 percent over 1992. In addition, Fitchburg started eight new degree programs. A 1995 follow-up study was undertaken designed to determine the effectiveness of actions already taken and to discover new needs and issues. (JB)
TITLE: RESTRUCTURING AT FITCHBURG STATE COLLEGE THROUGH TOTAL QUALITY MANAGEMENT

CATEGORY: Restructuring Through Total Quality Management

INSTITUTION: Fitchburg State College
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TYPE: Four-year public college with graduate studies

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ABSTRACT
Fitchburg State College is a comprehensive public college committed to providing excellent, yet accessible and affordable, life-long learning opportunities in graduate, undergraduate, and continuing education. Restructuring through Total Quality Management (TQM) was officially initiated in December, 1992, with a mission:

To examine issues brought to the attention of one department that impact another; to identify barriers that impede progress toward defined goals and service to students; to identify behaviors and management style characteristics that enable barriers to be overcome.

Two major surveys followed: (1) A survey of Graduate School Alumni to determine how graduate student needs are being served, what is the college doing well, where is improvement needed, and what additional services could or should be provided? The responses indicate that inadequate communications and choice are the major problems of the college. (2) A “marketing” study was then conducted, sampling seven different client population groups, to ascertain how the school is perceived by its clientele.

Taken together, the surveys show the college is generally perceived as well-suited for providing a good education. However, they reflect concerns and point up areas for improvement in such categories as communications and feedback, student choice, services, marketing, and operations. Improvement action has been initiated in each of these categories.

Outcomes to date appear significant. Matriculated Graduate student enrollment in 1994 was up 14% over 1993, and up 22% over benchmark 1992 figures. Graduate Division revenue in 1994 rose 16% over 1993, and 30% over 1992. To facilitate student choice, three new CAGS programs have been introduced since 1992, three new masters degree programs, and two new graduate certificate programs, with additional new programs planned for 1995-96; 170 students are enrolled to date in the new programs. Additionally a course cancellation rate due to low enrollment of 34% in 1992 had been reduced to 23% in 1994 despite the increase of course offerings.

In the spring of 1995, the Division of Graduate and Continuing Education commenced continuation of the assessment process by determining to conduct a follow-up study to the 1992 survey. This new, more extensive, research will both determine the effectiveness of the actions already taken and discover what new needs and issues have developed since the last survey. In this manner, the assessment process will be ongoing--continuous--so that Fitchburg State Division of Graduate and Continuing Education should not find itself out of touch with the needs of its students and other clients.

INTRODUCTION
Fitchburg State College integrates an interdisciplinary, multicultural Liberal Arts and Sciences core program with selected strong professional and arts and science majors. This unique educational milieu encourages development of the whole person and prepares students for careers that meet the needs of their varied communities.

This comprehensive public college is committed to providing excellent, yet accessible and affordable Life Long Learning opportunities in undergraduate, graduate, and continuing education. A dynamic force in New England, Fitchburg State College shares leadership and resources with and draws expertise from its geographic region. Valuing the diversity of the learning community, it helps students become personally and professionally responsible citizens by promoting their intellectual, social, and ethical development.
Restructuring through Total Quality Management at Fitchburg State College was officially introduced at an inter-divisional meeting convened by the Dean of Graduate and Continuing Education in December, 1992. The meeting opened with the question, "Has the Division implemented TQM and, if so, how has it worked?" In partial response it was reported that the DGCE had started to move toward TQM and that the benefits already noted included enhanced team-spirit, a greater sense of collaboration and empowerment on the part of the division's staff, and facilitated communications both internally and externally with students, faculty, and other administrative divisions. This meeting resulted in the following TQM mission:

To examine issues brought to the attention of one department that impact another; to identify barriers that impede progress toward defined goals and service to students; to identify behaviors and management style characteristics that enable barriers to be overcome.

PROBLEMS AND NEEDS
Concurrent with adoption of the TQM philosophy at FSC in 1992, two major surveys were conducted:

1.) A Graduate School Survey of alumni was conducted in response to the judgment that reliable information is needed in order to learn the manner in which programs are currently serving our customers, specifically the graduate students. How are students' needs being served? What are we doing well? Where is there room for improvement? What services could or should be provided which currently are not?

Aside from a variety of demographic questions, this survey concentrated on several areas of the respondents' experiences with the graduate program. First, we attempted to learn what factors had led individuals to choose Fitchburg State to pursue their graduate programs, and whether or not their expectations had been satisfied, exceeded or disappointed. For example, we asked, "How important was the development of new skills in your decision to pursue your degree at Fitchburg State?" and, "How important was program reputation in your decision...?" These questions were followed by a matching series of items that questioned how well a student's expectations and needs were met.

Another series questioned respondents about their relationship with their advisor, raising issues concerning services provided by advisors, advisor accessibility, dependability, helpfulness and extent of use. Questions were asked concerning the registration process, determining the nature of the respondent's experience with registration and in what ways that experience was frustrating or unsuccessful. Similarly, there were questions that dealt with the respondent's particular program, coursework and professors. Other questions dealt with various service aspects of the college, including library services, computer laboratories and financial aid. The student's general experience with the graduate program was gleaned from questions regarding the degree to which course cancellations had been a problem, how well informed about the college and its various services and events the respondent felt and how, generally, the respondents felt they had been treated by the college institution. There were questions concerning the existing class schedule structure and possible alternatives. The survey finished with a series of questions pertinent to the marketing of Fitchburg State programs.

In total, over 600 surveys were sent to graduates who had completed their program during the previous two years. Over 250 were completed and returned, indicating a response rate of over 40%. The surveys indicated that inadequate communications and choice were the topmost problem areas at FSC. It is clear, for example, that while graduates have been satisfied with their overall experience at FSC, many feel that they were not kept as fully informed as they would have liked in such areas as career advising, course sequencing and academic options. It can be inferred from the data that many would have preferred their
advisor to take a more active role. It is also apparent that while most felt they received a good education, many would have preferred more choice in their programs in such areas as instructors, electives and program and course sequences. A significant portion appear to feel that they have not had adequate opportunity to express their needs and to provide effective feedback within programs.

Closely related to and intertwined with these key program areas are the following: marketing - inadequate publicizing and marketing of current and new programs; facilities and services - lack of student and faculty access to central office staff, food service, training aids and equipment, telephones, and personal facilities; supporting operations - cumbersome course registration procedures, inadequate training of support staff; poor documentation and standardization of operating procedures and insufficient investment in technology and its use; and, finally, the cost and financial burden of a college education.

2.) The second ("Marketing") study was developed in 1993 and completed in June 1994. Its primary goal was to develop an understanding of the perceptions held about Fitchburg State College by relevant populations. Understanding how the school is perceived would allow the college to determine how it might best present itself in its formal and informal communications. Also, by learning what individuals felt about the kind of job the college is doing, the institution would be better able to consider the kinds of changes that would be necessary to most effectively respond to the needs of the groups it is intended to service, i.e., students, alumni, regional employers and so forth. Seven sample populations were surveyed: current Fitchburg State students, alumni, prospective students, guidance counselors, employers, regional community members and local community members.

The survey reports offer specific information concerning perceptions of Fitchburg State College by each of the populations studied. Some broad generalizations are possible: These surveys demonstrate that people from many different backgrounds, and who maintain varied relations with the college, for the most part tend to hold positive attitudes toward Fitchburg State College. More specifically respondents perceive Fitchburg State as an institution well suited for providing a good education, particularly education at a reasonable cost toward a professional career. Current students and alumni, both, have strongly positive attitudes toward faculty and generally toward the staff. However, their perceptions of many service offices are less strongly positive and, in some cases, weakly negative. Through these studies, it is evident that current students and alumni are and have been very career oriented. They are concerned with the cost of education, and this has much to do with why they selected Fitchburg State. In many cases they were attracted by the reputations of specific departments and programs.

The surveys also reveal some clearly negative perceptions about the school. The most obvious negative perceptions center around campus and neighborhood safety issues, a concern raised by all groups questioned. These perceptions are not new, since alumni from as many as thirty years ago indicate that campus and neighborhood safety have been an issue. Current and past students also indicate some concern about the issues of racism and sexism as they relate to the college. There seems to be a sense that, while the college does not have a particularly serious problem in these areas, it does not do enough to address these issues. Nonetheless, the overall impression is that Fitchburg State is an institution that provides a good, perhaps excellent, education at affordable cost as called for by its mission statement. It is particularly appropriate for professionally oriented education. Its location within the state is perceived as a benefit.

Examination of these results enables some broad recommendations: Most important is the need for the college to work with these results. There is no aspect of the college that is not touched by what was
learned. For this research to have value, it is necessary that the institution come to terms with how and why it is perceived as it is. Which of these perceptions indicate a reservoir of good will toward the school and, thus, represent a base upon which it can grow? Which of these perceptions provide indications concerning where the school does not successfully provide for the needs of its students and others? How should it respond to such perceptions? In what ways can the institution be altered to better serve its constituents? The committee originally formed to direct the marketing study has suggested that each office and department within the school consider what kinds of actions should and must be taken to respond to the lessons learned. This supervisory committee will continue to work with the results of the surveys in order to develop a series of action plans based on the data derived therefrom.

It is also apparent that Fitchburg State needs to better communicate what it does to provide for campus safety, to address race and gender issues and, generally, to provide for the needs of its students. Likewise it is clear that Fitchburg State needs to decide how to respond to the fact that it is perceived as primarily a professionally oriented institution. Does it want to encourage this perception? Does it want to de-emphasize this aspect of the institution so that it can encourage a more liberal arts and sciences perception? Is it possible to present the college as both a professional and a liberal arts institution?

These studies have produced a rich database that may provide a thorough understanding of how the school is perceived and, potentially, why people hold the perceptions they do. It is possible, in many cases, to determine what kinds of experiences and circumstances are related to different kinds of attitudes and perceptions, and to further exploit the database to develop understandings of complex relationships among the variables studied. Further, this can serve as a benchmark to help visualize how future actions may lead to changes in the perceptions.

**KEY STRATEGIES AND SOLUTIONS**

A host of improvements have been taken as a direct outgrowth of the adoption of TQM at FSC, the resultant surveys, and specification of the college's TQM mission. To facilitate two-way communications between customer divisions within the college, an extensive suggestion box system has been installed, a screening committee established to review and coordinate action on these suggestions, and a monthly meeting of the interdivisional TQM team institutionalized. As a direct outgrowth, the following activities and actions have been initiated:

**Communications and Feedback**

- production of individual program brochures fully describing each academic program
- establishment of a Graduate and Continuing Education extension office in the building commonly used for DGCE classes in order to facilitate communications between students, faculty, and DGCE staff
- publication of a new, more user-friendly, college telephone directory
- institution of faculty and staff development workshops (e.g., how to address the needs of adult learners)
- distribution of both student and adjunct faculty handbooks, each containing administrative and emergency information of importance to its audience.
- implementation of a series of semi-annual DGCE open houses, academic program-specific receptions, bi-monthly academic program chairs meetings and academic program general
advising meetings to facilitate communication and exchanges of information between prospective students, current students, faculty, and staff.

Choice
Student choice has been greatly facilitated by increased alternative scheduling of multi-sections of courses each semester. Further, a number of new graduate, undergraduate, and certificate programs have been added during the past three years, or are in the final authorization stages.

Services
The surveys of students plus subsequent suggestion box items revealed significant discontent with the amenities at the McKay School building, where many DGCE evening courses are held. An upgrade survey has been conducted and, as a result, a DGCE satellite office has been established there and is staffed during evening class hours, additional AV equipment has been purchased for McKay, the McKay student lounge facilities have been upgraded, and an additional pay telephone and intra-campus wall telephone have been installed and evening mobile food service instituted.

Marketing
The problems of inadequate marketing noted in the survey have been addressed as follows: A DGCE marketing committee has been created and program-specific marketing commenced, including marketing aimed specifically at international students. Marketing today relies heavily on internally-designed direct mail materials, with significantly less emphasis on newspaper and periodicals. Customized student recruiting packets and related materials (response cards, request-for-information pads, etc.) are used. Strong reliance is placed on college and business student recruiting fairs.

Operations
Operational support for students and faculty has been significantly streamlined and facilitated. One-day mass course registrations for each semester have been eliminated in favor of broadening and extending the registration calendar. Today, registrations are accepted by Fax in addition to the traditional, mail-in/phone-in/walk-in methods. Increased course offerings and multi-day sections of courses reduce student concern over lack of choice. Virtually all administrative support procedures have been documented, filing systems standardized, computer and other support technology upgraded to state-of-the-art, and employee cross-training maximized.

OUTCOMES
It has been only slightly over two years since the surveys previously discussed were conducted. Thus, it is not possible to provide a direct comparison between student attitudes and concerns in 1992 to those of our current students. However, it is possible to consider a variety of indices in assessing the effectiveness of the actions taken over the last few years.

Four areas serve as quantitative indicators of response to our initiatives. The first involves student enrollment. Generally, enrollment during the 1980's had plateaued and then began a consistent annual decrease. By 1992, 9,085 students were enrolled in graduate or undergraduate programs. In 1993, after our action plans were being executed, the number of enrollees increased by 7% to 9,767. This is a marked increase, although it could have been anomalous. However, 11,113 students were enrolled during 1994. This represents an increase of 14% over the 1993 enrollment figures and a 22% increase over the benchmark figures from 1992.

This kind of growth can be discerned, as well, by examining tuition and fee revenue figures for these three years. In 1992, the division received $2,411,619, a figure that is congruent with the falloff in
revenue during the 1980's. In 1993, revenue increased by over 14% above the previous year. 1994 figures again represent a significant increase. Revenue for 1994 rose 16% over the previous year and 30% over 1992 earnings.

Perhaps more importantly from a student's perspective, positive change may be seen, in relation to course offerings. One significant outcome of the surveys and other efforts to determine student needs and interests has been development and implementation of a number of new degree and certificate programs. The following programs were initiated in 1993: CAGS programs in both Educational Leadership and Management, and in Interdisciplinary Studies; an M.S. in Communications/Media Management; M.A.T. programs in both Biology and in History; undergraduate certificate programs in both Human Resources Management and in Office Administration; and implementation of an undergraduate minor in Psychology through the evening division. These actions were followed, in 1994, by initiation of a new CAGS in Consultation and Peer Leadership, and new graduate certificate programs in both Forensic Casework and Substance Abuse Services. To date, 170 students are enrolled in these new programs. Finally, the following new programs have been approved and commenced in 1995: the Master of Business Administration, the Master of Science in Criminal Justice, a Middle School Education track in the Master of Education program, and an evening division undergraduate minor in English literature.

In 1992, 791 courses were offered through the DGCE. In 1993, partly in response to student concerns about choice, 839 courses were offered, representing an increase of 6%. 906 courses were offered in 1994, an increase of 8% over the previous year and of 15% over 1992 offerings. It can be seen, then, that course offerings increased dramatically over the period described here.

However, courses that are offered but do not meet due to low enrollment are a frustration rather than an aid to students. In fact, course cancellation was a concern indicated in the survey. In 1992, 265 of the 791 courses offered failed to meet the minimum registration and were cancelled. This represents a cancellation rate of 34%. To put this in more practical terms, approximately one of every three courses offered during 1992 failed to meet. In 1993, when 839 courses were offered, 210 were cancelled due to low enrollment. This is a cancellation decrease of 21% over 1992. Only 25%, or one in four courses, was cancelled during 1993. In 1994, when 906 courses were offered, only 203 courses were cancelled. This represents a 23% decrease in course cancellation since 1992. Although, in terms of raw numbers, this does not represent a significant improvement over 1993 numbers, when the increase of course offerings is considered, a continuing improvement may be easily discerned. Only 22% of the 1994 offerings had to be cancelled, nearly a factor of one course in five.

Statistics alone do not tell the entire story of the changes in Fitchburg State's Division of Graduate and Continuing Education over the last two years. They do serve, however, as quantitative indices of the changes that many students, faculty and staff have felt during this time. They represent significant and consistent improvement within the organization as a provider of educational service to our students.

The college is continuing to work with the lessons learned from the surveys, and is aggressively continuing to gather data from the suggestion boxes and other sources of information. In the spring of 1995, the Division of Graduate and Continuing Education commenced continuation of the assessment process by determining to conduct a follow-up study to the 1992 survey. After three years, a new student body is in place, many of whom were matriculated during the period when action plans were being executed. This new research will both determine the effectiveness of the actions already taken and discover what new needs and issues have developed since the last survey.

This research will be more extensive: In addition to surveying alumni from the last three years, four
This research will be more extensive. In addition to surveying alumni from the last three years, four additional groups will be queried: current graduate students, current undergraduate students, faculty and regional employers. By identifying the perceptions of these groups--each of which may be viewed in one fashion or another as client groups for DGCE services--the Division should be better able to understand and serve their needs. The research should be completed by spring 1996. In this manner, the assessment process will be ongoing--continuous--so that the Fitchburg State Division Graduate and Continuing Education should not find itself out of touch with the needs of its students and other clients as long as this process is maintained.