

Converting Student Support Services To Online Delivery

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[See table of contents](#)

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Article abstract

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Converting Student Support Services To Online Delivery

David Brigham
Regents College

Abstract

This case study describes how Regents College (soon to be Excelsior College), an accredited, private, distance education institution with administrative offices in Albany, New York addressed the structural, management, and resource issues that came into play when converting distance education programs from print-based and telephone delivery to online delivery. The study uses a systems framework to describe and analyze the circumstances and issues surrounding the creation of six student support services: electronic advising, an electronic peer network, an online database of distance courses, an online bookstore, a virtual library, and an alumni services website.

Introduction

Based in Albany, N.Y. Regents College [<http://www.regents.edu>] (soon to be Excelsior College, [www.Excelsior.edu]) is an accredited, private, degree-granting distance education institution designed for adults who choose to complete their college degrees in a self-paced, portable manner. Regents College is considered a standard bearer in distance learning, having served as a model for several other college programs across the United States. Nevertheless, the College retains its unique character in that virtually all of its degree programs use an outcomes-based assessment of learning model.

With an enrollment of 17,000 students Regents College awards degrees in 32 programs at the associate and baccalaureate levels in business, liberal arts, nursing and technology, a Master of Arts degree in Liberal Studies and a Master of Science degree in Nursing. The College serves primarily working adults at a distance by means of the assessment of prior learning, academic advising, learning support services, educational brokering, and credit-by- examination. Students earn degree credits in many ways but primarily by taking Regents College examinations, transferring credits from regionally accredited institutions, or using faculty evaluated collegiate training programs from business, industry and the United States military.

Conversion of Programs to Online Modes

Born as a paper-based institution, Regents College recognizes the important role the availability of online student support services plays in recruiting students to the College, facilitating their degree completion, and establishing and maintaining an active alumni. Within the last three years the College has established electronic advising, an electronic peer network, a virtual library, an online bookstore, a web-delivered database of distance courses, and an online alumni service. This paper describes how these services were converted from services delivered by print and telephone to services delivered online.

Problems and Issues

Problems and issues encountered in the conversion of program support services to online delivery include the provision and allocation of resources, the availability of appropriate technological infrastructure, organizational structures and procedures, service quality, student access and equity, and policies on academic honesty and student behavior. Perhaps the most crucial question that had to be addressed was whether to provide a particular service in-house using existing resources or to outsource that service to a vendor. The way in which this question was answered influenced the impact on the types of problems and issues generated.

Resolving Problems and Issues

Regents College's existing management and organizational structure and administrative processes were used to resolve problems and issues. The College consists of five divisions reporting to the Office of the President: Academic Affairs, Enrollment Management, Finance and Administration, Institutional Advancement, and Organizational Development and Human Resources. The College's committee structure includes Executive Staff (the president and vice-presidents), the Operations Staff Committee (chaired by the president and composed of the vice-presidents and mid-level managers from all divisions), the Academic Affairs Council (chaired by the division vice-president and composed of deans and directors) and ad hoc committees as needed. In addition, problems were addressed directly (without involving a committee) by the appropriate administrator(s) and staff.

Case Study Organization

This case study uses a systems approach as an organizational framework. A systems framework provides a means to examine extra-institutional societal fac-

tors acting on the institution from without and factors acting from within. The study begins by describing the structure, culture, and processes unique to Regents College and the societal factors that have had the greatest influence on the College. In the next section, the study identifies the most influential environmental demands on the institution. The remaining sections of the paper focus on the chronology of events associated with the process of converting student support services to online delivery, intended and unintended consequences of conversion, and the implications of this experience for the College and other institutions planning to convert services to online delivery.

Sources of data used in preparing this case study include a range of documents (proprietary and public) maintained by the College such as strategic long-range plans, memoranda, minutes from committee meetings, discussions with members of Executive Staff, Operation Staff, and Academic Affairs Council staff and other staff members as necessary. Techniques of qualitative data analysis (Miles & Huberman, 1994) were used to explore, analyze, and display data.

Distinguishing Structure, Culture, and Processes of the Institution

Regents College was established in 1971 by the New York State Board of Regents as its external degree program serving adults who had some college credit but had not completed a college degree. The College's mission was (and remains) to expand educational access with economy and efficiency, particularly to those historically underrepresented in higher education. In 1998, the Board of Regents granted the College a charter to operate as a private, independent college.

A distinguishing aspect of Regents College is that except for graduate level degree programs, the College does not offer courses (i.e., units of study consisting of about 135 hours of study) of its own. It has no campus, resident students, or classrooms. Students enrolled in Regents College earn degree credits through courses offered at accredited colleges and universities in the United States and in other countries, distance learning courses, and military and industry training evaluated for college credit by the American Council on Education (ACE) and the New York National Program on Non-Collegiate Sponsored Instruction (PONSI). Credits can also be earned through Regents College Examinations, a series of 50 examinations developed and administered by Regents College to measure college-level knowledge in a variety of disciplines.

Another distinguishing feature of Regents College is its emphasis on the evaluation of prior learning and the application of acceptable credits to degree programs. Regents College was founded on the philosophy that "What you know is more important than where or how you learned it" (see Appendix A) and the college remains committed to this philosophy today. Unlike other U.S. colleges

and universities, Regents College requires no academic residency.

It is important to note that Regents College has no resident faculty. The faculty of Regents College (approximately 350) is drawn from many colleges and universities, industry, and professions and is comprised of senior, tenured professors. Faculty establish degree requirements, determine how these requirements will be met, and vote to recommend candidates for degree conferral to the College's Board of Trustees. Although, faculty typically join Regents College because they support the mission of the college, they identify primarily with their home institutions. However, when faculty meet at Regents College, many of the turf battles found on their home campuses do not exist at Regents College where they are on neutral territory.

Another distinguishing aspect is that the role of academic advising staff differs from that of advisors at colleges where advising duties fall to faculty. At Regents College advisors are not faculty members. They are full-time professional advisors without instructional responsibilities. Advisors focus on evaluating student credit, pointing students toward new sources of credit (e.g., distance courses), and advising students on study resources. Therefore student support services are broader and qualitatively different from those expected in more traditional distance learning institutions.

Extra-institutional (societal) Context

Several external environmental factors influence Regents College as a distance education institution. The most important of these include continual growth in the number of adults returning to higher education in the United States and abroad (Maehl, 2000; UNESCO, 1998), the preference of adults to continue working and living at home while earning a college degree, the growth of the Internet and World Wide Web, the increasing availability and importance of computers, competition for adult learners from traditional institutions and corporate entities offering distance education programs, and the opening of new international markets. In addition, increasing student expectations for fast, economical, personal, and courteous service has placed additional pressure on Regents College to continually improve the quality of services offered to students or risk losing enrollments to those better able to provide them.

Institutional Environmental Demands

The key institutional environmental demands on the College emanate from increased accountability required by a new board of trustees. The executive staff instituted a college-wide planning process that articulated a vision for the col-

lege, reviewed the institution's mission (in light of the external environmental influences), and identified strategic initiatives and short and long-term goals for achieving that vision. Most importantly, the College leadership established structures (e.g., a system of quarterly reports and annual staff performance review) that supported the implementation and monitoring of the strategic plan.

The College's strategic long-range plan provides the framework for the activities of staff and is therefore an important internal environmental factor. The current strategic plan (Regents College, 2000) contains ten strategic initiatives designed to advance the College toward achieving its mission. Strategic initiatives particularly relevant to the conversion of student services to online formats include the following: the establishment of strategic alliances, building a learning infrastructure, developing new academic programs, using a balanced set of measures of institutional success, closing the service gap to students, maximizing the use of technology, and assuring the financial health of the institution.

The implementation of the College's strategic plan provides much of the context for the conversion of online student support services. In addition, the renewed organizational energy that came, in part, from the College earning its independence from the Board of Regents in 1998, contributed to the willingness of the College's leadership to support innovations, particularly those well-aligned with the strategic long-term plan.

Chronicle of Efforts and Events to Convert to On-line Programs

This section describes the conversion of six student support services to online delivery. Components of the old and online versions of each service are described and the resources required to convert and maintain them.

Table 1 provides a time line for the conversion of services including implementation dates, time required between the decision to convert each service and implementation, and the approach used (developing the service primarily in-house or outsourcing to a vendor).

Conversions began with advising in April 1997 and finished with alumni services in July 2000, a span of three years and four months. Only one service (EPN) required more than a year from the decision to convert to implementation. Table 1 also indicates a trend away from using an in-house approach.

Table 1. Service Conversion Time Line

Service	Date	Time required	Approach
Advising	10/97	7 months	In-house
Electronic Peer Network	5/98	15 months	In-house
DistanceLearn	7/99	1 year	Outsource
Bookstore	8/99	1 year	Outsource
Library	2/99	1 year	Outsource
Alumni	7/00	4 months	Outsource

Advising

Academic advising is core service of the College. Therefore, when the College became an Internet node in April 1997, it moved quickly to provide students electronic access to advisors. The College evaluated e-mail software packages and selected Lotus Notes, in part, because it could support an advising system that required students to contact an advising team rather than individual advisors. Team e-mail boxes were established to facilitate this system.

In the past, advisors used primarily telephone, supplemented with postal mail and fax to communicate with students. Since these means of communication are still regularly used to advise students, the implementation of electronic advising represents an addition to existing advising services rather than a replacement. However, this addition generated new problems and issues for staff, discussed later in this paper as consequences of the conversion to online delivery.

The process of installing the new e-mail system and training staff to use it proceeded systematically. Staff were trained to use Lotus Notes for internal e-mail in April and May of 1997, so that when the system was linked to the Internet, virtually no additional training was necessary. The College was able to use Office of Information and Technology Services (OITS) staff for most aspects of this project such as configuring hardware (a new server was required) and software. However, outside consultants were sometimes used to troubleshoot problems. Once the e-mail system had been implemented, the system was maintained with internal resources.

Since the College had already installed the Lotus Notes e-mail system for internal staff communication, resources required to enable electronic advising were incremental. These included the equivalent of one professional level technical

staff working full time for three months, one support level technical staff working one week, and one professional level academic staff working one week.

The Electronic Peer Network

Because of the geographic dispersal of students and differences in work schedules, Regents College students have not historically had convenient access to fellow students for academic or emotional support or to engage in collaborative learning activities. The Electronic Peer Network (EPN) is a website [<http://gl.regents.edu>] that was created to provide a means for students to interact academically and socially as they progress through their degree programs. The EPN also enables students to interact with staff and to access additional resources. EPN members use the website to locate study partners, join online study groups, chat with other students and staff, and access resources related to their programs and career goals.

The EPN replaced the Learning Network which consisted of a paper directory of student contact information distributed to members twice per year. Students mailed or faxed in a membership form that included their name, address, phone number (eventually e-mail addresses), and degree program listed in the directory. Learning Network members used the directory to contact other students in their program.

The impetus to convert the Learning Network to a web-based service was provided when the Office of Learning Services received a small grant from the National Center for Adult Learning (NCAL) to create an Electronic Peer Network. Learning Services and OITS in collaboration with Fiscal Services decided to develop the EPN primarily in-house because of the uniqueness of this service. Vendors specializing in providing electronic peer networks did not exist.

The process of converting this service was more difficult, time-consuming, and expensive than anticipated. With little notice, OTIS had to incorporate into its work flow a complex, technologically sophisticated, labor-intensive project by the deadline specified in the grant. The design and development process involved hundreds of hours designing systems, selecting, testing, and installing software, setting up a secure registration system, and working with consultants to solve technical problems that surfaced on a regular basis. In addition, hardware had to be selected, purchased, installed (including a new server), and tested. Learning Services staff were also involved in many of these activities, some of which required rapidly learning and applying new skills. Overall, the startup and maintenance costs of this project were ten times more than those anticipated when the project was first proposed (Brigham, 1998).

The EPN also requires a substantial increase in resources dedicated to maintaining this service. Whereas the Learning Network had required a full-time

coordinator and minimal secretarial support, the EPN requires a full-time coordinator, a full-time computer application engineer, a part-time technical support person (evenings and weekends), significantly more secretarial support, a portion of the College's webmaster's time, and about a dozen staff to monitor discussion groups and facilitate real-time chats. Startup and annual operating costs for the design development and implementation of the EPN are displayed in Appendix B.

DistanceLearn

To complete their degree programs, Regents College students often require credit-bearing educational opportunities beyond those offered by the College's battery of examinations. Therefore, in 1987 the College created DistanceLearn, the nation's first electronic database of distance courses and examinations that do not require a period of face-to-face instruction. DistanceLearn currently contains over 16,500 distance courses and examinations available from over 270 accredited colleges and universities in the United States and several countries. DistanceLearn is installed on Peterson's website at [<http://www.lifelonglearning.com>] and can be searched by institution name, subject, keyword, delivery method, and cost (DistanceLearn, 2000).

For almost 14 years DistanceLearn has been available to advisors on the College's LAN as a DOS-based application. DistanceLearn assisted advisors in their role as educational brokers. Advisors searched the database for students while they were on the telephone and printed out copies of course information for faxing or mailing to students. Before DistanceLearn was available on the web, a few students accessed DistanceLearn themselves by purchasing it on computer disks from the Regents College Bookstore.

When the College decided to make DistanceLearn accessible on the web, it found the cost prohibitive (estimated to be \$250,000 - \$300,000) to do this conversion in-house. Therefore, the College entered into a collaborative agreement with Peterson's, Inc. who designed and developed a website for this purpose. The College used internal resources to convert the DistanceLearn from a DOS-based application to a format (Microsoft Access) that would allow Peterson's to install it on their website. The College was able to accomplish this task with existing resources and staff (i.e., one full-time and one part-time position).

Resources required to convert DistanceLearn from a DOS-based application to a Microsoft Access database required the equivalent of one professional level technical staff working full time for six months, one technical consultant working two weeks, one support level technical staff working one month, and one professional level academic staff working two weeks. (Note: Cost data related to creating the website and installing DistanceLearn on the website is proprietary and cannot be provided in this paper.)

Bookstore

Providing students with convenient, affordable, rapid, and reliable access to study materials and resources is a crucial aspect of distance learning. Given the widespread geographic distribution of Regents College students, establishing an online bookstore with 24 X 7 access was viewed as a way to significantly improve the existing bookstore service.

For several years Regents College had outsourced its bookstore to another college. However, student complaints about poor service and the absence of online services prompted the College to seek another vendor. Recognizing that the College could not provide the desired level of professional service in-house, it solicited proposals from vendors specializing in serving distance learners and contracted with Specialty Books. Specialty Books created a website [<http://www.specialty-books.com/cgi-bin/regents>] where students can order and pay for study materials and resources (students may also order by phone, postal mail, and fax). Since student complaints virtually disappeared with the establishment of this online service, the demands on Regents College staff actually decreased.

Changing to a bookstore that provided online access for students required virtually no additional resources from the College. Screening vendors required two weeks of professional level administrative staff time and negotiating a contract and articulating needs required one week of professional level staff time. Time spent by a support level Regents College staff member to liaison between College staff and Specialty bookstore staff to maintain the shelf list continued to require about one day per week or 20 % of a full time support level position. Overall, arranging to have a bookstore accessible online provided a new stream of revenue to the College via a negotiated agreement with the vendor.

Library

Obtaining research materials and assistance to carry out research has been a persistent problem for adult distance learners, particularly for those not living near or having access to adequate libraries. Accrediting agencies are beginning to recognize the importance of providing library services to distance students and are beginning to develop standards for distance education programs. In February 2000 the College implemented the Regents College Virtual Library (RCVL) as its solution to providing library services for students.

The RCVL provides library services that students can access from a Regents College website [www.library.regents.edu] designed and maintained in collaboration with Johns Hopkins University. This website integrates core library services including reference services, interlibrary loan, a virtual reading room, and online databases that support Regents College degree programs. Students can request

hard copies of books and journal articles for home delivery and receive help on an individual basis via e-mail or telephone from a reference librarian located at Johns Hopkins University. Online tutorials help students use these services.

Before the advent of the World Wide Web, the College included library research advice in sections of several printed publications. But for the most part, students were on their own to access library resources locally.

As Regents College has no campus or library, outsourcing the RCVL was a for-gone conclusion. The College solicited proposals from universities and decided to contract with Johns Hopkins University. Regents College's responsibility was to host a website on its server and develop a sophisticated online registration system that would authenticate students and allow access to several databases provided by different vendors. This was accomplished by Regents College existing internal OITS staff with some help from consultants. The College pays a sum of money (proprietary information) to support the services provided by Johns Hopkins. These services include managing the website, providing a full-time librarian dedicated to assisting Regents College students, staff, and faculty and a half-time interlibrary loan librarian.

Resources required for Regents College to host the library website on its server were accomplished with existing hardware and staff including available space on a webserver and two weeks of a webmaster's time. Incremental costs required to develop an online registration system that would allow library patrons to use one username and password to login to several proprietary databases. These resources included the equivalent of a highly skilled technician 25 days of work time. In addition, ten percent of a professional level position is required to communicate the ongoing library resource needs of Regents College students, staff, and faculty. Administrative planning requires the equivalent of two days per month of a professional level position.

Alumni Services

Regents College recognizes its 89,000 alumni as a valuable resource for the College. Alumni are potential mentors for current students, motivators for prospective students, prospective graduate students, and sponsors of college scholarships and activities. However, historically alumni did not have an effective means for communicating with the College or with one another. Therefore, the College created an alumni website [<http://alumni.regents.edu/>] as a place for alumni to maintain contact with the College and to build a sense of community with other graduates and College staff.

The alumni services website which opened in July 2000 currently contains news about Regents College, links to career resources, access to Regents College memorabilia, alumni surveys, an electronic version of a Regents College alumni pub-

lication, *Live and Learn*, and a variety of features of general interest to adults. Features on this site continue to be developed.

Before implementing the alumni services website, the College used *Live and Learn* to keep alumni informed about Regents College. In addition, the College's database was used to prepare mailings to students. Staff resources included a half-time secretary and, for the past two years, a full-time director. These resources have been sufficient to support the current website.

The alumni services website was outsourced to a vendor (mypersonal.com) for a number of reasons. Regents College resources were already committed to other web-based initiatives so that this project could not be implemented quickly. Another reason was that using this vendor required no fee for website design and maintenance. The website is supported by revenue raised through the sale of links to the site. Therefore, incremental costs to the College were and are inconsequential.

Intended and Unintended Consequences

The conversion of student support services to online formats has had several intended and unintended consequences. The primary intended consequence of conversion was to facilitate student progress toward degree completion by providing better and more accessible support services within the framework of the College's strategic plan.

Overall, this intended consequence was realized. Converting support services to the web increased service access and quality. Electronic advising increased student access to advisors as messages could be exchanged day or night. The EPN increased interaction among students (Brigham, 1998) as students formed study groups and supported each other. Converting DistanceLearn to the web allowed students to locate distance courses at their convenience. The online bookstore replaced poor service and limited access with excellent service and expanded access. The virtual library gave students access to resources formerly inaccessible. (Note: It is too early to assess the impact of the alumni services website which recently opened.)

Unintended consequences have also occurred and varied with each service. Online advising generated new issues: establishing a response time for answering messages, integrating e-mail with phone calls, letters, and faxes, and tracking and storing messages. The implementation and maintenance of the EPN required more time, money, and staff than projected. However, staff were forced to learn new skills later applied to other programs within the College. The EPN also received two national awards [from the National Academic Advising Association (NACADA) and the Association for Continuing Higher Education (ACHE)] thus achieving recognition for the College as an innovator. Installing

DistanceLearn on the Peterson's website caused DistanceLearn to lose some of its identity. Feedback from website visitors indicated that they were not sure who owned the database (Regents College) and who maintained the website (Peterson's). An unanticipated consequence of establishing the online bookstore was that a void was created when student complaints about poor bookstore service virtually stopped. However, this void was soon filled by more frequent contact with the bookstore to keep the shelf list current on a day-to-day basis instead of conducting the semi-annual update which had been done in the past. Finally, like the EPN, the cost of implementing and maintaining the virtual library was greater than anticipated and, it appears that the demands on time of the College's liaison to Johns Hopkins will be greater than expected.

Implications of the Conversion Experience

A major implication of the conversion experience is that Regents College has significantly increased the costs and benefits of providing student support services for its programs for the foreseeable future. In converting services to online delivery, the College has raised expectations of students who now expect to be able to interact online with students, staff, and faculty and to obtain resources and information in Internet time. As new services and capabilities appear on the web, students expect student support services to keep pace. This increases the demands on the College to devote a greater portion of its resources to enhancing services at the risk of losing enrollments to other institutions.

Another implication of the conversion experience is that the College has moved away from an organization that processes paper and student records and toward one that develops and maintains relationships with students. As increasing numbers of students take advantage of online services, it is anticipated that interaction among students, staff, and service providers (including websites) will increase. Although there is anecdotal evidence, research needs to be conducted to confirm this growth.

The implications for institutions planning to convert to online delivery of programs are that the cost of conversion in terms of time, energy, and resources is likely to be greater than anticipated, but so are the benefits to students and the institution as a whole. Other institutions should take note that the student services converted to online delivery at Regents College were well-aligned with the College's strategic objectives, facilitating the adoption process (Rogers, 1983). Unless similar alignment exists between the strategic objectives of an institution and services to be converted, the conversion process may not be successful.

Conclusions

This case study has shown how a distance learning organization converted six student services to online delivery. The impact of these services on students, staff, and faculty appears to be positive (e.g., bookstore complaints are down; advisors report increasing numbers of students using e-mail; chat rooms are active on the EPN). Moreover, the results of a recent service quality survey conducted by an outside consultant indicated students perceive an 18.5 % improvement in Regents College services since 1997 when a similar survey was conducted (Aguinis, 2000, p.1). However, the results of this study are suggestive as online services were embedded in the survey and were not the primary focus. A more targeted approach would be necessary to determine the full effect of these specific services.

Institutions considering converting traditional services or programs to online delivery may find the experience of Regents College instructive when deciding whether to provide a service in-house or to outsource it. It should be noted that the College relied primarily on outsourcing for four of the six online services discussed in this paper. For the most part, outsourcing has eased the burden on internal resources of the College and, in the case of at least one service, the online bookstore, outsourcing has resulted in increased revenue and service improvement. The new Alumni website also shows signs of generating revenue for the College while improving contact among graduates. Institutions, (particularly those pressed for resources) would do well to consider outsourcing as a cost-effective means of providing online services.

This case study has several implications for further research in distance education. Cost-effectiveness models need to be developed that will demonstrate when it is advisable to outsource the conversion of traditionally delivered distance services and programs or services and when it is not. The positive and negative effects of outsourcing on students, staff, and faculty need to be investigated to better understand them. Another avenue of research is to investigate the extent to which online services facilitate or impede student progress in degree programs. Is there a relationship between the use of online services and attrition? Student satisfaction? Student achievement? These questions can and should be addressed as increasing numbers of institutions implement online services and programs.

Appendix A

Regents College Mission Statement

Regents College affirms that “what you know is more important than where or how you learned it,” and believes that students can demonstrate their knowledge and competencies through a variety of methods. The College exists to advance the learning of students, primarily adults, who for personal, economic, family, or other reasons, choose to pursue their education in a flexible, self-paced manner. While remaining open to all, the College ensures academic quality through rigorous programs, student-centered advisement, and careful assessment. By offering high-quality innovative educational opportunities to those desiring an alternative to traditional institutions of higher education, the College strives to broaden individual horizons, develop intellectual autonomy and respect for inquiry, expand career interests and options, and inspire a commitment to lifelong learning.

Regents College exists to increase access to education with excellence and economy, particularly for those historically underserved by higher education. The College seeks to meet the needs of a pluralistic society that is increasingly dependent upon an informed and educated citizenry. The College is an international resource and, by example and by advocacy, a major force in expanding access to higher education. As a leader in innovative education, the College works in active partnership with other colleges and universities, employers and organizations to remove barriers to educational opportunity. The College complements the academic offerings of more conventional institutions of higher learning in the interest of equity, economy and efficiency.

APPENDIX B

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EPN Startup and Annual Operating Costs

EPN Startup Costs	
<i>Category</i>	<i>Cost</i>
Hardware (Compaq 6000 Server & Components)	28,092
Software	800
Consulting Fees	12,500
OITS Personnel (Including fringe & overhead)	48,175
Learning Services Personnel (Including fringe & overhead)	26,000
Other Personnel (Including fringe & overhead)	14,000
Total	\$130,467
<i>Annual Operating Expenses</i>	
Hardware (Compaq 6000 Server & Components)	30,000
Software	1,000
Consulting Fees	8,500
OITS Personnel (Including fringe & overhead)	164,000
Learning Services Personnel (Including fringe & overhead)	74,500
Other Personnel (Including fringe & overhead)	28,500
Total	\$306,500