AFIT/GSM/LAS/93S-13

IMPLEMENTATION OF THE DEFENSE BUSINESS OPERATIONS FUND (DBOF) POLICIES AND UNIT COSTING IN THE AIR FORCE INSTITUTE OF TECHNOLOGY (AFIT)

THESIS

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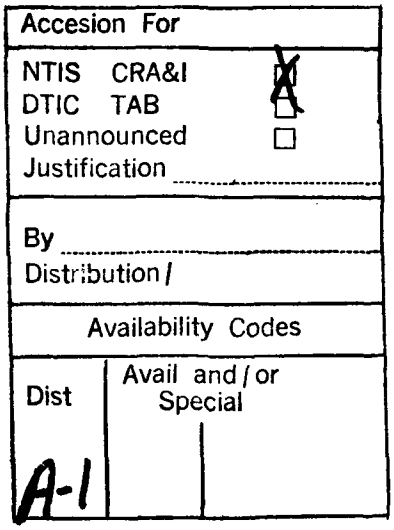

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THESIS

Presented to the Faculty of the School of Logistics and Acquisition Management
of the Air Force Institute of Technology
Air University
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Systems Management

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Abstract

This study examined the potential effects of the Defense Business Operations Fund (DBOF) policies on the graduate degree programs at the Air Force Institute of Technology (AFIT). The study examined the Defense Management Review document that provides the implementation and guidance information for DBOF, and Unit Cost.

DBOF requires that organizations provide unit cost per output figures as the basis for organizational funding. Unit cost resourcing is expected to change the way federal managers control resources, and is intended to promote quality management practices.

In order to achieve the research objective, the researchers surveyed the opinions of HQ AFMC's Graduate Education Management System working group comprised of the functional area representatives tasked to develop the policies that govern the validation of graduate education requirements. Using an electronic data collection mechanism at Armstrong Laboratory, Wright-Patterson AFB, the group was asked to determine the impact of the DBOF policies on the graduate education program at AFIT.

The results included the respondent's perceptions as to the role AFIT fulfills within the Air Force and the desired behavioral changes necessary to accommodate the possible changes necessitated by DBOF implementation.

IMPLEMENTATION OF THE DEFENSE BUSINESS OPERATIONS FUND (DBOF) POLICIES AND UNIT COSTING IN THE AIR FORCE INSTITUTE OF TECHNOLOGY (AFIT)

I. Introduction

General Issue

The Department of Defense (DoD) is facing an era of reduced threats as a result of the dissolution of the Soviet Union, the Warsaw Pact, and the reunification of Germany. Consequently, the future DoD budgets will face congressional and presidential initiatives to drastically cut the defense budget. In addition, there is increasing public pressure to transfer money from the military budget to help support domestic programs.

In response to these issues, the Department of Defense has been undergoing major changes toward a competitive "business-type" environment. These changes were a result of the recommendations and direction from President Reagan's Blue Ribbon Commission on Defense Management (Packard Commission) and the Goldwater-Nichols DoD Reorganization Act of 1986 (Goldwater-Nichols Act) (22:Sec 2,9). In accordance with recent direction, DoD is currently attempting to implement proven and tested business practices in military programs.

A new DoD initiative called the Defense Business Operations Fund (DBOF) may soon be implemented within Air Force training organizations to improve efficiency and reduce overhead. The main objective of this program is to preserve an effective force structure in a constrained financial environment. The DBOF process concentrates on the

consolidation of similar functions, total cost visibility, efficient resource allocation, and the use of a more flexible revolving fund mechanism (24:22).

This innovative revolving fund mechanism, known as DBOF, uses the concept of unit cost per output as a funds control mechanism. The primary purpose behind the unit cost concept is to reduce cost by highlighting the "true" cost of the services provided by support organizations (such as AFIT) (26:10). By highlighting the true cost of services, support organizations can better analyze the cost of providing these services and find ways to reduce costs (26:11). The main purpose behind unit costing is to implement a more businesslike financial management system. Under this concept, organizations that request services will pay for the cost of each unit of service that they use. When faced with the reality of paying directly for the services that they use, the user organizations may begin to conserve their funds by seeking less costly alternatives. Under DBOF, support organizations such as AFIT may face increased competition from other military organizations and even possibly from the civilian sector.

Background

The direction for the implementation of the Defense Business Operations Fund can be traced to President Reagan's Blue Ribbon Commission on Defense Management (Packard Commission) and the Goldwater-Nichols DoD Reorganization Act of 1986 (Goldwater-Nichols Act). The specific details regarding the findings of this commission and the provisions of the Goldwater-Nichols Act are included in the literature review, Chapter II.

On October 1, 1991, DoD expanded its use of revolving funds with the establishment of the Defense Business Operations Fund. This fund incorporates previously existing stock and industrial funds and includes some activities formerly funded by direct

appropriations such as the finance and accounting service, reutilization and marketing services, commissary operations and resale stocks, industrial equipment maintenance, and technical information services (21:17).

Every activity included in the fund is resourced through unit cost and receives reimbursement from their customers. Since each business activity is reimbursed or financed based on rates charged to customers, there is an obvious need to identify output and account for all costs required for production (21:17).

There may be circumstances in which an activity can measure output, perform the necessary cost accounting, but cannot identify a customer. In such cases, unit cost can be used for resourcing, but the activity would not be financed through a revolving fund (it would not receive reimbursement from its customers) (21:17). Instead of using the DBOF revolving fund, these activities would use standard financial accounting methods.

Unit Costing

DBOF requires that organizations calculate unit cost per output figures that will be the basis for their organization's funding. All of the expenses of an organization will be figured into the unit cost. Past Principal Deputy DoD Comptroller, Donald Shycoff, explains that under DBOF "all direct, indirect, and general and administrative costs incurred shall be collected and identified to the product or service benefiting from the costs" (26:24). Unit costing will change the way federal managers manage and allocate resources. Unit costing promotes quality management and continuous improvement principles since managers are accountable for efficient business decisions (22:18).

Defense Management Report Decision (DMRD) 971: DBOF DMRD 971 proposed establishing the DBOF. The following statement summarizes the main purpose of DMRD 971:

> Under the financial system described, products are produced because customers want them produced and customers are able to make more intelligent decisions on the level of support required. Customers are able to trade off their limited resources between the level to be supported. Decision makers will have better information on the cost to procure and operate weapon systems. Managers are encouraged to reduce costs, and the overall support costs of the department are significantly reduced. (9:8)

With the implementation of the DBOF, the Office of the Secretary of Defense wanted to send a clear message to DoD managers and Congress that it was serious about improving the performance and lowering the cost of supporting weapon systems (9:2).

Air Education and Training Command

The DBOF goal of satisfying the customer while improving business operations is directly in agreement with the recent changes in Air Force education and training. On July 1, 1993, Air Training Command and Air University merged and became a new organization, Air Education and Training Command (AETC). According to General Henry Vicellio, Jr., AETC commander "We are going to do it right based on what our ustomers - the Air Force major commands - want. Our customers will define the needed product, and AETC will develop the process" (16:42).

This merger will bring about a number of organizational improvements, according to the Chief of Staff General Merrill A. McPeak. For one thing, it continues the trend toward fewer commands and less money spent on headquarters overhead (17: 46-47).

This consolidation is expected to impact upon the implementation of DBOF in the areas of training and education, since these services previously provided without charge must now be budgeted and reimbursed. These changes will be a result of AETC's newly stated primary goals:

- Provide comprehensive initial skills training.

- Standardize training so everyone, regardless of the grade, career field or specialty, enters an assignment with a common baseline of initial skills and an understanding of their role in the Air Force mission.

- Revamp the continuation training program for the enlisted force.

- Ensure the Air Force's education and training programs better complement each other.

- Change Air Force people's viewpoints about AETC and its mission. (16:43)

This emphasis on responding to the customer's needs is essential in implementing DBOF in the Training and Education community. As stated by General Vicellio, the customer must be satisfied in order for AETC to develop and administer the right programs for the United States Air Force.

Graduate Education Management System (GEMS)

As a result of the new initiatives to improve efficiency and the emphasis on a business like environment behavior, AFMC recognized the need to better manage the utilization of Advanced Academic Degree (AAD) officer positions. AAD positions, better known as AAD billets, are those positions that can be optimally performed only by individuals possessing qualifications normally acquired through graduate education in a relevant education field. AFMC developed GEMS to:

1. Standardize the assignment of Officers to an AAD billet.
2. Strengthen the validity of AAD requirements.

3. Provide prerequisites for AAD validity.

4. Reinforce policy of AAD requirements based on position academic needs.

The guiding principle behind the GEMS process is to match the right person (officer) with the right degree (M.S./Ph.D.) and place them in the right job (AAD Billet) (14).

Problem Statement

The objectives of the proposed DBOF policies are to preserve an effective force structure in a constrained financial environment. AFIT, functioning as a DBOF support organization, may need to compete directly with the private sector for prospective customers.

The implementation of the DBOF policies combined with the recent changes generated by GEMS will require AFIT to continue responding to changing Air Force requirements in an effective and timely manner. With the implementation of DBOF and GEMS, AFIT must consider how will AFIT customers respond to the new funding and operating environment that is proposed under DBOF?

Research Objectives

The objective of this research is to determine if the AFIT graduate education programs will be able to compete under the unit costing, and fee for service environment, proposed under DBOF. The results of this research may more accurately allow AFIT to plan for and predict the outcomes of the possible implementation of DBOF policies.

Investigative Questions

To fulfill the research objective, a review of the Defense Business Operations Fund, Unit Costing, the Air Force Institute of Technology, and Graduate Education

Management System is required. This review is documented in the Literature Review contained in Chapter II. The following are questions generated from the research:

1. Who are AFIT's graduate education customers?
2. Who will be AFIT's graduate education customers?
3. What are the graduate program services (outputs) provided by AFIT?
4. What graduate program services (outputs) should AFIT provide?
5. What are AFIT's graduate education strengths and weaknesses?
6. What are the customer's major concerns in selecting AFIT as a source of graduate degrees?

Scope/Limitations

At this time, although the concept of unit costing has been fully accepted by the Air Force, the scope of DBOF implementation is not yet finally defined. An extensive review of DBOF's application to DoD activities is currently being conducted. A final report, unfortunately, will not be published in time to be included in this research.

The identification of the actual unit costs of AFIT graduate education is beyond the scope of this study. Three previous cost studies on AFIT graduate education have been conducted. Cox and Hotcaveg's thesis, A Cost Model for Air Force Institute of Technology Programs, concentrated on developing a cost model for all AFIT programs, Haynes and Williamson's thesis, A Cost Analysis of Graduate Education in Logistics Management, compares costs of an AFIT graduate education versus the costs of a similar degree at a civilian university, and finally, Walton and Young's thesis on the Development of a Unit Cost Model for the AFIT PCE Program, developed a unit cost model for the AFIT Professional Continuing Education program.

The scope of this study is limited to graduate education at AFIT. Therefore AFIT services such as Consulting and Professional Continuing Education are not addressed in the research.

Finally, the existing DBOF guidance, the Defense Business Operations Fund Operations Plan, does not identify how the funding for graduate education will be controlled. This research targeted representatives from the various functional areas that will be directly impacted by the execution of this program. Through the selection of the GEMS Working Group, the various issues involved with DBOF implementation in graduate education were identified. The working group members are in a unique position to provide expert opinion in terms of the impact of DBOF in their functional areas. Their experience in justifying all AAD requirements for their particular degree specialties gives them a unique insight on the impact of future graduate education initiatives.

Summary

The remainder of this thesis is divided into four chapters. Chapter II reviews the existing literature on DBOF, Unit Cost, the AFIT organization and mission, and GEMS. Chapter III discusses the methodology used in gathering the data. The Nominal Group Technique is the data gathering mechanism used to assess the AFMC functional representatives attitudes toward the fee for service environment. The analysis of the Working Group members responses are reported in chapter IV. The final chapter, chapter V, summarizes the results and findings of this research effort and provides suggested recommendations designed to assist AFIT.

II. Literature Review

Chapter Overview

As presented in Chapter I, the Department of Defense has been undergoing major changes toward a competitive "business-type" environment. These changes are the result of the recommendations and direction from President Reagan's Blue Ribbon Commission on Defense Management (Packard Commission) and the Goldwater-Nichols DoD Reorganization Act of 1986 (Goldwater-Nichols Act) (22:Sec 2,9).

This chapter provides a review of the Defense Business Operations Fund, Unit Costing, the Air Force Institute of Technology, Graduate Education Management System, and also a review of previous research conducted in these areas.

Discussion

Defense Business Operations Fund (DBOF) The concept of the Defense Business Operations Fund emerged from the need to better utilize the funds allocated for support activities. The main objective of the program is to preserve an effective force structure in a constrained financial environment. The process behind DBOF concentrates on consolidation of similar functions, total cost visibility, more efficient resource allocation, and the use of a more flexible revolving fund mechanism (19:3).

Historical Background The Department of Defense has been undergoing major changes toward a competitive "business-type" environment as a result of President Reagan's Blue Ribbon Commission on Defense Management (Packard Commission) and

the Goldwater-Nichols DoD Reorganization Act of 1986 (Goldwater-Nichols Act). The Packard Commission emphasized specific reforms in two areas:

> (1) Substantially greater reliance on commercially-available products, often well-suited to DoD's needs and obtainable at much less cost; and
>
> (2) Adoption of competitive practices predicated more broadly on a mix of cost, past performance and other considerations that determine overall "best value" to the government. (12:Sec 2,9)

On the basis of civilian business practice successes, DoD is attempting to implement proven and tested business practices in military programs. As outlined by Secretary of Defense Dick Cheney, if DoD managers are to reduce costs and improve performance, management of programs must emulate characteristics of the most successful commercial projects (6:13). DoD decision-making and business practices should embody management characteristics as proposed by the Packard Commission. For military organizations to survive in a competitive environment, they will have to conduct their activities more efficiently and more effectively.

In response to the Goldwater-Nichols Act, a follow-on program evolved which will greatly affect the way AFIT operates. This program, the Defense Management Report Decision (DMRD) 971, is better known as the Defense Business Operations Fund.

DBOF requires that organizations provide unit cost per output figures which will be the basis for their organization's funding. All expenses of the organization are figured into the unit cost. Former Principal Deputy DoD Comptroller, Donald Shycoff, explained that under DBOF "all direct, indirect, and general and administrative costs incurred shall be collected and identified to the product or service benefiting from the costs" (26:24). Unit costing will change the way federal managers manage and allocate resources. Unit costing

promotes quality management and continuous improvement principles since managers are accountable for efficient business decisions (13:18).

Defense Management Report Decision (DMRD) 971: DBOF All the services and Defense agencies were advised in a 19 August 1989 memorandum by Mr. Shycoff that a DoD-wide unit cost system would be developed for a number of major functional areas to enhance visibility of costs and contribute to better resource management (6:23). DMRD 971 states that the cost per unit output will be implemented within all organizations by 1993. One of the major differences between the old way of doing business and the new way is that DBOF includes rolling all of the costs of doing business into one account. There will no longer be separate appropriations for personnel, operations, and maintenance, procurement, and military construction. The current revolving stock and industrial funds are combined. The idea is to give managers better visibility of all their costs and more flexibility to manage these costs. The emphasis is on cost-per-output rather than level of funding (22:Sec 2,19).

Unit Costing

Unit Cost or Unit Cost Resourcing is the use of a business-like accounting or financial system that supports measuring productivity and management decision-making. Unit Cost is based on the relationship of resources consumed to output produced. Under a DBOF environment, activities can measure output and attribute costs to output in order to develop reasonably accurate prices for products and services. Ultimately, the system seeks to have each product or output bear the cost as accurately as possible (21:15).

Every activity included in DBOF is funded through unit cost and receives reimbursement from their customers. Since each business activity is reimbursed or

financed based on rates charged to customers, there is an obvious need to identify output and account for all costs.

Unit Cost is a precursor to including an activity in the Fund. Each business activity must be able to identify its customers, outputs, and costs. If a situation arises in which an activity can measure output, perform the necessary cost accounting, but cannot identify a customer, unit cost can be used for resourcing, but the activity would not receive reimbursement from its customers.

Unit Cost relates to DBOF in the sense that it is a budgeting and management tool, but Fund participation does not mandate the use of unit cost resourcing. However, it is often the budgeting tool for business activities outside the Fund. The difference resides in the financing mechanism; businesses outside the Fund are not financed from customers reimbursements (21:16). Rather, they will continue to use existing budgeting processes.

It should be understood that no savings are directly attributable to the use of unit costing. In fact, savings under DBOF can only be realized if processes are changed or eliminated and the effects of these changes are then reflected in the actual cost per output.

As previously stated, unit costing resulted as a response to Presidential Directive 12637, requiring all federal agencies to align costs with outputs (24:1-8). Unit costing was implemented in the Air Force at that point and the initial functional areas targeted to implement unit costing included Supply Operations, Recruiting, Commissaries, Health Care, and Training. AFIT falls under the training category. Functions like Research and Development, Accounting and Finance, and other support functions were to be part of the

second wave of implementation, with an eye toward eventually applying unit costing to all Air Force functions, particularly the support functions (19:7).

AFIT Organization and Mission

AFIT has evolved from the Army's Air School of Application, established in 1919 to provide special education in military aviation, and has become the primary manager of Air Force advanced education programs. To meet the educational needs of the Air Force, AFIT supervises, administers, and conducts degree level as well as continuing education and specialized training programs. The degree level programs are designed to provide selected officers and Air Force civilians a broad educational background to develop and enhance technical expertise and managerial capabilities. The continuing education and training programs are intended to satisfy specific Air Force needs for special skills of a more immediate nature (25:8).

The AFIT mission is:

> ... to plan, organize, conduct, and administer degree granting and continuing education programs in engineering, systems and logistics, civil engineering, management, medicine, and other fields at Wright-Patterson Air Force Base, Ohio, and other sites, and through contracts with civilian educational and health care institutions and industrial organizations in response to the United States Air Force and DoD requirements. (1:3)

As a result of the merger of Air University (AU) and Air Training Command (ATC) to form Air Education and Training Command (AETC), AU will handle professional military education programs, as well as Officer Training School and Reserve Officer Training Corps.

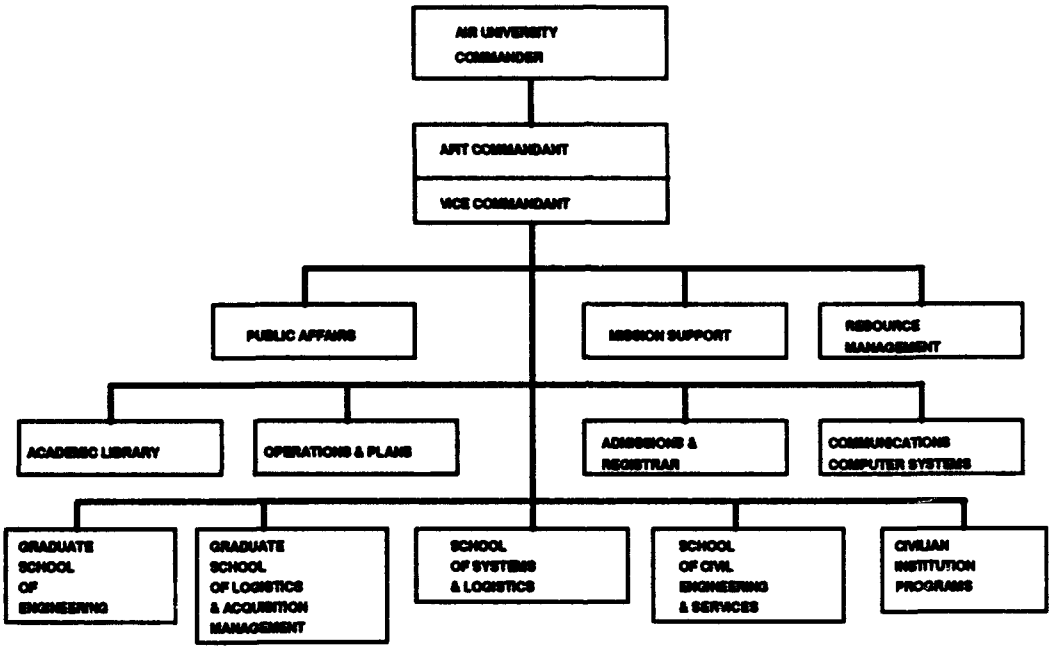
General Merrill A. McPeak, the Air Force Chief of Staff, states that the order of the words in the new command's name - "education" first, and then "training" - is significant. He says this was done because "we wanted it understood that we are not subordinating education to training." The goal is for a more balanced blend of know-how and supervisory and leadership skills, to ensure that key people are fully ready to lead others. The merger of ATC and AU is intended to create synergy in this regard (17:47).

AFIT, as a component of AETC, performs its mission through the educational and training programs of the Graduate School of Engineering, the Graduate School of Logistics and Acquisition Management, the School of Systems and Logistics, the School of Civil Engineering & Services, and the Civilian Institution Programs as reflected in the AFIT organization chart (Figure 2.1). The Institute has a dual role as a resident educational institution and as the monitor and supervisor of students in nonresident programs (1:15).

The non-degree programs are referred to as Professional Continuing Education (PCE) programs. The PCE programs consists of short courses designed to provide for education in needed specialties. These PCE courses are conducted in residence, or on-site throughout the United States and overseas (1:13).

It is worth mentioning that AFIT fulfills its mission through the execution of the degree and PCE programs. As noted in Figure 2.1, various AFIT organizations support the educational programs and contribute to the overall cost of education and training. In addition, various support elements of Wright-Patterson Air Force Base provide needed services to AFIT and its students. Under DBOF the contributions made by each of these

organizations will be considered in arriving at the total costs associated with educating students through AFIT resident and non-resident programs.



AFIT Organization Chart
Figure 2.1

Graduate Education Management System (GEMS)

As the result of a September 1991, direction by the United States Air Force Chief of Staff to track the requirements for advanced education, AFMC has developed a process that covers the complete life cycle of graduate education requirements. This process will result in the implementation of a number of Personnel Data System (PDS) changes which will facilitate AFIT AAD graduate officer management. The three major facets of the newly developed process are: annual validation of all Advanced Academic Degree positions/requirements; generation of new graduate education (Grad Ed) quotas; and management of AAD officers.

The main thrust behind the recent changes to the GEMS is a better utilization of the current AAD inventory. This issue is critical because of the current downsizing of the force and a projected 20% reduction in Grad Ed requirements in 1995 (14). The past procedures tracking AAD positions lacked coordination and exhibited a lack of enforcement of regulations. One of the main problems consisted of mismatched grade, Air Force Specialty Code (AFSC) and Academic Level. It was not uncommon in the past to find a graduate student filling a non-AAD billet soon after graduation.

The new utilization policy outlines the following guidelines:

- New graduates must stay in AAD billet for at least three years.
- AFMC will approve waiver for exceptions.
- The use of current inventory will be considered when establishing priority for graduate education quotas.
- A revalidation process will be used to clean up current inventory. (14)

The new guidelines are intended to strengthen the validity of AAD requirements and reinforce the policy of filling AAD billets based on position academic needs. The end result behind the policy is to properly assign AAD qualified officers in authorized AAD positions.

Previous Research

DoD educational institutions were planned to be under unit costing by Fiscal Year (FY) 93. However, the implementation of DBOF is still under study. Under the FY 93 unit costing program, schools were to be funded based on the projected number of students and a historical unit cost per graduate. At this time, DBOF implementation has not been completed as the new administration reviews the program.

The data needed to determine the unit cost of educating students are not available for any one AFIT system, but instead, is calculated from aggregate reports of school operating costs and graduates per year. This inability to obtain unit cost data from a single data source was investigated by Kettell and Ziegler in their thesis dated December 1992. Their main focus was to identify the strategic-level requirements for an integrated information system to facilitate decision making at the business process level. Their study was limited to AFIT and reflects the information system planning requirements of AFIT under DBOF.

A concurrent study was conducted by Walton and Young with the stated goal of determining the full costs that can legitimately be charged to users/reimbursed from users, and derive appropriate fees. Their research focused on the development of a unit cost model for the Professional Continuing Education (PCE) program within the Air Force Institute of Technology's School of Systems and Logistics (28:3).

Two previous cost studies, both as part of thesis efforts, on AFIT graduate education were researched. Haynes and Williamson provided a cost analysis of graduate education in logistics management. They compared the full cost to the Air Force for providing an officer with a Master of Science degree in Logistics Management from AFIT with the full cost of a similar degree from a civilian institution (19:125). Cox and Hotcaveg developed a cost model for AFIT programs that facilitated the accumulation of the full costs of individual AFIT education programs, using FY 77-78 data to develop and illustrate their cost model (8:12).

The existence of these previous studies provides an useful framework to develop further studies on the implementation of DBOF at AFIT. We found particularly interesting the investigation by Kettell and Ziegler into strategic-level requirements for AFIT. Their research attempted to identify the requirements that would allow the establishment of an integrated information system that would provide insight into the cost and value of AFIT's products and services. This information system would identify which products or services are profitable and provide insights for business process improvement (22:xi).

Summary

As a result of recent legislation and direction in the Department of Defense, a new outlook and approach to training and education is immediately needed in the United States Air Force. This new outlook should encompass not only unit costing, and responsiveness to customer needs, but also more efficient business operation. As stated, the implementation of unit costing in AFIT has already begun in the Professional Continuing Education departments, with the Graduate degree departments soon following.

While the previous research by Kettel and Ziegler addressed the concerns of the senior leadership, it is our belief that to more accurately predict the customer's response, a new approach is needed. The GEMS Working Group is directly involved in the determination of AFIT graduate education requirements. By responding to the needs of each of the functional areas as represented in GEMS, AFIT will be able to offer better programs and services in the areas that are most needed. The final goal of this research is to assist AFIT during these financially challenging times to operate more efficiently while addressing the AFIT customer needs under a unit costing, fee for service environment.

III. Methodology

Chapter Overview

This chapter reviews the methods used to address the research objective, the data collection method, and the population studied. A combination of research methods was used: descriptive research in Chapter II and a nominal group technique using the Group Research Laboratory for Logistics (GRLL) located at the Armstrong Laboratory Logistics Research Division.

Background

Problem Statement The implementation of the DBOF policies combined with the recent changes to GEMS will require AFIT to respond to changing Air Force requirements in an effective and timely manner. With the implementation of DBOF, and the changes to the GEMS, the AFIT administration will be faced with the question: How will the AFIT customers respond to the new funding and operating environment that is proposed under DBOF?

Research Objective The objective of this research is to determine if the AFIT graduate education programs will be able to compete under the unit costing, fee for service environment, proposed under DBOF. The results of this research may more accurately allow AFIT to plan for and predict the outcomes of the possible implementation of DBOF policies.

Descriptive Research The descriptive research on DBOF, Unit Costing, GEMS, and the AFIT organization and mission was designed to serve as a reference measure against

which to test further research findings. The information from the descriptive research was used in the determination of the extent and direction of further research . The sources selected for the descriptive research included both internal sources such as Air University publications and external sources such as books and periodicals on management techniques and common business practices.

Investigative Questions To address the research objective, the following questions were generated from a review of the Defense Business Operations Fund, Unit Costing, and their applicability to the degree education activities of the Air Force Institute of Technology:

1. Who are AFIT's graduate education customers?
2. Who will be AFIT's graduate education customers?
3. What are the graduate program services (outputs) provided by AFIT?
4. What graduate program services (outputs) should AFIT provide?
5. What are AFIT's graduate education strengths and weaknesses?
6. What are the customer's major concerns in selecting AFIT as a source of graduate degrees?

Investigative Question Mapping

Figure 3.1 illustrates the mapping of the investigative questions to the survey questions presented to the GEMS Working Group members.

Investigative Question	Survey Question
Who are AFIT's graduate education customers?	#8
Who will be AFIT's graduate education customers?	#9
What are the graduate program services (outputs) provided by AFIT?	#3
What graduate program services (outputs) should AFIT provide?	#4,5,6,7
What are AFIT's graduate education strengths and weaknesses?	#10,11,12,13
What are the customer's major concerns in selecting AFIT as a source of graduate degrees?	#14,15

Question Mapping

Figure 3.1

Group Support Systems (GSS)

Successful strategic planning sessions, usually held away from the office premises, are the result of team effort. In increasingly complex environments, many specialists and generalists are needed to cope with decision complexity. Cutting-edge technology, which can aid the group deliberation and decision-making processes, is becoming more common. Terms such as group support systems, electronic meeting systems and computer-supported cooperative work describe the technology that is available to support group activities (5:47).

The potential benefits of GSS in the Air Force are currently being explored. Air Force personnel could possibly use these systems to make group decisions in either single one-room settings or between numerous organizations geographically separated around the world. In addition to improved decision making, GSSs may alleviate the need for extensive TDY travel, resulting in significant cost and time savings (20:Sec 1,2).

Group Support Systems are computer-based systems that provide a variety of tools to facilitate the meeting process. The technology used is usually a network that connects a number of personal computers (PCs) with a file server (high capacity disk storage shared via a local network) and has the capability of displaying input on large-screen monitors in a room designated for that purpose. The information displayed either can originate from an individual PC or can represent the aggregation of responses made during a group session.

In part, these systems are electronic implementations of older methods such as Delphi and Nominal Group Technique (NGT) that have been used to improve the quality of meetings over the last 30 years. Group techniques emphasize pooled intelligence through

a group's response to a problem. Collective group judgment, not an individual's response, is central to problem solving for these approaches, and quantification is reduced to a more peripheral role.

The Delphi technique is based on the fact that a group of experts can predict better than a single expert. Estimates are gathered anonymously, then circulated. Experts may then change their estimates after looking at the other estimates. When estimates have converged, the group or the group coordinators derive a group estimate.

The NGT is a method for "brainstorming" in which participants first submit ideas anonymously without any discussion or criticism. After ideas are collected, the group then discusses them and selects the best ideas to pursue. NGT has been shown to be superior to other group decision-making techniques for producing more accurate and better quality judgments (18:Sec 3,12).

The NGT process consists of four steps:

1. silent judgments by individuals in the presence of the group
2. presentation to the group of all individual judgments without discussion
3. group discussion of each judgment for clarification and evaluation
4. individual reconsideration of judgments and mathematic combinations

(18:Sec 3,12)

For the purpose of our research, a slight variation of NGT was selected. Steps one and two were combined with each individuals responses being immediately shown to the other members of the survey group. The survey participants were allowed at any time during the data collection to comment on the previous responses of other participants or to add

additional comments of their own. This provided an additional opportunity to provide comments that may have been prompted by another group member's earlier comments.

The immediate exchange of ideas and clarification of previous statements allows a group to function more effectively in a shorter period of time. Through the use of anonymous computer responses, it was possible for the participants to provide their comments while avoiding communication barriers such as age, sex, rank, and personality. In fact, the input of information using a computer terminal frees the individual from personal inhibitions to make open and honest comments about a particular subject. Furthermore, all inputs receive equal consideration without regard to the status or credibility of the individual who presented the idea (22:Sec 2,11).

The GSS used for the research is located at Wright-Patterson AFB, in the Armstrong Laboratory. The Armstrong Laboratory primarily performs research into human capabilities and how these affect weapon systems and operational performance. The laboratory focuses on technology for improving performance of integrated systems of people, information, and equipment doing essential acquisition and combat support functions.

The GSS technology used in the Armstrong Laboratory is designed to improve ordinary, face-to-face meetings. This can be done in sophisticated electronic meeting rooms with very high technology, or in ordinary rooms with a portable PC network.

The software system used was Option Link. Option Link is a software tool used to facilitate decision-making. The software not only implements the NGT and Delphi techniques in a more effective and efficient manner than non-electronic means, but it also

provides a report of all decisions including comments from all of the group participants. Additionally, the system provides the option of using a scoring system designed to evaluate various options and generate a numerical summary of results.

Group Data Collection Timeline

Software Orientation - The objective of this initial meeting was to determine if the software used at the Armstrong Laboratory would have application to the pursuit of the research objective. The software demonstrated during this meeting showed the ability of the system to capture individual opinions while simultaneously showing the opinions of all group participants. The capability of editing and organizing the group inputs and then rating each of them was also demonstrated. At the completion of this meeting, both the Armstrong Laboratory facilitators and the researchers concluded that the software, called Option Link, would have excellent application for the intended research.

Development Dry Run - The researchers next provided a listing of the research objective questions so that representative computer screens for the group data collection could be constructed. The objective of this was to refine the detailed process that would be used during the group data collection. The researchers evaluated the different data collection techniques available.

Validation Pilot Run - The pilot run used the results and recommendations from the development dry run and further refined the data collection technique. The actual screens to be used by the target group were evaluated for clarity, expression, and overall response times. The pilot run guided the participants through the proposed group data collection using the 15 research questions (see Appendix C). The results from this meeting were used to make the final adjustments for the actual group data collection.

Group Survey Execution - The collection of responses to the survey questions was conducted as follows. The GEMS Working Group was divided into two sections in order to accommodate the Group Research Laboratory for Logistics facility size and to allow the participants the ability to select one of two days to attend the data collection. Each group met from 0930 to 1130 on their respective day to respond to the 15 survey questions (see Appendix B). The data collection process was preceded by a software orientation provided by the Armstrong Laboratory personnel facilitating the meeting. The survey participants were familiarized with the software that they would be using. The groups were initially limited to responding to the first five questions. After each group was familiar with the software, they were then allowed to expand and answer all of the 15 questions.

Population

For the purpose of the research, the relevant population is the Air Force Materiel Command (AFMC). AFMC is the major customer of AFIT's services, and this population includes individuals that are or may be affected by the implementation of DBOF policies at AFIT. Through contact with AFMC/DP, the GEMS Working Group was identified as the group with the most impact on the Graduate Programs at AFIT. This group is comprised of 14 functional representatives from AFMC headquarters (see Appendix A). The GEMS Working Group is comprised of the individuals responsible for developing a process that covers the complete life cycle of graduate education requirements. The process has three major facets; annual validation of all AAD positions/requirements, generation of new graduate education quotas, and management of AAD officers. The variety of functional areas represented in the GEMS working group ensures that the GEMS process will accurately serve as many officers as possible.

This type of population sample is considered to be a judgment sample according to the Air University Handbook on Sampling and Surveying. This handbook contains guidelines for planning, organizing, and conducting surveys. The judgment sample is used when it is not possible to categorize homogeneous groups or obtain a random sample. As the major customer of AFIT, AFMC/DP was selected as an expert source for the identification of appropriate survey recipients. The judgment sample is determined by asking an expert in the subject matter (AFIT Graduate Programs) to define the elements that should comprise the sample. Since each item in the population does not have an equal chance of being chosen, a judgment sample cannot be evaluated to determine the sample size required to satisfy a stated level of confidence and reliability. Therefore, since the population sample does not meet the criterion of randomness, the survey responses will not be subject to statistical evaluation.

Survey Administration

A pretest of the GSS system and techniques was conducted using 4 AFIT graduate students. The pretest was used to refine areas such as:

1. Question Wording - used to avoid confusion.
2. Use of correct/common jargon.
3. Question clarity - to avoid misunderstandings and interpretation.
4. Biased Wording - contributed by wrong word choice.
5. Question Sequence - to relate each question to the other questions in the questionnaire. (15:88)

The GEMS Working Group members were contacted initially by telephone to arrange personal meetings so that the researchers could explain the purpose of the study and elicit participation from each individual. The face to face meetings were arranged at the

discretion of the Working Group members. The purpose of the meetings were to inform the individuals of the purpose of the research, gather general background information, and obtain initial perceptions which proved to be useful in the final preparation of the survey questions.

After meeting with each of the GEMS members, two test dates were established for the survey administration. The selection of two test dates was due to the size limitation of the Armstrong Laboratory facility, and the non availability of all GEMS members on any one day. By separating the working group into two sections, the researchers believed that this would result in a greater breadth of responses. Previous research has found that the larger a group is, the greater the pressure to conform to consistent thinking patterns (20:Sec 2,2). This is due to the respondents focusing their inputs on other individuals statements instead of developing their own independent answers.

Summary

The population selected for this research effort is the GEMS Working Group. This group was selected based upon their knowledge of and involvement in the AFIT graduate education programs. The participation of the GEMS members was deemed to be a key part of the research effort. To collect the required data, a survey comprised of 15 open ended questions was developed. The responses to the survey revealed the customer's perceptions reflecting AFIT's ability to meet the customer's needs and requirements. The responses revealed how willing the customer is to financially support AFIT depending on the perceived customer's return on investment.

The AFIT administration will have to determine what kind of services it can provide, acknowledging that meeting the customer's needs represents AFIT's best hope to survive in an era of budgetary cutbacks.

IV. Data Analysis

Introduction

One of the requirements to achieve the research objective was to identify the correct population to survey in response to the implementation of DBOF policies at AFIT. The required characteristics of this population were involvement in the determination of AFIT graduate education requirements, and knowledge of the Air Force Advanced Academic Degree needs.

Data Collection

A software package called Option Link, one of the Group Support Systems packages used at the Armstrong Laboratory, was utilized to collect the research data. As mentioned before, Group Support Systems are computer-based systems that provide a variety of tools to facilitate the meeting process. The system is essentially a refinement of older methods (Delphi and NGT) that have been used to improve the quality of meetings over the past 30 years.

For this particular research, a slight variation of the Nominal Group Technique was used. As mentioned before, the NGT is a method for "brainstorming" in which participants first submit ideas anonymously with no discussion or criticism of any ideas allowed. Individuals publicly respond to the questions without prior discussion. After the ideas are collected, the group then discusses them.

The second step in the data collection involved some elements of the Delphi technique. The Delphi is based on the fact that a group of experts can predict better than a single expert. The expert's opinions were circulated by electronic means to elicit discussion.

The experts then may change their estimates after reviewing the other estimates. When the estimates/opinions have converged, the group derive a group estimate.

The use of the GSS aided the researchers by providing:

- Time savings
  - Shorter meeting times
  - Automated commenting
  - Less rework
- Better quality meetings
  - More ideas generated
  - Increased creativity
  - Fewer mistakes
  - Consensus building
- Sophisticated Information Management
  - Anonymous contributions
  - Automated record keeping

All the GEMS working group members were invited to participate in our research. These members represented their functional areas within the HQ AFMC. The fourteen members were divided into two groups; the first consisted of 8 members and the second one consisted of 5 members. One participant could not participate on the second day due to an emergency at work. Previous interviews with this functional representative provided useful insight that was used in the research effort despite the unavailability of the representative on the day of the data collection. The impact of the absence of this functional area from the responses in Appendix D is considered to be minimal as far as the determination of AFIT requirements is concerned.

Appendix A consists of the listing of the GEMS working group members. Appendix D contains the member's responses from both sessions. The findings in this chapter serve to answer the following investigative questions generated from the descriptive research:

1. Who are AFIT's graduate education customers?
2. Who will be AFIT's graduate education customers?
3. What are the graduate program services (outputs) provided by AFIT?
4. What graduate program services (outputs) should AFIT provide?
5. What are AFIT's graduate education strengths and weaknesses?
6. What are the customer's major concerns in selecting AFIT as a source of graduate degrees?

Data Analysis

The main purpose of the survey's open-ended format was to elicit a wide range and variety of opinions, that could answer each or several of the investigative questions. To assist AFIT in determining the appropriate changes conducive toward a fee-for-service environment under Graduate Education, the researchers believe that the information presented in this chapter and in Appendix D appropriately address the research objectives. In order to preserve the accuracy and intent of the respondent's statements, the data included in Appendix D has not been edited for syntax or grammar. It is the researchers belief that by altering the original data, the validity of the data may be compromised.

Question 1: Fee For Service Programs

"The Department of Defense (DoD) recently mandated a fee for service program that will require DoD organizations to determine the unit-cost per output of its services. Do you have any experience with fee for service programs?"

This question was intended to establish the main subject of the session; fee-for-service in graduate education. Although more questions on different areas were to follow, the researchers wanted to keep the respondents focused. The question was also designed to set the stage for question no. 2 pertaining to the DBOF.

Of the 13 individuals questioned, only 2 expressed limited or no knowledge of the fee-for-service scenario within the Air Force. It is worthwhile to note that although the question pertained to fee-for-service, the members equated fee-for-service with the Defense Business Operations Fund (DBOF).

The general consensus was that although DBOF is a new concept within DoD, various types of revolving funds and fee-for-service operations have been in place for many years covering some specific areas.

The major concern expressed by the respondents was in the allocation of costs or fee determination areas. It is obvious that presentations on the program have reached the majority of the GEMS working group members but at the same time many detailed issues have not been addressed at the workplace level. Therefore, many respondents expressed their lack of knowledge on the details of the program. This situation is a reflection of the stage at which the program finds itself in 1993.

Question 2: Defense Business Operations Fund

"DoD is pursuing improved business practices to become more efficient. One of the initiatives is called the Defense Business Operations Fund (DBOF). Are you aware of this initiative?"

Two of the thirteen survey participants indicated that they had no previous knowledge of or experience with DBOF. Many of the other GEMS members stated that their knowledge was based on discussions of DBOF during staff meetings.

As stated in Chapter II, one of the major questions is how will DBOF be implemented throughout the various Air Force and DoD organizations. For example, in response 5.1.1 the issue is raised that program managers fear "that they will get a bill for a service they did not expect (or budget for). This can throw a program's cost estimate into a mess."

An interesting contrast of opinions is shown in responses 5.2 and 5.2.1. The first respondent believes that "the implementation details are being ignored", while the second respondent states that "the accounting and finance community has been working on the details of DBOF for some time."

One concern with DBOF is that there is too much emphasis on running DoD in a business type fashion, when in fact some DoD activities are military unique (such as intelligence) and are not amenable to strict cost accounting. For example, response no. 5 on 8 July points to the fact that: "how do you measure the cost of intelligence on a commander's decision making process when the information you give him today he uses 6 months down the road."

Question 3: Use of AAD Programs

"In your current area of responsibility, what graduate degree program(s) does your organization use to fulfill Advanced Academic Degree (AAD) requirements?"

During the researchers initial meeting with the working group members, the issue of AFIT's AAD offerings and the need to fulfill the changing requirements of the customers came to light. This question was intended to determine what AFIT programs each of the functional areas use to fulfill their graduate education needs.

The responses showed that the functional areas use three major sources of graduate education, namely; AFIT in residence, AFIT civilian institutions, and non-AFIT sponsored civilian institutions (evening college classes).

One of the functional area representatives stated that "for the most part we only use AFIT for military requirements but on the civilian side there are civilian degrees paid for with program funds and the Army has an agreement with a college for a class of Army, Air Force and DFAS people to work together at the school to get an MBA."

The researchers deduced from the responses that AFIT is fulfilling a unique role of covering some Air Force specific degrees such as Logistics and Transportation but at the same time there is a feeling that AFIT is not completely fulfilling the Advanced Education needs of the civilian workforce.

Question 4: AFIT Mission

"According to the AFIT Mission Statement: AFIT provides graduate education, professional short courses, consulting and research programs. What additional products or services should AFIT provide?"

The intent of this question was to determine, from the user's perspective, how current the AFIT mission statement is; i.e., how AFIT's stated mission and customer needs agree. The majority of the respondents were in agreement that the overall mission statement should not change. However, it was also expressed that although the mission statement should not change, some changes on how the services are carried out may be necessary.

For example, some areas such as technology transfer, and new programs (such as DBOF) could be taught using short courses. Furthermore, off-site training was advocated to possibly stretch already limited funds against the alternative of conducting the courses in-residence.

Question 5: AFIT Products and Services

"What products or services that you use would you prefer to eliminate or reduce in scope?"

AFIT has a broad mission of graduate education, PCE, research, and consulting. The purpose of this question was to ask each of the functional areas representatives what products or services that they use could possibly be eliminated or reduced in scope. A major point that must be made is that each respondent was to comment only on their own functional area.

Two of the respondents felt that in reviewing programs to be eliminated, "the determination should be made from a long-term perspective--on the order of a 10 year time-frame. It would be a mistake to retain only those programs which provide short-term or immediate paybacks."

Many of the survey participants took a short range view in their responses on what AFIT programs should be eliminated or reduced. Their prevailing attitude toward graduate education is that AFIT's graduate programs must produce an immediate payoff to the customers. This belief differs greatly from the intended purpose of graduate education which is to prepare the students for a long term career, with the benefits of the degree being realized over many years. One statement very accurately reflects this thought by saying "AFIT must take a broad view of what the Air Force of tomorrow will look like and offer programs to help meet those needs."

Question 6: Future Products and Services

"Looking into the future (3-5 years), what current or future AFIT products or services do you foresee generating the greatest demand by AFMC?"

The aim behind this question was to determine the major points that AFIT has to consider in conducting a strategic planning of the products and services to be offered in the immediate future. Given the fast-paced changes that DoD is experiencing, the researchers felt that the AFIT customers would have specific ideas on the future services needed.

One of the major points expressed in the opinions was the increased "civilianization" of the workforce, therefore, AFIT needs to shift the emphasis of educating "blue suiters" to a broader approach of educating the DoD civilian workforce.

Another argument was the need to increase the number of officers with environmental engineering/environmental management degrees. The respondents considered the environmental issues to be at the forefront in the immediate future.

An interesting issue brought up in the responses was the need to develop a curriculum that will address the need to manage technology from the "cradle to grave" viewpoint. The name given in the responses was "management of technology" versus the current emphasis in managing systems development.

Finally, an idea of utilizing more satellite/remote education as a means of reducing costs was suggested.

Question 7: Delivering Products and Services

"What would be necessary to effectively develop and deliver products or services suggested in the previous question?"

This question is a follow-up to the previous question addressing what products and services will be needed in the future. The responses fell into three major categories: meeting the customers needs, satellite (remote) programs, and the ability to adapt to changing technologies.

According to one of the respondents,

> This has been one of the problems in the past. AFIT would make their predictions and expect the customer to set needs to match....AFIT would not respond to our needs, telling us they were incorrect, and advising us on the true needs of the command... AFSC tried this approach with its customers and it did not work.

Many of the respondents agreed that in the future, AFIT will need to reach out to other bases and possibly offer many of the classes that up to now have only been taught at Wright-Patterson AFB. Offsite training courses are common such as SYS 100 and 200. What AFIT will need to do in the future is possibly offer many of the graduate degrees that are currently taught at AFIT, and offer them as courses to be taken at other bases taught by adjunct faculty such as professors from local universities.

One additional issue of concern to the respondents is AFIT's flexibility. One respondent stated that: "the ability to rapidly adapt to the needs, ever changing, of the customers...i.e. AFIT must be able, either in-house or Civilian Institution, to change the throughput for degree programs... One year we may need only a few systems management degrees and many environmental engineers... flexibility is the key!"

Question 8: AFIT Customers

"To the best of your knowledge, who are AFIT's customers?"

The intent of this question was to elicit opinions concerning the perceived notion of who the AFIT customers are. Additionally, this question sets the stage for question number 9 concerning who the future customers might be.

The consensus of the majority of respondents pointed to the Air Force military and civilian workers as the primary AFIT customers, with AFMC as the primary source of customers. Additionally, the responses recognized the fact that AFIT does serve foreign students as well as sister service's military students.

One response indicated the Wright-Patterson AFB personnel have a distinct advantage in becoming AFIT customers due to their physical proximity to the institution. Several respondents identified AFIT as the unique source of graduate education for Air Force personnel with the distinct mission of teaching an Air Force peculiar curriculum. Getting away from this philosophy will position AFIT to become a "Department of Defense Institute of Technology or DODIT" catering to the needs of DoD in general versus Air Force peculiar needs. One respondent reinforced this argument by saying that "this idea may not be that far-fetched in light of DOD becoming more purple suited."

Question 9: Future Customers

"Do you expect the customers to be the same in the future? If not, who do you think they should be?"

Given the current changes occurring within the Air Force and DoD in general, the researchers felt the need to determine the opinions concerning who the AFIT customers might be in the future. The consensus of the responses stated that AFIT will need to target their programs in the future to two major areas; DoD civilians, and other military services. Several respondents felt that increased civilianization of the acquisition workforce will result in a change to the military/civilian mix at AFIT. One respondent indicated that "With the increased civilianization of the acquisition workforce, I believe the

customer base will be more civilians-though I would expect there will be an overall decrease in the number of customers."

In response to the DoD drawdown, one of the respondents stated that; "The DOD may not be able to support more than one internal source for graduate degrees. In order to posture itself to be that single source, AFIT needs to become a prime source for degrees for the other services as well as the Air Force."

Question 10: AFIT Strengths & Weaknesses

"What are AFIT's strengths and weaknesses in terms of graduate education programs?"

The overwhelming majority of respondents concluded that AFIT's greatest strength is the Air Force focused, high-quality programs it provides. This "Blue Suit" teaching environment addresses the need to do research directly related to Air Force problems. It is perceived by the respondents that AFIT provides good education tailored to the needs of the Air Force. Furthermore, AFIT has the means of performing classified research which is not always possible using other graduate education sources.

The agreement among respondents concerning AFIT's weaknesses in the graduate education program is the lack of flexibility the institution exhibits while adapting to current changes. For example, one area of conflict is the timely creation of new programs to satisfy a need. Furthermore, there is a perception among respondents that AFIT drives the academic curriculum to fulfill the Air Force needs without taking into consideration the user's opinions.

One respondent listed as a weakness, the possibility that the customers may use their funds for other purposes after the implementation of DBOF. He/she felt that it would be very difficult for AFIT to sustain the number of instructors at the current levels without knowing the customers demands in the future. From year to year, the number of degree slots requested by the customers may be subject to great variability.

Question 11: Improved Effectiveness

"What would you change to improve AFIT's effectiveness?"

There were many recommendations to improve AFIT's effectiveness. However, some are within AFIT's control and some are not.

One major issue raised (but not within AFIT's control) is the tracking and management of graduates after they leave AFIT. Many respondents felt that a better utilization of the graduates skills is necessary to ensure that the graduates are being used optimally.

There was a strong disagreement among the survey participants as to who should manage the placement of AFIT graduates. One respondent says: "Some kind of monitoring is needed to make sure the money is well spent and to find abusers and take away their ability to waste the taxpayer's money." This position is countered by another respondent who says: "I paid for the degree (as a DBOF customer), I can do what I want with the person."

An interesting point was brought up by the respondent who felt that "If there is a requirement for more education, but less that an advanced degree, why not AFIT?"

Apparently he or she feels that AFIT may be too structured in defining a course of study as either leading to a graduate degree or towards a short training course. This mindset ignores the fact that there may be a need for education that may take more than 2 weeks, but less than 15 months.

One recurring argument made by many respondents was that AFIT needs to expand its services to all of the Air Force, not just to those at Wright-Patterson AFB. In the words of one of the respondents, "Instructional technology has come a long way... AFIT should take advantage of these technologies and reach out and touch a larger audience."

The majority of the responses addressed only short term solutions to improving AFIT's effectiveness. This may be due to a lack of understanding of the potential capital gains associated with possessing a graduate degree. Most of the comments focused on suggestions such as expanded PCE classes, offsite programs, and intermediate duration courses.

Question 12: External Factors

"What external factors (budget, regulation, technology, events, etc.) will significantly affect AFIT's ability to achieve its mission?"

The major factors identified by the survey respondents are the shrinking budget, and the ongoing defense personnel cuts.

According to one of the respondents, the shrinking budget could become the key factor. He points out that "If AFIT goes on the DBOF system, the funding level will be one of the key factors. If funding is at the unit/base/center level, few if any will be willing

to apply funds from a very tight budget to send an officer to a one year program to pick up a masters degree."

The shrinking Air Force budget is seen as the major threat to AFIT graduate education survival. According to a respondent, "The graduate education portion will all but disappear. The money maker for the Institute will be in the Professional Continuing Education courses."

The respondents felt that as the budget shrinks, and the military leave the acquisition world, AFIT will need to become cheaper and attract more civilian students while justifying that AFIT's cost effectiveness is greater than private sector competitors.

Question 13: Graduate Education Requirements

"Does AFIT fulfill your organization's graduate education requirements in terms of number of slots and type of degrees offered?"

This question was used to determine those areas where AFIT is not currently meeting the user's needs. Once again, the different opinions of the respondents emphasize the fact that the multitude of functional areas within AFMC have distinct graduate education requirements.

Although most respondents agree that AFIT is a good source of graduate education, the AAD quotas are complemented with the use of civilian institution graduates. Some respondents indicated that AFIT was adequately fulfilling their graduate education needs. Others indicated that AFIT was doing an average job of providing the needed graduates, and some indicated that the graduate production in their specialty was marginal at best.

Interestingly, one respondent indicated that their needs required Masters in Business Administration and Ph.D.s in Economics, therefore, "AFIT should stay away from these areas." Unfortunately, the respondent did not elaborate on this comment. It seems that he/she recognizes AFIT only as a viable source for Technical and Engineering degrees, and not for fields such as Business and Economics. Apparently, he/she believes that these degrees would be better taught at a civilian institution.

Question 14: AFIT versus Civilian Institutions

"Considering the lack of comparative cost data, do you believe AFIT will be able to compete on a fee for service with Civilian Institutions?"

This question provided the working group members with the opportunity to present their opinions on the future of the graduate program at the Air Force Institute of Technology. The researchers requested the respondents to take into consideration the unavailability of graduate education cost data.

The vast majority of the respondents considered AFIT to be at a disadvantage in competing with civilian institutions for the privilege of educating Air Force personnel. Obviously, the major obstacle, in the minds of the respondents, is cost. AFIT is perceived to be cost ineffective. One of the respondents indicated that the unit cost per graduate is $30,000.00. Additionally, the respondents felt that AFIT's "true" educational unit cost surpasses any cost estimate because the overhead costs (such as utilities, facilities upkeep, supplies, etc.), are not included in the current cost estimates. One respondent pointed out that the best way to put to rest any arguments over the unit cost per graduate student, would be to contract for an independent study.

Besides the cost arguments, the respondents also perceived a distinct advantage in the experience and flexibility provided by civilian institutions. AFIT might find this to be a very difficult perception to overcome.

All of the above perceptions establishes a pessimistic outlook for AFIT's future if it is placed in the position of competing with civilian institutions for graduate education. It is important to note that short courses were perceived as the role that AFIT should continue to fulfill under a fee-for-service environment.

Question 15: Problems with Fee For Service

"What problems do you foresee in the implementation of fee for service in AFIT graduate education?"

This question was designed to summarize all those opinions which emerged from question 14. The researchers sought to find out what the implementation of fee-for-service under DBOF would mean for the AFIT graduate education programs.

One respondent summarized his/her answer very bluntly: "The end of AFIT." It was overwhelmingly perceived by the GEMS working group members that if given the choice, commanders will put their budgeted dollars into areas other than education. This response is not a reaction to the idea that education is not important, but instead to the need to set priorities and provide funds first for mission essential activities.

The only area where a commander will be inclined (according to the responses) to fund graduate education is in the laboratory environment. However, the respondents indicated that "It still will be a tough call."

The majority consensus is that AFIT will still have a role of educating people on the Professional Continuing Education side of the house but the cost of graduate education will be unbearable for a commander. However, one respondent indicated that if the funds provided to the customers are earmarked for education, then the system has a possibility of working out. Another respondent indicated that education funds should remain centrally controlled, as they currently are.

V. Conclusions and Recommendations

Overview

The objective of this research was to determine if the AFIT graduate education programs will be able to compete under the unit costing, and fee for service environment, proposed under DBOF. A data collection mechanism was developed utilizing the facilities of the Armstrong Laboratory Logistics Research Division. The target population for this research was the Graduate Education Management System Working Group. In this chapter, a review of the results of this research are presented. In addition, recommendations for the AFIT administration are provided to assist AFIT in planning for and predicting the outcomes of the possible implementation of DBOF policies. The final portion of this chapter includes recommendations for further research.

Conclusions

The research objective proposed in the opening chapter of this thesis was accomplished. The following is a review of the investigative questions that led to the resolution of the research objective.

1. Who are AFIT's graduate education customers?

The AFIT customer base is primarily comprised of DoD military and civilians and foreign students. AFMC is also identified as the major customer within the DoD community. AFIT is perceived as serving an Air Force community with the distinct mission of teaching an Air Force peculiar curriculum.

2. Who will be AFIT's graduate education customers?

The AFIT customer base in the future is expected to be comprised of a greater percentage of DoD civilians. This is in direct response to the downsizing trends and the push for greater civilianization of Air Force support positions. It is perceived under the fee for service environment that AFIT will need to expand their customer base and recruit more students from the other services and also foreign countries. In response to the recent draw-downs and consolidations, AFIT will need to posture itself to be the single source for graduate degrees in the Air Force, as well as the other services.

3. What are the graduate program services (outputs) provided by AFIT?

AFIT is perceived as fulfilling the Air Force military graduate education requirements, while failing to address all of the needs of the civilian workforce. If the civilianization trend becomes a reality, then AFIT's current programs will not properly address their education requirements. In this area (graduate programs), AFIT's inability to address changing Air Force needs was cited as one weakness. The time lag between customer requests and curriculum cha ge is considered to be too long.

4. What graduate program services (outputs) should AFIT provide?

The programs offered by AFIT should not only address the current needs of the Air Force and DoD, but they should also address the long term needs for up to 10 years from now. AFIT programs should take on a strategic outlook as the Institute plans its future. The new educational technology available today should also be exploited in providing AFIT's services not only to residents at the Wright-Patterson campus, but also to personnel all over the country or even around the world.

5. What are AFIT's graduate education strengths and weaknesses?

A major bright point, as far as the AFIT administration is concerned, is the customer consensus that AFIT is a quality graduate institution providing quality graduate students for varied Air Force needs. This places the burden upon AFIT to maintain its quality image while addressing the changes required by the customers. The major weakness addressed in the study is the lack of strategic planning by the AFIT administration to respond to the future demands developed by the fast-paced DoD downsizing.

6. What are the customers major concerns in selecting AFIT as a source of graduate degrees?

The major concern on the part of the customer is the proposed implementation of DBOF and how and if they will be required to pay for AFIT graduate education "true" costs. The other concern on the part of the customers is the loss of a worker for the 15 to 18 months required for an AFIT program. The customers want to keep the option of fulfilling graduate education part time as an option to fulfill an advance graduate degree requirement.

Recommendations

Civilianization The current trends toward converting existing military positions to civilian jobs is a trend that AFIT must respond to. Currently, AFIT's student population is predominantly composed of Air Force military officers, with a small percentage of civilian students. To survive and prosper in the coming years, AFIT must begin to tailor its courses to satisfy the needs of the civilian workforce. This may entail expanding existing programs or even offering programs in areas that are not currently offered. An additional concern to the civilian population is the availability of AFIT classes in the evening. With the decreased manning in many offices, the availability of personnel to attend AFIT on a

full-time basis is decreasing. To cater to these changes, AFIT may need to expand the part-time student population and even offer evening classes to meet the needs of the users.

Cost Effectiveness AFIT is frequently perceived as not cost effective when compared to civilian schools offering comparable degrees. This may be due to the fact that private and public universities receive their funding from many sources and therefore the students pay less than the actual cost of the degree that they receive. AFIT faces the situation of receiving its funding from a central source. If placed in the situation of operating in a fee for service environment, AFIT's cost per student may indeed exceed those fees charged by civilian schools. AFIT needs to change the perception that the institution would not survive if placed in the situation of fully charging the users for the cost of its services. The goal facing AFIT is to emphasize the unique services that it has to offer and to use these attributes to continue to attract the users to use AFIT as their primary source of graduate degrees. In conclusion, AFIT must develop a strategic marketing plan that advertises the capabilities, products, and services of the institution.

Marketing of Services As stated in the previous issue, AFIT must advertise itself as a unique resource for services that are not available anywhere else. With the personnel draw-downs in both the military and the civilian sector, AFIT must increase its efforts to attract new and varied customer bases. The current emphasis on Air Force military and civilians must be expanded to include other DoD personnel, foreign nations, and even possibly defense industry personnel. AFIT is relatively well known to personnel located at Wright-Patterson AFB, but it is less well known to personnel located at other bases or in other services.

Long Distance Education The ability to conduct satellite classes should be used to its fullest extent in order to allow the services of AFIT to reach the greatest customer base possible. For example, some of the Air Force Laboratories have contracts with their local universities to provide for Instructional Television (ITV) which are live broadcasts of classes given on campus and transmitted to a classroom in the Laboratory. The students in the Laboratory can ask questions to the teacher using a telephone link. A program with the University of New Mexico gives Phillips Laboratory civilians and military students the opportunity to complete a Masters Degree in Electrical Engineering by taking courses usually during lunch and after duty hours. An option for those organizations who do not have the capabilities to setup an ITV scenario will be the possibility of attending classes on base similar to the arrangement that colleges such as Central Michigan University or Park College have with the Air Force.

Functional Area Graduate Degree Quotas Many responses from the functional area representatives stated that they felt AFIT was either graduating too many or too few students in any given area. They felt that there was a momentum at AFIT that made it hard to both eliminate programs, and to get new programs started. Determining the right number of slots for any given program will require a strategic vision that takes into account the needs of the Air Force 5 to 10 years from now. Under a fee for service environment, the users will only support those programs that they have or will have a use for.

Recommendations for Further Research

During the completion of this research study, many useful comments were received from the AFMC functional area representatives which have genuine concerns as to the

future of AFIT under DBOF. However, the perceptions from the representatives could be aided with current information on the unit cost per graduate for each graduate program offered by the institution. In order to assess the cost effectiveness of AFIT's graduate programs, it is recommended that AFIT graduate degree program costs be compared to similar privately offered programs. This can be accomplished through a research effort dedicated to identifying both the direct and indirect costs of AFIT graduate education programs.

Appendix A

Graduate Education Management System (GEMS)
Working Group Members

NAME	OFFICE SYMBOL	FUNCTIONAL AREA
Maj Joseph J. Gradney	AFMC/CEOO	Civil Engineering
Elaine Buckwalter	AFMC/CIXX	Computer Resources
LTC Robert B. Telfeyan	AFMC/DOW	Weather
Capt Tom Klingelhoets	AFMC/DPRO	OfficerAssignments
SMgt Renee Durkin	AFMC/DPUE	Human Resource Dev
Maj Wiltse D. Wood	AFMC/ENIC	Engineering & Technical
LTC Timothy W. Addison	AFMC/FMP	Financial Management
Mr Luis Martinez	AFMC/IA	International Affairs
Capt Roger E. Saul	AFMC/INX	Intelligence
Ms. Joyce E. Lehmkuhl	AFMC/LGR	Logistics
Capt Jerry Renne	AFMC/PAX	Public Affairs
Ms. Sonia K. Carlton	AFMC/PKX	Contracting
LTC Eugene P. Hindle	AFMC/SPO	Security Police
Capt Kenneth J. Fischer	AFMC/STOD	Science & Technology
Capt Robert S. Hoskins	AFMC/XRMF	Requirements

Appendix B

Survey Notification Letter

REPLY TO
ATTN OF: AFIT/LAA (Capt Martinez/Capt Leonard, X57777)

29 June 93

SUBJECT: AFIT Survey of Graduate Education

TO: HQ AFMC/CEOO (Maj Joseph J. Gradney)

1. As a member of the Graduate Education Management System (GEMS) Working Group, you are requested to participate in an AFIT research project. Your participation will consist of completing a survey dealing with the services offered by AFIT, and the possible implementation of fee-for-service in graduate education. The purpose of this project is to assist AFIT in understanding how to best execute two DOD strategic initiatives: the Unit Cost-Per-Output and Defense Business Operations Fund (DBOF) programs.

2. This survey will take place on 7 July 93, at 0930hrs in Bldg. 434 (Armstrong Lab), Area B. This survey will require from 1-1/2 to 2 hours of your time. Your participation is important to the success of this research effort. Please be assured that your survey responses will be completely anonymous. All responses will be summarized and presented in a thesis document.

3. This survey will be given solely to GEMS working group members. As the key representative from your functional area, your individual contribution is vital. Attached please find a map with directions and parking recommendations for the day of the survey. Thank you for your help.

JOHN W. SHISHOFF
Lt Col, USAF
Thesis Advisor

1 Atch
Area B Map

Appendix C

Nominal Group Technique Questionnaire

PLEASE ANSWER THE FOLLOWING QUESTIONS IN TERMS OF YOUR USE AND NEED FOR AFIT SERVICES

1. The Department of Defense (DoD) recently mandated a fee for service program that will require DoD organizations to determine the unit-cost per output of its services. Do you have any experience with fee for service programs?

2. DoD is pursuing improved business practices to become more efficient. One of the initiatives is called the Defense Business Operations Fund (DBOF). Are you aware of this initiative?

3. In your current area of responsibility, what graduate degree program (s) does your organization use to fulfill Advanced Academic Degree (AAD) requirements?

4. According to the AFIT Mission Statement: AFIT provides graduate education, professional short courses, consulting and research programs. What additional products or services should AFIT provide?

5. What products or services that you use would you prefer to eliminate or reduce in scope?

6. Looking into the future (3-5 years), what current or future AFIT products or services do you foresee generating the greatest demand by AFMC?

7. What would be necessary to effectively develop and deliver products or services suggested in the previous question?

8. To the best of your knowledge, who are AFIT's customers?

9. Do you expect the customers to be the same in the future? If not, who do you think they should be?

10. What are AFIT's strengths and weaknesses in terms of graduate education programs?

11. What would you change to improve AFIT's effectiveness?

12. What external factors (budget, regulation, technology, events, etc.) will significantly affect AFIT's ability to achieve its mission?

13. Does AFIT fulfill your organization's graduate education requirements in terms of number of slots and type of degrees offered?

14. Considering the lack of comparative cost data, do you believe AFIT will be able to compete on an fee for service with Civilian Institutions?

15. What problems do you foresee in the implementation of fee for service in AFIT graduate education?

Appendix D

Group Research Lab For Logistics (GRLL) Responses

TO PRESERVE THE ACCURACY AND INTENT OF THE RESPONDENTS STATEMENTS, THE DATA INCLUDED IN THIS APPENDIX IS UNEDITED. THEREFORE, ANY POSSIBLE SYNTAX OR GRAMMAR ERRORS ARE PRESENTED UNCHANGED.

Question 1: Fee For Service Programs

"The Department of Defense (DoD) recently mandated a fee for service program that will require DoD organizations to determine the unit-cost per output of its services. Do you have any experience with fee for service programs?"

7 July 1993

1. Heard of it and know the philosophy but no real details.

2. I am familiar with the DBOF approach with other programs within the Air Force.

2.1. Have seen some problems in determining how and who pays for what. A service that is general in nature, i.e. law enforcement patrol, can be assessed by population. However, this would not take into account a person or unit that uses the patrol more then another person or unit (ie a unit with a large number of alarm facilitie) this is going to be very dificult to determine how to bill.

2.1.1. That's typical of any "fee for SERVICE" contract. " Fee for product" contracts are much more straightforward to understand. Until warranties, maintenance, etc. are also included; at that point cost comparisons get fuzzy or impossible. Once the contract expires, it becomes obvious in hindsight.

2.1.2. Have seen problems in determining how much should be bought. When the option is available for greater service, product features, etc. stated requirements frequently increase. You end up paying a competitive rate for more than you really need. I don't know if DBOF addresses this aspect or fits into a lager plan that addresses this.

2.2. PLEASE expand on various aspects, good and bad.

3. limeted, only the theory.....I have worked with several fee for service type contracts....and was very satisfied with the ease of operation and the quality of the product....you know what you are getting and how much it will cost.....

4. Very basic knowledge. Have seen the effects of DBOF on some programs formerly funded by funds now encompassed by DBOF

5. DBOF is an excellent concept but the systems are not available for small office implementation.

6. Studies are currently underway at the centers for areas that could be affected and probable results if functions went with a fee for service system.

6.1. Are there any indicators of the expected results?

6.1.1. Yes. However, expected results and what you get could vary having impact on the end product/service.

8 July 1993

1. General knowledge of DBOF.

2. my only knowledge of dbof is that it is supposed to be a better system to manage funds using a business type of operation rather than the typical government way of alloting funds as has been done in the past.

3. I drafted the AFMC position for my functional area.

4. I am aware of DBOF, but have no practical experience working with the DBOF program.

4.1. I gather its goal is to force agencies to prioritize their needs and allocate their resources (funds) toward those items which they really need to have for mission accomplishment.

5. I have no knowledge of the program.

Question 2: Defense Business Operations Fund

"DoD is pursuing improved business practices to become more efficient. One of the initiatives is called the Defense Business Operations Fund (DBOF). Are you aware of this initiative?"

7 July 1993

1. None.

2. I have worked several "fee for service" programs. Mainly in the laboratory environment.

3. No practical experience. Reviewed literature on the subject.

4. Have heard of "fee for service" but no experience

4.1. Agree.

5. Program Directors at all levels have identified Fee For Service as one of the biggest problems that they face, primarily because they do not understand it, and no one can give them straight answers on how it will work.

5.1. I agree, to some extent, if the service is sustaining engineering or some such nebulus item, it is difficult to manage and know what your are getting for the money.....however, if there is a tangible product or service that is well defined and priced out it can even be used by the program directors...

5.1.1. One of the biggest fears that Program Managers have is that they will get a a bill for a service that they didn't expect (or budget for) for a service that they didn't even know they were using, or that they didn't know was going to cost them. This can throw a program's cost estimates into a mess.

5.2. This sounds typical of projects in which the concept sounds good but nobody is working the details that will make or break it. Is anybody, any office (somewhere) responsible & accountable for this? Doesn't sound like it if the Program Directors don't know & can't find out. If you can't answer that, don't expect much. Ever.

5.2.1. Yes, the accounting and finance community has been working on the details of DBOF for some time. At the DOD and Air Staff levels, there are separate organizations working only DBOF issues. Remember, DBOF is a relatively new concept with many issues and problems to be worked. ÿ

5.2.1.1. It may be a relatively new topic, but it iş in full swing in many aspects of our business.

5.2.2. Yes DoD Comprtroller is responsible for the effort but Mr. Shykoff was fired because of cash problems. The staff knows of the problems but they are looking 2-4 years down the road to the solutions not to the present problems of how to put together a budget or distribute costs now. They are pushing for as much change as they can get before they are put on hold.

6. Implemented concept at DoD level with the identification of inputs and outputs to charge to customers.

7. Have had no personal experience with fee for service other than staff meeting topics.

8 July 1993

1. limited

2. none

3. I understand the concept; I am not aware of any of the services in the BOS area that have transitioned to the "fee for service" system.

4. I have no practical experience with the new "fee for service" program. Of course, in the past we have all encountered areas where we have to pay for things to carry out AF activities. These include purchasing supplies or allocating portions of our budget for TDY travel, per diem, and other expenses.

5. I've personally had no contact with the "fee for service" program. However, I do have some serious concerns about the program. I also understand that DOD wants to become smarter in the way funds are controlled to make a smaller budget go further. The bottom line, however, is that DOD is not a bussines. The "fee for service" program may enable part of the DOD perform better, but other parts of DOD cannot use the program effectively. You may be able to use the program for areas like the hospital, contracting, and construction among others; but I believe it is impractical for organizations that cannot project World events and adhoc tasking from Air Staff. For instance, Intelligence, how do measure the cost of the information (collection of the information, preparation/interpretation of the information, dissemination of the information to DOD, interpretation and preparation of the information by the unit, and finally presenting the information to Commanders and staffs). Nothing in intelligence is as it seems. Depending on how you interpret the information, or just plain luck, will have an impact on how long it takes (and the validity of the information) to develop usable intelligence. No two situations are alike and may require vastly different amounts of resources to develop. Also, how do you measure the cost of intelligence on a commander's decision making process when the information you give him today he uses 6 months down the road. I believe there are just to many unknowns to use the program in areas like Intelligence.

5.1. I think your concerns are valid--and for more areas than Intelligence. Basically, we are placing heavy responsibility and a great deal of trust on lower level decision-makers to make the right choices in allocating their funds. These young leaders may not have the depth of experience or "broad picture concept" need to accurately assess the long term value added which a given investment opportunity offers. They might well make "wrong" choices which would have been avoided by the more experience old hands higher up in the chain who, today, are making decisions about priorities and expenditures.

Question 3: Use of AAD Programs

"In your current area of responsibility, what graduate degree program (s) does your organization use to fulfill Advanced Academic Degree (AAD) requirements?"

7 July 1993

1. Many, if not most, of the 28xx career fields as well as most of the other technical career fields.

2. All of the 28XX degree programs

3. Several programs to include: environmental management, facilities engineering, civil engineering, electrical engineering, mechanical engineering, industrial engineering, etc...

4. I look at all the utilization of AAD's within the command....Most of the emphisis is on the hard science and engineering degrees.....

5. 81xx programs only

6. For the most part we use only AFIT for the military requirements but on the civilian side there are civilian degrees paid for with program funds and the Army has an agreement with a college for a class of Army, Air Force, and DFAS people to work together at the school to get an MBA.

7. We cover transportation, logistics management and supply. The majority of involvement is in the transportation area

8 July 1993

1. International Logistics

2. Contracting (1AMH) and Business (1AYY) coded positions exist within my directorate.

3. My functional area makes use of AFIT's civilian institution programs to fulfill its AAD requirements. Infrequently, we have a requirement for AFIT in-residence programs.

4. Public Affairs AAD requirements are fulfilled in civilian academic institutions. The AFIT sponsored program involves several MA and one PHD degrees in mass communication.

5. At present, we have no need of AADs within my area of responsibility that can't be accomplished by civilian institutes.

Question 4: AFIT Mission

"According to the AFIT Mission Statement: AFIT provides graduate education, professional short courses, consulting and research programs. What additional products or services should AFIT provide?"

7 July 1993

1. Nothing. I cannot conceive of a service that a customer would want from AFIT that could not be placed under one of these "umbrella" categories.

1.1. I agree. AFIT is an advanced degree institution. Development of technical type training would be useful to today's downsized workforce. At one time, AFIT did have some courses on stress management, etc. I'm not sure if they're still available.

2. I don't fell that the mission statement of AFIT needs to be expanded...

2.1. Agree

3. It is adequit

4. adequate!

8 July 1993

1. I feel current course curriculum reviews are excellent in determining the courses and contents currently being taught at AFIT. Perhaps an expanded area in the field of international programs not only in logistics but to include areas such as technology transfer.

2. I believe AFIT and the AF would benefit from offering lunchtime courses geared toward broadening AF employees knowledge of new regulations,policies and procedures such as DBOF.

2.1. Well, that's an interesting idea. If your not assigned at Wright-Patterson, would there be any chance to benefit from these types of offerings?

2.1.1. Not through classroom training; however, the course material could be exported to other bases or AFIT instructors could travel to other locations.

2.1.1.1. I'm sure AFIT would love the funding and increased TDYs to carry out this type of program. With the limited funds we live with today, and the question of who would establish requirements for these programs and be willing to lay down the dollars needed to fund it, I'm doubtful the program could get off the ground.

2.1.1.1.1. I thought that under the "fee for service" concept the activity they go to teach at would be paying for the service - not AFIT. Certainly this could be a cost savings compared to the cost to send the students to AFIT.

2.1.1.1.1.1. Ditto

2.2. Programs like DBOF are not understood by the workforce. This would be a good opportunity to educate the people it will impact most and therefore facilitae acceptance.

3. I'm not sure. Undoubtedly, there are other services AFIT could provide. I'm simply not prepared to outline or describe what they might be.

4. If AFIT has some good exportable "short" programs (its hard to let people lose for long periods with personnel cuts), I believe AFIT should go to the Air Force and teach. We have to train the forces that remain after the purges have ended. With all the cuts, it is getting harder to find funds to train with. With a smaller force, we need to have highly trained people.

Question 5: AFIT Products and Services

"What products or services that you use would you prefer to eliminate or reduce in scope?"

7 July 1993

1. AFIT coding of advanced degrees from non AFIT sources. This prevents me from seeing the true number of available officer in a given ASC.

1.1. I understand the concern of AFIT being the decision authority of what degrees get what ASCs (i.e. the fox guarding the hen house) but who would you propose make these decisions if not AFIT?

2. I assume this relates to the product/services that are provided to AFMC by AFIT....The biggest reduction that needs to take place is the over-production of graduates.....

2.1. I agree. Graduates need to be monitored to assure their education is being utilized to the fullest extent.

3. None.

4. The short courses currently offered could, I think, be less expensive if provided as technical training.

8 July 1993

1. None

2. Consistent with the prevailing AF mentality, I'd reduce or eliminate those services which provide no added value. I'm not qualified to assess what those programs might be--at least not from my current location in front of this computer screen. Additionally, in assessing the value added, the determination should be made from a long term perspective--on the order of a 10 year time-frame. It would be a mistake to retain only those programs which provide short-term or immediate paybacks.

2.1. Overall, I concur with this comment; however, I question what the term "value added" means. Depending on what a person's background is, can have an influence on what he/she considers important. Also, the changing technology environment (which appears to be changing at warp speed) is constantly changing our outlook of the future. Some technologies have died still in research when better technologies were developed. Also, some concepts that were discovered years ago are now receiving new life because we now have the technology to properly develop the concept. In our hast to eliminate services that have no added value, let's be carefull not to eliminate a service/course that has the potential of a better tomarrow.

3. none

4. I'm not familiar enough with AFIT products to answer, however; AFIT products must keep pace with technological advances, provide the biggest bang for the buc, and reflect the needs of the AF. AFIT must take a broad view of what the AF of tomorrow will look like and offer programs to help meet those needs.

5. No comment.

Question 6: Future Products and Services

"Looking into the future (3-5 years), what current or future AFIT products or services do you foresee generating the greatest demand by AFMC?"

July 7, 1993

1. PhD production should increase to about 45 per year graduating, maybe more. Lab/AFMC goals to increase overall PhD percentages won't get there otherwise.

1.1. Probably should stress civilian students.

1.1.1. Based on the current mind set of the Chief I agree....Blue suit PHDs may well be a thing of the past.....

1.1.2. We do. Problem: can't code a civ positon as requiring an advanced degree because it is "discrimatory" and civ hiring freeze poses a more practical difficulty.

1.2. I am not sure I agree. Given the current efforts by AF/CV to reduce the number of non-warfighting officers, I think PhD positions are prime candidates for conversion to civilian positions.

1.2.1. Unfortunately the majority of officers positions are at risk to be converted to civilian authorizations, regardless of education indicators.

2. The requirement for increasing the number of officers with an environmental degree.

2.1. I agree...the environmental issues that face the DOD in the future will be staggering to say the least!!!!

2.1.1. A short program covering this topic may be worthwhile for broad audiences with a more detailed program(s) tailored for specifics.

3. The use of short one week courses in detaled areas to increase proficency.

3.1. Agree. This is particularly important with current personnel placement actions. People are being reassigned to areas to meet mission needs. These moves are being made looking at minimum qualifications---further training may be required to enhance proficiency.

4. Applying this only to the 81xx career field, short courses in statistics and measurement would be benifical

4.1. Why is this limited to only the 81XX career field? Theory of Constraints training (which AFMC leadership has recently embraced) requires a fairly good knowledge of these topics. I think everyone could benefit from short courses on these topics.

4.1.1. Concur was not limiting to 81xx only stating 81xx needs.

5. With the current administration emphasis on technology development from Lab to "shelf," an emphasis on the management of technology is needed, possibly in place of the current emphasis on the management of systems development. This would provide an opportunity to assign personnel trained in the whole of the weapon system acquisition process into the labs that have traditionally been somewhat near-sighted about their products.

5.1. True, however, many officers bring this type of experience to the labs....Is what you are saying, We need more advanced degreed officers specializing in technology management? For example, AFIT, once upon a time, offered a masters degree in R&D management.....

5.1.1. We're working with AFIT now to return the R&D Mgt degree to active status, with the focus on Mgt of Technology. But even with this emphasis from AFIT, the real change needs to be in the mind set of the laboratory leadership. They need to back away from the bench more often to see where their work is needed.

5.1.2. History repeats itself because we don't live long enough to act on what we learn and we seem determined to learn the hard way...

6. There should be continued demand for substantial numbers of electrical engineers. However, it appears that many of the positions will be converted to civilian.

7. The environmantal issues will require many more environmental and reclamation engineers....Also we should see an increase in the number of systems engineers....The majority of work for engineers within the centers is of a system engineering nature.....

8 July, 1993

1. Satellite programs due to decreasing workforce and travel funding.

2. I anticipate that in-resident and civilian institution programs focusing on science, technology, and engineering will continue to generate the greatest demand from AFMC.

2.1. i agree with 2

3. I agree with answers 1 and 2

4. Also agree with 1 and 2 above.

5. AFIT could increase their business in the future by looking at the other LTT programs that the AF and the rest of DOD send their employees to and offer these programs at AFIT. Especially if AFIT is more competitive and could generate a savings. One example would be a graduate degree in Public Policy/Public Management.

Question 7: Delivering Products and Services

"What would be necessary to effectively develop and deliver products or services suggested in the previous question?"

7 July, 1993

1. Continue the added emphasis on the environmental degree programs.

2. Staff closely tied to current events to update course material.
   On-line data transfer systems for class availability to hundreds of students at a time throught the US.

3. Develope inhouse or find courses on the academic market that could effectively meet the customers needs in statistical theory.

4. You will have to predict the direction your customers want to go and have courses devloped to lead them there.

4.1. This has been one of the problems in the past. AFIT would make their predictions and expect the customer to set needs to match....AFIT would not respond to our needs, telling us they were incorrect, and advising us on the true needs of the command.....AFSC tried this approach with its customers and it di not work!

4.2. Why not work more closely with the customers and find out, as best they think, where they are going. Seems to be less room for (costly) error that way. Maybe even help the customers in the process find the way they need to go -- what they think they want may not be what they need. This happens time after time after time....

4.2.1. Work with the customer in advance, as a team, as part of an ongoing process and don't forget AFIT serves the customer and not the other way around.

5. The ability to rapidly adapt to the needs, ever changing, of the customer....i.e. AFIT must be able,either in-house or CI, to change the through put for degree programs...One year we may need only a few system management degrees and many environmental engineers....flexability is the key!

6. Develop satellite programs as an alternative to long term full time training so that people could go to school part time and work part time. As we continue to downsize, it becomes very difficult to give up a person for 18 months. This would provide the opportunity for more individuals to go to school and at the same time minimize the impact on the organization.

6.1. This sounds like a way to really lower the cost per student of AFIT courses. Of course it, too, could be sabotaged.

6.2. Going to school part time and working part time can be a detriment for the student. Full attention needs to be given to the training/education. Employers demands can take away from this.

6.2.1. Meet the customers desires or close your doors!!

6.2.2. Bah humbug. Thousands do it, thousands have done it, and thousands will continue to do it. If you're not up to it, tough.

6.2.3. Welcome to the real world.

8 July, 1993

1. Satellite services

2. Several things. First, users (those owning slots requiring AADs) would have to accurately identify ASC requirements (presumably through the GEMS/CDERS process). Next, AFIT would need to respond by (1) keeping abrest of new and developing technologies, (2) developing and offering programs to teach those disciplines--or finding and contracting with civilian institutions that do, and (3) graduating students properly trained to meet their users' requirements.

2.1. I think keeping abreast of the new technologies and developing ways to deliver those disciplines to the user is most important.

3. Agree with 2.

Question 8: AFIT Customers

"To the best of your knowledge, who are AFIT's customers?"

7 July 1993

1. The field commanders and organizational leaders located throughout the Air Force. This is a higher level than the first-line supervisor because I submit the organizational needs of the Air Force are best served from the commander's perspective.

1.1. I would agree that the above covers the critical few customer catagory. I would add that the students, first-line supervisors, and subordinates are a part of the significant many.

2. Your customer will shortly be anyone who has money, government or civilian if you intend to stay alive

3. AFIT serves many customers, of course, Wright-Patt personnel are the biggest players because of location. With funding constraints putting burden on the TDY dollars, courses geared in a variety of areas (short, long, technical} would be beneficial.

4. AFIT's customers are the users of the educated people it produces. Being DOD or foreign students

8 July 1993

1. Any AF military or civilain member eligible to participate in an AFIT sponsored academic program

2. DOD military and civilians, as well as international students who apply and are selected by AFIT review boards.

3. DOD military and civilian personnel as well as military allies.

4. I would describe AFIT's primary customers as the Air Force MAJCOMs which establish AAD requirements and validate AAD positions. If the primary customer is (or becomes) other than Air Force agencies, then, perhaps AFIT should become DODIT or Defense IT, or something other than what it is.

4.1. I agree with later portion of this comment. Your primary customer identification should remain focused of the AF community, if not, perhaps AFIT should become DODIT.

4.1.1. This idea may not be that far-fetched in light of DOD becoming more "Purple" suited. Moreover, there's a real possibility that AFMC may become Joint.

5. Agree with 3.

Question 9: Future Customers

"Do you expect the customers to be the same in the future? If not, who do you think they should be?"

7 July 1993

1. Yes, the customers should remain the same in the future--being the field commanders. This would be especially true if AFIT transfers to the DBOF approach since the courses would be paid from Operations and Maintenance funds.

1.1. The customers will remain the same . However, the quantity required will surely decrease

2. Yes

3. For the military I agree that the senior functional leaders should be the continued customer, but to clearly compete with commercial organizations you will have to find your marketing nitch to keep attracting customers. Customers will expand if you truely have a good product such as research or class development. What makes AFIT different from MIT, Harvard, or Yale?

3.1. I agree.

4. In the era of defense drawdown, the DOD may not be able to support more than one internal source for graduate degrees. In order to posture itself to be that single source, AFIT needs to become a prime source for degrees for the other services as well as the Air Force. This will mean activly "marketing" your degrees to the other services, as well as soliciting thier input for course content. It will take more than the handful of Army & Navy military and civilian grad students currently attending AFIT to make this a reality.

8 July 1993

1. I do not feel the customers will change dramatically in the future. The only change that may cause a dramatic change will be the amount of funding that will be provided to AFIT to continue and the requirements for a better educated streamlined workforce which may be more civilians and less military.

2. With increased civilianization of the acquisition workforce I believe the customer base will be more civilians - though I would expect there will be an overall decrease in the number of customers. More employees already possess graduate degrees than in the past and we have an aging workforce where many of the civilians without a graduate degree are not interested in obtaining one.

3. The customers should remain the same.

4. I've just been involved in the AF's Officer Requirements Review, which will very likely result in the conversion of many officer billets to civilian ones. In my functional area, weather, we currently do not sent civilians to AFIT for AADs. Rather, we hire them with the basic education required for the job. The civilians might well be sent to AFIT for shorter training courses, but not full degree programs. If the conversions indeed come to pass, than the number of customers for AAD programs would decrease (at least in my functional area--and undoubtedly others as well). This leads me to conclude that the future AFIT customers might well be directed or focused more towards short courses than for M.S. or PhD programs.

5. My functional area workforce mix must maintain a balance between military and civilian employees because of our wartime mission. In AFMC we have a mix that should not change much in the future. However, some of the other commands are predominantly military and are subject to civilianization in the future. As a result, we will probably see an increased need for civilians to participate in AFIT programs.

Question 10: AFIT Strengths & Weaknesses

"What are AFIT's strengths and weaknesses in terms of graduate education programs?"

July 7 1993

1. Strength: High quality academic education from an accredited school. Weakness: Is not overly responsive to exact needs/requirements of the customer; academic focus overrides other considerations. Example: research for thesis work being motivated by professor's interest rather than applicability to the student's next assignment.

1.1. Agree...we run into the AFIT directed education rather than the user directed education many times.....this must stop....

2. Strength: Flexible to meet the needs of the Air Force. Weakness: Limited in the number of degree programs available through the resident program. Not sure the best qualified applicant is being chosen with the current system. An individual, because of his location and/or supervisor, may never get the opportunity to apply for an AFIT program. Major issue: Too many graduate students are not serving enough time in the position coded for an AAD.

2.1. NO, AFIT is not flexable in many ways...We have to use a minimum number of officers in each degree area every year in order to keep the program alive...

3. Strength: Agree with 1. High quality education Weaknesses: Not flexable enough, the system to introduce and/or delet a program is too cumbersom. By the time a need is identified to the time a course could be approved etc the need would probablely go away.

3.1. Agree. The CI program should grow to accomodate this type of flexability!

3.2. Agree. Need more interface with functional areas to insure curriculum best state of the art needs.

3.2.1. How often do other functional areas interface with their AFIT counterparts. in my functional area we are in contact on an almost weekly basis.

4. Weakness: You have built the requirement in the field to sustain your operations (Need a minimum number of students each year in order to keep the instructor fully employed) this will quickly stop when the customer has the funds and can move them to other higher priority requirements like spare parts or civpay.

5. Strength: Ability to research classified areas. Weakness: inability to react to the needs of the customer. Fighting to keep programs alive that are not required.....

6. Strength: Good education tailored to the needs of the Air Force when the CDERS program is properly applied. Weakness: Somewhat self-serving. Some policies appear to be for the benefit of the school at the customer's expense.

8 July 1993

1. I believe AFIT's strength is in the area of quality instructors and continued improvement in course material that is taught. The only weakness is that some courses are being eliminated and new courses are hard to fund.

2. No comment.

3. I believe AFITs strength is that instruction is relevant to the needs of DOD employees as opposed to private institutions which often gear their curriculum to private sector scenarios/instruction.

4. Comment #3 seems to have a strong ring of truth. I have never taken an AFIT course, so I can only judge the relative strengths and weaknesses of AFIT programs based on the preparedness of the AFIT graduates I've worked with. In my functional area, all our programs are with civilian institutions. Our graduates are certainly well trained. Often, the knowledge they've gained is not directly targeted for the job they are doing in their follow-on assignment. Perhaps the CDERS process will help to rectify this situation, since our graduates will now have a specific job they are getting educated for.

5. No comment.

Question 11: Improved Effectiveness

"What would you change to improve AFIT's effectiveness?"

7 July 1993

1. Track the students after graduation for accountable use of the degree acquired.

1.1. Disagree, I paid for the degree I can do what I want with the person AFIT should hasve no say in what happens to the person. The AF might have some say but AFIT should not get into that fight.

1.1.1. You're right, AFIT should not be involved. However there are too many people in the government saying its my budget, I can do what I want with it. Some kind of monitoring is need to make sure the money is well spent and to find abusers and take away their ability to waste the taxpayers' money.

1.2. Who should do this? AFIT? AFMC? or MPC? Is it really AFITs problem that their graduates are not being fully or effectively utilized? This is a real problem for the Air Force (and AFMC in particular) but should AFIT have a major role in the post-graduation tracking of graduates?

1.3. Is that AFIT's responsibility -- monitoring & policing how their customers use the products AFIT provides? I don't think so, although it's in AFIT's interest that occurs. The suggestion implies that every command would be accountable TO AFIT for how they use that degree. GEMS should cover this, time will tell if it will (or will even be given the chance).

1.4. Disagree. This is not AFIT's responsibility. It should be done by the Command, by MPC or both.

2. Provide a method allowing the user to quickly meet their needs. eg a PM or Commander has a need for a paticular skill he/she could go to a AFIT provided shopping list, select a course then go to a reasonable approval level with justification to enter a person into the selected course. Note the key is the level of approval.

2.1. Double ditto (ditto ditto).

2.2. Is this a graduate education issue or a PCE issue. In order to timely meet the need, it almost has to be a PCE course, although it could be at the graduate level. Inherently, there is nothing timely in sending a person for a graduate degree (15 months at least).

2.2.1. Who says AFIT must produce advanced degree graduates???? AFIT is a service center to educate people to requirements (which they require). If there's a requirement for more education but less than an advanced degree, why not AFIT?? AFIT is there to serve the rest of the AF but are we restricted to AFIT's terms or the AF's needs? If AFIT is so rigid to follow a "my way or the highway" approach, there's a real problem. I saw another comment somewhere about AFIT being too academically focused and not doing thesis work for the student's upcoming job needs. Seems to be a mindset here that AFIT produces what AFIT wants vs. what the AF needs. Uh Oh.

3. Improve reaction to changes in customers enviornment.

4. A fee for service. The program or organization will pay for the education that it needs. Therfore, if AFIT does not meet this need the Agency in question may send a employee(s) (either mil or civ) to a civilian institution to acquire the skills necessary to accomplish the mission. This would ensure that AFIT met the needs of the customer. For one time that a Lab paid for the education of a PHD in eltro-optics and received something else, they would not spend their limited resources at AFIT again.....

8 July 1993

1. Improvement in providing more sateellite transmission courses which will provide a wider audience.

1.1. Also include traveling teams. I have never seen anyone from AFIT at any other baase that I've been to.

1.1.1. True, but it's a big Air Force (not as big as it once was, but still a lot of bases). Who is going to pay to form up and send these travel teams all around the AF? Perhaps limiting your proposal to a more limited scope--maybe to the AFMC Lab locations--might be a more realistic possibility.

2. I think we have implemented an important first step by institutionalizing the CDERS program AF-wide. Additionally, Air Staff must continually reassess and revise the academic specialty codes (ASCs) to encompass and provide the type and range of AAD programs which the using MAJCOMs need.

3. I answered no comment to the previous question, but I feel one of the biggest weaknesses of AFIT a accessability. A satellite program could resolve this problem. I do not think a travelling team is the answer (too expensive and difficult to maintain quality). Instructional technology has come a long way...AFIT should take advantage of these technologies and reach out and touch a larger audience.

4. To ascertain your effectiveness you'll have to know your cost.

Question 12: External Factors

"What external factors (budget, regulation, technology, events, etc.) will significantly affect AFIT's ability to achieve its mission?"

7 July 1993

1. As the Air Force budget shrinks, it will be harder to maintain an adequate number of courses.

2. Compitition will drive you out of the market especially as the military leave the acquisition world. You need to get cheaper and attract civilian students.

2.1. Agree...if you compete with the private sector you will loose all but your core classified research/graduate studies programs....

3. If AFIT goes on the DBOF system the funding level will be one of the key factors. If funding is at unit/base/center level few if any will be willing to apply fu.'ds from a very tight budget to send an officer to a one year program to pick up a masters degree.

3.1. Agree...organizations will send the officer part time to a local university (if possible) to acquire the skills necessary...Not fully fund an advanced degree.....

3.1.1. This seems like a better deal for the organization all around. The person's expertise is not lost for 15 to 18 months. Also, since the curriculum is supposed to help them in their job, they will be able to apply the principles immediately at work.

3.1.1.1. agree.

4. As it currently exists, AFIT will not be able to achieve part of its mission. The graduate education portion will all but disappear...The money maker for the Institute will be in PCE courses.....

8 July 1993

1. Reduction in forces, both military and civilian will decrease the customer population, but it may increase areas such as acquistion, technology transfer and international cooperation programs.

2. The downsizing will have an impact, but the decrease in the budget will play havoc on the ability of AFIT to train effectively - not to mention the rest of DOD.

3. We are moving toward an era of public vs private competitions in many areas and though the external factors listed in this question will all affect AFIT's ability to achieve its mission - your success may greatly depend upon whether you can justify your cost effectiveness is greater than private sector competitors.

3.1. I agree with the essence of response #3. Additionally, if AFIT can not develop and teach a given AAD discipline at lower cost than a civilian institution would charge us to enroll in their program, then, we shouldn't try to complete with them. This will likely result in fewer "in-resident" programs and more "civilian institution" programs.

4. The budget will be the most significant factor. The push towards centralization (DOD) could also be an interesting factor. With a broad customer base, that is DOD wide AFIT could become swallowed.

Question 13: Graduate Education Requirements

"Does AFIT fulfill your organization's graduate education requirements in terms of number of slots and type of degrees offered?"

7 July 1993

1. Above average.

1.1. Interesting answer, what is "average"?? Do you mean that YOUR org's grad ed req's are being filled from other sources? Please clarify.

1.1.1. Yes, many grad ed quota are being filled from civilian institution. In addition, we must compete with other degree programs for AFIT's limited staff.

2. We have requirements for MBAs and PhDs in Economics AFIT should stay away from these areas.

3. As indicated in a privious answers I think the short couses curently being offered the 81xxs do not meet current needs. This area should be revisited and adjusted. I could probable justify the need for more degree programs. However, I am not sure anyone can define when enough is enough.

4. Quite well.

5. Marginal at best...WE are the largest user of grad ed and we have to fight to get what we need. We receive many more graduates than requested in degree areas that we did not request. On the average we must bed down over 120% of our requirement in certain degree areas... The other side is trying to get the specific degress we need with the thrust of the research in the area we need. Many time the student is redirected from one area to another to continue the research of interest to the instructor...

8 July 1993

1. I see no current problems. The new downsizing and increase of certified professionals that will be required to manage international programs may require a review of additional courses to cover international acquisition and international cooperative programs such as R&D.

2. No coments.

3. I can't tell you how well AFIT fulfills our requirements because the process of coding positions for advanced academic degrees and then reviewing to see if the personnel assigned to these slots have the degree indicated for the position doesn't tell me if that degree came from AFIT or from another institution.

4. Up until now, AFIT as adequately fulfilled my functional areas graduate education requirements. As long as we are able to validate our AAD requirements and obbtain funds to enroll people in AFIT, this should continue to be the case.

5. I think it does a pretty good job. In an ideal world, I think the PA community would like to see more slots.

Question 14: AFIT versus Civilian Institutions

"Considering the lack of comparative cost data, do you believe AFIT will be able to compete on an fee for service with Civilian Institutions?"

7 July 1993

1. Poorly now. Col Koz is preaching that CIs cost less. He's right or wrong depending on how you do the accounting. When the CC is preaching one thing to people whose opinions can make a difference what I believe, or know, makes little difference.

2. If all the cost are included (facility use, utilities, instructor salaries, supplies, etc ...), it will be difficult for AFIT to compete with some of the civilian institutions. Many civilian schools have a lot experience with off-site programs which could be adapted to the Air Force. With this approach, the student could take classes at work with a reduced work schedule. The benefit would be an increase in the number of people enrolled in graduation.

2.1. Concur. Civilian institutes have an advantage in experiance and flexability that would make it difficult to imposable for AFIT to compete.

3. Right now we budget about 30,000 dollars a year,this is a lot more than civilian schools an probably does not include all the support you currently get for free from the Base Operating Support, supply operations, pay, travel, accounting, contracting, etc.

4. When all the costs are compared I do not fell that AFIT will be able to compete with the private sector...Your Teacher to student ratio is not even close to cost efective...The responsiveness isn't there...and cannot be achieved when competition is opened to the private sector

8 July 1993

1. A study by an independent firm would probably be the best source to compare AFIT vs other civilian institutions which provide the same AFIT programs.

1.1. Concur.

1.1.1. I agree

2. For short term courses - AFIT would have one overall advantage in terms of being competitive and that is the savings generated by visitors staying at the VOQ in lieu of civilian institutions where they would have to stay in a hotel. But without cost data I'd have no clue as to how competitive AFIT would be.

3. I addressed this, I think in item #12. Basically, if AFIT can't do it more cheaply, it won't compete--given that we are comparing AADs for the same ASC. I'm pessimistic about how well AFIT will compete. Obviously, it will compete most strongly in those areas where there is no competition--ASCs which are not taught by civilian institutions. For ASCs which civilians teach, but with the improper thrust or focus, we need to make sure we precisely state our AAD requirements, and develop new ASCs where needed.

3.1. To expand of the statement about more precisely stating our AAD requirements - this process if less than logical. I believe our requirements for advanced degrees should be stated on a yearly basis via a survey of training requirements. Additionally, AAD coding is only done on military positions and with the concept of neutrality positions under DAWIA this will cause more confusion. Why identify these requirements by position why not just identify AFIT requirements by organizational need.

Question 15: Problems with Fee For Service

"What problems do you foresee in the implementation of fee for service in AFIT graduate education?"

7 July 1993

1. The end of AFIT.

2. AFIT would no longer exist. The Operations and Maintenance account would not support sending an individual to a graduate program at AFIT. The competition for limited funds at base level is too fierce for the AAD Program.

3. The key will be how to assess the costs. If the Program Manager has to fund the degree program from his budget, he probably won't. A lab commander may be more likely to fund degrees, but it would still be a tough call. In order to make this work, and still have a viable graduate education program for military officers (either AFIT or CI) a separate budget line would be required. This would be an easy target for cuts, so it would have to be realistic, and demonstratably requirements driven.

4. AFIT must identify it's unique service and charge appropriatly. If there is a sutable substitute which is cheaper - use the substitute.

5. Ther must be an accounting system that links costs to outputs so AFIT can determin where efficiencies must improve.

6. Concur with 1 and 2. I may preach that I need a better educated officer to improve productivity. However, you put me in a budget crunch situation and ask me to pay for the officers education, I'll find another fmethod to improve productivity. Also Murphy tells me that once I pay for someones education he/she will be PCSed with one month of graduation.

6.1. I agree. When organizations have to spend their own money on education the number of AAD requirements should drop substantially, atleast for fresh degrees.

6.1.1. Agree..I have worked where project funds were used to educate to meet the needs of the project....not degress per say but course work in a specific area.....

7. The grad ed programs at AFIT will all but cease to exsist...AFIT will not be able to compete on the cost based on the flexabilty required....the staff will have to be to large.....CI will be the wave of the future....

7.1. Since when are civilian academic institutions flexible, especially for small numbers of students? Of course, we could send them all to one institution to get economy of scale and more cooperation, in which case we would be charged a premium for that flexibility (sounds like AFIT). At the same time every other institution would be contacting their Congressmen because of the Air Force's sole source decision.

8 July 1993

1. It will crate a new way of preparing budgets by organizations and I feel will probably create more paperwork nightmare. A centralized funding which will support the educational requirements submitted by the field as is currently done should be maintained. Focus should remain on educating and training a quality workforce by providing courses which support the DOD both at home and abroad.

2. It is hard to speculate whether organizations will place the emphasis on training when preparing their budgets that results in the same level of funding as in the past but I would guess that training funds will decrease.

2.1. The "fee for services" may result in a lower level of readiness/capability. With smaller budgets (my division's was cut 40%) you are forced to prioritize what programs you will want to support. The end result is that many programs that are needed - like training - don't get the support they require. Thus you are not doing all that you should and as such your capability is starting to decrease. I believe were at the point now were we will be doing less with less.

2.1.1. I absolutely agree!!!

3. AFIT will suffer in the short term. Organizations have a difficult time spending thier own money. If the funds come to the user or customer fenced perhaps the impact will not be as significant. But if you give an organization funds that are not fenced they will probly spend it on other things that seeem more important.

4. I am in general agreement with the comments in responses #1 and #2, but I have some other thoughts, as well. First, let me note that I've finally reached the topic I thought this was all about, although I understand the importance of the first 14 questions to the future of AFIT and your these topic. Speaking for the weather functional area, we've already seen examples of how, in AFMC, commanders will tend to view the importance of weather considerations as being small and sacrifical when it comes time to make cuts. In the R&D and acquisition (and T&E) business, the benefits of incorporating weather considerations early on sometimes does not pay dividends for many years--sometimes 10 years or more. Where will a commander make a cut? More likely than not, it will be with considerations or advantages that are not readily apparent to him. So, I fear that with fee for service for AFIT funding, commanders will chose to decrease funding for meteorology AADs. With a recent round of manning cuts, we saw half a dozen weather slots deleted. Customers within the lab or product center reacted swiftly to their commanders' actions and the slots were restored. With AADs, however, it

takes more time to undo a decision not to fund an AAD requirement. I fear that by the time the absence of an AAD-holding weather officer is impacting in a visible way, it's too late to quickly fix the problem or find a person with the needed education. In summary, without commanders having to fork over the bucks for AAD education--as it is today--we know we don't have to worry about the less than immediately visible advantages of a weather AAD not being funded. With fee for service, we are unsure we will continue to get the proper numbers of weather officers sent to AFIT.

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13. ABSTRACT *(Maximum 200 words)*

This study examined the potential effects of the Defense Business Operations Fund (DBOF) policies on the graduate degree programs at the Air Force Institute of Technology (AFIT). The study examined the Defense Management Review document that provides the implementation and guidance information for DBOF, and Unit Cost. DBOF requires that organizations provide unit cost per output figures as the basis for organizational funding. Unit cost resourcing is expected to change the way federal managers control resources, and is intended to promote quality management practices. In order to achieve the research objective, the researchers surveyed the opinions of HQ AFMC's Graduate Education Management System working group comprised of the functional area representatives tasked to develop the policies that govern the validation of graduate education requirements. Using an electronic data collection mechanism at Armstrong Laboratory, Wright-Patterson AFB, the group was asked to determine the impact of the DBOF policies on the graduate education program at AFIT. The results included the respondent's perceptions as to the role AFIT fulfills within the Air Force and the desired behavioral changes necessary to accommodate the possible changes necessitated by DBOF implementation.

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AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. Please return completed questionnaires to: DEPARTMENT OF THE AIR FORCE, AIR FORCE INSTITUTE OF TECHNOLOGY/LAC, 2950 P STREET, WRIGHT PATTERSON AFB OH 45433-7765

1. Did this research contribute to a current research project?

a. Yes b. No

2. Do you believe this research topic is significant enough that it would have been researched (or contracted) by your organization or another agency if AFIT had not researched it?

a. Yes b. No

3. The benefits of AFIT research can often be expressed by the equivalent value that your agency received by virtue of AFIT performing the research. Please estimate what this research would have cost in terms of manpower and/or dollars if it had been accomplished under contract or if it had been done in-house.

Man Years _____ $ _____

4. Often it is not possible to attach equivalent dollar values to research, although the results of the research may, in fact, be important. Whether or not you were able to establish an equivalent value for this research (3, above) what is your estimate of its significance?

a. Highly Significant b. Significant c. Slightly Significant d. Of No Significance

5. Comments

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