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The Relationships of Growth Contracting to Levels of Financial Support: A Case Study

Patrick Allen

George Fox University, patrickallenauthor@gmail.com

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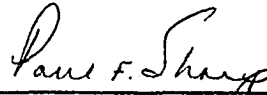
THE RELATIONSHIPS OF GROWTH CONTRACTING
TO LEVELS OF FINANCIAL SUPPORT:
A CASE STUDY

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

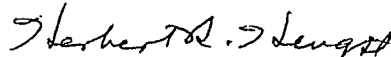
BY
ALTON PATRICK ALLEN
Norman, Oklahoma
1986

THE RELATIONSHIPS OF GROWTH CONTRACTING
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A DISSERTATION
APPROVED FOR THE DEPARTMENT OF
EDUCATIONAL LEADERSHIP AND POLICY STUDIES

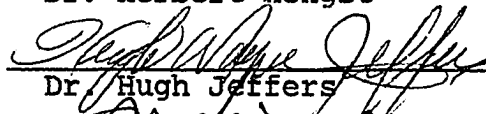
By



Dr. Paul Sharp, Chairman



Dr. Herbert Hengst



Dr. Hugh Jeffers



Dr. Thomas Wiggins



Dr. Daniel Wren

DISSERTATION COMMITTEE

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THE RELATIONSHIPS OF GROWTH CONTRACTING
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CHAPTER 1

INTRODUCTION

Purpose of the Study

The 1960's have been characterized as the decade of the emergence of the student-as-consumer. It was a time when student activists rediscovered how vulnerable colleges and universities are to mass protest and violence, yet how slowly they yield to pressure for changes in governance from within or without. It was also a period of unparalleled expansion for institutions of higher education not only in terms of enrollment, but particularly in the case of the community college, rapid growth in the aggregate number of institutions as well.

With equal accuracy the 1970's could be declared the decade of faculty development. At least it is clear that during this period, the concept of faculty development took on a new and expanded meaning. It was the subject of numerous books, articles, dissertations, and a pre-

conference workshop favorite at almost every national professional meeting. The Federal Government and many major foundations such as Lilly, Kellogg, and Ford joined in by providing large "demonstration" grants to motivated institutions. The purpose of these grants was to allow colleges and universities to demonstrate the implementation of a "model" faculty development program. Unfortunately, what the grants actually demonstrated was that good faculty development programs could be developed - with program budgets beyond the means of most colleges. A journal was inaugurated to chronicle the advancements in research and applications in this new and exciting field of endeavor. Yet, though faculty development received more and more attention, the concept did not come to represent a vital force or major structure in many institutions. Perhaps like the oysters in Lewis Carroll's poem, faculty members were too "out of breath" after the wild sixties and early seventies to seriously deal with "shoes and ships and sealing wax," or as a guild they simply closed ranks to deny the need.

Now that we are into the second half of the decade of 1980's, what can be said about the current status of faculty development as a movement? First, interest in the faculty development movement has diminished. A quick computer literature search will show that there are fewer articles, new books, and workshops at national meetings.

The major educational foundations no longer have faculty development on the high priority list. Title III grants, once a popular and accessible source of support for faculty development activities in smaller colleges, are now difficult to acquire. All this is not to say that there is no interest in faculty development in higher education today. There is still a good deal of professional concern, but as a movement faculty development does not attract the enthusiastic attention it received during the 1970's. One of the problems with being a continual imitator, as institutions of higher education often are, is that it is difficult to recognize, institutionalize, and nurture vital ideas as they flow in and out of the "current trends and issues" spotlight.

Second, faculty development is needed now more than at any other time in recent history. Faculty mobility is greatly diminished. Fewer new teaching positions, the "graying" of the faculty, the "tenured-in" status of many institutions, relatively low salaries, and the high costs involved with moving and purchasing real estate mitigate against faculty accepting new positions and work against the traditional institutional strategy at most institutions of faculty development through "new blood." Interestingly, the Group for Human Development in Higher Education contends that faculty mobility actually relieved the pressure for, and hid the potential of faculty development activi-

ties (Group 1974, 16). In any case, rather than getting bigger and better, colleges and universities are now being forced to return to the three R's - Reduction, Retrenchment, and Reallocation (Mortimer 1979). Institutions, especially smaller colleges, are finding it necessary to seek renewal from within. An effective faculty development program will be required at many small colleges if survival is to be achieved without a marked decline in quality.

Third, the literature suggests that we really do not know much about faculty development - particularly as it relates to the small college. Many leading authors on the subject such as Centra, Eble, Astin, and Seldin complain about the dearth of "good research" in this area. Most articles take the form of activity reports and how-to-do-it manuals. Even here, except for the work of Bergquist and Phillips, the small college has been particularly neglected. While programs that hold promise for the small college such as growth contracting have received some attention, much more needs to be learned if these programs are to be effectively introduced on a large scale at institutions with very limited resources.

This study investigates growth contracting in the small college with the intention of increasing our understanding of this important sector of higher education. The purpose of this study is to examine the relationships which exist between levels of financial support and the perform-

ance of a growth contracting program at a small, private, church-related, liberal arts college. In addition, this study will investigate the impact of capital infusion and withdrawal upon that program.

Statement of the Problem

This study seeks to answer the following question, "What is the relationship between the level of financial support and the performance of a growth contracting program?" More specifically, this study seeks to determine the impact of varying levels of funding - both aggregate program financial support and individual faculty financial support - upon selected indicators of program performance for a small college growth contracting program.

The impact of two independent variables is examined: (1) the aggregate level of funding for a growth contracting program in a particular year, and (2) the amount of financial support for the annual growth plan of an individual faculty member. The performance of a growth contracting program is determined by four sources of evidence (dependent variables): participation, satisfaction of participants, impact upon faculty, and impact upon the institution. This study utilizes documentable performance indicators (Eble and McKeachie 1985, 187) to measure the program's impact upon individual faculty participants and upon the institution. In order to address this problem, the

following research questions are examined:

1. What is the relationship between a growth contracting program's overall level of financial support and the level of participation of individual faculty members?
2. What is the relationship between a growth contracting program's overall level of financial support and the satisfaction of faculty participants?
3. What is the relationship between a growth contracting program's overall level of financial support and its impact upon individual faculty participants?
4. What is the relationship between a growth contracting program's overall level of financial support and its impact upon the institution?
5. What is the relationship between the level of financial support for individual growth plans and the level of participation of individual faculty members?
6. What is the relationship between the level of financial support for individual growth plans and the satisfaction of faculty participants?
7. What is the relationship between the level of financial support for individual growth plans and its impact upon individual faculty participants?
8. What is the relationship between the level of financial support for individual growth plans and its impact upon the institution?

Subsidiary Questions

9. What impact will a period of capital infusion and withdrawal have on a growth contracting program? Will its level of performance be greater than before capital infusion even though the program returns to the original level of financial support?
10. What relationship exists between the level of financial support for individual growth plans and the content and scope of the growth plans?
11. What relationship exists between the overall level of financial support for growth contracting and the content and scope of the growth plans?
12. Why did faculty members choose not to participate in the growth contracting program?

Definition of Terms

Faculty Development - A set of institutionally sponsored activities based on the Human Resource Model, designed to enhance the total growth of faculty members - as persons, as professionals, and as members of their academic communities.

Overall level of Financial Support - Total number of dollars expended by the institution during an academic year in support of all individual faculty growth contracts.

Level of Individual Financial Support - Total number of dollars expended by the institution during an academic year

in support of an individual faculty member's growth plan.

Small College - A four year, baccalaureate degree granting institution with less than 1500 students and 100 faculty members.

Growth Contracting - A three-part faculty development process in which faculty members assess their own professional growth needs, develop a written growth plan, and then contract with the institution for the support necessary to accomplish their proposed growth plan.

Capital Infusion - An increase in the annual level of support for a growth contracting program in the amount of \$50,000 or more.

Capital Withdrawal - A decrease in the annual level of support for a growth contracting program in the amount of \$50,000 or more.

Program Performance - For the purpose of this study, the performance of a growth contracting program will be defined as the level of faculty participation, the level of participant satisfaction, the amount of impact upon faculty, and the amount of impact upon the institution.

Significance of the Problem

Investigation of this problem is important for at least four reasons. First, very little is known about growth contracting as a comprehensive faculty development process. The only reported studies formally evaluating

growth contracting programs are two dissertations. One study examined the first year of the growth contracting program at Gordon College - a highly publicized program sponsored by the Kellogg Foundation. Both studies were limited to an examination of only one year, and their results were inconclusive as to the success of the programs (Milley 1977, Volpe 1980). No longitudinal studies have been reported. This study examines a small college growth contracting program over a five-year period.

Second, the literature is replete with warnings that the small college in the 1980's (and beyond) will need to maintain an effective faculty development program in order to be successful at the strategy of seeking renewal from within - a strategy that smaller institutions will be forced to pursue. Yet, there is no agreement as to what actually constitutes an effective or successful faculty development program in the small college. This is particularly true of faculty development programs utilizing the growth contracting model. This study seeks to determine and compare the year-by-year level of performance of a growth contracting program over a five-year period.

Third, no studies have been reported which compare the effectiveness of a small college growth contracting program at varying levels of funding. University administrators often face decisions concerning the proper level of financial support for a program. They are constantly being told

that it is imperative for a faculty development program to have "substantial" financial support if it is to be effective. But how much is enough? Could it be that, contrary to popular opinion, a substantial budget increase will only marginally improve the effectiveness of the program? Could a program actually suffer from too much money? Also, should the funds be distributed equally, or would it be better to concentrate the resources in the hands of a few productive faculty members? This study seeks to address these issues by comparing the effectiveness of a growth contracting program at different levels of funding, and the effectiveness of individual faculty members receiving varying levels of financial support.

Finally, this study examines the impact of capital infusion and withdrawal on a growth contracting program. This pattern of support closely resembles that of large demonstration grants offered by private foundations and the Federal Government. If the study concludes that capital infusion and withdrawal have little or no lasting impact beyond the length of the grant period, it will be a significant factor for those institutions who must decide if they will compete for a demonstration grant as well as to those funding organizations who offer such grants. On the other hand, university administrators and external funding organizations may be more willing to support new programs with substantial funds if there is a strong likelihood of cumu-

lative and lasting impact.

In summary, the significance of this study lies in the fact that it longitudinally examines the important issue of the relationship between financial support and program effectiveness in a small college growth contracting program - a relationship about which very little is known. An expansion of this knowledge pool will be helpful to decision-makers including faculty development professionals, university administrators, and external funding sources such as the Federal Government and private foundations who are faced with the problem of determining and allocating appropriate levels of financial support for individual faculty members.

CHAPTER II

FACULTY DEVELOPMENT IN HIGHER EDUCATION

Definitions of Faculty Development

Faculty development is a familiar term to even a fledgling academician. There is a faculty development program, committee, center, reading room, budget, or instructional developer on almost every campus. There is general agreement that it plays an important role in the vitality of colleges and universities. Yet, there is little agreement about what the term "faculty development" actually means. Webb contends that the term "faculty development" has no universal definition (1977, 86).

Since there is no agreement as to the meaning of the term faculty development, it is not too surprising to learn that the faculty development movement has been criticized for a lack of a unifying theoretical base. During the height of the faculty development boom period (1973-1978), Martin chastised the movement for not having "adequate theory, comprehensive approaches, or a deep intention" (1975, 3). Ten years later, this ringing indictment is still being leveled. In a recent evaluation of a major

faculty development effort sponsored by the Bush foundation, Eble concluded:

Our conceptualizations of faculty development are not yet well developed. The studies of faculty development cited earlier have categorized faculty development activities, but as yet we know little about how these categories relate to one another, let alone their usefulness in generating hypotheses about what kind of program a particular college should develop..." (1985, 182).

Faculty development has been defined in many ways. Rose defines faculty development as "almost anything a faculty member does outside the classroom" (1976, 22). Others expand the definition to include almost everything a faculty member does. For example, faculty development has been defined as a set of activities designed to help faculty members function more comfortably and effectively in all their roles (Munson 1975, 5; Wergin 1976, 291).

Mayhew emphasizes these four rather general roles for faculty development: assisting faculty members in making their courses more attractive, creating proposals to attract external funding, developing the ability to solve significant institutional problems, and improving talents in extending professional consulting services (1979, 234). Obviously, Mayhew believes that the primary purpose of faculty development is to improve the faculty's ability to generate revenue. His book, intended for small college administrators, was appropriately entitled Surviving the Eighties.

The concept of growth and the process of assisting professors in their instructional roles are emphasized by Gaff. He defines faculty development as "enhancing the talents, expanding the interests, improving the competence, and otherwise facilitating the professional and personal growth of faculty members, particularly in their roles as instructors" (1975, 14). Francis was one of the first to recognize that an effective faculty development program is really a form of planned change. He views faculty development as an institutional "process of change that attempts to modify the attitudes, skills and behaviors of faculty toward increased effectiveness and efficiency in meeting student, institutional, and personal objectives" (1975, 720).

Faculty development has also been conceptualized as a political process (Lacy 1983, 95), as a process of environmental modification (Ost 1976, 3), and visualized as a "deep-rooted, thick-trunked tree that lately has sprouted new branches" (Lingest 1981, 732). The "thick-trunked tree" is instructional development (rooted in the sixties), and the new branches are organizational development and personal development. These branches began to grow in the seventies.

Several authors argue that faculty development is really just a small part of a much larger process. For example, Boyer and Crockett place faculty development in-

side the domain of organizational development, which they define as "a planned change strategy emphasizing more effective utilization of human resources of the organization" (1973, 340). For Faris, faculty development is a group process for instructional design (1970, 131). Whitmore, on the other hand, contends that "faculty development and curriculum redesign are interdependent aspects of the change process" (1981, 13).

While there is no agreement as to the precise definition of faculty development, Seldin interprets three underlying assumptions of the American faculty development movement. First, teaching is the primary professional activity of most faculty. Second, instructional comportment is a combination of learned skills, attitudes, and goals. Third, faculty members can be taught how to improve their instruction (1976, 1). One implication of these assumptions is that the primary focus of faculty development is instructional improvement. This is particularly true of faculty development activities in the small college. However, Gaff and Justice observe that faculty development has meant different things at different times. Once it meant only the intellectual study of a field, but now it calls for a much expanded definition (1978, 89).

In summary, faculty development has meant different things at different times and there is no universal definition of the term. One primary emphasis is certainly in-

structional improvement, but a broader definition is necessary in order to encompass the immense number of activities being promoted today. With these considerations in mind, an appropriate definition of faculty development is as follows: a set of institutionally sponsored activities based on the Human Resource Model, designed to enhance the total growth of faculty members - as persons, as professionals, and as members of their academic communities.

Need for Programs

The boom period for faculty development was 1973 - 1978. In 1973, a survey of faculty development activities revealed "more plans than programs and models" (Gerth 1973, 84). By 1977, the situation had changed drastically. Centra's study found that over sixty percent of the institutions polled indicated that they had "an organized program or set of practices for faculty development and improvement of teaching" (1977, 47), and over two-thirds of the universities had some kind of developmental unit (1978, 161). Gaff cautioned, however, that colleges still need to institutionalize their efforts (1977, 514), or faculty development would become just another educational fad (1978, 96). Many feel that Gaff's warnings were prophetic (Hendrickson 1982, 338; Toombs 1983, 86).

There are several theories about why the faculty development movement did not get firmly established. Toombs

argues that the programs focused more on individual needs than on the needs of the institution, thus making them expendable during times of fiscal constraint (1983, 86). Another theory is that the programs were operating under the misguided assumption that the program of the future is the program of the past. Traditional sabbatical leaves, new faculty members, bigger travel budgets, and better facilities while good, are no longer adequate to insure institutional quality (Miller 1972, 11; Preus 1979, 5). Still others contend that the problem is a lack of financial support of faculty development activities. Ellerbe reports that less than one percent of the budget was spent on faculty development activities in his sample of community colleges (1980, DAI 1910), and Eble contends that "faculty development has never had a prominent place in the routine budgets of American collegiate institutions" (1985, 8). Probably all of these factors had an impact on faculty development's failure to take hold as a comprehensive movement.

New students, new programs, low mobility, stable enrollment patterns, harsh economic realities, external demands for quality and accountability, and the "graying of the faculty" all demand a new kind of faculty development program (Bergquist 1975, 3; Preus 1979, 18). Faculty mobility relieved the pressure for, and probably hid the potential of faculty development during the sixties and

early seventies (Group 1974, 16; Stordahl 1981, 1). Now, faculties are not only becoming less mobile, but are growing older as well. The average faculty age in 1979 was 43 years (Higher 1979, 5), and this average age is expected to increase to 48 years by 1990 (Gross 1977, 752). In fact, "if a child born today attends college at the age of eighteen, his chances of being taught by a person presently on the college faculty are 85 out of 100" (Preus 1979, 18). There is also some evidence that faculty members develop a stronger interest in teaching in the second half of their careers (Blackburn 1979, 568; Maehr 1984, 82). In addition, many authorities caution that faculty must be prepared to work with new students in new settings, and with new technologies in alternate modes of teaching and learning (Martin 1975, 3; Stordahl 1981, 1; Levine 1981, 131). These conditions argue for a new type of faculty development program, since most institutions will need to develop new responses and approaches with current personnel. Miller refers to seeking renewal from within as "intensive growth" (1974, 2). For intensive growth to be successful in a "steady-state environment", Gallagher maintains that faculty development opportunities must be extended to adjunct professors as well (1977, 3).

Hershfield points to another need for faculty development. He contends that the technology to improve educational instruction is now available, but if the faculty

will not take advantage of it, someone else will (1980, 52). It is not clear whether that "someone" is the administration, proprietary schools, or business and industry, but the point is well taken.

A traditional, but often overlooked, issue supporting the need for faculty development programs is the general lack of preparation one receives for the teaching profession. Barzun's comments at the Conference on College Teaching thirty years ago still ring true:

Just think: here is a profession in which the training does not prepare for the main task, and in the absence of that preparation does not provide apprenticeships; in which, after this double lack, there is no clear judgment of the work done, and in which the superiors of the newcomers do not care whether he succeeds or not in the task that he performs (Dobbins 1956, 50).

The President's Commission on Higher Education concluded in 1948 that college teaching is the only major learned profession which does not have a program to develop the skills which are essential for its practitioners to have (Presidents Commission 1948, 16). Today, one finds little evidence that these statements are invalid.

Faculty development programs are needed, according to Lowmand, because of the wide variety of duties expected of academics (1984, 214). Brown simply states that faculty development is needed because self-growth is a professional responsibility (1975, 206).

Models for Faculty Development

The crisis in higher education during the mid-sixties began the search for new models of faculty development (Bergquist 1977, 3). In 1983, Sullivan, who first identified the mid-seventies as the "boom period" for the faculty movement (1982, 7), warned that new models using a holistic approach and standard terminology must be adopted. "If left unattended, the faculty development movement could hang in the academic closet like the leisure suit of the 1970's" (1982, 13). Eble, after surveying the contemporary faculty development scene, categorizes faculty development models as being either single-focus or cafeteria (comprehensive) approach (1985, 13).

There are two basic single-focus approaches. The problem-oriented approach, used by the University of Chicago Medical School, involves a systematic search for problems and issues, and the development of strategies to deal with the areas in question (Pochyly 1977, 93). Many institutions fall into this category by default. That is, universities often operate by crisis-management and deal only with the most pressing issues. Unfortunately, faculty development is usually one of the things that can be kept on the back burner.

The other type of single-focus approach is the collaborative model. Many different types of collaboration are possible, but the essence of this model is that an indi-

vidual faculty member chooses to pursue growth or improvement in collaboration with an instructional developer, colleague, or professional peer. Obviously, there is collaboration to some degree in all faculty development models, but in this model the collaborative relationship is at the center of the strategy and essential for its success. Wergin describes a collaborative consulting model between a faculty member and an instructional resource professional that begins with "low mutual trust and knowledge and an 'expert' consulting role, and develops into greater mutual trust and a more collaborative consulting role" (1976, 300). He contends that this relational shift must take place before the consulting model will be effective in creating lasting change.

The consultative model at Howard University College of Dentistry uses a three-step approach: needs assessment, in-service training, and educational research. The needs assessment includes self, student, and colleague appraisal. Then, in collaboration with an instructional specialist, an individualized program of in-service activities is designed. Faculty members are also encouraged to pursue educational research (Hutton 1977, 19). The centerpiece of Lhota's consultative model is a teaching center which functions as a learning resource center or "learning web" (1976, 35). This model resembles the instructional development program at the University of Michigan. Michigan is

the university credited with the first major application of an instructional development process in higher education in 1963 (Gaff 1975, 58).

Other collaborative models include an interinstitutional model where faculty innovation-leaders teach in experimental courses and use colleagues in a similar position at a nearby college or university for support (Noonan 1973, 94); a psychiatric model in which "the patient must acknowledge a need for treatment if the treatment is to be effective" (Eble 1983, 134); a peer observation model at the University of North Carolina which encourages faculty to examine critically each other's teaching styles and effectiveness (Bell 1977, 17); a team model where interdisciplinary teams receive release time to pursue common goals such as course development (Armstrong 1980, 53); and a triad model where teachers form triads to work together for one or more terms and share "teaching goals, methods, and proposed modifications" (Sweeney 1979, 54). One of the assumptions of the triad model is that professors should be as comfortable sharing their knowledge about teaching as they are about sharing their research. It should become a common professional courtesy.

In the mid-seventies, the search was on for a comprehensive model of faculty development. The single focus models were effective, but limited in scope. In 1975, no less than five comprehensive models were introduced. These

models, or their descendants, represent the major thrust of current faculty development efforts.

In his influential book, Toward Faculty Renewal, Gaff presents a three-part faculty development model. The major aspects of this model and their distinguishing characteristics are outlined below (1975, 8):

Gaff's Three-part Faculty Development Model			
	Faculty Development	Instructional Development	Organizational Development
Focus:	Faculty members	Courses or curriculum	Organization
Purpose:	Growth, skills, knowledge, and techniques	Course design, systematic instruction	Create effective environment
Intellectual Base:	Social Psychology	Education & Ed. Tech	Organization Theory
Activities:	Seminars, workshops, evaluations	Redesign courses, writing course objectives	Action research, leadership workshops, and task forces

A Handbook for Faculty Development, by Bergquist and Phillips, was also published in 1975. This "how-to-do-it" manual had a great impact on the faculty development movement, particularly in the smaller colleges. Their comprehensive model also had three major parts and was quite similar to the model proposed by Gaff. In fact, except for the substitution of the term Personal Development for Faculty Development, the two models are identical in form (Bergquist 1975, 5). In their second volume (1977), Berg-

quist and Phillips did add a fourth dimension to their model - Community Development, and argue that all three aspects of their original model must be present in a mature faculty development program (1977, 6). In 1978, Hipps advocated this model for nursing faculty, and warned if they did not get going with faculty development, they would be forced into it like the other areas have (1978, 695). The current pressures on nursing schools proves that Hipps was right.

Also in 1975, higher education was introduced to the concept of organizational development through planned change. This was not a new concept, but institutions of higher education are always slow at trying methods taught in their business schools. Francis offers a three stage model: consciousness raising, focal-awareness, and subsidiary awareness (1975, 720); and Soulier a five stage model: general awareness, supporting faculty initiatives, faculty development, department development, and maintenance (1976, 4-7). It is important to note that in the organizational development model, faculty development is only one step in a much larger process (Richardson 1975, 307).

According to Birnbaum, the academic calendar can be used to promote a comprehensive program (1975, 227). The idea is to reduce the teaching semester to fourteen weeks, thus leaving three weeks for corporate developmental activities. Odiorne advances the concept of the human resources

portfolio (1984, 61). He suggests we view the faculty (work force) as assets in a portfolio. Some are stars, some are work horses, some are problem employees, and others are dead wood. Each group has its own needs and should be treated differently. This model, a take-off on the Boston Consulting Group's Product-Market Portfolio, assumes that the direction of faculty development is an administrative duty. Many faculty resist this assumption.

Obviously, the search for the one great comprehensive theory came up empty. Instead, there are many models which may be effective, if they are used in the right place at the right time. Many authors believe that if a single comprehensive model is to be found, it must recognize the developmental nature of faculty members. As is true of any adult, faculty members are not static. They grow and pass through identifiable life stages - as a person and as a professional. A comprehensive faculty development program must recognize and allow for this process (Toombs 1975, 702; Ralph 1978, 61; Freedman 1973, 106; Bedsole 1978, 78). (Adult development will be discussed further in the growth contracting portion of the literature review.

Faculty Development Activities

Sabbatical leaves are the oldest form of faculty support. They had their origin at Harvard in 1810, and were granted to allow professors to gain competence in a subject

area (Eble 1985, 5). Rudolph ties the growth in sabbaticals and paid leaves in the 1890's and following years to the growing emphasis on research and scholarly publication (1968, 407). This is not to say, however, that sabbaticals dominated the higher education scene. In fact, Eble observes that little attention was paid to sabbaticals and to almost nothing else until after World War II (1985, 5). Now, sabbaticals and leaves of absence are quite common, and are used for such diverse activities as attending advanced courses in a field of study, preparing for conferences and seminars, retooling in another field such as computers, and pursuing special research projects (Hoem 1975, 32).

Faculty development activities of one kind or another can now be found around the world and in every type of institution (Seldin 1976, 2; McCarter 1978, 3). The first International Conference of Faculty Development convened in 1974 (Munson 1975, 5). Since then, activities have been reported in nursing schools, medical schools, law schools, professional schools, community colleges, liberal arts colleges, major universities, urban institutions, and small/rural colleges. It is difficult to see all these activities in some type of meaningful relationship. Centra divides faculty development activities into four categories: traditional practices, programs conducted by experienced faculty members, instructional assistance by

specialists, and assessment of teaching quality (1976, 47). Ellerbe's typology of faculty development practices includes: workshops, seminars, and programs; analysis and assessment practices; media, technology, and course development; institution-wide programs; and miscellaneous activities (1980, DAI 1910). A much simpler typology would be to classify activities by the domain of the intended improvement: instruction, professional competence, or personal growth. That is, faculty development activities are designed to assist the faculty member in becoming either a better teacher, a more competent professional, or a fully functioning person.

The most widely used approaches to faculty development prior to the "boom period" (pre-1973) were: reduce student/faculty ratio, purchase new instructional technology, and recruit new Ph.D's from prominent universities (Bergquist 1975, 179). In their survey, Padgett and Thompson found the most common activities to be seminars and workshops, professional leaves, and travel (1979, 7). Brown and Hanger list over 140 activities for consideration by faculty and administrators, and insist that faculty development programs must be a combination of tradition and innovation (1975, 202). The implication is that the incorporation of the most common activities may not produce an effective program.

What activities, then, hold the most promise? The

answer to this question has changed over time. For example, Goodman cites the following list of effective approaches: monthly faculty bulletins, a general professional library, faculty clubs, and short and infrequent faculty meetings (1950, 68-9). Miller's list of most worthwhile activities includes sabbatical leaves, private offices, financial assistance to attend professional meetings, adjust load for research and writing, financial assistance for further graduate study, and less than a normal load for first year teachers (1963, 21). Gaff and Justice, on the other hand, advocate skills training, student evaluation of teaching, technical assistance, and consultation and counseling (1978, 88-9). The common wisdom holds that there are many effective activities, but they must be considered in light of the specific needs of the target group and the institution.

Faculty development activities have featured a variety of techniques to improve the instructional effectiveness of faculty members. Behavioral outcomes have been measured by ratings of videotapes, and are reported to have some impact on cognitive, behavioral, and affective outcomes (Sheets 1984, 747). Peer observation caused faculty to critically examine their teaching styles and effectiveness at the University of North Carolina (Bell 1977, 15). Understudies have been assigned to mentor-teachers in the Dallas County Community College System in order to observe instructional

methods first hand (Caswell 1983, 2), and Carroll presents evidence that good teachers can become even better by receiving instruction in the following five step lecture method: focus, placement, definition, exemplification, and application (1981, 84).

Some faculty development activities recognize and focus on the developmental needs of faculty members. Freedman suggests an in-depth, structured interview as a means of stimulating self-awareness which could form the basis of an effective program (1973, 106). Others believe that career assessment and career development activities play a key role in faculty development programming (Bedsole 1978, 78; Baldwin 1981, 83). Murphy reports that a short-term faculty exchange can be a means of promoting self-development (1980, 33). The recognition of the developmental nature of the teaching profession, that faculty members do seem to track through rather identifiable career stages, has already had a tremendous impact on the content of faculty development activities, and will probably occupy center stage in the faculty development movement's continuing efforts to develop a comprehensive philosophy.

No faculty development activity has received as much attention, affection, or criticism as has the "faculty development grant." The "lack of time and money" is a traditional excuse for nonparticipation in faculty development activities, and "Deans Grants" were supposed to ad-

dress at least the second half of this problem. In his comprehensive survey of faculty development practices in 1976, Centra found that grants "to faculty members for improvement to courses or teaching were a common and highly rated practice" (1976, 6). Small grants also have the potential to encourage innovation as well as boost morale (Rose 1975, 5; Mayo 1979, iii; Mayhew 1979, 240). Rice adds that if administered properly, "challenge grants" can encourage the team approach (1979, 8), but Eble cautions that these grants will be much more successful if they are designed for the needs of specific groups of faculty - younger, mid-career, and older teachers (1972, 129). One additional warning: faculty grants are often used to supplement or supplant departmental budgets rather than to support faculty development. The best way to deplete the fund in a hurry is to grant money for the purchase of equipment, travel, and overload salaries (Ericksen 1984, 145).

In summary, faculty development activities have been around since 1810, and can now be found in all types of institutions all over the world. There is no standard typology of faculty development activities, but they can be classified by the nature of the intended impact - personal growth, professional development, or instructional improvement. There are hundreds of different activities, and each institution must develop an "individualized package" if the

program is to be effective. One key, however, to an effective program seems to be the recognition and allowance for the developmental needs of individual faculty members. The most popular activity is the small grant or challenge grant. There is some evidence that it can boost morale and encourage innovation, but it must be carefully administered or it will be used as an auxiliary departmental budget.

Organizational Principles

There are several underlying assumptions and operational principles which the literature supports as essential to an effective faculty development effort. One fundamental assumption is that good teaching can be taught (Bell 1977, 15). If one can not learn to be a better teacher, then the faculty development budget is merely an administrative expense. The Group for Human Development in Higher Education, credited with giving a big push to the term "Faculty Development," contends that faculty should give at least ten percent of their professional time to faculty development activities (1974, 82). While this is a worthy objective, it is interesting to note that no one has called for a corresponding allocation of ten percent of the instructional budget to support this goal. Also, Eble is not convinced that such a budget would actually lead to improved results in instruction since "when faculty members are given a choice about what might best further their

professional development, they gravitate toward conventional support - time off and travel funds - of their own research" (1985, 9). In any case, it is possible to become a better teacher if one has the necessary motivation and support.

One essential operational principle is that a program must pursue clearly defined goals within the context of institutional needs and priorities. Rose cautions that "the single most dangerous deficiency in professional development is this preoccupation with process. Professional developers have lost sight of the goal that gave rise to the professional development movement in the first place... and of the goals of their own programs" (1976, 22). The real goal of faculty development, according to Reilly, is program development (1983, 26). Individual needs and initiatives must be accommodated within the stated needs and priorities of the institution (Kelly 1950, 121; Stordahl 1981, 1; Reilly 1983, 25). During periods of financial stress, the first programs "to get the axe" are (and should be) those which do not support the institutional agenda.

Effective leadership is essential for a faculty development program, and can come from many different sources. Gaff enumerates five alternatives: administrative leadership, a faculty group or committee, an individual with a specialized appointment, a short-term project leader, or

the instructional improvement center. Regardless of the alternative, there is considerable debate as to the proper role for the administration to play. One argument is that active administrative support is essential for program success (Jordan 1978, 18; Whitmore 1981, 13; Phillips 1976, 3). Others, however, contend that active participation by the administration will be counter productive (Sikes 1976, 46; Hoyt 1977, 36; Warrick 1979, 7). Generally, the literature supports a middle-ground approach. The administration of a college or university must initially provide enthusiastic support for the program in a tangible way. Then, keep an interest in the program as it develops, but their hands off.

What are the keys to a successful program? Again, there is a diversity of opinion. Eble identifies financial support, a sound system of development, and the lodging of responsibility with a high administrative officer as essential (1972, 129). Faculty development programs are most successfully operationalized, according to Brown and Hanger, if they are decentralized, faculty sponsored, centrally facilitated, visible, explicit, and traditional and innovative (1975, 202). Nelson's requirements for a successful program include flexibility, individual as well as corporate activity, and vigorous administrative leadership and support (1979, 144-8). Finally, Gaff contends that the following are essential elements of a professional develop-

ment program: consideration of adult psychological development, adoption of a framework, a sense of the level of institutional awareness about faculty development, and encouragement of faculty to develop professionally (1978, 70). Gaff's comments fail to raise an interesting question. If growth and development are beneficial for the individual and essential for the institution, why is there no penalty if one does not develop?

A tangible and available reward structure may be the key to program success (O'Banion 1978, 24; Redditt 1978, 39). Other important keys include the department chairperson (Plough 1979, 1), the separation of faculty development from faculty evaluation (North 1968, 15; Neff 1976, 427; Bell 1977, 17), and the recognition that faculty development is a political process, thus necessitating the need for coalition networks (Lacy 1983, 95).

In summary, what are the general organizational principles which can be used to establish a successful faculty development program? Obviously, since there are a great many opinions on this subject, it would be impossible to develop a list with which all would be satisfied. However, the four general principles offered by Hynes would receive a strong consensus (1984, 32-4). First, faculty development is a continuous process. Gaff describes faculty development programs as "evolutionary, nor revolutionary" (1978, 50). Second, the initiative for faculty development

should come primarily from faculty. Faculty development is a change process, and faculty ownership and openness are essential. There is also some evidence that a strong nucleus or "critical mass" is necessary for program success (Mathis 1974, 26; Gaff 1978, 50). A critical mass is certainly easier to achieve if the program is not perceived as a threat.

Third, make sure seed money does not become a "money trap." The money trap occurs when means and ends are confused, and faculty begin to pursue activities for the money rather than for the opportunities for growth and development that the money was designed to provide. Finally, distinguish teaching improvement from teaching effectiveness. If faculty believe that faculty development activities are really a covert form of faculty evaluation, participation and support for these activities will be minimal.

Participation

After studying the American faculty development scene in 1976, Seldin observed that there was not really much participation in faculty development activities. There were lots of programs, journals, committees, foundation grants, and conferences, but faculty members were not turning out in mass numbers (1976, 7). True, many glowing testimonials were coming in which were reports of very

positive results, but these programs almost always involved a minority of faculty members - many times the very faculty members who least needed to improve. Owens counsels that "not all faculty will, or need to, participate in each faculty development activity: but if you provide variety, most faculty members will participate in something" (1977, 12). Apparently, Owens forgot to build variety into his own program, because in the same article, he reports that only 15% of the faculty used the Teaching Center on campus (10). In a national study on the effectiveness of faculty development functions, Jordan reports that over 50% of the instructional centers served 30% or less of the faculty (1978, 18). These findings tend to substantiate Seldin's initial observation.

Who is this minority who participates in faculty development activities, the group that planned change strategists refer to as the "early adapters" (Rogers and Shoemaker 1971, 181). They seem to be the ones who need developing the least - the competent. A study of participation in community colleges concludes that those who are already competent (as rated by students) participated most often. Therefore, faculty development helps those who need help the least (Garlock 1979, 10).

Ellerbe's study of Technical Institutes and Community Colleges in North Carolina supports Garlock. His findings indicate that the faculty members who were perceived as

good were most active (1980, DAI 1910). Gaff adds that the voluntary nature of faculty development activities will insure an atypical mix - on the average, more talented and more interested in teaching (1975, 167-8). Interestingly enough, when outstanding teachers are compared with a random sample of their peers, no statistically different characteristics are found (Gaff 1971, 480). One explanation for the participation of competent teachers in faculty development activities is that these activities pose no threat to them. A weaker teacher could view faculty development as a form of evaluation and may not be too excited about sharing his or her deficiencies with the instructional staff. Another possibility is that teachers are better than average or competent because they participate in such things as faculty development.

There are several factors that have an impact on participation. One is age. Very young faculty members are not great participators. Some are working on advanced degrees, and most are on survival mode. That is, they are just trying to get through the week. Long term developmental efforts are simply not relevant. Many faculty members with over 15 years experience feel that they are already developed, or are involved in faculty development as a mentor, or that the program really does not meet their developmental needs. That leaves the group in the middle. The most active participators are those who have 5 - 15

years teaching experience (Toombs 1975, 715).

Other factors which might influence participation are employment status, sex-role factors, attitudes, institutional size , time, and money. Gallagher reports that, provided they live close to campus, adjunct faculty are more willing to participate in faculty development activities than are regular faculty members (1977, 5). Sex-role characteristics and expectations also have an influence on faculty development among nursing educators (Huggins 1980, 29). It may be that sex-role expectations influence the perceived value of faculty development activities, thus modifying participation. If there are negative attitudes concerning faculty development, it is likely that participation will suffer. Stordahl argues that faculty may not like the idea of being developed. He suggests that the term faculty growth or support would have a more positive reception (1981, 1).

Some faculty development programs pose a significant threat to many faculty members (Hoyt 1977, 36). When faculty evaluation is coupled with development activities, many faculty members simply choose not to participate. Obviously, programs must be evaluated, but the value of using the faculty development program as the means of evaluating individual faculty members is questionable.

Institutional size can also be a factor. From his national survey of faculty development activities, Jordan

concludes that the "percent of faculty served by the faculty development center (or program) is inversely related to the size of the institution" (1978, 17). Smaller institutions, although operating with fewer resources, may have the edge in developing effective programs.

In summary, we know a long list of factors influence the level of participation in faculty development activities, but we do not know why certain individuals participate and others do not, or what the participation rate should actually be for an effective program. Two things, however, are quite clear. Faculty development programs reach only a minority of faculty members. The average is less than thirty percent on most campuses. The other fact is that the average participant is already an above average teacher. Programs tend to help those who need it the least.

Benefits/Impact

At the American Association of Higher Education National Conference in 1978, Gaff reviewed the current faculty development scene and concluded that while higher education is still learning about this phenomenon, the "evidence is beginning to accumulate that allows us to judge its worth. This evidence supports the conclusion that faculty development has yielded significant benefits to faculty members, administrators, institutions, and stu-

dents" (1978, 10). What exactly are these "significant benefits?" In the same year as the conference, Gaff and Morstain reported that over 80% of the participants in a sixteen institution faculty development study indicated the following benefits: contact with interesting people from other parts of the campus, increased motivation for teaching improvement, support of innovative ideas, greater awareness of one's own teaching assumptions, and personal renewal (1978, 77). The study concludes that faculty development activities promote organizational development by helping faculty to become "less insulated" (1976, 79). For the small college, faculty development activities provide leaders with the opportunity to act as institutional change agents, allow faculty members to document their value to the institution, and may even help to guide tangential interests back toward institutional needs (1978, 39). Since most small colleges have very limited funds with which to support faculty development activities, it is becoming increasingly necessary to give first priority to those faculty development efforts which address stated institutional needs and concerns.

Some benefits of faculty development relate directly to the instructional process. Rose suggests that a small grant fund can support innovation and stimulate faculty to try new teaching techniques (1975, 5). Kozma adds that classroom innovation is a function of the level of adminis-

trative and financial support at most institutions (1978, 442). In separate studies, Hoyt and Howard report that students rate the teaching effectiveness of faculty who participate in faculty development significantly higher than that of those who do not participate (1977, 32-5). It is not clear, however, whether participation in faculty development improves one's teaching effectiveness, or if it is simply that effective teachers participate in faculty development activities. In actuality, it is probably a combination of the two factors.

Other benefits include improved academic climates, better role models, and support for personal and professional development. Marker credits the small grant program at Hope College with improving the scholarly climate on campus (Nelson and Siegel 1980, 9). Since students learn best by example, reasons Bailey, faculty development can be beneficial because growing faculty members can provide needed role models for students (1974, 24). Goldman provides "empirical support that faculty development workshops promote self-actualization of its participants" (1978, 257). This may become an increasingly important benefit as institutions begin to deal with the developmental needs of an aging faculty (Gross 1977, 752).

Faculty development programs can have their down-side as well. For example, faculty programs reach only a portion of those persons they are intended to reach, and the

most active participators are those who need it the least (Gaff 1975, 167-8). This raises the issue of the cost effectiveness of many programs. Some would argue that the funds could best be committed to other areas of the educational budget. Hoyt cautions that another negative is that faculty development programs pose a real threat to many faculty members (1977, 36). The main reason is the close association of faculty development with faculty evaluation on some campuses. Growth needs to be encouraged and performance evaluation is necessary, but the assumption that these two efforts must be contained in the same program is questionable. Hodgkinson adds that some faculty find the whole idea of being developed professionally demeaning (1973, 119).

In summary, there are many benefits that can accrue from faculty development programs. These include benefits to students, faculty, and the institution. It is important to remember, however, that faculty development efforts can have negative side effects as well, and these negatives are very real.

Evaluation of Faculty Development Programs

Three questions can be raised with regard to evaluation of faculty development programs: why should they be evaluated, what methodology should be used, and by what criteria can the effectiveness of a program be judged?

Wergin lists four shortcomings of faculty development programs: they seem to be at the periphery of institutions, they must serve a number of different publics, they must compete for the faculty's time, and they are plagued with a lack of data (1977, 70). This lack of data is troubling because programs must be evaluated in order to justify their existence and improve their effectiveness (Centra 1977, 47; Goldman 1978, 254).

In their second faculty development how-to-manual, Bergquist and Phillips urge program evaluation for the following reasons: demonstrate accountability to funding sources, provide summative evaluation for policy makers, assist professional staff members in formative evaluation, contribute information for the institutional decision-making process, and serve as a model for other campus programs (1977, 287). Kelly cautions that it is important to distinguish between two similar, but fundamentally different evaluation questions: (1) did the program meet its objectives, and (2) was the program any good? (Diamond 1975, 77). A program is not necessarily effective simply because it meets all of its objectives, particularly if the program objectives were inappropriate or inconsequential. Durzo adds that it is also important for the administration to keep in mind that the purpose of program evaluation is to be able to reward on the basis of productivity, not to punish the people (1976, 4).

Obviously, then, there are many good reasons why faculty development programs should be evaluated. Perhaps the biggest reason is that without evaluation, programs will have no way to document their contribution to the vitality of the institution. In these days of continual financial stress and constraint, educational programs which can not do this will have a justifiably short future.

If faculty development programs must be evaluated, then what is the best method? There is extensive agreement in the literature that the case study method utilizing data from a variety of sources is the most effective method (Palola and Lehmann 1976, 79; Wergin 1977, 70; Preus 1979, 34). Wergin promotes the case study because it examines the program "as a whole, including its rationale and evolution, activities, accomplishments, and difficulties" (Wergin 1977, 70).

What are the most common sources of evidence for case study? Nelsen lists site visits by teams of experts, questionnaires, and interviews with participants (1980, 136). To this list, several additional sources can be added including observation of the general campus milieu, and review of program documentation (Bergquist and Phillips 1977, 299). Cronbach points out that questionnaires and interviews are valuable in that they can measure attitudes (1968, 37-52). Hinricks adds that "probably the only way to really evaluate how well the job is done is to ask the

people most clearly able to judge - the employees themselves" (1975, 481). Although Hinricks was referring to management development activities in business and industry, there is considerable support in higher education for including student inputs as a source of evidence in the evaluation of faculty development programs (Centra 1972, 21; Gaff 1978, 59).

In any evaluation, it is essential to establish acceptable criteria for measuring performance (Bergquist and Phillips 1977, 290), but there are no universal measures of program performance. "Those interested in organizational effectiveness must recognize that its construct space accommodates a wide variety of criteria, all of which cannot be assessed in any one single study" (Cameron and Whetten 1983, 274). Hoyt and Howard contend that the ultimate measure of an improvement in effectiveness is the performance of students (1978, 26), but exactly how to get at this measure of improvement of effectiveness with any degree of validity is problematic.

A workable means of measuring program effectiveness (or success) is to identify documentable measures of program performance (Milley 1977, 191). While evaluating the Bush Foundation's faculty development program, Eble and McKeachie developed a comprehensive list of performance indicators:

Among the Bush program activities, developing & revising courses, acquiring new & different teaching skills, gaining information about how students learn, improving advising procedures, observing and being observed by other teachers, acquiring knowledge of a new field, and improving scholarly competence are documentable in kind, number, and quality. That they constitute changes likely to be beneficial to instruction appears to be a sound premise (Eble 1985, 158).

The list of documentable indicators of program performance that Eble developed for the evaluation of the Bush program is as follows: institutional effects - changes in norms about teaching, curricular changes, communication within and among departments, organizational changes, and improved morale; and impact on faculty - motivational effects, cognitive learning, and the development of new skills in teaching (1985, 187).

Eble's work, in this writer's opinion, represents the most effective means of assessing program performance to date. This study also utilizes a list of documentable indicators of performance (adapted from Eble) in order to determine and compare program performance over a five year period. One of the major weaknesses of previous case study dissertations evaluating faculty development efforts is that they evaluate only one year of a faculty development program with little criteria to judge the performance of the program other than the degree of accomplishment of program objectives (Milley 1977; Volpe 1981). For the purpose of this study, the following performance indicators will be used:

PERFORMANCE INDICATORS

- I. Participation of Faculty
- II. Level of Participant Satisfaction with Program
- III. Impact upon Faculty
 - A. Increases in Cognitive Learning
 - 1. on how students learn
 - 2. knowledge of a new teaching area
 - 3. scholarly competence
 - B. Changes in Teaching
 - 1. acquiring new teaching skills
 - 2. developing/revising courses
 - C. Increases in Motivation
 - 1. to try something new
 - 2. to complete a postponed project
 - 3. to become more involved in campus affairs
- IV. Impact upon the Institution
 - A. Changes in Norms about Teaching
 - 1. amount of student writing
 - 2. amount of student advising
 - 3. use of student evaluations
 - 4. level of expectations
 - B. Curricular Changes
 - 1. new programs
 - 2. revised/refocused programs
 - 3. eliminated programs

C. Communication Within & Among Departments

1. increased freedom to communicate
2. increased departmental information
3. accurate institutional information
4. increased feeling of community

CHAPTER III

GROWTH CONTRACTING IN THE SMALL COLLEGE

The Small College

Hard times are producing nothing less than a complete change in the character of our institutions of higher learning. Every aspect of their work is being affected. Their faculty, their students, their organization, their methods, their teaching, and their research are experiencing such alteration that we who know them in the good old days shall shortly be unable to recognize them. Many changes are for the better. Others may wreck the whole system (Hutchins 1933, 714).

Although these words were written during the great depression of the 1930's, they read as though they were printed in a recent issue of the Chronicle of Higher Education. The 1980's will probably be characterized as the second great depression for all of higher education, but the small college has been in perennial trouble. Looking back on the relatively stable era of the 1950's, McGrath writes:

Severe financial problems related to the curriculum already exist in the independent liberal arts colleges. Indeed, their status in the structure of higher education and in the whole of American Society now rests in the balance. The outcome will be determined very largely by the willingness of faculty members to view the entire life of the college objectively, including their own special interests... If the crisis deepens without appropriate faculty action, the tradi-

tion of faculty control of the curriculum will necessarily be abrogated by those who have the legal and moral responsibility to preserve and advance the welfare of these colleges (1961, vi).

Ten years later, Astin cautions:

If the state college and the junior college can be regarded as the second-class citizens of higher education, then the invisible college is the third-class citizen, the unassimilated, the "outsider." It faces most of the same problems as the other two but always on a more severe scale... Of all institutions of higher education, invisible colleges are the most likely to become extinct (1972, 10-11).

What are some of these severe problems which face the small college, and mitigate against faculty development efforts? Centra's comprehensive survey of faculty development activities in the United States reveals that less than 40% of smaller colleges had any type of developmental unit on campus (1978, 161). This is probably due to a lack of funds rather than a lack of commitment. Sutton adds that faculty development efforts in smaller institutions tend to be focused on the curriculum, have less organization, and do not meet developmental needs (1978, 1-5). Another problem is that many small college faculty members feel overwhelmed by the sheer variety of things expected of them (Lowman 1984, 214), and institutional expectations conflict with the predominant pattern of professional success in higher education (Miller and Wilson 1963, 3). When you add to all of this the fact that faculty in smaller colleges often suffer from various forms of isolation due to such things as very small departments and rural locations (Smith

1979, 3-7), is it any wonder that Akin calls faculty development in liberal arts colleges the "unfinished agenda for the 80's" (1984)?

All this is not to say that being small does not have its advantages. Being small does permit the institution to change in a more rapid fashion, and often this change process can involve an entire academic department or division with very little difficulty (Bergquist and Phillips 1975, 204). Smaller colleges also benefit by having developmental activities not only run for faculty but also by the faculty (Centra 1976, 6), thus enhancing faculty ownership of the program. Parsons adds that smaller institutions can more effectively involve part-time faculty in instructional development activities (1980, 54). There is also evidence that small college faculty development programs are more cost-effective (Eble 1985, 216), involve a higher percentage of the total faculty as participants (Jordan 1978, 17), and have a greater impact on the life of the institution (Gaff 1975, 168).

In summary, the small college is fighting for its survival and has been for the past fifty years. An effective faculty development program will, undoubtedly, enhance the vitality of these institutions and their efforts to renew from within. However, many factors such as professional isolation, heavy teaching loads, and limited financial resources work against their best intentions. On

the other hand, there is growing evidence that faculty development programs at smaller institutions are not only cost-effective, but also have a greater impact on the institution. Therefore, while smaller colleges often face more severe versions of the same problems pressing all of higher education today, their size may, in the last analysis, be their biggest asset rather than the deadly liability that it is often made out to be.

Growth Contracting Programs

Before reviewing the literature concerning growth contracting faculty development programs, it will be helpful to briefly critique two concepts which provided a springboard for the growth contracting movement - adult development and management by objectives.

Adult Development

One of the central themes of adult development is that like children, adults also grow and move through identifiable life stages. In his seminal work on adult development, Childhood and Society, Erikson discusses the following adult stages and the corresponding developmental task for each stage:

Erikson's Developmental Stages

Developmental Stage	Primary Resolution
Adolescence	Identity vs. Role Confusion
Young Adulthood	Intimacy vs. Isolation
Adulthood	Generativity vs. Stagnation
Old Age	Ego Integrity vs. Despair

Erikson states that the principal task of adult life is the quest of a sense of generativity - to leave one's mark by producing something that will endure (1963, 227-32). Other stage models have been developed which build on the work of Erikson, and include the concept of transition points as well as the idea of adult stages. For example, Loevinger offers a model with five adult stages and two transition levels (1976, 19). Levinson's model, on the other hand, features a person's "life structure" evolving in an orderly sequence through five stages and four transition points including the now familiar "mid-life transition" (1978, 41). As with Erikson's model, these theorists suggest that specific key issues must be resolved before one can move through a transition period and on to the next developmental stage.

Dalton applies the stage model to professional careers, and describes four unique stages of career development - apprentice, colleague, mentor, and sponsor (1977, 23). Ralph suggests that faculty must grow through these stages in their professional careers (1978, 61), and that effective faculty development programs must "reflect the fact of the growth of increasingly complex ways of thinking and acting" (1973, 61). Hodgkinson adds that faculty are "like other mature human beings and continue to grow psychologically" throughout their lives (1974, 264), and faculty development efforts must recognize the developmen-

tal nature of faculty if such programs are to be effective in meeting real faculty needs (Bergquist and Phillips 1975, 181; Gross 1977, 752; Claxton and Murrell 1984, 40).

Faculty development, then, can be understood as part of a specialized socialization process for teaching professionals in higher education (Brim and Wheeler 1966, 27). In addition to the idea that faculty development is actually a part of the process of socialization, adult developmentalists have made several other contributions to our understanding of faculty development. First, adults are not static, but move through identifiable life stages. Second, professionals move through distinct career stages as well. Third, faculty members are professionals and people. Faculty development programs must recognize and allow for these growth and socialization factors if they are to be effective in promoting meaningful and lasting change.

Management by Objectives

"Cheshire-Puss," Alice began..."would you tell me please, which way I ought to go from here?" "That depends on where you want to get to," said the cat. (Carroll 1971, 56-7)

As the Cheshire-Puss reminded Alice, a road map is of little use until you know where you are and where you want to be. Management by objectives (MBO) is essentially an organizational process designed to foster agreement between the employee and a supervisor as to specific performance

objectives and means of assessment. Raia defines management by objectives as:

A philosophy of management (proactive)(participative) and a process consisting of a series of interdependent and interrelated steps: (1) the formulation of clear, concise statements of objectives; (2) the development of realistic action plans for their attainment; (3) the systematic monitoring and measuring of performance and achievement; and (4) the taking of the corrective actions necessary to achieve the planned results (1974, 11).

In practice, MBO works in the following way. The subordinate and superior mutually establish and agree on objectives to be accomplished. Action plans are then developed and converted into individual work plans. Periodic progress reviews and formal appraisals follow which allow management to provide rewards based on performance (accomplishment of objectives). Before objectives and work plans can be developed, however, it is essential for the organization to establish and communicate long-range goals, strategic plans, and overall organizational objectives in order to insure that individual plans are tied to organizational needs and priorities.

Management by objectives was the most popular method used in management development programs during the 1950's (Glueck 1974, 385). Since then, MBO has been used in a wide variety of organizations in both the public and private sectors with an interesting list of outcomes. Carroll and Tosi review the application of MBO in sixty English firms and report that MBO helps to identify problems and

improve the overall developmental climate (1973, 12).

Management by objectives has also been reported to help clarify mission and goals, increase productivity, promote the understanding of organizational goals (Carroll and Tosi 1973, 11-13), and increase job satisfaction on the part of participants (Ivancevich 1972, 135).

Management by objective programs have been instituted in a variety of educational settings. At the secondary level, MBO has been employed primarily with school boards (Moberly and Stiles 1978) and with school administrators (Heiman 1978). Dow reviews several MBO studies in secondary schools and concludes that "a modified MBO program can work in education," and will "provide the identity, commitment, and motivation necessary for creating growth in a professional organization" (1981, 379-85). In higher education, MBO programs have been implemented in many colleges and universities including the University of Tennessee, William Rainey Harper College, Brigham Young University, and the University of Utah (Temple 1973, 99). Heaton concludes that MBO can work in higher education and may provide an answer to the call for accountability by a wide variety of constituent groups (1975, 2; Fleming 1978, 28).

MBO has been used with administrators and faculty alike. Pearlman relates how Roosevelt University developed an "Administration by Objectives" program (1975, 5). At the University of Massachusetts, a similar program is

called the "Management Review and Analysis Program" (Fretwell 1976, 4).

Winstead explains how MBO was implemented at Furman University as an aid for the institutional planning process (1977, 2). In spite of the fact that a workbook has been developed to assist in the step-by-step establishment of a faculty MBO program at a college or university (Deegan and Fritz 1975, 246), comprehensive MBO programs targeted at the faculty have not produced entirely positive results. Marsh reports that MBO can support a "multifaceted faculty evaluation model" based on mutually agreed upon criteria for evaluation between a faculty member and the department chair (1979, 44-8). Wooten cautions, however, that an appraisal system employing management by objectives will be ineffective unless faculty members are allowed to participate in the administration of their areas (1980, 208-10).

Cravens and Ross present a management by objectives model for faculty (based on the work of Odiorne), and cite these advantages:

- increased faculty productivity; involvement of faculty in the establishment of long and short-term goals (department and college); eliminate rivalry between faculty members; and provide deans with more specific knowledge of faculty accomplishments and constraints preventing objective accomplishment (1976, 13).

Their MBO model is based on three assumptions: a planning period of twelve months, department heads are viewed as administrators, not coordinators, and departments

and colleges have goals - established through faculty participation (1976, 14). The third assumption, established goals through faculty participation, may greatly reduce the number of colleges where this model can be effectively used.

Two additional studies report mixed results. Terpstra utilized pre and post questionnaires measuring perceptions of performance and satisfaction, and found that during an MBO application, faculty reported an increase in performance but a decline in satisfaction (1982, 353). Shetty and Carlisle, after conducting an exploratory study of faculty reactions to an application of management by objectives in a university setting conclude:

Goal setting in a university setting would increase awareness of organizational goals, improve planning, and improve evaluation: however, faculty consistently complained of (1) excessive paperwork, (2) insufficient involvement, (3) lack of departmental goals, (4) difficulty in setting goals, and (5) inadequate reviews and feedback (1974, 78).

Why is it that MBO programs are more successful with college and university administrators than with faculty? The key seems to be that faculty do not always feel that they have a vital role in institutional governance. Nash points out that MBO will not work "by itself" - it must be "linked to strategy and image, based on a true spirit of participation" (1983, 15). Richardson criticizes MBO programs for failing to include the "means of developing a supportive governance structure, but simply focus on clear-

ly defined organizational goals and priorities" (1975, 309). Reid seems to summarize the criticisms of MBO for faculty :

If we have not assured that the organizational context can support the required behavior through goal setting, sharing of objectives, developmental opportunities, self-control and recognition for achievement of predetermined goals, then we may instead be launching individuals into a period of frustration and disenchantment (1974, 286).

Before leaving this section on management by objectives, we will briefly trace its evolution, and examine its contribution to the development of a process which addresses at least some of the faculty concerns cited above as shortcomings of an MBO process in higher education.

Although Drucker is often credited with the invention of the term "management by objectives," he gives the credit to Alfred Sloan, Jr. of General Motors. "I didn't invent the term 'management by objectives,' actually Alfred Sloan used it in the 1950's. But I put it in a central position, whereas to him it was just a side effect" (Tarrant 1976, 77). Drucker placed MBO in a central position by insisting that "the manager should be directed and controlled by the objectives of performance rather than by his boss" (1954, 137). "It is the managers specific job to make what is desirable first possible and then actual" (12)...and "the only principle that can do this is management by objectives and self-control" (1954, 136).

During the 1960's, the concept of MBO broadened as a

result of the influence of McGregor, Schleh, and Odiorne. McGregor subtitles his Theory Y approach Management by Objectives, and promotes "management by integration" by arguing that "external control and threat of punishment are not the only means of bringing about effort toward organizational goals or objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed" (1960, 47-8). Schleh introduced management by results - a slight modification of the MBO original process. He believes that a manager must focus on final results in order to integrate the work of the individual with the overall objectives of the institution (1961, 6). Odiorne expanded Drucker's original idea of MBO and set it in systems terms (1965). While a Dean at the University of Utah, Odiorne promoted the application of MBO in institutions of higher education.

In 1974, Raia highlighted a developmental aspect of MBO applications by citing growth planning as the last step in the MBO process (1974, 16). That same year, Buhl and Greenfield pointed out that growth contracting, a recently emerging form of faculty development found primarily in smaller institutions, actually represented a blending of two important concepts - adult development and management by objectives (1975, 115). It was not until after these two concepts gained wide understanding and support in higher education during the early 1970's that the growth con-

tracting movement began to flourish.

The Growth Contracting Process

Faculty development programs using growth contracting as their core activity go by a variety of names. Although they are typically called growth contracting programs, they have also been referred to as growth planning programs (Sikes and Barrett 1976, 28), faculty support programs (Gerth 1973, 90), personalized faculty development activities (Preus 1979), qualitative growth development programs (Kingsley 1978), and individual activity- performance agreements (Kramer 1976, 2). Whatever the program title, growth contracting is essentially a process whereby a faculty member can contract with the institution for the support necessary to pursue personal and professional growth. Volpe defines a growth contract as a "formal written, systematic outline for role definition, professional growth, and performance appraisal" (1980, 16). Sel- din's definition is similar - "a plan written by a profes- sor which spells out his self-development, containing his specific goals for the year, each goal accompanied by intended means of accomplishment and assessment, and a required budget" (1981, 90). In this study, growth con- tracting will be defined as a three-part faculty develop- ment process in which faculty members assess their own professional growth needs, develop a written growth plan,

and then contract with the institution for the support necessary to accomplish their proposed growth plan.

Growth contracting is neither new to higher education nor exclusive to the faculty. Geller advocates the use of growth contracts as a staff development activity for student personnel professionals (1982, 20). There were "learning contracts" designed for out-of-class learning and growth for students even before contracting received attention as a faculty development tool (Dulley 1975, 53; Linquist 1976, 3; Feeney and Riley 1975, 10). Bare reports on a successful growth contracting program involving fifty-two administrators in the SUNY system (1983, 7). Since administrators have more control over discretionary budgets than do individual faculty members, growth contracting may be more swiftly and successfully implemented at the administrative level.

Growth contracting programs have been developed at many institutions, although primarily at smaller institutions. The following institutions were cited by Volpe as having implemented a growth contracting program, and illustrate the diversity of its appeal: Austin College, Alvin Community College, Azusa Pacific College, College of the Mainland, Elmira College, El Paso Community College, Freed-Hardeman College, Gordon College, Hampshire College, John Brown University, Mankato State College, Ottawa University, Spring Arbor College, St. Olaf College, University of Ala-

bama (New College), University of Massachusetts (College of Education), University of Pennsylvania (School of Optometry), University of Texas Medical School, University of Vermont, Wharton County Junior College, and William Jewel College (Volpe 1980, 19-30).

Where did the practice of growth contracting first begin? The answer to this question is not entirely clear. Although Gordon College is often credited as the first institution to develop a growth contracting program, Milley reports that the University of Vermont developed a growth contracting program called the Annual Review Process for Teaching and Learning Specialists in the Spring of 1975 - six months before Gordon College began its program (1977, 12). What does seem clear is that growth contracting began at about the same time in a wide variety of institutions all across the country in the mid-seventies, and that with the assistance of a large Kellogg Foundation grant, Gordon College quickly became an advocate and a model for other institutions to follow.

While not widely accepted, growth contracting has been touted as a viable substitute for tenure (O'Toole 1978, 27). Park suggests that a five year contract with periodic review would provide "greater flexibility both for the individual and the institution, while offering the certainty of five years of a stated and agreed upon contractual relationship" (1972, 36). The faculty at Dominican College

in San Rafael, California thought enough of the idea that they voluntarily gave up the tenure system to adopt a system of periodic review (Lavaroni and Savant 1977, 499). Dominican College, it should be noted, did not become a trend setter with this move. While the extended contract does have some appeal (especially to non-tenured faculty), supporters of the tenure system argue that it is not able to protect academic freedom as does tenure.

The purpose of growth contracts is to "enhance professional competences rather than specific work outcomes" (Bare 1977, 3). This is a subtle, but important difference between growth contracting and MBO. Volpe outlines three major goals of growth contracting: to clearly define an individual's strengths and weaknesses, to outline an on-going professional development program, and to increase the reliability, validity, and objectivity of an evaluation process (1980, 16-7). Gaff also argues for individual contracting as a means of increasing the objectivity of the evaluation process:

Individual contracts not only allow faculty to work on tasks in which they excel, but also provide an explicit basis for an individualized evaluation. They can assure faculty that they will be evaluated on what they have explicitly agreed to do, a procedure which can correct the situation in some universities where some faculty are hired to teach but evaluated in terms of their research (1971, 480).

A vital aspect of growth contracting is self-evaluation (Bergquist and Phillips 1975, 45). Seldin adds that

"growth contracts rest on the double assumption that instructors know their shortcomings and are also intent on overcoming them" (1984, 147). But are self-evaluations really accurate? Webb and Nolan report that student ratings and instructor self-ratings are highly correlated, but the supervisor's ratings are uncorrelated with any of the measures they obtained (1955, 46). In an Allied Health school, growth contracting participants completed the Birkman psychological instrument as a starting point for self-evaluation, but the study concludes that "self-assessments have not proved satisfactory as a means of making comparisons among individuals" (Schaffer 1980, 239). It would seem that self-evaluations are quite accurate and adequate for a faculty development program designed to promote faculty growth, but they are inadequate as the sole source of evidence when the intent of the program is evaluation for the purpose of promotion and tenure.

Heie, editor of the first Gordon College Handbook on growth contracts, offers eight broad principles for successful growth contracting:

1. Growth contracting should be individualized to reflect the faculty member's own perceived needs for growth in light of individual strengths and weaknesses.
2. Faculty members are whole persons who need to grow in all areas of professional responsibility as well as in personal areas not directly related to their professions.
3. Within the context of common responsibilities shared by all faculty, there should be opportunities for individ-

ualizing the role of a given faculty member on the basis of particular strengths and weaknesses.

4. The success of individual efforts to achieve growth will be best realized when growth contracts are self-designed and self-imposed.
5. Successful growth contracting requires that faculty be specific in their statements of goals and in their descriptions of means of accomplishment and assessment.
6. Growth contracting should be viewed as a means for a faculty member to generate positive evidence in support of promotion and tenure consideration; but the emphasis must be on individual development, with institutional evaluation a secondary by-product.
7. Growth contracting should encourage innovation and experimentation by maximizing the potential for reward for successful attainment of goals while minimizing the penalty for failure.
8. Growth contracting should seek after the ideal of creating a sense of community wherein persons are helping other persons to grow (Heie 1979, 3-8).

Volpe adds that two other keys to success are that "once the decision is made to adopt growth contracting, create a unique program in light of the institution's goals/objectives, needs, and character" (1980, 70), and "create a climate conducive to success: open, honest, supportive, committed, and flexible" (1980, 73).

Once the proper principles have been established, the following nine step procedure for implementation is offered by Heie:

1. Each professor prepares an individual profile containing a self-assessment, statement of current roles, and long range plans.
2. Faculty members visit with the Dean for a "profile conference."

3. Preparation of first draft of annual individual development plan containing goals, means of accomplishment, means of assessment, and budget proposal.
4. Submission of profile and annual plan to the faculty development committee - third week in October - returned with initial comments - first Monday in November.
5. Preparation of final draft of annual plan.
6. Submission of annual plan - last Monday in November for faculty development committee action - third Monday in December.
7. Carry out annual plan.
8. Assessment (according to plan)
9. Submit final report to faculty development committee prior to beginning of Fall term. Process repeats each year (Heie 1979, 49-51).

In summary, growth contracting programs were greatly influenced by two important concepts - adult development and management by objectives. Growth contracting is a formal process in which faculty members assess their own professional growth needs, develop a written growth plan, and then contract with the institution for the support necessary to accomplish the proposed growth plan. Growth contracts have been applied in a variety of settings with faculty, staff, and administration, but are primarily used in smaller colleges and universities. Growth contracting has successfully utilized self-evaluation, but this approach may prove to be ineffective if the process is also used as an evaluation tool for faculty promotion and tenure decisions. General principles for growth contracting have been established, and a step-by-step procedure can be fol-

lowed to operate the program on an annual basis.

Evaluation of Results

While there is a good deal of support for the concept of growth contracting in higher education today, we really know more about how to establish and operate a growth contracting program than whether or not growth contracting programs are effective. In this section, three related questions will be discussed. First, what is the best way to evaluate growth contracting programs? Second, what results have been reported concerning the performance of growth contracting programs? Third, should performance evaluations (rank and tenure decisions) be integrated as part of the growth contracting evaluation process?

As with faculty development programs in general, the most effective method for evaluating the performance of a growth contracting program is the case study method utilizing data for a variety of sources (Wergin 1977,70; Preus 1977, 46; Milley 1977, 53; Volpe 1980, 34). The best supporting evidence for this approach comes from Milley. In her dissertation, the research problem was to examine various methods of evaluation and to determine the most effective method for evaluating the performance of a growth contracting program in a small college setting. Her study concludes that a case study utilizing interviews, questionnaires, and thorough analysis of program documentation is

the superior method (Milley 1977, 33).

In a related study (and the only other dissertation to focus on growth contracting), Volpe supports Milley's findings with regard to the case study method (1980, 34).

However, his study examines only the extent to which a growth contracting program met its first year objectives. Centra cautions that it is as important to appraise the content of the growth contracts as it is to measure the program's progress toward meeting its objectives. If this is not done, faculty members' plans "may become simple listings of conferences that they would like to attend, trips that they want to take, and the like" (Centra 1979, 66). The obvious implication of Centra's concern is that a program can meet its objectives and really not be a success - particularly if the objectives are inappropriate.

If it is not enough to simply find out whether or not the program met its objectives, then how is program performance measured? A promising approach is to use "documentable indicators of program performance." Although Milley briefly discusses the topic (1977, 191-2), Eble provides the first comprehensive list of documentable performance indicators (1985, 158). In this study, a list of documentable indicators of performance (adapted from Eble) will be used to compare the program's performance on a year-to-year basis.

What impact can growth contracting programs have on

their institutions? Baldwin suggests that these programs can enhance the range of options open to mid-career faculty, and outcomes often "far exceed the modest commitment of institutional funds required to support it" (1984, 49).

Hodgkinson adds that "the widespread adoption of something like the faculty growth contract might help convince the public that college and university teachers really do want to improve their professional competence" (1973, 119).

Unfortunately, there is no evidence at this time to support Hodgkinson's assertion that public confidence is strengthened by faculty growth contracting.

Heie cites six beneficial outcomes of faculty growth contracting:

improved communication between faculty and administration; the establishment of a reasonable and satisfying reward system; the implementation of a wide variety of self-improvement projects; assisted faculty in identifying their strengths and weaknesses; encouraged faculty to do things they would not have done otherwise; and information developed during the growth contracting period aided in personnel decisions (1979, 31).

In Volpe's investigation of a growth contracting program, however, the results were not so positive. He found:

faculty and administrators had different views of faculty development and evaluation, promotion and tenure, and the reward system; the method used to introduce growth contracting was responsible in part for its failure; growth contracting had a negative effect on a number of faculty and administrators; the objectives of the program were not accomplished; and input from the faculty in the design and development of the program was not requested (Volpe 1980, 63).

Although Volpe did not draw any clear conclusions, the

implication of his findings is that the failure of the program was a result of inept management rather than some flaw in the nature of the growth contracting process.

There is considerable support for the idea that growth contracts should be tied to the institutional reward system (Gross 1977, 76). Smith argues:

What is needed in higher education today, if we are to have truly effective teaching, are policies and programs that combine the concepts of faculty development and evaluation into one program at the department and/or college level. Growth contracts provide the best available approach for achieving this end. A climate of trust can be developed when the growth contracting process serves both the faculty development and faculty evaluation functions of a department, college, or university (1976, 61).

Hodgkinson advocates growth contracts because they are "one of the few procedures where assessment techniques (built-in) were supportive of educational objectives" (1973, 119). Seldin adds that institutions "could use growth contracting to get away from generalities about good teaching and research, and focus in on (or tie to) instructor's daily activities as well as departmental or institutional needs (1984, 123). Although these writers present a strong argument for including evaluation and development in the same program, there is yet to be a single positive report concerning a growth contracting program where it was the only institutional means of faculty evaluation for the purpose of promotion and tenure (Volpe 1980, 63; Carlberg 1981, 26). This probably reflects the fact that growth

contracting works best on a voluntary basis, and faculty members provide more accurate self-evaluations in a climate of trust (Carlberg 1981, 26). Personnel evaluations mitigate against these important conditions. All this is not to say that growth contracting could not be included as part of a faculty evaluation program, but the success of the program will be enhanced if it is one of several evaluation tools for promotion and tenure rather than the only one.

In summary, the best method of evaluation for a growth contracting program is the case study method using data from multiple sources. Growth contracting can have many positive outcomes for the institution, but inept management can easily cause the program to fail. Growth contracting programs may provide important input for the faculty evaluation process concerning promotion and tenure decisions, but if it is the primary source for evaluative information, the program will probably be less than successful.

Capital Infusion and Withdrawal

Colleges and universities never have enough money. The standard faculty bromide is, "If I had more time and money, then I would be more active in faculty development activities." Actually, since time is a matter of having enough money to farm out some of one's duties or hire additional staff, the argument boils down to money. But is

money the key factor in the success of faculty development activities? How does money or the lack of money affect the nature of instructional development on a college or university? In this section, some general relationships between the level of financial support and program effectiveness will be explored, followed by an examination of the dynamics of capital infusion and withdrawal.

Until lately, there has been a tendency in higher education to throw money at our problems, but Hesburg reminds us that money by itself is never enough:

Higher education and every other enterprise moves forward when there is good leadership: otherwise it stagnates. We need people with vision, elan, geist, people who have standards and a certain toughness...Of course you need money. But if you have money and no vision, you just squander it" (Hechinger 1981, 126).

Assuming you have leadership, can money have an impact on faculty development activities? Kozma reports that classroom innovation is a function of the level of support. Several instructional innovations were developed by a small faculty group when given extensive support and release time. Those given less support did improve, but to a lesser degree; while no measurable change in teaching techniques were detected among the control groups (Kozma 1978, 442-3). The problem is that in higher education, the "funds are divided into hundreds of small 'pots' and allocated to departments...Ideas (and innovations) that do not fit this 'bits and pieces' resource allocation system are

excluded from consideration" (Hershfield 1980, 49). White adds that "the most common constraints to behavior of an individual are the constraints imposed by those allocating the resources" (1974, 366). Faculty development does seem to be a very "small pot" in the institutional allocation system. Two studies report that faculty development activities receive less than one percent of the instructional budget at most institutions (Hammons and Wallace 1976, 20; Ellerbe 1980, 1905). Does it appear likely that this funding pattern will change? Drucker is not optimistic:

Unless challenged, every organization tends to become slack, easygoing, diffuse. It tends to allocate resources by inertia and tradition rather than by results. Above all, every organization tends to avoid unpleasantness. And nothing is less pleasant and less popular than to concentrate resources on results, because it always means saying "No" (1980, 41).

What is the relationship between financial support and institutional size? There is some evidence that finances have a greater impact on smaller institutions (Gaff 1975, 168). Additional support comes from Eble. "One of our major conclusions is that in terms of cost-effectiveness, the Bush program grants had the greatest impact per dollar upon the smaller institutions" (1985, 216). The findings of Anderson's study, Finance and Effectiveness: A Study of College Environments, are less conclusive:

There is some slight evidence that private colleges with improved finances function slightly better, the opposite seems to hold true for public institutions... Overall, the results suggest that the linkage between fiscal resources and college functioning is very weak

(1983, 119).

Several other studies were also inconclusive as to the relationship between resources and effectiveness. After a study of Title III programs, Hodgkinson concludes that there is "a general interrelationship of size of grant, size of program, and quality of institutional improvement, but the correspondences are far from absolute" (1974, 49). Anderson's study could not establish a positive and general relationship between finance and faculty perception of college operations (1985, 636). Although these studies provide mixed evidence for the relationship between financial resources and the effectiveness of faculty development activities, it is important to remember that the focus of the last two studies was on institutional effectiveness rather than on specific faculty development or instructional improvement activities. Overall, Ericksen is probably right. "Advice about teaching is helpful, but money is better" (1984, 144).

Very little is known about capital infusion (an increase in the annual level of support for a faculty development program in the amount of \$50,000 or more) or capital withdrawal (a decrease in the annual level of support for a faculty development program in the amount of \$50,000 or more), and even less about when capital infusion and withdrawal occur in the same program within a relatively short period of time.

Hynes warns that capital infusion can become a "money trap." The money trap happens when faculty members begin to pursue activities in order to get the money rather than for the improvement or development which the funds were designed to foster (Hynes 1984, 33). Gaff observes that regardless of the amount of capital infusion, massive organizational change is not likely (1975, 169). Lauderdale adds that capital infusion is more likely to support and solidify existing institutional structures than to invite a complete institutional overhaul (1971, 14). It appears that capital infusion can reach a point of diminishing returns. Too much infusion, like too much sugar, may cause its own special problems. This is not to say that capital infusion is not helpful to an institution seeking new programs and activities. Carlberg argues that the Gordon College growth contracting program could not have "gotten off the ground without substantial funding. It probably would have been viewed as too much work (or busy work) for too little return" (1981, 19). It seems, then, that capital infusion is helpful to institutions seeking new and innovative programs, but too much infusion in too short a time can quickly reach a point of diminishing returns and may even become counter productive.

Capital withdrawal (or severe retrenchment) can obviously cause many problems as well. Mortimer cites three

common results: patterns of faculty-administrative interaction undergo severe stress, a general decline in institutional quality, and a serious decline in faculty morale (1979, 53-4). But what happens when capital infusion and withdrawal occur in the same program over a relatively short period of time, say three to five years? This funding pattern could occur when after a college or university receives a large program demonstration grant, it is unable to maintain the program at even close to the original level of support with institutional funds after the funding period expires. Lauderdale points out that capital infusion will have little impact on dysfunctional organizational structures. If capital withdrawal follows, most changes achieved will be temporary (1971, 14). Carlberg, however, is more optimistic:

there is some evidence that now that the program is established [capital infusion], some version of it would continue should major funding run out [capital withdrawal]... However, it is doubtful that the current highly structured version of this program would flourish should funding become unavailable. It might again be a matter of too much work for too little return (1981, 19).

Milley lends support to Carlberg's optimism. In her evaluation of the Gordon College growth contracting program, she reports that 66% of the participants in the 1976 program disagreed with the following statement: "If program funds were not available, I would see little value in participating in the program." Another 11% were uncertain,

and only 23% agreed with the statement (Milley 1977, 444). It appears, then, that a growth contracting program with substantial funding can promote participation, and this participation may have a positive cumulative impact which will help to maintain the program after capital withdrawal.

CHAPTER IV

METHODOLOGY

Statement of the Problem

This study seeks to answer the following question, "What is the relationship between the level of financial support and the performance of a growth contracting program?" More specifically, this study seeks to determine the impact of varying levels of funding - both aggregate program financial support and individual faculty financial support - upon selected indicators of program performance for a small college growth contracting program.

The impact of two independent variables is examined: (1) the aggregate level of funding for a growth contracting program in a particular year, and (2) the amount of financial support for the annual growth plan of an individual faculty member. The performance of the growth contracting program is determined from four sources of evidence (dependent variables): participation, satisfaction of participants, impact upon faculty, and impact upon the institution. This study utilizes documentable performance indicators (Eble and McKeachie 1985, 187) to measure the pro-

gram's impact upon individual faculty participants and upon the institution. In order to address this problem, the following research questions are examined:

1. What is the relationship between a growth contracting program's overall level of financial support and the level of participation of individual faculty members?
2. What is the relationship between a growth contracting program's overall level of financial support and the satisfaction of faculty participants?
3. What is the relationship between a growth contracting program's overall level of financial support and its impact upon individual faculty participants?
4. What is the relationship between a growth contracting program's overall level of financial support and its impact upon the institution?
5. What is the relationship between the level of financial support for individual growth plans and the level of participation of individual faculty members?
6. What is the relationship between the level of financial support for individual growth plans and the satisfaction of faculty participants?
7. What is the relationship between the level of financial support for individual growth plans and its impact upon individual faculty participants?
8. What is the relationship between the level of financial support for individual growth plans and its

impact upon the institution?

Subsidiary Questions

9. What impact will a period of capital infusion and withdrawal have on a growth contracting program? Will its level of performance be greater than before capital infusion even though the program returns to the original level of financial support?
10. What relationship exists between the level of financial support for individual growth plans and the content and scope of the growth plans?
11. What relationship exists between the overall level of financial support for growth contracting and the content and scope of the growth plans?
12. Why did faculty members choose not to participate in the growth contracting program?

Operational Definitions

Overall Level of Financial Support - Total number of dollars expended by the institution during an academic year in support of all individual faculty growth contracts.

Level of Individual Financial Support - Total number of dollars expended by the institution during an academic year in support of an individual faculty member's growth plan.

Capital Infusion - An increase in the annual level of support for a growth contracting program in the amount of \$50,000 or more.

Capital Withdrawal - A decrease in the annual level of support for a growth contracting program in the amount of \$50,000 or more.

Capital Infusion and Withdrawal - A return to the pre-infusion annual level of support for a growth contracting program after a period of both capital infusion and withdrawal.

Program Performance - The performance of a growth contracting program will be defined as the level of faculty participation, the level of participant satisfaction, the amount of impact upon the faculty, and the amount of impact upon the institution.

Level of Faculty Participation - The percentage of full-time faculty members who develop a personal profile and submit a growth plan to the faculty development committee.

Level of Participant Satisfaction - The level of participant satisfaction will be defined as the mean participant satisfaction score for all faculty growth contracting participants in any given academic year.

Impact upon Faculty - The incidence of the following documentable indicators of success adapted from Eble and McKeechie: increases in cognitive learning (on how students learn, knowledge of a new teaching field, scholarly competence), changes in teaching (acquiring new teaching skills, developing/revising courses), and increases in motivation (to try something new, to complete a postponed project, to

become more involved in campus affairs).

Impact upon the Institution - The incidence of the following documentable indicators of success adapted from Eble and McKeachie: changes in teaching norms (amount of student writing, amount of student advising, use of student evaluations, level of expectations), curricular changes (new programs, revised/refocused programs, elimination of programs), and improvement in communication within and among departments (freedom to communicate, information about departmental activities, accuracy of institutional information, feeling of community).

Program Performance Profile - A quantified summary of each factor used to determine the performance level of a growth contracting program for a particular academic year.

Program Performance Profile
Academic Year 19XX - 19XX

- I. Participation (percentage)
- II. Level of Satisfaction (mean participant score)
- III. Impact upon Faculty (mean participant score)
- IV. Impact upon the Institution (mean participant score)

Design of the Study

The method of research used in this study is the case study, a descriptive research method designed to "trace interrelationships between facts that will provide a deeper insight into the phenomena" (Van Dalen 1979, 294). "The

case study method assumes that one can acquire in-depth knowledge of a phenomenon from intensive exploration of individual cases" (Becker 1968, 232). Milley cites the work of Stake, Hamilton, MacDonald, and Watson as supporting case study as "not only an acceptable model of social science research, but superior to experimental design for research in the social sciences" (Milley 1977, 41). Pace writes that the case study, rather than the experimental model, is the appropriate method for the study of institutions of higher education (1972, 2). Young adds that "the most meaningful numerical studies in social science are those which are linked with exhaustive case studies describing accurately the interrelationships of factors and of processes" (1956, 230).

In educational settings (action settings), controlled experiments are often impossible because "the essential requirement for a true experiment is the randomized assignment of people to programs" (Weiss 1972, 63-7). Wergin rejects experimental designs (must exclude the control group from a meaningful experience) as well as quasi-experimental designs (nonparticipants' substitution for control group has obvious limitations and bias) for the evaluation of faculty development programs (1977, 70). The best strategy for assessing program effectiveness and its related costs is the case study (Polola and Lehmann 1976, 80). Anderson argues that "the impact that the amount of

resources an institution has available on institutional effectiveness must be measured over time (longitudinal) and use multiple measures of effectiveness" (1985, 624). Here, again, the case study can meet Anderson's criteria.

This study employs an embedded, single-case design. Yin defines an embedded case as one that involves several units of analysis (1984, 44). Three units of analysis are utilized in this study. The main unit of analysis is the institutional growth contracting program, the smallest unit is the individual faculty participant, and the intermediate unit of analysis is the academic division.

In this study, the relationship of four selected indicators of program performance (participation, satisfaction of participants, impact upon faculty, and impact upon the institution) to two independent variables (the aggregate level of financial support and the level of individual contract support) are examined.

Table 4-1
Identification of Variables

Independent Variable	Dependent Variables
Aggregate Financial Support (X1)	Participation (Y1) Participant Satisfaction (Y2) Impact on Faculty (Y3) Impact on Institution (Y4)
Individual Financial Support (X2)	Participation (Y1) Participant Satisfaction (Y2) Impact on Faculty (Y3) Impact on Institution (Y4)

This study seeks to determine the nature of the

relationship between each independent and dependent variable through a year by year analysis of a five-year period (1979-1984) in the growth contracting program at Southern Nazarene University. This is an ideal case for examination because of the program's funding pattern during the time period proposed for study. The essential organization, operation, and administration of the program did not change during the five years, but the aggregate funding levels changed dramatically. Yin supports the use of a single-case design when the case represents an extreme, unusual, unique, or revelatory situation in which the phenomenon under study occurs (1984, 43).

The operating budget for the 1979-80 program was about five thousand (5000) dollars. During the next three years, the program budget was in excess of fifty thousand (50,000) dollars each year due in part to the support of a Title III instructional improvement grant. When Federal support ceased in 1983, the program returned to its original funding level of about five thousand (5000) dollar - a funding pattern identified in this study as "capital infusion and withdrawal." The impact of these changes in aggregate funding level (X1) and changes in the level of individual financial support (X2) upon the growth contracting program over this five-year period are investigated to identify significant characteristics, patterns, trends, shifts, and changes in program performance.

The Population

The population for this study was the participants in the Southern Nazarene University growth contracting faculty development program during a five-year period from the fall of 1979 through the summer of 1984. Growth contracting participants include all faculty members who developed individual growth plans and submitted growth contracts to the faculty development committee for any academic year from 1979 to 1984.

In all, sixty-six (66) faculty members participated in the growth contracting program during the five-year period. Participants represented over eighty-five (85) percent of the total teaching faculty, and included faculty members from all academic divisions, age groups, and academic ranks.

Due to the small size of the population (66), each participant was interviewed to insure adequate representation from each division, age group, and rank. A population study also eliminated the necessity of statistical means of inference from the sample to the general population.

Collection of Data

Data for this study were gathered during an eight-week period from July 1 - August 31, 1986. During this time, three one-week visits were made to campus to examine program materials and related institutional documents, conduct

personal interviews, and verify and validate preliminary findings. Also during this time, materials obtained during the on-campus visits were thoroughly studied, and telephone interviews were conducted in support of the personal interview process.

Three methods were used to gather data from over fifteen sources for this study: (1) review and examination of program documentation and related institutional records; (2) evaluation and assessment of all participants' growth plans and evaluation reports; and (3) in-depth interviews with all faculty participants, several nonparticipants, the Academic Dean, the chairman of the faculty development committee , and all academic division heads. These methods are suggested as adequate for the provision of multi-source data for case study analysis (Milley 1977, 52; Bergquist and Phillips 1977, 293). The use of multi-source data to establish a chain of evidence is a primary case study tactic to insure construct validity (Yin 1984, 36).

The initial review of program documentation and records served two purposes. First, it provided valuable preliminary information such as the names of all program participants, their academic ranks and departmental assignments, the number and size of grant awards, and the administrative structure and historical operation of the program. Second, it provided an opportunity for the researcher to review and determine if any important factors had

been inadvertently omitted, and if enough data were available to conduct a thorough study (Milley 1977, 52).

The examination of program documentation (growth contracting program budgets, faculty development committee minutes, faculty development newsletters, etc.) and related institutional records (academic affairs committee minutes, institutional research reports, the Academic Dean's annual report, faculty meeting minutes, etc.) also served to provide information concerning several dependent variables: Y2 - participation, Y3 - impact upon faculty, and Y4 - impact upon the institution. This information was important because it served to validate and support data gathered during the evaluation of individual growth plans. More importantly, data gathered from these records, when used in conjunction with data gathered during personal interviews and from the evaluation of the growth contracts, provided a means for "triangulation." Triangulation improves the construct validity of the study (Yin 1984, 36).

The second method of data collection for this study was an evaluation of program participants' growth plans and evaluation reports. An evaluation form was developed and used to tabulate the incidence of factors relating to several dependent variables - participant satisfaction (Y2), impact upon faculty (Y3), and impact upon the institution (Y4) (See Appendix B). The participants' growth plans and final reports provided the primary data for this

study. The other data sources served to validate and triangulate the preliminary information gathered from these documents.

The third method of data collection was in-depth interviews with all program participants as well as with several nonparticipants, the Academic Dean, academic division heads, and the chairman of the faculty development committee. Balsley and Clover credit personal interviews with these advantages: "increased accuracy and completeness of responses, and can often result in a more representative sample since only 10-40% may be returned by mail" (1979, 100). Wiles also argues for the interview over the written questionnaire:

The interview seems to have a number of values over the written questionnaire. One is motivation; there seems to be a psychological reward in talking to an understanding interviewer. A second value of the interview is that it allows checking questions in an overall context. A third value is that the interviewer may judge the respondent's reaction and make a decision of whether to probe or soft-pedal a particular line of questioning (1972, 109).

Interviews can also be used to measure attitudes (Cronbach 1968, 37; Kahn and Cannell 1957, 208). Wiersma adds:

The interview method is well suited for probing the feelings, attitudes, and perceptions of the respondent; the interview has the advantages of being a flexible measurement device. The items of the interview are usually open-ended questions to which the respondent can offer a fairly free response. The respondent's response may reveal factors or feelings that the interviewer may probe in order to obtain in-depth information (1975, 65).

Kerlinger advocates the advantages of open-end questions:

Open-end questions are flexible; they have possibilities of depth; they enable the interviewer to ascertain a respondent's lack of knowledge, to detect ambiguity, to encourage cooperation and achieve rapport, and to make better estimates of respondent's true intentions, beliefs and attitudes. The responses to open-end questions can suggest possibilities of relations and hypotheses. Respondents will sometimes give unexpected answers that may indicate the existence of relations not originally anticipated (1973, 484).

Finally, Milley supports the use of unstructured, focused interviews in the evaluation of faculty development programs because they allow the evaluator to probe key questions, follow-up unclear points, and clarify judgments made by the evaluator (1977, 59).

When possible, a personal (face-to-face) interview was conducted. However, in some cases, the telephone inquiry technique was substituted to interview those persons with whom a personal interview was difficult to schedule. A personal interview with faculty participants now living on the west coast, for example, was prohibitive in terms of time and money. Balsley and Clover advocate the use of telephone inquiries in support of personal interviews when the time is relatively short, when telephone numbers can be obtained, when the respondent has an interest in the subject being investigated, and when it is unnecessary to obtain observation data to aid in interpreting answers (1979, 105). This study met those conditions.

The interviews were used to validate the level of participant satisfaction (Y2), and to clarify and validate

the data gathered during the evaluation and analysis of the participants' growth plans and final reports. Interviews also provided an opportunity for a cross-check of preliminary findings as well as any questions that arose during the initial review of program records.

The participant interview outline for this study is in Appendix A. The nature and format of these questions closely resembles the questions used by Eble and McKeachie in their evaluation of the Bush Foundation Faculty Development Program (1985, 226-34). Yin suggests that when the interview outline is determined in advance and incorporated as part of an overall case study plan (protocol), the reliability of the study is enhanced (1984,40).

Table 4-2
Data Sources

Variables	Program Records	Final Reports	Interviews
Aggregate Financial Support (X1)	*		
Individual Faculty Support (X2)	*	*	
Participation (Y1)	*	*	*
Satisfaction of Participants (Y2)	*	*	*
Impact upon Faculty (Y3)	*	*	*
Impact upon Institution (Y4)	*	*	*

Analysis of Data

The general analytic strategy was to develop a "descriptive framework" for organizing the case study (Yin

1984, 101). Within this descriptive framework, four primary modes of analysis were employed: pattern description and analysis, time-series analysis, the analysis of embedded units (organizational subunits), and explanation development. These four modes of analysis are important because they help to establish the internal and external validity of the study (Yin 1984, 38).

The data analysis portion of Chapter VI was divided into two parts. First, some general observations about the growth contracting program at Southern Nazarene University were discussed. These observations, gleaned from the investigation of institutional and program documentation as well as from the personal interview process, served to provide a backdrop and general point-of-view from which to examine the primary research questions.

The second and primary data analysis step was the examination of each research question. Four modes of analysis were available for each question: pattern description and analysis, time-series analysis, the analysis of embedded units, and explanation development. For example, with the research question regarding the relationship between individual financial support and participant satisfaction, the general pattern of the relationship between the two variables was described and discussed (pattern development). Next, the coefficient of correlation for the variables over the five-year period was

determined and analyzed (time-series analysis). Then, the support-satisfaction question was examined by comparing satisfaction scores of faculty from different academic divisions and ranks (analysis of embedded units). Finally, a general explanation for the relationship was developed (explanation development). These modes of analysis, when appropriate, were repeated for each of the twelve research questions. (The data base used in the analysis portion of this study is in Appendix C.)

Validation of the Instrument

One method of validation is by "expert opinion" (Volpe 1980, 37). To establish content validity, "the constructor alone or with the aid of others judges the extent to which the items are representative of the content to be measured" (Van Dalen 1979, 136). Several individuals who have had considerable experience in faculty development activities were asked to offer their "expert opinion" regarding the content or face validity of the interview instrument. [This method of validating an interview instrument for use in the evaluation of a growth contracting program was first introduced in a dissertation by Volpe, University of Pittsburgh, 1980, p.37.]

In addition, before the main study began, two faculty members were interviewed on July 22, 1986 in order to pilot test the instrument. "A pilot test could uncover poor

instructions, sensitive areas, and a number of administrative problems (Tuckman 1972, 199). In this study, the pilot test pointed out the need to revise several questions in order to insure more accurate and usable responses.

Table 4-3
Summary of Case Study Design Tests*

Tests	Case Study Tactic
Construct validity	use multiple sources of evidence establish chain of evidence
Internal validity	do pattern matching do explanation development do time-series analysis
External validity	do population study do explanation development study "typical" institution
Reliability	use data collection plan develop case study data base

* Adapted from Yin 1984, 36.

CHAPTER V

RESULTS OF THE STUDY

Background Information

Southern Nazarene University, formerly known as Bethany Nazarene College, is one of the oldest four-year degree granting institutions in the State of Oklahoma. Founded in 1899, the university's roots go back almost a hundred years, with the campus located at its present site in Bethany, Oklahoma (a suburb of Oklahoma City) since 1909. During its history, the institution has gone through several name changes. The most recent change occurred in March, 1986, when the Board of Trustees voted to change the corporate name "to more appropriately reflect the academic reputation and offerings" (Gilliland 1986, 1).

While operating under the auspices of the Church of the Nazarene, Southern Nazarene University maintains a student enrollment of 1175 students representing 35 states, 26 countries, and 32 religious denominations. The university employs over 60 full-time and 50 part-time faculty members, and operates with an annual budget of nearly seven million dollars (Institutional Research Report

for 1985-86, 1-4). Southern Nazarene University is classified by the Carnegie Council as a Liberal Arts II - Category II institution (Carnegie Council 1976, 51).

The history of the faculty development program at the university follows a fairly typical pattern. The Dean of the College regularly attended the Oklahoma Deans Conference on the Improvement of Teaching throughout the 1950's. At the 1950 conference, the Deans agreed that a "comprehensive plan" was needed for faculty development that would include institutes, newsletters, libraries, clubs, better facilities, orientation, professional memberships, and shorter faculty meetings (Deans of Arts and Sciences 1950, 68-70).

During the 1960's, the faculty development program consisted of sporadic attempts to support such things as faculty orientation, evaluation, leaves, and travel to professional meetings. Even these meager attempts were discontinued for a time when the university experienced a severe financial crisis in the early 1970's.

The first major attempt to formalize the faculty development program came in January, 1972, when the university published the Ten-Year Advance Study of BNC. This study, which addressed a variety of institutional concerns, contained several specific recommendations for faculty development:

1. Bring in qualified persons with expertise in a

- specific area for short terms as enrichment.
2. Develop a faculty exchange program with other Nazarene Colleges.
 3. Bring in professional personnel for lectures, workshops, and seminars.
 4. In-service workshops and seminars conducted by faculty members.
 5. Develop a faculty development newsletter with information about testing, computers, and student counseling.
 6. Encourage faculty to audit courses or seminars in other divisions or departments.
 7. Provide faculty with time for scholarly and creative endeavors.
 8. Establish a faculty in-service development program including a standing committee of the faculty called the Faculty In-Service Development Committee (Ten-Year Advance Study 1972, 32-35).

While the report received strong support from the administration and the faculty, the growing financial crisis made it impossible for the recommendations to be implemented in 1972 (Study member, personal interview, 13 Sept. 1986). In fact, it was four years later before the idea of a formal faculty development program could be seriously considered.

In a meeting of the ad hoc committee on faculty

participation on 6 February, 1976, the following recommendation was approved and forwarded to the faculty council:

That the Director of Institutional Research (Dr. Beaver) become chairman of an interim committee empowered to select the most meritorious of proposals that may be submitted to it and be empowered to determine the amount of funds for approved proposals (Committee minutes).

The faculty council quickly approved the recommendation and a call for proposals went out on 20 February. The purpose of the program was "to promote faculty excellence, stimulate scholarly and creative activity, and to promote service to the college" (Faculty meeting minutes, 28 April 1976). Five appropriate activities were identified: preparing and publishing books and papers, participating in professional meetings and seminars, preparing grant proposals, developing new courses or methods of instruction, and doing basic or applied research in a professional area (Faculty meeting minutes, 28 April 1976).

By the proposal deadline on 15 March, six proposals had been submitted from which three were selected to share in the one thousand dollar fund. Each winning proposal dealt with some aspect of course development: the development of a self-instructional module on human reproduction (\$300), educational cruise development (\$475), and the investigation and preparation for a new travel mini-course to be titled, The History, Culture, and Language of Mexico

(\$275) (Faculty proposals, 1975-76). The remaining three applicants received a letter from the Academic Dean informing them that they received honorable mention for their proposals, but no money (Academic Dean, letter, 16 April 1976).

In May, the ad hoc committee on faculty participation recommended that the interim grant proposal committee "continue to function during the academic year 1976-1977. Thereafter, the members of said committee be selected by the committee on committees and elected to their positions by the faculty. The Director of Institutional Research be chairman, ex officio, of said committee" (Ad hoc committee minutes, 5 May 1976). The Academic Dean was generally pleased with the faculty grant program, so much so, in fact, that the faculty grant budget for the 1976-1977 school year was increased from one thousand to three thousand dollars (Faculty meeting minutes, 8 April 1976).

The 1976-77 grant program operated in a fashion similar to the previous year except that there were two funding periods (fall and spring), and the program was now called the faculty merit grant program. In the fall, six of seven proposals were funded to some degree (Proposal committee minutes, 29 September 1976). But in the spring, only four of sixteen received support (Proposal committee minutes, 25 February 1977). Some felt that the grant program had become an "insiders game" (Faculty

#8, interview, 15 July 1986).

Expressions of dissatisfaction prompted the faculty council to begin an evaluation of the merit grant program. As a result of this study, the rationale, operation, procedures, and guidelines became more formalized, a standardized proposal form was developed, and the name of the program was changed from faculty merit grants to the faculty development grant program. The report also stated that the aim of the grant program was "at the personal involvement of the faculty member rather than improvements in equipment and curricular materials" (Faculty council study, 4 May 1977).

With a 1977-78 faculty grant budget of \$4200, the faculty development committee was able to fund twelve of the fifteen proposals submitted for consideration (4 of 6 in the fall and 8 of 9 in the spring). All but two of the grants were in support of faculty travel to professional conferences or national meetings (Faculty proposals, 1977-78). A major reason for the extensive support of travel was that departmental budgets, which normally supported some faculty travel, had never fully recovered from the financial crisis of the mid-1970's. Faculty members viewed the faculty development grant program as a "catchup" device (Faculty #27, personal interview, 6 Aug. 1986).

It was during this academic year that the idea of growth contracting first began to be seriously offered as a

faculty development program model. The concept of growth contracting was presented to the faculty development committee in October (Committee minutes, 12 October 1977), and to the faculty council the following month (Committee minutes, 9 November 1977). The idea also received additional support from a consultant during a CASC faculty development workshop held on campus in February, 1978. The consultant suggested that growth contracting (similar to the Gordon College model) could become the "centerpiece" of the BNC program (Povlacs, Faculty development consultant report, 28 February 1978). At the close of the workshop, one member of the committee was assigned the responsibility of investigating the Gordon College growth contracting model in more detail (Faculty development committee workshop, minutes, 22-23 February 1978). This was the beginning of the growth contracting program at Southern Nazarene University.

The faculty grant program for the 1978-79 year operated in similar fashion to the previous year, except that three funding periods were required to distribute the \$4000 in the grant fund instead of the usual two. This was primarily due to a decision on the part of the faculty development committee to limit the amount of support for travel to \$200 per person (Committee minutes, 22 February 1979). In all, eighteen out of twenty-five proposals were selected for

financial support. The primary grant activities were personal research (4), learning about computers (5), and travel to professional meetings (6) (Faculty proposals, 1978-79).

In the spring of 1979, the faculty development committee was upgraded to a standing committee of the faculty. One representative from each academic division, selected from nominees by the division, was to serve on the committee for a term of three years. The terms of office were to be overlapping in order to provide for maximum continuity in the administration of the program. The faculty development committee was charged with the following responsibilities:

...responsible for encouraging intellectual stimulation among the faculty, for administering the Faculty Grant Program, for assisting faculty to develop secondary teaching competencies, for securing and encouraging the use of current materials and research relative to instructional methodology, for distributing information relative to faculty development through the FDC Newsletter, and for administering the student evaluation of professors (Report of Self-Study 1979, E3).

This, then, is the background regarding the growth, development, operation, and status of the faculty development program at Southern Nazarene University just prior to the five years involved in this study: 1979-84. The grant program had been in operation for four years, and was now reaching a considerable degree of formalization with a standing faculty development committee, elected representa-

tives from each division, a statement of philosophy and purpose, a grant evaluation subcommittee, an elected faculty development chairman, and standardized forms and procedures for the submission and evaluation of grant applications as well as for the summary activity evaluation reports. The growth contracting aspect of the program was being implemented through a statement of growth goals, objectives, and expected personal and institutional outcomes which were included as part of the grant proposal application.

Year By Year Data

The 1979-80 Academic Year

At the first faculty development committee meeting of the year on 19 September, the committee met with the Title III Coordinator to discuss the possibility of obtaining financial support for the faculty development program by including a faculty development activity component in the college's Title III proposal which was to be submitted in early January. The committee felt that the program could be successfully patterned after the Gordon College growth contracting model (Title III file memo, 19 September 1979).

As a result of this meeting, the faculty development committee sent out a newsletter requesting faculty to respond to the following: "Just suppose you have been awarded \$5000 on the condition that you use it to improve

your professional competence or curriculum offerings during the next 2-5 years. Could you spend it all productively? Would you? How? What would you do with a lesser amount?" (FDC newsletter, 1 November 1979). Over sixty percent of the faculty responded with proposal ideas, convincing the committee that there was a "pent-up demand" for financial support (Morrow, personal interview, 23 July 1986).

Table 5-1
Expenditures By Division 1979-80

Divi- sion	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
FA	450	0	0	0	0	0	450
BUS	275	0	100	0	0	0	375
ED	0	0	150	0	0	0	150
NSCI	210	0	0	0	900	0	1110
SSCI	0	0	0	0	0	0	0
LLSC	820	0	0	0	0	0	820
REL	0	0	0	1000	0	0	1000
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TOTAL	1755	0	250	1000	900	0	3905

Interestingly, this response came after the fall funding period in which only six proposals were submitted. Many faculty did not submit a proposal because they felt that the competition was too stiff and the application requirements too formal for such small amounts of money (Faculty #36, personal interview, 29 August 1986). Five of the proposals were funded in amounts ranging from \$200 to \$400 (Committee minutes, 26 September 1979).

Table 5-2
Expenditures By Rank 1979-80

Rank	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
Inst.	320	0	150	0	0	0	150
Ass't.	200	0	0	500	0	0	700
Assoc.	725	0	0	0	500	0	1225
Prof.	510	0	100	500	400	0	1510
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TOTAL	1755	0	250	1000	900	0	3905

Table 5-3
Performance Profile 1979-80
(By Division)

Division	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
FA				
Total	450	4.0	4.0	
Average	225	2.0	2.0	4.0
BUS				
Total	375	4.0	2.0	
Average	188	2.0	1.0	3.0
ED				
Total	150	2.0	0	
Average	150	2.0	0	3.0
NSCI				
Total	1110	8.0	6.0	
Average	370	2.7	2.0	4.3
SSCI				
Total	0	0	0	
Average	0	0	0	
LLSC				
Total	820	6.0	5.0	
Average	273	2.0	1.7	3.7
REL				
Total	1000	5.0	2.0	
Average	500	2.5	1.0	3.5
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TOTAL	3905	29.0	19.0	
AVERAGE	300	2.2	1.5	3.7

In the spring, all eight proposals were funded (maximum award - \$500). There were even enough funds remaining out of the \$3905 grant fund to send a representa-

tive from each division to the Faith & Learning Conference in Kansas, and to send two faculty development committee members to a growth contracting workshop sponsored by Gordon College (Committee minutes, 18 February 1979). When the committee members returned from the workshop, they were sold on the Gordon College model, and immediately began campaigning for the adoption of the model (Committee member, personal interview, 23 July 1986).

Table 5-4
Performance Profile 1979-80
(By Rank)

Rank	Grant Size	Faculty Impact	Institutional Impact	Satisfaction

INSTRUCTOR				
Total	470	4.0	1.0	
Average	235	2.0	.5	4.0
ASSISTANT				
Total	700	4.0	1.0	
Average	350	2.0	.5	2.5
ASSOCIATE				
Total	1225	9.0	6.0	
Average	306	2.3	1.5	3.8
PROFESSOR				
Total	1510	12.0	11.0	
Average	302	2.4	2.2	4.0
-----	----	----	----	----
TOTAL	3905	29.0	19.0	
AVERAGE	300	2.3	1.5	3.7

The Gordon College model for growth contracting differed from the SNU model in two ways. First, under the Gordon College model, each applicant would be required to submit a personal profile and annual growth plan to the faculty development committee before their proposal would be considered. Currently, applicants did submit growth

plans as a part of the application process, but the scope of the plans was limited to the proposed activity and did not include the entire personal and professional life of the faculty member. Second, each participant would be required to form an advisory committee of three colleagues to review all proposed activities and to serve as the first level of evaluation for the project (Carlberg 1981, 51-65).

The Academic Year 1980-81

In 1980-81, the primary goal of the faculty development program was to get everyone involved (Academic Dean, personal interview, 22 July 1986). Bolstered by the news that the program's grant fund would receive an additional \$50,000 from a Title III grant, the committee decided that the best way to get widespread participation and enthusiasm for future growth projects was to make convention travel with a minimum of red tape a high priority (Committee minutes, 8 September 1980). To accomplish this, the committee agreed that extensive profiles and interviews would not be required for those faculty members who wished to attend professional meetings but did not intend to seek additional faculty development funds (Faculty development planning meeting, minutes, 5 September 1980).

The Academic Dean mailed a calendar of professional meetings obtained from the Chronicle of Higher Education to each division head (Dean, personal interview, 22 July

1986), and 1 October was selected as the deadline for the "streamlined" professional travel requests (Faculty Bulletin, October 1980). The strategy worked. By the deadline, the faculty development committee received forty-six travel requests. This figure represented over seventy-six percent of the full-time faculty. By 1 November, the committee had approved over \$20,000 in requests - over four times the total faculty development budget for any previous year.

Table 5-5
Expenditures By Division 1980-81

Division	Travel	Supply	Instruction	Research	Cont. Ed	Other	Total
FA	2912	919	0	1966	0	0	5797
BUS	3100	1062	1592	1376	0	0	7130
ED	3830	270	0	0	0	0	4100
NSCI	3737	224	2718	0	637	0	7316
SSCI	1939	300	2417	0	0	0	4656
LLSC	5873	2299	3793	0	608	1693	14266
REL	2563	2807	0	0	0	2061	7431
TOTAL	23954	7881	10520	3342	1245	3754	50694

In addition to the emphasis on travel to professional meetings, the faculty development committee was busy implementing the Gordon College growth contracting model. Two consultants from Gordon College attended the 1980 faculty orientation and shared their views of the program at Gordon. After the workshop, the faculty supported the proposal to adopt the Gordon College model (Annual Report of the President 1980, 5).

Table 5-6
Expenditures By Rank 1980-81

Rank	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
Inst.	3301	1219	1796	1376	0	0	7692
Ass't.	7905	2960	1718	0	0	2061	14644
Assoc.	5023	1612	3589	1966	0	0	12190
Prof.	7725	2090	3417	0	1245	1693	16170
TOTAL	23954	7881	10520	3342	1245	3754	50696

After 1 October 1980, faculty members had to submit a "personal profile" consisting of a self-assessment, a description of current responsibilities, and a long-range view (three years) as well as an "annual personal growth plan" containing goals to be achieved in the next six to twelve months, summary budget for all goals, and the members of their support committee before they would be eligible for support from the faculty development fund. The faculty development committee would review the annual growth plan (the personal profile was confidential) and allocate funds in support of the plan as deemed appropriate. To be fundable, all growth plans had to "relate to instructional improvement, particularly curriculum development, scholarly-creative activities, publication of books and papers related to discipline, participation in professional meetings related to discipline, and preparation of proposals for outside support for instructional improvement" (FDC newsletter, 13 January 1981).

Table 5-7
Performance Profile 1980-81
(By Division)

Division	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
FA				
Total	5797	16.0	12.0	
Average	1159	3.2	2.4	4.4
BUS				
Total	7130	18.0	14.0	
Average	1019	2.6	2.0	4.1
ED				
Total	4100	20.0	14.0	
Average	683	3.3	2.3	4.3
NSCI				
Total	7316	33.0	26.0	
Average	813	3.7	2.9	4.4
SSCI				
Total	4656	17.0	12.0	
Average	931	3.4	2.4	4.6
LLSC				
Total	14266	44.0	31.0	
Average	1189	3.7	2.6	4.3
REL				
Total	7431	24.0	15.0	
Average	826	2.7	1.7	3.8
-----	-----	-----	-----	---
TOTAL	50696	172.0	124.0	
AVERAGE	957	3.3	2.3	4.3

During 1980-81, over eighty-eight percent of the full-time faculty participated in some aspect of the faculty development program (Title III program records, 1 May 1981). Over seventy percent of the faculty (42) had submitted personal profiles and twenty-three faculty members had also submitted growth plans (Annual Report of the President 1981, 7). This second group was the recipient of the "non-travel" portion of the faculty development grant fund (Title III program records, 1 May 1981). The large faculty development budget provided the oppor-

tunity of many faculty members to get involved without having to compete with colleagues for financial support. It also provided an opportunity for faculty members to "catchup" after many years of little or no support for faculty development. Morale and enthusiasm were "on the rise" (Academic Dean, personal interview, 22 July 1986).

Table 5-8
Performance Profile 1980-81
(By Rank)

Rank	Grant Size	Faculty Impact	Institutional Impact	Satisfaction

INSTRUCTOR				
Total	7692	31.0	23.0	
Average	769	3.1	2.3	4.1
ASSISTANT				
Total	14644	52.0	34.0	
Average	861	3.1	2.1	4.2
ASSOCIATE				
Total	12190	37.0	29.0	
Average	1219	3.7	2.9	4.4
PROFESSOR				
Total	16170	52.0	38.0	
Average	1011	3.3	2.4	4.4
-----	-----	-----	-----	---
TOTAL	50696	172.0	124.0	
AVERAGE	957	3.2	2.3	4.3

The Academic Year 1981-82

By the fall of 1981, the growth contracting program using the Gordon College model was in full swing, and faculty members were beginning to become more sophisticated in "packaging" their proposals (Faculty #31, personal interview, 8 August 1986). By the 14 September deadline, the faculty development committee had received nineteen growth plans - fourteen of the plans included a request for

an extended contract. An extended contract was essentially an extension of a faculty contract for a month during the summer with full pay to pursue faculty development activities. The reason why this concept quickly grew in popularity is obvious.

Table 5-9
Expenditures By Division 1981-82

Divi- sion	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
FA	3376	1508	375	0	1200	0	6458
BUS	1144	2256	500	0	3697	0	7597
ED	1865	825	0	0	0	0	2690
NSCI	1200	424	800	2426	0	0	4850
SSCI	150	360	0	1960	0	0	2470
LLSC	3650	3091	3558	0	1500	0	11799
REL	400	1196	0	1138	0	0	2734
TOTAL	11785	9660	5232	5524	6397	0	38598

Table 5-10
Expenditures By Rank 1981-82

Rank	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
Inst.	2457	1176	1300	0	1999	0	6932
Ass't.	5686	1323	1400	1138	0	0	9547
Assoc.	840	2673	2532	0	2353	0	8398
Prof.	2802	4488	0	4386	2045	0	13721
TOTAL	11785	9660	5232	5524	6397	0	38598

During the summer of 1982, thirteen faculty members worked under extended contracts. In addition to their salary, they also received financial support for other faculty development activities such as travel, supplies, workshops, and continuing education (Title III records, 15 September 1982). The Academic Dean coined the term "mini-

sabbatical" to describe the extended contract activities. In the Dean's opinion, mini-sabbaticals were the single most beneficial aspect of the faculty development program because they allowed a considerable number of faculty to be involved in major efforts - efforts that could not be done during the school year, and allowed the meager institutional sabbatical program which had been put on hold during the financial crisis to do a little "catchup" (Personal interview, 22 July 1986).

Table 5-11
Performance Profile 1981-82
(By Division)

Division	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
FA				
Total	6458	19.0	11.0	
Average	1292	3.8	2.2	4.2
BUS				
Total	7597	13.0	8.0	
Average	2532	4.3	2.7	4.7
ED				
Total	2690	12.0	11.0	
Average	673	3.0	2.8	4.3
NSCI				
Total	4850	17.0	15.0	
Average	1213	4.3	3.8	4.8
SSCI				
Total	2470	4.0	3.0	
Average	2470	4.0	3.0	4.0
LLSC				
Total	11799	37.0	33.0	
Average	1180	3.7	3.3	4.6
REL				
Total	2734	12.0	6.0	
Average	684	3.0	1.5	4.0
-----	-----	-----	-----	---
TOTAL	38598	114.0	87.0	
AVERAGE	1245	3.7	2.8	4.4

Table 5-12
Performance Profile 1981-82
(By Rank)

Rank	Grant Size	Faculty Impact	Institutional Impact	Satisfaction

INSTRUCTOR				
Total	6932	31.0	25.0	
Average	867	3.9	3.1	4.5
ASSISTANT				
Total	9547	33.0	24.0	
Average	868	3.0	2.2	4.3
ASSOCIATE				
Total	8398	18.0	13.0	
Average	2100	4.5	3.3	4.5
PROFESSOR				
Total	13721	32.0	25.0	
Average	1715	4.0	3.1	4.5
-----	-----	-----	-----	-----
TOTAL	38598	114.0	87.0	
AVERAGE	1245	3.7	2.8	4.4

If 1980-81 was the year for faculty travel, then 1981-82 was the year of the computer. Over one-half of all growth plans and over three-fourths of all extended contracts involved instruction in, supplies for, or course development with computers (Faculty proposals, 1981-82). In addition, the faculty development committee set aside nearly \$14,000 from the \$50,000-plus grant fund for the purchase of instructional materials by academic divisions. Over sixty percent of this fund went for computer-related purchases as well (Faculty development committee, memo, 7 April 1982). According to one faculty member, "The extra funds for computer supplies and instruction put us light-years ahead" (Faculty #27, personal interview, 7 August 1986).

The Academic Year 1982-83

Table 5-13
Expenditures By Division 1982-83

Divi- sion	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
FA	4286	1702	760	1000	1902	0	9650
BUS	2255	1100	2968	900	800	0	8023
ED	6289	5139	2673	0	1216	0	15317
NSCI	2292	747	500	4007	0	508	8054
SSCI	720	2093	2821	0	0	0	5634
LLSC	4960	1135	2736	0	0	0	8831
REL	1539	2750	0	2484	0	0	6773
TOTAL	22341	14666	12458	8391	3918	508	62282

As a 13 September deadline was set for the submission of grant proposals, the faculty development committee faced two problems. The first problem was what to do about the growing requests for extended contracts which were, in the opinion of some faculty members, taking a disproportionate share of the faculty development budget. Some faculty members were openly complaining that these awards were reserved for the "pets and favorites" of the Dean and faculty development committee (Faculty #65, personal interview, 5 August 1986). The committee decided to de-emphasize extended contracts and divide the pie among more applicants (Faculty #44, personal interview, 28 August 1986). As a result, thirty-seven out of thirty-nine proposals were funded with nearly half of the \$50,000 going to travel, a pattern similar to 1980-81 (Title III program records, May 1983). Interestingly, of the twenty-one requests for professional travel submitted in the fall,

only four requests included a departmental contribution - a standing program practice. As a result, the committee requested applicants to resubmit their proposals. As one faculty member said, "We were trying to save our own money for a rainy day. Let the government pay for it." (Faculty #28, personal interview, 6 August 1986).

Table 5-14
Expenditures By Rank 1982-83

Rank	Travel	Supply	Instruc- tion	Re- search	Cont. Ed	Other	Total
Inst.	5058	2020	0	0	0	0	7078
Ass't.	8551	4990	3421	2233	1902	508	21605
Assoc.	2736	3696	2716	2151	0	0	11299
Prof.	5996	3960	6321	4007	2016	0	22300
TOTAL	22341	14666	12458	8391	3918	508	62282

The second problem was not so easy to solve. The committee knew that 1983 was the last year for Title III support. Without some major adjustments, the budget would be reduced to the 1979-80 level of about \$5000. In his annual report to the President in October, the Dean cautioned that it would be critical for the institution to plan ahead for the termination of federal support and to make some important decisions concerning the continuation, modification, or extinction of programs and personnel (Beaver 1982, 13).

In February, the faculty development committee conducted a study to determine how the faculty felt about the program. Of the sixty-two faculty who had participated

in the program, forty-one returned the questionnaire. The results were generally positive. Ninety-five percent were pleased with the personal growth they experienced through involvement in a growth plan and felt that the college should continue with growth planning. About two-thirds felt that the amount of funds they received was adequate to accomplish their goals, and about one-half indicated that they would continue to use growth plans even if there were no faculty development funds. On the other hand, about a third of the respondents felt that getting an award was basically a matter of "playing the game," and that too much paperwork was involved (Faculty development committee minutes, 27 April, 1983). (Even though the growth planning format was in place at the college before Title III support was obtained, many faculty members perceived the personal profiles and growth plans as another form of governmental red tape.)

On 1 June 1983, the faculty development committee voted to continue the program "as is" regardless of the size of the program budget. The committee, fearing that the faculty development budget would be seriously reduced, also voted to sponsor a grantsmanship workshop during the early fall of 1983 to assist faculty members in obtaining external funding for faculty development activities (Committee minutes, 1 June 1983).

Table 5-15
Performance Profile 1982-83
(By Division)

Division	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
FA				
Total	9650	15.0	11.0	
Average	2413	3.8	2.8	4.8
BUS				
Total	8023	10.0	8.0	
Average	2674	3.3	2.7	4.7
ED				
Total	15317	23.0	19.0	
Average	2553	3.8	3.2	4.8
NSCI				
Total	8054	27.0	21.0	
Average	895	3.0	2.3	4.2
SSCI				
Total	5634	7.0	5.0	
Average	2817	3.5	2.5	4.5
LLSC				
Total	8831	24.0	21.0	
Average	1262	3.4	3.0	4.6
REL				
Total	6773	11.0	9.0	
Average	1693	2.8	2.3	4.8
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TOTAL	62282	117.0	94.0	
AVERAGE	1779	3.3	2.7	4.5

Table 5-16
Performance Profile 1982-83
(By Rank)

Rank	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
INSTRUCTOR				
Total	7078	28.0	22.0	
Average	885	3.5	2.8	4.3
ASSISTANT				
Total	21605	34.0	29.0	
Average	1964	3.1	2.6	4.6
ASSOCIATE				
Total	11299	19.0	15.0	
Average	2260	3.8	3.0	4.8
PROFESSOR				
Total	22300	36.0	28.0	
Average	2027	3.3	2.6	4.6

The Academic Year 1983-84

Table 5-17
Expenditures By Division 1983-84

Division	Travel	Supply	Instruction	Research	Cont. Ed	Other	Total
FA	882	214	0	0	0	0	1096
BUS	0	0	0	0	0	0	0
ED	899	214	0	0	0	0	1139
NSCI	375	470	0	0	0	0	845
SSCI	385	0	0	0	0	0	385
LLSC	251	670	480	0	0	0	1401
REL	625	0	0	0	233	0	858
TOTAL	3417	1594	480	0	233	0	5724

Table 5-18
Expenditures By Rank 1983-84

Rank	Travel	Supply	Instruction	Research	Cont. Ed	Other	Total
Inst.	650	0	0	0	0	0	650
Ass't.	965	454	480	0	0	0	1899
Assoc.	917	335	0	0	233	0	1485
Prof.	885	805	0	0	0	0	1690
TOTAL	3417	1594	480	0	233	0	5724

In late September, the faculty development committee sent out a letter to all full-time faculty informing them that 17 October was the deadline for the submission of growth plans. The letter also stated that since the faculty development budget was only \$6000, the committee would give high priority to activities involving the preparation of proposals for outside support (Faculty development committee letter, 29 September 1983). The Vice-President for Academic Affairs also promoted the idea that faculty needed to seek outside funding support, and

added that he believed that serious faculty members would continue to grow with or without financial support (Beaver 1983, 7).

By the deadline, fourteen proposals were submitted. The most popular requests were for travel and computer software - no one proposed to seek funding from outside sources. Before funding nine of the proposals, the faculty development committee agreed that a maximum of \$500 per individual would be awarded (Committee minutes, 26 October 1983).

Table 5-19
Performance Profile 1983-84
(By Division)

Division	Grant Size	Faculty Impact	Institutional Impact	Satisfaction
FA				
Total	1096	11.0	4.0	
Average	274	2.8	1.0	3.8
BUS				
Total				
Average				
ED				
Total	1139	6.0	3.0	
Average	380	2.0	1.0	3.3
NSCI				
Total	845	5.0	3.0	
Average	423	2.5	2.0	4.0
SSCI				
Total	385	3.0	2.0	
Average	385	3.0	2.0	5.0
LLSC				
Total	1401	12.0	11.0	
Average	350	3.0	2.8	4.0
REL				
Total	858	6.0	5.0	
Average	429	3.0	2.5	4.0
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TOTAL	5724	43.0	28.0	
AVERAGE	358	2.7	1.8	3.9

In the spring, nine of ten proposals (primarily for travel) were funded by the committee. The committee spent the remainder of the semester discussing whether and on what basis personal profiles should go to the academic dean and/or growth plans should go to the rank and tenure committee (Committee minutes, 28 March 1984), and revising the faculty development section of the faculty handbook (Committee minutes, 25 April 1984). It is interesting to note that the only two persons to participate in the faculty development program in 1979-80 (the year before Title III support) and 1983-84 (the year after Title III support) were the chairman and former chairman of the faculty development committee - the two faculty members who visited Gordon College and promoted the adoption of the Gordon College growth contracting model.

Table 5-20
Performance Profile 1983-84
(By Rank)

Rank	Grant Size	Faculty Impact	Institutional Impact	Satisfaction

INSTRUCTOR				
Total	650	4.0	2.0	
Average	325	2.0	1.0	3.5
ASSISTANT				
Total	1899	16.0	11.0	
Average	317	2.7	1.8	3.7
ASSOCIATE				
Total	1485	11.0	6.0	
Average	495	3.7	2.0	4.0
PROFESSOR				
Total	1690	12.0	9.0	
Average	338	2.4	1.8	4.2
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AVERAGE	358	2.7	1.8	3.9

Five Year Summary Data

Sixty-three growth contracting participants were each asked twenty questions about their activities, experiences, outcomes, and attitudes concerning growth contracting at Southern Nazarene University. The first twelve questions dealt with specific outcomes of the growth planning process for particular years and were incorporated as part of the yearly performance profiles. (For an example, see Tables 5-3 and 5-4.) The remaining eight questions dealt with opinions and attitudes about growth contracting in general. The responses to these questions are summarized below:

Would you be more willing to participate in a growth contracting program with a \$50,000 budget than in a program with a \$5,000 budget? Please explain.

Of the 59 faculty members who responded to this question, 41 (70%) said that the size of the program budget would make a difference. A large budget indicated a better chance of getting funded, a better chance of receiving a large grant, and less scrutiny of proposals by the faculty development committee. Thirteen (22%) said that the size of the budget was of little consequence. About half of this group would participate regardless of the situation because it is the responsibility of faculty to develop. The other half felt that growth contracting with peers was a demeaning process and would not participate under any circumstances. Five respondents (8%) felt that it would

depend on what they were interested in at the time.

What is the minimum amount of money you would consider to be adequate for an individual growth contract award?

The respondents to this question can be divided into three categories. In the first category are 16 respondents (27%) who indicated that almost anything was helpful, even as little as \$50. The second category [22 respondents (37%)] consists of those who wanted to "get out of town" and felt that \$500 was a bare minimum. The third group is of equal size [22 respondents (37%)]. They felt that substantial funding in the range of \$1000 - \$5000 was necessary to insure that "really important things get done." It is interesting to note that for 74% of the faculty, the minimally acceptable grant amount was equal to or greater than the maximum allowed by the faculty development committee.

If your growth contract was doubled - say from \$2000 to \$4000, would you be more likely to include new activities in your growth plan or redouble your efforts on currently proposed activities?

About half of the respondents (48%) indicated that they would add new activities if they received additional funding primarily because they would have budgeted for the entire amount of the project to begin with, or because it would be fun to try something new. Forty-three percent

indicated that they would redouble their efforts on the current project because they would want to do a thorough job and carry the project to its conclusion. This was usually impossible because an applicant was never given enough time or money to do a "first-rate" job. Nine percent indicated that they would do a little of each.

After three years of substantial funding, the S.N.U. growth contracting budget returned to its original budget of \$5000 in 1983. Are you aware of any impact - either positive or negative - of this budget decrease?

Sixty-eight percent of the respondents felt that the budget decrease had a negative impact on the program. They cited a decline in participation, the inability to do large projects, a decline in faculty morale, a funding cap of \$500 per person, the lack of incentives, the absence of innovative projects, and an increase in competition as examples. Fourteen percent saw no difference in the program (momentum carried over - money just came from other places), and 18% had no opinion.

Why did some of your colleagues choose to not participate in the growth contacting program?

Seven faculty members (12%) did not participate in the program, but only two faculty members participated in each of the five years. The majority were "stop-outs." Seven primary reasons were given for not submitting a proposal.

The overwhelming reason was "too much paperwork for too little money" (30%). Six other reasons were about equally offered: faculty were too busy with teaching and graduate work to have time for faculty development, faculty were "in a rut" and did not care about growth, growth contracting was perceived as a threat because profiles "were not confidential" and the administration "could use them" for evaluation, growth planning was just a political game for insiders, growth planning did not meet faculty needs, and faculty did not participate in order to allow others to get the money.

How many dollars would be required to insure an effective growth contracting program for a faculty of 50?

Eighty percent of the respondents indicated that a program budget of \$50,000 would be sufficient. Four faculty felt that a budget in the amount of \$5000 was sufficient, while an equal amount felt that a budget of \$200,000 or more was required. About half the respondents who favored a \$50,000 budget figured on \$1000 for each faculty member, and the other half figured on \$2000 for 50% of the faculty.

Were there other significant outcomes of the program that we have not yet discussed?

Essentially, there were five general responses to this question. The primary outcome was that it helped the

faculty to plan, and to set professional goals and priorities. The other four outcomes were: increased interaction with colleagues from other departments and from other universities, increased motivation, improved morale, and increased supplies for departmental use.

What factors other than the level of financial support affect the success of a growth contracting program?

Faculty respondents listed five factors which they felt were, in addition to money, essential for program success: support from the administration and one's own department head, recognition and ego support for program participants, better communication of the contracting process and project outcomes, better evaluation procedures insuring greater accountability of grant recipients, and required participation of all faculty members.

Table 5-21
Expenditures By Category
1979-84

	79-80	80-81	81-82	82-83	83-84	Total
Travel	1,755	23,954	11,785	22,341	3,417	63,252
Supplies	0	7,881	9,660	14,666	1,594	33,801
Instruct.	250	10,520	5,232	12,458	480	28,940
Research	1,000	3,342	5,524	8,391	0	18,257
Cont. Ed.	900	1,245	6,397	3,918	233	12,693
Other	0	3,754	0	508	0	4,262
Total	3,905	50,696	38,598	62,282	5,724	161,205

Table 5-22
Expenditures By Division

Division	79-80	80-81	81-82	82-83	83-84	Total
<hr/>						
FA						
Total	450	5,797	6,458	9,650	1,096	23,451
Ave.	225	1,159	1,292	2,413	274	1,173
No.	2	5	5	4	4	20
BUS						
Total	375	7,130	7,597	8,023	0	23,125
Ave.	188	1,019	2,532	2,674	0	1,542
No.	2	7	3	3	0	15
ED						
Total	150	4,100	2,690	15,317	1,139	23,396
Ave.	150	683	673	2,553	380	1,170
No.	1	6	4	6	3	20
NSCI						
Total	1,110	7,316	4,850	8,054	845	22,175
Ave.	370	813	1,213	895	423	821
No.	3	9	4	9	2	27
SSCI						
Total	0	4,656	2,470	5,634	385	13,145
Ave.	0	931	2,470	2,817	385	1,461
No.	0	5	1	2	1	9
LLSC						
Total	820	14,266	11,799	8,831	1,401	37,117
Ave.	273	1,189	1,180	1,262	350	1031
No.	3	12	10	7	4	36
REL						
Total	1,000	7,431	2,734	6,773	858	18,796
Ave.	500	826	684	1,693	429	895
No.	2	9	4	4	2	21
<hr/>						
TOTAL	3,905	50,696	38,598	62,282	5,724	161,205
AVE.	300	957	1,245	1,779	358	1,089
NO.	13	53	31	35	16	148

Table 5-23
Expenditures By Rank
1979-84

Rank	79-80	80-81	81-82	82-83	83-84	Total
INSTRUCTOR						
Total	470	7,692	6,932	7,078	650	22,822
Ave.	235	769	867	885	325	761
No.	2	10	8	8	2	30
ASSISTANT						
Total	700	14,644	9,547	21,605	1,899	48,395
Ave.	350	861	868	1,964	317	1,030
No.	2	17	11	11	6	47
ASSOCIATE						
Total	1,225	12,190	8,398	11,299	1,485	34,597
Ave.	306	1,219	2,100	2,260	495	1,331
No.	4	10	4	5	3	26
PROFESSOR						
Total	1,510	16,170	13,721	22,300	1,690	55,391
Ave.	302	1,011	1,715	2,027	338	1,231
No.	5	16	8	11	5	45

TOTAL	3,905	50,696	38,598	62,282	5,724	161,205
Ave.	300	957	1,245	1,779	358	1,089
NO.	13	53	31	35	16	148

Table 5-24
Performance Profile Summary

Item	79-80	80-81	81-82	82-83	83-84
Program Budget	3905	50696	38598	62282	5724
Average Grant	300	957	1245	1779	358
Participation (#)	13	53	31	35	16
Participation (%)	22	88	52	58	27
Faculty Impact (Total)	29	172	114	117	43
Faculty Impact (Ave)	2.2	3.3	3.7	3.3	2.7
Instit. Impact (Total)	19	124	87	94	28
Instit. Impact (Ave)	1.5	2.3	2.8	2.7	1.8
Satisfaction (Ave)	3.7	4.3	4.4	4.5	3.9

CHAPTER VI

ANALYSIS AND CONCLUSIONS

In this chapter, the twelve research questions which were posed at the beginning of the study in order to guide the investigation are individually examined. Along with the analysis of each question, conclusions relating to that particular question are presented. A discussion of the ramification of these conclusions as well as of the general results of the study is presented in the next chapter.

What is the relationship between a growth contracting program's overall level of financial support and the level of participation of individual faculty members?

Table 6-1
Budget-Participation Comparison
1979-1984

Year	Budget	Participation (%)
1979-80	3,905	22
1980-81	50,696	88
1981-82	38,598	52
1982-83	62,282	58
1983-84	5,724	27

While not perfect, there is a high, positive relationship between the level of participation and the size of the budget. Table 6-1 illustrates this relation-

ship. It is important to note, however, that over 20% of the faculty participated even though the program budget was very small, and the participation rate never reached 60% except for the year when there was a simplified form plus encouragement from the Dean for travel to professional meetings, so there are limits to the "drawing power" of a large fund. Still, as the budget went up, so did participation rates. And when the budget decreased, participation also declined.

This positive relationship between participation and budget size holds true for all seven academic divisions and all academic ranks except for associate professors. With the exception of the "year of easy money" for travel, the participation rate for associate professors remained essentially the same (ranging from a low of 3 to a high of only 5 participants per year). It is interesting to note that while associate professors were "underparticipants," they were the recipients of the largest grants - an average of \$1,331 per award. This figure is nearly \$300 higher than the average grant award.

The relationship between participation and program budget is easy to explain. Over 70% of the faculty said the size of the budget would influence their decision about submitting a grant proposal. To those faculty members, a larger budget indicated three things: (1) a better chance of getting funded, (2) a better opportunity of receiving a

large grant award, and (3) less scrutiny of their proposals by the faculty development committee. In this study, most faculty did not relish the idea of competing with their colleagues for grant money, particularly when the decision was made by peers who were also competing for support. For most faculty, a large budget signaled more financial support and less competition.

What is the relationship between a growth contracting program's overall level of financial support and the satisfaction of faculty participants?

Table 6-2
Budget-Satisfaction Comparison
1979-1984

Year	Budget	Satisfaction (Ave)
1979-80	3,905	3.7
1980-81	50,696	4.3
1981-82	38,598	4.4
1982-83	62,282	4.5
1983-84	5,724	3.9

The relationship between budget size and satisfaction is not as clear as is the relationship between budget and participation. While it is true that the level of satisfaction increases and decreases significantly with large budget increases and decreases, another trend can also be identified. During the three years when program budgets were large, the satisfaction of participants gradually increased each year.

Table 6-3
Satisfaction By Division
1979-84

Division	79-80	80-81	81-82	82-83	83-84
Fine Arts	4.0	4.4	4.2	4.8	3.8
Business	3.0	4.1	4.7	4.7	---
Education	3.0	4.3	4.3	4.8	3.3
Nat. Sci.	4.3	4.4	4.8	4.2	4.0
Soc. Sci.	---	4.6	4.0	4.5	5.0
Lang.& Lit.	3.7	4.3	4.6	4.6	4.0
Religion	3.5	3.8	4.0	4.8	4.0

Table 6-4
Satisfaction By Rank
1979-84

Rank	79-80	80-81	81-82	82-83	83-84
Instructor	4.0	4.1	4.5	4.3	3.5
Assistant	2.5	4.2	4.3	4.6	3.7
Associate	3.8	4.4	4.5	4.8	4.0
Full Prof.	4.0	4.4	4.5	4.6	4.2

An examination of embedded units is helpful. When satisfaction scores are separated by division (Table 6-3), participant satisfaction associated with significantly lower levels of financial support (79-80 & 83-84) is lower in over 80% of the cases. The same pattern holds true for all academic ranks (Table 6-4). Therefore, from these data, it seems appropriate to conclude that there is a marked, positive relationship between participant satisfaction and substantial changes in program support - a process identified in this study as capital infusion or withdrawal.

However, at higher levels of program support, the satisfaction relationship is not clear. Regarding the gradual increase in participant satisfaction at higher

levels of support, embedded unit analysis provides mixed results. While this pattern is evident for three of the four academic ranks, only one of the seven divisions follows this pattern. At higher levels of program support, faculty members were being funded in amounts close to their total requests. From the personal interviews with program participants, it became clear that during the three years of heavy support, satisfaction was more closely associated with successful completion of proposed objectives than with the exact level of financial support. On the other hand, during periods of limited financial support, satisfaction was much lower because participants felt that they did not receive enough funds to properly complete their proposed activities.

What is the relationship between a growth contracting program's overall level of financial support and the impact upon faculty participants?

Table 6-5
Budget-Faculty Impact Comparison
1979-1984

Year	Budget	Faculty Impact	
		Total	Average
1979-80	3,905	29	2.2
1980-81	50,696	172	3.3
1981-82	38,598	114	3.7
1982-83	62,282	117	3.3
1983-84	5,724	43	2.7

In this study, the impact upon faculty was determined by recording the incidence of selected indicators of faculty performance and then converting the scores to an

eight-point impact scale. As Table 6-5 indicates, there is a significant increase in both the total and average impact scores between years one and two, and a significant decrease between years four and five. During the three years of heavy financial support, the relationship between program budget and faculty impact is not as clear. The total impact score is highest for 1980-81 (172), but the average impact score is highest the following year (3.7).

Table 6-6
Faculty Impact (Ave) By Division
1979-84

Division	79-80	80-81	81-82	82-83	83-84
Fine Arts	2.0	3.2	3.8	3.8	2.8
Business	2.0	2.6	4.3	3.3	---
Education	2.0	3.3	3.0	3.8	2.0
Nat. Sci.	2.7	3.7	4.3	3.0	2.5
Soc. Sci.	---	3.4	4.0	3.5	3.0
Lang.& Lit.	2.0	3.7	3.7	3.4	3.0
Religion	2.5	2.7	3.0	2.8	3.0

Table 6-7
Faculty Impact (Ave) By Rank
1979-84

Rank	79-80	80-81	81-82	82-83	83-84
Instructor	2.0	3.1	3.9	3.5	2.0
Assistant	2.0	3.1	3.0	3.1	2.7
Associate	2.3	3.7	4.5	3.8	3.7
Full Prof.	2.4	3.3	3.7	3.3	2.4

In Table 6-6, the average faculty impact scores are presented by division. The pattern is quite similar to the pattern in Table 6-5. There is a significant increase in impact between years one and two in each division, and a significant decrease between years four and five. From

1980-81 to 1982-83, however, the results are mixed. For four divisions, the high year in terms of impact was 1981-82, but for another division it was the lowest. Two divisions had two high years, but not the same years. Also, one division showed a general increase in impact over the three years - another a general decline. And four divisions peaked in the middle year, while another division recorded its lowest score in that year.

When impact scores are divided by rank, the scores are a little more consistent. In Table 6-7, three of the four ranks recorded their highest impact score in 1981-82. (The impact scores for assistant professors remains stable over the three years.)

It is clear that the faculty impact-program budget relationship is similar to the satisfaction-program budget relationship in that there is a marked, positive relationship between the impact upon faculty and significant changes in program budget - a process identified as capital infusion and withdrawal. At high levels of support, the relationship is not as clear. Year two had the highest impact total, but year three had the highest average impact. This is due to the nature of the faculty development activities during the two years. Year two was the "year for travel." Since participation was very high, the total impact score for the program was very high, but the impact of these activities on an individual faculty member

was relatively low. The next year was the year of the extended contract. While fewer faculty participated than in the year before, the projects were much greater in scope and size. This resulted in a much larger average faculty impact score. As to why this pattern did not hold true for assistant professors, it seems that assistant professors were less inclined to request extended contracts and focused their attention on professional travel. This was largely due to the fact that most assistant professors were still pursuing advanced degrees (an activity which was not supported by the faculty development program) and did not have the time to do other big projects during the summer months.

What is the relationship between a growth contracting program's overall level of financial support and its impact upon the institution?

In this study, the impact upon the institution was determined by recording the incidence of selected indicators of institutional impact and then converting the scores to an eight-point impact scale. The institutional impact-program budget relationship follows the same pattern as does the faculty impact-program budget relationship. With a significant budget increase (from \$3,905 to \$50,696), the total institutional impact increased from 19 to 124 and the average impact score increased from 1.5 to 2.3. When the budget declined in 1983 from \$62,282 to \$5,724, the impact

scores also declined (total impact from 94 to 28, and average impact from 2.7 to 1.8). Also, as with faculty impact, the relationship between program budget and impact upon the institution is not clear at high levels of funding.

Table 6-8
Budget-Institutional Impact Comparison
1979-1984

Year	Budget	Institutional Impact Total	Average
1979-80	3,905	19	1.5
1980-81	50,696	124	2.3
1981-82	38,598	87	2.8
1982-83	62,282	94	2.7
1983-84	5,724	28	1.8

Table 6-9
Institutional Impact (Ave) By Division
1979-84

Division	79-80	80-81	81-82	82-83	83-84
Fine Arts	2.0	2.4	2.2	2.8	1.0
Business	1.0	2.0	2.7	2.7	---
Education	0.0	2.3	2.8	3.2	1.0
Nat. Sci.	2.0	2.9	3.8	2.3	2.0
Soc. Sci.	---	2.9	3.8	2.3	2.0
Lang.& Lit.	1.7	2.6	3.3	3.0	2.8
Religion	1.0	1.7	1.5	2.3	2.5

Tables 6-9 and 6-10 depict institutional impact scores by division and rank. These embedded units reflect the same relationship pattern as does the entire program (Table 6-8) - a marked, positive relationship between substantial budget increases and decreases (capital infusion or withdrawal) and the impact upon the institution. However, at higher budget levels, the relationship is less clear. As with faculty impact, the impact upon the institution at

higher levels of funding is influenced by the participants choice of faculty development activities.

Table 6-10
Institutional Impact (Ave) By Rank
1979-84

Rank	79-80	80-81	81-82	82-83	83-84
Instructor	0.5	2.3	3.1	2.8	1.0
Assistant	0.5	2.1	2.2	2.6	1.8
Associate	1.5	2.9	3.3	3.0	2.0
Full Prof.	2.2	2.4	3.1	2.6	1.8

In summary, the data indicate that there is a high, positive relationship between substantial increases and decreases in the SNU growth contracting program's annual budget (capital infusion and withdrawal) and each of the four dependent variables - participation, participant satisfaction, impact upon the faculty, and impact upon the institution. At higher levels of support, however, the relationship is not as direct and is influenced by other factors such as the choice of activities to pursue and the degree of accomplishment of proposed activities.

What is the relationship between the level of financial support for individual growth plans and the level of participation of individual faculty members?

There is a high, positive relationship between the average grant award and participation for all years except for 1980-81. In that year, the faculty development committee granted an exception to the growth planning rules and allowed faculty members to apply for travel funds

without going through the usual proposal process. In that year, nearly the entire faculty (88%) took advantage of the offer. Excluding that year, the relationship between the average grant size and program participation is very high.

Table 6-11
Average Grant-Participation Comparison
1979-1984

Year	Average Grant Award	Participation Number	Percent
1979-80	300	13	22
1980-81	957	53	88
1981-82	1,245	31	52
1982-83	1,779	35	58
1983-84	358	16	27

Table 6-12
Participation By Rank
1979-84

Rank	79-80	80-81	81-82	82-83	83-84
Instructor	2	10	8	8	2
Assistant	2	17	11	11	6
Associate	4	10	4	5	3
Full Prof.	5	16	8	11	5
Ave. Grant	300	957	1,245	1,779	358

An examination of participation by division and rank reveals a similar pattern (see Tables 6-12 & 6-13). Excluding 1980-81 (the travel year), the pattern holds true for all ranks although the relationship is not as clear as average grant awards become relatively high. (A similar result was observed when participation was compared with aggregate program funding.) The pattern is less clear when examined by division. Academic divisions are so small (fifty faculty divided among seven divisions) that deter-

mining the average grant size by division is of little use. With such a small number of participants, the grant averages are greatly influenced by one or two participants.

Table 6-13
Participation By Division
1979-84

Division	79-80	80-81	81-82	82-83	83-84
Fine Arts	2	5	5	4	4
Business	2	7	3	3	0
Education	1	6	4	6	3
Nat. Sci.	3	9	4	9	2
Soc. Sci.	0	5	1	2	1
Lang.& Lit.	3	12	10	7	4
Religion	2	9	4	4	2

Overall, there is a high, positive relationship between the size of grant awards and participation. Faculty members know that if the committee is going to give larger grants awards, then different kinds of activities are possible other than a trip to a professional conference. Larger projects are faculty development for some faculty members. It is also interesting to note that the formality of the program is an important factor influencing participation. When the proposal application was reduced to a single page for a short time in 1980 and faculty members knew that there would be no evaluation of proposals, faculty participation reached a record high.

What is the relationship between the level of financial support for individual growth plans and the satisfaction of faculty participants?

Table 6-14
Average Grant-Satisfaction Comparison
1979-1984

Year	Average Grant	Satisfaction
1979-80	300	3.7
1980-81	957	4.3
1981-82	1,245	4.4
1982-83	1,779	4.5
1983-84	358	3.9

A very high relationship exists between the average grant award and participant satisfaction. In every case, the larger the average grant award, the higher the average participant satisfaction score. When satisfaction is divided by academic rank and division (see Tables 6-3 & 6-4), the general pattern holds. This is particularly true when comparing the satisfaction scores for years just prior to and just after capital infusion or withdrawal. During these time periods, satisfaction scores increased or decreased dramatically.

To provide some supporting evidence, the correlation coefficient was computed for the individual grant awards and the corresponding satisfaction scores. This represented 148 pairs of scores. The correlation was 0.4661 with a significance of 0.0001. Considering that the satisfaction scores had a very narrow range (3 to 5), this correlation represents a marked relationship between the variables (Van Dalen 1979, 324).

This high relationship between the size of the grant award and participant satisfaction was also confirmed

through the interview process. Participants receiving large grants were able to do all that they wanted to do. When the grants were limited to \$500 per person, many activities were excluded entirely or had to be done on a very limited scale. Faculty members who received more were able to do more, thus the higher level of satisfaction.

What is the relationship between the level of financial support for individual growth plans and its impact upon individual faculty participants?

Table 6-15
Average Grant-Faculty Impact Comparison
1979-1984

Year	Average Grant	Faculty Impact
1979-80	300	2.2
1980-81	957	3.3
1981-82	1,245	3.7
1982-83	1,779	3.3
1983-84	358	2.7

The individual grant-faculty impact relationship is not quite as simple as the individual grant-satisfaction relationship. Table 6-15 illustrates that there is a positive relationship between grant size and faculty impact, particularly when moving from the \$300 range to the \$1000 range and back again. However, at relatively high levels of support, the relationship is not as clear.

This same pattern is repeated when faculty impact is analyzed by division and rank (see Tables 6-6 & 6-7). As individual support moves from low levels of support to higher levels (or the reverse), there is a high positive

relationship. But when higher levels of support are compared, the relationship does not hold. This is due to the nature of the activities that faculty members select.

Faculty impact increases dramatically when larger grants are given because faculty members can do larger, more comprehensive projects than in years when the average grant is around \$300. However, once funding levels are high, the faculty impact depends on the nature of the faculty development activity chosen by the participant. For example, 1981-82 had a faculty impact score of 3.7 compared to 3.3 in 1982-83 even though the second year had a higher average award (over \$500 higher). In 1981-82, many faculty members worked on large summer projects while in 1982-83, the majority of faculty grants were used for travel, instructional materials and supplies. More money was spent in 1982-83, but a greater impact upon individual faculty members occurred the year before.

Therefore, this information suggests that there is a high, positive relationship between the amount of individual faculty support and impact upon the faculty - particularly when moving from low levels of support to high levels of support (or the reverse). However, at relatively high levels of individual support (average grant over \$1000), the relationship is not as direct. This is because another important factor influencing faculty impact is the nature of the activities which an individual faculty member

chooses to pursue.

What is the relationship between the level of financial support for individual growth plans and its impact upon the institution?

Table 6-16
Average Grant-Institutional Impact Comparison
1979-1984

Year	Average Grant	Institutional Impact
1979-80	300	1.5
1980-81	957	2.3
1981-82	1,245	2.8
1982-83	1,779	2.7
1983-84	358	1.8

Essentially, there is a high, positive relationship between the size of an individual grant and the institutional impact. The pattern is very much like the individual grant size - faculty impact pattern. The relationship is nearly perfect except for 1981-82. For that year, the impact score is higher than would be expected. This is due to the fact that during 1981-82, nearly half of the participants were awarded extended contracts to work on large summer projects. The institutional impact score is "above the norm" because participants pursued more comprehensive and complex projects than in other years.

When examined by division and rank, the pattern is the same with the exception of two divisions and the associate professor rank (see Tables 6-9 & 6-10). Since the two divisions did not have faculty members working on extended

summer contracts, stable institutional impact scores for 1981-82 are understandable. As stated earlier, associate professors requested few extended contracts because many were still pursuing terminal degrees. Therefore, as a group, their institutional impact score for 1981-82 was not exaggerated and more in line with generally expected outcomes.

The conclusion from these data is that there is a high, positive relationship between the size of individual grant awards and the impact upon the institution. This relationship holds for all levels of financial support, but at higher levels of individual support, the impact score is also influenced by the type of faculty development activity pursued by the faculty participant.

In summary, the results of this study indicate that there is a marked to high positive relationship between the four dependent variables (participation, participant satisfaction, impact upon the faculty, and impact upon the institution) and the amount of individual financial support for growth contracting activities. At high levels of financial support (in excess of \$1000), the relationship is also influenced by the nature of activities selected by participants, the degree of project accomplishment, and the size and scope of proposed activities.

What impact will a period of capital infusion and withdrawal have on a growth contracting program? Will its

level of performance be greater than before capital infusion even though the program returns to the original level of financial support?

The process of capital infusion and withdrawal in the growth contracting program at Southern Nazarene University had both positive and negative outcomes. From interviews with the Academic Dean, division chairmen, members of the faculty development committee, and faculty participants, it became clear that the infusion of funds "got things going" (Faculty #44, personal interview, 24 July 1986). It was a great morale boost and allowed the faculty to do some "what if kind of dreaming" (Faculty #58, personal interview, 25 July 1986). Capital infusion signaled to the faculty that larger, more creative kinds of projects would be possible, and that competition for financial support would be minimized.

The infusion process also permitted the institution to "catch up on faculty activities like sabbaticals, professional travel, and instructional supplies" (Faculty #31, personal interview, 25 July 1986), and to support faculty efforts to become computer literate. Also, the infusion process provided some credibility and power to the faculty development committee, and solidified the growth contracting process as the "way we do faculty development at BNC" (Faculty #36, personal interview, 29 Aug. 1986).

On the other hand, there were negative outcomes as

well. Faculty development funds were used to supplement (and in some cases supplant) departmental budgets for travel, supplies, and instructional materials. Divisions were less likely to fight for larger departmental budgets because many needs could be met through the faculty development fund. When capital withdrawal occurred, the faculty "got a double-whammy. No faculty development funds and no divisional help" (Faculty #61, personal interview, 21 July 1986).

Capital infusion and withdrawal also left the faculty with higher expectations for the faculty development program. Many were no longer willing to participate in the growth contracting process for an average grant of \$350. "Too much paperwork for too little money. The whole process became a joke - an insult to the faculty" (Faculty #17, personal interview, 22 July 1986). As a result, the status of the faculty development committee diminished to some degree.

Did the high budget years have a cumulative impact or carryover influence on the program? How do the performances of the pre-infusion and post-withdrawal programs compare? Table 6-17 provides a comparison of performance profiles for the years in question.

Obviously, 1983-84 is operating at a higher level of performance. The participation rate is up by 5%, and the impact scores are also higher (faculty impact up .5 and

institutional impact up .3). But is this increase due to the cumulative impact of high budget years, or is it simply a matter of operating at a higher level of funding? The answer to this question is not clear. However, since it is a conclusion of this study that a marked to high, positive relationship exists between the level of support and the performance indicators (participation, satisfaction, faculty and institutional impact), the increase in performance can be explained by the 47% increase in budget alone. It is likely to assume that the gains in program performance would have resulted from the small increase in financial support even if no infusion of funds had occurred. Any cumulative impact on program performance is, at best, marginal.

Table 6-17
Performance Profile Comparison
1979-80 vs 1983-84

Item	79-80	83-84
Program Budget	3905	5724
Average Grant	300	358
Participation (#)	13	16
Participation (%)	22	27
Faculty Impact (Total)	29	43
Faculty Impact (Ave)	2.2	2.7
Instit. Impact (Total)	19	28
Instit. Impact (Ave)	1.5	1.8
Satisfaction (Ave)	3.7	3.9

It is important to recognize that the focus of this analysis is the nature of the cumulative impact on the post-withdrawal performance of the 1983-84 program. Although no relationship could be determined, this does not

mean that the capital infusion and withdrawal process had no carryover impact on the faculty or the institution. In fact, both positive and negative impacts of the process have been cited in this study. It does mean, however, that the growth contracting program at Southern Nazarene University did not appear to be operating at a higher performance level as a direct result of the capital infusion and withdrawal process.

What relationship exists between the level of financial support for individual growth plans and the content and scope of the growth plans?

There is a high, positive relationship between the level of financial support for individual growth plans and the scope of the growth plans. As the average grant increased, the number of proposed activities included in the growth plans increased as well. When the funding declined, the scope of the plans also declined. As one faculty member said, "Why put all that stuff in the plan when you know you won't get enough money to do it?" (Faculty #43, personal interview, 28 August 1986).

The faculty did get better at writing growth plans over the five years. "We learned not to be too idealistic. Just put down your goals in an organized fashion - and in the order that you think the faculty development committee will fund. And don't go crazy. If they don't have a big budget, just ask for little things" (Faculty #4, personal

interview, 21 July 1986). One faculty member even offered to write the growth plans for the entire division, and to save them on a word processor for use the next year (Faculty #49, personal interview, 24 July 1986).

The relationship between individual financial support and the content of growth plans is not clear. Small grants did exclude major projects like extended contracts and foreign travel, but generally the content of proposed activities had more to do with the priorities of the faculty development committee than with the size of the grants that were awarded.

Travel always took between 35% and 50% of the budget. The next most popular budget item was instructional supplies. Overall, the content of the growth plans followed the priorities set by the committee. In 1980-81, the priority was travel; in 1981-82, it was extended contracts for computer-related study and scholarly study. In 1982-83, the priorities were professional travel and instructional supplies. Faculty tended to plan around "those activities that would get the money" (Faculty #58, personal interview, 24 July 1986).

In summary, an analysis of the results of the study indicates that there is a direct, positive relationship between the level of individual support and the scope of the growth planning activities, but no direct relationship could be established concerning the content of the growth

plans. The content of the proposed activities seemed to be related to the funding priorities of the faculty development committee.

What relationship exists between the overall level of financial support for growth contracting and the content and scope of the growth plans?

A very high, positive relationship exists between the level of program support and the scope of the growth plans. As the size of the program budget increased, the plans contained more goals and more proposed activities. The plans also covered a longer, more intense period of time and requested a higher level of financial support. At lower levels of funding, growth plans proposed one or possibly two activities. As budgets increased, growth plans would often incorporate six to eight related activities.

As program budgets increased, faculty growth plans were more likely to include extended contract requests and large-scale scholarly studies. Beyond this, however, there is little relationship between program support and the content of growth plans. Travel and instructional supplies were popular growth plan items at all levels of funding. Except in those instances when small budgets precluded certain activities (extended contracts), the content of growth plans reflected the funding priorities of the faculty development committee rather than the size of the

faculty development budget.

Why did faculty members choose not to participate in the growth contracting program?

Over the five years of the study, only seven faculty members (12%) did not participate in the program. On the other hand, only two faculty members (the chairman and the former chairman of the faculty development committee) participated every year. The majority were "stop-outs." The reasons given for not participating at all, and the reasons given for stopping out were essentially the same.

The most common reason for non-participation at lower levels of funding was "too much paperwork for too little money." At higher levels of funding, it was simply "too much paperwork." About a third of the participants thought the growth planning process was too cumbersome. Even though the growth planning process was adopted before the program received Title III support, many faculty members associated the required growth plans with governmental red tape.

Six other reasons were about equally offered: faculty are too busy with teaching (15 hr. load) and graduate work (not supported by the program) to have time for faculty development; faculty are in a rut and do not care to develop; growth contracting is a threat to job security because profiles are not really confidential and the administration could use them against the faculty; growth

planning is just a political insiders game; my needs are outside the priority list of the faculty development committee; and some faculty did not participate so that others would have a better chance of getting funded.

Overall, faculty participation was quite good. The participation rate was over 20% even when the budget was under \$4000. At higher levels of support, the average was close to 60%, and one year the rate reached 88% (the year when the faculty development committee used a simplified form). This lends support to the conclusion that for many faculty members, the required paperwork was a hindrance to participation.

Limitations of the Study

This study is limited to a case study of a growth contracting faculty development program at a single, small, private, church-related, liberal arts college in the Midwest over a five year period from 1979 - 1984. While the Significance of the Study section of Chapter One indicates that the findings of this study may be helpful to small college administrators and foundation officials, no other colleges or programs were studied.

Therefore, while this study may be useful in establishing relationships and generating additional hypotheses regarding the impact of financial support on program success, and in presenting ideas and issues concerning capital

infusion and withdrawal from a particular point of view, the findings of this study are based on the case study of a single institution. Therefore, generalizations from this study should not be extended to other colleges and universities without first taking into consideration the distinctive qualities of each institution of higher education.

CHAPTER VII

DISCUSSION, RECOMMENDATIONS, AND SUMMARY

Discussion

Pre-Capital Infusion

The faculty development program at Southern Nazarene University was popular long before the infusion of capital funds. The program had grassroots faculty support. The first call for a formalized program came from a faculty group as early as 1972. Although the first formalized faculty development effort was called the Dean's Grant program, the faculty controlled the program from the start. An ad hoc faculty committee set the proposal guidelines and awarded the grant money. The Dean's involvement was limited to providing the budget for the program and presenting certificates of achievement to proposal winners during a faculty meeting.

The program also enjoyed the support of the administration. The Dean and President praised the program at faculty gatherings and at meetings of the Board of Trustees. Proposal winners were also recognized by the President during his annual report to the university. The

relatively small program budgets were more a result of the university's financial troubles than a lack of administrative support. In fact, as one faculty member put it, "in the minds of the administration, administrative support and financial support were (and still are) two separate issues" (Faculty #19, personal issue, 25 July 1986).

For a faculty development program at a smaller institution during the mid-seventies, it was a certainly a successful program. In addition to faculty and administrative support, the program supported many creative proposals. In spite of the small budgets (never in excess of \$4000), the participation rate approached 20% by the spring of 1979, and the proposals generally focused on the design of new and creative courses or personal research directly related to current courses.

Yet, the program was not without its critics. From the beginning, there were really two faculty development programs on campus. One faculty group (and the administration) saw the program as one that was doing a lot of good and supported the faculty development needs of the entire faculty. Another group, however, saw the program as a political game for insiders and administrative favorites. Part of this group also felt that the program was not designed to meet their needs, so they did not participate.

Part of the problem was that there was no real agreement as to the definition of faculty development.

Some felt that faculty development meant travel to professional meetings. Others felt that faculty development might include travel, but only as part of a much larger project. Still another group defined faculty development as just about any activity involving faculty members outside the classroom. From time to time, the faculty development committee did publish a philosophy of faculty development and distribute it to the faculty, but no real dialogue took place. For the most part, the faculty took the statement as a hint as to the funding priorities of the committee.

Just prior to capital infusion, then, the program enjoyed the support of the administration and most faculty members. There were differences of opinion, however, as to the appropriate direction of the faculty development program, and the role of the faculty development committee. These differences would become more pointed as a result of the capital infusion and withdrawal process.

Capital Infusion

Capital infusion solidified the structure and processes of the faculty development program. The 1983-84 program operated in an identical fashion to the 1979-80 program. This result is to be expected for two reasons. First, the purpose of the capital infusion was not to change the program, but to support its operation. Second,

the literature supports the proposition that capital infusion is not an effective change strategy. Lauderdale argues that capital infusion is more likely to solidify rather than to change existing institutional structures (1971, 14).

Capital infusion also meant more work for the faculty development committee which resulted in less evaluation of proposals, less communication to faculty, and less distinction to "winners." As participation levels and program budgets increased, the committee had less time to evaluate each faculty proposal. Due to this time constraint (and the fact that everyone could get funded to some extent), the task of the committee changed from selecting the best proposals to deciding if the proposals met the guidelines of the program. Also, the large number of proposals forced the committee to adhere to strict deadlines. Because of this, the committee spent a great deal of time communicating the deadlines to the faculty, but very little about the nature and expectations of the program. New faculty members had difficulty getting good information about the program, and usually learned the hard way - by having their proposals turned down for not fitting the guidelines. Finally, because almost everyone who met the guidelines received financial support, there was no distinction for winners.

Capital infusion did have a subtle influence on some

aspects of the program. With capital infusion, the proposed projects became larger and more complex, and covered longer periods of time. It also raised the expectations of the faculty. They expected larger grant awards for projects not only related to instructional improvement, but for personal knowledge as well. For example, as the faculty development program helped the institution to "move into the computer age," some faculty members requested support in order to integrate the computer into the curriculum. Others just wanted to learn how to use a computer without any application in the classroom.

With larger program budgets, the faculty development committee became a major influence on campus. The behavior of the faculty was greatly influenced by the funding priorities of the faculty development committee. When the committee selected travel as a high priority, the faculty traveled. When the priority was extended contracts, the faculty pursued extended contracts. When the funding priority was "things related to computers," the faculty learned about computers. Although the faculty development committee also set priorities when the budget was small, it influenced only a few people. With capital infusion, they became a real force for on-campus behavioral change. Although it was not the case in this study, the power of the faculty development committee could have been used as a major policy tool by the administration.

One final observation about the impact of larger budgets on the program. Large budgets allowed the faculty to pursue extended contracts, the most popular (and probably the most effective) faculty development activity. While beneficial, they also caused a few problems. Most of the faculty members who received extended contracts received more than one. In fact, over 70% were repeat winners. This was probably due to their knowledge of funding priorities and ability to write good proposals. Many of the winners were members of the faculty development committee or close friends of committee members. Although not the case, some faculty felt that "the fix was in" (Faculty #41, personal interview, 22 July 1986). This growing perception hurt the status of the committee, particularly when dissatisfaction began to grow after the budgets were cut in 1983.

Capital Withdrawal

The 1983-84 faculty development budget was \$6000, over \$58,000 less than the year before. The budget decline forced the committee to reexamine its priorities. The committee had to decide if individual grant awards should be limited. In effect, the committee had to reflect on its definition of faculty development. When the committee voted to place a \$500 cap on individual projects with no more than \$200 going for travel to professional meetings,

they essentially said that faculty development at Southern Nazarene University no longer consists of large projects and professional travel, but rather smaller types of things that can be done with small amounts of money.

The decision to give many (more) small grants rather than a few large ones had a negative impact on the program. Many people did not participate because the grants were just too small. Several faculty members felt that the small grants were an insult - "the result of small minds working with small budgets" (Faculty #58, personal interview, 21 July 1986). Other faculty leaders did not participate so that "others could get a chance at the money" (Faculty #31, personal interview, 25 July 1986). While a noble gesture, it sent the wrong message to several young faculty members. "If they weren't interested in the program, then neither was I" (Faculty #16, personal interview, 23 July 1986). Even though the intent of the faculty development committee was to insure greater participation by giving many small grants, the result of the policy was that many interested faculty did not apply.

The funding cap also had two other side effects. First, less creative projects were submitted. Most requests were simply requests for travel support to professional meetings. The other side effect was a growing frustration with the paperwork - the personal profiles and growth plans. Many faculty members felt that it was "too

much work for too little money" (Faculty #17, personal interview, 25 July 1986).

General Program Comments

Before listing some general recommendations for developing a successful growth contracting program, several observations about the growth contracting program at Southern Nazarene University are in order. First, not everyone participated in the faculty development program, and only two faculty members participated every year. Some were too busy, and some did not care for a faculty development program run by peers. Some wanted to do things not allowed by the faculty development committee, and others did not like the paperwork. Still others felt that with such small amounts of money involved, it was just a big game. The faculty development committee wanted to get as many faculty involved as possible. Considering the variety of reasons for non-participation, a participation rate of 60% - 88% for "high infusion years" is commendable. On the other hand, during the low budget years, it probably would have been better to fund fewer, but larger grants on some type of a rotating basis.

The growth planning process at Southern Nazarene University was primarily an individual affair. While corporate and small group activities were not excluded from the program, the primary focus of the program was on

individual growth. It would have been interesting to see what would have happened if the faculty development committee had placed a high priority on personal proposals which brought groups of faculty together to pursue departmental and institutional priorities.

Another observation is that the ongoing evaluations of funded activities as well as of the faculty development program in general were weak. Faculty members were required to submit annual evaluation reports to the faculty development committee, but this was rarely done - and there were no penalties for failing to do so. When evaluation reports were submitted, they were simply filed in the faculty member's faculty development file. In addition, the faculty development program was only evaluated once during the five years of the study. While it was a very good study, there were no other studies available to provide comparative data to assist in the analysis of significant trends or changes in faculty attitudes, participation, or the content of growth plans.

Finally, while the growth contracting program was designed to meet the needs of faculty at all stages in their career, the priorities set by the faculty development committee seemed to favor mid-career faculty members. Most younger faculty members wanted support in their pursuit of terminal degrees, but this activity was excluded from the "fundable activities" list. On the other hand, several

older faculty members were interested in retooling for other disciplines and for other types of occupations. These activities were also "not fundable." While many activities were excluded during periods of limited support with reason, it seems that during periods of heavy financial support, activities benefiting both the individual faculty member and the institution could have received a higher priority without changing the essential thrust of the program.

Recommendations

The following recommendations are offered as guidelines for the successful implementation of a growth contracting program at a small college or university:

Be sure that faculty development guidelines reflect current institutional goals and needs. Faculty members should design growth plans with both the individual and the institution in mind. Faculty need to have the freedom to pursue many goals, but faculty development programs that do not meet institutional goals and needs will enjoy only limited administrative support and a relatively short future.

Be sure to reach a faculty consensus concerning the definition of faculty development at your institution. Faculty development can mean many different things to many different people. Faculty become frustrated when they do not feel that the faculty development program is responsive

to their needs. Often, they have a completely different conception of what faculty development is supposed to be. Some time spent early on in making sure that there is a basic understanding of the definition, institutional philosophy, and operationalization of the term faculty development can pay huge dividends later on.

Recognize that not everyone will (or should) participate in the program at any one time. Programs designed to "get everyone involved" will be frustrating, waste money, and ultimately fail. Concentrate your efforts on those who can and will work to improve.

Put enough money into the program to make it productive, but do not think that money alone is enough. For a college with a \$5,000,000 budget, it is reasonable for the institution to allocate \$50,000 (1%) for faculty development. The results of this study indicate that the performance of the program is much greater at this level of support. It is also important, however, to set program priorities wisely. This study also found that at higher levels of funding, other factors such as the choice of faculty development activities greatly influence the performance of the program.

Do not attempt to spread the funds too thin. It is better to give a few large grants to those who will use it on a rotating basis than to give a little to everyone each year. Make sure that faculty members receive enough

support to pursue projects that are worth doing.

Make sure that the faculty development fund does not supplant other institutional funds. Faculty development funds should not be used to supply instructional supplies and materials. A distinction should also be made between travel to professional meetings and travel for the purpose of faculty development. Both are worthwhile and should be supported by the institution, but clear distinctions should be made between what is budgeted through the department as a regular part of the department's budget and what is specifically set aside for faculty development activities.

Allow for the developmental needs of all faculty. Faculty development programs should serve the needs of all faculty. Growth contracting has the capability of doing so, but you must be careful that the funding priorities set by the faculty development committee do not unintentionally limit the scope of the program.

Encourage corporate activity. The focus of growth contracting is personal growth, but that does not mean that it must be achieved in a vacuum. Joint projects can be very rewarding, and dramatic results can often be achieved with less resources.

Keep paperwork to a minimum. It is important to maintain proper records, but make sure that all forms are as simple as possible and serve a real purpose. Too much paperwork and red tape can be a formidable deterrent to

faculty participation.

Good communication is a must. This goes far beyond keeping faculty informed as to the deadlines for the submission of proposals. In particular, newer faculty members need to know what the faculty development committee is thinking and doing. It would also be a mistake to assume that the divisional representatives to the faculty development committee will keep all faculty members informed about the program.

Evaluate the program. Faculty evaluate students and programs all the time. It is not unreasonable for the institution to expect a thoughtful evaluation of the program on a regular basis. The faculty development committee should also have a means of evaluating the activities of all grant participants.

Share the results. Keep the program in front of the faculty and administration. Let people know the good things that are going on. It will serve to motivate others to get involved, and maintain support for the program. Results of the program evaluations should also be shared with the faculty on a regular basis.

Summary

A review of the literature on faculty development indicated that interest in the faculty development movement has diminished, that faculty development in the small

college is needed now more than at any other time in recent history, and that we really do not know much about faculty development programs in the small college, especially growth contracting programs - a promising faculty development activity. The review also revealed no formal studies of growth contracting programs at varying levels of financial support.

The study sought to answer the following question, "What is the relationship between the levels of financial support and the performance of a growth contracting program?" More specifically, this study sought to determine the impact of varying levels of funding (both aggregate program financial support and individual faculty financial support) and selected indicators of program performance (participation, participant satisfaction, impact upon the faculty, and impact upon the institution) for a small college growth contracting program.

The study employed an embedded, single-case design. Twelve research questions were formulated to guide the investigation of Southern Nazarene University's growth contracting program between 1979 and 1984. This was an ideal case for examination because of the program's funding pattern during the time period proposed for study. The essential organization, operation, and administration of the program did not change during the five years, but the aggregate funding levels changed dramatically.

In order to provide multi-source data, three methods were used to gather data from over fifteen sources for this study: (1) review and examination of program documentation and related institutional records; (2) evaluation and assessment of all participants' growth plans and evaluation reports; and (3) in-depth interviews with sixty-three faculty participants, four nonparticipants, the Academic Dean, the chairman of the faculty development committee, and seven academic division heads.

The general analytic strategy was to develop a "descriptive framework" for organizing the case study. Within this descriptive framework, four primary modes of analysis were employed: pattern description and analysis, time-series analysis, the analysis of embedded units (organizational subunits), and explanation development.

The following general conclusions were drawn from the results of the study. There is a high, positive relationship between substantial increases and decreases in the SNU growth contracting program's annual budget and each of the four dependent variables - participation, participant satisfaction, impact upon the faculty, and impact upon the institution. At higher levels of support, however, the relationship is not as direct and is influenced by other factors such as the choice of activities to pursue and the degree of accomplishment of proposed activities. There is also a marked to high

positive relationship between the amount of individual financial support and the four dependent variables. At high levels of financial support (in excess of \$1000), the relationship is also influenced by the nature of activities selected by participants, the degree of project accomplishment, and the size and scope of proposed activities.

The study concluded with the following recommendations: (1) be sure that program priorities reflect institutional goals and needs, (2) recognize that not everyone will participate every year, (3) be sure to put enough money into the program to permit it to be successful, but do not think that money alone is enough, (4) do not spread the funds too thin, (5) be careful not to supplant institutional funds, (6) allow for the developmental needs of all faculty members, (7) be sure to seek a faculty consensus about the definition of faculty development on the campus, (8) encourage corporate activity, (9) reduce paperwork to a bare minimum, (10) maintain open communication with the faculty, (11) share program results, and (12) evaluate the program.

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Personal Interviews

Institutional Personnel

Academic Dean. 21 July 1986.

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University President. 23 July 1986.

Provost and early faculty development participant. 23 July
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Faculty Development Coordinator 1980 - 82. 22 May 1986.

Chairman of Ten Year Advance Study Team. 3 August 1986.

Member of first Faculty Proposal Evaluation Committee. 28
August 1986.

Faculty Development Committee Chairman 1979 - 1983. 28
August 1986.

Director of Institutional Research. 22 May 1986.

Faculty Development Committee Chairman 1983 - 84. 7 August
1986.

Division Chairman

Religion and Philosophy. 5 August 1986.

Natural Science. 8 August 1986.

Social and Behavioral Science. 7 August 1986.

Language, Literature, and Speech Communication. 28 August
1986.

Fine Arts. 29 August 1986.

Teacher Education. 29 August 1986.

Business Administration. 6 Aug 1986.

Faculty Participants

In all, sixty-three faculty participants were interviewed. Three participants were out of the country and could not be reached. Since the participants were guaranteed anonymity, a random number between 1 and 66 was assigned to each faculty participant. In the study, all participants are referred to by number only. Faculty interviews were conducted between 3 July and 29 August, 1986.

Faculty Non-Participants

Four in-depth, personal interviews were also conducted with faculty members who did not participate in the faculty development program. These four were selected at random from a total of seven, and were assigned random numbers between 67 and 70.

APPENDICES

APPENDIX A

Interview Outline

I am gathering information on the S.N.U. growth contracting program from 1979 to 1984. This information will help me with an evaluation of the success of the program at varying levels of funding. This interview is part of my dissertation research and is not an evaluation of the Title III program on campus. Your responses will be kept strictly confidential.

First, I would like to verify some general information about your participation in the S.N.U. growth contracting program:

1. My records indicate that you filed a growth plan in the following year(s): _____ .
Is this information correct?
2. Your growth plan activities for _____ (yr) were as follows: _____. Is this information correct?
3. At that time, you held the academic rank of _____ ; you had been a member of the faculty for _____ years; and you were a member of the _____ division.
Is this information correct?

Now, I would like to ask you some questions about your participation in the _____ program year.

[Before this question is answered by multi-year participants, have them rank-order the productivity of the various years]

4. How productive was your involvement in the program?
Please use the following five-point scale:
1 2 3 4 5
(Mininally Productive ----- Very Productive)
5. As a result of your participation in the growth contracting program, did you learn more about how

students learn in your discipline, study a new teaching area, or learn more about your own discipline?
If yes, please explain.

6. Did your participation result in the acquisition of any new teaching skills? If so, please specify.
7. As a result of your participation, did you develop or revise any of courses? If yes, please elaborate.
8. Did the growth contracting program motivate you to try something new, to complete a project that had been put off, or to become more active in campus affairs?
Please explain.
9. In your opinion, did participation by the faculty in the growth contracting program change the norms about teaching in the college with regard to any of the following: amount of student writing, amount of student advising, use of student evaluations, or general level of expectations? Why was that so? Please cite examples.
10. Did your participation in the growth contracting program result in the development, revision, or elimination of any academic programs? If yes, please explain.
11. As a result of your growth plan activities, were there any improvements in communication within or among departments? For example, did you feel you could communicate more freely with your colleagues, obtain more information about departmental affairs, receive more accurate institutional information, or develop a stronger feeling of community? Why was that so?

[Before this next question is answered by multi-year participants, have them rank-order the different years as to their levels of satisfaction]

12. How satisfied were you with the _____ (yr) growth contracting program? Please use the following scale.
1 2 3 4 5
(Minimally Satisfied ----- Very Satisfied)

(Repeat questions 2 - 12 for each year of participation in the growth contracting program)

Now, some general questions about growth contracting:

13. Would you be more willing to participate in a growth contracting program with a \$100,000 budget than in a program with a \$5000 budget? Please explain.
14. What is the minimum amount of money you would consider to be adequate for an individual growth contract award? Please explain your answer.
15. If your growth contract award was doubled - say from \$2000 to \$4000, would you be more likely to include new activities in your growth plan or redouble your efforts on currently proposed activities? Why?
16. After three years of substantial funding, the S.N.U. growth contracting budget returned to its original budget of \$5000 in 1983. Are you aware of any impact - either positive or negative - of this drop in funding?
17. Why did some of your colleagues choose to not participate in the program?
18. How many dollars would be required to insure an effective growth contracting program for a faculty of 50? Please explain.
19. Were there other significant outcomes of the growth contracting program that we have not yet discussed?
20. What factors other than the level of financial support impact the success of a growth contracting program?

APPENDIX B
Final Report Evaluation Form
Academic Year _____

Faculty # _____

Incidence

I. Impact upon Faculty

X

A. Increases in Cognitive Learning

- | | |
|-------------------------------------|---|
| 1. on how students learn | X |
| 2. knowledge of a new teaching area | X |
| 3. scholarly competence | X |

B. Changes in Teaching

- | | |
|----------------------------------|---|
| 1. acquiring new teaching skills | X |
| 2. developing/revising courses | X |

C. Increases in Motivation

- | | |
|---|---|
| 1. to try something new | X |
| 2. to complete a postponed project | X |
| 3. to become more involved in
campus affairs | X |

II. Impact upon the Institution

X

A. Changes in Norms about Teaching

- | | |
|-------------------------------|---|
| 1. amount of student writing | X |
| 2. amount of student advising | X |
| 3. use of student evaluations | X |
| 4. level of expectations | X |

B. Curricular Changes

- | | |
|-------------------------------|---|
| 1. new programs | X |
| 2. revised/refocused programs | X |
| 3. eliminated programs | X |

C. Communication Within & Among Departments

- | | |
|---------------------------------------|---|
| 1. increased freedom to communicate | X |
| 2. increased departmental information | X |
| 3. accurate institutional information | X |
| 4. increased feeling of community | X |

III. Participant Satisfaction

X

APPENDIX C
Case Study Data Base

Faculty Number: 01

AGE GROUP: 2 DIV: 6 SEX: 1 RANK: 1

FACULTY TOTAL: 2541

79-80:	XTRAV:	320	SUP:	INST:	RES:	CE:	OTH:	TOT:	320						
80-81:	XTRAV:	725	SUP:	INST:	RES:	CE:	OTH:	TOT:	725						
81-82:	XTRAV:		SUP:	96	INST:	RES:	CE:	1400OTH:	TOT:	1496					
82-83:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
83-84:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
79-80:	X	I/a:	1	I/b:	0	I/c:	1	II/a:	0	II/b:	1	II/c:	0	III:	5
80-81:	X	I/a:	2	I/b:	2	I/c:	1	II/a:	0	II/b:	1	II/c:	0	III:	5
81-82:	X	I/a:	2	I/b:	1	I/c:	1	II/a:	0	II/b:	1	II/c:	2	III:	5
82-83:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	
83-84:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	

TT: 1045

TI:

TC: 1400

TS: 96

TR:

TD:

Faculty Number: 02

AGE GROUP: 1 DIV: 4 SEX: 1 RANK: 1

FACULTY TOTAL: 200

79-80:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
80-81:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
81-82:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
82-83:	XTRAV:	200	SUP:	INST:	RES:	CE:	OTH:	TOT:	200						
83-84:	TRAV:		SUP:	INST:	RES:	CE:	OTH:	TOT:							
79-80:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	
80-81:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	
81-82:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	
82-83:	X	I/a:	1	I/b:	1	I/c:	1	II/a:	0	II/b:	0	II/c:	2	III:	3
83-84:		I/a:		I/b:		I/c:		II/a:		II/b:		II/c:		III:	

TT: 200

TI:

TC:

TS:

TR:

TD:

Faculty Number: 03
 AGE GROUP: 3 DIV: 3 SEX: 1 RANK: 3
 FACULTY TOTAL: 1577
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 594 SUP: INST: RES: CE: OTH: TOT: 594
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 858 SUP: 125 INST: RES: CE: OTH: TOT: 983
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 1 II/c: 2 III: 5
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 5
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1452 TS: 125
 TI: TR:
 TC: TO:

Faculty Number: 04
 AGE GROUP: 3 DIV: 2 SEX: 2 RANK: 2
 FACULTY TOTAL: 1480
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 275 SUP: INST: RES: CE: OTH: TOT: 275
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 1105 SUP: 100 INST: RES: CE: OTH: TOT: 1205
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 1 II/c: 1 III: 5
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 1 II/c: 1 III: 4
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1380 TS: 100
 TI: TR:
 TC: TO:

Faculty Number: 05

AGE GROUP: 3 DIV: 3 SEX: 1 RANK: 2

FACULTY TOTAL: 6027

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 564	SUP: 270	INST:	RES:	CE:	OTH:	TOT: 834
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV: 1036	SUP: 2744	INST: 1173	RES:	CE:	OTH:	TOT: 4953
83-84:	XTRAV:	SUP: 240	INST:	RES:	CE:	OTH:	TOT: 240
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 1	III: 5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 1	II/c: 1	III: 4
83-84:	X I/a: 0	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 4
TT:	1600			TS:	3254		
TI:	1173			TR:			
TC:				TO:			

Faculty Number: 06

AGE GROUP: 1 DIV: 6 SEX: 1 RANK: 1

FACULTY TOTAL: 2605

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 161	SUP: 719	INST:	RES:	CE:	OTH:	TOT: 880
81-82:	XTRAV: 400	SUP: 200	INST:	RES:	CE:	OTH:	TOT: 600
82-83:	XTRAV: 925	SUP: 200	INST:	RES:	CE:	OTH:	TOT: 1125
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 1	I/c: 0	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 4
82-83:	X I/a: 2	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 2	III: 5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	1486			TS:	1119		
TI:				TR:			
TC:				TO:			

Faculty Number: 07
 AGE GROUP: 3 DIV: 3 SEX: 1 RANK: 2
 FACULTY TOTAL: 389

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
80-81:	XTRAV:	389	SUP:	INST:	RES:	CE:	OTH:	TOT: 389
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 389
 TI:
 TC:

TS:
 TR:
 TO:

Faculty Number: 08
 AGE GROUP: 2 DIV: 2 SEX: 1 RANK: 1
 FACULTY TOTAL: 3540

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
80-81:	XTRAV:	65	SUP: 300	INST:	RES: 1376	CE:	OTH:	TOT: 1741
81-82:	XTRAV:	SUP: 700	INST: 500	RES:	CE: 599	OTH:	TOT: 1799	
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 2	III: 5
81-82:	X I/a: 2	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 3	III: 5
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 65
 TI: 500
 TC: 599

TS: 1000
 TR: 1376
 TO:

Faculty Number: 09

AGE GROUP: 2 DIV: 7 SEX: 2 RANK: 2

FACULTY TOTAL: 248

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 248	SUP:	INST:	RES:	CE:	OTH:	TOT: 248
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 3
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	248			TS:			
TI:				TR:			
TC:				TD:			

Faculty Number: 10

AGE GROUP: 4 DIV: 6 SEX: 1 RANK: 3

FACULTY TOTAL: 500

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV:	SUP: 500	INST:	RES:	CE:	OTH:	TOT: 500
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 2	I/c: 2	II/a: 0	II/b: 0	II/c: 1	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:				TS: 500			
TI:				TR:			
TC:				TD:			

Faculty Number: 11
 AGE GROUP: 2 DIV: 3 SEX: 2 RANK: 2
 FACULTY TOTAL: 1100
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: XTRAV: 400 SUP: 200 INST: RES: CE: OTH: TOT: 600
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: XTRAV: 500 SUP: INST: RES: CE: OTH: TOT: 500
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: X I/a: 1 I/b: 1 I/c: 0 II/a: 0 II/b: 0 II/c: 1 III: 3
 TT: 900 TS: 200
 TI: TR:
 TC: TO:

Faculty Number: 12
 AGE GROUP: 2 DIV: 7 SEX: 2 RANK: 3
 FACULTY TOTAL: 3485
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: SUP: 1501 INST: RES: 1251 CE: OTH: TOT: 2752
 83-84: XTRAV: 500 SUP: INST: RES: CE: 233 OTH: TOT: 733
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 1 II/c: 3 III: 5
 83-84: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 1 II/c: 2 III: 4
 TT: 500 TS: 1501
 TI: TR: 1251
 TC: 233 TO:

Faculty Number: 13

AGE GROUP: 3 DIV: 4 SEX: 2 RANK: 3

FACULTY TOTAL: 1085

79-80: XTRAV: SUP: INST: RES: CE: 500 OTH: TOT: 500

80-81: XTRAV: 585 SUP: INST: RES: CE: OTH: TOT: 585

81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:

82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4

80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 4

81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:

82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT: 585

TI:

TC: 500

TS:

TR:

TD:

Faculty Number: 14

AGE GROUP: 3 DIV: 6 SEX: 1 RANK: 1

FACULTY TOTAL: 1996

79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:

80-81: XTRAV: SUP: 200 INST: 1796 RES: CE: OTH: TOT: 1996

81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:

82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:

80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4

81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:

82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT:

TI: 1796

TC:

TS: 200

TR:

TD:

Faculty Number: 15

AGE GROUP: 3 DIV: 7 SEX: 2 RANK: 4

FACULTY TOTAL: 801

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 216	SUP: 460	INST:	RES:	CE:	OTH:	TOT: 676
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	XTRAV: 125	SUP:	INST:	RES:	CE:	OTH:	TOT: 125
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
TT:	341			TS: 460			
TI:				TR:			
TC:				TO:			

Faculty Number: 16

AGE GROUP: 3 DIV: 4 SEX: 2 RANK: 2

FACULTY TOTAL: 1140

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 340	SUP:	INST:	RES:	CE:	OTH:	TOT: 340
81-82:	XTRAV: 800	SUP:	INST:	RES:	CE:	OTH:	TOT: 800
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	X I/a: 2	I/b: 2	I/c: 1	II/a: 1	II/b: 1	II/c: 3	III: 4
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	1140			TS:			
TI:				TR:			
TC:				TO:			

Faculty Number: 17

AGE GROUP: 1 DIV: 2 SEX: 2 RANK: 2

FACULTY TOTAL: 559

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 559	SUP:	INST:	RES:	CE:	OTH:	TOT: 559
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 0	II/a: 0	II/b: 0	II/c: 1	III: 3
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	559			TS:			
TI:				TR:			
TC:				TO:			

Faculty Number: 18

AGE GROUP: 2 DIV: 4 SEX: 1 RANK: 1

FACULTY TOTAL: 1819

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 320	SUP:	INST:	RES:	CE:	OTH:	TOT: 320
81-82:	XTRAV: 400	SUP:	INST: 800	RES:	CE:	OTH:	TOT: 1200
82-83:	XTRAV: 299	SUP:	INST:	RES:	CE:	OTH:	TOT: 299
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	X I/a: 2	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 3	III: 5
82-83:	X I/a: 1	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 4
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	1019			TS:			
TI:	800			TR:			
TC:				TO:			

Faculty Number: 19

AGE GROUP: 3 DIV: 5 SEX: 1 RANK: 4

FACULTY TOTAL: 594

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 594	SUP:	INST:	RES:	CE:	OTH:	TOT: 594
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	594			TS:			
TI:				TR:			
TC:				TO:			

Faculty Number: 20

AGE GROUP: 3 DIV: 2 SEX: 2 RANK: 3

FACULTY TOTAL: 400

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 400	SUP:	INST:	RES:	CE:	OTH:	TOT: 400
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	400			TS:			
TI:				TR:			
TC:				TO:			

Faculty Number: 21

AGE GROUP: 4 DIV: 7 SEX: 2 RANK: 4

FACULTY TOTAL: 1763

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 263	SUP: 600	INST:	RES:	CE:	OTH:	TOT: 863
81-82:	XTRAV:	SUP: 900	INST:	RES:	CE:	OTH:	TOT: 900
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 3	III: 3
81-82:	X I/a: 2	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 3	III: 3
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	263			TS: 1500			
TI:				TR:			
TC:				TD:			

Faculty Number: 22

AGE GROUP: 2 DIV: 7 SEX: 2 RANK: 2

FACULTY TOTAL: 6680

79-80:	XTRAV:	SUP:	INST:	RES: 500	CE:	OTH:	TOT: 500
80-81:	XTRAV: 248	SUP: 400	INST:	RES:	CE:	OTH: 2061	TOT: 2709
81-82:	XTRAV:	SUP:	INST:	RES: 1138	CE:	OTH:	TOT: 1138
82-83:	XTRAV: 1100	SUP:	INST:	RES: 1233	CE:	OTH:	TOT: 2333
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 0	III: 3
80-81:	X I/a: 1	I/b: 0	I/c: 2	II/a: 0	II/b: 0	II/c: 2	III: 5
81-82:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
82-83:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	1348			TS: 400			
TI:				TR: 2871			
TC:				TD: 2061			

Faculty Number: 23
 AGE GROUP: 2 DIV: 7 SEX: 2 RANK: 1
 FACULTY TOTAL: 297
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 297 SUP: INST: RES: CE: OTH: TOT: 297
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 0 I/c: 0 II/a: 0 II/b: 0 II/c: 2 III: 3
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 297 TS:
 TI: TR:
 TC: TO:

Faculty Number: 24
 AGE GROUP: 3 DIV: 6 SEX: 1 RANK: 3
 FACULTY TOTAL: 330
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 330 SUP: INST: RES: CE: OTH: TOT: 330
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 2 I/b: 1 I/c: 2 II/a: 0 II/b: 0 II/c: 3 III: 5
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 330 TS:
 TI: TR:
 TC: TO:

Faculty Number: 25

AGE GROUP: 3 DIV: 7 SEX: 2 RANK: 2

FACULTY TOTAL: 700

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV:	SUP: 300	INST:	RES:	CE:	OTH:	TOT: 300
81-82:	XTRAV: 400	SUP:	INST:	RES:	CE:	OTH:	TOT: 400
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 0	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 0	III: 3
81-82:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 0	III: 4
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	400			TS:	300		
TI:				TR:			
TC:				TO:			

Faculty Number: 26

AGE GROUP: 3 DIV: 4 SEX: 2 RANK: 4

FACULTY TOTAL: 3320

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV:	SUP: 200	INST:	RES:	CE:	OTH:	TOT: 200
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV:	SUP: 25	INST:	RES: 2720	CE:	OTH:	TOT: 2745
83-84:	XTRAV: 375	SUP:	INST:	RES:	CE:	OTH:	TOT: 375
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 0	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 3
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 1	I/b: 0	I/c: 2	II/a: 0	II/b: 0	II/c: 3	III: 5
83-84:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 3
TT:	375			TS:	225		
TI:				TR:	2720		
TC:				TO:			

Faculty Number: 27
 AGE GROUP: 4 DIV: 6 SEX: 1 RANK: 3
 FACULTY TOTAL: 7761
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 543 SUP: 375 INST: 1997 RES: CE: OTH: TOT: 2915
 81-82: XTRAV: SUP: 300 INST: 2158 RES: CE: OTH: TOT: 2458
 82-83: XTRAV: SUP: 305 INST: 1748 RES: CE: OTH: TOT: 2053
 83-84: XTRAV: SUP: 335 INST: RES: CE: OTH: TOT: 335
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 1 II/b: 1 II/c: 4 III: 5
 81-82: X I/a: 2 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 83-84: X I/a: 0 I/b: 2 I/c: 0 II/a: 0 II/b: 0 II/c: 2 III: 4
 TT: 543 TS: 1315
 TI: 5903 TR:
 TC: TO:

Faculty Number: 28
 AGE GROUP: 3 DIV: 6 SEX: 2 RANK: 4
 FACULTY TOTAL: 4125
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 870 SUP: 205 INST: RES: CE: OTH: 1693 TOT: 2768
 81-82: XTRAV: 400 SUP: 23 INST: RES: CE: OTH: TOT: 423
 82-83: XTRAV: 929 SUP: 5 INST: RES: CE: OTH: TOT: 934
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 1 II/c: 4 III: 5
 81-82: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 5
 82-83: X I/a: 1 I/b: 1 I/c: 1 II/a: 2 II/b: 0 II/c: 2 III: 5
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 2199 TS: 233
 TI: TR:
 TC: TO: 1693

Faculty Number: 29
 AGE GROUP: 3 DIV: 4 SEX: 2 RANK: 4
 FACULTY TOTAL: 1335

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 585	SUP:	INST:	RES:	CE:	OTH:	TOT: 585
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV: 750	SUP:	INST:	RES:	CE:	OTH:	TOT: 750
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 3	III: 5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 1	I/b: 2	I/c: 2	II/a: 1	II/b: 0	II/c: 3	III: 4
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 1335 TS:
 TI: TR:
 TC: TO:

Faculty Number: 30
 AGE GROUP: 1 DIV: 3 SEX: 2 RANK: 1
 FACULTY TOTAL: 1325

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV: 1300	SUP: 25	INST:	RES:	CE:	OTH:	TOT: 1325
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 3	III: 5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 1300 TS: 25
 TI: TR:
 TC: TO:

Faculty Number: 31
 AGE GROUP: 3 DIV: 5 SEX: 2 RANK: 4
 FACULTY TOTAL: 10728
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: SUP: 300 INST: 2417 RES: CE: OTH: TOT: 2717
 81-82: XTRAV: 150 SUP: 360 INST: RES: 1960 CE: OTH: TOT: 2470
 82-83: XTRAV: 720 SUP: 2000 INST: 2821 RES: CE: OTH: TOT: 5541
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 2 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 81-82: X I/a: 2 I/b: 1 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 4
 82-83: X I/a: 3 I/b: 1 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 4
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 870 TS: 2660
 TI: 5238 TR: 1960
 TC: TO:

Faculty Number: 32
 AGE GROUP: 2 DIV: 4 SEX: 1 RANK: 1
 FACULTY TOTAL: 195
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 195 SUP: INST: RES: CE: OTH: TOT: 195
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 1 II/c: 3 III: 5
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 195 TS:
 TI: TR:
 TC: TO:

Faculty Number: 33

AGE GROUP: 2 DIV: 6 SEX: 1 RANK: 1

FACULTY TOTAL: 400

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
81-82:	XTRAV: 400	SUP:	INST:	RES:	CE:	OTH:	TOT: 400
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
81-82:	X I/a: 2	I/b: 2	I/c: 1	II/a: 3	II/b: 1	II/c: 3	III: 5
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 400

TI:

TC:

TS:

TR:

TD:

Faculty Number: 34

AGE GROUP: 3 DIV: 3 SEX: 1 RANK: 1

FACULTY TOTAL: 2251

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
81-82:	XTRAV: 857	SUP:	INST:	RES:	CE:	OTH:	TOT: 857
82-83:	XTRAV: 674	SUP: 720	INST:	RES:	CE:	OTH:	TOT: 1394
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
81-82:	X I/a: 2	I/b: 1	I/c: 1	II/a: 1	II/b: 1	II/c: 3	III: 5
82-83:	X I/a: 3	I/b: 1	I/c: 1	II/a: 1	II/b: 1	II/c: 3	III: 5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 1531

TI:

TC:

TS: 720

TR:

TD:

Faculty Number: 35
 AGE GROUP: 2 DIV: 1 SEX: 2 RANK: 2
 FACULTY TOTAL: 2969
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 442 SUP: INST: RES: CE: OTH: TOT: 442
 81-82: XTRAV: 400 SUP: INST: RES: CE: OTH: TOT: 400
 82-83: XTRAV: SUP: INST: RES: 1000CE: 902 OTH: TOT: 1902
 83-84: XTRAV: 225 SUP: INST: RES: CE: OTH: TOT: 225
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 1 III: 5
 81-82: X I/a: 1 I/b: 0 I/c: 0 II/a: 0 II/b: 0 II/c: 1 III: 3
 82-83: X I/a: 1 I/b: 2 I/c: 2 II/a: 1 II/b: 0 II/c: 3 III: 5
 83-84: X I/a: 1 I/b: 0 I/c: 0 II/a: 0 II/b: 0 II/c: 1 III: 3
 TT: 1067 TS:
 TI: TR: 1000
 TC: 902 TO:

Faculty Number: 36
 AGE GROUP: 2 DIV: 2 SEX: 2 RANK: 3
 FACULTY TOTAL: 8816
 79-80: XTRAV: 275 SUP: INST: RES: CE: OTH: TOT: 275
 80-81: XTRAV: 941 SUP: 737 INST: 1592RES: CE: OTH: TOT: 3270
 81-82: XTRAV: SUP: 1200INST: RES: CE: 1153OTH: TOT: 2353
 82-83: XTRAV: 250 SUP: 800 INST: 968 RES: 900 CE: OTH: TOT: 2918
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 80-81: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 5
 81-82: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4
 82-83: X I/a: 0 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 5
 83-84: -I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1466 TS: 2737
 TI: 2560 TR: 900
 TC: 1153 TO:

Faculty Number: 37
 AGE GROUP: 2 DIV: 1 SEX: 2 RANK: 1
 FACULTY TOTAL: 510
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: XTRAV: 400 SUP: 110 INST: RES: CE: OTH: TOT: 510
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: X I/a: 2 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 400 TS: 110
 TI: TR:
 TC: TO:

Faculty Number: 38
 AGE GROUP: 3 DIV: 6 SEX: 1 RANK: 2
 FACULTY TOTAL: 2528
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 900 SUP: 160 INST: 988 RES: CE: OTH: TOT: 2048
 83-84: XTRAV: SUP: INST: 480 RES: CE: OTH: TOT: 480
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 2 II/b: 0 II/c: 3 III: 5
 83-84: X I/a: 2 I/b: 2 I/c: 2 II/a: 2 II/b: 0 II/c: 4 III: 4
 TT: 900 TS: 160
 TI: 1468 TR:
 TC: TO:

Faculty Number: 39

AGE GROUP: 2 DIV: 1 SEX: 1 RANK: 2

FACULTY TOTAL: 6193

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 1132	SUP: 919	INST:	RES:	CE:	OTH:	TOT: 2051
81-82:	XTRAV: 1736	SUP: 225	INST:	RES:	CE:	OTH:	TOT: 1961
82-83:	XTRAV: 1442	SUP: 525	INST:	RES:	CE:	OTH:	TOT: 1967
83-84:	XTRAV:	SUP: 214	INST:	RES:	CE:	OTH:	TOT: 214

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 0	III: 5
81-82:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 0	III: 5
82-83:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 0	III: 5
83-84:	X I/a: 1	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 0	III: 4

TT: 4310

TS: 1883

TI:

TR:

TC:

TO:

Faculty Number: 40

AGE GROUP: 3 DIV: 6 SEX: 2 RANK: 4

FACULTY TOTAL: 6844

79-80:	XTRAV: 300	SUP:	INST:	RES:	CE:	OTH:	TOT: 300
80-81:	XTRAV: 700	SUP: 300	INST:	RES:	CE: 608	OTH:	TOT: 1608
81-82:	XTRAV: 500	SUP: 1900	INST:	RES:	CE: 100	OTH:	TOT: 2500
82-83:	XTRAV: 1636	SUP: 465	INST:	RES:	CE:	OTH:	TOT: 2101
83-84:	XTRAV:	SUP: 335	INST:	RES:	CE:	OTH:	TOT: 335

79-80:	X I/a: 0	I/b: 0	I/c: 2	II/a: 0	II/b: 0	II/c: 3	III: 4
80-81:	X I/a: 1	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 2	III: 5
81-82:	X I/a: 1	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 2	III: 5
82-83:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 5
83-84:	X I/a: 0	I/b: 1	I/c: 1	II/a: 1	II/b: 0	II/c: 1	III: 4

TT: 3136

TS: 3000

TI:

TR:

TC: 708

TO:

Faculty Number: 41

AGE GROUP: 2 DIV: 2 SEX: 1 RANK: 1

FACULTY TOTAL: 85

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 85	SUP:	INST:	RES:	CE:	OTH:	TOT: 85
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 0	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 3
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 85

TI:

TC:

TS:

TR:

TO:

Faculty Number: 42

AGE GROUP: 3 DIV: 3 SEX: 2 RANK: 3

FACULTY TOTAL: 620

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 620	SUP:	INST:	RES:	CE:	OTH:	TOT: 620
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 2	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 620

TI:

TC:

TS:

TR:

TO:

Faculty Number: 43
 AGE GROUP: 3 DIV: 1 SEX: 2 RANK: 3
 FACULTY TOTAL: 2118
 79-80: XTRAV: 150 SUP: INST: RES: CE: OTH: TOT: 150
 80-81: XTRAV: 488 SUP: INST: RES: CE: OTH: TOT: 488
 81-82: XTRAV: 480 SUP: 1000 INST: RES: CE: OTH: TOT: 1480
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 80-81: X I/a: 0 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 3
 81-82: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 4
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1418 TS: 1000
 TI: TR:
 TC: TO:

Faculty Number: 44
 AGE GROUP: 3 DIV: 3 SEX: 2 RANK: 4
 FACULTY TOTAL: 6440
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 1030 SUP: INST: RES: CE: OTH: TOT: 1030
 81-82: XTRAV: 608 SUP: 525 INST: RES: CE: OTH: TOT: 1133
 82-83: XTRAV: 1061 SUP: 500 INST: 1500 RES: CE: 1216 OTH: TOT: 4277
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 0 I/b: 1 I/c: 0 II/a: 0 II/b: 0 II/c: 2 III: 4
 81-82: X I/a: 1 I/b: 1 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 4
 82-83: X I/a: 2 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 2699 TS: 1025
 TI: 1500 TR:
 TC: 1216 TO:

Faculty Number: 45

AGE GROUP: 2 DIV: 4 SEX: 2 RANK: 1

FACULTY TOTAL:

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT:

TI:

TC:

TS:

TR:

TO:

Faculty Number: 46

AGE GROUP: 3 DIV: 4 SEX: 2 RANK: 4

FACULTY TOTAL: 4164

79-80:	XTRAV:	SUP:	INST:	RES:	CE:	400 OTH:	TOT:	400
80-81:	XTRAV:	540 SUP:	INST:	1000 RES:	CE:	637 OTH:	TOT:	2177
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
82-83:	XTRAV:	SUP:	300 INST:	RES:	1287 CE:	OTH:	TOT:	1587
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:	
79-80:	X I/a:	1 I/b:	1 I/c:	1 II/a:	0 II/b:	0 II/c:	3 III:	5
80-81:	X I/a:	2 I/b:	1 I/c:	1 II/a:	1 II/b:	0 II/c:	1 III:	5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:	
82-83:	X I/a:	1 I/b:	0 I/c:	1 II/a:	0 II/b:	0 II/c:	1 III:	5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:	

TT: 540

TI: 1000

TC: 1037

TS: 300

TR: 1287

TO:

Faculty Number: 47
 AGE GROUP: 3 DIV: 1 SEX: 2 RANK: 3
 FACULTY TOTAL: 7905
 79-80: XTRAV: 300 SUP: INST: RES: CE: OTH: TOT: 300
 80-81: XTRAV: 522 SUP: INST: RES: 1966 CE: OTH: TOT: 2488
 81-82: XTRAV: 360 SUP: 173 INST: 374 RES: CE: 1200 OTH: TOT: 2107
 82-83: XTRAV: 1628 SUP: 965 INST: RES: CE: OTH: TOT: 2593
 83-84: XTRAV: 417 SUP: INST: RES: CE: OTH: TOT: 417
 79-80: X I/a: 0 I/b: 0 I/c: 2 II/a: 0 II/b: 1 II/c: 2 III: 5
 80-81: X I/a: 2 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 81-82: X I/a: 3 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 3 III: 5
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 4
 83-84: X I/a: 2 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4
 TT: 3227 TS: 1138
 TI: 374 TR: 1966
 TC: 1200 TO:

Faculty Number: 48
 AGE GROUP: 1 DIV: 3 SEX: 2 RANK: 1
 FACULTY TOTAL: 783
 79-80: XTRAV: SUP: INST: 150 RES: CE: OTH: TOT: 150
 80-81: XTRAV: 633 SUP: INST: RES: CE: OTH: TOT: 633
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 0 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 0 III: 3
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 1 II/c: 2 III: 4
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 633 TS:
 TI: 150 TR:
 TC: TO:

Faculty Number: 49

AGE GROUP: 3 DIV: 2 SEX: 2 RANK: 4

FACULTY TOTAL: 8245

79-80: XTRAV: SUP: INST: 100 RES: CE: OTH: TOT: 100

80-81: XTRAV: 775 SUP: 25 INST: RES: CE: OTH: TOT: 800

81-82: XTRAV: 1144 SUP: 356 INST: RES: CE: 1945 OTH: TOT: 3445

82-83: XTRAV: 900 SUP: 200 INST: 2000 RES: CE: 800 OTH: TOT: 3900

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: X I/a: 0 I/b: 2 I/c: 0 II/a: 0 II/b: 0 II/c: 1 III: 3

80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4

81-82: X I/a: 2 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 5

82-83: X I/a: 2 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 5

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT: 2819 TS: 581

TI: 2100 TR:

TC: 2745 TO:

Faculty Number: 50

AGE GROUP: 1 DIV: 3 SEX: 1 RANK: 2

FACULTY TOTAL: 100

79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:

80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:

81-82: XTRAV: SUP: 100 INST: RES: CE: OTH: TOT: 100

82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:

80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:

81-82: X I/a: 0 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4

82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT: TS: 100

TI: TR:

TC: TO:

Faculty Number: 51
 AGE GROUP: 3 DIV: 7 SEX: 2 RANK: 4
 FACULTY TOTAL: 747
 79-80: XTRAV: SUP: INST: RES: 500 CE: OTH: TOT: 500
 80-81: XTRAV: 247 SUP: INST: RES: CE: OTH: TOT: 247
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 1 I/b: 0 I/c: 2 II/a: 0 II/b: 0 II/c: 2 III: 4
 80-81: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 247 TS:
 TI: TR: 500
 TC: TO:

Faculty Number: 52
 AGE GROUP: 4 DIV: 5 SEX: 2 RANK: 4
 FACULTY TOTAL: 400
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 400 SUP: INST: RES: CE: OTH: TOT: 400
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 400 TS:
 TI: TR:
 TC: TO:

Faculty Number: 53

AGE GROUP: 1 DIV: 6 SEX: 1 RANK: 2

FACULTY TOTAL: 1513

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 588	SUP:	INST:	RES:	CE:	OTH:	TOT: 588
81-82:	XTRAV: 925	SUP:	INST:	RES:	CE:	OTH:	TOT: 925
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 3	III: 4
81-82:	X I/a: 1	I/b: 0	I/c: 1	II/a: 1	II/b: 1	II/c: 3	III: 4
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 1513

TI:

TC:

TS:

TR:

TD:

Attachment:

Faculty Number: 54

AGE GROUP: 1 DIV: 7 SEX: 2 RANK: 2

FACULTY TOTAL: 1011

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 572	SUP:	INST:	RES:	CE:	OTH:	TOT: 572
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV: 439	SUP:	INST:	RES:	CE:	OTH:	TOT: 439
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 0	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 1011

TI:

TC:

TS:

TR:

TD:

Faculty Number: 55

AGE GROUP: 2 DIV: 5 SEX: 1 RANK: 4

FACULTY TOTAL: 1028

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 550	SUP:	INST:	RES:	CE:	OTH:	TOT: 550
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	XTRAV:	SUP: 93	INST:	RES:	CE:	OTH:	TOT: 93
83-84:	XTRAV: 385	SUP:	INST:	RES:	CE:	OTH:	TOT: 385

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 2	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 5
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	X I/a: 0	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 4
83-84:	X I/a: 1	I/b: 2	I/c: 0	II/a: 0	II/b: 0	II/c: 2	III: 5

TT: 935

TS: 93

TI:

TR:

TC:

TO:

Faculty Number: 56

AGE GROUP: 3 DIV: 5 SEX: 2 RANK: 4

FACULTY TOTAL: 395

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 395	SUP:	INST:	RES:	CE:	OTH:	TOT: 395
81-82:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
82-83:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:

79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 0	I/c: 1	II/a: 0	II/b: 0	II/c: 3	III: 4
81-82:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
82-83:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:

TT: 395

TS:

TI:

TR:

TC:

TO:

Faculty Number: 57
 AGE GROUP: 3 DIV: 1 SEX: 2 RANK: 2
 FACULTY TOTAL: 3756
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 328 SUP: INST: RES: CE: OTH: TOT: 328
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 1216 SUP: 212 INST: 760 RES: CE: 1000 OTH: TOT: 3188
 83-84: XTRAV: 240 SUP: INST: RES: CE: OTH: TOT: 240
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 1 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 5
 83-84: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4
 TT: 1784 TS: 212
 TI: 760 TR:
 TC: 1000 TO:

Faculty Number: 58
 AGE GROUP: 2 DIV: 4 SEX: 2 RANK: 4
 FACULTY TOTAL: 2786
 79-80: XTRAV: 210 SUP: INST: RES: CE: OTH: TOT: 210
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: XTRAV: SUP: INST: RES: 2426 CE: OTH: TOT: 2426
 82-83: XTRAV: SUP: 150 INST: RES: CE: OTH: TOT: 150
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: X I/a: 1 I/b: 0 I/c: 2 II/a: 0 II/b: 0 II/c: 3 III: 5
 82-83: X I/a: 0 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 210 TS: 150
 TI: TR: 2426
 TC: TO:

Faculty Number: 59
 AGE GROUP: 2 DIV: 3 SEX: 1 RANK: 1
 FACULTY TOTAL: 2784
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 1360 SUP: 1025 INST: RES: CE: OTH: TOT: 2385
 83-84: XTRAV: 399 SUP: INST: RES: CE: OTH: TOT: 399
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 2 I/b: 1 I/c: 1 II/a: 1 II/b: 0 II/c: 2 III: 5
 83-84: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 TT: 1759 TS: 1025
 TI: TR:
 TC: TO:

Faculty Number: 60
 AGE GROUP: 3 DIV: 4 SEX: 1 RANK: 2
 FACULTY TOTAL: 4205
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 612 SUP: 24 INST: 1718 RES: CE: OTH: TOT: 2354
 81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:
 82-83: XTRAV: 843 SUP: INST: 500 RES: CE: OTH: 508 TOT: 1851
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 2 I/b: 2 I/c: 1 II/a: 3 II/b: 1 II/c: 2 III: 5
 81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:
 82-83: X I/a: 1 I/b: 2 I/c: 1 II/a: 2 II/b: 1 II/c: 2 III: 5
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1455 TS: 24
 TI: 2218 TR:
 TC: TO: 508

Faculty Number: 61
 AGE GROUP: 2 DIV: 6 SEX: 1 RANK: 2
 FACULTY TOTAL: 1818
 79-80: XTRAV: 200 SUP: INST: RES: CE: OTH: TOT: 200
 80-81: XTRAV: 593 SUP: INST: RES: CE: OTH: TOT: 593
 81-82: XTRAV: 1025 SUP: INST: RES: CE: OTH: TOT: 1025
 82-83: TRAV: SUP: INST: RES: CE: OTH: TOT:
 83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:
 79-80: X I/a: 0 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 2
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 81-82: X I/a: 2 I/b: 2 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 5
 82-83: I/a: I/b: I/c: II/a: II/b: II/c: III:
 83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:
 TT: 1818 TS:
 TI: TR:
 TC: TO:

Faculty Number: 62
 AGE GROUP: 1 DIV: 6 SEX: 2 RANK: 1
 FACULTY TOTAL: 1241
 79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:
 80-81: XTRAV: 820 SUP: INST: RES: CE: OTH: TOT: 820
 81-82: XTRAV: SUP: 70 INST: RES: CE: OTH: TOT: 70
 82-83: XTRAV: 100 SUP: INST: RES: CE: OTH: TOT: 100
 83-84: XTRAV: 251 SUP: INST: RES: CE: OTH: TOT: 251
 79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:
 80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4
 81-82: X I/a: 0 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 0 III: 3
 82-83: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 3
 83-84: X I/a: 1 I/b: 0 I/c: 1 II/a: 0 II/b: 0 II/c: 1 III: 4
 TT: 1171 TS: 70
 TI: TR:
 TC: TO:

Faculty Number: 63

AGE GROUP: 3 DIV: 6 SEX: 1 RANK: 2

FACULTY TOTAL: 2915

79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:

80-81: XTRAV: 543 SUP: INST: RES: CE: OTH: TOT: 543

81-82: XTRAV: SUP: 502 INST: 1400 RES: CE: OTH: TOT: 1902

82-83: XTRAV: 470 SUP: INST: RES: CE: OTH: TOT: 470

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:

80-81: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 3 III: 4

81-82: X I/a: 2 I/b: 2 I/c: 1 II/a: 1 II/b: 1 II/c: 3 III: 5

82-83: X I/a: 1 I/b: 1 I/c: 1 II/a: 0 II/b: 0 II/c: 2 III: 4

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT: 1013

TS: 502

TI: 1400

TR:

TC:

TD:

Faculty Number: 64

AGE GROUP: 3 DIV: 4 SEX: 1 RANK: 1

FACULTY TOTAL: 250

79-80: TRAV: SUP: INST: RES: CE: OTH: TOT:

80-81: TRAV: SUP: INST: RES: CE: OTH: TOT:

81-82: TRAV: SUP: INST: RES: CE: OTH: TOT:

82-83: XTRAV: 200 SUP: 50 INST: RES: CE: OTH: TOT: 250

83-84: TRAV: SUP: INST: RES: CE: OTH: TOT:

79-80: I/a: I/b: I/c: II/a: II/b: II/c: III:

80-81: I/a: I/b: I/c: II/a: II/b: II/c: III:

81-82: I/a: I/b: I/c: II/a: II/b: II/c: III:

82-83: X I/a: 1 I/b: 1 I/c: 0 II/a: 1 II/b: 0 II/c: 2 III: 4

83-84: I/a: I/b: I/c: II/a: II/b: II/c: III:

TT: 200

TS: 50

TI:

TR:

TC:

TD:

Faculty Number: 65

AGE GROUP: 2 DIV: 7 SEX: 2 RANK: 2

FACULTY TOTAL: 3064

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 472	SUP: 1047	INST:	RES:	CE:	OTH:	TOT: 1519
81-82:	XTRAV:	SUP: 296	INST:	RES:	CE:	OTH:	TOT: 296
82-83:	XTRAV:	SUP: 1249	INST:	RES:	CE:	OTH:	TOT: 1249
83-84:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 0	I/b: 1	I/c: 2	II/a: 0	II/b: 0	II/c: 2	III: 5
81-82:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 2	III: 4
82-83:	X I/a: 0	I/b: 1	I/c: 2	II/a: 0	II/b: 0	II/c: 2	III: 5
83-84:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
TT:	472			TS:	2592		
TI:				TR:			
TC:				TO:			

Faculty Number: 66

AGE GROUP: 3 DIV: 4 SEX: 1 RANK: 4

FACULTY TOTAL: 1676

79-80:	TRAV:	SUP:	INST:	RES:	CE:	OTH:	TOT:
80-81:	XTRAV: 560	SUP:	INST:	RES:	CE:	OTH:	TOT: 560
81-82:	XTRAV:	SUP: 424	INST:	RES:	CE:	OTH:	TOT: 424
82-83:	XTRAV:	SUP: 222	INST:	RES:	CE:	OTH:	TOT: 222
83-84:	XTRAV:	SUP: 470	INST:	RES:	CE:	OTH:	TOT: 470
79-80:	I/a:	I/b:	I/c:	II/a:	II/b:	II/c:	III:
80-81:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
81-82:	X I/a: 1	I/b: 2	I/c: 1	II/a: 1	II/b: 0	II/c: 2	III: 5
82-83:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
83-84:	X I/a: 1	I/b: 1	I/c: 1	II/a: 0	II/b: 0	II/c: 1	III: 5
TT:	560			TS:	1116		
TI:				TR:			
TC:				TO:			