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FISCAL DECISION MAKING IN ACADEMIC DEPARTMENTS
DURING RESOURCE STRINGENCY: A CASE STUDY OF MICHIGAN
STATE UNIVERSITY IN THE R-CUBED PERIOD (1988-92)

By

Chinyere Maria-Carol Nwagwu

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

1995

UMI Number: 9619882

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ABSTRACT

FISCAL DECISION MAKING IN ACADEMIC DEPARTMENTS DURING FISCAL STRINGENCY: A CASE STUDY OF MICHIGAN STATE UNIVERSITY DURING R-CUBED (1988-92)

By

Chinyere Maria-Carol Nwagwu

This study examines how academic departments make fiscal decisions in periods of resource stringency by addressing two research questions:

1. What were the responses of academic departments in Michigan State University to institutional fiscal stringency?
2. Through what processes did these academic departments select their responses to fiscal stringency; and did these processes conform to the rational decision making model?

The study involves two academic departments in the same college, with the same chairpersons throughout the R-cubed period, with similar faculty and student sizes, and with both undergraduate and graduate programs.

College and departmental documents (communiqués, plans, reports and memoranda), and archival records (budgets and demographic data) were examined. The dean of the parent college, chairpersons of the departments, and faculty members who were on the Faculty Advisory Committee (FAC) during that period were interviewed. Faculty members who were not involved in making decisions for the department at that time were also interviewed.

Data was analyzed initially by using coding categories to organize, sort, and explain the relationships within the data. Afterwards, the empirical data were subjected to pattern analysis. Patterns in empirical data were compared to those predicted by the rational decision-making model and the literature.

Departments in the study knew the timing and extent of the reductions. Their responses to fiscal stringency were shaped by the directives of their parent college, serendipity, areas of flexibility in their budgets, and complexity of the department. The departments used a combination of efficiency, revenue augmentation and survival measures. The departments mortgaged positions of retiring faculty members (one or two years before their retirement) to meet the reduction quotas. They also tried to protect their programs from budget cuts by marketing themselves more, generating more revenue and offering to eliminate programs that were important to their parent college.

They also used a combination of decision making models (mainly the political and rational models) to select their responses to fiscal stringency.

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DEDICATION

To my parents Chief Cletus Nnakolam and Bridget (Brigid) Iheoma Nwagwu for telling me to get this Ph.D., for their unconditional love, and confidence in me.

To my husband Abiodun Olusola Oriyomi for his love, support, and encouragement during a challenging period of my life.
Thanks for inspiring me. We did it.

ACKNOWLEDGMENTS

I could not have completed my dissertation without the assistance of many individuals. To them I owe my gratitude, and with them I share the harvest of a completed product.

Firstly, my Lord God and Creator whose amazing grace saw me through a very challenging period in my life.

At Michigan State University, my dissertation director and one of my greatest teachers, Dr. Mun Tsang, was always a source of encouragement and assistance. Without his dedication, availability, and advice this dissertation would not have been completed. Dr. Max Raines my mentor and major advisor, was always kind, to me. His fatherly advice, availability, and encouragement throughout my advanced degree at Michigan State University enabled me achieve this feat. Dr. Kathryn Moore, an invaluable member of my committee, offered good suggestions, and challenged me to excel in my work. Dr. John Schweitzer, another invaluable member of my committee offered good suggestions and was very supportive.

Dr. Robert Lockhart and Dr. Martha Hesse were always kind, and supportive of my efforts. Their advice and

feedback during the early stages of my dissertation enabled me clarify the focus of my dissertation. Dr. Lockhart and Ms. Elaine Richard provided me with a substantial part of the data I used for my research. I owe them a world of thanks. Dr. Maenette Benham and the Dissy Dissertation Group gave were supportive. Dr. David Horner, Dr. Ken Ebert, Ms. Peggy Arbanas and Mary-Jane awarded me fellowships that enabled me produce my dissertation and register two dissertation credits.

My brothers gave me their love, support, encouragement throughout my academic career. Gordian, IK and Chijoke believed in me, and assisted me financially out of their stringent resources. I am very grateful.

My special friends, Dr. Maureen Eke, Drs. Remi and Dare Aworuwa, Dr. Austin Okwuegbu, Ms. Agatha and Dr. Emmanuel Awuah gave their time and resources to ensure that I completed my work. Most of all, when I was weary they gave me strength to continue. Without their encouragement and commitment the dissertation would not have been completed by now. Ayo Walker edited drafts of my work. James was always available to resolve my software problems. Drs. Ernest Ndukwe and Clifford Akujobi were also supportive.

The staff at the Office of Planning and Budgets and the Michigan State University Archives were supportive, and assisted me in my data search.

The dean, associate deans of the college I studied were supportive of my data collection efforts.

The departmental chairpersons and faculty who participated in the study endured long interview sessions and offered candid responses to the questions. Without the support of the college and department administrators, and faculty this dissertation would not have been possible.

Julie Loehr and Christine Lare were very generous. They inconvenienced themselves to meet my deadlines and yet edited my work only for a token fee. Carey Draeger transcribed the large volumes of interview tapes within deadlines. Ms. Marian Stoll was also supportive. Her cheerfulness made a stressful period much easier. Dean Franklin and Joyce Miller offered me a job at the computer center, which enabled me cover some of my expenses.

My in-laws especially Deacon Kunle and Mrs. Semisola Oriyomi, and Mrs. L. A. Bamgboye were very supportive. Many friends whose names were not mentioned, also gave me the encouragement to complete my dissertation.

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CHAPTER 1

BACKGROUND AND STATEMENT OF THE PROBLEM

This chapter discusses the background of R-cubed (Refocussing, Rebalancing and Refining) in Michigan State University. It is divided into four sections. In section 1.1, I discuss the historical background of the study. Section 1.2 discusses the conditions leading up to R-cubed at the state and institutional level. Section 1.3 examines the characteristics of R-cubed. Section 1.4, examines R-cubed from the perspective of the different colleges and academic departments at Michigan State University. And, section 1.5 presents the purpose of the study, its significance, an overview of the interpretive framework, a synopsis of the major research questions and an operational definition of terms used in the study. It also gives a summary of the chapters of the dissertation.

1.1 Historical Background of the Study

Michigan State University was founded in 1855 as an autonomous public institution of higher learning by, and for the citizens of Michigan. In 1863, as a result of the Morrill Act, it became one of the first land-grant institutions in the United States of America. Its land grant and service missions were in the areas of agriculture and the mechanic arts. Since 1863, the university has evolved into an internationally-

esteemed university, offering a comprehensive spectrum of programs and attracting gifted professors, staff and students. By 1964, the instruction research and public service activities of the institution, had reached such a high level of excellence as to qualify it for membership in the Association of American Universities (AAU) (*R³ Internal Discussion Paper, January 1989*).

The largest sources of revenue for the university come from state appropriation (about 58%), and tuition and fees (about 36%); these two sources of revenue comprise about ninety-four percent of general fund revenue. Revenue is also generated from indirect cost recoveries, interest income, equity from prior year budgets, income from investments, endowment funds, departmental activities, auxiliary activities, and restricted revenue held for future expenditures. Sources of expenditure include: instruction and departmental research, public services, scholarships and fellowships, institutional support, operation and maintenance of plants, and auxiliary activities.

1.2 Conditions Leading to R-cubed in MSU

1.2.1 R-cubed as a Response to Fiscal and Social Challenges: State of Michigan and Michigan State University (MSU) fiscal circumstances in the 1980s

In the 1960s and 1970s, Michigan's support for higher education was high relative to other states. In the early 1980s,, however, that support dropped significantly. It fell to a low point in 1983, when Michigan ranked 33rd in the nation in per capita expenditure on higher education. Between 1984 and 1988, as a result of strong advocacy for higher education by Governor James Blanchard and the legislature, colleges and universities enjoyed relative prosperity. The result was that in 1986/87 Michigan ranked 20th in the nation in its appropriations per capita of state funds for operating expenses for higher education; in 1987/88 it ranked 24th; and in 1988/89 it also ranked 24th. The following fiscal year, 1989/90 (when Michigan appropriated about 15.7% of the state general fund budget to colleges and universities), it ranked 22nd among the states in per capita support for higher education (see Table 1.1), (State Higher Education Profiles, 1987, p. 70; 1988, p. 84; 1991, p. 76). Though this level of funding was an improvement, it did not keep up with inflation. For example, the funding was insufficient for Michigan State

University (MSU) to close the projected gap between expenditure and revenue (*R³ Internal Discussion Paper, 1989*).

Relative to other universities of its size in the state of Michigan (such as Wayne State University and the University of Michigan), MSU has generally received the least funds per FYE (fiscal year equated) student (see Table 1.2). In the mid- and late 1980s, the State of Michigan incurred a loss of revenue as a result of the declines in the auto industry. At the same time, the state gave in to the growing public pressure for increased state support for other social services rather than higher education. Consequently, MSU did not expect to receive more than its traditional share of state revenue (23 percent of institutional appropriations) in 1989 (*R³ Internal Discussion Paper, 1989*).

Table 1.1

State of Michigan Appropriation (in millions) to its Higher Educational Institutions and its Relationship to Other States (1988-89).

STATE	Appropriation **1000	Rank	Appropriations per capita	Rank	Two-year change adjusted for inflation	Rank
Alabama	775,344	15	259	7	11%	7
Alaska	168,814	30	467	1	-27%	50
Arizona	536,014	24	213	18	12%	9
Arkansas	310,795	33	178	37	-2%	43
California	5,366,436	1	259	8	2%	31
Colorado	475,181	27	195	25	4%	27
Connecticut	467,385	28	192	27	12%	8
Delaware	107,518	46	218	16	3%	30
Florida	1,474,345	4	154	44	6%	18
Georgia	812,229	14	178	38	5%	25
Hawaii	274,233	34	330	3	15%	5
Idaho	144,987	41	207	21	6%	19
Illinois	1,399,444	5	185	41	7%	46
Indiana	755,614	16	184	33	5%	23
Iowa	478,991	26	228	13	9%	12
Kansas	382,326	31	211	19	6%	15
Kentucky	560,075	22	189	30	13%	6
Louisiana	483,034	25	155	43	-11%	49
Maine	162,432	40	180	35	19%	3
Maryland	605,261	19	201	23	13%	7
Massachusetts	886,426	41	191	28	-2%	41
Michigan	1,338,033	6	198	24	1%	36
Minnesota	861,462	13	270	5	2%	13
Mississippi	425,751	29	231	11	20%	1
Missouri	550,609	23	144	47	7%	17
Montana	105,227	47	180	36	-4%	45
Nebraska	253,431	37	215	17	9%	14
Nevada	121,249	43	154	45	9%	11
New Hampshire	72,454	49	89	50	19%	2
New Jersey	1,129,452	10	194	26	17%	4
New Mexico	268,800	35	261	6	1%	39
New York	3,110,021	2	225	15	4%	28
North Carolina	1,329,606	7	274	4	5%	26
North Dakota	118,072	44	239	10	-10%	48
Ohio	1,320,460	8	164	42	1%	35
Oklahoma	415,191	30	176	39	0%	37
Oregon	361,189	32	173	40	-1%	38
Pennsylvania	1,237,966	9	140	48	3%	29
Rhode Island	138,802	42	186	32	9%	13
South Carolina	576,598	21	230	12	6%	22
South Dakota	77,369	48	152	46	-1%	40
Tennessee	673,881	20	188	31	1%	31
Texas	2,245,958	5	190	29	5%	29
Utah	259,615	36	249	9	2%	9
Vermont	53,855	50	129	49	8%	49
Virginia	1,033,086	11	227	14	6%	14
Washington	719,437	18	208	20	6%	21
West Virginia	252,618	38	181	34	-4%	44
Wisconsin	738,670	17	206	22	2%	32
Wyoming	114,753	45	343	2	-7%	47
Total USA	36,205,426				4%	

Source: State Higher Education Profiles, 1987-1993.

Table 1.2
State of Michigan Appropriation Per Fiscal Year Equated
Student to its Higher Educational Institutions (1987-92).

INSTITUTION	YEARS				
	1987/88	1988/89	1989/90	1990/91	1991/92
Central Michigan University	2886	3075	3300	3457	3,686
Eastern Michigan	3060	2692	3501	3517	3,360
Ferris State Univ.	2961	3164	3412	3636	3695
Grand Valley State Univ.	2950	3115	3539	3427	3206
Lake Superior State Univ.	3685	3520	3826	3799	3707
Michigan State University	4871	5074	5682	5996	6217
Michigan Technical Univ	5524	5638	6163	6463	6459
Northern Michigan Univ.	4919	5345	5564	5684	5947
Oakland Univ	3129	3351	3712	3865	3916
Saginaw Valley State Univ.	3034	3231	3683	3976	3873
University of Michigan					
UM-Ann Arbor	6395	6534	7336	7613	7732
UM- Dearborn	2872	2945	3300	3474	3539
UM- Flint	2879	2984	3455	3526	3524
Wayne State Univ.	6810	7079	7931	8003	7813
Western Michigan Univ.	3714	3696	4008	4044	3994

Source: FY 1988-92 Appropriations Report, State Fiscal Agency Lansing, Michigan.

Throughout the 1980s, state appropriations to Michigan State University could not sustain both inflation and increased faculty salaries, as well as new program initiatives, (such as significant investment in technological infrastructure). To cope with the declining state appropriation MSU increased the tuition it charged students (see Table 1.3, and Figure 1.1). In addition, the university faced considerable public pressure to keep tuition increases at, or below, inflation. As a result, the

university designed a strategic plan that would span five years (Statement on Long Range Strategic Planning, 1984). The APP&R and SSPP&R (i.e., Academic Program Planning and Review, and the Support Services Program Planning and Review (SSPP&R), which are planning tools that academic and support units used to conduct the tactical and operational plans of R-cubed) were first used in 1984. Although the original APP&R is different from the R-cubed version in focus and content, it is similar to the R-cubed version in some ways. Both require detailed planning at the college and major administrative unit levels. They also require definition of the unit's objectives and means of achieving them, analysis of the programs effectiveness, assessment of alternatives for making improvements, and projections for future plans (B. Shapiro, 1991).

Table 1.3
MSU's Appropriation from the State, 1985-1992; and State Appropriation to MSU as a Percentage of Its Total Current Revenue.

REVENUE SOURCE	YEARS									
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92		
State Appropriation to MSU	185821081	210514674	229,419,688	245153386	254338848	265130853	277518736	277518736		
State Approp. to MSU as % of total curr Revenue	37.50%	36.70%	39.50%	36.60%	37.20%	36.30%	35.70%	35.20%		
Student Tuition	80024879	91,848,377	99,657,055	110,384,970	133980408	145639198	157505258	167479072		
Student tuition as % of total curr Rev.	17.50%	18.90%	18.70%	18.80%	19.80%	19.90%	20.30%	20.40%		

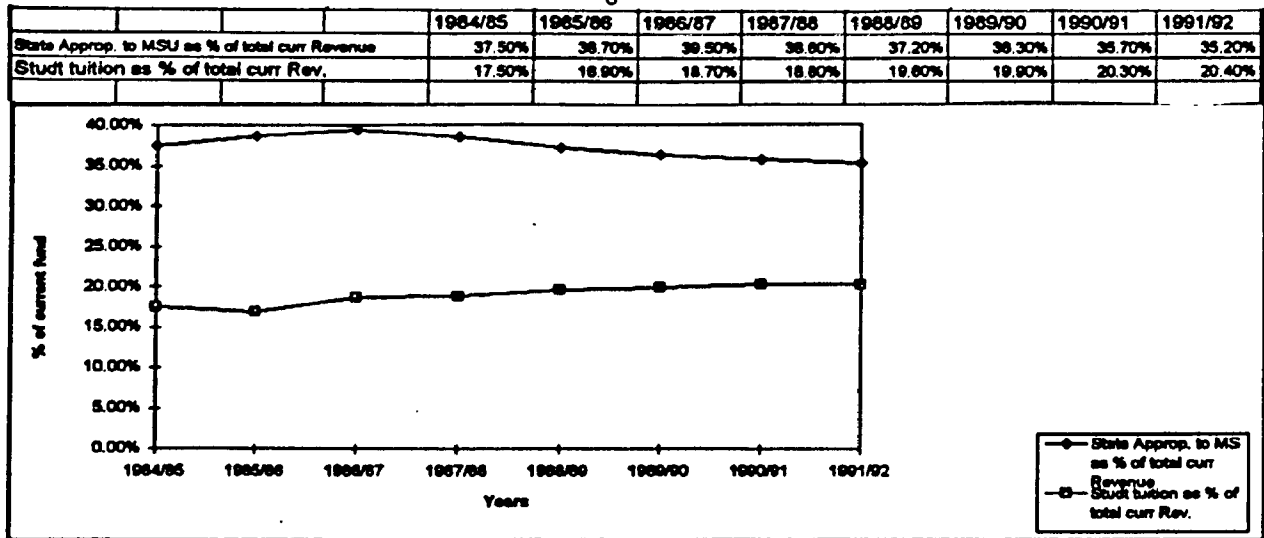


Figure 1.1
Relationship between State of Michigan Appropriation to MSU and the Growth in MSU's Tuition Revenue.
 Source: Michigan State University Annual Reports (1985-1992).

1.2.2 Conditions leading to R-cubed at the University level

In 1988, the university examined its expenditure pattern from 1978/79 through 1987/88. It combined this expenditure pattern with estimates of projected revenues through 1990/91. This longitudinal view showed that the gap between expenditure and revenue would continue if left uncorrected (see figure 1.2). Unrestrained expenditure before reallocations was also expected to grow by 11%, or by \$30 to \$40 million between 1978 and 1991. Although a substantial part of this growth rate was attributed to internal cost factors, the growth rate closely paralleled the national statistics showing that the growth rate of higher-education expenditure (5%-8%) is about 1 to 2% above

the national rate of inflation (4%-6%, in 1989). In addition, the university's deferred maintenance items reached about \$100 million (*R³ Internal Discussion Paper, 1989a*, p. 31). MSU administrators had to find a way to get a better match between growth of expenditures and revenues, since the university must balance its budget (*R³ Internal Discussion Paper, 1989a*).

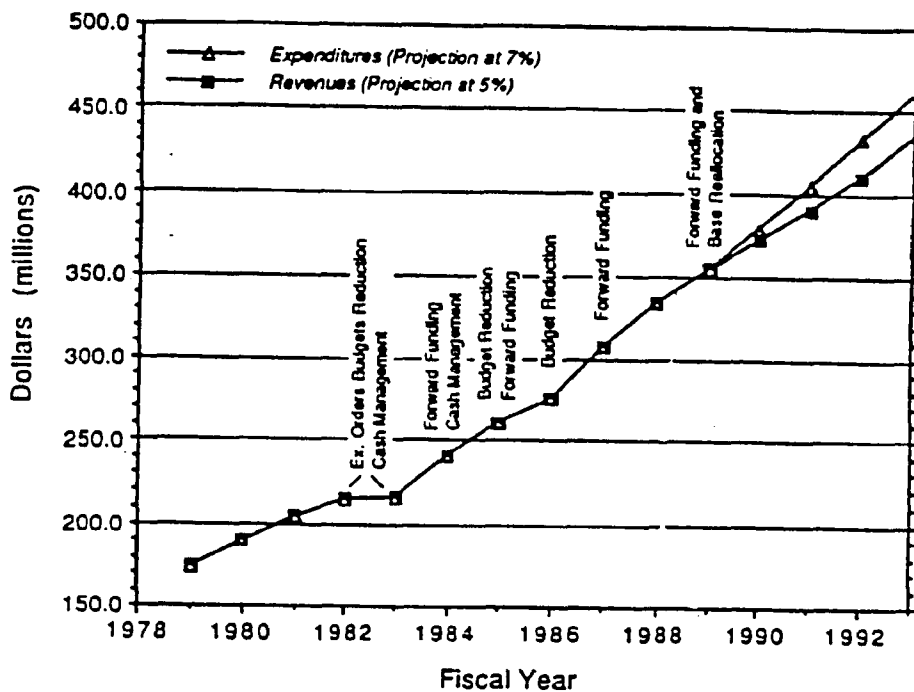


Figure 1.2
Relationship between MSU's Expenditure and Her Projected Revenue
 Source: *R³ Internal Discussion Paper, 1989a*.

On the national scene, demographic and technological changes were occurring. For instance, there was a growing

increase in minority enrollment, women faculty, older part-time students, life-long learners, and students needing more remedial services. Also, innovations in computer technology were "revolutionizing" storage, analysis, retrieval and dissemination of information. These changes were expected to impact teaching and research, library services and administration of MSU, and other universities in the United States (*R³ Internal Discussion Paper, 1989a; and Cetron, 1988*)

In order to remain competitive through the year 2000 and beyond, MSU had to address these challenges. It did so through self-examination of its focus and programs.

According to the University's Provost, David Scott:

What we are doing today will not do for our University tomorrow, at MSU or any other university.... We have a broad and deep array of excellent programs. This achieved excellence must now be enhanced or we will lose both the hard-won competitive edge and flexibility to take advantage of yet unforeseen opportunities and to be responsive to the society of which we are part (*R³ Internal Discussion Paper, 1989a, p. 3*).

1.3 Characteristics of R-cubed

1.3.1 What was R-cubed?

Michigan State University responded to those fiscal and social challenges with the R-cubed strategies. R-cubed was a planning framework for positioning MSU to meet the

challenges of the decade of the 1990s more effectively. According to Dr. John Dibiagio (then President of the University, 1988-92), R-cubed was a budget reallocation exercise as well as a long-term strategic planning activity (R³ Internal Discussion Paper, 1989). For MSU, refocussing referred to the "continuing process of purposefully evaluating institutional priorities and adjusting programs to reflect designated areas of emphasis." Rebalancing was the "adjustment of existing resource allocations necessary to support identified priorities or changes in the overall level of available resources" (*Refocussing and Rebalancing*, 1988, Michigan State University, p. 1). Refining referred to the "refining of MSU's academic enterprise for more effective and efficient outcomes" (R³ Internal Discussion Paper, 1989, p. 1).

At the initial stages of R-cubed, a set of values were identified to guide the R-cubed process. These values were a university that is:

- . Multidimensionally excellent;
- . Multidisciplinary, built on excellent departments and schools;
- . Integrated;
- . Humanitarian and caring;
- . Strongly coupled-externally and internally;
- . Pluralistic and diverse;
- . Built on current and selectively developed strengths;
- . A learning environment that is built on new technology; and
- . More efficient and effective (R³ Internal Discussion Paper, 1989, p. iii).

R-cubed also involved five "platforms" or panels. The platforms include CORRAGE (Committee on Review of Research And Graduate Education), PLUS (Planning for Lifelong University Systems), AMPS (Administrative Management Planning Support), CRUE (Committee for the Review of Undergraduate Education), and PAIDEA (Pluralism And Institutional Diversity: Excellence In Action). These platforms comprised faculty, administrators, and students.

The goal of the platforms was to develop a strategic vision for the university as it moved toward the 21st century. Recommendations of the platforms were intended to guide academic units in their decision making and planning.

Each of the platforms studied an aspect of the university's mission. For instance, PLUS was begun in 1986/87, to study the university's lifelong education programs. It resulted in the restructuring of these programs within the university (Shapiro, 1991).

In addition to the "platforms," unit reviews were accomplished through the Academic Program Planning and Review process (APP&R). Furthermore, the university expected its units to use APP&R for additional purposes: identify their core programs, assess alternative methods for improving their programs, develop a means for attaining such improvements, and develop new programs that promoted the

strategic mission of MSU. Each year during the R-cubed period (1988-1992), the provost gave an APP&R document to each college or major administrative unit to help it implement various aspects of the goals of R-cubed, including its various reallocation targets. The aim of reallocation under R-cubed was that by the end of 1992, units would have reallocated a total of 10-15% of their base budgets to the central administration. The reallocated funds would be used to offset shortfalls in state appropriations and to strengthen high priority programs.

MSU also expected that through reallocations it could generate flexible funds to enable support of new programs that were central to its strategic mission. For instance, in 1989, after setting a reallocation target of 4.5%-5.5%, the provost then promised to give a total of 3%-3.5% of the main libraries base budget back to that unit for special line items. Reallocations were also to support CRUE recommendations, sustain the position of core colleges, including James Madison (relative to their peers), support life long education, support initiatives to increase enrollment of minorities in the University, enhance MSU's research standing in certain areas it considered important (such as plant research, hazardous waste management, etc.), support the renovation of research laboratories, and support

changes in the physical environment to improve handicapper accessibility (*R³ Internal Discussion Paper*, 1989b, p. 9-10). According to the 1990/91 APP&R of the parent college (Brigid College) of the two departments studied in this research, in 1989/90 40% of the general fund salary increases were funded with the funds recovered from the reductions.

Furthermore, during R-cubed the Provost of the University communicated the institution's strategic and tactical decisions to the colleges, in the form of the objectives of the APP&R. Then, the colleges communicated those objectives to the departments which made operational decisions based on those objectives.

The goals of R³ that the University planned to achieve were:

1. Improve the quality of undergraduate education;
2. Revitalize lifelong education;
3. Improve the quality of graduate education and raise the rate of growth of research;
4. Improve support for faculty, including the ratios of SS&E and facility infrastructure per faculty;
5. Improve morale and interdependence among personnel;
6. Foster pluralism and diversity; and
7. Streamline and balance effectiveness and efficiency of process and procedures on unit as well as central needs

(*R³ Internal Discussion Paper*, 1989, p. 9-10).

1.3.2 Differences Between R-cubed and earlier Fiscal Strategies MSU used.

Decision making in the earlier periods differed from that of the R-cubed era in the following ways:

1. According to Shapiro (1991) the effect of R-cubed was more substantial: "it affected all aspects and units of MSU" (p. 85);

2. R-cubed had more facets to it, such as the platforms, goals, and guiding principles.

3. The goals of R-cubed were also different. They were more responsive to changes in MSU's environment.

4. R-cubed was more decentralized and participatory than prior decision-making activities at MSU. Units were given guidelines, but had more decision-making power regarding how to "operationalize" those goals at the unit level. R-cubed involved the participation of administrators, faculty, staff, and students in the various platforms (*R³ Internal Discussion Paper, 1989*). During the formation of R-cubed, and prior to the development of the APP&R/SSPP&R statements, all colleges and major administrative units (MAU) were asked to prepare three scenarios on how the MAU would look within five years, if 5%, 10%, or 15% of its base budget were to be reduced. Each unit was asked to describe the likely impact of the three

reallocation targets on its ability to carry out the tripartite mission of teaching, research, and service. The feedback from these units was reflected in the content of subsequent APP&R documents (Shapiro, 1991).

In 1988/89 (4.5% to 5.5%) and 1989/90 (4.5%) across-the-board cuts were established for all colleges and MAUs at Michigan State University (1990 *Brigid College APP&R: Attachment D*). However, after a series of meetings with individual deans and directors of MAUs, the provost changed his plan of instituting a 10-15% across-the-board cut in the university. Cuts became individualized according to the peculiar needs of each unit (*Brigid College 1990/91 APP&R*).

1.3.3 R-cubed as a Strategic Planning Process

According to Kotler and Murphy (1981), "strategic planning is the process of matching and maintaining a strategic fit between the organization and its changing environment" (p. 8).

The following five steps represent the techniques commonly used in strategic planning in higher education:

1. Academic managers examine key trends in the external environment and assess the threats and opportunities these trends pose. Based on these assessments if the managers

detect any changes ahead they may adjust the course of their institution(s).

2. Administrators of institutions assess the strengths and weaknesses of the institution (or its internal environment). This assessment provides an indication of what the university can or, cannot do in a quality fashion (Shirley and Volkwein, 1978).

3. Institutions set a strategic direction based on their institution's mission and the fit between their opportunities and strengths.

4. Program priorities are set. Strategic direction requires the growth of certain academic programs and the decline of others. A critical step in strategic planning is establishing "(a) the overall inventory of academic programs to be offered, and (b) the relative priorities to be placed on those programs" (Shirley and Volkwein, 1978, pp. 472-488). By building the high priority programs and dropping the low priority ones, an institution develops its "differential advantage and carves out a niche for itself in the external environment" (Shirley and Volkein, p. 472).

Whereas institutions may vary in the number and specificity of the criteria they use in evaluating their programs, most of them agree on the importance of evaluating a program based on the following points: importance to the

mission of the university; overall quality of faculty and curriculum; and extent of future demands for students, research, and service in its field (Dougherty, 1981). Institutions may vary in the relative importance assigned to internal (mission-based) criteria or external (market-based) criteria during program evaluation.

5. Resources are reallocated from the low-priority to high-priority programs with the discontinuance of low priority areas to strengthen high priority ones (Dougherty, 1981). These retrenchment and reallocation processes (plus the selective distribution of any new resources) cause the reconfiguration of academic programs and cause the institution to utilize its opportunities and develop its strengths. Unless budgeting follows the program priorities, the previous steps are merely a planning exercise without any meaningful impact on institutional resources (Clugstone, 1986).

In the strategic planning of a higher educational institution like MSU, three kinds of process-oriented decisions can be distinguished: strategic, tactical, and operational. Strategic decisions are made at the top level of the organization, that is, at the central administration level of a University. However, some studies show that often broad participation from lower levels (departments) is

invaluable (E. Chaffee, 1983). Strategic decisions guide the organization in its relationship to its environment, as well as affect its internal structure and process. Strategic decisions generally answer the question, "What are we going to do?"

Tactical decisions are derived from the strategic decisions. Tactical decisions answer the question, "How are we going to do it?" When decision making is participatory, the authority to make tactical decisions may shift between the central administration and the sub-units of the university.

Unlike strategic decisions which are broad-based, operational decisions are specific. They establish procedures and answer the question, "Who will do what?" Operational decisions are usually made at the departmental level (Hambrick, 1980; and Chaffee, 1983). Departments also make strategic and tactical decisions at their own level.

The following data support the position that R-cubed was a strategic plan.

1. Hesse and Montgomery studied the external environment of American higher education institutions, including MSU, to identify trends, threats, and opportunities. The findings were reported under the title, "Environmental Scanning and External Tendencies Affecting

American Higher Education" in the R-cubed Internal Discussion Paper (1989). In summary, the findings reported were growth of lifelong education, increasing diversity among students, decrease in the traditional college students (18-21 year old), increasing demand for excellent faculty in and outside higher education, an increasing economically constrained higher education environment, and rise in public expectations of higher education.

2. MSU also studied its internal environment for strengths and weaknesses. Part of the R-cubed document gives a detailed description of the internal environment of the university which includes its strengths and weaknesses.

3. The R-cubed document lists the goals of R-cubed as ways the institution was trying to find a fit between institutional strengths and environmental opportunities. MSU hoped that by achieving the goals of R-cubed it would achieve this fit.

4. Part of R-cubed, as stated in the MSU 1989 R-cubed planning document, was budget reallocation. The institution's administrators explained that fiscal stringency existed in the university and, since the university could not expect sufficient funds to cover its expenses, it would use reallocation to generate funds to strengthen high-quality programs.

5. Strategic and tactical decisions were undertaken by the central administration of MSU (the board of trustees, president, provost, vice-presidents, and director and assistant director of the Office of Planning and Budgets). The central administration set the strategic vision, institutional priorities and values, and the goals the institution would strive to achieve under R-cubed. Students, staff, faculty, and administrators participated in planning R-cubed and in shaping the objectives of its platforms.

From an institutional perspective, the APP&Rs, the SSPP&Rs and the platforms were tactical decision (and planning) tools. Through them MSU elucidated how it would achieve its strategic mission. The Provost passed on the recommendations of the various platforms and the APP&Rs to the deans of the colleges and directors of separately reporting departments.

Although, there are offices at the central administrative level of the university (Offices of the President, Provost, and Vice Presidents) that make tactical and operational decisions, they are not the focus of this study. I am more interested in the relationship between the central administration and the departments, and particularly about how decisions are made in departments.

In short, the strategic approach to planning has been initiated at many institutions because of resource concerns, and it has been useful in the resolution of "vexing financial issues" (Chaffee, 1983).

1.4 R-cubed from the Departments' Perspective

There are 14 colleges and 115 departments at MSU (Academic Programs Michigan State University, 1992). Annually during the R-cubed period, an academic unit's APP&R became the basis of budget allocation. Also, every unit was to use its APP&R as the basis for setting specific internal goals and objectives each year. The dean was expected to relay the objectives of the APP&R to the departments and solicit input from these subordinate departments prior to deciding on the process the college would follow to realize these objectives.

Based on the objectives set by the dean, the chairperson of a department may conduct long-range strategic, tactical, and operational decisions for his or her unit. For example, some departments had long-range goals of increasing recruitment of women and minority faculty and students. A tactical decision that derived from that might call for increased cooperation with historically black colleges or increased cooperation with minority

faculty and staff at MSU. An operational decision resulting from the preceding decision could call for recruiting a female assistant professor and enrolling two minority graduate students. Strategic plans of a department are contained in the department's long-range planning document.

Tactical plans are reflected in the completed departmental APP&Rs, while the departmental annual budget shows its operational decisions.

Though departments received a lot of directives from the institution that they were expected to implement, they still had substantial leeway within the bureaucracy to decide "what to do" and how they would do it. For example, a department could decide the extent to which it would cooperate with the central administration's budget reallocation efforts. It could also determine the items it would retrench from its budget as well as programs to strengthen, reduce, or eliminate.

During R-cubed, the APP&Rs directed units to:

- . Describe the transition funds they needed to effect a permanent reduction of their budget at the various targets.
- . Describe significant changes in the future intentions or current commitments of units as necessitated by the current economic circumstances.

- . Describe planned general-fund personnel and programmatic actions as well as the anticipated consequences necessary to meet the reallocation target range.
- . Describe emerging areas of multi-disciplinary collaboration and cooperation.
- . Describe their cost-containment and efficiency strategies and the revenue enhancements to be pursued.
- . Describe accomplishments that units have achieved with allocated funds.
- . Identify changes units plan for accommodating conversion to a semester system, MSU IDEA initiatives, and lifelong education.
- . Identify continuing or new, unmet space needs.
- . Specify for each year, dollar savings, personnel changes, qualitative changes in programs, deviations from the 1988-89 course and section offerings, and the overall instructional capacity.
- . Describe trends in program quality in three areas: instruction, research and public service.
- . Describe centers of excellence in the department.

- . Describe changes in the department's concept of faculty "work load" and unit productivity (Academic Program Planning and Review Documents, Michigan State University, 1988-92)

1.5 Statement of Problem

Many studies have been done on institutional response to fiscal stringency. A few of these studies focus on organizational decision making in times of fiscal stress. Very few of these however, study the issues at the academic department level. The purpose of this study is to examine how departments make decisions in times of fiscal stringency.

1.5.1 Purpose of the study

This study will examine and explain decision making in academic departments at Michigan State University during the R-cubed period of fiscal stringency (1988-89 to 1991-92).

1.5.2 Significance of the study.

The study of decision making is important because of the vital role decisions play in individual and organizational life. The type and quality of decisions people make determine, to a large extent, whether they will

succeed or fail. This is also the case for institutions, especially in periods of fiscal stringency.

A department is the most basic academic administrative and budgetary unit of a university. A disciplinary department is one in which all faculty members are trained, have common backgrounds, and teach in the same discipline (Tucker, 1984). Institutional strategic plans are ultimately "operationalized" at the departmental level. It is important to understand how departments make decisions regarding the implementation of institutionally formulated response to fiscal stringency because departments are the basic units of an institution. Such understanding is important to institutional policymakers because even a well-designed strategic plan will fail if the departments which are supposed to implement it decide to sabotage it. The decisions made at the department level ultimately affect the welfare of the parent institution.

The findings of this research will also inform readers about how two departments at MSU planned and implemented strategies in an effort to assuage fiscal difficulties in their units. The study may also furnish some information on the impact of those strategies on the financial condition of the departments studied.

Finally, this study will reveal the decision-making processes utilized by academic departments. Those who make decisions for departments can apply the lessons they learn from this research toward making more effective decisions in the future.

This study will also contribute to a better understanding of decision making in higher education during periods of fiscal stringency. It will also contribute to the literature on the rational decision making model.

1.5.3 Limitations of the Study

The research is a case study of past events, and it depends on documents and recollections of participants. Facts that were not documented or recalled were lost. Interpretation of the results is subjective, to a large extent. Therefore, some investigator biases may be introduced.

1.5.4 Overview of Interpretive framework

The focus of this research is on ascertaining whether the decision-making process regarding departmental responses to fiscal stringency during R-cubed was rational. Thus, the analysis of data and conclusions drawn from the findings of this research will concentrate on determining the occurrence

or absence of the rational model. Therefore, I will compare the attributes of the decision-making process found in the departments with that predicted by the rational model. If most of the major attributes of the two sets match, then I can conclude that the process departments used in making the particular decisions was essentially rational.

However, if there is no match, or if some important attributes of the decision making process are inconsistent with the rational model, then I will ascertain if these are consistent with those of alternative models (such as the political model). The pattern of responses of the departments will be compared to those found in literature to determine whether departments responded in a manner consistent with literature.

1.5.5 Key Research Questions

The overarching research question for this study is:

Did academic departments at MSU respond rationally to fiscal stringency during the R-cubed period? This is divided into two key questions:

- 1. What were the responses of academic departments at MSU to institutional fiscal stringency during R-cubed?**

2. Through what processes did academic departments select their responses to fiscal stringency, and did these processes conform to the rational decision-making model?

1.5.6 Definition of Terms

Allocation of resources: apportionment of resources.

Budget or financial flexibility: the prudent practice of maintaining sufficient financial liquidity so that if revenues fall or expenditures increase unexpectedly, monies can be found to fill the gap (Fielder, 1983, p. 7).

Declining enrollment: The decreased production of student credit hours at a specific institution as reported by that institution to the Department of Management and Budget.

Evidences of merit: The number of evidences of merit includes awards or prizes given to faculty or graduate students for teaching excellence, scholarship, research, or other creative activities.

Fiscal year equated student (FYES): A unit of student enrollment used to provide a consistent and comparable measure of enrollment among the Michigan public four-year institutions. Undergraduate total student credit hour production is divided by 31 student credit hours (SCHs) to compute the undergraduate FYES figure. Graduate I student

credit hour production is divided by 24 student credit hours (SCHs) to compute FYES at Graduate I level. Graduate II SCHs are divided by 16 to compute Graduate II FYES.

Faculty Support: resources(a broad range of infrastructure issues: space, technology, travel, supplies and services, clerical and technical support) MSU makes available to support faculty in instruction, research and service.

Fiscal stringency: A condition of limited state revenue and escalating costs of providing services to clientele, that necessitates an institution to curtail or eliminate planned or existing programs.

Institutional fiscal year: A time period that extends from July 1 of a given year to June 30 of the following year. The state appropriation for institutional fiscal year is calculated by capturing 75% of the state fiscal year appropriation plus 25 percent of the previous state fiscal year appropriation.

Major administrative unit (MAU): An organizational unit that comprises a group of offices. A director manages the unit. For instance in MSU, the offices of the Registrar's and Financial Aids are part of a major administrative unit--Enrollment Services.

Major professional accomplishments: The number of major professional accomplishments includes consulting, service as

an elected officer, member of a dissertation committee (Office of Planning and Budgets University Data Book, 1992, p. 1)

Mortgage a position: A department will give up a position prior to (for instance two years) a faculty member's retirement. In such a situation the department will give up the individual's salary to the college. The college will then give that money to the provost, but it will then borrow money from the provost for those two years. The money the department receives for the two years before the faculty actually retires is a temporary non-recurring allocation. When the faculty retires, the position is given up.

No Tenure: Number of academic staff in the tenure system without tenure (Michigan State University Office of Planning and Budgets University Data Book, January, 1992, p. 1).

Operational planning: The planning and management of resources (financial, material, and human) during a future time frame (spanning more than one year) with the objective of being flexible and adapting during a period of change (Fielder,, 1983,p.7).

R-cubed (R^3) period: The period from 1988 to 1992," when Michigan State University embarked on a long-range strategic plan designed to help the university carry out its mission

efficiently and effectively and demonstrated its readiness to improve and change.

Program discontinuance: The termination of an academic program consisting of more than one course (Fielder, 1983, p. 7).

Proposals: The number of proposals includes proposals submitted for funding, proposals newly funded or renewed, and proposals continued from the previous year (Michigan State University Office of Planning and Budgets University Data Book, January, 1992, p. 1).

Ranked faculty: The total academic staff appointed as professor, associate professor, assistant professor or instructor (Michigan State University Office of Planning and Budgets University Data Book, January, 1992, p. 1).

R-cubed strategies: a set of strategies--Refocussing, Rebalancing, and Refining, used by MSU to adapt to fiscal stringency during the R-cubed period. R-cubed strategies were used by MSU to achieve its goals.

Refereed papers: The number of publications appearing in print during the calendar year including single author, co-author, or edited (Office of Planning and Budgets University Data Book, January 1992, p. 1).

Refocus: looking at the institution's priorities (i.e., its mission and goals).

Refining: ensuring that the quality of MSU's academic programs are high.

Rebalancing: reallocate resources to meet the needs of priority areas.

Reallocation: A fiscal event that redirects resources (L. Glenny, 1974, p. 9).

SS&E: Supplies, services and equipment.

State fiscal year: A time period that extends from October 1 of a given year to September 30 of the following year. State appropriations are recommended in terms of a state fiscal year and later converted to an institutional fiscal year (Fielder, 1983, p. 7).

Student credit hour: Number of semester credit hours multiplied by the number of students taking the course (Fielder,, 1983, p. 7).

Temp: The number of academic staff with temporary appointment (Michigan State University Office of Planning and Budgets University Data Book, January, 1992, p. 1).

Tenured: Number of academic staff with tenure (Michigan State University Office of Planning and Budgets University Data Book, January, 1992, p. 1)

Transition funds: a type of non-recurring funds given only on a one-time basis to accomplish a particular goal, with outcome as part of R-cubed. It could be used to support

programs with temporary high enrollments. It could be used to support a newly hired faculty who will replace one who will retire in a year's time. It will pay the new hire until the retirement occurs.

1.5.7 Overview of Dissertation Sections

This rest of this dissertation is divided into four chapters. An extensive review of the relevant literature is found in chapter two. This chapter also contains the theoretical framework for the study. Chapter three is the methodology used for the study. It contains the method for selecting the sample, development of research questions, sources of data, procedures for data collection and analysis. It also contains a description of the departments being studied. Chapters four and five report the findings of the study for each of the two departments in the sample. Chapter six contains the conclusions and implications for the future.

Chapter 2

Literature Review

2.1 Overview

In this chapter I review the literature pertinent to my study and the model through which I will analyze my data, the rational decision making process.

The literature reviewed in this chapter fall into three broad categories: past studies on institutional responses to fiscal stringency; literature on the structure of academic departments; and literature on decision making in academic colleges and departments in periods of fiscal stringency. This review is given in section 2.2.

The second section of this chapter (2.3) deals with the interpretive framework for the study. It contains the steps in the rational decision making process, findings that may confirm the occurrence of the rational model, criticism of the model; findings that may discredit the rational model, and strengths of the rational decision making process.

2.2 Review of Relevant Literatures

This review covers three literatures which are discussed respectively in subsections 2.2.1, 2.2.2, and 2.2.3.

2.2.1 Literature on Institutional Responses to Fiscal Stringency

The Carnegie Report in 1975, titled "More Than Survival," recommends that during periods of slowed, no growth or declining growth institutions should adopt the following strategy: Institutional leaders should analyze their institutions to determine the current situation and factors shaping its future course. These analyses should be used to inform their colleagues and constituents and should be part of a larger effort designed to create attitudes receptive to, and conditions conducive to, change.

The authors of the report further stress that inflexibility is a major concern to institutions and systems, and that reallocation is the main source of flexibility when income growth ends. But, that reallocation under no growth raises the issues of centralized planning and authority and decision making, for which colleges are not particularly suited. They add that though decentralized forms of governance may be effective during a growth period, in decline they are more likely to paralyze the organization than help define it. Successful reallocation must involve peer review and participation. The authors add that they expect reallocation to become a way of life for most institutions. To facilitate adapting existing resources to new needs, they

suggest that guidelines for reallocation be developed by the boards of trustees or regents. They stress that the guidelines be sensitive to procedural requirements of the campus and provide objective bases for such concepts as "financial exigency" and "program need." They would like peer reviews to shift the burden of defending the status quo onto the departments.

Other proposals include:

- . withdrawing funds (about 1 to 3% annually) from existing campus programs... for a self-renewal fund to be directed to new or expanded programs.
- . The provision of greater incentive for effective use of resources by altering budgetary procedures to induce cost-saving changes, giving special attention to the possibilities of permitting departments and schools to carry over from year to year significant portions of unspent balances in their budgets, and of permitting them to retain a portion of the budgetary savings resulting from innovation or investment in more efficient equipment (p.75)

In the "The Three R's of the Eighties," Mortimer and Tierney (1979) probed the issue of institutional responses to reductions in growth rates and budget bases. The study included case studies of three institutions: the University of Michigan, the University of Pennsylvania, and the Pennsylvania State College System.

The inquiry was divided into two major segments. The first part addressed the future conditions under which the

institutions will operate. Those conditions include: declining numbers of college-age students, changing trends in institutional revenues, inflation rates, and trends in instructional expenditures. The second part of the study reviewed the predominant strategies institutions employed to cut expenses. These strategies include: reductions in growth rates, internal reallocations, program review, staff reductions and dismissals, and program discontinuance.

In the first part, Mortimer and Tierney predict enrollment declines between 1980 and 2000 for colleges. To buttress their position, they cite several articles, two of which include the Chronicle of Higher Education and A. Cartter's (1976) forecast. The first article predicted that between 1980 and 1990, there would be a 19% national decline in the number of 18-year-olds, while Cartter estimates that the decline in the traditional college-age cohort (18-21-year-olds) would be approximately 15%. Mortimer and Tierney add that if one were to look beyond 1990, the potential pool of college students will have dropped by 6-15% by 2000. In response to Bowen's (1975) point that older students would offset the decline, they cite Cartter and Soleman (1976) who contend that it would take approximately five, part-time students to replace one traditional, full-time student; and

that it was doubtful that there would be enough nontraditional students to offset the decline in traditional students.

Mortimer and Tierney note that matriculation rates fell by 50% in several states and that matriculation trends reflected an ebb in attendance. They blamed these phenomena on the end of the draft and lessening economic incentives for college attendance.

Other factors they mention that affect enrollment were population shifts within the United States and increased tendency of students towards career or vocational education. They assert that population shifts are of greater concern to colleges than the national attendance pattern. In-migration was occurring in the sunbelt region while out-migration was occurring in the industrial-oriented northeast section of the country. To respond to rising student demand for vocational education, they advise colleges to change to job-oriented curricula.

Regarding changing trends in institutional revenue, Mortimer and Tierney argue that an increase in tuition would likely decrease college attendance, though institutions claim that they were unsure of effects of tuition increase on enrollments. J. Jackson and G. Weathersby (1975) also say that increased tuition costs would decrease the likelihood of college attendance. A second source of revenue for

institutions was the federal government. The main point of this subsection was that federal aid to higher education was on the increase, but at a slow rate.

A third source of institutional revenue identified was state appropriations. However, Magarrell (1978) states that higher education was no longer a high priority within the state budget, and that this was reflected in the decreased state appropriations to colleges and universities. Private gifts was the fourth source of revenue. They fluctuate with the economy. In a buoyant economy they increased and in periods of economic recession, decreased. Changes in tax laws were also mentioned as affecting this source of institutional income. Endowment income was a fifth source of revenue. They predict that without careful management and reinvestment practices, the value of the endowment would diminish. The sixth source of income for institutions "other income" was of peculiar importance to research institutions. Other income is described as including sales and services of educational activities (sales of scientific and literary publications, the products of dairy creameries, food technology divisions, and poultry farms), the recovery of indirect costs, and incidental fees and rentals.

In their discussion of institutional expenditures, Mortimer and Tierney argue that projecting expenditure was

more reliable than projecting revenue, and that expenditures were growing at a rapid pace. Three reasons for this growth in expenditure were: inflation, increased responsibilities, and the nature of educational technology (Bowen, 1969; Jenny and Wynn, 1970; and Balderson, 1974). They explain that the increase in costs for goods at the institutions was higher than the increase of the consumer price index, because colleges consume specialized goods whereas the public consumes general goods. Increased responsibilities involved in high-cost research programs and graduate studies also contribute to the high costs. Federally mandated programs have also contributed to the high costs. And since the educational enterprise was labor-intensive, rather than capital-intensive, it was unable to affect costs by increasing technology. Cost per-student increased relative to costs in general. They contend that cost efficiency was difficult to achieve in a period of stable or declining enrollment. Cost per student increased during a period of declining enrollment due to increasingly "fixed" labor costs.

In part two, Mortimer and Tierney discussed institutional strategies employed in response to financial exigency. These strategies include: reductions in growth rates, reduction in budget base, internal reallocations, program review as resource reallocation, staff reductions,

staff dismissal, staff retrenchment, and program discontinuance. They comment that institutional expenditures are 70-80% salary costs; and that the reduction of a salary increase in any given year will have a long-term effect on the institution's budget.

Mortimer and Tierney identify two primary areas for reduction of budget base. The first area relates to changes in staff composition at an institution. They discuss the advantages and disadvantages of increasing the number of part-time faculty: Part-timers may not be as familiar with the college's missions, philosophies, and academic policies.

It is difficult to meld part-time and full-time faculty into a cohesive college faculty, especially if multiple locations are involved. It also is quite difficult to coordinate course content, develop uniform standards of student performance, and establish continuity of instruction when part-time faculty are used excessively. (p. 27)

Other techniques they suggested for changing staff composition rely on the promotion and tenure policies. Institutions have used a variety of techniques, including extending the pre-tenure period, increasing the proportion of non-tenured positions to tenured positions, and establishing early retirement programs.

The second way to reduce budget base is to increase student-faculty ratio: increase the number of students and

hold the numbers of faculty constant, reduce the number of faculty and hold the numbers of students constant, or a combination of the two.

Mortimer and Tierney state that the institutions they studied also responded to financial stringency through increasingly reallocating their internal resources. They cite Pennsylvania State University (Penn State) as an example; it responded to its revenue-expenditure gap by reducing its expenditure base. They explain that this feat was accomplished through internal budget reallocations. Penn State began a five-year planning and budget process in 1977 to guide its budgetary decisions. As found by Mortimer and Tierney, the plans were based on income and expense projections for the planning period. The institution required each college and major administrative unit (or college) to plan on the basis of budget targets it assigned them.

Another example was the University of Michigan's internal reallocation plan which was called the "Priority Fund" and consisted of a continual reallocation process. Under the "Priority Fund" the institution reallocated one percent (1%) of each unit's base budget, then used it to established a central fund. When units needed to establish new programs, improve equipment, or adjust a program, they could request increased funding from the "priority fund."

Mortimer and Tierney observe that the priority fund altered University of Michigan's approach to the budget-planning cycle: to reflect a planning mode versus an after-the-fact reporting of expenditures. Through "priority funding" the university was able to maintain financial flexibility during the reallocation of its resources. Harold T. Shapiro, vice-president for Academic Affairs at the University of Michigan (1977), notes that:

financial flexibility is no more than the conventional and prudent practice of maintaining sufficient financial liquidity so that if revenues fall or expenditures increase unexpectedly, monies can be found to fill the gap. That gives the organization time to adjust; it avoids crisis management and sudden disruption in operations which might cause permanent and irreparable damage, since for most institutions real growth as a source of flexibility will no longer be the case.
(p. 21)

Program review is also often used to reallocate resources in colleges and universities. Lee and Bowen (1971) argue that it was used to establish the need for new or expanded programs. Mortimer and McConnell (1978) recommend the decision-making process institutions should follow in reviewing programs:

1. The process and criteria must themselves be the subject of early consultations before alternatives become rigidified.
2. The procedures should be jointly formulated by both faculty and administrators.

3. Where possible, there must be adequate time to conduct reviews.
4. The information must be freely available to all persons concerned with the review. Those who would restrict the free flow of information should bear the responsibility for justifying the restriction.
5. Once reviews have been conducted, there should be adequate feedback concerning the results.
6. Any decisions reached should be communicated widely. (p. 35)

Finally, Mortimer and Tierney describe staff reductions, dismissals, retrenchment, and program discontinuance as other measures institutions used to respond to fiscal stringency. Program discontinuance was perceived as a certain consequence of budget gaps.

Mortimer and Tierney (1979) conducted a very extensive study on the subject of institutional responses to financial difficulty. Their work has made a remarkable contribution to knowledge about the topic. A missing piece of the puzzle is the understanding of how academic departments respond to budget reductions. This is a topic my study intends to explore.

James Patrick's (1991) research focused on Maryville College, a small, Catholic, women's liberal arts college in St. Louis that was on the brink of closure in 1971 due to extreme financial exigency in the late 1960s and early 1970s.

In the historical case study that was titled "Maryville College: The Will to Survive," Patrick investigated the following questions:

1. Did the college change to make itself more marketable to prospective students?

2. Did the leaders of the college use a participatory management style to effect change?

3. Was a lay board of trustees established to serve as a bridge to the community?

The author found that to attract more students, Maryville altered its mission by enrolling male students and becoming a "career-oriented liberal arts college." During the period of financial exigency, the three-member management team of the institution used a benevolent-authoritarian, rather than participatory, management style. A lay board took control of the college and helped improve relations between the college and the St. Louis community. He concluded that the institution survived by sacrificing a part of its heritage, and might as a result be suffering an identity crisis.

James Patrick's work on Maryville is quite different from mine because of differences in our units of analyses. Yet, his work contributes to a better understanding of institutional responses to fiscal stringency.

However, there are some methodological problems with his study. It depends inordinately on one source of data collection: the interview, for a historical case study. Moreover, sole reliance on recollections of human memory also raises doubts about the accuracy of the findings, since memories of events become more unreliable with time. An additional source of data would have strengthened the validity of his findings. Like other studies, Patrick's leaves a major knowledge gap: "responses of academic departments in periods of fiscal stringency."

The interest in how colleges and universities cope with fiscal distress has grown with time, as declining public support for higher education has left many scrambling for ways to make ends meet. Sherry Penny (1993) advances the discussion of how to survive fiscal stringency by listing lessons her institution--the University of Massachusetts at Boston--learned from four years of fiscal stress. According to her, the problems began in 1988 when the state's faltering economy began its steep decline. "During the next four years, state support for our institution shrank by 40% or \$33 million (adjusted for inflation). We suffered 10 separate reductions, many of which came without warning... During a one-month period in 1990, we lost \$6.5 million, more than 12% of our

budget" (p. B1). She gives a litany of lessons of which a few are relevant to my discussion:

1. Typically, the state's public colleges and universities are ordered to cut their budgets by the same percentage. State budget cuts do not take into account how such across-the-board cuts affect individual campuses, or what their impact will be on enrollment figures, academic programs, research, or community-service projects. This means that higher education institutions must learn to manage on the edge.

2. Communication is critical, and understanding is harder to achieve. Intensely focused discussions, based on relevant information, work better than too much uninformed talk over a long period because solutions generated will have more impact.

3. The problem solvers, including faculty members, must adopt a university-wide perspective. During bad times, there was a tendency to blame others for the budget problems. Having a strong statement of mission--one that is broadly supported throughout the campus--helps because it provides the basis for a strong institutional, non-parochial perspective.

4. Resistance to change must be dealt with. Recognizing for instance that one's college had become "state-assisted"

instead of state-supported," and that this new fiscal reality demanded a more flexible approach to planning.

5. Building consensus is important, but leaders sometimes must act even if they cannot reach consensus.

6. Centralized decision making is essential in irrational times.

7. Focus on the future and build while still cutting. Some forward motion in key areas was necessary to protect the university's mission of meeting the educational needs of underserved populations and a very diverse student body. Avoid creating an impression of the university going downhill, instead maintain excellence in areas key to the institution's mission.

8. Learn to deal with stress. Accept the fact that despite all you do to arrive at fair, rational decisions on where to cut and how much, some people will be angry with you.

Those managing decline must accept and live with the reality of not being popular. Risk taking may be necessary, but in fiscal hard times it is often not immediately rewarded, nor are all decisions supported by faculty and staff members or students (pp. B1-B3).

Penny describes the actions her institution took to alleviate the fiscal stress: reduction in personnel size (by 260 employees) through layoffs, attrition and partial freeze

on positions; merging of advising centers; cut in course sections; increase in the size of some courses; reduction in equipment and supply purchases; curtailment of professional travel for faculty and staff; and cutback in maintenance and purchases of books and periodicals. The result was that these cuts hurt administrative efficiency and morale, but, programs were preserved and more doctoral programs were added. She concludes that the institution changed and the budget became stable. Faculty, staff and administrators have begun to welcome change as a harbinger for renewal, instead of a premonition of death.

Typically from the perspective of a practitioner, this article offers a list of do's and don'ts for successfully managing fiscal stringency in a university. The article gives some useful advice especially for decision making when faced with fiscal distress. Her contention that her institution is now "state-assisted" rather than "state-supported," is germane to many public institutions today. Again, one gap in the report is that it is silent on how the academic departments at the University of Massachusetts resolved their financial hardship during its four years (1988-1991) of fiscal stringency.

In his dissertation titled "Case studies of Institutional Responses to Condition of Fiscal Stringency

1974-1979 by three Michigan Universities and State Colleges,"

James Fielder (1983) examined strategies three institutions (University of Michigan, Saginaw State Valley University, and Oakland University) used to respond to fiscal stringency. He describes the period as one in which Governor William G. Milliken issued two executive orders that reduced state appropriations to Michigan higher educational institutions. The governor of a state is responsible for balancing the state budget annually. Thus, when projected state revenues fall below the projected expenditure patterns, an executive order may be issued to reduce mid-year expenditure patterns.

He collected his data through the following methods: (a) review and analysis of institutional data reported to the state of Michigan Department of Education; (b) review of published institutional documents; and (c) semi-structured interviews with administrative staff of institutions studied.

Some interesting findings come out of his case studies:

(a) The three institutions experienced fiscal stringency during the period under inquest; (b) they used a variety of cost-reduction measures to respond to fiscal stringency; (c) they used, and encouraged subunits to increase fundraising activities (tuition increases, alteration of student-enrollment mix, aggressiveness in acquiring research grants) in order to augment state appropriations; (d) they moved from

pure operational planning (short term) and incremental budgeting to a combination of operational planning and strategic planning (long-term), and inclusion of budget planning into the strategic planning framework in order to increase budget flexibility; (e) a major difficulty all institutions encountered in trying to resolve fiscal stress was in internal communication; (f) institutions reported that the advantages and disadvantages of fiscal stringency were evenly balanced; and finally, (g) all institutions successfully assuaged their fiscal stringency.

Some of the institutions also established special funds to increase budget flexibility for academic units. For instance, at the University of Michigan, the most significant deliberate action taken was the implementation of the priority fund in 1977-78. The fund was established to provide increased budget flexibility through reallocation. The guidelines for the fund:

1. Academic units were to turn back .5% to .66% of the allocated general fund budget to the priority fund each year for three years.
2. Nonacademic units were to turn back 1 percent of the allocated general-fund budget to the priority fund each year for three years.
3. Each unit had the option of proposing programs for funding from the priority-fund.
4. Each unit in the institution was in competition for priority-fund allocation.

5. All proposals for funding were reviewed by the Vice-President for Academic Affairs, the Deans Council, and the Budget Priority Committee.
6. Final authorization to allocate funds from the priority fund was given by the vice-president for Academic Affairs.
7. The priority fund was established as a management tool with open access for institutional groups.

Fielder notes that owing to the priority fund the University of Michigan successfully reallocated funds from non-instructional units to instructional units, and from lower priority instructional units to higher priority instructional units.

The author concludes with recommendations: a need for further examination of whether the period of fiscal stringency continued after 1978-79; and if it did, for interested parties to find out what the institutions did to respond. He acknowledged that the breadth of his study precluded any intensive examination of the universities. He advised that similar studies should focus on an in-depth analysis of a single institution.

In summary, this report contains some important findings and recommendations for higher education administration. Its chronicle of strategies institutions used to allay financial shortages might be helpful to colleges and universities in these days of incessant budget reductions. Like other studies

reviewed in this chapter, this one does not examine "departmental responses to fiscal stringency." The study is also silent on the issue of decision making in times of fiscal stringency.

Another contribution to literature on institutional response to fiscal stringency is the work by Harvey and Stewart (1975). They address strategies that institutions can use to "survive significantly." The authors propose an alternative approach for coping with budget and enrollment decline. They criticize the physical-continuity goal of institutions as too limiting for colleges and universities, because the achievement of institutional aims is equally important. According to them, in pursuit of survival, institutions tend to lose sight of significance. They usually respond with retrenchment, which tends to focus on reducing institutional inadequacies rather than affirming its positive qualities. Retrenchment focuses on efficiency, costs, and weaknesses. "It examines where the institution is in the light of where it has been. In contrast, institutional affirmation focuses on effectiveness, on what might be in light of the future" (p. 273). These (retrenchment and affirmation) are not mutually exclusive responses to the problem of survival.

In order to survive significantly, colleges and universities have to become clearer about their individual

purposes and distinctive qualities. This means that in the face of declining numbers of traditional college students and increasing diversity of potential students, institutional decision about the new clientele will become an important element in their significant survival.

They reiterate that to survive significantly, institutions must change their curriculum and services. They must also follow programmatic changes with developmental program for faculty and administrators to help them rethink their responsibilities in light of such survival.

In their paper "Significant Survival: a Synthesis," Harvey and Stewart recapitulate five guidelines to increase significance and avoid simplistic solutions to enrollment and budgetary declines. These guidelines are supposed to focus on the long-term concerns of the institution, unlike efficiency and cost-cutting devices which focus on short-term survival.

1. Colleges and universities need an effective radar system to alert policymakers of impending danger. Planning and institutional research are the warning systems. They give institutions facts about where they are heading and foresight about what they may encounter as a result.

2. Institutions have to maintain high quality in order to attract able students and faculty. Toward achieving high quality they must do three things: (a) decide what is

important to do; (b) determine what contributes to achieving these qualities; and (c) demonstrate its achievement.

3. Higher education must look outside itself for guidance. It must be "consumer-oriented," but not "consumer-dominated." Desires of consumers should guide (but not control) policy development. The most important client is the government.

4. Universities have to maintain a "pruning" mentality. In growth years of higher education, institutions merely expanded. Such an approach is no longer feasible. Accretion must now give way to displacement: they should cut back in light of their priorities.

5. Educational growth and development is like human development. The 1950s and 1960s resembled the growth and autonomy of adolescence and the early twenties. The 1970s and 1980s represent the adult stage of human development. Like adults, higher education must now work harder to stay as fit as it once was, otherwise it will be even harder in the future.

Harvey and Stewarts' articles prescribe how institutions should respond to budgetary and enrollment shortfalls. Their prescriptions, though given in 1975, are still relevant today.

In fact, my analysis of Michigan State University's Academic Program Planning and Review documents show that the

institution was concerned with "efficiency" and "affirming" goals. The idea of "cutting" in light of institutional purpose and priorities is consistent with the principles of strategic planning. Incidentally, many institutions such as the University of Michigan, used this option in the 1980s (Fielder, 1983); and Michigan State University in the early 1990s (R³ Internal Discussion Paper, 1989). In conclusion, by viewing budgetary decline as a natural developmental task in the growth of higher education, the solution to such problems is no longer a question of what "we did wrong", but of "how do we resolve this problem." Their approach is truly positive.

I believe that institutions would benefit from combining "efficiency" and "affirming" approaches to their fiscal problems.

2.2.2 Literature on the Structure of Academic Departments

According to Tucker (1984) the first academic departments did not appear until the second half of the 1700s. Before then, librarians, registrars, deans and other appointed officials considered their administrative responsibilities as part-time jobs. They also served as faculty, teaching and advising students. However, as the number of students grew, presidents began to employ full-time tutors and professors. In the middle 1800s, faculty members at both Harvard and the

University of Virginia began to group themselves into separate departments of instruction.

Departments constitute the largest administrative stratum in a university. The chairperson of a department is usually privy to administrative information that the faculty usually does not have. For instance he/she is usually the first department faculty to know what the institution's budget for the next year will be or what programmatic priorities the board of trustees, the central administration, or the college dean have decreed for the future (Tucker, 1984). The teaching faculty with their narrower focus look to the chairperson for leadership based on professional self-interest.

The importance of the chairperson within the chain of the university has been clearly documented (Roach, 1976). Within the chain of decision making, those who head individual departments, regardless of discipline, make more than 75% of all administrative decisions in a university. Volume alone substantiates the influence of department leaders. Their decisions are influential in subsequent university policy making. Without the departmental chairperson as the first line administrator, deans and vice presidents are required to be involved directly in the administration of the lower-level units. Such over involvement in the day-to-day administration

of the department may be detrimental. At best it creates tension in the faculty-administration relationship.

The departmental chairperson is the representative of the university to the faculty and students, and at the same time is a peer of the faculty. While representing the departmental faculty, the departmental chairperson must also serve as an extension of upper levels of administration in the tasks of planning, directing, designing curriculum and allocating resources within the academic department. It is this dual role that makes the position perhaps the most difficult in the university or college.

The department chairperson's three, highest ranked responsibilities are planning, decision making, and implementing decisions. Other technical functions include budgeting, scheduling classes, and disseminating oral and written communications.

Normally, the central university administration allocates money to the colleges for distribution to the departments and programs. Sometimes departments receive direct funding from the provost for special line items or for some special faculty classification.

Andersen (1977) cites five reasons for viewing the department as a legitimate unit:

1. Departments provide the milieu most suitable for the development, preservation, and transmission of knowledge.

2. Departments have the familiarity, formal simplicity, and clearly defined hierarchy of authority to which students and instructors can easily relate.

3. Departments serve faculty as a unit where they can interact with a minimum of misunderstanding and superfluous effort.

4. Departments serve as a protective unit for the faculty within the college or university organization.

5. Departments provide an understandable and workable status system within which the faculty member can be oriented and professionally evaluated.

Tucker (1984) categorizes departments into four, based on their levels of maturity. Maturity is defined as the capacity to set attainable goals. It also involves the willingness and ability to take responsibility, and education of an individual or group. Based on this definition he describes four types of departments:

1. Small immature department--the members are usually very self-conscious and defensive about its existence in the college or university. Often it is called on to justify its existence, to defend its intellectual premises and its place in the chain of academic beings and to resist budget raids by

older and more powerful departments. In its curriculum development it usually tends towards polarization by becoming either faddish and eclectic or stodgy and traditional in its attempt to gain respectability. These extremes in behavior usually cause the dean or central administration to appoint a faculty member with a dominant personality as the leader to run it like a platoon;

2. Mature small department--its members usually know one another, share a unity of purpose and a sense of group cooperation that is rarely found in any other kind of department. Seldom is the chairperson as domineering as in the small immature department. The position of the chairperson is usually rotated among faculty. In this kind of department decisions--whether on resource allocation, course assignments, teaching loads, curriculum development or reform--are usually democratic or consensual. Tucker adds that in this type of department everyone defers to everyone else and the chairperson may take the path of least resistance by spreading resources evenly, giving each faculty member's courses and programs equal billing in the catalog and in the schedule of courses, promoting everyone's friend, tenuring newcomers as soon as possible.

3. Immature large departments--they are like their smaller counterparts but, on a larger scale;

4. Mature large departments--they have a tendency to organize themselves either as feudal territories or into assembly lines. Tucker adds that it is common to find internal fragmentations of more specialized units within this department. For instance, the Psychology department (a mature department) has so many subunits that it could be considered a school. The experimental psychologists are a subunit apart from the clinical psychologists or the social psychologists. Promotion and tenure issues are easier to resolve than resource allocation problems for the competing units develop a sense of pride and rarely recommend weak candidates for tenure. But resource allocation decisions mean that there will be some winners and some losers, so Tucker advises that it is best that the department establish some criteria for such decisions.

Additionally, there are usually large numbers of freshmen taking the introductory courses, and a similar number of graduate students who must be taught, whose theses and dissertations must be approved, and whose teaching assistantships must be supervised. Under such a condition the faculty and chairperson find it difficult to maintain a collegial atmosphere unlike the smaller department. It is common to find an associate-chairperson who is a director of a subunit of courses (for instance director of undergraduate

programs or of agri-business courses). With these structures, the department's internal organization begins to look like that of the university's central administration. With the narrow specializations in courses and research found in this type of department it is difficult to establish a positive, faculty work environment. Which in turn, make it difficult for departmental chairpersons to build faculty support for departmental goals and directions (Andersen, 1977).

2.2.3 Literature on Decision making in Colleges and Academic Departments in Periods of Fiscal Stringency

In "Decision Making in Times of Scarce Human and Financial Resources", R. Cheatham (1981) compares decision making among faculty and administrators in times of plentiful resources to times of fiscal stringency. He concludes by advising how decisions can be made more effectively and efficiently in periods of scarce resources.

Cheatham maintains that in times of scarce resources, college faculty consider the decision-making process too time-consuming in light of the potential pay-off. In such periods, the decision-making process will involve an increase in the number of negative decisions. Due to fear of later reprisals, non-tenured faculty are reluctant to serve on a decision-making committee where decisions will be viewed as distasteful

or negative. Tenured faculty, on the other hand, value their "good-old-person image within and outside the department" that they typically avoid being identified with unpopular decisions. Consequently, in times of scarce human resources a few dependable people become overworked on committees.

He advises that in such times, the decision-making process should rely more heavily on predetermined policy choices rather than on-demand, individual-case decisions. He reiterates that departments should spend more time planning, analyzing, and monitoring their monetary matters. He cautions that, "a fiscal mistake today is significantly more detrimental to a department than it would have been fifteen, or even ten years ago" (when colleges and universities experienced financial boom). He suggests that a department is in a position to make more rational decisions relevant to coping with budget cutbacks when those cutbacks are only probable, than after the fact, when people will most likely become too emotional. He advocates that such guidelines cover program development and revision, personnel selection and retention, and resource allocation. He advises departments to establish guidelines for promotion and tenure that are more stringent than the university-wide standards. Such practices would help them absorb institutionally mandated cuts better whenever it occurs.

This article will facilitate my analysis of the decision making in departments during the period of fiscal stringency. It sheds light on how decisions are made in departments, who makes them, and why. Though Cheatham advocates the rational model of decision making, he recognizes that in reality departmental decisions are more political. This is because only those few who attend meetings make decisions. This observation is consistent with Baldrige's (1983) description of decision making in higher education institutions.

In her study of decision making in universities under conditions of reduced resources and budgetary uncertainty, Rubin (1980) made the following observations:

1. University administrators and deans of colleges increasingly became more explicit in the criteria used for making decisions. For example, in one college the departmental chairpersons had used their discretion in filling positions. However, when resources became scarce, the dean established guidelines for filling vacant positions. The criteria included the ratio of instructional faculty to students, compared with norms of departments in other comparable universities; the extent to which the replacement would add to the quality of the department; and the priority of the position in comparison to others the departments would like to create.

2. During abundance faculty who applied for sabbaticals (and were eligible) could get them automatically. Free time for research was assumed rather than allocated. When resources became scarce criteria were set for awarding sabbaticals. The criteria used reflected the goals of the institution rather than those of the subunits. Such criteria compared individuals on the basis of merit; and compared departments on need.

3. In addition, resources were reallocated from departments whose enrollments were declining to those that were expanding. This prevented some departments from getting more expensive at the expense of others.

4. There was also an expansion of the universities' information base. This was caused by the following factors: increased requests for information from outside agencies, including state and federal government sources; better record keeping of expenditures, fund balances, more data on credit-hour production by departments and better enrollment projections. As administrators upgraded and expanded the information base they requested more information from the subunits.

5. Uncertainty about the timing and extent of cuts created confusion which in turn caused institutional administrators to make poor, budget allocation decisions.

This uncertainty caused further confusion among deans and chairpersons. For example, institutional administrators usually authorized faculty positions early in the year, but did not sign the contracts until the budget was firmer. This was done to ensure that there were some resources to cut (unfilled but authorized positions) if cuts became necessary late in the year. But this practice created uncertainty for the department heads: departments became ambivalent about whether to advertise classes which may be canceled if the instructor were not hired. However, if they did not advertise classes students may not enroll which would result in the cancellation of the class.

6. Another source of deterioration in decision making was distortion of some kinds of information. For instance, some administrators were very uncomfortable about the possibility of not being able to meet obligations because the margin of safety was so narrow. In reaction to that discomfort, departments began to under-report their resources while exaggerating their expenditures. In one university the errors of over a million dollars accumulated due to such procedures.

Information was also distorted in the attempt to protect certain kinds of expenditures. An instance was the concealment of administrative costs. Faculty and

administrative positions were often lumped together in the category "academic." Some academic positions were redefined as non-academic. Sometimes positions were cut at the campus level, where they were obvious and slipped in, in an undifferentiated manner into the college offices. Some costs of administration were included in the cost of instruction. Therefore the line for an expenditure disappeared, while the expense and function did not.

Other kinds of information also became less reliable in an attempt to protect costs from being cut. It also became increasingly difficult to estimate how much money was being spent on research (a second target of cut by the state board).

Research assistants came to be defined as teaching assistants, without any change in function.

Another source of distorted information was the intensified scramble for resources internal to the university. Since all vacant positions were collected at the dean's level for reallocation, departments began to hide vacancies. Just as department heads hid vacancies to prevent the dean from taking the lines, deans hid lapsing resources so that campus-level officials would not claim the funds. Consequently, information on the amount of lapsing funds and faculty positions became increasingly unreliable.

7. Previously, in periods of abundance, tenure decisions had been lenient in the universities Rubin studied. Departments that wished to improve their quality did not need to free up slots by not granting tenure. But, during fiscal stress the university controlled tenure positions more strictly. As the universities could no longer improve by growth, they had an interest in freeing up slots by not recommending faculty for tenure. But if they did that, there was a high probability that they might not be given a replacement slot. Because of this probability, department leaders recommended faculty indiscriminately for tenureship, since the other alternative was no faculty member at all.

However, when the college guaranteed a few departments the ability to replace positions as long as they did not recommend any faculty for tenureship, those departments started scrutinizing tenure candidates more carefully. But other departments that did not get the same guarantee continued to recommend faculty indiscriminately. "Satisficing" decisions due to uncertainty of reward was also observed in other circumstances. At one university, university departments refused to participate in a modified zero-based allocation plan. In the scheme each department could give up 5% of its budget with the hope of gaining all or more than all of the 5% back through new proposals. Because

departmental chairpersons felt that the probability of improving the department's budgetary position was very low, they did not make any effort to win the pool of funds.

Though the situation at MSU was different to the extent that the timing and amount of budget cuts were publicized, Rubin's study adds to the literature on responses of academic departments to periods of fiscal stringency.

Babcock (1984) in "Adaptive Responses and the Two Environments of Academic Subunits," examined how two colleges (embedded organization) responded to fiscal stringency in their parent institution. She made the following observations: (a) The colleges reorganized and consolidated some programs; (b) They implemented such technical adjustments such as: change size of classes, number of courses and sections taught, student/faculty ratio, workload of faculty, teaching costs per student credit hour (SCH), and percentage of student credit hours taught by permanent faculty; (c) When two colleges were compared he found that both attempted to alter resource dependency on the parent institution. One college sought more funds for public service to compensate for decreases in external fund for research. The second college concentrated on increasing its external research funds because it was encouraged to do so by the parent institution; (d)

Norms across other units on the campus also affected actions taken by colleges to adapt to the fiscal stringency.

2.3 Interpretive Framework and Other Decision Making Theories

The premise of rational decision making is to select a course of action that maximizes the goal of an organization. The process of selection is based on order and logic rather than on chaos and intuition (Chaffee, 1983, p. 11)

2.3.1 Steps in the Rational Decision-making Process

1. Identification of goals and objectives

Opportunities for making decisions arise daily in the course of life. For an organization such an opportunity arises when its present course of action is challenged, leading to a realization that maintaining the present course of action might result in some loss. The loss could be of something it has now and values, or of a future opportunity. Rational decision making begins with the recognition of a problem, such as a threat to the status quo. In this model, accurate problem recognition requires a clear analysis of values (Allison, 1971).

The values of an educational institution are reflected in its mission and goals. Goals provide an intermediate definition of an institution's mission. They derive from its

mission and therefore reflect commonly understood interests of the institution or college. Usually, an institution's goals are arranged according to their relative importance to indicate values the institution wishes to emphasize. An administrator wishing to make rational decisions uses those goals as the criteria for choosing one course of action over another. However, the goals must be stable and have meaning for the decisionmaker so that he/she at least understands why he/she is making the decision.

Also, a department's goals and objectives should be consistent with the broader mission and goals of the parent institution. Therefore as the goals of colleges and universities are modified to reflect changes in societal needs and conditions, departmental goals should be altered to remain consistent with the institution's larger goals (Tucker, 1988). For example, during R-cubed, when MSU altered its goals to reflect societal changes, a department acting rationally would also realign its goals to be more consistent with the strategic goals of R-cubed. In turn, these current goals of the department would serve as its criteria for choosing a course of action to enact in response to institutional fiscal stringency. For instance during R-cubed, a department such as horticulture could decide to increase its

life-long education programs in accordance with general direction of MSU.

For the rational decision-making process to be applicable in an organization, it should also be clear who makes the decision in the organization, who will be affected by it, and the extent to which each party could participate in the decision making process.

Rational decision making also needs an atmosphere of stability, that the institution will continue. The rational decision making process will work in a time of scarcity if administrators make decisions that are consistent with the values of the institution (Edwards and Newman, 1982; Chaffee, 1983).

2. Search for Alternatives

The second step in the process is exploring and gathering information concerning possible alternatives to the present course of action (Aldrich, 1977). These alternatives are entertained as courses of action that might lead to the achievement of the goals and objectives that were identified earlier. The search for alternatives is usually done grudgingly, since changing an already-decided-course-of-action involves extra efforts and costs (Mullen and Roth, 1991). Though the inclusion of stakeholders in the decision-making

process is not part of the rational model, it is advocated because it will facilitate the successful implementation of the decision (Chaffee, 1983). For example, an important decision that affects the welfare and survival of the department requires the acceptance of departmental faculty in order to carry it out. In such an instance it is in the interest of the chairperson to solicit suggestions from faculty on possible solutions to the problem(s) he/she has identified. Even the most benign rational decision can be resisted or subverted by faculty if they feel they had no share in making the decision (Tucker, 1988). Brainstorming and Delphi techniques are among procedures commonly used to generate choices. The Delphi technique is a decision-making method in which experts reach consensus about future events through a series of continuously refined questionnaires on a selected problem, rather than through face-to-face discussions (R., Daft, 1988).

While exploring various courses of action, decisionmakers must also identify constraints within the situation that could affect their decision (e.g., time, financial, personnel, contractual obligations, Federal and State mandates). Resources within the environment that may facilitate accomplishment of the goals should also be identified (Gordon, 1987).

3. Evaluation of Alternatives and Reaching a Decision

This step involves the assessment of the probable outcomes of the various proposed alternatives (Ashar, 1987). The courses of action that were generated would be evaluated simultaneously. Their costs, benefits, economic and political feasibility would be evaluated against each other. The choice of outcome which seems the most beneficial (for instance, maximizes the goal(s) of the department) or which cost appears the least detrimental (to that goal) is selected (Chaffee, 1983; Ashar and Shapiro, 1988; and Mullen and Roth, 1991).

Because matters beyond human control may affect the final outcome of a decision, people use probabilities to estimate the occurrence of an outcome. This calculation could be done by using words like probable, very probable, almost certain, etc. Probabilities can also be estimated through the calculation of mathematical probabilities (for instance, a probability of three out of ten, Mullen and Roth, 1991).

4. Implementation of the Choice (Decision).

The details of the choice/alternative selected in the preceding step are enacted.

5. Results

Ideally, the outcome that follows the implementation should be what the decisionmaker(s) had intended. The actor(s) purposely selected and carried out the chosen course of action because of its likely outcome.

6. Analysis of the Decision/Feedback

After the decision is made, the decisionmaker reassesses the decision and reviews the steps that led to that decision. If the review indicates that the decision did not contribute toward the achievement of the superordinate goal(s), it may be best the decisionmakers return to the problem identification stage of the process. If the decision is good, then the decisionmakers should continue its implementation. The feedback from the evaluation of the decision and of the process itself would provide information that could be used to improve future decisions.

7. Central authority for decision making

One of the conditions for the applicability of the rational decision process is the presence of a central decision-making authority figure. For instance, in a department the chairperson makes final decisions on issues affecting that unit. Decisions may range from resource

allocation to staffing issues. The chairperson of a department, like other leaders in the institution, is appointed in a fiduciary role to represent his/her unit and also to make decisions for that unit. Usually roles and responsibilities are specified for the various positions in the organization, and in each unit there is a recognized authority figure who makes decisions for that entity. For example, faculty may provide input to the Faculty Advisory Committee(F.A.C.). The F.A.C. then synthesizes and analyzes the inputs prior to advising the departmental chairperson. Despite the importance of the (F.A.C) in the department, it is understood that the chairperson makes the final decision.

2.3.2 Findings That May Confirm the Occurrence of the Rational Model

In my study, I test for the occurrence of the following events:

1. A definition of the problem to be solved at the beginning of the decision-making process.

2. An observance of the sequence of activities outlined in the rational process (identification of problem, identification of goals, search for alternative courses of action, evaluation of options and selection of choice, implementation of choice, evaluation of outcomes of the

implementation and feeding the result of the evaluation into further decisions).

3. An identification of departmental goals which also served as criteria for decisions. Chaffee (1983), and Vancil and Lorrance (1993) are of the opinion that for a department's decision making to be rational it must be derived from the broader goals of the institution of which it is a subunit.

4. A provision existed for determining who should make the decision, who would be affected by it and to what degree each party could participate in the decision process.

5. A clear authority structure was specified and decision making authority was centralized. It was understood that the departmental chairperson was responsible for making decisions in that subunit. The decisionmaker acted in a fiducial role to the department and was appointed by the dean of the parent college.

6. A mechanism existed for generating as many alternative solutions to the problem as possible and for evaluating those alternatives simultaneously.

7. There was a method of assessing the likelihood that a particular alternative would produce results that corresponded with the value structure. The decisionmaker (departmental chairperson) evaluated all courses of action generated. Options were evaluated simultaneously. Their probable

consequences or outcomes were examined and the option most beneficial to the departmental goal(s) was selected.

8. Decisions were implemented. For instance if decisions were rational, programs central to the purpose of the department and college would be strengthened while peripheral ones regardless of political clout would be retrenched. This should also be the case for faculty and staff. If new programs were developed, they should be ones that were consistent with the purpose of the department and the goals of R-cubed.

9. A procedure existed for evaluating the changes that took place in the department as a result of implementing the decision. The outcome of the performed decision was what the decisionmaker had intended. The information gained from assessing the outcome of the performed decisions was used to enhance subsequent decisions.

2.3.3 Criticism of the Model

The rational decision-making perspective dominated the literature between 1900 and 1960. But, beginning in the late 1950s and through the mid 1970s new theoretical models emerged. These new decision-making models, (e.g., the political, collegial, organized anarchy and naturalistic decision-making models) challenged rationality as the basis of

decisions. They questioned the usefulness of the concept in understanding organizational choice, (Rubin, 1980). Some of the criticisms of the rational model include the following:

Limits on Goal Rationality and Outcome Rationality

In discussing the inadequacy of the rational model, March (1957) notes that the rational model involves two kinds of guesses: "guesses about future consequences of current actions and guesses about future preferences for those consequences." He elaborates these points further:

1. the rational model believes that preferences are well defined and widely accepted. He points out that in reality individual decisionmakers and organizations change their tastes, have different values and conflicting goals. He adds that power and politics play a major role in organizational choice. Segmented rather than holistic and universalistic interests become decision guidelines.

2. The model's belief in the ability of humans to predict future consequences accurately is based on misconceptions about the environment and of the decision maker. The model assumes a simple and stable environment and an "intelligent" actor. March (1957) maintains that the rational model ignores environmental uncertainty that suspends the control of administrators on the consequences of their

actions and overlooks limits to human capacity to store, organize and process information or to utilize memory. He also adds that predictions of consequences are "guesses" and that decisions based on such predictions are only "satisficing." March concludes that decision-making processes cannot be rational because future consequences are unpredictable and future preferences unstable.

Griffin (1987) further explains that it is impossible to make optimal decisions because the decisionmaker cannot possibly know all the available alternatives, the consequence(s) of each alternative, and the probability of occurrence of these consequences. Thus, rather than being an "optimizer" the decisionmaker is a "satisficer." He or she selects the option that meets an acceptable standard. Usually, the decisionmaker sets that standard of sufficiency prior to searching for options.

Another criticism on the assumption of well-defined goals is by Birnbaum (1988). He argues that rational decisions are not possible in higher educational institutions given that they are complex and loosely coupled systems. He proposes that rationality assumes the purpose of decision making is to create outcomes that maximize the values of the decisionmaker. An objective, rational administrator is one who knows all the information, considers all the alternatives

and compares all sets of consequences, then selects the best alternative. According to Birnbaum, objective rationality is not possible in a university, given the complexities of the world, human cognitive limitations, and loose coupling. Rather, because rationality is bounded, college administrators satisfice (make acceptable decisions) rather than maximize. He concludes that even when organizational goals are set and shared it does not mean that people will agree on which goals should be optimized or on how to optimize them.

Limits on the Sequence of Rational Activities

This criticism argues that organizational circumstances make it difficult for decisionmakers to follow the sequence of rational activities involved in the rational decision-making process. Critics (for example, Tolbert and Zucker, 1983; Volkwein, 1984) argue that instead goals are often determined posteriorly to justify actions already taken, and that actions precede rather than follow problems. These critics explain that the reason organizations pretend to use the rational model is because of the social value attached to the rational model in the Western culture.

Baldrige criticizes the model's assumption that "recognition of the problem" is one element in the change

process. He says it pays too little attention to the activities that bring a particular issue to the forefront, that is, the question: "Why is this decision being considered at this particular time?" Baldrige believes that the political model is more realistic than the rational process. This is because the former recognizes that interest groups, powerful individuals, and the bureaucratic process are critical in drawing attention to some decisions.

Baldrige believes that the political model is more descriptive of decision making processes in higher education than the rational model for the following reasons:

1. The presence of a complex decision network that gathers necessary information and supplies critical expertise. Decisions are not simply bureaucratic orders but negotiated compromises and deals between competing groups. Officials in higher educational institutions cannot simply issue decisions, but must jockey between interest groups hoping to build viable positions between powerful blocs.

2. External interest groups exert substantial influence over the policy-making process. External pressure and formal control by outside agencies shape internal governance processes especially in public institutions.

3. Even when people actively participate, they move in and out of the decision making process. This means that in the

end only a small group of people make decisions because they have the time necessary to invest in the decision-making process.

4. In order to give certain decisions legitimacy, institutions appoint individuals or groups to make those decisions. However, prior to those appointments the decisions have already been made by powerful individuals or groups within the institution. Also, the number of alternative courses of action a decisionmaker explores are limited by his/her previous experiences.

5. In "Choice of alternative solutions to the problem at hand," Baldrige(1985) states that a realistic appraisal of decision dynamics in most organizations suggests that by no means are all options open. The political dynamics of interest groups, the force of external power blocs, and the opposition of powerful professional constituencies may leave only a handful of viable options. In the real world administrators have limited time and energy to seek new solutions, and the range of alternatives available are also limited.

The rational model is further criticized for not investigating the right of any person or group to make the decisions about change. This is because the rational model was developed for hierarchical organizations in which the

focus of authority could be easily defined. In a loosely defined system, it is important to find out why Mr. A and not Mr. B is making a decision, or why the university senate and not the central administration is dealing with a problem. The political model is said to ask "tough" questions. For instance, "By what conflict-ridden process was the decision located" here rather than at another point?" (Baldrige, 1983).

Inapplicable in Naturalistic Settings

Another set of critics of the rational (normative) model are the naturalistic decision making theorists represented by Klein, Oresanu, Calderwood, and Zsombok, (1993). They criticize the rational model for being too idealistic and enumerate eight reasons why the rational model is inapplicable in naturalistic settings:

1. Unstructured problems: Real decision problems rarely present themselves in the neat, complete form the rational model suggests. The decisionmaker will have to do a significant amount of work to generate hypotheses about what is happening, to recognize that the situation is one in which choice is required or allowed.

2. Uncertain dynamic environments: Naturalistic decisions are usually made in a world of incomplete or

imperfect information. The decisionmaker has information about some part of the problem, but not others. Therefore information may be ambiguous or of poor quality. For instance a public university may not be certain of the amount of funding it will receive from its legislators the following year. This uncertainty will also affect the type of decision the university makes.

3. Poorly-defined, or competing goals: The parameters of a problem are not always clear. Decisionmakers are usually driven by multiple purposes and not all of them are clear, while some of them are in opposition to others. Sometimes self-interests of decisionmakers compete with the goals of the institution.

4. Action/feedback loops: In real life decision making, actions and feedback are looped. The process of making a decision does not involve one event at a point in time when you make a single decisive choice. Rather, it is more common to find that the process of making a decision involves a series of events, over time, that are intended to resolve a problem, or to find out more about it, or both. For instance, during R-cubed, MSU's central administration might approach institutional fiscal stringency by first trying forward funding to balance their budget, upon finding that it did not resolve the problem, they might raise student tuition, if that

was unsuccessful, they might try strategic planning, reallocations, and reducing enrollment. If they found that fiscal stringency still existed they might attempt using total quality management (TQM) to alleviate their fiscal problems.

5. Time constraints: In real life, decisions are made under time constraint. This may vary from needing to respond in minutes or seconds to deciding on an organizational strategy within a few months. Time pressure implies that decisionmakers in these settings will experience high levels of stress and exhaustion with potential loss of vigilance. Their thinking will likely shift in the direction of not conducting a wide search for alternative courses of action (Payne, Bettman, and Johnson, 1988).

6. Many participants contribute to the decisions.

7. The decisionmaker must balance personal choice with organizational norms and goals.

Nature of Decision Making in Naturalistic Settings

The Naturalistic decision making theorists maintain that:

1. Experts making decisions in their fields, for example, administrators, do not usually generate and evaluate several courses of action concurrently to determine the best choice. Instead, based on their classification of the problem, they generate a single, highly likely option and evaluate its

appropriateness to current situations. If it is appropriate, they act on it. If it is not, it is modified or a second option is generated and the cycle is repeated (Klein, 1989).

2. Because most real-life decision problems are poorly structured, decisionmakers usually choose an option that is satisfactory (satisfice), not necessarily the best choice (Simon, 1955; Hickson, Butler, Cray, Mallory, and Wilson, 1986). They attribute this to the fact that in most complex problems, there is no single correct answer.

3. Reasoning is "schema-driven." Decision makers use their knowledge to organize a problem, to interpret a situation and to define what information is valuable for a solution (Larkin et al, 1980). They select some information to fit the existing schema or alter available information to be consistent with their beliefs (Tolcott et al, 1989). They try to understand the significance of events and information by inferring causal relations (Hastie and Parks, 1986; and Jungermann, 1983). This enables them to interpret intentions of other participants and evaluate proposed actions by anticipating their future consequences (Lipshitz, 1993).

4. Deciding and acting are interwoven, rather than segregated. Instead of analyzing all facets of a situation, making a decision and then acting on it, people actually think

a little and act a little. Then they evaluate the outcomes and think and then act (Connolly and Wagner, 1988).

In summary, these critics of the rational model do not question the value of the concept, but its applicability in organizational decision making. They argue that rationality is difficult to achieve in decision-making situations (Weick, 1985). Another criticism is also that in higher education the decision-making process is more political than rational (Baldrige, 1983).

2.3.4 Findings That May Discredit the Rational Model

If a decision-making process departs from the established rational model, then one or more of the following events may occur:

1. Various interest groups would push for their own agenda.
2. Alternative courses of action generated would not be a means to the common goal but rather expressions of self-interests of stakeholders.
3. Alternative courses of action would be explored and tested one at a time rather than all being evaluated simultaneously. For instance one course of action would be considered, then implemented, but after the decisionmaker decided its outcome was unsatisfactory, he/she would decide

to explore and test another course of action. The decisionmaker would have continued this cycle until a successful solution to the problem was found.

4. The premise in decision making would not be to maximize the department's goals. Instead, each stakeholder or the decisionmaker may be motivated by desire to win, or to achieve consensus.

5. The proposal of the dominant block would be selected and implemented. Decisions may be reached through coalitions, or negotiations or through consensus.

6. Decisions would not be evaluated nor would feedback be provided to improve future decisions.

2.3.5 Strengths of the Rational Model

Even though there are many criticisms of the rational model, supporters of the model offer a compelling argument for its usefulness in higher educational institutions.

In periods of fiscal stringency, administrators tend to use the rational model because their decisions are usually carefully scrutinized by the external constituents and internal participants of the university (Rubin, 1980; and Ashar and Shapiro, 1990).

These stakeholders demand increased rationality at periods when ambiguity and uncertainty rise. Administrators

are also expected to avoid mistakes when mistakes are more probable (March and Cohen, 1974; Cameron, Whetten, and Kim, 1987; and Rubin, 1980). Organizations tend to use the rational process to reduce criticism and ensure the flow of resources from the public (March, 1978; and Weick, 1985).

The usual institutional response to resource scarcity is reallocation, and though units vary on the degree to which they need to readjust (Allison, 1987), resource reallocation often impacts the whole organization (Cameron, 1983). In periods of financial retrenchment, rational decisions enable institutions to manage their resources better, and adapt to continual decrease in state appropriation (Volkwein, 1984). An institution can improve its quality within the context of diminished resources by assuming that it has options not used before. However, innovation alone will not improve quality during fiscal stress. Quality can only be improved when there is a strong relationship between those innovative strategies and the goals of the institution. The use of the rational decision-making process strengthens this relationship and provides grounds on which an administrator can make difficult decisions, explain them and carry them out with minimal disruption, thus ensuring the survival of the institution (Chaffee, 1983).

Rational procedures benefit the institutional community by making the decision process more predictable and satisfying than processes patterned on other models. The constant search to match alternatives with the goals of the unit/institution gives a predictable structure and relatively predictable responses to the decision process since the decisionmaker is always guided by the question, "How will this choice promote our goals?"

In politically sensitive situations in which a segment of the department is expected to oppose a decision deemed necessary by the department chairperson, credibility is a major issue. The administrator whose past decisions have been based on the political model, accommodating groups in exchange for support, is defenseless against a charge of bias in the current situation. But a departmental chairperson who characteristically follows the rational process can use past practices to prove that the current decision is not biased but is rather a new link in a chain of decisions based on clearly defined values. An administrator who can show the rational basis of a decision is likely to gain credibility in difficult circumstances (Chaffee, 1983).

Furthermore, the focus in the rational decision process is on maximizing departmental or institutional goals. This focus has the potential to make decisions arrived at through

this process more acceptable to the stakeholders of the institution than decisions arrived at through any other model. This quality of the model is significant for morale and communication in an organization (Chaffee, 1983; Gordon, 1987).

Also, administrators who are value oriented, who think and speak in terms of these values, are perceived as persons of vision, "diplomats" rather than politicians, true leaders rather than mere administrators (Chaffee, 1983).

The model advocates clarification of goals and gathering of information to help in decision making. It also specifies an exhaustive search of alternative courses of action and a thorough evaluation of these. The model does not stipulate that all options should be explored. It leaves room for the decisionmaker to explore as widely as he/she wants. To state that the model is unrealistic because of the limitations of human cognition is therefore unfounded.

The model does not limit the costs and benefits of options that should be evaluated. But, rather it makes room for assessing costs (economic, political, etc.) and benefits of each choice of action. If a wide array of possible costs and benefits are examined, the resultant choice should be one that meets certain predetermined criteria or that maximizes the goals of the decisionmaker.

In conclusion, apart from the members of the institution and the administrators who make decisions, the institution also benefits from the persistent use of this model. Since progress often requires small steps taken over a long period of time, persistent application of its goals enables an organization to advance toward them. The model enables an institution to incorporate its values in its day-to-day operations. This action ultimately enables the institution to transform its ideals into reality (Chaffee, 1983).

This study has selected the rational model for comparison with the decision-making process utilized by departments at MSU for two reasons:

1. Many literatures maintain that in periods of fiscal stringency institutions tend to relate to the rational model. So I tried to test the applicability of that theory in academic departments, during a period where they were experiencing fiscal stringency.

2. I have been brought up to think rationally. Consequently, I have come to expect that people would think and act rationally in most situations. However, I decided to test my theory--to see if people actually use the rational model of decision making especially when their resources are low.

CHAPTER 3

METHODOLOGY

3.1 Overview

Chapter three describes the methodology used in the research. This chapter consists of six sections. Section 3.1 outlines a general overview of the methodology used in this study. Section 3.2 presents the two key research questions that guide the study; it also describes the historical case-study method. Section 3.3 presents the first research question (Question 1). It also details a brief review of literature related to that question, more specific questions that emanate from question 1, and sources of data to answer this question. In section 3.4, question 2 is presented along with a synopsis of literature relevant to the question, more detailed questions that emanate from question 2, and sources of data to answer the question. Section 3.5 provides the sample, the measures taken to ensure the validity of the study, and compilation of the data base. In section 3.6, I present the steps taken to analyze the data. Section 3.7 provides the plan for data presentation. Finally 3.8 discusses the limitations of the study.

3.2 Key Research Questions

3.2.1 Overarching Research Question:

Did academic departments at MSU respond rationally to fiscal stringency during the R-cubed period?

1. What were the responses of academic departments at MSU to institutional fiscal stringency during R-cubed?

2. Through what processes did academic departments select their responses to fiscal stringency ; did these processes conform to the rational decision making model?

3.2.2 Design of the Study

This study has been designed to obtain information on the response of academic departments to fiscal stringency as part of the R³ effort that occurred in Michigan State University between 1988-1992.

This study uses the historical case study methodology. Histories and case studies are two different kinds of design.

According to Yin (1984), histories are preferred when dealing with the past and when there is no one alive to report what has occurred, the researcher must rely on primary documents, secondary documents, and cultural and physical artifacts as sources of evidence. Historical design is also most appropriate when research questions take the form of "how," and "why?" He adds that history can be done on contemporary

events, but the historical design may overlap with the case study methodology.

The case study is preferred for studying contemporary events when the investigator cannot control the behavioral events. The questions asked in case studies usually take the form of "how," and "why?" In addition to using the same techniques as the historical design the case study also uses direct observation and systematic interviewing. Case studies are also distinguished by intensive, detailed investigation of a single unit, an individual, an institution or a community. This determines the variables and relationships among the factors influencing current behavior, or the status of the subject of the study. "The hope is that through the depth of analysis involved in case studies important information and insights will be gained" (Fraenkel and Wallen, 1993, p.392).

By combining these two designs this research will have the advantage of gaining an in-depth understanding of a historical event that impacted many facets of MSU.

3.3 Study of Research Question 1

What were the responses of academic departments in MSU to institutional fiscal stringency during R-cubed?

3.3.1 Findings on Institutional Responses to Fiscal Stringency

There are many studies on institutional responses to fiscal stringency, but very few on academic departments' responses in particular. For this reason, I drew heavily from literature on institutional responses to fiscal stringency to guide my research. The research findings that shaped the types of information sought to conduct this research are summarized below:

Previous studies find that academic institutions usually coped with fiscal stringency by implementing a combination of three responses:

1. Efficiency or cost-reduction measures: including resource reallocation, personnel reductions (dismissal or retrenchment, early retirement programs, non-replacement of vacant positions, hiring of part time faculty), and academic program reduction and discontinuance (Mortimer and Tierney 1979, Fielder, 1983);

2. Revenue augmentation: including raising tuition, increasing institutional development efforts, increasing faculty applications for research grants, and rewarding faculty who bring in external funds for the institution (Cheit, 1971; Jellema, 1973; Bowen and Glenny, 1975; Mortimer and Tierney 1979; Fielder, 1983).

3. Institutional survival: in periods of fiscal stringency institutions are also concerned with their long-

term viability. This is a major reason for strategic planning. Institutions restructure existing programs and start new ones to be responsive to trends in their external environment. Responses that are characterized as "institutional survival," or "affirming measures," include the following: changes in curriculum and services, development program for faculty and administrators, planning and institutional research, improving or maintaining high quality programs so as to attract able faculty and students, and becoming more consumer oriented (Harvey and Stewart, 1975). Other authors term these survival measures program reorganization (Fielder, 1983; Baldrige, et. al. 1983).

Babcock (1984) found that colleges ("embedded organizations") had responded to fiscal stringency in their parent institution by:

1. Reorganizing and consolidating some programs.
2. Implementing technical adjustments such as: changing size of classes, the number of courses and sections taught, student/faculty ratio, workload of faculty, teaching costs per student credit hour (SCH), and percentage of student credit hours taught by permanent faculty.
3. Altering resource dependency on the parent institution through increasing search for: a) funds for public service; or b) external research grants.

3.3.2 Information Related to the Responses of Academic Departments at MSU to Institutional Fiscal Stringency

In order to understand how the two academic departments in MSU responded to fiscal stringency during the R-cubed period, I used the following broad categories of data: sources of departmental revenue and expenditure, the directives of MSU and the parent college communicated to the department regarding how the department should respond to fiscal stringency during R-cubed; planning within the department during the period, and the actual responses of departments during R-cubed.

The following are more specific types of questions that I sought to answer in my research:

Background Information:

- What was each department's budget status?
- What were the sources of revenue and expenditures for each department between 1984 and 1992 (i.e., period prior to, and during the R-cubed period)?
- Were there hidden sources of revenue and expenditure in each department?
- What difficulties did each department encounter as it tried to respond?
- What did the APP&R and the dean direct the department to do during R-cubed and were these consistent with findings in related research regarding what institutions direct their units to do at such periods?

- What amount did the parent college direct each department to reallocate from its base budget?
- What were the plans (long, medium, and short range) of each department on responding to fiscal stringency?
- What was the schedule for implementing the responses between 1988-1992?
- What was the total amount each department actually reallocated for the duration of R-cubed (1988-1992)?
- To what extent did each department try to reduce its expenditure? If it reduced expenditures, what measures (personnel and programmatic actions) did it use?
- Did each department try to augment its revenue? If it did, what specific steps did it take to achieve this?
- Did each department try to strengthen its existing programs and/or begin new programs during R-cubed? If so, what changes were made?
- Did each department implement any strategies to ensure its long term survival (for instance, what efforts did each department make to increase the number of life long education courses it offered; to increase its recruitment and retention of minorities and women; and to be more responsive to the needs of external clientele)?
- What were the status of the following indicators in each department during R-cubed: student credit hour

(SCH) production, full time equivalent faculty (FTE), faculty/student ratio, externally generated revenue, general fund revenue to the department, and size of departmental budget or expenditure?

- What difficulties did the departments experience as they tried to respond to institutional fiscal stringency during the R-cubed era?
- Were there also incentives from the institution or parent college for departments as they tried to respond to fiscal stringency?
- To what extent did what the departmental decision makers say the department would do differ from what actually happened?

3.3.3 Information Sources:

The required information for addressing question (1) will be obtained through five sources:

1. Interviews with: (a) The dean of the college during R-cubed (I ascertained the function of the departments in the college and institution, what departments were asked to do during the R-cubed period; amount departments were directed to reallocate to the institution during the R-cubed period, and how the two departments responded to fiscal stringency); (b) Departmental chairpersons at the time of R-cubed (revealed information on all aspects of the research questions); and (c)

Faculty who were involved in decision making in the department during R-cubed (provided information on all aspects of the research questions).

2. Completed departmental APP&R reports. They showed documented reports of how each department responded to fiscal stringency. Through these documents I also compared departmental responses to the directives of the APP&R. Copies of these reports were obtained from the parent college and the Office of Planning and Budgets at MSU.

3. Departmental budgets (these show outcomes of responses or implemented decisions). The budgets provided information about sources of revenue and expenditure for the department, actions taken by each department in response to fiscal stringency (for example programs that experience reduced or increased funding), distribution of resources within each department, and departmental priorities. These documents were collected from the Michigan State University's Office of the Vice President for Finance and Treasury and the Office for Institutional Research and the Archives Department.

4. The two departments' data for periods from 1986 until 1993. The data include SCH, FTE, faculty/student ratios, summaries of annual budgets, enrollments, and amounts of external funds generated by a department. The documents containing the data were collected from the Main Library, the

Office for Institutional Research and Archives, and the Office of Planning and Budgets.

5. Planning documents of the departments. The APP&R documents were the planning documents that these departments used. They contained long range and medium range plans of the departments. They indicated how departments carried out their plans, and the time span for accomplishing these plans.

They also showed the resources, and actual and expected constraints that affected the implementation of the plans. In addition to the APP&R reports, one department also furnished me with their strategic planning documents.

3.4 Study of Research Question 2

Through what processes did those academic departments select their responses to fiscal stringency? Did these processes conform to the rational decision making model?

3.4.1 Findings on Decision Making Processes Used by Academic Departments in Periods of Fiscal Stringency

Some works in the literature maintain the following position:

In periods of fiscal stringency, academic departments and organizations tend to use the rational decision making process (March, 1978; Cameron, 1984; Volkweim, 1984; and Allison, 1987).

Ashar and Shapiro (1988) argue that in periods of fiscal stringency the following will happen in academic departments:

1. Decision making criteria will be more explicit;
2. The search for sources of information will increase;
- and
3. Information will be used more in making decisions.

Baldrige (1983), however, points out that the process of decision making in academic institutions is political rather than rational.

The naturalistic decision theorists (Klein, Oresanu, Calderwood, and Zsambock, 1993) say that the rational decision process is impractical because:

1. Goals are not always clear;
2. Decisions are made by more than one individual; and
3. Administrators do not have the time to consider a wide array of options prior to selecting a choice.

3.4.2 Information Related to the Processes which Academic Departments Used to Select Their Responses to Fiscal Stringency; and Comparison of Those Processes to the Rational Model

This study will review the literature on decision making, including:

1. Decision making in higher educational institutions in periods of fiscal stringency;
2. Decision making in academic departments in periods of fiscal stringency;

3. Features of organizational decision making process;
and
4. Rational decision making model, as well as
alternative decision making models.

According to Chaffee (1983, p. 9-11) all decision making processes (rational, political, naturalistic, collegial, etc.) have these underlying attributes or elements in common:

1. The values of the organization and the actors within it;
2. The alternative courses of action considered;
3. The premise directing the consideration of alternatives;
4. Selection of a choice;
5. Implementation procedure for carrying out the choice;
6. Results (internal and external changes in the organization) of implementing the decision; and
7. Feedback that acts as both input and output.

These features, however, are also the criteria for differentiating among the various decision making models. For example, the nature of values (a decision element) in the rational model is that there is a superordinate organizational goal(s) which is accepted by decision maker(s). It is known a priori and directs decision making. In the political model, the value or goals are the self-interests of the decision makers rather than that of the organization. The interplay

among these self interests guide decision making in the political model.

In order to respond to question 2, I investigated the nature of the departmental decision-making process by asking the following questions of those involved in making departmental decisions (i.e., the nature of the seven decision elements in each department's decision-making process):

- What goals (or mission) did each department want to accomplish during R-cubed; and what were the nature of these goals?
- Who was involved in making decisions in each department during R-cubed?
- What was the criteria for involvement? Were some groups excluded?
- What alternative courses of action were explored as department's decision makers decided how the department would respond to fiscal stringency?
- How was this criteria decided?
- What criteria did each department use for evaluating and ultimately selecting the courses of action it chose for responding to fiscal stringency?
- What procedure did each department use to implement its choices of action for coping with fiscal stringency during R-cubed?

- Was there any way of evaluating the extent to which the implementation of the decisions accomplished each department's goals?
- What was the actual outcome of each department's responses on its ability to carry out the tripartite mission of teaching, research, and public service in the Institution?
- Was there a mechanism for giving feedback to decision makers regarding the outcomes of their decisions?
- To what extent was that feedback used in subsequent decisions in the department?

The interview protocol contains details of these questions. The questions varied for the departments, dean, and associate dean.

3.4.3 Information Sources

1. Interviews of: (a) dean and associate deans; (b) departmental chairpersons; (c) faculty involved in making decisions in the department, faculty who were involved in the various committees in the department during the R-cubed period, and faculty who were not involved in any of the formal decision-making bodies in the department.

2. Office of Planning and Budgets and the Offices of the Dean and Associate Dean of the College (They furnished me with the departmental documents including completed APP&R reports,

letters and memoranda among the chairpersons, dean and provost).

The institutional data that were used to write the introductory chapter were obtained from the Michigan State Library, the MSU Main Library, the Offices of the Vice Provost for Finance and Treasury, and of the Planning and Budgets.

3.5 Sample

This research is a historical case study of two academic departments in one of the colleges (Brigid College) at Michigan State University. The period under examination is the R-cubed epoch (1988-89 to 1991-92). These departments, like others in their college, receive funds from Cooperative Extension Service and Agriculture Experiment Station, in addition to their General fund revenue from MSU. The parent college has a wide variety of departments: a professional school and disciplinary departments.

I chose two departments in the same college because they are supervised by the same dean. By studying two departments in one college, the differences in leadership styles was not an intervening variable.

Abi and Gordian departments were chosen because they were the only two departments in the college that met the criteria for the study: (a) the departments had the same

academic chairpersons throughout the R-cubed period (1988-1992); (b) they also had different experiences with R-cubed.

While Abi department increased in constant dollar general fund expenditures, FTE faculty, sponsored research and education dollars, Gordian department lost. However, as Gordian department's graduate assistant retention and student enrollment increased, Abi department's declined. The departments were similar in student enrollment. They were relatively small with student enrollment of less than 350, and they have both undergraduate and graduate programs (Michigan State University Data Book, 1992).

3.5.1 Selection of Sample

Purposive sampling technique was used to collect data. According to Fraenkel (1993), it involves the researcher using his/her personal judgment to select a sample that he/she believes will provide the data needed for the study. This sampling technique differs from convenience sampling in that the research will not simply study whoever is available. I selected a college I believed would provide the data I needed.

In selection of the sample departments, I tried to involve departments that reflected some of the differences found in the Brigid College. This sample is not necessarily representative of the fifteen departments in the college. Case study methodology is neither concerned with the

representativeness of the sample, nor the generalizability of the study. However, it calls for in-depth understanding of the entity being investigated (Fraenkel, 1993).

3.5.2 Selection of Administrators for the Study

Subsequent to selection of departments, I identified the administrators within the college for interviews. The administrators were selected based on their positions. The dean of Brigid College, the associate dean, and one assistant dean at the college during R-cubed were interviewed. The chairpersons of the two departments were also interviewed.

3.5.3 Selection of Faculty for the Study

In order to identify faculty to interview for the study I interviewed some faculty members to find out about the structure of the departments I am interested in studying, and also to help me identify faculty to interview. I learned that there are faculty advisory committees (FAC) in these departments. Faculty in these committees advise the chairperson on all important issues from budgeting to curriculum. Each of the faculty advisory committees had three faculty members, and all the FAC members were interviewed. In each department a fourth faculty member, not involved in the FAC was also interviewed to obtain a holistic picture of the department's response to R-cubed. This second group of

faculty were recommended by other faculty members. I tried to contact one more faculty member in each of these departments but I was unsuccessful. These faculty and administrators provided information that improved my understanding of fiscal decision making in those departments at a period of financial stringency.

I called the prospective respondents, introduced myself and my study. I distributed letters of introduction and consent with a copy of my interview protocol to those who agreed to participate in the study. All administrators I contacted participated in the study. Appointments for interviews were also arranged. Some faculty members, however, were unwilling to participate in the study.

The letters of consent informed respondents of their rights during the interview process. The interviewees were given interview guidelines early, so that they could review the topics of discussion and organize their thoughts prior to the interview. I collected the signed consent forms before the interview began. Thank you letters were also sent to those who took part in the study.

After the initial interview, the respondents were informed of the possibility of a follow-up interview to clarify issues that might have been raised in the initial interview. They indicated their willingness to participate.

Two follow-up interviews were conducted out of the thirteen interviews.

3.5.4 Semi-Structured Interviews

The semi-structured interview format was used to collect data.

Maccoby and Maccoby (1954), define a semi-structured or "semi-standardized" interview format as consisting of sets of questions which allowed the interviewer to ask probing questions with minimum digression from the format of the interview. They further add that this approach provides for increased reliability and face validity for the study.

Analyses of documents, letters, memos, budgets and activity profiles for the institution, college and departments preceded construction of interview questions. To avoid wasting the interviewee's time I tried to relate the interview questions to the individuals participating in the interview.

For example, there were three different interview protocols: for the dean, associate dean and assistant dean; for Abi department and; and Gordian department. A fourth protocol was an interview guide that was also a summary of the protocols for the departments. This interview guide was used for the two faculty members who were not in the FAC and expressed their opinion prior to the interview that they were not as well informed about the R-cubed process in their departments.

At the beginning of each interview session I tried to establish some rapport with the respondent.

During the interview I maintained this rapport with respondents to make the interviews as natural as was possible.

The fact that I had read the documents of the departments prior to the interviews also helped me in this regard. It also enabled me to ask relevant questions.

Because most of the questions were questions that required the respondents to recall events that had occurred four years earlier, I used probes during the interview, and also showed the respondents copies of their departments' activity profiles for the R-cubed period. From pilot interviews I picked out some of the technical jargons I had used. (Pilot interviews of administrators and faculty members enabled me to use their language in framing my interview questions, rather than to use terms the respondents were unfamiliar with). These props were mnemonics to help them recall events.

Questions were worded to be open-ended, neutral, singular, and clear. Open-ended questions permit respondents to report in their own terms. I also varied the style of questions asked: they included "role-playing questions," "prefatorial statements," "illustrators," and "reinforcing feedback" in my format. An example of a question with an illustrator is, "As you know and probably experienced, periods

of cutbacks are by nature stressful and competitive, with all departments and colleges trying to protect as much as they can while working in a spirit of joint effort to cut their budgets. Were there some things you did to enable you reduce the impact of R-cubed on your resources?"

With the semi-standardized, open-ended interview, the interviewer's effect is minimized because each respondent is asked the same questions. The interview is systematic and the need for the interviewer's judgment is reduced. This type of interview also makes data analysis easier because it is possible to locate each respondent's answer to the same question quickly, and to organize questions and answers that are similar. Other advantages to using the semi-standardized, open-ended interview are: the exact instrument used in the evaluation is available for inspection by other investigators; variations among interviewers can be minimized where a number of different interviewers are used; and the interview is highly focused so that the interviewee time is carefully used (Quinn, 1990).

The questions were also structured in such a way as to probe and elicit detailed responses rather than "yes," or "no." I also asked questions about more controversial issues in the middle of the interview, after easing them into the process with less threatening questions about their opinions and experiences with R-cubed. Finally, the semi-structured

questions enabled the researcher to obtain comparable data across subjects.

Each interview took between 1 1/2 to 2 hours. Follow-up interviews were conducted in each department to clarify issues that arose during the first interview.

The interviews were taped, because taping is more efficient in capturing the responses than taking notes during an interview. During pilot interviews I practiced handling the tapes. Prior to the main interviews, I pre-labeled tapes and ascertained that the tape recorder and tapes were in good working condition. The label on each tape contained the respondent's code, the date, time, and topic of the interview.

The permission of respondents was obtained prior to the recording. Taped interviews were transcribed verbatim into written transcripts. A professional was paid to transcribe the tapes and was instructed to record all non-verbal information such as laughs and pauses. This was to help me reconstruct the interview setting. I cross checked the transcribed transcripts against the taped interviews to ensure the accuracy of the transcripts.

3.5.5 Measures Taken to Enhance the Validity and Reliability of the Study

In order to reduce the possibility of historical events contaminating the results of the study, only departments that had the same chairperson through the R-cubed period (1988-

1992) were included in the study. In order to eliminate biases that might arise from boredom the interview used open-ended questions in a semi-structured questionnaire format. The questions were short and precise. Probes were also used to facilitate the clarity of questions.

Since the data which the researcher collects must bear the weight of interpretation, I confronted my biases as I wrote out the interview questions. All researches are affected by the observer's bias. Questions, or questionnaires, are likely to reflect the interests of those who construct them, as do experimental studies. The biases of the researcher are also likely to influence the analysis and interpretation of data he/she has collected. Bogdan and Biklen (1982) point out that a method for dealing with researcher's bias is for the researcher to acknowledge his/her own biases, and take into account that such biases might influence the analysis and interpretation of the data.

Members of my doctoral committee, and other experts in qualitative research methodology, evaluated the content of my interview questions. Various drafts of the questions were also tested on several pilot respondents. The feedback I received from these individuals shaped the designing of the final draft of my interview protocol. In addition, I tried to avoid phrasing questions in any way that suggested a stance.

Another concern in qualitative research revolves around the degree of confidence researchers can place in what they have seen or heard. In other words, how can researchers be sure that they are not being misled? In order to check their perceptions to ensure that they are not being misinformed, that they are in fact seeing and hearing what they perceive, researchers use triangulation to enhance the validity and reliability of their work (Fraenkel and Wallen, 1993). Triangulation means the researcher will use a variety of instruments, internal and external documents, and interviews to collect data. When a conclusion is supported by data collected from all these instruments, then its validity is enhanced.

In order to enhance the validity of the information I received, I cross checked information from one document against other documents and against other types of information sources, including archival records and interviews. I followed a similar procedure with information collected from archival records or interviews.

3.5.6 Handling Discrepancies

How I handled the discrepancies among (a) "what happened;" and (2) "what got written;" and (3) "what was acted upon?"

"What happened" is my empirical finding.

"What was written?" could be what they planned to do, but did not. (It could also be their version of what they did, and this may not be what they actually did).

"What was acted upon" is what they actually did.

Since my study is not about "why they did what they did," but to report what happened, I reported the discrepancies among the various sources of data and within the respondents' narrations of events. In my analysis I compared my findings to positions of pertinent literature and theory for consistencies or inconsistencies. Theories and literature helped me to explain what happened. I have left the "why question" to another researcher interested in fiscal decision making in academic departments during periods of fiscal stringency.

To avoid contaminating the interview data, I showed interest in all their responses, and allowed them as much time as they needed to recollect their thoughts. I listened attentively to the informants and when necessary asked questions that sought to clarify rather than challenge their responses. Because the interview is on a sensitive topic, I masked the identities of the college, departments and informants involved in the interview. Responses to questions were not attributed to any individual, but were reported along with information from documents as findings in the body of the

research. Quotes that expressed key ideas were used to support the validity of the findings. After each interview, the transcripts from that interview were given to the respondent to ensure the accuracy of the interview. Though the identities of the units and respondents are hidden, individuals familiar with the units might recognize them from the content of the respondent's report.

3.5.7 Case Study Data Base

After data collection I created a data base with two kinds of data:

1. Evidentiary data base; and
2. My report (summary of my findings) as the investigator.

The evidentiary data base contained all the evidence that led to the study's conclusions. The evidentiary base contained three kinds of data that were organized and stored in such a way as to ensure easy retrieval. The three kinds of evidentiary data include:

- (a) Notes: these included interview transcripts, my notes on the interview and the results of my analysis of documents. The notes were recorded in handwritten form and also on micro-computer diskettes. The notes were arranged according to the major subjects covered by the study;
- (b) "Case study documents:" (relevant letters and memoranda,

communiqués, announcements, Budget proposals during the R-cubed period); (c) "Archival records:" This includes all tabular and quantitative data I created and collected for study. It comprises FTE, SCH and allocation trends of the departments, and the institution.

3.6 Data Analysis

Data analysis is the process of systematically searching and arranging the interview transcripts, fieldnotes, and other materials that you accumulate to increase your own understanding of them and to enable you to present what you have discovered to others. Analysis involves working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others. For most, the end products of research are books, papers, presentations, or plans for action. Data analysis moves you from the rambling pages of description to those products (Bogdan and Biklen, 1982, p. 73).

3.6.1 Plan for Analyzing Data from The Interview Transcript

In the following paragraphs I describe how I analyzed the data in my interview transcripts. Generally, data analysis involved these steps: (a) separation of data by department; (b) reduction of data by separating responses that pertain to interview questions from those that do not; (c) determination of the coding categories that I used to classify data, and the codes (or symbols) I used to represent those categories; (d) assignment of codes to units of data; (e) grouping of all units of data with the same

codes together in an envelope; (f) explanation of the relationship within each group of data; and (g) comparison of the findings to predictions of literature and theories on the two research questions.

3.6.2 Grouping by Department

I arranged the transcripts into three groups:

1. College administrators
2. Department A
3. Department B

The transcripts of my interviews with the college administrators describe the context of R-cubed and the intentions of the planners. They also discuss what the college did during R-cubed, and give a general overview of what that unit's thirteen departments did during R-cubed. The responses of the two departments to fiscal stringency were also compared.

3.6.3 Data Reduction

I reduced the data by separating responses that directly addressed interview questions from those that did not. Responses that did not address interview questions were kept in a separate envelop for thematic analysis. The data that pertained to interview questions were reclassified

later, under relevant categories and sub-categories of data.

3.6.4 Determination of the Coding Categories That I will Use to Classify Data, and the Codes (or Symbols) I used to Represent Those Categories

In addition to the names of the departments, the two research questions formed broad categories under which I categorized the responses that addressed the research questions. Within each broad category there were sub-categories under which data were also classified. I used symbols (or codes) to denote each category of data. For instance, "Department A" represents Abi department; "Department B" represents Gordian department (Pseudonyms are being used to represent the departments in the study). "DP" represents decision-making processes, and "RFS" represents responses to fiscal stringency. "RFS Dept_A" represents department A's response to fiscal stringency. "DP Dept_A" represents goals of the decision-making process of department A.

I organized the data that did not pertain to any interview questions by using themes I deduced from the data.

The following examples of categories I used to organize my data emanate from my interview questions (which are in turn based on literature review and pilot interviews).

For instance, the first major categorization of data is by departments:

Dept. A

(Abi Department)

Dept. B

(Gordian Department)

The second major categorization of data is by the study's research questions:

1. Responses to Fiscal Stringency (RFS).
2. Decision Making Processes (DP).

The third is the further break down of data into sub-categories.

For instance with Responses to Fiscal Stringency ("RFS"):

- (a) Expenditure Reduction;
- (b) Revenue Augmentation;
- (c) Future Survival Strategies; and
- (d) Other strategies.

The fourth is further sub-categorization of data within the third-level sub-categories. For instance with (a):

- i. personnel actions;
- ii. program actions; and
- iii. budgetary actions.

For instance with (b):

- i. contracts and grants;
- ii. charging user fees for services

For instance with (c):

- i. enrollments;

- ii. staff development;
- iii. relationship with community and with clienteles; and
- iv. restructuring of curriculum.

In the third categorization of data the decision making processes were broken down into sub-categories. For instance the decision making processes were broken down into the following sub-categories that emerge from the interview data:

- (a) Goals of the department during R-cubed;
- (b) Alternate courses of action the department considered during the decision making process;
- (c) The premise directing the consideration of alternative courses of action;
- (d) Courses of action chosen for implementation.
(This is the actual response of the department to fiscal stringency);
- (e) Procedure used in implementing those choices;
- (f) Results of the implementation; and
- (g) Feedback the decision makers received regarding the results of their actions.

In the fourth sub-categorization of data the sub-categories in the decision-making processes were further broken down.

For instance with (a):

- i. type of goals before R-cubed;

- ii. type of goals after R-cubed;
- iii. people who set the goals; and
- iv. impact of R-cubed on the goals.

For instance with (b):

- i. nature of alternative courses of action considered;
- ii. how these options were generated;
- iii. people involved in generating options; and
- iv. those that were not involved in generating options.

For instance with (c):

- i. theme that underlay decisions each department made as it responded to fiscal stringency during R-cubed?
- ii. relationship of this theme to the stated goals of the department.

For instance with (d):

- i. types of actions the department implemented; and
- ii. relationship of actions to goals of department;

For instance with (e):

- i. procedures through which actions were implemented;
- ii. those involved in implementing action;
- iii. problems encountered in implementing actions;
- iv. how problems were overcome;
- v. successes encountered in implementing actions;
- and

For instance with (f):

- i. nature of outcomes of the actions the department implemented;
- ii. impact of actions department took on its service function;
- iii. impact of actions on research;
- iv. impact of actions on instruction; and
- v. impact of actions on goals of department.

For instance with (g):

- i. types of feedback the decision makers received;
- ii. mode through which feedback was provided; and
- iii. how feedback was used.

A total of 50 codes were used in this study. The complete set of codes used in this study is found in Appendix A.

3.6.5 Assignment of Codes to Units of Data

I defined units of data that would be accepted as equivalents of each category. For instance "RFS," denotes responses of departments to fiscal stringency during the R-cubed period. "Units of data are pieces of fieldnotes, or documents, that fall under the particular topic represented by the coding category. Units of data are usually paragraphs in fieldnotes and interview transcripts" (Bodgan and Biklen, 1992, p.133). I used a pencil to delineate sentences that are encompassed within each code. An example from an interview transcript reads: "Our hands were tied due to union rules of seniority and tenureship. 90% of our budget goes to salaries. The only area we could cut was operating." This unit of data was assigned the code "RFS_(exp.)" since it regards expenditure reduction during R-cubed.

3.6.6 Grouping of All Units of Data With the Same Codes Together in an Envelope

I grouped units of data that had the same code together. For units of data that were multicoded I made extra copies of pages with these codes prior to sorting out categories of data. Manila folders were labeled with codes. I put each coded unit of data into its respective folder.

I studied each folder to understand the relationship among the units of data within it.

3.6.7 Explanation of the Relationships Within Each Group of Data

For instance, I explained how department A reduced its expenditure after studying all units of data bearing the code "RFS Dept A(_{exp}).". After examining another set of data with the code "DP Dept. A(_g).", I explained what the data indicates about the goals of department A as it made fiscal decisions during the R-cubed period.

I also noted connections that I observed among the folders (each folder contains a category of data) (Bogdan and Biklen, 1992). For instance, how department A's expenditure reduction measures (a category of data) may be connected to its decision-making goals (another category of data), or its survival strategies (another category of data).

3.6.8 Analysis of Data That do Not Pertain to the Research Questions

This was the second step of analysis. I examined the data that were not directly tied to specific interview questions, but related to the two major research questions.

I analyzed them for common themes and categorized them.

For instance, with Abi department I found the following themes:

1. faculty resistance to some of the decisions the departmental chairperson and FAC made;
2. withdrawal of some revenue augmentation measures because of resistance by clientele;
3. low faculty morale as an outcome of reductions; and
4. increased search for information on other department's responses to fiscal stringency during R-cubed.

3.6.9 Compare Findings to Predictions of Literature and Theories Pertaining to the Research Questions

This was the third step of data analysis. After explaining the empirically-observed responses, the next step was to subject the data to pattern-matching analysis. I used pattern-matching analysis to test my empirical findings against predictions (theories and literature) of what I should discover about my research topic. The purpose of conducting pattern-matching was to test the internal validity of my case study (Yin, 1984).

I compared empirically-observed patterns of responses that departments used in responding to fiscal stringency to patterns predicted in the relevant literature, and to the directives of the APP&R. Where empirical patterns matched those predicted by relevant literature, I concluded that departments responded in a manner consistent with that part of

literature. Such a match strengthened the internal validity of my case study. When there was no match, however, I concluded that on the issue of concern, the departments in my study responded to fiscal stringency in a manner inconsistent with literature (Yin, 1984).

I conducted further pattern analysis to compare the attributes of the decision-making process found in the departments with that predicted by the rational model. Where the major attributes of the two sets matched, I concluded that the process departments used in making the particular decision was essentially rational. Where there was no match, however, or when some important attribute of the decision-making process was inconsistent with the rational model, I reported my findings as such. I further compared the inconsistencies with alternative (Political and Naturalistic) models for consistency.

The focus of this research is to ascertain whether the departmental decision-making processes during R-cubed were rational. Thus, the analysis of data and conclusions drawn from the findings of this research concentrated on determining the occurrence or absence of the rational model.

3.6.10 Plan for Analyzing Documents

I analyzed the documents with the same technique I used for interview transcripts. After analyzing all the data

from the various data sources (documents, archival records, and interviews), I converged the findings from these sources, and present them according to the research questions they address for each department.

3.7 Presentation of Data

The major organizing framework for presenting the report of the analyses is the research questions. Data was presented by departmental categories. For each department, the major organizing framework is the research question.

For each of the departments I asked myself the research questions and posed responses to these questions. I also cited the relevant evidence for each answer from my interviews, documents, and archival records. Each response represents an attempt to document the connection between specific pieces of evidence and some issue in the case study.

I used the responses in my narrative to compose my final case study report.

All discrepancies in my findings were reported. For instance, discrepancies between findings based on interviews and documents were presented. I also presented opposing accounts of respondents about decision making in their departments during R-cubed.

I tried to present my findings in such a way that any reader of the work should be able to understand how I derived

my conclusions from the evidence I have presented in the study. My hope is that any reader of my report should also be able to understand the relationship among the research question, evidence presented and any final conclusions I derived.

3.8 Limitations of the Study

The research is a case study of past events, and it depends on documents and recollections of participants. Facts that were not documented or recalled were lost. Interpretation of the results is subjective, to a large extent. Therefore, some investigator biases may be introduced.

With interviews, departmental faculty and administrators were generous with their time and responses. They were protective of their documents, however,. In one department, the administrative assistant was hostile. I did not have access to some of the documents I had planned to collect: minutes of departmental meetings and their operational plans.

I believe the minutes would have enabled me to cross-check information better. With the exception of one department where I was given some planning papers, I obtained all the departmental documents I used in this study from offices outside the departments.

Limitations to the generalizability of the study arise from it being a case study of two sample departments at Michigan

State University. Since this was a qualitative research in which samples were not randomly selected, the findings of the study may not be generalized by the researcher beyond the samples. It is up to the practitioner reading the research, however, to look at the findings of the research, and judge whether they have any bearing to his/her particular academic department. The findings of this research will also inform readers on how two departments in a land-grant university planned and implemented strategies in an effort to assuage fiscal difficulties in their units. The study may also furnish some information on the impact of those strategies on the financial condition of those departments studied.

Chapter 4

Discussion of Findings on Abi Department

In this chapter I discuss my findings on (a) responses that Abi Department made to fiscal stringency during the R-cubed period, and (b) the processes through which those responses were made. I also compare my findings to the rational decision-making model, and to the literature I have reviewed.

In section 4.1, I discuss the connection between Brigid College and its subunits during the R-cubed period. Section 4.1 is a review of how the directives of the R-cubed process flowed from the provost through the dean, to the departments; and the annual goals that the college set for the departments including Abi Department, during the R-cubed period.

In 4.2, I discuss the department's plans for meeting the goals of the annual APP&Rs during R-cubed. For each of the R-cubed years, I address plans that the department actually implemented, and the plans that remained unaccomplished.

In section 4.3, I discuss the processes through which the departments made their responses. 4.3.1 looks at the process through which the departments reduced their expenditures; 4.3.2 discusses the processes through which the department augmented its revenue; and 4.3.3 looks at the processes through which the department restructured its

programs; 4.4 compares Abi's fiscal decision making processes to the steps in the rational decision making model; and in 4.5 I compare Abi's responses to predictions in the literature.

There were also some events which the respondents reported but could not remember the exact year in which they occurred. Interview reports were corroborated among the respondents, and against documents and are presented in the process section of this chapter.

4.1 R-cubed at the College Level

From 1988-89, salaries and labor of \$9,917,390 accounted for 95.4% of the total college's base budget of \$10,391,700 leaving only 4.6% for operating expenses (M7, 1989). The average faculty appointment in the college is 40% teaching, 40% research, and 20% extension. Departments in this college have three sources of funds: general fund, Agricultural Experiment Station (AES), and Cooperative Extension Service (CES) (see Table 4.1). Between 1987-88 and 1992-93 (see Table 4.1) among the 13 departments in Brigid college, Gordian showed the highest increase in its CES at 69.64% and AES at 119.70%, budgets. Aliyu department, however, showed the highest increase in its general fund expenditure for the same period. On the other hand, these departments had the largest negative changes in their budgets: for CES, Greta department

showed a -43.08% change, for AES, Abi department had the largest negative change -4.28%. There were no negative changes in the departments' general fund budget, however, Flowers department had the lowest increase.

Table 4.1
Funding Sources for Departments in Brigid College ,1987-88 and
1992-93

Cooperative Extension Service				Agricultural Experiment Station				General Fund Budget			
	1987/88	1992/93	% change		1987/88	1992/93	% change		1987/88	1992/93	% change
Gordian	200,899	340,797	69.64		51,952	114,137	119.7		423,141	502,714	18.81
Sam	941,868	975,023	3.54		1,167,788	1,562,888	33.82		670,031	995,854	48.63
Allyu	538,845	550,414	2.18		690,831	954,081	38.15		722,922	1,113,987	54.09
Abi	738,820	829,512	12.31		2,513,082	2,405,538	-4.28		1,215,385	1,362,801	12.13
Taha	0	0	0		851,112	858,313	0.61		321,349	424,738	32.17
Larry	554,771	691,072	24.57		1,973,600	2,921,758	48.04		751,279	867,062	15.41
Ernest	100,073	125,880	25.79		402,799	577,328	43.33		528,866	674,292	27.26
Mustafa	174,998	168,275	-3.84		743,389	887,789	19.42		485,351	497,960	2.6
Albert	234,872	250,482	6.6		928,228	953,878	2.98		625,813	636,718	1.74
Flowers	325,777	364,059	11.75		2,005,753	2,513,887	25.33		633,279	636,718	0.54
Pracket	0	0	0		95,335	127,975	34.24		781,508	1,029,764	31.77
Greta	157,608	89,704	-43.08		180,439	209,864	16.2		504,297	599,999	18.98
Jim	270,183	313,998	16.22		331,997	408,759	28.12		714,319	938,249	31.35

Source: Michigan State University Office of Planning and Budgets University Data Book, (1992 and 1995).

Other Colleges that receive these funds include Social Science, Natural Science, Human Ecology, Veterinary Medicine, and the two medical schools (Dare, 1995, p. 1). In all of these colleges personnel salaries may be paid from one or all

of these sources. Faculty in the colleges that receive AES and CES funds conduct research and extension service as a part of their responsibilities. Whereas faculty from a department that is not in the cooperative extension service may charge fees for outreach services, a department that receives CES funds cannot. The Agricultural Experiment Station funds came from two sources: the State of Michigan, and the Federal government. The Cooperative extension service (now called the Michigan State University Extension) has three sources of funds: the State, Federal government, and also the 84 counties in the Michigan. The county governments contribute to the support and operation of extension (Emmanuel, 1995). The college's general funds are allocated by MSU. MSU's general funds come from student tuition and state appropriations.

During R-cubed, the University asked its units to reduce their general fund budgets by stipulated percentages. At the same time (1988 to 1992), the directors of AES and CES imposed similar levels of reductions, like R-cubed, on the departments receiving their funds. Unlike moneys the departments reduced from their general funds, the funds CES and AES collected from the departments did not go back to the university central administration. Rather, the CES and AES put their funds in escrow accounts (Emmanuel, 1995). This was because they did not want departments to shift their obligations of salaries

and operating expenditures from the general fund budget to their CES and AES budgets, which are for extension and research. In other words, if in a given year the R-cubed process from the Provost's office states that the units must reduce their general fund expenditures by 5%, then the experiment station, and the extension service would also be required to implement the same percentage of cuts in their AES and CES budgets (Dare, 1995).

In addition to the three sources of funds listed above, the college also leads the university in external grants. It was reported that consequently, many of its departments shifted activities, including secretaries' salaries, to grants. The university takes about 45% of the money received for operational (overhead) expenses. Colleges and departments also tax incoming grants for operational expenses (Dare, 1995, p. 2). Operational expenses could be secretarial help, technicians, supplies, and equipment. According to the administrators of Brigid College, all the R-cubed guidelines from the Provost was given directly to the subsidiary departments. The directives were applied uniformly among all the departments in Brigid College

As the R-cubed period progressed, the Provost increasingly asked departments and colleges to be more specific in their reduction plans. Part of the reason was

that many departments were attributing to R-cubed courses of action they had planned to take, despite R-cubed. For instance, one of the respondents explained that a department would indicate that it was going to eliminate two courses to meet R-cubed reduction targets. But, it had planned to drop these are two courses before R-cubed, because the classes had not been taught in the last five years due to the retirement of the faculty who taught them. The department, however, would list the elimination of those two courses as a very difficult impact of R-cubed. So, each successive year the guidelines from the provost became more defined to a point where in the last year of R-cubed colleges and departments were not only asked "what percentages or full time equivalent numbers, but...people's names or their position numbers. The Provost wanted to know the specific personnel each unit was reducing (Dare, 1995).

Usually, when a faculty or staff retires in a department, that individual's salary goes back to the College.

In this college, R-cubed eradicated almost all of the SS&E operating funds of the departments. So after R-cubed, the college decided to help departments restore some of those operating dollars by leaving half of the salary of a retired faculty in his/her department, if the department agrees not to refill that position.

As of 1989, the College did not have a large group of faculty who would soon reach retirement age. Only 41 faculty members were over 58 years old. The majority of the college's retirements had occurred before the R-cubed process began. Therefore, the Provost encouraged Brigid College to use retirement incentives and "buy-outs" as a way of creating some personnel flexibility that would allow a revision of the college's instructional, research, and service priorities. The University also expected that the retirement incentives and buy-outs would create savings to encourage some units in the college to switch their faculty appointments from annual year to academic year (M8, March 31, 1989).

The Provost encouraged departments to protect both undergraduate and graduate students' enrollment, course offering, and operating dollars in their units, while decreasing the number of academic and non-academic positions.

Units were also advised to maintain the appropriate balances between their teaching, research, and extension responsibilities. They were encouraged to protect graduate assistantship funding in order to maintain an appropriate mix of domestic and international graduate students (*The 1988 Brigid college APP&R*, p. 11).

To reduce its general fund budget by 5.5% in 1988-89, Brigid college eliminated 15 faculty positions and 10 support

staff positions (*The 1988 Brigid College APP&R*, p. 9); (see Tables 4.2 and 4.3). Regarding total faculty size between 1987-88 and 1992-93, the Jim department showed the highest increase (50%) while Greta's faculty size shrank by 37.5%. Flowers department showed the largest increase in temporary faculty (71.43), while Greta had the largest decrease in temporary faculty (-85.71%). Pracket showed the highest increase in female faculty (133.33%), while Gordian had the most reduction(-80%).

Between fiscal year (FY) 1988 and 1993 the college gave up \$1.7 million (i.e., 16.5%) of its general funds. In 1990, the college felt that it had exhausted its ability to generate funds through the elimination of positions by anticipated retirements and, had also reduced its support staff to very low levels.

Table 4.2

Headcount of Faculty and Academic Staff in Brigid College, 1987-88 and 1992-93.

Faculty and Academic Personnel									
Tenured				Ranked faculty			Temporary Faculty		
	1987/88	1992/93	% change	1987/88	1992/93	% change	1987/88	1992/93	% change
Gordian	7	7	0	13	10	-23.08	10	3	-70
Sam	31	29	-6.45	42	40	5	15	10	-33.33
Aliyu	18	20	11.11	21	28	23.81	13	17	30.77
Abi	31	32	3.22	40	38	-5	7	9	28.57
Taha	6	9	50	11	9	-18.18	15	11	-26.67
Larry	30	32	6.67	39	41	5.13	25	25	0
Ernest	11	11	0	18	16	11.11	5	3	-40
Mustafa	11	8	-27.27	17	13	-23.53	6	9	50
Albert	14	13	-7.14	21	20	4.76	14	9	-35.71
Flowers	22	25	13.64	29	30	3.45	7	12	71.43
Prackel	8	8	0	12	12	0	10	7	-30
Greta	13	10	-23.08	16	12	-33.33	7	1	-85.71
Jim	15	16	6.66	16	22	37.5	4	5	25
						</			

Source: Michigan State University Office of Planning and Budgets University Data Book, (1992 and 1995).

Table 4.3
Headcount of Support Staff in Brigid College, 1987/88 and 1992/93.

Gordian	1987/88	1992/93			
Secretary	3	4			
Specialist	2	2			
Coordinator	4	2			
Admin Asst.	1	1			
Total	10	9			
Sam	1987/88	1992/93			
Secretary	16	11			
Specialist	5	8			
Supervisor	1	4			
Programmer	1	1			
Admin Asst.	1	2			
Data operator	7	2			
Clerk	2	1			
Analyst	4	5			
Office Asst	3	1			
Manager	1	1			
Librarian	1	2			
Coordinator	1	0			
Total	43	38			
Aliyu	1987/88	1992/93			
Secretary	7	7			
Specialist	15	18			
Admin Asst.	1	3			
Coordinator	1	1			
Typist	1	0			
Technician	2	0			
Manager	0	0			
Engineer	1	2			
Extension Assoc	0	0			
Res Assoc	0	2			
Res Leaders	1	1			
Clerk	1	0			
Total	30	34			
Abi	1987/88	1992/93			
Secretary	14	15			
Specialist	4	4			
Admin Asst	1	1			
Technician	8	1			
Clerk	1	1			
Manager	9	12			
Research Asst	0	11			
Research Assoc	0	3			
Analyst	0	1			
Office Asst	1	0			
Total	38	49			
Taha	1987/88	1992/93			
Research Asst	15	8			
Res Assoc	25	16			
Technician	0	0			
Spectroscopist	3	1			
Acct. Clerk	2	1			
Specialist	2	4			
Lab asst	1	1			
Typist	4	3			
Mechanic	2	3			
Programmer	1	0			

Office Asst	1	1		
Clerk	0	0		
Coordinator	1	0		
Supervisor	2	2		
Admin Asst	2	1		
Traders helper	2	1		
Caretaker researcher	1			
Administrator	1	1		
Secretary	1	1		
System Designer	0	1		
lab aide	0	1		
Store Asst	1	0		
Total	67	45		
Larry	1987/88	1992/93		
Secretary	10	11		
Specialist	10	10		
Res Assoc	12	12		
Laborer	1	2		
Crop Improvement	10	1		
Technician	23	16		
Manager	3	7		
Writer	1	0		
Data Operator	1	1		
Seed	1	1		
Office Asst	2	0		
Research aide	2	1		
Admin Asst	2	2		
Acct. Clerk	0	1		
Res. Asst	1	20		
Typist	0	1		
MCIA quality control	0	1		
Lab aide	1	0		
Total	80	87		
Ernest	1987/88	1992/93		
Secretary	3	4		
Admin Asst	1	1		
Specialist	1	1		
Manager	0	0		
Acct Clerk	0	1		
Total	5	7		
Mustafa	1987/88	1992/93		
Manager	1	2		
Artist	1	1		
Laboratory aide	0	0		
Secretary	13	10		
Admin Asst	2	1		
Res Assoc	4	9		
Office Asst	2	1		
Supervisor	1	0		
Technician	4	2		
Manager	1	2		
Coordinator	0	2		
Clerk	0	1		
Supervisor	1	0		
Analyst	1	0		
Specialist	2	0		
Total	33	31		

Albert	1987/88	1992/93
laborer	2	2
Secretary	4	7
Manager	1	1
Mechanic	1	0
Specialist	5	3
Res Assoc	3	2
Office Asst	1	0
Technician	3	1
Extern agent	1	0
Forester resident	1	2
Usfs	3	0
Supervisor	1	1
Res. Asst	0	3
Total	26	22
Flowers	1987/88	1992/93
Admn Asst	1	1
Information Asst	1	0
Res Asst	3	14
Laborer	1	0
Secretary	10	7
Supervisor	4	1
Technician	10	2
Office Asst	1	1
Res Aide	4	3
Manager	7	6
Hort Aide	1	1
Clerk	0	0
Specialist	3	3
Mechanic	1	1
Analyst	0	1
Horticulturist	0	3
Total	47	44
Pracket	1987/88	1992/93
Admin Asst	1	0
Clerk	0	0
Secretary	1	3
Specialist	4	5
Office Asst	1	0
Research Assoc	3	0
Typist	0	1
Technician	0	1
Res Asst	1	0
Total	11	10
Greta	1987/88	1992/93
Specialist	7	1
Secretary	5	3
Acct. Clerk	0	1
Supervisor	1	1
Total	13	6
Jim	1987/88	1992/93
Acct. clerk	1	1
Office Asst	1	0
Secretary	7	6
Specialist	4	3
Editor	0	1
Clerk	2	0
Programmer	1	0
Total	16	11

Source: Michigan State University Faculty and Staff Directory (1987-1992).

Overall strategy Brigid College to Reduce Its Budget During Recubed

1. Mortgage faculty positions until their retirements;
2. Use transition funds to support those positions until the faculty retires;
3. Reduce clerical support;
4. Transfer some faculty positions to grant funds;
5. Shift academic positions from general fund to other sources (AES or CES, or both);
6. Reduce student labor;
7. Reduce faculty positions from Annual (AN) to Academic year (AY);
8. Reduce in graduate assistant support;
9. Reduce technical support (Brigid College 1988-89; 1989-90; 1990-91; and 1991-92).

As in 1989-90 in 1991-92, units were asked to make contingency plans (that is be prepared for the possibility of a higher reduction target).

The Provost reported that none of the colleges in the university met its net reduction target in 1989-90. It was further reported that a 4% reduction target was established for Brigid College against the university uniform reduction of 4.5%; but Brigid achieved a 3.73% reduction. However, after programmatic support was added in, the overall reduction for Brigid College for 1989-90 was 3.01%.

He also pointed out that the College had planned for a 2% reduction in 1990-91 and it achieved 1.99% overall reduction that year. In 1991-92 the Provost asked for a 2% reduction target. The reduction targets for the college was 5.5% (1988-89); 4% (1989-90); 2% (1990-91); and 2% (1991-92) (*Brigid College APP&R documents 1988-89; 1989-90; 1990-91; and 1991/92*).

4.1.2 Planning Guidelines Given to Departments in Brigid College During R-cubed

In the 1988-89 the College gave its departments the following guidelines:

Budget Reductions and Planning for FY 1988-89

1. Description of the Personnel and Program Actions that will be taken to meet the 1988-89 Reductions of 5.5% on General fund, AES, and CES budgets.
2. Description of what transition funds, if any, are necessary to make a permanent 5.5% reduction.
3. Adjustments in department's and unit's workload.
4. Discussion of issues revisited based upon past planning.
5. Executive Summary.
 - 5.1. Summary of significant changes and the future intentions or current commitments.
 - 5.2. Summary of planned Personnel and program action.

- 5.3. Summary of emerging areas of collaboration and cooperation.
- 5.4. Summary of cost containment and efficiency strategies.
- 5.5. Summary of continuing or new unmet space needs.
- 5.6. Summary of new recurring or non-recurring general Fund, AES and CES commitments made to your Department of Unit for FY 1988-89.

The 1989-90 APP&R which Brigid College gave to its departments included four sets of instructions, in sections 1, 2, 3 and 4:

Section 1

R-cubed Issues Requiring Consideration and Summary of Pending Planning Issues

- 1. What are the issues which need to be revisited on the basis of past planning or on the basis of the R³ dialogue to date [i.e., 1989-90].
- 2. Please identify new programmatic thrusts or opportunities which have emerged as unit priorities.

Section 2

Section 2A

- 1. Name of program or function reduced or eliminated

2. Priority ranking
3. Dollar savings
4. Fiscal year of dollar savings to be achieved
5. Specify resulting change in program or function (note changes in qualitative characteristics, and the impact on other units and the total university, including deviations from 1988/89 course and section offerings:
6. Identify type of position (i.e., employee group for non-academic positions or area of expertise for academic positions) and the position number associated with an academic position for each position reduced or eliminated:

Section 2B

Instructional Responsibility and Capacity Analysis

1. Please list the courses by term, that did not meet 85% of the pre-enrollment demand or ones that had in excess of 100 enrollment failures for the 1988/89 academic year. As a partial reference point, two reports from the Office of the Registrar for Fall Term are appended on pink paper.
2. For each of the high demand/unmet need courses that meet the above criteria list the changes that will be made to accommodate to the high demand for particular courses or sections. Included should be notations about changes in: (a) number of seats in each section; (b) number of sections

offered; (c) time-of-the-day and day-of-the-week for sections offered; (d) Term(s) offered; (e) Instructional model adopted; (f) Classroom location; (g) Programmatic requirements; (h) Curricular modifications.

Additionally, specify changes in critical courses that will be made to expand instructional capacity. Particular attention should be directed to actions necessary to reverse eroding SCH trends as related to the unit's position.

Section 2C

1. Please specify new fees that are proposed, require central approval, and could be used to offset costs in the unit.
2. Include the nature of the fee proposed, the population targeted, the anticipated revenue produced, and the anticipated utilization of the revenue.

Section 3

1. Proposed changes in the rebalancing implementation plan that will refocus and refine the unit during the three year horizon.
2. Changes that the unit will make to refocus and refine but are actions that do not appear in the rebalancing implementation plan.

Section 4

Executive Summary

The Executive Summary and Overview should be a complete but brief narrative explanation of your 1989-90 through 1991-92 rebalancing implementation plan and your intentions to refocus and refine the operational activities and academic programs of your unit. Attached to the front of your planning materials, the summary and overview should contain nine distinct sections:

1. A description of the vision of the college/MAU as it enters the 21st century.
2. A summary of significant changes in the future intentions or current commitments of your unit (i.e., role and objectives) as necessitated by the rebalancing and implementation of the plan.
3. Brief notations about how the college/MAU is approaching the R³ principles of a University that is multidimensionally excellent, built on excellence, strong departments and schools that are integrated, humanitarian, caring, strongly coupled, internally and externally, built on new technologies, and more efficient and effective.
4. Strategies to implement the spirit of MSU: IDEA.

5. A summary of planned personnel and program actions and the anticipated consequences necessary to implement the rebalancing plan.
6. A summary of emerging areas of collaboration and cooperation.
7. A summary of cost containment and revenue enhancement strategies that will be pursued.
8. Continuing or unmet space needs should be identified.
9. Office of the Provost commitments made to your unit for 1989-90 should be listed.

The 1990-91 APP&R which Brigid College gave to its departments contained questions that each department had to address in its plans.

1990-91 Academic Planning and Program Review (APP&R)

1. What are the changes to the unit's description of purpose and aims as developed during the 1984-85 APP&R and revised during the 1987 planning cycle?
2. What are the trends in program quality, particularly in three areas: Instruction, Research, and Public service?
3. What has made the difference in the quality of the unit?
4. What are the "centers of excellence"?
5. What are the program changes planned?

6. What are the changes to the unit's concept of faculty "workload" or unit "productivity"?

7. What is the effectiveness of the unit in acquisitions of funds other than general funds, AES, and CES funds?

In its 1991-92 APP&R, Brigid college, asked its departments to do the following:

1. What are the changes that have been made during the R³ period?

2. Planning guidelines: Provide a short synopsis of the changes your unit has made during the R³ period. Particular attention should be given to organizational reconfigurations, personnel complement, the nature of disciplinary expertise represented in your position complement, changes in workload and production including seat capacity, changes in the support infrastructure, and programmatic actions. Units were also asked to complete an executive overview for 1990-91.

Executive Overview

1. Mission.
2. Goals and objectives.
3. Significant changes and emerging issues.
4. Pending matters.
5. Plans for implementing fees that do not require central administrative approval.

6. Strategies to change the instructional model or workload expectations.
7. Summary of planned personnel and program actions anticipated.
8. Comments.

4.2. Analysis of APP&Rs from Abi Department

The department reports that the following events which occurred before R-cubed, left it with less flexibility to adjust to budget reductions:

1. Total faculty in the department had been reduced by 14.5% (and ranked faculty by 11%), while other departments in the college had increased faculty size. Four departments were cited as experiencing over 40% increase in the 10 years prior to R-cubed.

2. Indirect reductions prior to R-cubed: when wage increases were decided at the university level for off-campus labor, the department paid the wage increases, however, the university did not compensate those additional expenses in its allocation to the department (*Budget Reductions Planning for FY 1988-89 Department of Abi Michigan State University, June 1, 1988*).

Sections 4.2.1 to 4.2.12 will review actions the department took to respond to fiscal stringency in 1988-89.

Sections 4.2.13 to 4.2.20 will review actions taken to respond to fiscal stringency in 1989-90. Sections 4.2.21 to 4.2.26 will cover 1990-91; whereas sections 4.2.27 to 4.2.32 will discuss events that transpired in 1991-92.

4.2.1 Plans Abi Department Proposed for Reducing Its Budget by 5.5%, in FY 1988-89 (1988-89 APP&R, June 10th, 1988).

Though R-cubed reductions were targeted at the general fund (GF) level of department's revenues in 1988 the Brigid College asked its departments to comment on how they could reduce their expenditures in three expenditure areas (general fund, Agricultural Experiment Station, and Cooperative Extension Service) by 5.5%. Table 4.4, shows Abi Department's expenditures in its AES, CES and general funds budgets during the R-cubed period.

In 1988-89 Brigid College asked its departments to show how they planned to reduce their expenditures in CES, AES, and GF budgets. In the following R-cubed years, the departments were asked to indicate in their APP&Rs how they would reduce their general fund budget only. But they continued to reduce their AES and CES budgets (*Budget Reductions in Planning for FY 1988-89 Department of Abi, Michigan State University, June 1, June 7th, and June 10th, 1988*).

From 1989-90 the reductions Abi department made in its three budgetary lines begins to show (see Table 4.4). The

reductions continued until 1992-93 for its AES and GF budgets. There was a significant increase, however, in its AES budget in 1992-92.

Table 4.4
Abi Department's Expenditure Lines, 1986-87 to 1992-93.

			1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Expenditures									
1. General fund			1,141,861	1,215,385	1,332,524	1,310,575	1,441,900	1,452,960	1,362,801
a. Salaries			687,942	714,969	809,325	861,472	916,778	934,664	821,103
b. Labor			338,300	452,000	421,944	405,005	415,848	419,783	438,720
c. supplies, services, equipment			65,619	48,416	101,255	44,098	109,274	98,513	102,978
2. Agricultural Experiment Station			N/A	741,842	825,900	855,467	841,024	814,373	2,405,538
3. Cooperative Extn Service			N/A	2,513,062	2,496,963	2,532,081	2,477,804	2,435,280	829,512
Constant Dollar Expenditures (1983 Base)									
1. General fund			948,390	966,125	1,001,145	930,806	972,286	949,028	861,442
a. Salaries			594,078	593,828	643,343	647,237	651,121	630,252	536,318
b. Labor			292,142	375,415	335,409	304,286	295,347	283,063	286,558
c. supplies, services, equipment			56,666	40,213	80,489	33,131	77,609	66,428	67,262
2. Agricultural Experiment Station			N/A	589,700	620,511	607,576	567,110	531,922	1,520,568
3. Cooperative Extn Service			N/A	1,997,665	1,876,005	1,798,353	1,670,805	1,590,647	524,344

Source: Michigan State University Office of Planning and Budgets Data Book, (1992 and 1995).

4.2.2 Proposal for Achieving the \$62,627 Reduction From the General Fund Budget in 1988-89:

To achieve the reduction of \$62,627 from the general fund, the department proposed to take the position of Dr. Julius upon his retirement in four years (that is, 1992). According to the department, the anticipated impact of this reduction (that is, elimination of the Julius position) would be a loss of a program, elimination of three courses, and a possible reduction in the international component in the

department. The department requested a transitional fund (\$63,000) to carry out the reduction until Dr. Julius retired.

4.2.3 Alternative Course of Action Proposed for Reducing the GF Budget:

1. Eliminate one laborer at the R experiment station (this laborer is scheduled to retire in 1989).

2. Eliminate the Damian position upon retirement (Dr. Damian will retire in 3 years (1991) (*Budget Reductions in Planning for FY 1988-89 Department of Abi, Michigan State University*, p. 2)).

Anticipated Impact of This Alternative Course of Action on the GF Budget:

The department reported that it expected these courses of action to have minimal impact on either the departmental teaching program or its support program at the R experiment station. The department explained that Dr. Felicia, another faculty member, who also worked with Rs, was expected to retire and that the department would likely hire a replacement who would teach the two courses that were taught separately by Felicia and Damian (*Budget Reductions in Planning for FY 1988-89 Department of Abi, Michigan State University*, p. 2).

4.2.4 Proposal for Achieving the \$108,898 Reduction in AES in 1988-89:

1. Close the City Experiment Station. Salary savings from closing this station would be \$99,572.

2. Take an additional \$9,000 from the position to be vacated by Dr. Semi.

Anticipated Impact of Closing the Station:

It would eliminate the experiment station manager and three experiment station laborers. Such an action would be viewed by the Michigan industry connected with that experiment station, as a lack of support for the industry. It would also stop the research being done at the station.

4.2.5 Alternative Courses of Action Considered for Reducing AES Expenditure by \$108,898 in 1988-89:

According to the department's 1988-89 APP&R, an alternative considered, but rejected by the department, was the elimination of operating dollars, graduate student assistantships, and technical support for research staff. The APP&R reports that the support staff and operating funds are at a bare minimum in the department and any further reduction would be very devastating. Another alternative, the department proposed was to take the salary money from the

retirements of Drs. Semi and Eucharía. Semi's retirement would save \$25,200 in FY 88-89 and \$25,400 in FY 89-90. Dr. Eucharía who is likely to retire in two years (1990) would bring the total salary savings to the department of \$51,800.

Anticipated Consequence:

If further reduction in faculty is to occur, then the department advises the Agricultural Experiment station to consider closing the Upper Peninsula Station because with the reductions in staff it will not be possible to keep that unit operational.

4.2.6 Reduction of the CES Budget

The Department said it would be difficult to meet reduction target of \$40,686 because a high percentage of the budget is in salaries of protected employees.

Course of Action for Reducing CES budget (1988-89) that was Accepted by Department for Implementation:

Phase out the department's popular Q performance testing program upon the retirement of Darin in two years. This will result in savings of \$40,000.00 (salary of Darin and secretarial assistance).

Anticipated Result of that Action:

The departmental chairperson said he was concerned that eliminating the Q performance testing program would be met with resistance from the Q industry. He said, however, that it "appears to be the only viable alternative for making this type of reduction in CES at this time."

4.2.7 Alternatives Considered for Meeting the CES Reduction Target (\$40,686) but, Rejected Because of Anticipated Negative Consequences on the Department:

1. Eliminating all travel and taking all phones out of extension faculty offices. The alternative course of action was deemed unacceptable by the department decision makers.

2. Not filling the position vacated by Geraldine. This would create a major negative political impact for MSU with the state's P industry.

* Total adjustment in the department's budget for 1988-89 was anticipated at \$212,211.

Transitional funds the department needed to achieve the reductions:

	General fund	AES	CES
1988-89	\$62,627	\$80,000	\$40,000
1989-90	\$62,627	\$60,000	\$40,000
1990-91	\$62,627	----	----

1991-92

Other cost containment strategies the department planned in 1988-89 include: reduction in the number of Ns kept at the MSU N experiment station; reduction of a research program; reduction in student and labor payroll at the experiment stations by replacing four students currently working part-time in the teaching office with one part time secretary.

4.2.8 Needs that the Department Requested the College to Meet in Its 1988-89 APP&R:

1. The department requested additional resources for its livestock extension agents to make the state's S industry more profitable.

2. According to the department, an additional staff member in extension will provide technical assistance needed to expand the state's M industry. The department further added that its research staff in M nutrition were close to retirement, so new faculty members would be needed to prevent the program from collapsing.

3. Funds to hire an additional faculty member in M nutrition, since most of existing faculty were close to retirement. The position was to ensure the continuance of the M discipline.

4. To hire an additional faculty member to complement the newly established basic molecular biology program. This would help the department develop a core of scientists to address S industry problems.

5. To hire an N experiment station manager to assist in the teaching and care of the Ns because the two-year N management program is well-established and successful. The department warned that without that manager its N program would be greatly curtailed and possibly eliminated in the future. It also added that one of the state's industries would "not look favorably on the university for these types of reductions."

6. The department explored the possibility of providing an undergraduate degree emphasis in the area of toxicology. This is a coordinated effort with the University's Center of Environment Toxicology.

4.2.9 Unmet Space and Physical Facility Needs of the Department

1. Renovation of the department's building, the laboratory, and P plant which were over 35 years old. Additionally, its plumbing, electrical wiring, classrooms, and research laboratories needed to be refurbished. It further added that neither its lab nor its P plant could pass state or

federal inspection. It was also reported that its new research equipment and micro-computers did not function properly during the hot and humid summer season.

2. The department's reference room needed an audio-tutorial that is equipped with a slide-tape carousel, micro-computers, and video equipment to improve efficiency.

3. Wet physiology and nutrition teaching laboratories were needed.

4. Continual upgrading and renovation of experiment station facilities in order to meet the needs of teaching and research programs.

5. An indoor arena was needed at the N experiment station where instruction in N training and management can continue during the winter months.

6. A new M research building was needed to improve nutritional research programs. The department complained that many of the facilities in its M, Q, and R experiment stations were 20-25 years old and needed major repairs.

4.2.10 What Actually Happened in FY 1988-89

In 1988-89, the department outlined its plans for meeting the reduction targets mandated by the university, as well as for the Cooperative Extension Service and Agricultural Experiment Station. The department explored alternative

courses of action for achieving each reduction target in its three expenditure areas. It also explained the reasons why some of those options would not be feasible. The department also made two and three year plans for meeting future reductions, however, these plans were modified as circumstances of the department changed. For instance, the department had planned to eliminate some faculty positions as part of its reductions if those faculty members retired. Some of the faculty, however, such as Drs. Julius and Eucharria did not retire as expected (*1994/95 Abi Faculty listing* p. 200).

The department presented its requests as matters of urgency. The negative impact of non-fulfillment of its stated needs on the institution's relationship with commodity groups were also cited.

Areas of Strength

According to the department's 1988/89 APP&R the following programs were areas of strength for Abi:

1. Research areas of nutrition, growth biology, reproductive physiology, and mammary physiology.
2. The M research and extension programs have been widely recognized. The state wants to expand the aspects of its industry.

Cost Containment Strategy Implemented

The department met the 5.5% reduction targets (for AES, GF, and CES) by eliminating two faculty positions and the positions of two experiment station laborers. It also took other steps to become more efficient. For example, (a) basic research faculty formed cluster groups to share expensive equipment in their various laboratories. This was expected to be cost-efficient in the long run; (b) the department changed its workload expectations for its faculties. A full-time teaching load for faculty members remained at twelve credits per term. To fulfill one credit load instructional equivalency each faculty member had to advise 25 students instead of 10.

Survival Strategies Implemented

Collaboration and cooperation was cultivated with scientists at a Regional R experiment Station on the use of the MSU's R facilities (*Budget Reductions in Planning for FY 1988/89, Department of Abi, Michigan State University, 1 June 1988, p. 5, no. 5.3*). The department was concerned that not refilling Dr. James's position might hamper this cooperation.

Also the Abi department collaborated with the Departments of Microbiology and Biochemistry on research. The department also collaborated with the Canis College.

New Recurring and Non-recurring Commitments

A general fund commitment was made to a staff member for a 3/4 assistantship for a two year period. But later, in the course of R-cubed, that person left the department, and his position in Joseph's program was not refilled. The department withdrew all the operating funds for the Joseph program, and eliminated it.

In addition, a new faculty member was hired that year (\$7,000 salary was already committed from the department's base budget; AES committed \$28,000 and another \$40,000 for research. For an endowed chair position, the department received the following commitments: GF--\$40,000, AES-- \$20,000 and an additional \$50,000 for operations; CES-- \$20,000).

Alternative Courses of Action Considered

In planning for cuts the department regularly outlined the anticipated outcome of each alternative course of action they considered. In some instances, a line of action that was considered was dropped because the anticipated outcome would be too detrimental to the functioning of the department, or the clientele of the department. For instance, when the department was exploring ways to reduce its CES budget it concluded that it would be difficult to meet the reduction target of \$40,686 because a high percentage of the budget is

in salaries of protected employees. Some options were considered for cutting CES expenditures, but rejected by the department because of anticipated negative consequences on the department. An example was to meet the 5.5% reduction target in its CES budget by eliminating all support for travel and also eliminating all support for long-distance phone calls for the extension faculty. This alternative course of action was rejected by the department decision makers.

When there was more than one way of reducing its expenditure, the course of action usually presented as "the accepted plan" was the one whose anticipated impact on the department's goals were the least detrimental.

4.2.12 What Did Not Happen

1. Some of the faculty the department had expected to retire did not. Therefore, the department had to use options other than elimination of those positions to meet its reductions.

2. It did not close the experiment station because the college did not allow it to do that. The impact of this offer was that eventually the college reduced its reduction target for the department. The department used that strategy to protect itself from budget cuts.

3. Its space needs remained unmet, and neither did it get the funds to hire any new faculty or staff in 1988-89.

4.2.13 Budget Reduction Plans in Abi Department for 1989-90 (4% Reduction in the General Fund Base Budget)

There were different opinions regarding the change in the department's goals during R-cubed. Some respondents cited that the department's goals during R-cubed did not change from what they were in 1984-85. But, others argue that R-cubed was the catalyst for the formulation of the department's mission and goals.

In 1989-90, a faculty committee developed a strategic plan for the future of the department. They looked at the mission statement as well as the purpose and aims. They set the priorities for the department in its role to serve the state of Michigan through its teaching, research and extension efforts.

4.2.14 Goals of the Department of Abi

1. To be the focal point of MSU programs that teach nutrition, genetics, physiology, and management of experiment station's products (M, N, Q, R, S, P and W).

2. To continue playing a major role in leadership skills through student organizations;

3. To continue participating in the state's industries' events (*Executive summary: An Overview--Abi 1989-90*).

4.2.15 Plans for Meeting the 1989-90 Reduction Target

The department reported that as a result of the increased cost of doing business, past budget reductions and cessation of operating funds for Joseph programs, its general fund budget on June 6th 1989 was about \$45,000 short of meeting the instructional needs of the department. The department announced that its reduction plan for 1989-90 would take that \$45,000 into account. The department proposed that because of the status of its operating budget it would eliminate its budget by only an additional \$95,000 in 1989-90 (*Memorandum to Dr. Dare from Dr. M. Abraham, Re: 1989 Program Planning and Review, June 6, 1989*).

The plan of the department was to offer up the salaries from non-replacement of positions of three faculty who were retiring (Felicia--1989, and Damian--1991; and James--1990). However, the department argued that if the university did not allow it to use the salaries to be saved from the retirement of James and Damian in budget reductions for 1989/90 then its next option would be to close the R experiment station which accounted for 44% of the department's general funds budget.

Anticipated Outcomes of the Reductions

The department reported that the elimination of the three faculty positions would remove all expertise, undergraduate and graduate teaching in some of its genetics courses. Graduate training in quantitative population genetics would also be handicapped.

Elimination of the James position would cause the elimination of the R nutrition course and be a blow to the Toxicology program.

The closure of the R experiment station would impact students in Brigid College and Canis College who are instructed with Rs. This is the only opportunity Canis Department's students had for working with Rs.

4.2.16 Revenue Augmentation Plan

The department proposed to charge visitors to one of its experiment stations one dollar per hour. According to the APP&R, the funds would be used to increase the operating budgets of the experiment stations. The department expected to generate about \$8,000 from this fee annually. The faculty were opposed to charging these fees to those who use the products of that experiment station, since those products are an integral part of their instruction.

4.2.17 Plans for Long Term Survival

1. Expand life long education programs;
2. Build on the historical strengths of the department;
3. Work with the Center for Environmental Toxicology to develop a joint toxicology emphasis for undergraduates.

4.2.18 Unmet Needs

1. Micro-computers laboratory for instruction;
2. Wet laboratory for physiology, molecular biology, nutrition, and toxicology;
3. Improvement of the department's reference room; and
4. A manager to supervise the two-year N management program. It complained that the continued lack of support by the college for the program may lead to its closure.

4.2.19 What Actually Happened

The department met the 4% reduction in its general fund budget by not refilling the position of Dr. Felicia upon his retirement. This resulted in an expenditure reduction of \$20,477 to the department's general fund budget. Three courses taught by that faculty member were dropped.

In addition, an R experiment station was closed resulting in a \$34,728 reduction in the department's budget. The department's budget was reduced by a total of \$55,205. The department received transition funds of \$8,465 from its parent college to assist it in meeting the reductions.

The department also established an endowment for undergraduate instruction in 1989. This endowment was established by the former department chairperson with money contributed by his friends and acquaintances worldwide.

The major gift to the department this past year was ~~herd~~ 34 Ns for teaching. The value of these Ns was about \$800,000.

The department worked with Canis College to reduce course duplication, and produce a stronger curriculum for both departments. The department also consolidated some of its courses as part of the transition to the semester calendar. The college did not allow the department to close any of its experiment stations.

4.2.20 What Did Not Get Implemented

The requests in its 1988-89 APP&R remained unmet in 1989-90. The revenue augmentation plan was not implemented due to faculty resistance to the idea.

4.2.21 Budget Reduction Plans for 1990-91 (2% Reduction General Fund Base Budget)

The department planned to meet the budget reduction targets for 1990-91 through:

1. Reduction or elimination of teaching positions of retiring faculty member (James). This would reduce the quality and effectiveness of teaching and save the department \$20,477 in 1990. The department requested \$8,208 in transition funds until Dr. James retires. According to the APP&R the department was concerned that Dr. James's departure might hamper its toxicology program.

2. Closure of experiment stations on south campus. This would curtail teaching and AES research efforts (*Attachment A, Summary of Budget Reduction Actions and Consequences, Rebalancing Implementation Plan, Brigid College 1990 APP&R: Abi*).

4.2.22 What Actually Happened

To meet the 2% reduction in its general funds budget the department mortgaged Dr. James's position, and this resulted in a reduction of \$16,416 to the department's general fund base budget. His position was 0.25 ACD. The department also reduced its operating budget by \$14,244 (*College of*

Agriculture and Natural Resources 1991 APP&R Section VIII: Executive Overview).

The college gave the department \$16,673 in non-recurring transition funds to assist it with the reductions. Teaching expertise in R nutrition was eliminated (*Abi Department: "Changes in the Agreed Position Complement" in Brigid College 1991 APP&R Section I. D. Position Complement*).

Undergraduate enrollment which had been declining for several years rebounded this year (1990-91) with a 24.5% increase. A substantial part of that growth was in the N program.

4.2.23 Outcome of Reductions

According to the 1990 APP&R the following events occurred as a result of the reductions:

1. Graduate enrollments declined due to reduced support for research and graduate assistantships during the R-cubed process.

2. The scope of the department's research programs was reduced relative to other land grant institutions. The elimination of research programs in R nutrition, and program 1, along with reduction of operating funds to support research placed the department in a less-competitive position.

3. The loss of expertise in its program 1 had a negative impact on the extension-outreach programs of the department.

According to the chairperson in 1990 the department's operating funds were totally eliminated in its effort to meet the reduction targets. This demoralized faculty members, since they did not have as much money to do their jobs as they once had. Many faculty members began paying for their travel and supply expenses with personal funds. Morale among extension workers reportedly fell, for they did not receive adequate funding for their programs (*State of the Department: The Department of Abi, Michigan State University, p. 3, 1990-91*).

5. Reductions in teaching faculty also increased workload for the remaining teaching faculty. Student advising was hindered due to faculty overload, as the teaching faculty were teaching more classes.

4.2.24 Survival (Identification of Strengths of the Department)

According to the 1990-91 APP&R, the department also embarked on courses of action which Harvey and Stewart (1975) call survival measures:

1. The department maintained the quality of its researches in program 2 relative to similar programs in other land grant institutions.

2. Initiated quality assurance programs in its M and Q disciplines. This was in line with national commodity priorities in the M and Q industries.

3. New methods of applying knowledge efficiently and quicker were studied by the extension workers.

4. Increase in the number of students interested in the N discipline, put a severe teaching load on faculty with this expertise.

4.2.25 Revenue Augmentation

According to the Department's 1990-91 APP&R:

1. Faculty members increased the amount of time spent seeking funds to do their work.

2. The department's faculty increased their efforts to generate external revenue to the department during R-cubed. Consequently, gifts, grants, and contracts within the department rose steadily in the past three years (1987-88, 1988-89, and 1989-90). Gifts and grants rose from 72 grants yielding \$113,000 in 1987-88, to 64 grants yielding \$338,000 in 1989-90. Likewise gifts and contributions to the Development fund increased from \$48,000 in 1987-88 to \$176,000

in 1989-90. Contributions from faculty and staff completely paid for the renovation and refurbishing of two conference rooms in the department. Yearly donations to Scholarship and Fellowship funds increased by \$20,000 over the past 3 years.

3. The department also received \$2,257 in recurring funds from the college to support its internship program.

4.2.26 What Did Not Get Implemented

Apart from the R experiment station, the college did not allow the department to eliminate any of its experiment stations.

4.2.27 Budget Reduction Plan for 1991-92 (2% of General Fund Base Budget)

The reduction target for the department for FY 1991-92 was \$25,824. The department said that it needed transition funds from the university in order to meet this reduction target. It requested \$60,000 in transition funds from the university. Its rationale was that the normal operating cost for teaching was \$90,000 but the department would save \$30,000 from the salaries of the retiring faculty members, leaving \$60,000 which was requested from the College (*Brigid College 1991 APP&R Section I. A--Actions and Impact of R³ by unit. Unit Update and Impact Summaries sections I and III. p. 6a*).

To meet its reduction target the department proposed to eliminate the position of Dr. Damian. This would result in its dropping "P Breeding and Genetics" instruction. It estimated to reduce the department's general fund expenditure by \$22,500 (.5 FTE).

4.2.28 Needs

In the APP&R the chairperson of Abi identified the needs that it wanted the college and institution to assist it in fulfilling.

1. Wet laboratory for physiology, molecular biology, nutrition, and physiology.

2. Faculty to teach one of its high priority courses.

3. Faculty with expertise in the N area, to meet the demand of an increased population of students with this interest.

4. Micro-computer laboratory to teach students the use of computers in decision making.

5. Modernization of the department's building and laboratory. Some of these issues are being addressed in the initiative for the revitalization of agriculture at Michigan State University. Funding for this initiative will ensure that these physical facilities are met. Programmatic support to carry out the emerging issues are necessary.

4.2.29 What Actually Happened

Dr. Damian's position was mortgaged and this reduced the department's budget by \$24,295. Given that the R experiment station had been closed and two faculty positions in the R discipline had also been eliminated, this last elimination (James's position) signaled a significant reduction of Abi's teaching program.

The department also reduced its operating budget by \$2,295. In return, it received \$32,760 of transition funds to help it meet these reductions.

A specialist position in the N discipline was also eliminated. This further increased workload for the remaining faculty members and staff in that discipline.

The additional reduction in teaching faculty put tremendous stress on the remaining teaching faculty. Faculty continued to cover travel, supplies, and services costs out of their own pockets.

The APP&R reports that research, teaching, and extension were reduced through the elimination of lower priority programs within the department. The concern was that if reductions continued the higher priority programs would be affected.

The department worked with Canis College to make instruction, research, and extension more efficient. The

issues of duplication of course work and multiple uses of the experiment stations by both departments was also under study.

Summary of Reductions The Department Made to Meet Its Reduction Targets

Between 1988-89 and 1991-92 the department had reduced its faculty (10%), secretarial staff (10%), experiment station labor (27%), and graduate assistantships (40%), as a result of the R-cubed process (see Table 4.3). Teaching and research expertise in one area was eliminated (even though it was important to the department), other reductions occurred by elimination of the R microbiology and disease discipline (1 FTE), elimination of the R nutrition teaching and research programs, and reduction of labor at the P, R, and Q experiment stations.

Offices were reorganized to accommodate a smaller secretarial staff. Personnel in the department resisted additional lay-off of support staff to meet reduction targets, so the department stated that future reductions would have to be met through retirements.

A life-long education program was started in 1990 to serve the N industry.

The department encouraged the university to find a way to protect the experiment stations from budget reductions

since they served seven departments in three colleges within the university. Operating costs for the experiment stations come from the base budget of Abi Department.

4.2.30 Revenue Augmentation

The extension faculty and staff started charging for more of their programs because of shortage of operating funds for extension. According to interview reports those programs were once free of charge.

4.2.31 Survival Measures

In accordance with the directives of the college that its units recruit more minorities and women the department carried out the following actions:

1. Hired a female Asian/Pacific Islander;
2. Recruited two minority undergraduate students from an inner city agricultural school;
3. Hosted a group of black high school students interested in careers offered by Abi Department.

The 1991-92 APP&R also reports that through the Minority Apprenticeship Program the number of minority students in the department increased.

4. Enrolled two Black males and provided special counseling to help their adjustment (*Section V: Idea The Brigid College Plan: Abi*);

5. The department said it planned to shift its focus to address important issues emerging in the state's livestock industry: food safety, quality assurance, environmental quality, and biotechnology.

Life-long education programs involving food safety, and toxicology risk assessment were developed with the Michigan Department of Agriculture and other consumer groups.

The strategic planning committee examined ways of changing instructional models and workload expectations for the unit. Their biggest handicap was the lack of flexibility in the unit as a result of narrower scope of expertise in the department.

4.2.32 What Did Not Get Implemented

In 1991, the Brigid College did not ask the departments to submit complete packages for the 1991-91 APP&R (which includes a contingency plan of 3% reduction for 1992-93). Instead they were asked to comment on any changes in their plans for meeting the 2% reduction target for 1991-92 (Brigid College 1991 APP&R, Section I. A.--Actions and Impacts of R³ by Unit, Unit Update and Impact Summaries Sections I & II).

1. Space needs of the department remained unmet;
2. A faculty member (Dr. Eucharia), whose retirement would have contributed to reduction of \$30,000 from the department's operating expenses, did not retire.

Some of the respondents noted that even after R-cubed they did not receive funds from the college or institution to meet their space needs. However, as a result of the Industry initiative program founded in 1987, the department received \$78 million from the state's legislature. The department started hiring thirteen new faculty members and renovating its building in 1995.

The N barn manager position was filled with funds reallocated from the college during the R-cubed period. A major theme that ran through the plans of the department in this APP&R was the possible impact of proposed reductions on its commodity groups.

4.3 PROCESSES THROUGH WHICH THE DEPARTMENT RESPONDED TO FISCAL STRINGENCY

This section is organized under the following generic elements of any decision making process: goals, courses of action considered, criteria for decision making, implementation of choice, outcomes of decisions, and the

nature of feedback involved in the department's decision making process.

4.3.1 Beginning of R-cubed for the Department

At the beginning of R-cubed (1988), the chairpersons and unit directors in the college were informed that the college's budget would have to be reduced over the next three years as part of the "Refocussing, Rebalancing , and Refining" process initiated by the University. At the initial stages of R-cubed, specific and general discussions occurred in the bi-monthly meetings of Brigid College administrators. These meetings resulted in the formulation of a broad set of guidelines and parameters that would be used in addressing the budget reductions. Each chairperson consulted with his/her faculty advisory committee to formulate the specific actions the department would take in response to R-cubed. Those actions were discussed with the entire faculty. The actions proposed for each unit were presented by the chairperson of the department to the dean and associate deans/directors of the College. The process was interactive in nature, with some plans being accepted as presented and others requiring additional consultations and decisions between the unit administrator and his/her faculty. The final plans were

summarized and presented under the "Personnel and Program Actions" section of the APP&R documents (*The 1988 College of Agriculture and Natural Resources APP&R*, p. 2). According to a faculty member:

We knew we were in a period of downsizing,... if we wanted to downsize with... some strategic intent on our part, we needed to act and try and be in control of our destiny instead of just reacting to whatever might happen to us" (Uche, 1995,).

4.3.2 Department's Goals and Priorities Before R-cubed

In the late 70s and early 80s, three departments merged to become Abi Department. Therefore, by the time R-cubed began the newly merged departments were still adjusting to their newly merged status. Whereas some respondents report that the goals of the department had been clearly delineated before R-cubed, other opinions suggest otherwise. For instance, "... We didn't technically have a plan until the late 80s and that was part of what the strategic plan was about. I really think that much of the motivation for that was the R-cubed process ..." (Chiji, 1995).

4.3.3 Goals of the Department During the R-cubed Period

At the inception of R-cubed, the faculty advisory committee selected five additional people to work with them in

the strategic planning (ad hoc) committee. The strategic planning committee comprised of leaders of the commodity groups in the department; and coordinators of Abi's undergraduate, research and extension programs. The department has programs in M, N, Q, R, S, P, and W; and producers of these products are commodity groups. They tax themselves to support the department and in turn the department serves them. The committee had ten members and the chairperson. The committee was comprised of junior and senior faculty in the department. According to respondents the committee was comprised of faculty who encompassed the divergent perspectives regarding the future direction of the department. The views were (a) that the department should focus more on basic research; (b) it should focus more on applied research; and (c) views that focused more on specific issues in the department, such as criteria for hiring faculty

These members of the strategic planning committee made up about 25% of the faculty in the department. They reportedly deliberated at length, before reaching a consensus on the on the future goals and objectives of the department

The members of the committee met weekly and sometimes bi-weekly over a nine-month period to conduct strategic plans for the department. The group started by defining the mission and purpose of the department, then defined the goals and

objectives of the department. In 1989, this team laid out the mission and long term goals of the department. Then the group assessed the department's resources (funds, personnel, students, supplies, services, and equipment) in relation to where the department wanted to be. Attention was given to what resources the department wanted to maintain, shift, or reduce. Subsequently, the resources were ranked according to their relative priority to the mission of the department.

The planners also delineated positions of retiring faculty by identifying those that would be cannibalized for salary savings, and those that were critical to the department, and had to be filled. The group also determined the programs to be eliminated if the department had to reduce its expenditures in the future. The department also looked at how to become more efficient. Since salaries constituted over 90% of the department's base budget (see Table 4.4) the only flexible items in the budgets were funds for operations, graduate assistantships, secretarial, and other staff positions. But, to carry out its mission the department needed its operating dollars.

We redid the mission of the department. We refocused on undergraduate education, trying to make that our priority, trying to refocus on the industry and its importance within the department.... We are an applied science, it means you service some group in the industry. We tried to refocus on that. We tried to emphasize the

importance of development of fundable research ... programs. We tried to identify what we thought extension programs in ... agriculture ought to be... Then we set about trying to decide how many faculty members we needed to have to fulfill the goals and objectives of what we perceived the future of [the department] was going to be. We did a pretty good job of defining that in the late 80s, and early 90s (Chiji, 1995).

According to one of the departmental manuals the following are the mission statements, goals and objectives the strategic planning committee designed for the department:

Mission of the Department

The goals of the ... industry are to provide safe, nutritious, and economical food and fiber and animals for recreation without compromising the environment or the welfare of the animals. To help industry meet these goals, the Department of Abi will provide leadership through a high quality educational program to improve [M, N, Q, R, S, P and W] production efficiency and product quality, and an extension effort to transfer research findings and technologies (*Mission Statement of Department of Abi, MSU*).

Objectives:

1. The educational program will prepare students for careers in science and management of [M, N, Q, R, S, P and W] production.
2. The research program will provide the basic and applied research information for optimization of [M, N, Q, R, S, P and W] production efficiency and product quality.
3. The extension program will identify problems important to the [M, N, Q, R, S, P and W] industries and evaluate, integrate, and transfer research findings to [those] industries to improve [M, N, Q, R, S, P and W] agriculture... (*Mission Statement of Department Abi, MSU*).

Priority ranking of concern issues

Rank	Concern Issue.
1.	Department priorities.
2.	Faculty incentives for teaching, research and extension.
3.	Operating dollars.
4.	Experiment stations.
5.	Undergraduate advising.
6.	Recruitment and placement of undergraduate and graduate students.
7.	Initiation of four year N program.
8.	Student activities.
9.	Assistant chairperson.
10.	Industry relations (Strategic Planning Papers, Abi Department).

Priority ranking of potential budget reconciliation sources

Rank	Reconciliation Source.
1.	Endocrine Research Unit.
2.	City Experiment Station.
3.	Staff support.
4.	Retired faculty positions.
5.	Experiment station units that do not have active research projects.
6.	Pavilion.
7.	Faculty essential supplies and services.
8.	Joseph programs.
9.	Departmental graduate assistantships.
10.	Untenured faculty.
11.	Tenured faculty.

The paper states that, "Faculty positions noted as "essential" should not be sacrificed before other reconciliation sources are thoroughly considered" (*Strategic Planning Papers, Department of Abi*).

Though the initiation of R-cubed prompted the department to delineate its goals and priorities more clearly, these goals did not focus on MSU per se, but on how the department

would prepare its students and address the needs of the state's (M, N, Q, R, S, P and W) industries. For instance one of the respondents remarks, "Our goals and priorities have been trying to lead research, education, and outreach to the community in the state's [M, N, Q, R, S, P and W] agriculture" (Abraham, 1995).

4.3.4 Courses of Action Considered

The APP&Rs and interview accounts suggest that those involved in decision making in the department considered other options before using the ones they selected. Certain alternatives were considered more strongly than others. An example was whether the department should close down some of its experiment stations. The faculty and chairperson were said to have deliberated at length on which units to close. When the department presented its plans to meet the reduction target, by closing some experiment stations, the college advised the department against adopting that decision.

The process through which these options were generated include: brainstorming by the department advisory committee, the chairperson, and his administrative assistant (who deals with the budget). The FAC also tried to generate suggestions from faculty members through suggestion boxes, but that was unproductive. At staff meetings and consultation with

individual faculty the advisory committee members received feedback on the plans the committee and the chairperson had proposed. According to one of the respondents, at some meetings during R-cubed the chairperson presented decisions he and the committee had reached on how the reduction targets would be achieved. Along with those plans, he presented other options which had been considered but rejected. He also explained why those alternatives were rejected. According to the respondent, on some occasions those faculty who were to be negatively affected by certain decisions sometimes opposed them and supported the options that had been rejected. Most of the time the chairperson adhered to the recommended decision. The resistance by faculty members suggests that sometimes faculty's goals conflicted with those of the department, and the department's goals were not unanimously accepted by faculty members. Baldrige (1983) in explaining decision making in higher education, maintains that interactions in the organization are riddled with conflict. Also, that goals of faculty conflict with that of the department.

4.3.5 Criteria for Decision Making

It seems that the primary criteria that determined the actions the department used to reduce its expenditures were:

- (a) the likely consequence of an action on its undergraduate

programs, and on its research focus. The likely political impact of a decision was also considered. The department tried to maintain its relationship with its external stakeholders--the industries and commodity groups the department serves; (b) available options. It is reported that many reductions came by chance--if a faculty happened to retire, or voluntarily leave the department. Though the department had a set of criteria guiding its budget reduction decisions, it appears that to meet budget reductions those measures were occasionally not applied, while programs it considered high-priority were reduced or eliminated because the occupant was leaving, and the department did not have much choices for meeting its reduction quota; (c) areas of flexibility in the department's budget. Most of the department's general-fund budget was tied up in salaries of personnel that the department could not retrench in order to reduce its budget. So, it had only 10% left for labor, supplies, and services (i.e., operations). This 10% were used for paying bills, operating the laboratories, paying graduate assistants, technicians and laborers in the experiment stations, and for clerical staff.

Usually, when an opportunity for budget reduction occurred, the FAC and chairperson would use the criteria to evaluate it prior to making a decision. The data are not

clear on the order in which options were evaluated--consecutively or simultaneously.

4.3.6 Implementation of Choice

The department did not eliminate all of the positions of its retiring faculty. It refilled some through grants from the state and its parent college. In fact, it added one new position to the N program. Also, no faculty member was retrenched in any department because of R-cubed. Apart from eliminating positions of vacating faculty the department carried out other actions to reduce its expenditure.

It was reported that faculty also had to pool together to share the few secretaries left in the department. This account is supported by the headcount of support staff published in the Michigan State University Directory which shows that the numbers of secretaries in the department fell from 19 in 1989-90 to 14 in 1992-93 (see Table 4.5). Faculty members were allocated computers to enable them do their own word processing.

Though the department strove to protect its laboratory technicians, because of their importance to its research efforts, it had to lay-off some of them to meet its reduction targets. The size of technicians dropped from four in 1989-90 to one, in 1992-93. In 1988-89 there were seven technicians

in the department. As the department reduced its permanent support staff positions it hired more temporary support staff (research associates and research assistants) (see Table 4.5).

This trend also occurred with faculty positions. As the department's ranked faculty, tenured and tenure-track (but not tenured) faculty size shrunk it hired more temporary faculty (see Table 4.5). According to the department's chairperson the last faculty member, whose position was eliminated because of R-cubed, retired in 1994. The increased use of temporary faculty in periods of fiscal stringency is consistent with Mortimer and Tierney's (1979) findings about higher educational institutions.

Table 4.5
Headcount of Support Staff in Abi Department, 1986-87 to 1992-93.

Faculty and Academic Staff		1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Personnel Component								
Tenured		34	31	32	33	35	33	32
Tenure track, but not tenured		5	7	7	6	6	6	6
Job Secured		1	1	1	1	1	1	2
Not Job Secured		1	1	1	1	1	2	1
Ranked Faculty		40	40	41	42	42	40	38
Part-time Faculty		N/A	N/A	1	2	2	2	1
Temporary Faculty		3	7	8	8	9	10	9
Women		3	4	6	8	8	6	6
Under 60 years old		21	28	29	27	29	29	26
Over 60 years old		9	7	9	9	11	10	9
Total faculty		47	49	49	52	51	49	46
Support Staff								
			1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Secretary			13	14	19	17	18	14
Specialist			4	4	7	7	8	4
Admin Asst			1	1	1	1	1	1
Technician			8	7	4	3	2	1
Clerk			1	1	1	1	1	1
Manager			9	10	8	13	12	12
Research Asst			0	1	7	9	9	11
Research Assoc			0	1	2	4	3	3
Analyst			0	0	0	0	1	1
Off. Asst			1	0	0	0	0	0
Total			37	39	49	55	52	48

Source: Michigan State University Faculty and Staff Directory (1987-88 to 1992-93).

During the R-cubed period the department eliminated its computer support position temporarily, but refilled it later in 1991 with a student employee (working part-time) when its members realized the need for the position.

Faculty members also reduced their expenditure. For instance, Dr. Uche (interview) reports that, "everybody tried to reduce their expenditure." Groups of faculty began buying computers and expensive laboratory equipment rather than alone. This was usually more economical than persons buying those supplies individually.

Extension staff at the request of the chairperson became more frugal with telephone calls that they made. The extension faculty used to visit their clients individually before the R-cubed period. With the inception of R-cubed, however, one-on-one contacts were reduced. Instead workshops were organized centrally to address the needs of clients in fewer locations.

The department reduced its programs. Some courses were eliminated. The N program, however, that had started with very little resources, grew "by leaps and bounds" during the R-cubed period because many students were interested. At the experiment stations, the department reduced the labor force and at the same time made the experiment stations revenue

grow. "That was reasonably successful and it saved the [experiment stations]..." (Uche, 1995, p.4).

Though a respondent reported that the department met all its reduction targets during that period, some evidence suggests otherwise. Other accounts indicate that one of the ways the department protected its revenue was by getting the college to reduce the departments reduction target. The department would propose to eliminate some of its experiment stations as a way of meeting its expenditure reduction, although it was aware that the college would reject such proposal. In all cases, with the exception of the R experiment station, the college refused to allow the department close any of its experiment stations, instead the college lowered the reduction target it set for the department. Based on the interviews this happened at least once in the department.

Interviewees report that with time it became progressively more difficult for the department to meet the R-cubed reduction targets:

... It was easier for us to reach the 5.5 [%] and 4 [%] than it was to reach the 90-91 or 91-92 ... When we got to the 2, then we had to make real decisions regarding what was a priority for this department and that forced us to look at our curriculum very hard. It forced us to look at our research program and try to figure out what our focus was and where we were going with this and to

make some hard decisions as to who was going to get department funding and who was not (Chiji, 1995).

4.3.7 Problems the Department Encountered as it Tried to Implement Those Reductions.

1. Though the department reduced a few of its low priority programs, it was also forced to reduce some of its important programs. The rules of employment in Michigan State University protects tenured faculty in the institution from lay-off due to fiscal stringency. As a result the majority of the cuts occurred randomly. They were taken from retiring faculty and from other areas the chairperson had the flexibility. The department could not transfer faculty and staff from areas of low priority to ones that were more important to the department because personnel in the department were highly specialized.

2. The chairperson became unpopular at that time because he took it upon himself to enforce the reductions. It was reported that he would go to each coordinator of programs and ask them questions about how they were trying to reduce expenditures in their subunit, and tell them that they had to reduce their expenses. As a result most faculty took steps to use departmental resources more efficiently.

3. Faculty and staff morale was so low that the department was concerned that its good faculty might leave (Abraham, 1995).

4. It was difficult to maintain faculty morale in a situation where parts of their programs were reduced, and (or) their secretaries were retrenched causing them to pool together and share secretaries. Also, some of the retiring faculty who had spent over thirty years in their discipline were frustrated when those disciplines were eliminated upon their retirement. These sentiments extended to those sympathetic to them in the department. These issues lowered collegiality in the department. Also, the chairperson took it upon himself to ensure that faculty members were using departmental resources more efficiently, making him unpopular in the department during R-cubed, especially among those who had been negatively impacted by the reductions in the department.

5. R-cubed hindered collegiality in the department. Another factor that reduced collegiality during R-cubed was faculty accountability. Many faculty members became reluctant about sharing their laboratory facilities with their colleagues because they did not want to "have to pay for somebody else's mistake" (Chiji, 1995). The reduced collegiality was reflected in the decline in group activities.

For instance, fewer people took coffee breaks together than in the past. To improve camaraderie, however, the department started coffee breaks every Friday and assigned the

provision of treats to different office suites each week. According to the respondent, this group coffee breaks has improved interaction among the faculty.

Also the reception of the \$78 million through the industry initiative improved faculty morale, and once again everybody was thinking about "how we can do better" (Uche, 1995).

6. Decision makers were also concerned that some of the reductions they had to make would be irretractable in the future, so this made them more cautious. For instance, Dr. Chiji explains,

... if you took a technician away from a researcher, that clearly identified that you were not going to support that program extensively in the future. The question was how did that affect our opportunities for the future and whether or not we should eliminate what might have been an area of expertise at some later date. That was extremely difficult (Chiji, 1995).

7. According to an interviewee, one of the most difficult tasks for the chairperson and the FAC was keeping faculty abreast of what was happening in the department at that time, and also convincing them that decisions the chairperson and faculty advisory had made were in the interest of faculty. The FAC and the department's chairperson realized that antagonizing some people was unavoidable in a situation

like R-cubed, where some programs had to be reduced or eliminated to meet reduction targets.

Although some faculty resisted the departmental chairperson's plan to reduce activities at the experiment stations, initially, they complied eventually.

The department overcame many of the problems it faced during R-cubed, although it has not resolved the problem of tenure guidelines for faculty employment.

4.3.8 Revenue Augmentation

The faculty advisory committee, members of the strategic planning committee, and the individual researcher who applied for grants and some of the external clientele of the department participated in determining how the department's revenue was augmented. The "main players" were the faculty advisory committee and the members of the strategic planning committee. Faculty, staff, and the chairperson helped generate additional revenue for the department.

4.3.9 Criteria that Guided the Selection of the Particular Measures the Department Used to Raise its Revenue

It was up to individual faculty member to decide how to raise funds for their programs. Certain criteria that guided

activities members of the department embarked upon to raise income for the department include:

1. Not charging students fees as a means of generating additional revenue. For instance, at a point during R-cubed the departmental leadership considered charging lab fees to increase revenue. This action would have been profitable to the department since most of the undergraduate teaching in the department involves the laboratory. The department abandoned that idea because faculty thought it would be too strenuous on students, especially at a time when tuition costs were escalating.

2. An event's potential to generate revenue. If an event or project was likely to generate additional income to the department it was explored.

4.3.10 Implementation of Choice

The actions the department took to increase its revenue include:

1. Making its experiment stations more productive and self-sustaining;
2. Its extension faculty started charging for some of their programs;

Table 4.6

Student Enrollment, Student Credit Hours, and Evidence of Research and Creativity (1986-93).

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Student enrollment							
a. Undergraduate Totals	205	168	166	143	178	163	183
b. Graduate Totals	91	72	77	73	68	70	74
Departmental Total	296	240	243	216	246	233	257
Faculty/student ratio	0.17	0.2	0.2	0.24	0.2	0.21	0.18
SCH produced							
Total SCH produced	7,326	7,585	5,998	5,545	5,845	5,439	4,035
Faculty SCH	4,057	5,864	3,722	3,505	3,677	2,539	3,070
Grad asst SCH	92	283	1,016	422	263	117	25
Other SCH	3,179	1,438	1,260	1,617	1,904	2,784	839
Faculty sch as % of total	55.38%	77.31%	62.05%	63.21%	62.91%	46.68%	76.08%
Grad asst sch as % of total	1.26%	3.73%	16.94%	7.61%	4.50%	2.15%	0.62%
Other SCH as % of total	43.39%	18.96%	21.01%	29.16%	32.57%	51.19%	23.27%
GF Constant \$/SCH	N/A	98.71	129.36	130.09	128.92	135.23	165.46
Courses Offered							
a. on-campus	82	88	90	89	89	83	59
Sections Offered on-campus	128	143	149	143	154	143	96
Evidence of Research and Creativity							
Proposals	194	206	242	229	212	221	181
Refereed Papers	82	64	82	96	58	83	59
Books	4	3	11	5	4	6	3
Delivered Papers	622	574	745	380	518	539	401
Evidence of Merit	11	9	13	13	18	19	11
Patient care (Consultation)	1,256	11,717	9,298	9,670	7,005	7,415	4,983
Sponsored research dollars	N/A	856,872	1,12,319	442,849	1,384,649	1,142,283	1,590,096

Source: Michigan State University Office of Planning and Budgets University Data Book 1986-87 to 1992-93.

3. Charging for lifelong education programs and many of them became self-sustaining (Abraham, 1995). There were some services from which the department did not generate much income--services which clients were used to receiving free and refused to pay for during R-cubed;

4. Seeking opportunities to establish endowment for expenses its members considered appropriate, to free up moneys that it could use elsewhere. According to one report, there was a keener focus on establishing grants than at any other time before it. For example, through such an endowment, students in the department traveled to compete in a national championship.

5. Promoting grant writing and offered grant writing sessions to help young faculty members become more successful. Senior faculty members who had been very successful in obtaining grants gave seminars, and one of them took it upon himself to evaluate grant proposals of other faculty before they were submitted. Some younger faculty became more successful at obtaining grants as a result (see Table 4.6). Grant writing was also added to the undergraduate curriculum, and it became popular with students. The department also generated some revenue from offering this class.

Though the industry initiative was formed in 1987 before R-cubed, the department worked on it throughout the R-cubed period and its results occurred at the end of R-cubed. The initiative formed when the department's chairperson constituted the University Industry Advisory Council to inquire from the industry about how the department could help improve agriculture in the state. The council was made up of

members from the various industries (M, P, and R) in Michigan that are connected with the department. The council met with faculty in the department periodically--at least twice a year.

The industries in turn became advocates for the department in its effort to obtain the resources it needed to accomplish its mission. One of the goals of the council was to make the department more customer driven. The council tried to do this by getting the department's customers (M, P and R industries in Michigan) to inform the department of the kinds of products they wanted, to support the department financially, to become advocates of the department, and to help recruit students for the department. Two years after its formation, the executives of the industry advisory council marshaled resources together and started the industry initiative. The industry initiative got \$74 million for the department's capital budget, and another \$4 million for its operations from the Michigan legislature for the department in 1994. Members of the department maintain that without the initiative the department was only moderately successful in augmenting its revenue.

4.3.11 Problems the Department Faced as It Tried to Boost Its Revenue and How It Overcame Them

1. Overworking some of its good faculty was a problem for the department. During R-cubed the department tended to use some of its best faculty to teach lifelong education

courses off-campus. They taught the courses, participated in intra-departmental committees, and sought grants in addition to their regular teaching and advising workloads. In the end, the department had to desist from asking these faculty to teach lifelong education courses off-campus because they were being overworked, and the department became concerned that they might leave.

2. Convincing the faculty who believe that academics were to focus only on research, teaching, and service rather than on trying to generate funds (Chiji, 1995). This was a bigger problem with the older faculty than for the younger ones.

3. Persuading some clients who were used to receiving services for free, to begin paying for them during R-cubed. In the end the department had to eliminate some of the fees it had imposed on its services.

4.3.12 Future Survival of the Department.

The chairperson of the department, faculty members of the strategic planning committee, and the faculty advisory committee participated in identifying the measures to enable the department remain viable in the future. During R-cubed the chairperson met regularly with the members of these committees to exchange ideas and inform them of any R-cubed

issues that affected the department (Chiji, 1995). The members of the groups in turn shared plans with other faculty and sought their opinions on departmental matters. The advisory and the strategic planning committees advised the chairperson on departmental matters. The chairperson, however, made the final decision on the direction the department should go. The agricultural leaders in the state of Michigan were also involved, and played major roles in the decisions the department made.

4.3.13 Criteria that Guided the Selection of The Particular Measures The Department Used in an Attempt to Ensure Its Future Viability

1. Fundability of research: what was going to be fundable 20 years into the future.
2. Orientation of programs toward the future of agriculture in the state of Michigan and in the country.
3. Ability of an undergraduate program to generate student credit hours. The department's SCH production, however, declined over the course of R-cubed (see Table 4.5).

4.3.14 Implementation of Choice--How the Department Restructured Its Program so as to Ensure Its Future Survival

1. One of the ways the department survived was by focusing on its mission and its importance to the state. The department maintained this focus during a period of fiscal stringency. It also worked hard at drawing the attention of the University and the state of its importance.

2. The department developed a strategic plan and this later led to the industry initiative. The industry initiative, in turn, enabled the department to secure \$74 million from the Michigan legislature. According to a respondent, the department came up with long-term goals for ensuring the future of agriculture in the state. It then outlined facilities, personnel, and other resources that it needed to achieve those goals (Chiji, 1995). The department took the list to the industry. The industry helped lobby for support for the department. As a result of that, the department received \$4 million for its operating budget, and now plans to hire 13 new faculty members.

3. Through members of the Institution's board of trustees who were sympathetic to its goals, the department was able to convince the central administration (including the board of trustees) of its importance.

4. The department also changed its curriculum to accommodate the transition to the semester calendar. The faculty taught more courses and course sections. Faculty-student ratio in the department was also high at the time. The faculty members also published more books, produced more proposals, and refereed papers. They also delivered more papers at conferences (see Table 4.5).

5. The department also expanded its programs in areas of greatest need. To recruit more students the department became more visible: its faculty and staff visited more colleges and universities, in addition to its regular participation in recruitment programs like MAP (Minorities' Agricultural Program). Student enrollment declined over the course of R-cubed, except in 1990-91 when it improved (see Table 4.6).

6. The department was able to hire five new faculty members during that period through funds from the state and Brigid College. Most of them replaced retired faculty in areas critical to the long-term goals of the department: molecular biology, an endowed chair, and two new people in P nutrition. It also refilled a support staff position--the manager of the N experiment station. A new position in P extension was also created and filled. Through those funds the department replaced a teaching position in its N discipline.

7. During R-cubed, the department started "team-teaching" some undergraduate courses with faculty from other departments in the college who had expertise that was lacking in Abi. The purpose of the inter-departmental collaboration was to enhance the department's courses and to increase its SCH production.

In addition the department collaborated with several departments in research, and outreach programs despite limited resources. One of the few areas in which collaboration was unsuccessful was team-teaching. It was reported that parts of some courses had to be eliminated because the external faculty who had agreed to teach them withdrew support. This was largely because the chairpersons of these "outside" departments had decided that team teaching would not be a criteria in faculty promotion or tenureship. It was also reported that the fiscal stringency of R-cubed forced people to focus on their departments. At that time, "people had very little money to spend and were trying to conserve as much as they could. They also felt less charitable about sharing their personnel..."(Chiji, 1995).

8. The department, however, did not receive all the resources it had asked for, so its faculty had to do more work to make up for the shortage in personnel (Abraham, 1995, p. 13). There was a concern in the department that faculty

(especially the productive ones) were being overworked. But, with the \$74 million the department obtained from the state legislature, it plans to meet all those unfulfilled needs.

You could not have come up with a more positive scenario than what we ended up with. ...we actually developed a program where we generated more dollars, increased our net operating budget, increased faculty and increased our involvement in [M, N, Q, R, S, P and W] agriculture at a level where most people said during the period of time that we were trying to do that, we would not be able to accomplish what we were trying to accomplish and we did (Chiji, 1995).

According to one of the respondents, the strategic planning exercise brought people together and helped them go in the same direction. It also brought faculty members closer to the industries in the state, for whom they work.

4.3.15 Problems the Department Encountered as it Tried to Restructure Its Programs, and How It Overcame Them

An interviewee narrated that one of the biggest concerns was getting faculty members to move in the same direction. Initially different faculty were of different beliefs about the direction the department should go. The departmental chairperson, however, was able to assemble a strategic planning group that was representative of the various views of faculty in the department. This group worked together to reach a consensus on the direction the department should go.

The respondents reported that the university and the parent college offered very few incentives to encourage units to implement the directives of the APP&R. Occasionally the college offered some incentives. The rewards were given after the fact, rather than to make things happen. Some of the things for which departments were likely to get rewards were collaborating with other departments to provide programs, increasing student credit hours per FTE, and providing opportunities for minorities (Chiji, 1995). It seemed that in the end the incentives encouraged some departments to fulfill some of the goals of R-cubed. Faculty preferred grants to enable them to accomplish R-cubed goals rather than receive funds as rewards for having met certain goals.

4.3.16 Outcome of Implementation of Choice

In this section I discuss outcomes of the decisions the department implemented as a part of the decision-making process. Outcomes of these decisions however, are not the major focus of the study.

4.3.17 Impact of The Actions The Department Took During R-cubed on The Quality of Its Instruction

There are various opinions on the impact of R-cubed on the quality of instruction in Abi. Some argue that the quality of instruction declined, whereas others argue that it

remained the same, because faculty worked harder to make up for lack of resources. As a result of R-cubed the department tried to use some of its best faculty to teach its core courses, which all undergraduate majors took. It also changed its curriculum content and teaching focus. It was reported that these faculty members taught the courses differently than they had been taught in the past. The new courses and instructional foci had mixed results with students, some attracted many students and others did not.

Those respondents, who argue that the quality of instruction declined, base their position on decreased resources, the state of disrepair of laboratory equipment, reduced size of laboratory technicians, and increased faculty workload. It was also reported that the decrease in infrastructural support made it difficult for the department to keep its students abreast of new technology in the discipline.

It seems the department tried to reduce the effect of stringent resources on its instruction through personnel adjustments, curriculum changes, and consolidating some courses.

4.3.18 Impact of The Actions The Department Took During R-cubed on Its Research

Research focus in the department became streamlined into two groups: one serving the industries of importance to agriculture, and the second group was doing more "discovery types" of research. Discovery researches were generally more fundable by the NIH (National Institute of Health). These two types of research also tend to generate more money than other types of research in the department. Those who conducted applied research sought grants wherever they could get it. Their focus shifted from problem solving research to meet the needs of the state and its industries (which is one of the department's goals) to fitting the agenda of those willing to pay.

The number of research on the minor species (for instance, V) decreased relative to those on other species. A faculty member reports that the quality of research did not decline during R-cubed because of the quality of "our faculty." He explains the decrease in the quantity of researches done could be attributed to the reduction in graduate assistantships, laboratory technicians, and operating funds in the department (Uche, 1995, p. 14). Also the elimination of some faculty positions such as Dr. James' also reduced the scope of researches done in the department. Throughout the R-cubed period the department's chairperson

requested major renovations of its laboratories and equipment which he described as outdated. There was also an increase in the number of the department's research assistants and research associates. These variables suggest that the department's research program was under stress, and its quality might have been negatively impacted.

4.3.19 Impact of The Actions The Department Took During R-cubed on Its Service Functions

Though support staff and faculty headcounts increased the data does not indicate that extension faculty or staff increased. Most of the increase was in temporary faculty, research assistants, and secretaries. Outreach in the department experienced more difficulties during R-cubed, than prior to it. The department's operating dollars were reduced, leaving it with less money to work with. Consequently, the work of the department's outreach faculty and staff was impeded. Additionally, due to layoffs and retirements the number of outreach programs offered by the department decreased.

Extension and outreach require a fair amount of revenue to function as it has for hundreds of years. In many cases it is one of those unique situations where if you throw money at it, it tends to be more effective because they can get to more people (Chiji, 1995).

The department tried to use some of the technology available to provide the same amount of service but with fewer

personnel and a smaller amount of travel than before. For instance, the department tried to do less traveling and reduced solving problems on a one-to-one basis for clients. Instead, it conducted more workshops (mass education), and increased phone calls, to substitute for travel. The department also started charging clients for photocopying certain reports, especially large sized reports.

4.3.20 Feedback to Participants in Departmental Decision Making, on The Outcomes of The Unit's Responses to R-cubed.

The department did not receive much feedback from the college or the university on its actions during R-cubed.

I was heavily involved in that process and I never knew what happened. I never knew what the eventual outcome was. I didn't even know if we were actually saving money at the level of the college (Chiji, 1995).

But, whatever information the chairperson received was shared with the department advisory committee and faculty.

Occasionally faculty offered their opinions on decisions that the chairperson and the advisory committee had made. It was reported that faculty advisory committee solicited input from faculty but it did not get much response. Some of the feedback was covert--people avoiding the coffee room, and breakdown in collegiality. These suggest that the faculty

might not have worked together for a collective goal as suggested by the rational model.

Nevertheless, the department looked at the outcomes in other departments and tried not to repeat their mistakes. Like other departments in the college it looked at where people were positioning themselves so that it could take advantage of those strategies (Chiji, 1995). For instance, if the Abi Department realized that X Department was doing something to take undergraduate credits away from it (Abi), then Abi would try to position itself in such a way that it would not lose its students. As a result the departments in the college became competitive and collegiality eroded further.

The success of the industry initiative increased the appreciation for strategic planning among the department's faculty, and now many appreciate the importance of long term strategic planning.

4.4 Comparison of Abi Department's Fiscal Decision Making Structure to The Rational Decision Making Model.

Criteria for testing the rational model to confirm it

1. Decision making authority

In the department, the chairperson is recognized as the central decision-making authority. He solicits advice from

the FAC, members of the committees, he organized in the department, and the administrative assistant. With the FAC and committees he usually solicits their inputs on problems he has identified and analyzed, but not yet solved. The entire department, however, understands that he makes the final decision. The faculty in the department expect that he does that. The FAC acts as the liaison between the chairperson and the faculty. Decision-making authority in the department is similar to that in the rational model.

2. A Definition of the Problem to be Solved at the Beginning of the Decision Making Process.

Like the rational model, the problems to be solved were defined, and so were the goals of the department. At the beginning of R-cubed the department delineated the problem to be solved: accomplishing the objectives of the APP&R (R-cubed goals) set by the parent college. The chairperson also set up a strategic planning committee which delineated the mission and goals of the department.

The use of "leaders" of commodity groups in the department, to ensure that the perspectives of those groups are reflected in the department's goals, is consistent with Baldrige's (1983) description of the political model. Baldrige contends that [departments] do not exist in a

campus-bound vacuum, and that external interest groups exert considerable influence over the policymaking process.

Also the use of a committee comprised of experts in various programs in the department is consistent with Baldrige's argument that expertise rather than hierarchical office is the main organizing principle in higher education. Consequently, a committee of experts decides many of the critical issues.

The rational model predicts the presence of superordinate organizational goal that would unite all members of the institution. In the model an individual's and subunit's goals are coherent with the broader mission of the institution. As predicted by March (1957), and Baldrige (1983), however, the goals of the department sometimes conflicted with those of R-cubed as well as members of faculty.

In summary, the department defined its problems in a manner consistent with the rational model. On the following issues its goals showed characteristics of the political model: conflicting goals, use of committee of experts in decision making, and the influence of external stakeholders on policymaking in the department.

3. Search for Alternative Courses of Action

The rational model assumes that actors make decisions in a rational environment--one in which options are unlimited. (Birnbaum, 1988).

Ideally, as suggested in strategic planning during periods of budgetary cuts, resources should be moved from areas of low priority to those of high priority. This means reductions should occur in programs that are relatively less important to the mission or future of the department. And resources could be reallocated to high priority programs or used to start new ones that are deemed important for the future of the department. When the University asks its departments to reduce their expenditures, each department should be able to reduce programs it has identified as peripheral to its mission. But that was not always the case here. R-cubed demanded that units implement cuts, yet they could not touch certain areas regardless of their relative unimportance to the mission of the unit.

During R-cubed the internal environment of the University imposed certain limitations on actions the departments could take to reduce their budgets. For instance they could not terminate appointments of tenured or job-secured faculty and staff just to reduce their expenditures. Neither could they eliminate those of junior faculty. They

could not engage in certain actions to raise their revenues--for instance they could not rent out their offices to raise money, because the parent institution is a public non-profit educational organization. Additionally, most faculty and staff were so highly specialized that it was difficult to move them from a declining program to a successful one.

Political factors may have also prevented the decision makers from conducting an exhaustive search for alternative courses of action in response to fiscal stringency during R-cubed. The department tried to avoid actions that would jeopardize its relationship with the commodity groups (M, N, Q, R, S, P, and W).

Also the decision makers had limited time and resources to explore all possible options (Baldgride, 1983). Decision makers reported that they had deadlines to meet with R-cubed.

In addition to planning and responding to the directives of R-cubed, faculty advisory committee members and the chairperson had other responsibilities to fulfill in the department. This limited the number of options they considered.

When options available to a decision maker are limited, the decision that arises from those options cannot be optimal, but can at best be satisfactory (Birnbuam, 1988). At worst the department might be forced by limited options to abandon

its goals. In a situation where the available options are inimical to the department's goals, it would likely choose the least hurtful (but still hurtful) to its goals. It was a no-win situation for the department.

The data does not show the order in which alternatives were evaluated. The decision makers, however, looked at the outcomes (negative and positive) of each option prior to selecting the responses they made. Sometimes the choice was to eliminate programs (for instance, Joseph Program) that were peripheral to the department's mission. Other times important programs were eliminated (for instance Program 1). This was also true of staff; a good example was the N specialist. Also limited options forced the department's faculty to seek research grants from agencies other than their focal client group in the state.

The rational model predicts an exhaustive search for alternative courses of action. The faculty advisory committee and the chairperson of the department generated options through brain storming, soliciting input from faculty, and gathering information on how other units on campus were responding. It was reported that FAC and chairperson's efforts to generate inputs from faculty at meetings and through written suggestions were not as successful as those decision makers would have liked. They did receive some input

from faculty. This observation supports Baldrige's contention that few people actively participate in the policymaking process. They find it uninteresting and unrewarding so they allow administrators to "run the show" (p. 187). Faculty's reluctance to participate in decision making meant that the chairperson and committee members were solely responsible for generating options, evaluating them, and making decisions for the department.

In summary, the alternative courses of action used by the department deviated from the rational model on the following points: (a) options were limited; and (b) consequently could not be searched for exhaustively.

4. Implementation of Choice

Like the rational model, the department implemented courses of action which it had chosen because of the desirability of their likely outcome. But unlike the rational model, "satisficing" (Birnbaum, 1988) choices were made and implemented. For instance, the department eliminated some of its high-priority positions because it had very few options available to it.

Sometimes courses of action that the department had planned to implement were modified or stopped because of unanticipated, undesirable outcomes. For instance, the

department had to reduce its demand on some of its best faculty to teach life-long education courses because they were overworked. This modification of courses of action differs from the rational model in that the model predicts re-evaluation of steps that led to a decision prior to modifying decisions. The modification of decisions, however, in this case is more consistent with Klein et al (1993) who postulate that action and feedback are looped, and that people tend to act a little and think a little. The nature of the choices that the department implemented deviated from the rational model.

5. Results

The rational model predicts that likely outcomes of decisions are determined prior to making a decision, and they are criteria for decision making. There were instances where likely outcomes of options were known prior to decision making and were used to make decisions. For instance, when a faculty member's position is eliminated, the department could predict, based on its current personnel headcounts, the likely impact of that elimination on the department.

On the other hand, there were occasions when the decision makers could not predict accurately the likely outcome of an event, because other people determined the

outcomes. For instance, with revenue augmentation the external agencies determined who to award the grant to, and the amount to award. In such instances, the nature of the results of the department's decision differs from the rational model.

In summary, some of the results of the department's response were consistent with the rational model, whereas others were not.

6. Analysis of the Decision/Feedback:

The feedback aspect of the decision-making process in the department deviates from the rational model. The model stipulates a defined stage in the decision making process, after implementation of decisions, when the decision makers reassess their decisions and retrace the steps that led to them. Based on my data (interviews and documents) this did not happen in the department.

According to one of the respondents, verbal or written feedback from faculty on the impact of decisions (made by chairperson and FAC) was occasional. This is because the committee did not actively seek feedback from faculty. When their efforts to generate feedback from faculty (suggestion boxes and at meetings) failed, they did not try other avenues.

The decision makers, however, received indirect

feedback, on the impact of their decisions, through faculty behavior. For instance, people became reluctant to share their laboratory facilities with other faculty members, and fewer faculty members took their breaks in the coffee room. These covert behaviors suggest faculty resistance to the decisions made by the chairperson and members of the committees.

Though decision makers did not actively seek feedback it seems that when they became aware of the outcomes of their decisions they used that information to shape subsequent decisions. For instance, the chairperson tried to improve faculty participation in coffee breaks once it became apparent that faculty members were avoiding the coffee room.

That the chairperson remained in the department after the R-cubed period, may also suggest that the faculty were satisfied with his handling of the R-cubed process. Interview reports indicate that chairpersons of many departments in the college received such negative evaluations from faculty in their departments, that they left their positions in the middle of R-cubed. It seems that no time or event was allocated for analysis of past decisions, but outcomes of past decisions informed subsequent ones.

Conclusion:

One element in the department's decision-making process is consistent with the rational model: the "decision-making authority." Other elements in the department's decision making process deviate from the rational model: (a) consideration of alternative courses of action; (b) nature of goals of the department; (c) implementation of choice; (d) results of the decisions; and (e) the nature of feedback in the department's decision-making process.

4.5 Comparison of Findings to Literature

Generally the responses of the department to fiscal stringency fall into the three categories: cost-reduction, revenue augmentation, and survival measures advocated by Harvey and Stewart (1975).

The department's responses to fiscal stringency during R-cubed was shaped largely by the directives its parent college gave it. The department's reduction target, goal of increasing its SCH, and affirmative action efforts were all designed by its parent college.

In accordance with Rubin's (1981) study the department sought information on how it could reduce its budgets, generate grant funds, and revise its curriculum. It also updated its faculty and parent college on its plans. But

unlike the departments in Rubin's study Abi Department knew the timing and extent of the cuts before they occurred.

Like the department's in Rubin's study, this department, and others in Brigid college, did not apply for the College's grant. Faculty members in the college used to apply for this grant. They did not apply because they were too busy responding to R-cubed. But, the departments in Rubin's study did not apply because the probability of getting the grants was low. The department also tried to protect itself from cuts by emphasizing the negative impact of the cuts, and by lobbying for support for its programs from the legislature and the institution's board of trustees. It also offered to close programs which were very important to the college, and this caused the college to lower its reduction quota for Abi Department. These actions, however, differ from those in Rubin's departments. Rubin's departments were hiding revenues and positions. There was no data to suggest that this happened in Abi Department.

There was resistance by some faculty members to the measures the department used to respond to fiscal stringency, and Penny (1991) said that was to be expected in periods of budget reductions.

In accordance with Mortimer and Tierney, the responses to fiscal stringency was the reduction of faculty positions

(elimination of positions of some retired faculty, reduction of temporary faculty through non-renewal of contracts or non-replacement of vacated positions), reduction of support staff (experiment station laborers, clerical staff, laboratory technicians), reduction of student labor and graduate assistantships, reduction of operating funds, and collaborating with other units on research projects. Also, like the institution's in Mortimer and Tierney's study, this department implemented most of its cuts in areas where it had flexibility: graduate assistantships, operating budgets, and positions of retiring faculty. Also tenureship rules limited options available to the department for reducing its budget (Cheit, 1971).

There were some measures this department used to respond to fiscal stringency that is not mentioned in past studies:

1. Mortgaging positions of faculties whose retirements were imminent, to meet reduction targets;
2. Faculty pooling together to purchase expensive research equipment;
3. Replacing secretarial help for faculty with computers and answering machines;
4. Closing a experiment station;

5. Detailed analysis of anticipated outcomes of each course of action the department considered, for instance, anticipated outcomes of reduction;

6. The manner in which Abi tried to protect itself from cuts: lobbying for support from the trustees and from the state legislature, and offering to close certain programs it knew the College would object to.

CHAPTER 5

Gordian Department's Response to Fiscal Stringency

5.1 Overview

In this chapter I discuss my findings on (a) the responses Gordian Department made to fiscal stringency during the R-cubed period, and (b) the processes through which those responses were made. I also compare my findings to the rational decision-making model and to the literature I reviewed in chapter two of this dissertation.

In section 5.1, I present the chapter's overview. In section 5.2, I provide the background of the department. In section 5.3, I discuss the department's plans for meeting the goals of the annual APP&Rs during R-cubed. For each of the R-cubed years, I address plans that were actually implemented, and those that remained unaccomplished. In section 5.4, I discuss the processes through which the department made its responses. This section examines the process through which it reduced its budget, attempted to increase its revenue, and restructured its programs. In section 5.5, I compare Gordian's decision-making processes to the steps in the rational decision-making model; and in 5.6, I compare Gordian's responses to predictions in the literature.

Note: I encountered some difficulty in collecting documents from Gordian department. I was not given any of the

documents (Gordian Department's support staff headcounts, expenditure data and minutes of faculty meetings) I had requested. I had to obtain that data from other sources. I counted the number of support staff in the department during the R-cubed period from the *Michigan State University Faculty and Staff Directory*.

5.2 Background of Gordian Department

The department is thirteen years old (1995). It is a small department. Its current chairperson has been there since its inception. He was appointed by the Dean of Brigid College when the department first started. Most of the department's clientele are Michigan high school teachers and field staff of the Cooperative Extension Service. The department receives funds from three sources in addition to funds from sponsored research: general funds, Agricultural Experiment Station, and the Cooperative Extension Service. Though the funds the department received from the university general fund were declining (when adjusted for inflation), and it still had to meet the reduction quotas that its parent college imposed upon it (see Table 5.1). The

department's programs that are mentioned in this chapter are, A, C, D, E, F, G, H, and I.

Table 5.1
Funding Sources for Gordian Department, 1987-88 to 1992-93.

		1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Expenditures								
1. General fund								
a. Salaries		344,145	392,829	421,622	431,202	422,626	549,973	476,569
b. Labor		N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. supplies, services, equipment		30,703	30,312	20,986	10,267	10,670	5,735	26,145
General fund total		374,848	423,141	441,608	441,469	433,296	555,708	502,714
2 Agricultural Experiment Station		N/A	51,592	54,378	62,234	63,974	98,541	370,797
3.Cooperative Exten Service		N/A	200,899	205,143	198,192	199,548	285,525	114,137
Constant Dollar Expenditures (1983 Base)								
1. General fund		323,703	351,446	351,040	323,968	307,739	374,719	328,357
a. Salaries		297,189	326,270	335,153	323,969	300,161	370,852	311,280
b. Labor		N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. supplies, services, equipment		N/A	25,176	16,682	7,714	7,578	3,867	17,077
2. Agricultural Experiment Station		N/A	42,550	43,226	46,757	45,436	66,447	238,746
3.Cooperative Exten Service		N/A	166,860	163,071	148,905	141,724	192,532	745,551

Source: Michigan State University Office of Planning and Budgets University Data Book, (1992 and 1995).

5.3 Analysis of the APP&Rs from Gordian Department

5.3.1 **Proposed Plan for Reducing Gordian Department's Expenditure for FY 1988/89 (5.5% Reduction of Its Base Budget in the Three Expenditure Lines: AES, CES and General Funds).**

According to the department's 1988-89 APP&R, it planned to achieve its 5.5% (\$34,557) budget reduction by carrying out the following measures:

1. Reassignment of a faculty position from 60% general fund support to 17% CES, 8% AES, and 35% General Fund. The remainder of the support is from the Institute of Agricultural Technology;

2. Elimination of one temporary support staff position in the resource center. This individual managed the resource center and the department's library;

3. Two clerical positions were given redefined workloads and assignments were switched from full, general-fund support, to partial funding from CES;

4. Reduction of graduate assistantship positions;

5. Reduction in student labor;

6. Reduction in the department's operation dollars.

The department planned to achieve the prescribed reduction in its general fund budget by shifting funds among its three

sources of funding: general funds, AES, and CES (see Table 5.2).

Anticipated Consequence

The work in the resource center would be reassigned to clerical staff in the department. With the elimination of that position, there was not any personnel to oversee the department's library. These adjustments in workload were also expected to affect faculty and impede the pace of services in the department. Faculty and staff were advised to demand less of the secretarial staff, whose workload had increased due to R-cubed.

Reduction of graduate assistantships placed a larger burden on fellowship monies available to the department, and reduced the funds available for recruiting prospective graduate students.

As student labor was no longer be available, workload of clerical staff was increased.

Table 5.2

The 5.5% Reduction in General Fund, CES, and AES for FY 1988-89

General Fund Reduction

Clerical Position Shift	100%	to	80%	\$4,227+
(Staff A)				
Clerical Position Shift	20%	to	0%	\$3,243+
(Staff B)				
Faculty Position Shift	60%	to	35%	\$7,772+
(Dr. Emeka)				
Reduction in Graduate				
Assistantship Allocation				\$2,500+
Salary Adjustment/Sub-total				15,267+
Operating Reduction				\$5,449+
Total Reduction in General Fund (5.5%)				\$20,716

Agriculture Experiment Station Reduction

Elimination of Student Labor

3 Students @ \$4.10/12 Hours Per Week

36 Weeks \$5,345+

Faculty Position Shift 0% to 8% \$2,488-

(Dr. Emeka)

Total Reductions in AES Funds (5.5%) \$2,857

Cooperative Extension Service Reductions- -**Elimination of Temporary**

Clerical Position	100%	to	0%	\$18,900
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(Staff C)

Clerical Position Shift	0%	to	50%	\$8,372 -
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(Staff B)

Faculty Position Shift	0%	to	17%	\$5,284 -
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(Dr. Emeka)

Subtotal of Salary Adjustments				\$5,244 +
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Reductions in Operating Budget				\$5,740 +
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Total Reductions in CES Funds (5.5%)				\$10,984
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Total Readjustments				\$34,557
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(Source: *Gordian Department Budget Reduction Plan For 1988-89, Attachment A*)

Transition Funds Requested to Meet the Reduction Target

The department requested transition funds to help it extend at least two graduate assistantship stipends, because it expected that reductions in graduate assistantships would make it difficult for the department to recruit and retain graduate students in the future.

Survival

The department also requested that the college convert a temporary faculty position to a tenure track one. This faculty member was teaching a high-priority, undergraduate program whose enrollment was growing rapidly. The department also planned to expand some of its programs, e.g., extension staff development/in-service, Program D, and graduate programs.

Revenue Augmentation

According to the APP&R, the department expected \$200,000 that year from the state legislature to support its outreach programs. The state Department of Education reportedly committed \$158,000 for the support and development of a specific curriculum. The department anticipated that it would receive a large portion of the grant through the "Basic Teacher Educational Grant" (*Gordian Department 1989 APP&R*).

The department requested that its offices be refurbished.

The department planned an AES sponsored review in fall of 1988. The review was expected to result in recommendations

on the future direction the department should take. Its hope was that the reviewers would suggest new programs that may help the department in planning for the future.

What Happened

To meet the reductions in its GF, AES, and CES budgets, Gordian eliminated one clerical staff position, reduced its graduate assistantships, eliminated its student labor as it had planned (*Plan Scan Brigid College 1988-89 and Gordian '88 Formula for Budget Reductions*).

The department completed a five-year review sponsored by the Agricultural Experiment Station. The recommendations of the review were that the department: (a) develop a more cohesive core of course offerings for undergraduate and graduate students; (b) intensify its research focus; and (c) define more clearly the responsibilities of Cooperative Extension personnel (*Gordian Department 1989 APP&R*, p. 2).

What Did Not Happen

The department received some financial support from the college to support some graduate assistantship positions.

The temporary position was not converted into a tenure-track position.

5.3.2 Budget Reduction Plans for 1989-90 (4% Reduction in Gordian's General Fund Base Budget) .

The department expected to meet reduction targets in its base budget (from 1989-90 to 1991-92) through the retirement of one of its faculty (Dr. Austin on January 1990). According to the 1989-90 Gordian Department's APP&R the parent college asked it to reduce its base budget by \$31,671 over a three-year period --1989-90 to 1991-92. The college asked Gordian Department to reduce its base for general fund budget by the following amounts:

1989-90 (4%)	1990-91 (2%)	1991-92 (2%)	Total
\$15,835	\$7,918	\$7,918	\$31,671

Dr. Austin was expected to retire in January 1990, and his salary was \$55,713. The department planned to mortgage his retirement savings over two to three years to meet the reduction targets for 1989 (\$15,835), 1990-91 (\$7,918), and 1991-92 (\$7,918).

Anticipated Outcome of the Reduction

The department expected that eliminating Austin's position would reduce the international emphasis of its courses, and that the duties Austin had performed would be distributed among other faculty members in the department.

Survival

The department informed the college of the impending retirement of two faculty members: it was sure of one retirement but said the second retirement was still tentative. Based on these two possible future events, however, the department requested that the position of its temporary faculty (Dr. T. J. who is currently paid through funds from (75%) State Department of Education, and (25%) non-recurring funds/college general funds) be made permanent.

The department planned to schedule an additional section for one of its undergraduate courses (Program E) in summer 1990. This course already had more people (+104 students) demanding it than seating capacity (196 students).

Gordian also asked the college to transfer its Management Services position to Gordian, and make the

position a tenure-track one. According to the department's APP&R, the position is important to the training of students as well as extension faculty and staff (*Gordian Department, 1989 APP&R Section 2B*).

The department hoped that with the two possible retirements (Drs. Austin and IK) it should be able to meet the reduction targets from 1989 to 1992. The department requested transitional funds during that period to support its existing efforts and new initiatives:

1. Graduate assistant stipends--During 1989-90 the department reported that it could fund only one, half-time graduate assistant with an additional \$2,000 available for a "part-time" or "quarter-time assistantship." It projected that it needed about three to four graduate assistantships;

2. The graduate program F was expanding. The department requested non-recurring funds (the equivalent of 1/2 FTE) to augment its "off-campus outreach program" in the northern parts of the state in 1989-90 FYE;

3. The department reported that its operating account was in a dire situation and requested financial funds to augment it;

4. The department planned to collaborate with other departments on campus to redefine, refocus, reestablish, and revise course requirements due to the Undergraduate Task Force for Curricular Revitalization;

5. The department planned that in 1990-91 a Museum staff member participate in teaching three of their classes while one of their faculty members had an adjunct appointment with the Museum;

6. The department planned that in 1990-91 a faculty member in the Jen Department would teach in Gordian as an adjunct professor and teach undergraduate majors in Program D;

7. The department planned to collaborate with the units within Cooperative Extension, Jen Department, and other departments in its parent college and to use satellite technology for instruction. The department complained that its space was one of the worst. It said its previous request for renovation had still not been granted.

Survival and Revenue Augmentation Measures

Plans were being made with Lifelong Learning and the Regional Extension Supervisor of the Upper Peninsula for the development of an Upper Peninsula off-campus graduate program. This project is expected to yield additional revenue for the department. The department had identified at least sixteen people who planned to pursue this Master's degree program. Most of them are Cooperative Extension employees.

What Happened

Dr. Austin retired. The department reduced its base budget by \$55,713 due to non-replacement of the position of a retired faculty member. It requested \$32,499, however, in transition funds. The department used the mortgaged retirement savings (\$55,713) from Dr. Austin's position to meet the reduction targets for 1989-90 (4%=\$15,835), 1990-91 (2%=\$7,918), and 1991-92 (2%=\$7,918), (*Brigid College 1991 APP&R Executive Overview: "Rebalancing Implementation Plan, Year Three,"* [Brigid College APP&R April 1991], p. 1).

The department developed two new courses (Programs G and H) for its undergraduate degree in agricultural

education. The faculty from the Museum taught courses in the department and remained an adjunct faculty with the department throughout the remainder of the R-cubed period (1989-90 to 1992-93).

Revenue Augmentation

The department received funds from the Michigan Department of Education and the university general fund, to redesign a curriculum at MSU and to serve high school teachers in the state. The department proposed to institute a \$10 laboratory fee for students enrolled in Program E to cover film rental costs and partially support a graduate assistant. The department hoped to generate \$2,000 annually.

The department developed: (a) The Gordian Endowment fund; and (b) established a youth foundation in collaboration with the Michigan State University Development Fund. During its first year, the budget of the foundation was \$40,000 (*State of the Unit: Gordian Department 1990-91 APP&R*, p. 5).

What Did Not Happen

Dr. IK did not retire. The faculty member from Jen department who was supposed to teach program D did not teach any course in the department (Michigan State University Faculty Directory, 1989 to 1992-93). Program E was not taught in the summer semester of 1990 (*Michigan State University Course Schedule*, 1989-90; and 1990-91).

5.3.3 Proposed Plan for Reducing the Gordian Department's General Fund Budget for FY 1990-91

The department planned to develop outreach graduate programs that would incorporate various outreach centers in the state. The department planned to use the Cooperative Extension Service staff with degrees in aligning fields to teach its graduate students. Gordian also planned to continue exploring different avenues for providing distance education. Some of the areas considered at that time were interactive computers, interactive television, fibre-optics technology, and satellite communication. The department set up committees to investigate ways of providing life-long education courses to older students. The department's APP&R reported that many universities had established degree

programs for people who had completed two-year programs in community or technical colleges. One of the options considered was that students could pay on a "pay-as-you-go basis," as this would be helpful in periods of financial stringency like R-cubed. The department remarked that there was a possibility that another faculty member would retire with Austin. On that basis it requested that one of the its temporary faculty positions teaching program D, be converted into an assistant professor position. It also requested permission to add another faculty member to meet the high demand for program F. According to Gordian's 1990-91 plan, the program was in high demand by international students and extension personnel. Over 60 students were pursuing masters and doctoral degrees in this area.

What Happened in 1990-91

Dr. Austin retired which caused the department to lose some of the international emphasis of its undergraduate and graduate programs. This loss was partially offset by using an adjunct faculty member. Other teaching responsibilities of retired the faculty were distributed among the remaining faculty members. The parent college allowed the department

to convert the temporary position into a tenure track position.

Revenue Augmentation

According to the APP&R, the unit generated grants and contracts of about \$200,000 to \$400,000 in 1990-91. The Michigan Department of Education awarded most of the grants to support its initiatives in the state. The department initiated and received special support from the state (Michigan) legislators for the expansion of an educational program (C) in the state (*State of the Unit: Gordian Department, 1990-91 APP&R*). The college allocated an additional \$50,000 to its departments to support an internship program. This brought the total recurring funds allocated to this program to \$100,000. Out of that amount funds were allocated to its department based on their SCH production during the previous year. Gordian Department received \$3,644 of this total (*Brigid College 1990 APP&R, Attachment B: New Allocation Accomplishment*). The associate dean allocated non-recurring funds to the department, with which it employed two faculty: Dr. T. J., and Mr. Paul. The remainder of their salaries were drawn from State

Department of Education grants. The department hoped that its future curriculum development and in-service training needs would justify getting additional state support, for at least one more year (1991-92). The associate dean also allocated non-recurring funds to support a temporary staff in the growing undergraduate major (Program D) (*Brigid College 1991 APP&R Section I. D--Position Complement, Gordian Department, p. 1*).

Stable Unit Goal

The department continued to assist in restructuring its program affiliate in public schools in the state. The department met with one of the departments in the College of Education to decide on Gordian's future role in the new five-year undergraduate teacher certification degree program. The department also worked closely with that department to modify its curriculum, in light of the new duration of the program and the switch to a semester calendar. Within the R-cubed period, the graduate program in the department increased its research emphasis. The department also broadened its courses to include global perspectives on Program F.

According to the 1990-91 APP&R, Gordian's undergraduate enrollment increased, especially, in Program D. This was one of the fastest growing undergraduate majors in the college. Undergraduate enrollment in 1990 tripled from what it was in 1984-85, (see Table 5.5). The establishment of a full-time, tenure track position to lead the program, and two additional new faculty (one temporary and one part-time), facilitated the growth of Program D (see table 5.3). These two additions occurred through non-recurring funds. (*Profile of Activity and Outcomes for Academic Programmatic Planning and Review Gordian Department; and State of the Unit: Gordian Department 1990-91 APP&R*).

Table 5.3

Academic Personnel Component of Gordian Department ,1987-88 to 1992-93.

		1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Tenured		6	7	8	7	6	6	7
Tenure track, but not tenured		1	1	N/A	1	1	1	1
Job Security		N/A	N/A	N/A	N/A	N/A	N/A	N/A
No Job Security		1	1	1	1	N/A	N/A	N/A
Ranked Faculty		10	13	12	12	10	12	10
Part-time Faculty		1	1	1	1	1	1	1
Temporary Faculty		9	10	6	6	5	9	3
Women		5	5	2	2	1	2	1
Minority		2	2	1	1	2	3	2
Under 50 years old		12	13	10	8	6	9	4
Over 60 years old		1	1	2	2	2	2	2
Total faculty		17	19	15	15	12	16	11

Source: *Michigan State University Office of Planning and Budgets University Data Book*, (1992 and 1995).

About 90 students were admitted into the Ph.D., and Masters programs , however, in any given term only 35 to 40 actually took classes. The majority of the students were full-time employees of Cooperative Extension or Agricultural Education teachers in public schools. Many international students inquired about Gordian's programs.

During R-cubed, Program H was eliminated as part of budget reductions. Subsequently, the department turned to other methods of providing outreach programs. For example, several in-service courses were taught through a distance learning method called "Local Learning Seminars." Other off-campus programs offered by the department were taught through "interactive computer technology."

Centers of Excellence

Interviewees reported that, through grants from the state, the department restructured specific aspects of the curriculum in Michigan public high schools. The department started a life-long-education off-campus graduate program in Escanaba and Marquette (the Upper Peninsula) as planned.

The department increased its research emphasis and employed two more faculty--both of whom are 10%-30% FTE

funded by the Agricultural Experiment Station. It also added a graduate research sequence to its curriculum. In addition it collaborates with units of other land grant universities in semi-annual research institutes.

5.3.4 Budget Reduction Plan for FY 1991-92 (2% Reduction in Gordian Department's General Fund Base Budget)

According to the department's 1991-92 APP&R, the mission, goals and objectives of the department were as follow:

Mission

To provide quality educational programs at the undergraduate and graduate levels, for persons interested in pursuing careers in Gordian education, and to provide leadership in the research, development, and dissemination of innovative approaches to education, communications, and management strategies for faculty, staff, and public school personnel.

Goals and Objectives

1. To provide quality instruction programs for individuals interested in careers in Programs A, D, and F.
2. To provide the necessary support services that would include advising, counseling, and job placement.
3. To conduct research in management, instruction, and communication for A, D and F.
4. To provide staff development, in-service programs and technical assistance for Extension personnel, university faculty and staff, and public school professional personnel.
5. To develop and disseminate instructional materials and provide the necessary support services for Extension and research personnel, university staff and public school professional personnel.
6. To provide leadership for the appropriate student organizations on campus and off.

Changes that Occurred in the Goals of the Department in 1991 as Compared to Its 1984-85 Goals

1. Increased efforts to raise revenues from external sources through grants, contracts and gifts;

2. Reduction in some of the services offered by the department (Program B);
3. Increase in off-campus life-long education courses.

According to the APP&R, Program C was expanding in the state. The department requested increased funds from the administration for its programs C and D. In requesting increased support the department outlined its uniqueness in the state, and its centrality to the service aspect of the university's land-grant mission. It also commented on how it was cooperating with the university in reducing its budget and making required changes, its revenue generation efforts, and the high quality of its programs, instruction and faculty. The department continued its request for renovation of its offices.

Revenue Augmentation

The department requested that its parent college approve its plan to charge lab fees (\$10) for one of its courses Program E--a course that requires extensive use of films. The department expected to recover about \$1,500 to \$2,000 of its costs per term (*Brigid College 1991 APP&R*

Expanded Section VII: Department/School Executive Overviews, Gordian Department, p. 3).

In response to the directives of Brigid College, the department recruited minorities into its programs. During R-cubed it mobilized its students, faculty, and staff, and leaders of various minority groups in the community to help it recruit more minority students. It also encouraged the retention and graduation of its minority students through scholarships and fellowships. The department also participated in the Adopt-A-School program (sponsored by the Martin Luther King-Caesar Chavez Rosa Day Programs), and one of its faculty members worked with inner city middle school students. He prepared them for leadership and college. R-cubed concluded at the end of FY 1991-92. FY 1992-93 was regarded as the transition year, budget reductions continued in academic departments in MSU after R-cubed. FY 1991-92 was the last year of R-cubed. Budget reductions, however, continued in the university until 1995.

5.4 Processes Through Which Gordian Department Responded to Fiscal Stringency

5.4.1 Beginning of R-cubed for the Department

The department first became involved in the R-cubed process in the 1988-89 academic year. Communication among the provost, deans, and departmental chairpersons was in the form of meetings (discussions and deliberations) and memos.

Initially the provost communicated the goals of R-cubed to the deans, through meetings (deliberations and discussions), memos, letters and the APP&R documents. Generally, the dean in turn discussed these directives with other administrators and chairpersons in the college. Then he communicated his expectations regarding how the departments should accomplish those goals to the chairpersons. The dean expected the departments to institute across-the-board cuts annually during R-cubed. The parent college asked its departments to reduce their budgets by the same percentages that the provost had directed it to reduce its budget. The chairperson in this department brought the information about the budget cuts to the department's faculty advisory committee (FAC), and asked them to discuss how the department might best accommodate the cuts. The committee

submitted its suggestions to the chairperson and other faculty. They agreed with the suggestions of the FAC. During R-cubed departments were also asked to restructure their programs and seek avenues for augmenting their revenues.

5.4.2 Department's Goals and Priorities Before the R-cubed Process

According to some of the respondents, shortly before R-cubed the department had held several retreats and planning sessions, in which faculty members and the department chairperson had made long-term plans regarding its programs, and earmarked the priorities of the department. The retreats were also to engage faculty members in team-building activities that would strengthen their morale (IK, 1995). The goal of the department prior to R-cubed was to help its students become more effective communicators, either as extension workers or as instructors in high schools. Another goal was to continue recruitment efforts.

During R-cubed the goals of the department were modified, because the department realized that it could not

do as much during that period as it had planned because of financial constraints (Eke, 1995). Some of those changes were (a) a reduction in some of the services offered by the department (Program H); (b) increase in efforts to raise revenue from external sources through grants, contracts, and gifts; and (c) increase off-campus lifelong education courses (*Gordian Department, 1991 APP&R*).

The departmental advisory committee, and the clerical staff (especially the administrative assistant) were involved in selecting the new goals of the department and in carrying out the actions to accomplish the goals of R-cubed.

5.4.3 Alternative Courses of Action for Reducing Its Expenditure

During the process of deciding measures to use during R-cubed, the interviewees reported that those involved in departmental decision making considered alternative courses of action, and their likely consequences prior to choosing the ones that were implemented. For instance, when the department was asked to make contingency plans for instituting a reduction of 4% and 2% in its base in 1992, the departmental chairperson and the faculty advisory

committee explored several options for achieving these cuts before selecting the final plans for the department (2% and 4% *Brigid College General Fund Budget Reduction Summary: Gordian Department 1992 APP&R*). Also, those involved in making decisions for the department assessed whether it was cheaper to replace a copy machine or to send people to the copy center (Eke, 1995). The recommendations or decisions would be presented to faculty for further deliberations. Usually options were evaluated simultaneously prior to making a final decision. This process was continuous, however, occurring each year as the department tried to meet its annual reduction targets. During R-cubed, the department also made long-range contingency plans (three and two year-plans) for meeting different reduction targets. A respondent explained that the department was small enough that the chairperson discussed issues pertaining to R-cubed informally with the faculty as individuals and in groups.

It was through these discussions and brainstorming sessions that options were generated. Nominal group decision-making process was used at the faculty retreat. Nominal group decision-making process is a group decision-making format that emphasizes equal participation in the

decision process by all group members (Daft, 1991). Students in the department, especially graduate students, also generated suggestions, and passed them on to the advisory committee or the departmental chairperson. The faculty advisory committee advised the chairperson who had the final decision-making authority. The faculty advisory committee does not have the authority to make decisions. It could only advise the chairperson or make recommendations to him, but the chairperson had the final decision-making authority in the department.

5.4.4 Criteria that Guided the Selection of the Particular Measures the Department Used to Cut Down Its Expenditure.

The department identified the options and limitations it had for reducing its expenditures. For instance the university did not allow tenured faculty or staff with job-security, to be eliminated because of fiscal stringency. This meant that the department's reductions during R-cubed had to occur in areas where it had flexibility: funds available for graduate assistantships, temporary employees, and clerical staff. The clerical staff who were eliminated from the department did not necessarily lose their jobs,

but, may have been reassigned to other units within the university. Another criterion was that the department protected undergraduate student advising, and the quality of its instruction from budget reductions. For instance, the chairperson and the faculty advisory committee (FAC) decided that they would not reduce the teaching load of an effective instructor so that he could advise graduate students. This respondent added that the department did not put an emphasis on protecting its extension services because it realized that extension did not seem to be of importance to the university.

The department prioritized those avenues available to it for cutting its costs, and used the ones it perceived as least detrimental to its mission and programs. The reduction in clerical-staff size caused the workload of the remaining staff to increase, and some of them had to learn new skills.

This, in turn, reportedly reduced staff morale. The chairperson, administrative assistant, faculty advisory committee, and other faculty in the department participated in selecting measures that the department used to cut its budget through suggestions at meetings or during informal discussions.

5.4.5 Implementation of Choice

According to the chairperson, Gordian Department met all of its reduction targets during the R-cubed period (1988-89--5.5%; 1989-90--4%⁹² (1990-91--2%; and 1991-92--2%). This opinion is supported by the APP&R reports of the department. To meet the reductions from 1989 to 1992, the salary savings from the elimination of the Austin position were used (*Gordian 1989-90 APP&R*). The contract of one temporary faculty member who taught Program H was not renewed. The department decided that if it wanted to offer the course in the future, it would either hire someone on a part-time basis or use an academic staff. The positions of three other staff members hired on soft monies were eliminated after one of them left for another job, and the contracts of the other two were not renewed. The workload of faculty and staff increased as the duties of those who had left were distributed among the remaining personnel. For instance, according to a respondent, one faculty member advised as many as 78 undergraduate students, 15 masters students and taught 4 courses. He emphasized that this was not the departmental norm, but everybody's workload increased. The department also reduced outreach but

increased its Saturday classes for teachers. The department also started offering telephone and television conference courses in the northern parts of Michigan. The department also reduced the size of its support staff coordinating its resource center.

Table 5.4

Support Staff Headcount in Gordian Department, 1987-88 to 1992-92.

		1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Secretary		3	3	4	4	5	4
Specialist		2	2	2	1	4	2
Coordinator		2	4	4	3	2	2
Admin Asst.		1	1	1	1	1	1
Total		10	10	11	9	12	9

Source: *Michigan State University Faculty Directory*.

The interviewees report, however, that at least two positions were eliminated during the R-cubed period (see Table 5.3). Nevertheless, the department increased its dependence on work-study students when it eliminated some of its support staff. According to an interviewee, this increased stress for faculty as they had to train the students to do their jobs. Budget reductions continued in

the university after R-cubed, and the respondents reported that at one time the department threatened to eliminate its resource center as a means of meeting its budget reductions.

These respondents say that the department knew such a threat would persuade Brigid College to reduce Gordian Department's reduction target. According to the respondents this worked. The college gave Gordian a reprieve from budget reductions that year.

To save costs the department also stopped offering free coffee to its visitors. A limit was put on the number of long distance calls personnel could make, and each person had to account monthly for the calls he (she) made. Personnel also started accounting for the number of copies they made with the departments photocopying machine. During that period, however, financial constraints forced the members of the department to continue using its old, and broken copy machine. This situation was exacerbated by the department's heavy involvement in outreach, and organizing leadership conferences which required mailing large volumes of materials annually. For instance the director of a youth foundation was in the department; and this organization had over five thousand members, to whom letters and other

information were mailed. The department was only able to repair the equipment in 1994. Monitoring of the supplies and services used in the department increased. Stricter parameters were placed on travel and support for attending conferences.

During R-cubed, the university encouraged its units to collaborate with each other in instruction, research, and service. Collaboration could be used to curtail costs while ensuring that a program continues. For instance, with cooperation two departments could offer a program which might otherwise be too expensive for either one of them. The financial constraints, however, of R-cubed sometimes made this goal too lofty for departments to achieve. The department team-taught some classes with faculty of other departments in the college. It maintained its joint projects with branches of Cooperative Extension Service, Agricultural Experiment Station, Ag tech, and the Department of Fisheries and Wildlife. A respondent narrated that collaboration with other departments reduced, not because they did not like each other, but because there were not many areas in which they could collaborate. Also, everybody was experiencing budget cuts, and departments were unwilling

to adopt each other's responsibilities. However, the department strengthened its relationship with the Michigan Department of Education and the Michigan Department of Natural Resources. It was also able to get more sponsorship from them during the R-cubed period.

The chairperson of the department, his administrative assistant, and faculty implemented the reductions. Sometimes when the chairperson made decisions for which he was criticized, he would convene the faculty advisory committee. He would inform them of what he had done and persuade them to support his stance. It was reported that after he got the FAC's support he sent out a memo announcing that the FAC supports his decision. The exception was in situations where prompt decisions were needed by the college, and he did not have time to convene with the FAC.

5.4.6 Problems the Department Encountered as It Tried to Implement those Reductions

The biggest problem was that often during R-cubed the department ended the fiscal year with little or no funds in the operations account. "... In some instances, you know, we came to the end of the fiscal year and we're overdrawn, so

then you begin the next year with that amount taken ... out of the new year's allocation. It wasn't large amounts, but it happened a few times... (Cletus, 1995). The interviewees in the study agreed that the R-cubed period would have been less stressful if the university had given the department some form of reward (verbal acknowledgment or material) for meeting the R-cubed reduction targets.

5.4.7 Overcoming Those Problems

Budget reductions continued in the university after R-cubed, and well into 1995. The department still has the problem of ending the fiscal year with little or no flexibility in its operations budget. The department, however, was able to survive through working hard at revenue augmentation. Three new faculty members were hired through grants from the state legislature and Department of Education and some funds from the college assistant dean's office. Another increase in faculty size occurred because an administrator in the college came back to the department. Transition funds also helped to alleviate the impact of the reductions.

5.4.8 Revenue Augmentation

The chairperson, faculty, staff, and graduate assistants in the department helped select the methods the department used to raise its revenue. An interviewee described that sometimes the clientele also expressed their willingness to pay to keep the department's services operational (Cletus, 1995). Another respondent, however, reported that the department tried increasing the fees it assessed for some of its services, but because of negative reactions of its clientele it had to lower those fees. Also, the department being a unit in a non-profit, public, higher educational institution could only embark on a limited number of actions to raise its revenues.

5.4.9 Criteria That Guided the Selection of the Particular Measures the Department Used to Raise Its Revenue

According to the respondents, there were many discussions on this issue and some criteria were agreed upon. Some of the criteria were: coherence with the mission of the department (or the direction the department wanted to go), maintenance of the quality of academic programs, and generating of enough income to the department to be worth

the effort (Eke, 1995). With the conferences the department organized, the planners "would look at what the market would bear," and that was also reasonable. Faculty also sought opportunities (internationally and locally) in governmental and private agencies, to generate funds for their programs.

Often, however, faculty conducted projects, for which they had the expertise and technology, that were unconnected to the department's mission. For instance, some of the evaluative projects one of the faculty members conducted were for projects not connected with extension or with agriculture. Funds were also sought to enhance existing programs and projects in the department.

5.4.10 Implementation of Choice: How the Revenue Augmentation Actions Were Implemented

During R-cubed, faculty and staff implemented actions that they deemed might generate revenue for the department (Eke, 1995). Faculty increased their efforts, and generated support for their programs from external agencies and the state legislators. For instance, one faculty member funded his summer institutes for k-12 teachers through grants from the Farm Bureau and the Michigan Department of Agriculture;

another paid for part of his salary and support of graduate assistants through the evaluation services he conducts for external agencies and offices.

Off-campus courses usually brought income to the department offering them. During R-cubed, faculty increased the number of life-long education courses they taught off-campus. These courses (Program F, Program G, and Program H) were taught in Escanaba, Marquette, Kalamazoo, Birmingham, and Detroit. Most of the faculty agreed to give up their overload pay to the department. In addition to that the department collected its entitled percentage of the fees paid for those off-campus courses. The outstanding percentage went to the institution's general-fund account.

The department began charging registration fees for conferences and workshops that it had presented free of charge before R-cubed. It also increased registration fees for events that were already charging participants, that is, it increased the costs of organizing contests for high schools from \$3 per team (five persons per team) to \$10. The fees that the participants paid helped the department defray the operational costs of the events. The extra income was added to the department's coffers.

The department also raised its fee for mailing resource materials to clients from \$2 to \$5. Mailing resource materials to clients is part of the extension service of the department and college. The department's evaluation center also increased its fees. Everybody in the department, from the departmental chairperson to faculty and staffs, helped the department increase its revenue. The department was moderately successful in increasing its revenue (Eke, 1995).

Internally, the department also received some minority scholarships and fellowships from the college. Faculty also started teaching more sections and classes on campus to increase the number of student credit hours the department produced (see table 5.4). The department's administrative assistant also started coordinating conferences. This also raised additional income for the department.

5.4.11 Problems the Department Faced as It Tried to Boost Its Revenue

As faculty strove to augment the department's revenue by teaching courses off-campus, it became more difficult for them to balance the times for their courses on-campus and the off-campus ones. For instance, if one faculty member

was teaching a course off-campus, then his (her) concern would be with finding a colleague to teach his (her) class while he (she) was gone. But, faculty members collaborated to help each other in that regard. Initially some of the faculty were resistant to the increases in their workload, but with time they adjusted to the changes. The workload of the clerical staff also increased.

The department tried increasing the fees for some of its services, but negative responses from customers caused it to reduce the fees.

Another problem was that the state government (that the department usually received contracts from) was also reducing its budget during R-cubed. This affected the revenue that the department generated through state government contracts.

5.4.12 Future Survival of the Department

The chairperson, faculty and staff in the department, the college and external reviewers of the department were involved in selecting the measures that the department used to ensure its future survival.

5.4.13 Criteria that Guided the Selection of the Measures the Department Used in an Attempt to Ensure Its Future Viability

The mission and long-term goals of the department influenced the actions that the department took to ensure its long-term viability (Eke, 1995). The priorities of the college also shaped the actions of the department, like increasing its student hour production. Also, the department added a graduate research sequence in accordance with the recommendations of its review that was sponsored by AES. (Any department that receives funds from the Agricultural Experiment Station has an external review every five years).

5.4.14 Implementation of Choice

The department chairperson and faculty held retreats during R-cubed, in which they re-examined the mission of the department and strengthened faculty morale. Initially during R-cubed the faculty and chairperson were apprehensive that the department might be eliminated or merged with another department. Consequently, faculty morale declined.

To survive the department started "politicking." The

chairperson and faculty increased its contact with key administrators in the college and invited them to their events. The department also became more openly supportive of the goals of its parent college. It was reported that the department also encouraged its students to participate in student government on campus. I am unsure, however, if this was in response to their concern about the future.

It established a recruitment committee, and developed new more attractive brochures which explained their programs. Interviewees explain that the department increased its visibility in the Brigid College and university.

The department's students participated in student organizations and competed for awards throughout the university. For instance, they were involved in the college's student ambassador program and the Associated Students of Michigan State University (ASMSU, a student government group for MSU). The department also sponsored programs C and I, for high school and elementary school students. It organized projects for the youth foundation and an inner-city middle school. These projects had the potentiality of recruiting students to the college and

department in the future. The department also started a monthly faculty and graduate student seminar for students and faculty for the college. Moreover, the department encouraged the faculty to participate in committees in college and university-wide boards, with positive results.

The department chairperson annually negotiated with the college administrators and was able to collect some non-recurring funds to continue programs in the department that the college considered core. The funds helped support temporary faculty and graduate assistants. Almost half of the department's faculty had annual appointments, some of these were made possible through grants from the State of Michigan. The department increased its life-long education outreach efforts. The department worked hard at increasing student enrollment, especially undergraduate enrollment, in Program A and Program D (see Table 5.5). The faculty taught more courses off-campus and this increased their off-campus SCH (see "other SCH" in Table 5.5). Generally, it maintained a higher SCH during R-cubed than prior to it. Faculty in Gordian department increased the numbers of courses and course sections they taught. However, they did

not seem to perform as well on "evidence of research and creative activity" (see Table 5.5).

Table 5.5

Student Enrollment, Student Credit Hours Produced, and Evidence of Research and Creativity in Gordian Department, 1987-88 to 1992-93.

		1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Student Enrollment								
Departmental Total		140	122	127	165	173	200	179
1. Undergraduate		109	91	90	125	141	158	135
2. Graduate		31	31	37	40	32	42	44
Faculty/student ratio		0.12	0.16	0.12	0.09	0.07	0.08	0.06
SCH Produced								
Total SCH		1,965	2,810	2,354	2,781	2,958	2,790	2,696
Faculty SCH		1,965	2,572	2,223	2,344	2,316	2,282	1,843
Grad Asst SCH		0	0	0	153	268	0	165
Other SCH		N/A	238	132	284	374	507	689
Faculty SCH as % of Total		0.00%	91.53%	94.40%	84.29%	78.30%	81.79%	68.36%
Other SCH as % of Total		0.00%	8.47%	5.61%	10.21%	12.64%	18.17%	25.56%
Grad Asst SCH as % of Total			0.00%	0.00%	5.50%	9.06%	0.00%	6.12%
GF Constant Dollar Expenditure/SCH			92.77	109.48	87.38	76.55	100.83	91.35
Courses offered on Campus								
Sections offered on Campus			22	24	24	25	68	60
			50	52	61	69	25	30
Evidence of Research and Creative Activity								
Proposals		21	38	29	34	28	38	13
Refereed Papers		1	2	2	5	3	4	0
Books		N/A	2	0	0	1	1	0
Delivered Papers		129	299	104	149	109	118	154
Evidence of Merit		1	4	5	5	6	4	2
Patient Care (Consultations)		N/A	0	544	892	0	0	50
Sponsored Research and Education Dollars								
			604,703	269,010	212,769	710,785	173,350	235,585

Note: Other SCH includes the SCH generated by volunteer faculty, off-campus overload, and instruction paid for by non-general fund sources.

Source: Michigan State University Office of Planning and Budgets University Data Book.

Additionally, in response to the university's switch to the semester calendar and the new five-year teacher preparation requirement, the department revised its curriculum. Gordian broadened its course selections to provide more options to its undergraduate students, especially at the 100 and 200 course levels. It added multiple sections to some of its popular courses, and developed some courses that had general appeal. The department ensured that all graduate courses were offered between 4 p.m. and 10 p.m., so that all their students could attend classes. The majority of the graduate students in the department were high school teachers (teaching Program C), or were extension field agents who worked full time, taking one class a week, or one course per semester. The department offered some distance education courses via the telephones--conducted Friday afternoon and Saturday all-day.

Rather than holding the classes once a week for 3 hours, they occurred once every fortnight, or once every three weeks; with the students spending an entire day and maybe half of another day in the classroom. The department consistently put effort into developing new learning approaches to meet the needs of its students. The

chairperson, faculty, staff, and students in the department implemented these measures to enable the department to survive. Perception of the faculty was that those actions successfully contributed to the survival of the department (Eke, 1995).

5.4.15 Problems the Department Encountered As It Tried to Restructure Its Programs

Support for faculty development reduced because of the financial difficulties. Faculty could not travel to attend conferences as they had done before R-cubed. Finances also forced the department to consolidate outreach services. Instead of attending to a few people (6 or 7), in scattered locations around the state, it started offering fewer workshops at more centralized locations.

The university's push for its academic units to increase their student-credit-hour production put additional pressure on the department's personnel. They had to work very hard to achieve this institutional objective because of the small numbers.

A respondent reports that some faculty felt that their workload was not fairly distributed in the department. That

some faculty in the high-demand areas had to work very hard, whereas some other faculty members, especially those in the low-demand areas, did not work as hard. An opinion was that the department might have shifted faculty members from low-priority areas to the high-demand ones if that were feasible. But, faculty members are so highly specialized that it was difficult to transfer skills from one program to another, even within the same department.

Another difficulty was in convincing some faculty members to adapt to the changes R-cubed demanded of them. Initially they were reluctant to change. Some of them had to adopt more job responsibilities. Those faculty members whose skills were no longer necessary to the department, also had to take up new and different responsibilities. It was difficult for them to see the R-cubed period as an opportunity for growth and development. Additionally, it was difficult for the department to convince some faculty members to become "customer-driven" or "customer-serving." They did not think that this was an appropriate goal for a higher-education unit. Their perception was that they were hired to teach, conduct research, and provide extension services in their disciplines (Eke, 1995). The department

overcame these problems eventually. One of the interviewees reported that as faculty became more comfortable with new programs and different ways of delivering instruction service, some of the apprehensions eroded. Examples cited were, Programs I and J.

Another problem the department encountered was with supporting graduate students. Normally, the department gets non-recurring monies annually for graduate assistantships. If students completed their Masters programs within one year then there would not be any problems. Most Masters degree candidates, however, take two or more years to complete their programs. Since the college only provided one-year graduate assistantship for each student, the department had to use its limited operations budget to support them. This is an issue for the department because of its perception that it has a moral obligation to assist its graduate students. The department also encourages its students to seek assistantships in other departments in the university.

5.4.16 Outcomes of the Actions the Department Took

In this section the impact is analyzed as part of the decision-making process used by Gordian Department to

respond to fiscal stringency. Consequently, I will provide only a brief analysis of the outcomes of departmental decisions on the quality of its instruction, research, and service in this section.

5.4.17 Impact of the Department's Responses on the Quality of Its Instruction

Respondents agree that the quality of instruction was not affected by budget cuts during R-cubed. The department is oriented toward teaching, and therefore strove to protect the quality of its instruction. Though it eliminated faculty and specialist positions, its programs were not affected very much as it had alternative avenues for accomplishing the tasks once performed by those faculty. It had an adjunct faculty members teach the courses once taught by Dr. Austin. Other faculty members also assisted with teaching aspects of visual communications.

The department, however, had a great deal of old equipment (video machines, slide projectors, and computers) which it could not replace during R-cubed for lack of funds.

The department tried to scavenge around the university looking for those who would give them their used machines.

5.4.18 Impact of the Department's Responses to R-cubed on Its Research

The department is not research oriented, so R-cubed did not affect its research efforts. However fiscal stringency during R-cubed reduced the ability of its faculty to participate in professional development, and research conferences, across the country.

5.4.19 Impact of the Department's Responses to R-cubed on Its Service Functions

One of the goals of the department is extension. However, a respondent accounts that the department reduced its focus on extension during R-cubed when it realized that it was not of importance to the University. The department reduced the number of its outreach programs it offered to the community.

One service function of the department is the resource center; and fiscal conditions during R-cubed caused the department to reduce staff at the center from six to one. The elimination of the graphic-design faculty position led to the reduction of workshops offered in that area (for instance, building tapes, making overheads). The fees,

however, reduced the extent to which people ordered extension materials from the department.

5.4.20 Feedback to Participants in the Department's Decision Making on the Outcomes of the Unit's Responses to R-cubed.

It seems that, despite the occasions where faculty resisted the chairperson's decisions, they were supportive of his efforts during R-cubed. It was reported that most of the feedback from faculty during that period, was supportive of the chairperson and FAC efforts. The department is small, and the chairperson as well as members of the faculty advisory committee, seem to have worked hard to promote camaraderie in the department. This point is supported by my observation while I was conducting interviews in the department. On each occasion I was there, I saw faculty and the chairperson standing in the hallway talking amicably.

Regarding analysis of past decisions, a respondent reported that R-cubed imposed time constraints on decision making, that the department had deadlines within which to accomplish the objectives of R-cubed. Consequently, decision making focused on achieving those results.

However, there were instances in which the department modified its actions because of feedback. For instance, it changed the amount it had proposed to charge for services it offered when its customers reacted negatively to the higher fees.

5.5 Comparison of Gordian Department's Fiscal Decision Making Process to the Rational Decision Making Model.

1. Central Decision Making Authority

The chairperson was recognized as the central decision making authority in the department (Cletus, 1995, p. 31). There was a faculty advisory committee in the department which advised the chairperson on issues affecting the department. It is the prerogative of the chairperson to make the final decisions for the department. He may chose not to accept the advice of the FAC, and not to consult them on certain issues.

The FAC acted as a liaison between the chairperson and other faculty. In this department the chairperson received suggestions from students as well as his administrative assistant, and other faculty in the department. On some issues, (e.g., the department's participation in a project),

the chairperson sought advice directly from the faculty members at general faculty meetings. Other issues, however, were handled by the advisory committee and the chairperson.

According to a respondent, there was at least one occasion where the chairperson made a decision and implemented it independently of the FAC but when he was criticized by some faculty he convened the FAC. During that session he tried to persuade them to support him, and once they did he sent out a memo announcing that the FAC supported his stance. This method of involving the FAC in the decision making process is consistent with assertions by, Tolbert and Zucker, 1983; and Volkeim 1984. They argue that in organizations, goals are determined posteriorly to justify an action already taken because of the social value attached to the rational decision making model in the western culture. Baldrige, also adds that, to give certain decisions legitimacy organizations appoint individuals or groups to make decisions. However, prior to those appointments the decisions have already been made by powerful individuals within the organization.

Another method through which the chairperson involved the FAC in decision making was that, after stating the

problem to be solved (for instance, the need to meet a reduction target), he set a framework and asked the FAC to make decisions within those boundaries. The chairperson had the prerogative to make the final decision.

The faculty members' acceptance of the chairperson as the central decision making authority for their unit, is consistent with the rational model. This notwithstanding, an aspect of his involvement of the FAC in the decision-making process, seems more consistent with the political model than the rational model--when he made a decision and tried to diffuse faculty resistance by persuading the FAC to endorse the decision.

2. A Definition of the Problem to be Solved at the Beginning of the Decision Making Process

At the initial stage of the R-cubed process the department defined the problem to be solved--meeting the objectives of R-cubed that were stated in the APP&R documents from Brigid College. The department also clarified its values and goals. The faculty members held a retreat in which they with their chairperson conducted a strategic planning session, and re-examined the department's

goals in light of R-cubed. At the end of the retreat the participants, through a consensus delineated priorities for Gordian Department. The department tried to accomplish those priorities in addition to other goals: (a) goals of R-cubed that were delineated in the annual APP&Rs; (b) restructure its programs in light of the recommendations by the review team; and (c) expand some of its courses to meet the enrollment pressures. It is possible that because the department used a few avenues to meet its reduction targets, it was able to protect its mission. For instance, it mortgaged one faculty position across three years to meet reductions for those years. Since it was only one faculty position, it was easier to find a replacement than if it had given up more positions.

3. Search for Alternative Courses of Action

Respondents enumerate factors that limited the options that were available to them for responding to R-cubed. With budget reductions, the limitations were time (departments had to respond to directives of R-cubed within given time frames), tenureship, and seniority rules. With revenue augmentation, the nature of the university as a public

institution meant that there were certain actions the department could not use to raise funds. Regarding restructuring, narrow specializations among faculty prevented the department from transferring faculty from low-demand programs to growing ones. This finding is consistent with Klein, Oresanu, Calderwood, and Zambock (1983) who argue that time constraints prevent the administrator from an exhaustive search for alternatives. V. Baldrige and T. Deal (1983); and R. Birnbaum (1988) also maintain that options available to decision makers are limited. They contend that in the real world administrators have limited time and energy to seek new solutions and the range of alternatives available are also limited.

In the department the following methods were used to generate alternatives (a) informal discussions among the faculty and chairperson about issues pertaining to R-cubed; (b) brainstorming; (c) nominal group decision-making process; (d) written and verbal suggestions from students, which were given to the advisory committee or directly to the chairperson of the department. The faculty advisory committee advised the chairperson who had the final decision-making authority.

To a large extent, this element of the decision making process deviated from the rational model because, (a) the search for alternatives courses of action was not exhaustive; and (b) options available to the decision makers were limited.

4. Implementation of Choice

Generally, the survival of the department, its goals, and the quality of its programs were major factors in decision making in the department during R-cubed. So also was opportunity. The faculty and specialist positions were eliminated because the faculty happened to be retiring at the time; and the specialist position was due for renewal. The department chose not to renew it. The position of the support staff at the resource center, and graduate assistantships were eliminated because those were areas the department had flexibility. At the same time the department took deliberate actions to protect areas it deemed important to its mission. For instance, it would not transfer a good instructor from teaching undergraduates to advise graduate students.

The interviewees report that available options were evaluated simultaneously and those whose expected outcomes were consistent with the department's goals were chosen. For instance, the department avoided reducing its budget in areas that would compromise the quality of its undergraduate instruction. Even its politicking, investment of resources to increase its enrollment, and the increased revenue augmentation efforts of faculty were all directed at enhancing the goals of the department. Conclusively, the actions that enhanced the department's goals however, were based on limited options. Therefore, the department's actions did not optimize the department's goals, but merely satisfied (or satisfied) them. Thus, this element of the department's decision making deviates from the rational model.

6. Results

The outcome that followed the implementation was expected and planned for by the chair of the department (central decision-making authority in the department), as well as the FAC. In fact, particular courses of action were chosen because of their anticipated outcomes.

7. Feedback and Analysis of Decision

The respondents explained that they did not get any feedback from the college or the university regarding their responses, and they were not sure of the impact on the college or the university.

Some respondents reported that departmental meetings were open so faculty were aware of how the department was responding to R-cubed. A respondent narrates that the outcomes of decisions that they had made acted as springboards for subsequent planning. Respondents also noted that once a decision was made and implemented, participants in departmental decision-making processes proceeded to another task. They did not return to re-evaluate the merits of an implemented decision.

It does not seem that the department had any formal structure in the decision making-process for gathering feedback on past decisions, or for analyzing steps through which decisions were made. Consequently, the feedback and analysis of decision, the decision making-process in Gordian Department deviates from the rational model.

Conclusion

On the following elements the department's decision-making process was consistent with the rational model: identification of problem, and results. However, the decision making authority had elements of both the rational and political decision making models. The search for alternative courses of action, implementation of choice, and the feedback/analysis of decision, elements deviated significantly from the rational decision-making model.

5.6 Comparison of Gordian Department's Responses of the to the Literature

For this study I reviewed a wide array of related literature. My finding was that though a lot had been written on departmental responses to fiscal stringency, very little had been written on how departments respond. Scholars I reviewed only mentioned departmental responses in passing. Rubin (1980) is the only one who discusses departmental responses at length, but her study focuses on a period of budgetary uncertainty. It is therefore not surprising that the findings of my study are supported by parts of different studies, rather than any one study.

1. Like Rubin's departments, Gordian tried to protect itself from cuts. However, it tried to achieve that by becoming more political and visible, and in that way it received funds to promote some of its faculty and hire new ones. In Rubin's study the departments hid vacancies, concealed their revenue and overstated their expenses.

2. Unlike the departments in Rubin's study the departments in my study knew the extent and timing of cuts, and what was expected of them. My opinion is that because of this difference, the chairperson of this department, though under stress during R-cubed, was not as uncomfortable with the budget cuts, as those in Rubin's study. In Rubin's study the future was very uncertain.

3. Like the institutions in E. Cheit's (1971) study, the Gordian Department attempted to cope with fiscal stringency by reducing its expenditures and increasing income. Reductions were mainly reductions in the budget base, internal reallocations, program review, staff reductions and retrenchment, and program discontinuance (K. Mortimer and M. Tierney, 1979). In addition to these, the department also curtailed professional travel for faculty and staff (Penny, 1993). The department's efforts at coping

with fiscal stringency were also limited by the tenure system and rules of employment.

4. Though this study did not focus on the university or college, one of my findings was that, as R-cubed progressed was that the university central administration, and the college, became more explicit in the goals and objectives they wanted the departments to accomplish. This finding is supported by Rubin (1980).

5. My finding was that the college did not tighten tenure rules during R-cubed. In fact, there was a deliberate attempt by the university to protect the positions of junior faculty during R-cubed tenure. A faculty member recommended for tenure by the chairperson of the department, eventually received it (*Gordian 1988-89 APP&R; Attachment B of 1988-89 APP&R Generic Issues: Matters of personnel Practice*, p. 16, Article 4.1; and *Michigan State University Office of Planning and Budgets University Data Book*, 1992).

6. Stewart and Harvey's (1975) recommendations for institutions to "survive significantly" best describes the combination of responses this department made to fiscal stringency. The department mixed efficiency (cost-

reduction) measures, and affirming measures (building on the strengths); and focused on what it might be in light of the future. The department reviewed its mission and goals and used them to guide programmatic and fiscal decisions during R-cubed. The department also made programmatic changes, worked at maintaining the quality of its programs to attract able faculty and students, and became more sensitive to needs of its consumers. It also reduced its programs and personnel in light of its mission and goals.

7. Babcock's findings on how embedded organizations respond to fiscal stringency in their parent institution are consistent with mine. The department consolidated its courses and implemented some "technical adjustments." The technical adjustments include increasing the number of courses and sections taught, increased student/faculty ratio, workload of faculty and increasing the total SCH taught by permanent faculty. In this study faculty increased their SCH through off-campus overload.

Finally, a course of action which the department took to reduce its expenditures that is not mentioned in past studies is, mortgaging a position of faculty for elimination before he (she) retires.

CHAPTER 6

Summary and Recommendations

6.1 Overview

In this chapter I present (a) summaries of my findings, (b) compare the two departments' responses to fiscal stringency during R-cubed, and (c) the implications of the study. I also make some recommendations for future researchers, and university administrators.

In section 6.1, I present the chapter's overview. In section 6.2, restate the statement of problem, and the two research questions that guided the study. In section 6.3, I compare the two departments' responses to fiscal stringency during R-cubed. Section 6.4, provides the summaries of the Abi department's response to fiscal stringency; whereas, section 6.5, presents Gordian's. In section 6.6, I discuss the implications of the study, and make recommendations for future researches and for institutional, college, and departmental administrators.

6.2 Statement of Problem

Many studies have been done on institutional response to fiscal stringency. A few of these studies focus on organizational decision making in times of fiscal stress. Very few of these however, study the issues at the academic

department level. This study examined how departments make decisions in periods of resource stringency.

6.2.1 Key Research Questions

Two key questions directed this study:

1. What were the responses of academic departments at MSU to institutional fiscal stringency during R-cubed?
2. Through what processes did academic departments select their responses to fiscal stringency, and did these processes conform to the rational decision-making model?

6.3 Comparison Between the Two Departments

6.3.1 Similarity Between Abi and Gordian Departments

1. During budget reductions the departments offered to reduce programs they knew their parent college would not allow them to reduce. In the case of Abi it was to close some experiment stations; whereas with Gordian, it was to eliminate its resource center. In both instances, Brigid College did not allow the closures but instead reduced the amount of cuts it required of the departments in subsequent reduction cycle.

2. The biggest result from the R-cubed process was the depletion of the operating funds of these two departments as they tried to meet the reduction targets Brigid College demanded of them. One of the reasons was that they could not eliminate any faculty positions (tenured, tenure track junior faculty who were not yet tenured) nor could they eliminate positions of staff with job security. They, however, were allowed to eliminate positions of temporary faculty to save their costs. Consequently, the departments had to depend on areas in which they had flexibility to reduce their budget--graduate assistantships, support staff, clerical staff, and their operating budgets.

3. In the two departments, serendipity played a part in their reductions. When their temporary faculty left the department, or when a faculty member happened to retire, their positions were eliminated or reduced to meet the reduction targets.

4. As part of their bid to reduce their budgets the two departments mortgaged faculty positions. They used combinations of efficiency and affirming measures, which are measures Stewart and Harvey (1975) recommend that institutions use in periods of fiscal stringency. Both focused on their respective futures and built while cutting. Each tried to

protect its mission and high-priority programs. Though for Abi sometimes, even those important programs were reduced or eliminated.

6. With time the parent college and the Provost expected all departments in the college, including those in this study, to provide very specific descriptions of actions they were taking to reduce their budgets.

7. These units were unlike other units in the literature and in the university. They have three main sources of funds (the University' general fund budget, CES, and AES), in addition to external grants. Abi got more external funds than Gordian. Between 1988-89 and 1991-92, the directors of CES and AES also required the departments to enforce the same levels of reduction as R-cubed. With most faculty positions split among these funding lines, if a faculty position was eliminated the department had to assess how much reduction that person's salary would translate to, in each of the funding lines. Sometimes a position was eliminated in the department, but because it was not paid through the GF then it did not show in the department's APP&R. With Gordian, occasionally the fiscal support for a position was reduced from the general-fund budget and increased in other funding lines (AES and CES). Abi Department, an applied science

discipline had many technicians who were paid through the AES and CES funds. But the retrenchment of those positions did not show in the APP&R because their salaries were not paid through the department's general-fund budget.

8. Unlike the departments in Rubin's (1980) study, these two knew the timing and amount of the reductions. I believe these facilitated the more rational process they used in making decisions that they used, relative to Rubin's departments. Abi and Gordian had time to plan for the reductions; they could also build at that time.

9. Both departments considered alternatives for reducing their budgets each year. The likely outcomes of these options were also explored and outlined.

10. In the two departments one of the roles of the chairperson as described by faculty was to make decisions for the department. Therefore, the FAC in both units saw their roles mainly as advisory, with the chairperson having the prerogative to make the final decision. The chairpersons, however, considered the recommendations of their advisory committee prior to making a decision.

11. Brigid College did not tighten tenureship rules for either department during R-cubed. The rules did not change with R-cubed.

12. Both departments emerged from the R-cubed period stronger than before. Abi had undergone major reduction and restructuring just before R-cubed; Gordian had just come into existence in 1985, and had very few faculty and a small budget. Because of the leadership in the two departments, they have become stronger. Abi has become the envy of its sister departments in the country.

13. During R-cubed, the central administration of Michigan State University adhered to its stipulations about the time and extent of expenditure reductions it expected from the colleges and major administrative units (MAUs). This was unlike the institutions in Rubin's (1982) study. The Provost and other planners of R-cubed communicated regularly with the colleges and MAUs. Consequently, after 1988/89 the reduction targets were adjusted to accommodate the peculiar circumstances of individual colleges and MAUs in the University. Also, to enable colleges and departments cope with fiscal stringency during R-cubed, the University gave them transition funds.

6.3.2 Differences Between the Two Departments in Their Responses to Fiscal Stringency

The two departments in this study were in the same college, and received uniform directives from the dean of the

parent college, however, the variations in their responses depended to a large extent on the differences in their disciplines, the complexity of the departments, and the leadership styles of their chairpersons.

1. After the interviews I came away with the feeling that the decision-making process in Abi was more formal than in Gordian Department. I say this because Abi Department set up a special strategic planning committee that was made up of the members of its faculty advisory committee, as well as faculty representing the major specialties in the discipline.

It also had two other committees to plan its future and help it augment its revenue--the Industry Advisory Council and the Industry initiative. Gordian Department did not organize a special strategic planning committee. Rather, a retreat was held for faculty members in which the goals of the department were reviewed along with those of R-cubed; and its goals and priorities were modified to reflect changes in the future direction of the department.

Whereas there were reports of many informal discussions between faculty and the chairperson in Gordian during R-cubed, many of the discussions in Abi were organized. My explanation for these variations is that Abi is an older and larger department with nearly three times as many faculty and staff

than Gordian. It also has several experiment stations, and commodity groups to respond to in addition to responding to the directives of R-cubed.

2. When the provost began asking departments to give detailed accounts of how they planned to reduce their budgets, Abi had a more difficult time with that than Gordian. Abi has a huge labor component of experiment station workers under the university's general fund--experiment station supervisors (M, Q, R, and V experiment stations). It also had many laboratory technicians and clerical staff in addition to faculty and graduate assistants. It had to identify people's names and position numbers, whereas Gordian did not have that large labor component. Most of their reductions came from secretarial support, graduate assistants, and their operating funds.

3. Relative to Gordian, Abi Department seems to have had a distinct advantage because it had more positions. It was more likely to have someone retire and give that position up and solve its reduction problem. Also, Abi department had commodity groups as its clientele. These commodity groups tax themselves to contribute to research in the department, and these funds were unaffected by the reductions by R-cubed, CES, and AES. The department could shift more activities to those

funds. Gordian did not have any commodity group, hence it had less flexibility than Abi for coping with fiscal stringency during R-cubed (Emmanuel, 1995).

6.4 Summary of findings on Abi Department

6.4.1 Budget Reductions

6.4.2 Criteria

1. The department also reduced its programs in areas it had the opportunity to, and in areas it had budget flexibility. Positions of faculty who were retiring or leaving the department voluntarily were areas of opportunity for cuts, whereas, its operating budget, graduate assistantships, experiment station laborers, technicians, secretaries, and a specialist position, were aspects of the budget in which they had flexibility. Other considerations that influenced its expenditure reduction measures were protecting the quality of its undergraduate education and the political impact of its decisions on its stakeholders.

Implementation of Choice

1. The department eliminated some programs and courses, and reduced the size of others.

2. The increased accountability requirement for faculty, coupled with the reductions of some faculty's programs reduced morale and collegiality among faculty in the department.

3. The reductions increased workload of the remaining faculty and staff who assumed some of the responsibilities of vacating faculty.

6.4.3 Revenue Augmentation

1. The department established endowment funds for some activities to free up monies for others. Contributions to the department's development funds helped renovate two conference rooms, and enabled students to travel to a competition. Yearly contributions to the scholarships and fellowship funds increased during R-cubed.

2. Faculty members increased the effort and time they spent seeking external grants and contracts.

3. Grant writing increased in the department. The older and more successful faculty members began mentoring the younger ones on writing grants. As a result more faculty received grants. Grant writing also became a successful undergraduate course in the department.

6.4.4 Survival

6.4.5 Criteria

Three major criteria that guided the actions the department took to ensure its long term survival were (a) enhancement of the quality of its undergraduate instruction, (b) fundability of research, and (c) future survival of agriculture in Michigan.

6.4.6 Implementation of Choice

1. The department's researchers collaborated with others in the state; and the department strove to maintain the quality of its research programs.

2. Faculty strove to increase their SCH production during R-cubed. They taught more courses and sections of courses. The department increased its visibility, to increase its enrollment.

6.4.7 Impact on Research

Focus of research shifted from solving problems of industries and agencies in the state to seeking fundable researches. Consequently, research focus narrowed to two: those that focused on the industry, and the other that focused on discovery-type research (usually funded by NIH). As it

reduced its permanent staff (technicians), the department tended to use more temporary research assistants.

6.4.8 Impact on Instruction

The workload requirements of faculty increased. Insufficient funds made it more difficult for faculty to keep students abreast of changes in the field. To counteract the negative impact of insufficient funds on its instruction, however, it used some of its "best" faculty to teach the core departmental courses. The curriculum was also revised, and courses were consolidated.

6.4.9 Impact on Service

Less money was available for extension so the department had to reduce the scope of its services. It started some lifelong education programs for some of its clientele. It also began charging for some of its extension services.

6.4.10 Nature of Decisions

On the average, the processes through which the department responded to fiscal stringency during R-cubed deviates from the rational decision-making model on several elements: exploration of alternative courses of action,

implementation of choice, results, and feedback/analysis of decisions. On the following issues, however, the processes Abi used is consistent with the rational model: Decision-making authority, identification of problem. All the decision elements had aspects of the rational model in them. Those that significantly deviated, however, from the model are considered as inconsistent with the model.

6.4.11 Comparison of Decision-Making Processes in Gordian Department to the Rational Decision-making Model

Some of Abi's responses were consistent with findings and theories of other scholars. There were some things that the department did that were new to the literature on departmental responses to fiscal stringency.

6.5 Summary of findings on Gordian Department's response to fiscal stringency

Because it had fewer resources than it needed to carry out its plans, the department reduced its priorities during R-cubed.

6.5.1 Budget Reduction

6.5.2 Criterion

Protect quality of undergraduate instruction and advising.

6.5.3 Implementation

In response to fiscal stringency Department A eliminated three positions:

1. Eliminated the position vacated by a faculty who retired in 1989;

2. Did not renew the contract of a temporary faculty;

3. Eliminated a support staff position at the department's resource center. To reduce its general fund expenditure it shifted some positions (faculty and support staff) from the general fund to AES and CES.

4. Eliminated all undergraduate student labor, reduced its graduate assistantships positions, reduced its operation's budget significantly and at times was left without funds in that account;

5. Faculty began accounting for number of photocopies they made;

6. Like Abi Department, collaboration with other departments in the college and in the university decreased, as

fiscal stringency caused many departments to become reluctant to share their resources, and focus inward.

7. Like Abi Department, transition funds from the institution helped to alleviate some of the impacts of the reductions.

6.5.4 Revenue Augmentation

The department worked aggressively to augment its revenue during R-cubed. Faculty taught more courses and sections of courses on-campus and off-campus. The department also intensified its relationship with the state agencies, and received additional resources from these agencies as well as the legislature. The department was also able to receive funds from the college administration to provide graduate assistantships for its students. Faculty members in the department were also encouraged to seek external grants.

The department began charging for conferences it organized as part of its outreach efforts. It also increased the fees it assessed for mailing materials from its resource center.

6.5.5 Problems

One of the problems the department encountered as it tried to augment its revenue was that the faculty's workload increased, sometimes they also had schedule conflicts between their off- and on-campus courses. Consequently, when a faculty had to teach a course off-campus, he or she was usually concerned about finding a colleague to teach the on-campus course in his or her absence.

6.5.6 Survival

To survive, Abi department used a set of criteria to guide its actions.

6.5.7 Criteria

1. A major criterion that guided actions in the department to ensure its long-term survival was the advancement of its mission and goals.

2. The recommendations of the AES sponsored review influenced the courses of action it embarked on. For instance, it increased the number of research courses it offered. Two faculty were also hired to teach them.

6.5.8 Implementation of choice

1. The department restructured its curriculum to fit with the new semester calendar and to accommodate the new five-year teacher certification program in Teacher education.

2. It converted a temporary faculty position to a tenure-stream one in one of its high demand programs.

3. It sought alternatives for carrying out responsibilities of positions that had been eliminated due to R-cubed. Work-study students were used to perform some clerical jobs, an adjunct faculty and other remaining faculty taught courses once taught by a former faculty, whose position was eliminated upon his retirement.

4. The department began politicking, when it perceived that it might be eliminated. It did this by inviting top officials in the university to its events. Its faculty developed and taught more courses off-campus and this added to the department's revenue.

5. To boost its enrollment, it increased its visibility in the state, and at Michigan State University. It also encouraged its faculty and students to become more actively involved in academic and student governance on campus. The department's provision of educational programs for teachers, high school and elementary school students in the state also

enhanced its image and that of Brigid college, and increased their potentials of recruiting students.

6.5.9 Impact on instruction

The department protected the quality of its undergraduate education by avoiding any course of action that might compromise it.

6.5.10 Impact on Research

The department was not research oriented so the quality of its research was not affected by actions it took during R-cubed.

6.5.11 Impact on Service

The department reduced the number of outreach services it offered to its clients. It also started charging for more of them.

6.5.12 Nature of Decisions

. Alternative courses of actions and their likely consequences were considered before making decisions on how to respond to fiscal stringency. Like Abi Department, it also made annual contingency plans for meeting reduction targets.

Some elements in the department's decision-making process were consistent with the rational model: identification of problem, and the results of responses to fiscal stringency. Other elements, however, deviate significantly from the model: decision-making authority, alternative courses of action explored, implementation of choice, and feedback/analysis of decisions.

6.5.13 Comparison of Decision-Making Processes in Gordian Department to the Rational Decision-making Model

Like Abi, some of its responses and the processes through which it responded were consistent with theories and findings of other scholars, whereas there were actions which did not support the past literature. There were new findings about how departments respond to periods of fiscal stringency.

6.6 Implications for future research

The findings of this study are interesting for rational decision making research because, some of them are new while others are supported by literature. It provides useful data and procedures for the study of an academic departments in a land-grant institution. A major constraint of the study was inaccessibility to internal departmental documents. It took

much planning, effort, and perseverance to collect the data. Whenever a potential source of data collection was unfruitful I tried another one. Despite these attempts, there was some data I could not obtain--minutes of the departments' meetings.

6.6.1 Summary of Major Implications

1. Departments may use more than one decision-making model when responding to fiscal stringency. In fact, they are likely to use a combination of decision-making models, depending on the leadership style of the chairperson, complexity of the department, its resources, and the influence of stakeholders.

2. The directives of its parent college, are likely to shape a department's response to fiscal stringency in its institution.

3. Departments are likely to respond to fiscal stringency by using a combination of measures: efficiency, revenue augmentation and restructuring of their curriculum.

4. During budget cuts, departments may use measures that protect them from budget reductions.

5. When a department is reducing its budget, low faculty morale may be a problem. The ability of a department to

increase its revenue during that period, however, may improve faculty morale.

6. Advance notice to departments about the timing and amount of cuts may facilitate a more rational approach to decision making. It may reduce the need for departments to hide vacancies and revenue in order to protect themselves from the impact of budget cuts.

7. Given its sensitive nature, departments may be unwilling to participate in this type of study. Even when they participate, they may refuse to share certain information with the researcher.

6.6.2 Recommendations of the Study

Recommendations for future studies

1. Future studies on departmental responses to fiscal stringency need to be done by insiders to those units.

2. More studies need to be done in the area of departmental decision making and response to fiscal stringency. The findings of this study differ from that of most existing literature; this is not surprising because they address different circumstances than in the study.

3. Future studies need to examine the types of processes departments use to make decisions in regular periods when they are not undergoing reductions and restructuring.

4. Future Studies need to examine the decision-making processes in departments that depended mainly on the general funds budget during the R-cubed period of fiscal stringency.

5. Future studies need to examine whether other departments in MSU mortgaged positions to meet reductions, increased their outreach activities and used strategic planning during R-cubed.

Recommendations for Institutional and College Administrators

1. Update departments regularly on the outcomes of their efforts to implement institutional policies.

2. Provide grants to departments to enable them achieve selected institutional or college goals.

Recommendations for Department Chairpersons

1. Build into decision making process, a structure for gathering feedback from members of the department regarding the results of decisions the chairperson and FAC have made.

2. Build into decision making process, a structure for re-evaluation of past decisions in order to improve the quality of subsequent ones.

APPENDICES

APPENDIX A

Codes Used in the Study

1. Dept. A = Abi Department;
2. Dept. B = Gordian Department;
3. DP = Decision making process;
4. RFS = Response to fiscal stringency;
5. RFSrv = Revenue augmentation;
6. RFSrd = Budget reduction;
7. RFSsv = Survival strategies;
8. RFSod = other strategies used in responding to fiscal stringency;
9. RFSrd+pe = Personnel reduction measures;
10. RFSrd+pr = Programmatic reduction measures;
11. RFSrd+bu = Budget reduction measures;
12. RFSrv+co = contracts;
13. RFSrv+gr = grants;
14. RFSrv+endow = endowment funds;
15. RFSrv+fee = User fees;
16. RFSsv+enrol = increasing enrollments;
17. RFSsv+sd = Staff development;
18. RFSsv+comm = relationships with community/clientele;
19. RFSsv+curr = restructuring of curriculum;

20. RFSsv+staff = recruitment of women/minority personnel;
21. RFSod+prot = measures used to protect department from budget cuts;
22. DPg = goals of the department;
23. DPalt = alternative courses of action;
24. DPpr = premise directing the decision;
25. DPdec = decisions/choices;
26. DPdimp = procedures used to implement decisions;
27. DPres = result/outcome of implementation of choice;
28. DPfeed = feedback;
29. DPana = analysis/re-evaluation of steps that led to decision;
30. DPg+type-b = types of goals before R-cubed;
31. DPg+type-a = types of goals after R-cubed;
32. DPalt+invol-sel = those involved in departmental decision making;
33. DPalt+invol-imp = those involved in implementing choices;
34. DPres+r = impact of actions on research;
35. DPres+i = impact of actions on instruction;
36. DPres+s = impact of actions on service;
37. DPres+g = impact of actions on departmental goals;
38. DPalt+n = nature of courses of action explored;
39. DPalt+g = generation of options;
40. DPalt+invol-gen = those involved in generation options;
41. DPimp+act = nature of actions;

- 42. DPpr+rg = relationship of premise to stated goals;
- 43. DPdimp+g = relationship of implemented actions to goals of department;
- 44. DPimp+prob = problems encountered in implementing decisions;
- 45. DPimp+prob-ov = overcoming of problems;
- 46. DPimp+suc = successes encountered in implementation;
- 47. DPfeed+mode-s = mode through which feedback was sought;
- 48. DPfeed+mode-r = mode through which feedback was received;
- 49. DPfeed+use = how feedback was used;
- 50. DPana+mode = mode through which decisions were re-evaluated.

APPENDIX B

Letter of Approval From the University Committee on Research Involving Human Subjects

MICHIGAN STATE UNIVERSITY

March 16, 1995

TO: Chinyere Nwagwu
1420B Spartan Village
E. Lansing, Mi. 48823

RE: IRB#: 95-111
TITLE: FISCAL DECISION MAKING IN ACADEMIC DEPARTMENTS:
A CASE STUDY OF MICHIGAN STATE UNIVERSITY DURING
THE R-CUBED PERIOD, 1988-92
REVISION REQUESTED: N/A
CATEGORY: 1-C
APPROVAL DATE: 03/16/95

The University Committee on Research Involving Human Subjects (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project including any revision listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revision approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.



OFFICE OF
RESEARCH
AND
GRADUATE
STUDIES

University Committee on
Research Involving
Human Subjects
(UCRIHS)

Michigan State University
225 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX: 517/432-1171

**PROBLEMS/
CHANGES:**

Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)336-1171.

Sincerely,

David E. Wright
David E. Wright, Ph.D.
UCRIHS Chair

DEW:pjm

cc: Mun Tsang

APPENDIX C

INITIAL LETTER TO STUDY PARTICIPANTS

Chinyere Nwagwu
1420 B Spartan Village
East Lansing, MI 48823
....., 1995

Dr.
Associate Professor
Gordian Department
Michigan State University
East Lansing, MI 48824
Dear Dr.

Letter of Introduction

As part of my dissertation research at Michigan State University, I am analyzing the decision making processes in academic departments in periods of fiscal stringency. Michigan State University's R-cubed period (1988-1992) is being studied as an example of such a period.

I would like to interview you on how your department responded to this period; and on the processes through which the responses you made during that period were selected. After the initial interviews (about one and a half hours long), I may need to conduct a follow-up interview to clarify themes that arose during the initial interview.

You may decline to answer or discuss any question or points during any of the sessions. You may decide to withdraw your participation any time during this study.

I intend to protect the confidentiality of the information you provide by labeling audio-taped interviews with code names. All audiotapes, consent forms, code names, and transcripts will be stored in a secure location. In my analysis, I will use pseudonyms to disguise any personal identifiers in the body of the report, and in any presentations or publications. However, contextual information about your department may enable someone who is familiar with your department to guess your identity despite the use of pseudonyms and codes.

I will make the transcripts of the sessions and a draft of the report available to you. You may delete any quotes that you do not wish included from the report.

Attached is a copy of the questions that will guide the discussion during the first interview.

Kindly complete and sign the attached consent form and mail in the self-addressed stamped envelope provided.

If you want further information about the study, you may call me, Chinyere Nwagwu at (517) 355-0945, or my dissertation director, Dr. Mun Tsang at (517) 353-6418. You may also write Dr. Mun Tsang or me at the Department of Educational Administration, Erickson Hall, Michigan State University, East Lansing, MI 48824.

Thank you in advance for your time.

Consent Form

I, Dr.
(Name)

have read and understood the attached letter informing me of the requirements of the study and of my rights if I choose to participate.

I.....to participate in the study.
(volunteer/ decline)

.....
(signature)

.....
(Date)

APPENDIX D

Letter of Appreciation for Allowing Me to Review Documents

Chinyere Nwagwu
1420 B Spartan Village
East Lansing, MI 48823
September 18th, 1994

Dr. Robert Lockhart
Director
Office of Planning and Budgets
Michigan State University
East Lansing, MI 48823
Dear Dr. Lockhart,

Ref: Appreciation for Cooperation with Review of Documents

Thank you very much for your allowing me review R³ documents at your office. I found them informative and useful for my research. To reiterate the identities of the departments or college whose documents were reviewed will be protected in the body of my dissertation. Again thank you very much for your cooperation and support with my work. I will share the results of the study with you at its completion.

Sincerely,

Chinyere Nwagwu.

APPENDIX E

Thank You Letter to Study Participants for Interview

Chinyere Nwagwu,
1420B Spartan Village,
East Lansing, MI 48823.
....., 1995

Dr.....
Associate Professor
Abi Department
Michigan State University
East Lansing, MI 48824

Dear Dr.,

Thank you very much for taking the time from your busy schedule to be interviewed.

The contribution that you made is deeply appreciated. I will present you with a copy of the interview transcript once it is completed so that you may check its accuracy. I will also share the results of the study with you at its completion.

Again, thank you for your willingness to be involved. I look forward to meeting you later.

Sincerely,

Chinyere Nwagwu.

APPENDIX F

Cover Letter for Interview Transcripts

Chinyere Nwagwu
1420 B Spartan Village
East Lansing, MI 48823
....., 1995

Dr.....
Chairperson
Gordian Department
Michigan State University
East Lansing, MI 48824

Dear Dr.....,

Thank you for granting me an interview. I know you have a very busy schedule, for that reason I am very grateful that you made time to contribute to my understanding of how academic departments cope with periods of fiscal stringency. I learnt from the interview. Very little work has been done on how academic departments cope with periods of fiscal stringency. So your contribution to this pioneer work is highly appreciated.

I have transcribed the tape of the interview; and the transcript is attached to this letter. Please, kindly read it and inform me of your opinion of its accuracy. As I stated in my introductory letter, you may delete quotes you do not wish included in the report.

Again, thank you. I look forward to hearing from you soon.

Sincerely,

Chinyere Nwagwu.

APPENDIX G

Summary of Interview Protocol

1. How did your department respond to the period of fiscal stringency during R-cubed, when MSU asked you to: cut your budget, augment your revenue, and restructure your program?
2. To what extent was your department bound by the guidelines of the APP&R as it tried to respond to fiscal stringency?
3. What was the impact of R-cubed on the goals and priorities of your department?
4. Through what processes did you select the particular approaches you used for responding to fiscal stringency during R-cubed?
5. What criteria did you use to select the approaches you used for responding to fiscal stringency during R-cubed?
6. How would you characterize the results of your responses to fiscal stringency?
 - 6.1. How successful was it?

6.2. Were there problems? If so, how did you overcome them?

7. What was the result of the implementation on your department's goals and priorities?

8. Was there a mechanism for giving feedback to departmental decision makers regarding the outcome of the department's responses to fiscal stringency?

9. To what extent did that feedback affect subsequent decisions in the department?

APPENDIX H

Interview Protocol for Abi Department

Generally, this interview is intended to improve our understanding of how academic departments in Michigan State University responded to financial cut backs during the R-cubed (Refocus, Refine and Rebalance) period of 1988-1992; and the decision making processes through which they made their responses.

Chairperson of Department and Faculty involved in making decisions in the department

A. Background information

I appreciate your willingness to participate in this study.
Let us start with some background information.

1. When did your department first become involved in the R-cubed process?

2. How did your department become involved in R-cubed?

May need a probe: How did your department become aware of what the university expected it to do, during R-cubed effort?

3. How would you characterize the R-cubed period?

Probe: Did you see it as a period of fiscal stringency?

4. What were your department's goals and priorities before the R-cubed process began?

5. During the R-cubed period were there changes in your department's goals and priorities? If so, who were involved in deciding the new goals and priorities?

B. Responses of academic departments to a period of fiscal stringency.

The next set of questions will enable me understand how academic departments respond to periods of fiscal stringency.

According to the APP&R, departments were expected to make three categories of fiscal responses during R-cubed: expenditure (budget) reduction, revenue augmentation, and program restructuring.

B.1 Expenditure Reduction

1. How did your department go about the task of reducing its expenditure during R-cubed?

If necessary I will say: That is helpful. Please would you give me more details. Depending on their responses, I may need a prompt for the following areas: personnel actions, program actions, academic program budget, operating budget, services offered by the department and equipment maintenance.

2. What were the criteria that guided the selection of the particular measures your department used to cut down its expenditure?

3. Who were involved in carrying out these expenditure reduction measures?

Possible probe: chairperson, faculty, students, staff?

4. Would you elaborate on the areas in which you collaborated with other departments and agencies during the R-cubed period?

5. Who was involved in selecting the methods your department used to cut down its budget?

Possible probe: chairperson, faculty, students, staff?

6. To what extent was your department able to meet the reduction targets for the following years: 1988/89--5.5%; 1989/90__4%; 1990/91__2%; 1991/92__2%?

7. What were some of the problems you encountered as you tried to implement those reductions?

7.1. Were you able to overcome these problems if so, how?

8. To what extent does the headcounts of your department's faculty (reported by the University data book) reflect faculty and staff figures in your department between 1988 and 1991?

Probe: Before I ask you the next set of questions is there something else, you would like to add?

B.2. Revenue augmentation

9. What were the things your department did to increase its revenue? Possible probe: would you elaborate on that?

10. Who was involved in deciding how your department would try to augment its revenue? Possible probe: chairperson, faculty, students, staff?

11. What criteria guided the selection of the particular measures your department used in to raise its revenue?

12. How were the revenue augmentation actions implemented?

13. Who were involved in carrying them out?

14. How successful was your department in increasing its revenue?

Probe: Could you give some examples?

15. What problems did you face as you tried to boost your department's revenue?

16. Were you able to overcome them?

16.1. If so, how?

Probe: Before I ask you the next set of questions, is there something you would like to add?

B.3. Future survival of the department.

17. Could you elaborate on how your department went about the task of restructuring its program so as to ensure its future survival?

Possible probe: maintaining quality of its curriculum (teaching, research and extension), strengthening high priority programs, faculty and staff development efforts, increasing student enrollment, and responding to demographic trends in student and faculty populations.

18. To what extent was the department able to secure resources to meet the needs outlined in its 1988/89, and 1991 APP&R reports?

19. Were new faculty hired during the R-cubed period?

19.1. If so, in what areas of the department?

20. Who was involved in selecting those measures that would enable your department remain viable in future?

21. Who were involved in implementing them?

22. What were the criteria that guided the selection of the particular measures the department used in an attempt to ensure its future viability?

23. How would you characterize the results of actions you took to ensure the survival of your department?

23.1. How successful was it?

Probe: Would you give some examples?

23.2. What problems did you encounter as you tried to restructure your programs?

23.3. Were you able to overcome them? If so, how?

Before I ask you the next question is there something you would like to add?

24. To what extent did the University and your parent College offer incentives to departments for implementing the directives of the APP&R during the R-cubed period?

Possible probe: To what extent did they use incentives to encourage units to reduce their expenditures, seek additional sources of revenue, and restructure their programs in order to survive?

25. Did your department consider other fiscal responses apart from the ones alluded to in the APP&R?

26. As you know and probably experienced, periods of cutbacks are stressful and by nature competitive with all departments and colleges trying to protect as much as they can while working in a spirit of a joint effort to cut their budgets.

Were there some things you did to enable you reduce the impact of R-cubed on your resources?

Probe: Could you elaborate on them?

C. Decision-making Process

We have been talking about responses of your department to fiscal stringency, and the process by which responses were selected. We have also discussed the procedures used in implementing those responses. Now, I want to ask you more questions about the process through which decisions were made in the department during R-cubed.

27. During the process of deciding measures to use during R-cubed, did you consider alternative responses before selecting the ones you used finally?

27.1. If so, did you do this before selecting the responses you used?

27.2. If so, what were those options you considered?

27.3. How were these options examined?

Possible probe: Which of the following best describes how they were they examined:

(a) simultaneously prior to making a final decision; or

(b) one course of action was generated, acted on, and then the outcome of the implementation evaluated, prior to a second option being considered?

28. Through what processes were these options generated ____
(brainstorming, delphi technique, suggestion box, members of

department could write suggestions and submit to the Faculty Advisory Committee or department's chairperson)?

29. How did the actions your department took during R-cubed impact the quality of its instruction?

Probe: Would you give some examples of how your teaching was affected?

30. How did the actions your department took during R-cubed affect its research?

Probe: Would you give some examples of how research was affected?

31. How did the actions your department took during R-cubed affect its service functions?

Probe: Would you elaborate on how service was affected in your department?

32. During R-cubed, were the participants in departmental decision making given feedback on the outcomes of that unit's responses?

33. To what extent did the outcomes of the responses influence decision making in the department?

Closing Statement: Thank you again for your participation. I have found this interview to be very helpful for my study. I wonder if you would be available for a follow-up interview to clarify some points which may have arisen from this interview.

APPENDIX I

Interview Protocol for Gordian Department

Generally, this interview is intended to improve our understanding of how academic departments in Michigan State University responded to financial cut backs during the R-cubed (Refocus, Refine and Rebalance) period of 1988-1992; and the decision making processes through which they made their responses.

Chairperson, Faculty involved in making decisions in the Department

A. Background information

I appreciate your willingness to participate in this study. Let us start with some background information about your department.

1. When did your department first become involved in the R-cubed process?

2. How did your department become involved in R-cubed?

May need a probe: How did your department become aware of what the university expected it to do, during R-cubed effort?

3. How would you characterize the R-cubed period?

Probe: Did you see it as a period of fiscal stringency?

4. What were your department's goals and priorities before the R-cubed process began?

5. During the R-cubed period were there changes in your department's goals and priorities? If so, who were involved in deciding the new goals and priorities?

B. Responses of academic departments to a period of fiscal stringency.

The next set of questions will enable me understand how academic departments respond to periods of fiscal stringency.

According to the APP&R, departments were expected to make three categories of fiscal responses during R-cubed: expenditure (budget) reduction, revenue augmentation, and program restructuring.

B.1. Expenditure Reduction 1. How did your department go about the task of reducing its expenditure during R-cubed?

If necessary I will say: That is helpful. Please would you give me more details. Depending on their responses, I may need a prompt for the following areas: personnel actions, program actions, academic program budget, services offered by the department and equipment maintenance.

2. Was program H reduced during the R-cubed period?

3. In the 1988/89 APP&R one of the expected outcomes of budget reduction is that clerical staff workload would be redefined.

Would you elaborate on this?

4. What were the criteria that guided the selection of the particular measures your department used to cut down its expenditure?

5. Who were involved in carrying out these expenditure reduction measures?

Possible probe: chairperson, faculty, students, staff?

6. Would you elaborate on the areas in which you collaborated with other departments and agencies during the R-cubed period?

7. Who was involved in selecting the methods your department used to cut down its budget?

Possible probe: chairperson, faculty, students, staff?

8. To what extent was your department able to meet the reduction targets for the following years: 1988/89__5.5%; 1989/90__4%; 1990/91__2%; 1991/92__2%?

9. What were some of the problems you encountered as you tried to implement those reductions?

9.1. Were you able to overcome these problems if so, how?

10. Based on the headcounts of your department's general fund based faculty (reported by the Office of Planning and Budget) there was a reduction in the size of your faculty between 1989 and 1991. Were these due to retirements, or resignations, shifts to other funding sources or personnel reduction implemented by the department?

Probe: Before I ask you the next set of questions is there something else, you would like to add?

B.2. Revenue augmentation

11. What were the things your department did to increase its revenue?

Possible probe: Would you elaborate on that?

12. Who was involved in deciding how your department would try to augment its revenue? Possible probe: chairperson, faculty, students, staff?

13. What criteria guided the selection of the particular measures your department used in to raise its revenue?

14. How were the revenue augmentation actions implemented?

15. Who were involved in carrying them out?

16. How successful was your department in increasing its revenue?

Probe: Could you give some examples and figures?

17. What problems did you face as you tried to boost your department's revenue?

18. Were you able to overcome them?

18.1. If so, how?

Probe: Before I ask you the next set of questions, is there something you would like to add?

B.3. Future survival of the department.

19. Could you elaborate on how your department went about the task of restructuring its program so as to ensure its future survival?

May need the following probes: Examples of survival measures are: responding to demographic changes in student population and among faculty; faculty and staff development efforts; quality of curriculum and

programs in the department; increasing outreach efforts, lifelong educational opportunities in the department, increasing student enrollment.

20. Could you elaborate on the new courses that were developed in your department during the R-cubed period.

For instance, to what extent did the department develop the outreach course for older students, satellite and video technology, and the extension staff development \ in-service program?

21. Who were involved in selecting those measures that would enable your department remain viable in future?

22. Who were involved in implementing them?

23. What were the criteria that guided the selection of the particular measures the department used in an attempt to ensure its future viability?

24. How would you characterize the results of actions you took to ensure the survival of your department?

24.1. How successful was it?

Probe: Would you give some examples?

25. What problems did you encounter as you tried to restructure your programs?

25.1. Were you able to overcome them? If so, how?

Before I ask you the next question is there something you would like to add?

26. To what extent did the University and your parent College offer incentives to departments for implementing the directives of the APP&R during the R-cubed period?

Possible probe: To what extent did they use incentives to encourage units to reduce their expenditures, seek additional sources of revenue, and restructure their programs in order to survive?

27. Did your department consider ways of coping with fiscal stringency apart from the ones alluded to in the APP&R?

Possible probe: Please could you elaborate.

28. As you know and probably experienced, periods of cutbacks are stressful and by nature competitive with all departments and colleges trying to protect as much as they can while working in a spirit of a joint effort to cut their budgets. Were there some things you did to enable you reduce the impact of R-cubed on your resources?

Probe: Could you elaborate on them?

C. Decision-making Process

We have been talking about responses of your department to fiscal stringency, and the process by which responses were selected. We have also discussed the procedures used in implementing those responses. Now, I want to ask you more questions about the process through which decisions were made in the department during R-cubed.

29. During the process of deciding measures to use during R-cubed, did you consider alternative responses before selecting the ones you used finally?

29.1. If so, did you do this before selecting the responses you used?

29.2. If so, what were those options you considered?

29.3. How were these options examined?

Possible probe: Which of the following best describes how they were they examined:

(a) simultaneously prior to making a final decision; or

(b) one course of action was generated, acted on, and then the outcome of the implementation evaluated, prior to a second option being considered?

30. Through what processes were these options generated ____ (brainstorming, delphi technique, suggestion box, members of department could write suggestions and submit to the Faculty Advisory Committee or department's chairperson)?

31. How did the actions your department took during R-cubed impact the quality of its instruction?

Probe: Would you give some examples of how teaching in your department was affected?

32. How did the actions your department took during R-cubed affect its research?

Probe: Would you give some examples of how research in your department was affected?

33. How did the actions your department took during R-cubed affect its service functions?

Probe: Would you elaborate on how your department's service function was affected?

34. During R-cubed, were the participants in departmental decision making given feedback on the outcomes of that unit's responses?

35. To what extent did the outcomes of the responses influence decision making in the department?

Closing Statement: Thank you again for your participation. I have found this interview to be very helpful for my study. I wonder if you would be available for a follow-up interview to clarify some points which may have arisen from this interview.

APPENDIX J

INTERVIEW PROTOCOL FOR COLLEGE ADMINISTRATORS

Generally, this interview is intended to improve our understanding of how departments responded to financial cut backs, and also the decision making processes through which departments made their responses, during the R-cubed (Refocus, Refine and Rebalance) period of 1988-1992.

A. Background questions:

1. How did you perceive the R-cubed period?

Probe: Did you see its as a period of fiscal stringency?

2. How did the chairpersons and faculty in your college generally perceive R-cubed?

Gordian Department

B. Responses of academic departments to a period of fiscal stringency.

The next set of questions are about the responses of the Department of Abi and Gordian Department to a period of fiscal stringency, and the R-cubed period is being studied as an example of that.

1. What expectations did you communicate to the Gordian Department, regarding how it should respond to fiscal stringency during R-cubed?
2. What criteria guided the distribution of reduction targets among departments in the College?
3. What were the goals and priorities of the Gordian Department when the R-cubed process began?
4. Did R-cubed have any immediate effect on goals and priorities of the Gordian Department? If so, how?
5. How did information flow between the departments and the central university administration during R-cubed?
6. How did the Gordian Department go about the task of reducing its expenditure during R-cubed?

If necessary I will say, that is helpful. I would appreciate it if you could give me more detail. I may need prompt for the following areas: personnel actions, program actions, academic program budget, services offered by the department and equipment maintenance.

Another possible probe: what was the d for the implementation of these budget reduction measure like?

7. How did the department try to increase its revenue?
8. How did the Gordian Department restructure its program so as to ensure its future survival?
9. Did the department use any other measures apart from those in the APP&R,
to respond to fiscal stringency?

9.1. If so, what were they?

C. Decision-making Process.

We have been talking about actions departments took during a period of fiscal stringency, now I want to ask you questions on how decisions were made in the Gordian Department during that period.

10. Suppose I was in the Gordian Department during the R-cubed period (1988-1992), what sequence of events would I have seen as the department made decisions about courses of action to implement in response to fiscal stringency?

Possible probe: What processes did the department use in selecting actions used in response to fiscal stringency, during R-cubed?

11. Who were involved in making decisions in the department regarding its response to fiscal stringency?

12. To what extent were you involved in making decisions in Gordian during the R-cubed period?

13. To what extent were you involved in the implementing decisions on budget cuts, revenue augmentation and program restructuring in the department during R-cubed?

14. How would you characterize the results of the department's response to fiscal stringency during R-cubed:

14.1. How successful was it?

14.2. What problems did it encounter?

14.3. Was it able to overcome them? If so, how?

15. To what extent did the outcomes of R-cubed influence subsequent decisions in the Gordian Department?

Abi Department

B. Responses of academic departments to a period of fiscal stringency.

1. What expectations did you communicate to the Abi Department regarding how it should respond to fiscal stringency during R-cubed?
2. What were the goals and priorities of the Abi Department when the R-cubed process began?
3. Did R-cubed have any immediate effect on goals and priorities of the Abi Department? If so, how?
4. How did the Abi Department go about the task of reducing its expenditure during R-cubed?

If necessary I will say, that is helpful. I would appreciate it if you could give me more detail. I may need prompt for the following areas: personnel actions, program actions, academic program budget, services offered by the department and equipment maintenance.

Another possible probe: what was the d for the implementation of these budget reduction measure like?

5. How did the department try to increase its revenue?
6. How did the Abi Department restructure its program so as to ensure its future survival?
7. Did the department use any other measures apart from those in the APP&R, to respond to fiscal stringency?

7.1. If so, what were they?

C. Decision-making Process.

We have been talking about actions departments took during a period of fiscal stringency, now I want to ask you questions on how decisions were made in Abi Department during that period.

8. Suppose I was in the Abi Department during the R-cubed period (1988-1992), what sequence of events would I have seen as the department made decisions about courses of action to implement in response to fiscal stringency?

Possible probe: What processes did the department use in selecting actions used in response to fiscal stringency, during R-cubed?

9. Who were involved in making decisions in the department regarding its response to fiscal stringency?

10. To what extent were you involved in making decisions in the Abi Department during the R-cubed period?

11. To what extent were you involved in the implementing decisions on budget cuts, revenue augmentation and program restructuring in the department during R-cubed.

12. How would you characterize the results of Abi's response to fiscal stringency during R-cubed:

13.1. How successful was it?

13.2. What problems did it encounter?

13.3. Was it able to overcome them? If so, how?

14. To what extent did the outcomes of R-cubed influence subsequent decisions in Abi Department?

15. Were there differences in how the two departments responded to the guidelines of the APP&R?

15.1. If so, would you elaborate on them?

15.2. If so, would you explain why the differences occurred?

16. Was there a difference in how seriously the departments took the task of responding to fiscal stringency during R-cubed?

16.1. If so, would you explain the reason for this difference?

Closing Statement: Thank you again for your participation. I have found this interview to be very helpful for my study. I wonder if you would be available for a follow-up interview to clarify some points which may have arisen from this interview. (During the interview the real names of the departments will be used. Pseudonyms will be used in the dissertation to represent them).

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